



Western Cape
Government

Health



Annual Report 2010
Tygerberg Hospital



Tygerberg Hospital

Annual Report

2010

Vision, Mission and Values

Vision

The Western Cape Department of Health's vision statement is "Quality health for all".

Mission

The Department's mission is to provide equitable access to health in partnership with the relevant stakeholders within a balanced and well managed health system.

Values

The overarching values identified by the Provincial Government of the Western Cape are:

- Caring;
- Competence;
- Accountability;
- Integrity; and
- Responsiveness.

The core values that will be reflected in the way in which the vision and mission are achieved are:

- Integrity;
- Public accountability;
- Innovation;
- Openness and transparency;
- Commitment to high quality service;
- Respect for people; and
- Excellence.

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Foreword

Message from Professor Craig

Househam

Head of Health: Western Cape

Tygerberg Hospital is the largest hospital in the Western Cape and the hospital most closely associated with the Faculty of Health Sciences of the University of Stellenbosch. Tygerberg Hospital is also a hospital urgently in need of reconstruction and upgrading, and a hospital of which the design reflects the apartheid history of this country. For this reason the hospital has been registered under the Hospital Revitalisation Programme. The envisaged upgrading of the hospital is a potential public-private partnership project going forward. When undertaken, it will be the largest and most costly hospital construction project ever in the Western Cape. In the meantime, some of the wards and facilities were upgraded during the past year to ensure ongoing service quality.

However, despite its infrastructure challenges, Tygerberg Hospital has taken the lead in many areas of service delivery. Two examples are the development and implementation of the PACS/RIS system, which will take digitalisation of medical equipment to a higher level, and the implementation of a laboratory gate-keeping system, which has resulted in considerable savings in laboratory costs without compromising service delivery. Both these advances will be rolled out elsewhere in the Department. During the past year the hospital has also taken into service a new and innovatively designed sterilising unit with the most modern equipment. This was in response to past problems which arose with the sterilisation of theatre packs and sterilised equipment.

The staff of this hospital, together with the management, has remained committed to the delivery of quality service; initiatives such as Smile Week, Infection Prevention and Control Day, the first hospital Open Day and the launch of the lodging facility for cancer patients provide some evidence of this commitment.

Ms Charmaine de Villiers from the Department of Obstetrics and Gynaecology was furthermore recognised at the Cecilia Makiwane Awards for her excellence in service delivery.



In monitoring the various projects and initiatives I have not been exhaustive; there were many others that have been brought to my attention, all of which are worthy of recognition and commendation. All speak to what can be achieved by committed people with the will to get things done. Key to many of the achievements is the important partnership between the hospital, the Western Cape Department of Health and Stellenbosch University. In acknowledging this partnership I want to acknowledge the significant contribution of the outgoing dean of the Faculty of Health Sciences, Prof. Wynand van der Merwe, to this partnership.

Dr Terence Carter handed over the leadership of Tygerberg Hospital to Dr Dimitri Erasmus during 2010, and I would like to commend him for his strong and wise leadership of the hospital during his term as chief executive officer. Dr Carter leaves Tygerberg Hospital as a hospital with a stable and functional management and I would like to take this opportunity to wish him well in his new position as the chief executive officer of Groote Schuur Hospital. I am confident that Tygerberg Hospital will continue to prosper under the capable leadership of Dr Erasmus and his management.

Finally, my thanks go to all the staff of this great hospital for their hard work during 2010, sentiments which I am sure will be echoed by the many thousands of patients who have passed through the hospital in the past year.

Foreword

Message from Dr Beth Engelbrecht Deputy Director General: Secondary, Tertiary & Emergency Care (DOH)

The positive echoes of the 2010 Soccer World Cup went to the fibre of every South African. We did ourselves proud with the display of energy and colour and sound by which we have become known. While the euphoria started to evaporate, the government sector staggered under the most vociferous public-sector strike in history. Around the country teachers abandoned their students and health workers were prevented from delivering essential services. It is with gratitude that we can reflect that the staff in the Western Cape displayed discipline and pride and only a few incidents were recorded.

A change of guard took place at Tygerberg Hospital. The highly regarded Dr Terence Carter moved to Groote Schuur Hospital, and Dr Dimitri Erasmus was appointed as CEO at Tygerberg Hospital. Dr Erasmus has settled in well and steered the hospital towards delivering on its key targets. The SU Health Sciences Faculty also had a change of guard; Prof. Jimmy Volmink took over as dean from Prof. Wynand van der Merwe, who is taking a well-deserved break from the pressures associated with this high-profile position.

The clinical and support staff teams helped us to admit more than 60 621 patients in the past year. This is an enormous task which often forced Tygerberg Hospital to make one-on-one arrangements with Groote Schuur or Red Cross War Memorial Children's Hospital in its response to a very large and demanding emergency-patient load.

We have embarked on several strategies to ensure we continue to improve. I wish to list a few:

- Improve the triaging of patients in the Emergency Centre to ensure those with the greatest need are helped first.
- Focus on theatre efficiencies by reducing cancellations and adhering to surgical starting times.
- Unstop the pharmacy bottleneck to reduce the time patients wait for their medication and to avoid the situation where staff have to work late.
- Improve patient safety through better preventative systems for hospital-acquired infections; and improve adverse-event management.



The hospital achieved its aims, inter alia, through a more visible and available management on the shop floor, through participative management and through responding to patient and staff satisfaction surveys.

It is notable that the Health Department has moved from a budget-bound and financial focus to a quality-of-care and patient focus. This has been echoed by the "values-based" approach commenced in February 2011 which aims to improve the experience of staff and patients in the hospital. This focus on quality care is ingrained in our National Minister of Health's focus on core standards and the Complaints Commission established by our provincial MEC.

I wish to use this opportunity to acknowledge the hard work of every staff member to render health care to the public we serve. Thank you to every person who ensures every patient remains the centre of our attention, even if we cannot do everything for every patient. I furthermore wish to acknowledge the positive partnership of the Western Cape Department of Health with the Stellenbosch University Health Sciences Faculty, as well as with our other higher-education partners (the University of the Western Cape and the Cape Peninsula University of Technology). All role-players are valuable and necessary to achieve our aim of delivering the best possible service to our patients.

In conclusion, I wish to commend the hospital management team for their endurance in this marathon race with its often steep inclines. I salute you.

Foreword

Message from Dr Dimitri Erasmus

Chief Director: Tygerberg Hospital

Tygerberg Hospital, the largest hospital in the Western Cape, continues to deliver sustainable and quality specialised and highly specialised health services to the people of the Western Cape and beyond.

This annual report captures the achievements and activities of Tygerberg Hospital for the year 2010.

Some of the key achievements have been:

- the commissioning of two additional Paediatric ICU beds;
- the opening of the lodging facility at Protea Court for cancer patients who live in rural areas;
- the completion of the implementation of the PACS system in Radiology;
- the development and implementation of the electronic gatekeeping project for laboratory investigations; and
- the installation of a video-conferencing centre in the Tygerberg Hospital Administration Block.

Although the infrastructure challenges remain, some progress has been made – two surgical wards were upgraded and three lifts were refurbished.

In 2010 the previous CEO, Dr PTA Carter, took up the position of CEO of Groote Schuur Hospital. On behalf of the staff and patients of Tygerberg Hospital, I wish to express sincere appreciation for his leadership during his tenure as CEO at Tygerberg Hospital.

As the newly appointed CEO of Tygerberg Hospital, I also wish to express my sincere appreciation for the warm welcome and support I have received from all sectors of the Tygerberg Hospital community.

This annual report reflects the activities for the year and bears testimony to the commitment and dedication of all the staff, who touched the lives of many thousands of patients at Tygerberg Hospital during this year.



Department of Finance

Director: Mr Toufiek Salie



Summary

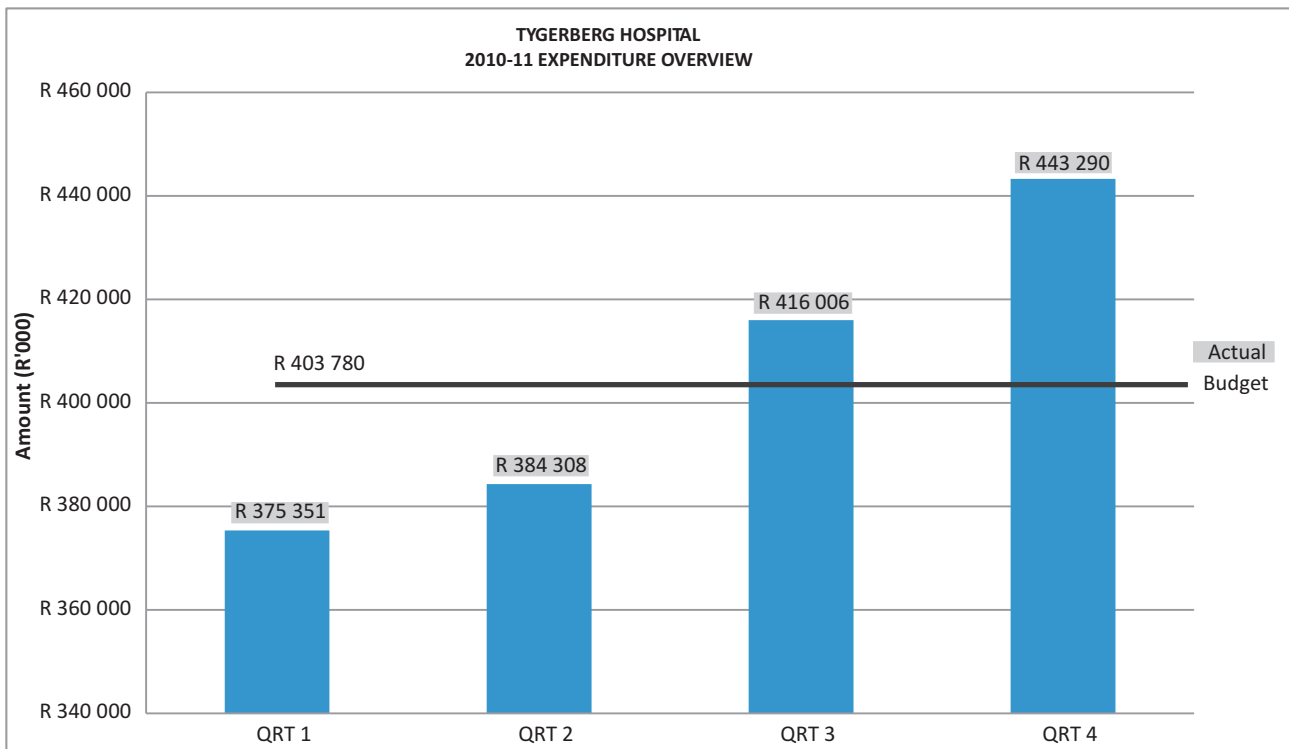
Tygerberg Academic Hospital is the single biggest health facility with the largest budget in the Western Cape. Funding is secured from NTSG, HPDTG and the Provincial Equitable Share.

Hospital Annual Financial Results 2010/2011

	Budget (R'million)	Actual (R'million) ¹	Variance (R'million)	%
Expenditure	1 615,1	618,9	(3,8 m)	-0,2
Revenue	95,0	92,0	(3,0)	-3,4

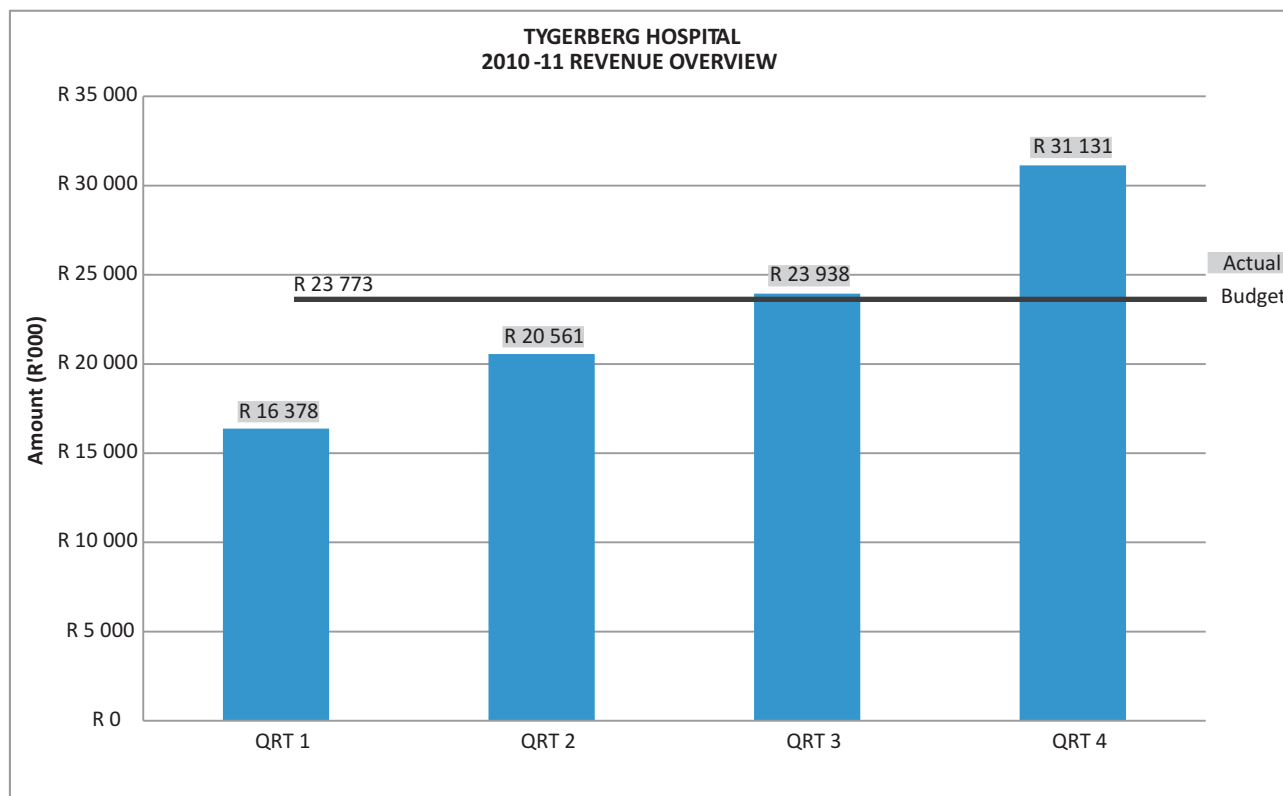
The results achieved indicate the challenges faced by the hospital during the 2010/2011 financial year. The budget was only exceeded by R3,8 m which is less than a full percentage point. Continuous patient-load pressures and the burden of unfavourable economic factors, international and local, relating to currency exchange rates, interest rates, energy/oil-price increases and the high Health Inflation Index constitute the challenges.

The graphic display of the quarterly expenditure indicates escalation in the last two quarters, contributed by backdated remuneration, capital equipment deliveries and forward settlement of identified accounts.



Finance

The graphic trends of revenue inflows escalated in the last quarter; however, the RAF cash inflows did not materialise as expected, resulting in the R3 m (3,4%) under recovery against target.



In explanation of the expenditure position:

1. Staffing and personnel expenditure

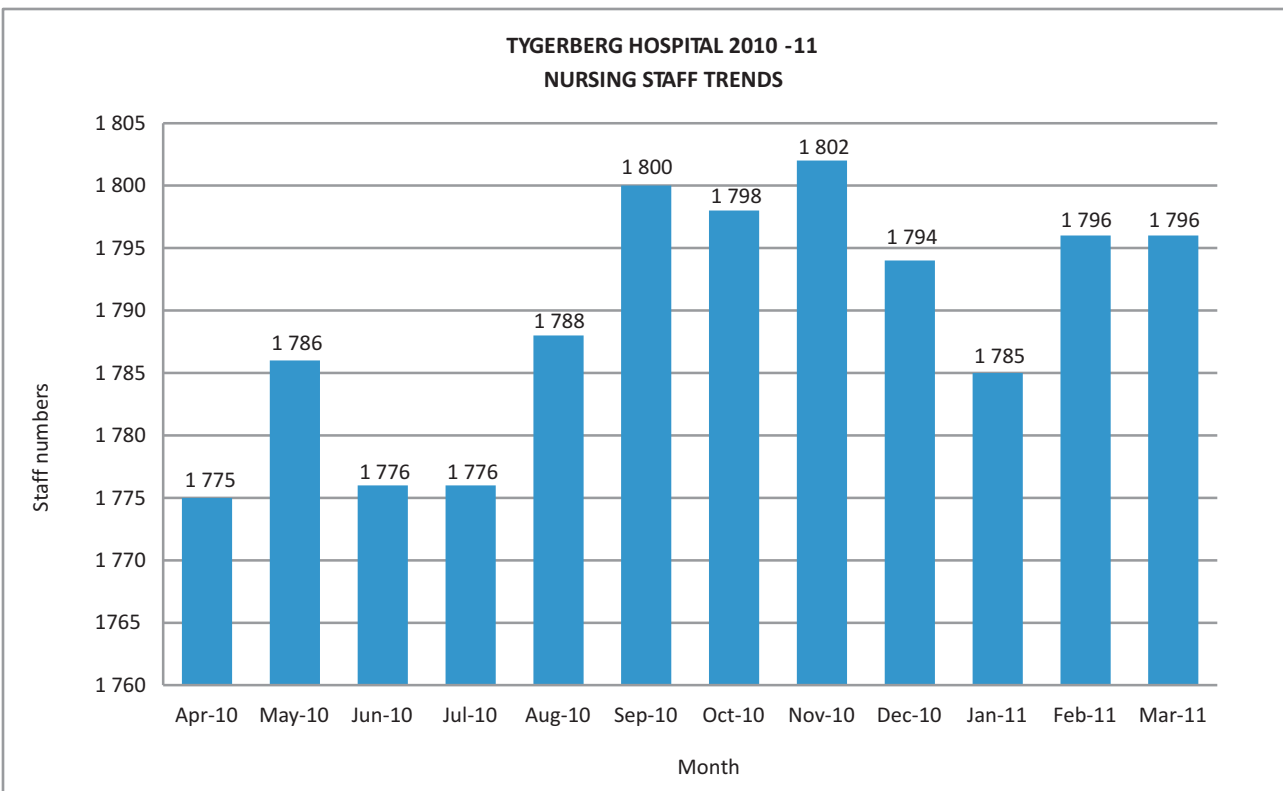
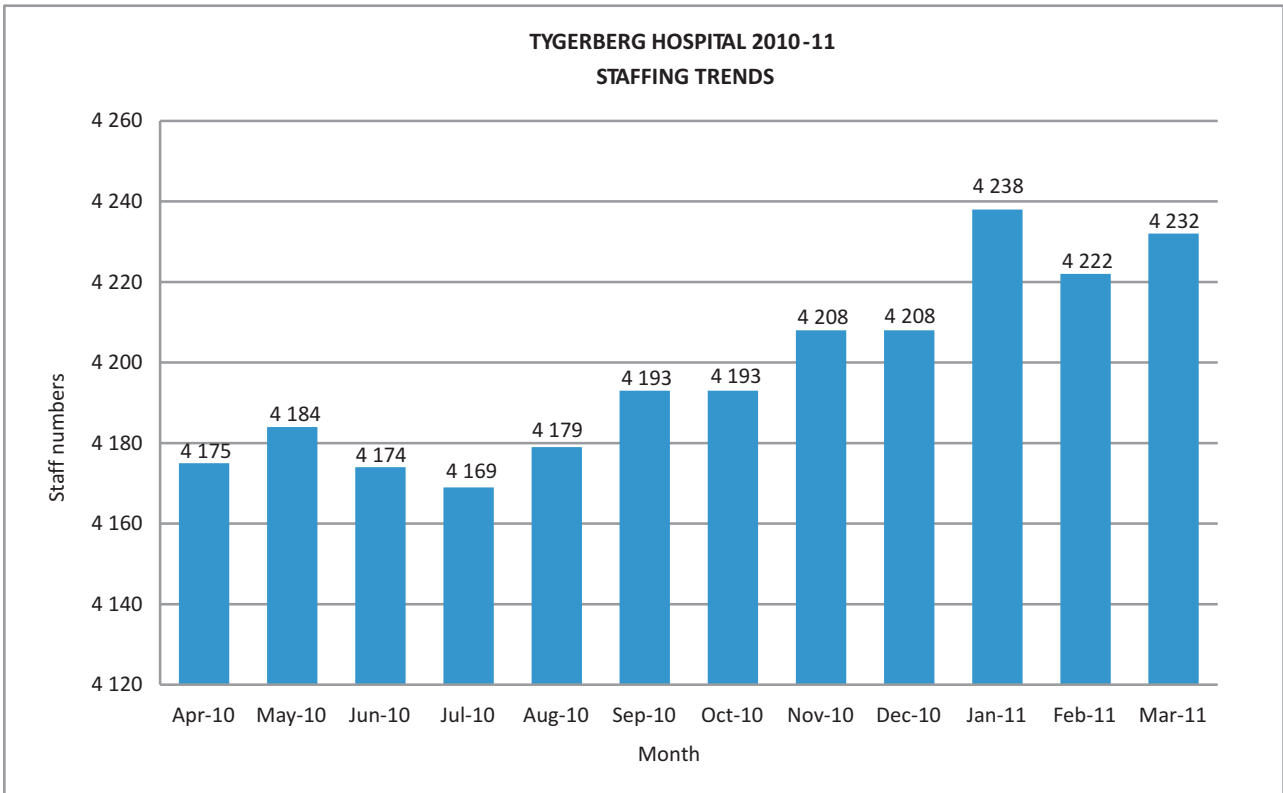
Personnel expenditure	Budget (R'million)	Actual (R'million)	Variance (R'million)	%
Persal	1 058,7	1 041,5	17,1	1,6
Joint staff	44,9	47,0	(2,1)	-4,5
Agency staff	22,7	18,4	4,2	18,8
	1 126,3	1 106,9	19,4	1,7

The hospital staff increased by 57 (1,4%) since April 2010 to 4 232 at year-end March 2011, mainly in the Nursing post categories. However, this is still 3% below the Approved Post List (APL). Most of the Occupation Specific Dispensation (OSD) had been concluded, including Allied Health Therapists, towards the end of the financial year.

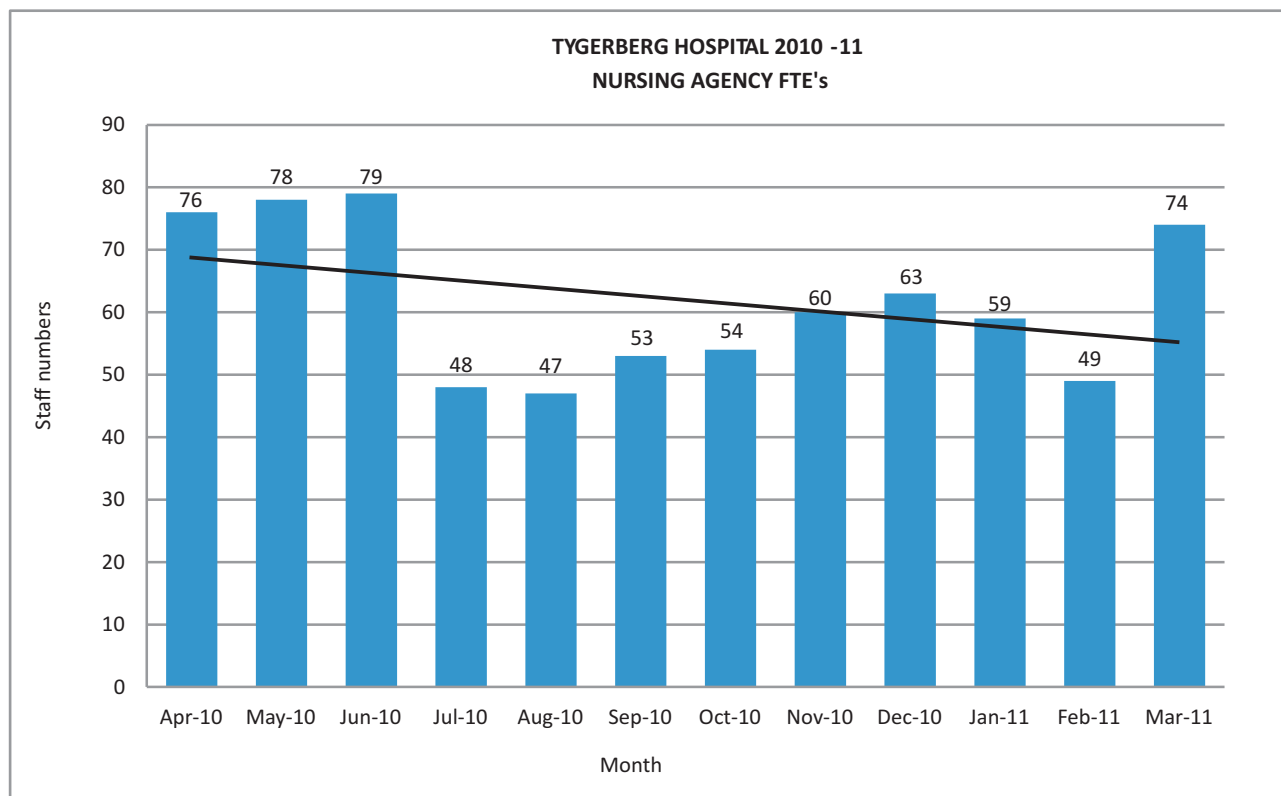
The general ICS adjustments to salary of all staff was welcomed by all staff.

The need to utilise substantial Nursing agency staff during the year was due to the national shortage. The strategic position is rather to appoint full-time Nursing equivalents.

The new Joint Agreement with the universities and technicians is still to be finalised.



Finance



2. Goods and services (excludes agency costs)

	Budget (R'million)	Actual (R'million)	Variance (R'million)	%
Goods and services	44,2	473,2	(23,8)	-5,3

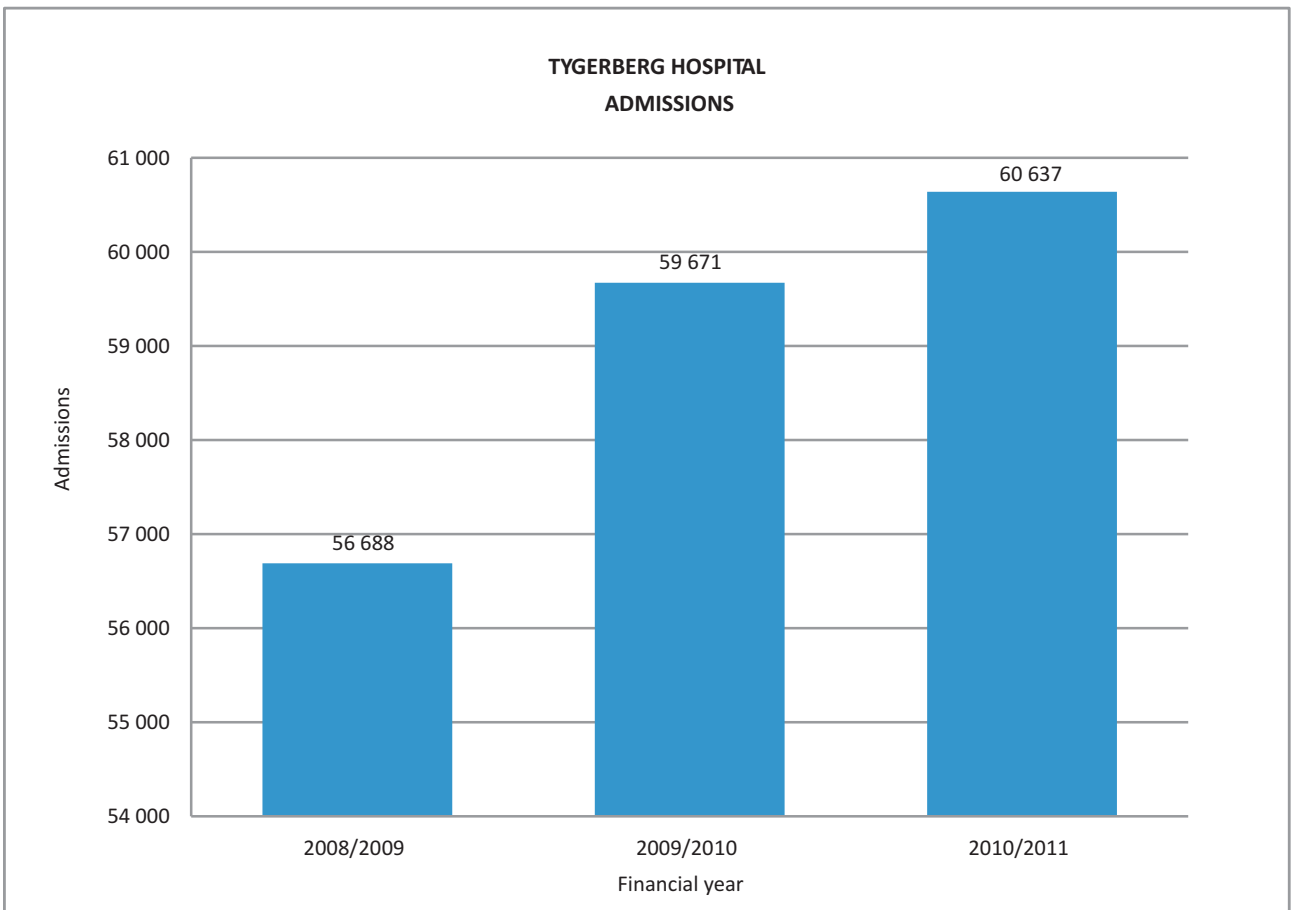
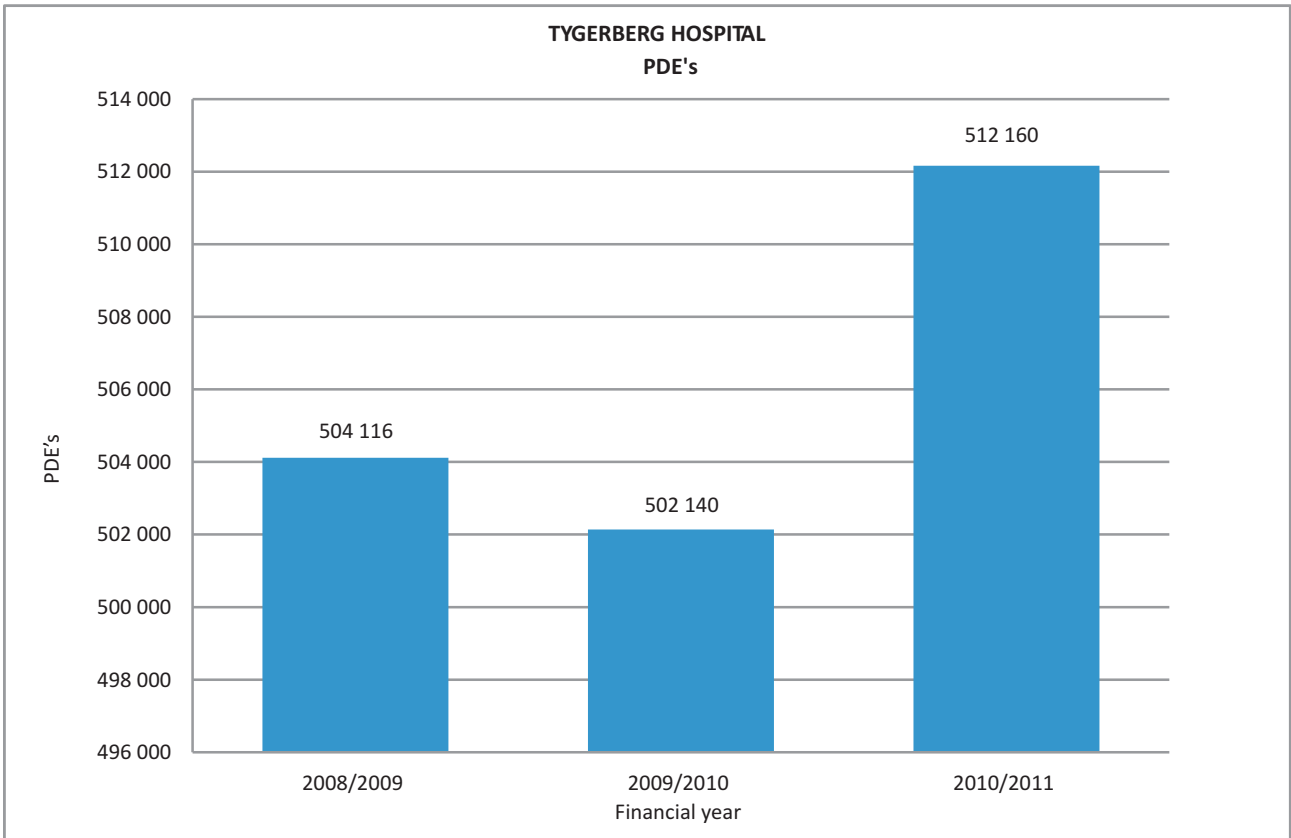
The overspend is clearly due to the service pressures.

Major spending patterns

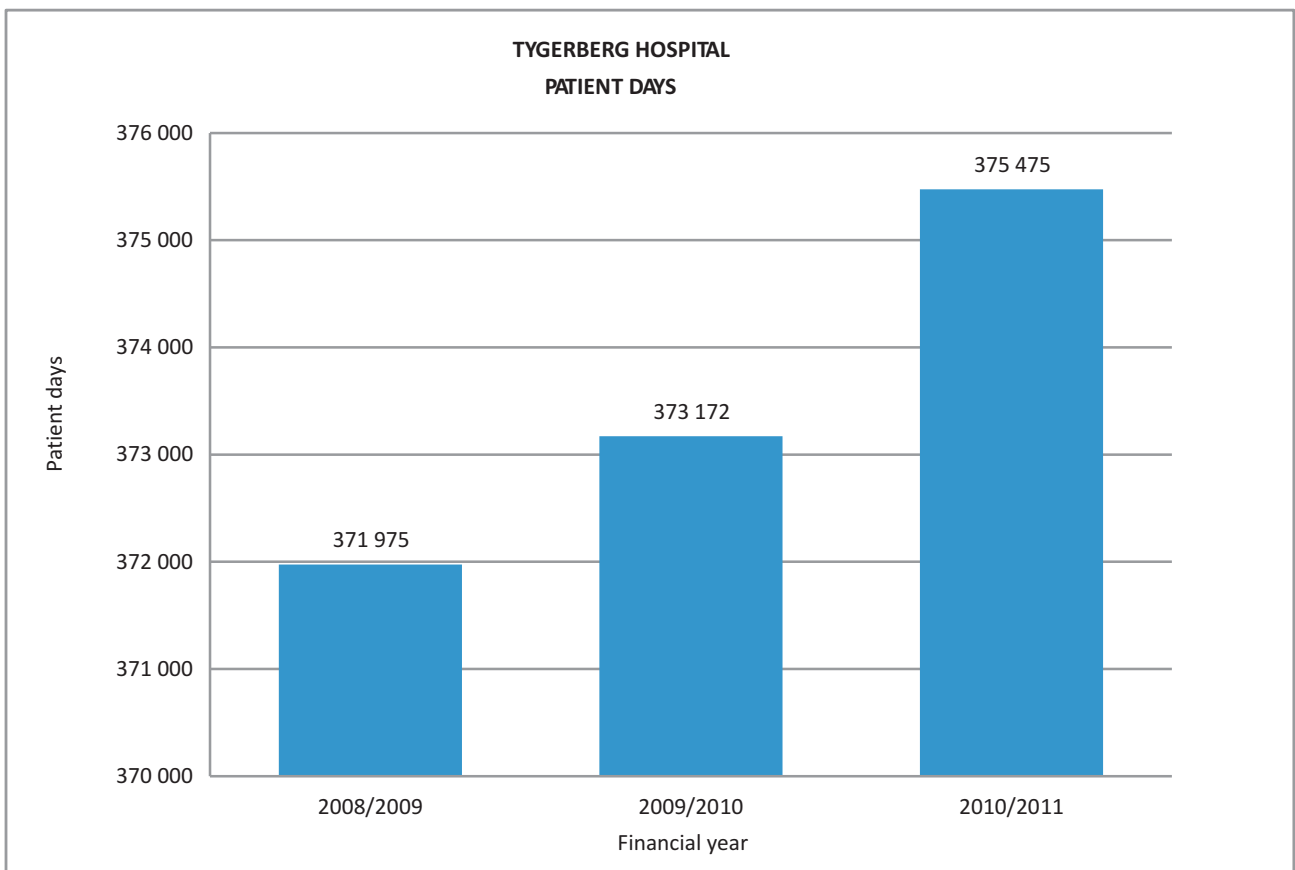
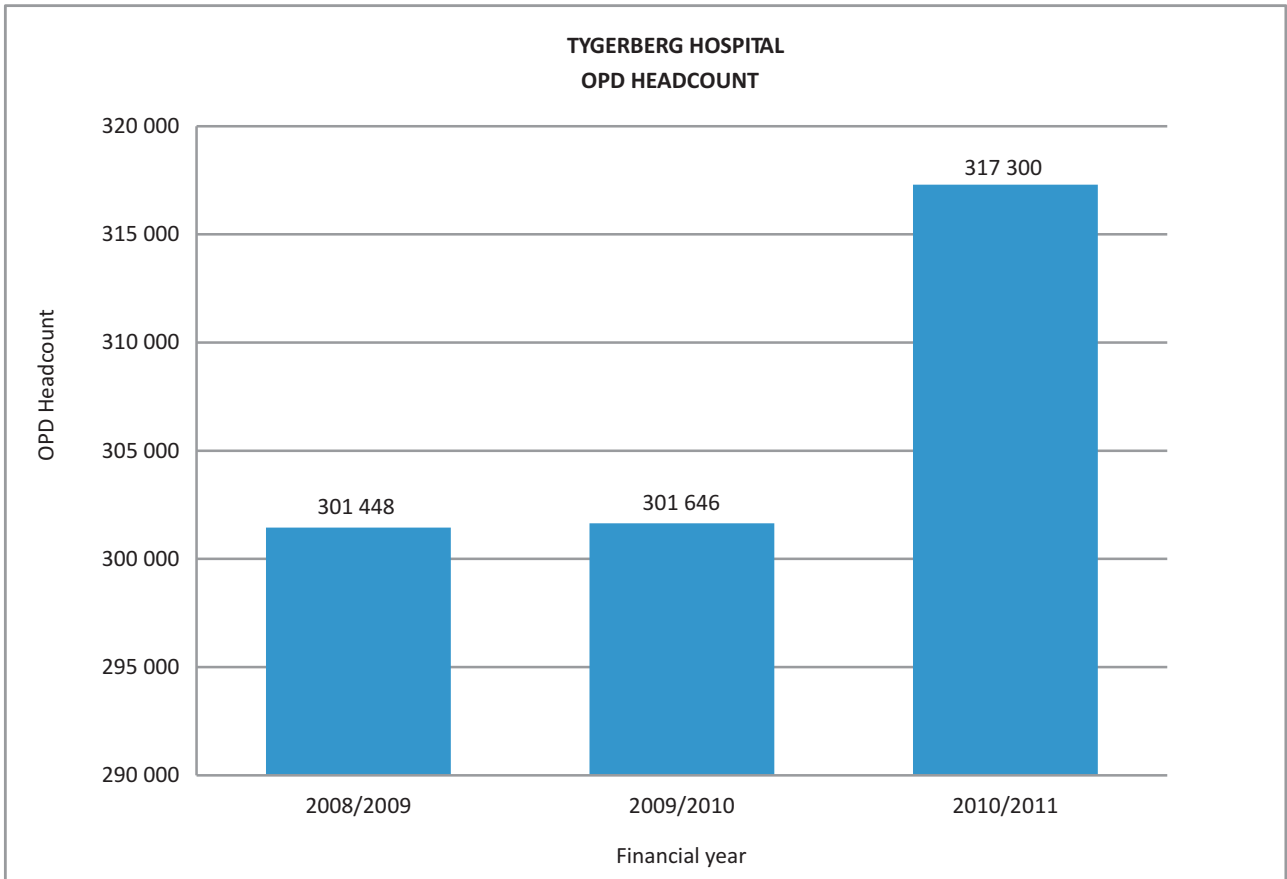
	Actual Spent (R'million)
Laboratory services	71,7
Blood & blood products	43,3
Pharmaceuticals	65,8
Engineering and service maintenance	35,0
Medical/surgical consumables	145,4
Steam gas and energy	46,7
Support services	26,5

Patient activities in relationship to the previous financial year

	2009-2011	2010-2011	%
PDEs	502 140	512 160	>2,0
Admissions	59 671	60 637	>1,6
Patient Days	373 172	375 475	>0,6
OPD Headcount	301 645	317 300	>5,2



Finance



Finance

3. Capital equipment

In addition to the capital equipment funding in the budget, Tygerberg Hospital benefited from donations, catheterisation-laboratory and hospital-board funding.

Own capital funds	R 28,2 m
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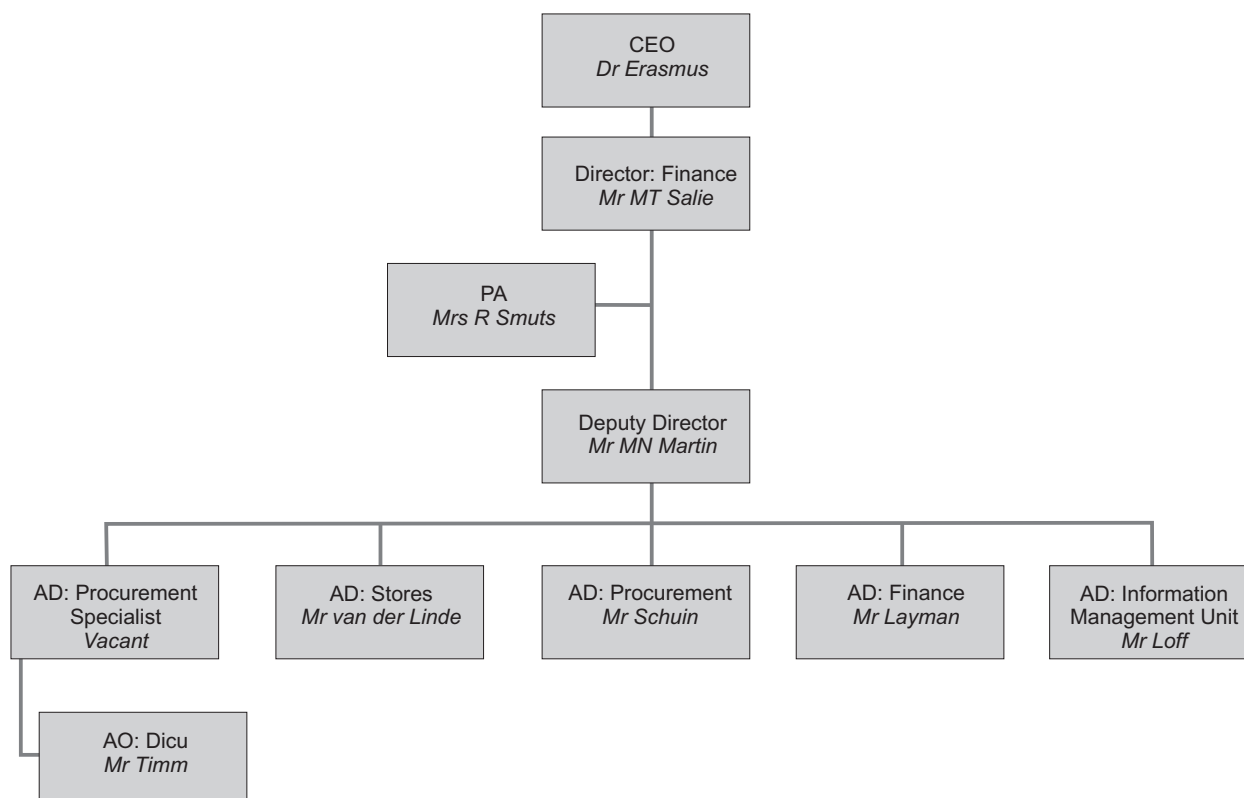
The main items prioritised for capital equipment were:

Medical and allied equipment	R 20,9 m
Computer hardware	R 6,4 m
Domestic equipment and furniture	R 0,921 m

Modernisation of Tertiary Services Grant	R 33,7 m
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We continued to use the MTS grant funds primarily for the modernisation of the radiological-imaging technology across the tertiary institutions. Tygerberg Hospital benefited from the acquisition of a gamma camera and the piloting of the ECM system in Oncology.

Finance Organogram



Finance

Finance

The main challenge in this subdirectorates is to avoid backlogs, late processing of supplier accounts, not meeting due dates, and the possible build-up of the workload. These risks were well contained due to the capacity built up and to staff dedication to maintain an effective work standard.

When CFO requested TBH to make payments in March 2011 due to projected savings of the department, the dedicated staff in the sundry creditors section complied with the request. They managed to put payments worth R26 m through for March 2011.

Sundry Creditors received 40 752 orders for payment and 52 634 invoices were paid in the 2010/11 financial year.

Sundry Creditors staff are also involved in training financial interns from CPUT and North Link College.

The target set to reduce staff debt by 40% was achieved. There were 328 cases with a total monetary value of R1 589 789. Only 143 cases remained by 31 March 2011, which amounts to a clearance rate of 56%.

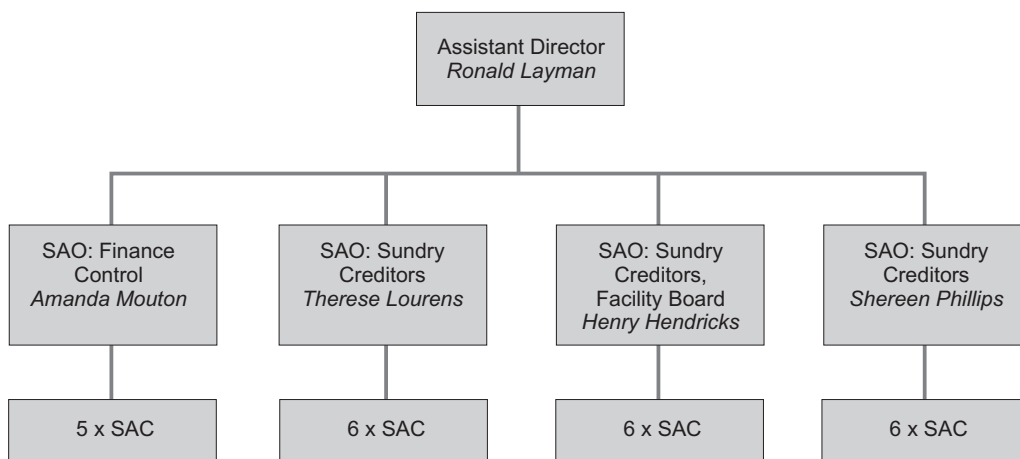
Asset & liability accounts

At the beginning of the year a monetary value of R535 736 was reduced by 78% to R118 452 at year-end March 2011.

The unit met its monthly reporting requirements in respect of, among other things, the status of the assets-and-liabilities accounts, IYM reports, budget loading onto BAS, etc.

Year-end outstanding accruals amounted to R26 m, compared to the previous financial year's R52,2 m. The amount was reduced significantly (50,2%). A monthly meeting is in place to follow up on outstanding payments.

Structure of Finance Unit



Stockholding Stores

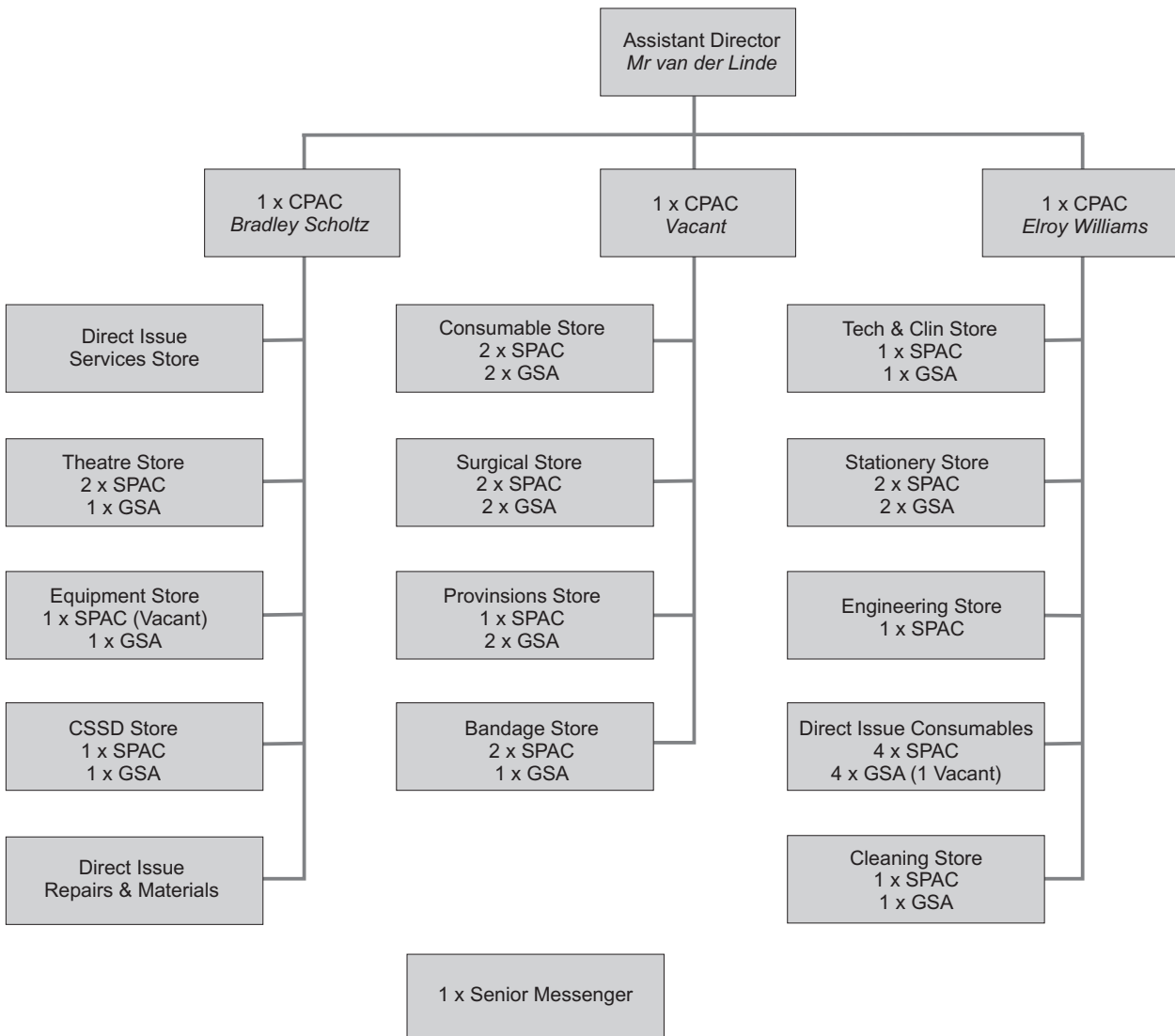
The ten stockholding stores, namely Provisioning, Surgical, Bandages, Disposable, Technical and Clinical Engineering, Stationary, Engineering, CSSD and Theatre Stores, handled purchase orders to the value of R54 m. The non-stockholding warehouses placed purchase orders to the value of R416 m.

We successfully achieved the purpose of rendering a support service to Hospital Management and other disciplines with regard to the administration of stores.

Two successful stock-takes were performed – at mid-year and year-end, with minimal stock variations. A monthly commitment meeting is established to report back on outstanding orders.

Three general-stores assistants furthered their education by doing their matric through ABET. They wrote exams in April and May 2010 and will be writing their final exams in May and June 2011.

Two students from CPUT have completed their six-month internship in Office Management and Technology in our various stores; we also assisted with the skills development of three students from Northlink College who received training in Stores Administration as well as in Finance.



Finance

Supply-chain management

Equipment purchases

Funds made available for capital equipment totalled R27,267 m plus a further R3 m for current equipment.

A total of 30 bids to the value of R14 515 217 were awarded during the 2010/2011 financial year.

Large capital equipment that was purchased in the 2010/2011 financial year were:

- 1 x dual-head SPECT gamma camera @ R2,8 m;
- 2 x digital retinal fundus imaging system @ R1,436 m; and
- 1 x ENT surgical CO laser system @ R948 144.

One post became vacant in Equipment Procurement as a result of a staff member accepting a position elsewhere.

Purchases of goods and services

A total of 31 870 orders to the value of R328 751 779 were placed in 2010 – 2011.

Supply-chain management: Asset management

The Asset Management Unit consists of an assistant director, an SAO, eight clerks and a senior general foreman.

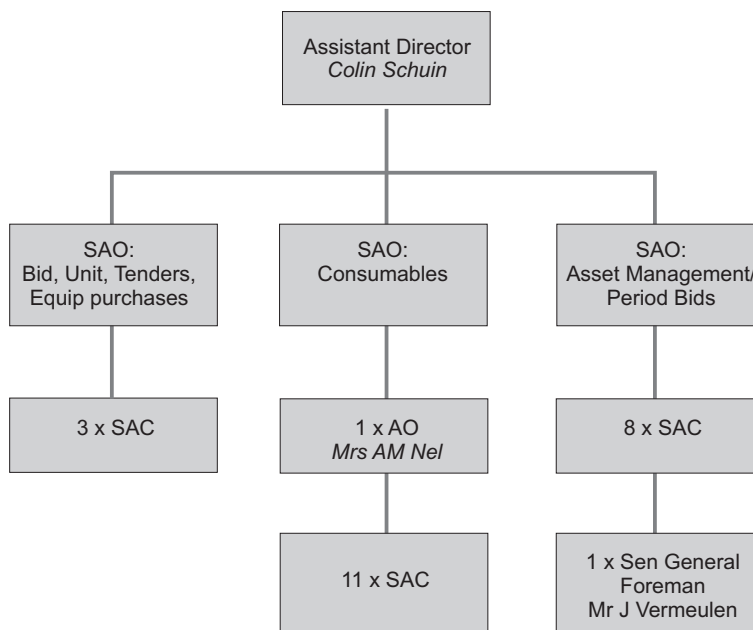
The Syspro asset-management system was implemented in January 2010. The challenges this posed to the unit were to undergo the necessary training provided by the service provider and to capture the backlog of work for preceding months in order to ensure that the new system was up to date and current.

The unit's staff tackled these challenges with enthusiasm and drive.

However, the road ahead will be difficult because there are many more challenges to be overcome.

There were no vacancies in the unit.

SCM procurement structure



Information management

The Information Management Unit (IMU) consists of three components, namely Financial Cost Centre, IT Hardware and Patient Statistics. Its primary function is to manage the information and data of the official systems at Tygerberg Hospital and to assist with the planning and roll-out of computer hardware and software.

The hardware component managed to put the internet café in operation again. A total of 450 desktops and 200 printers were purchased to address the DITCOM backlog.

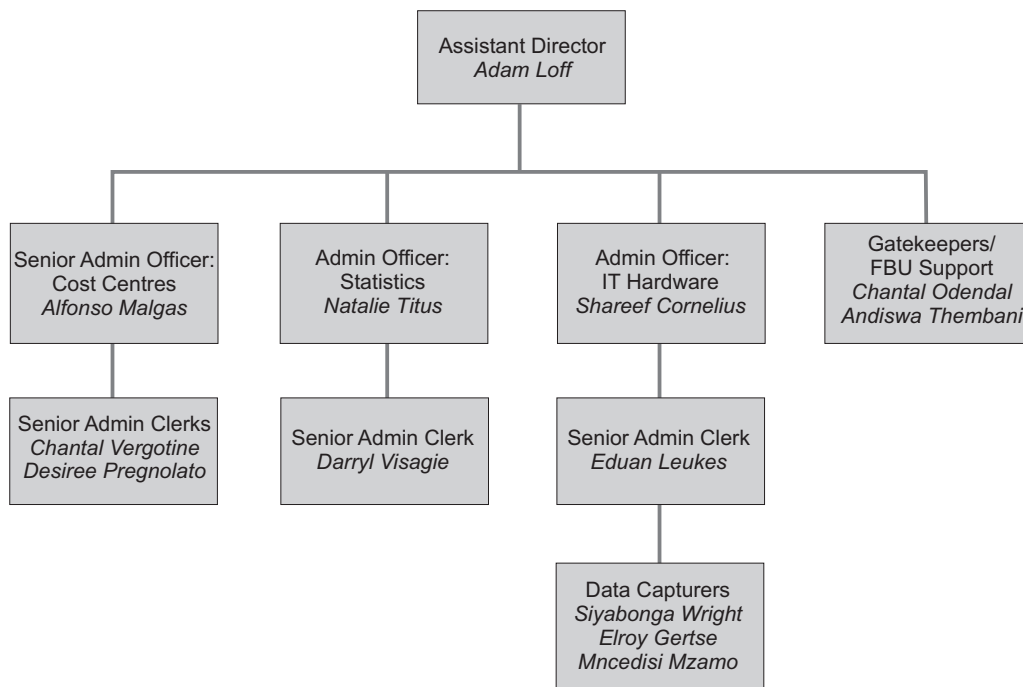
Implementation of CCR training was done by the Cost Centre component, and a number of end-users were trained during the 2010/2011 financial year to facilitate the transition from the manual to the electronic system for many users. This will be an ongoing process throughout the new financial year.

The gatekeepers played a pivotal role with the implementation of Functional Business Units (FBUs) by analysing, interpreting, summarising, and presenting complex financial and business-related issues in a manner which is both understandable and properly supported by FBU management.

The Patient Statistics component has successfully assisted and implemented the use of the Theatre Module on CLINICOM. The new module will assist Theatre Management with reporting on the correct number of operations done in the theatre complex, as well as on the new theatre related elements for provincial and national statistics.

The greatest asset of the IMU is the staff members, who are young, dynamic and dedicated to providing a service to Tygerberg Hospital.

Information Management Unit structure



Finance

2011/2012: the way forward

The budget allocation improved by 12% for the 2011/2012 financial year:

Category	2010/2011 Budget (R'million)	2011/2012 Budget (R'million)	Increase (R'million)	%
Compensation to employees	1 066,2	1 202,8	136,6	13
Goods & services	427,1	514,2	87,1	20
Transfers	2,0	2,0	0,1	5
Capital equipment	27,2	33,3	6,1	22
Total	1 567,5	1 752,5	185	12

The personnel budget increased due to a full-year OSD for both hospital and joint staff. Goods and services have been compensated with the carryover of the overspend plus inflation. Capital equipment includes an additional R3,1 m.

Administration

Administration

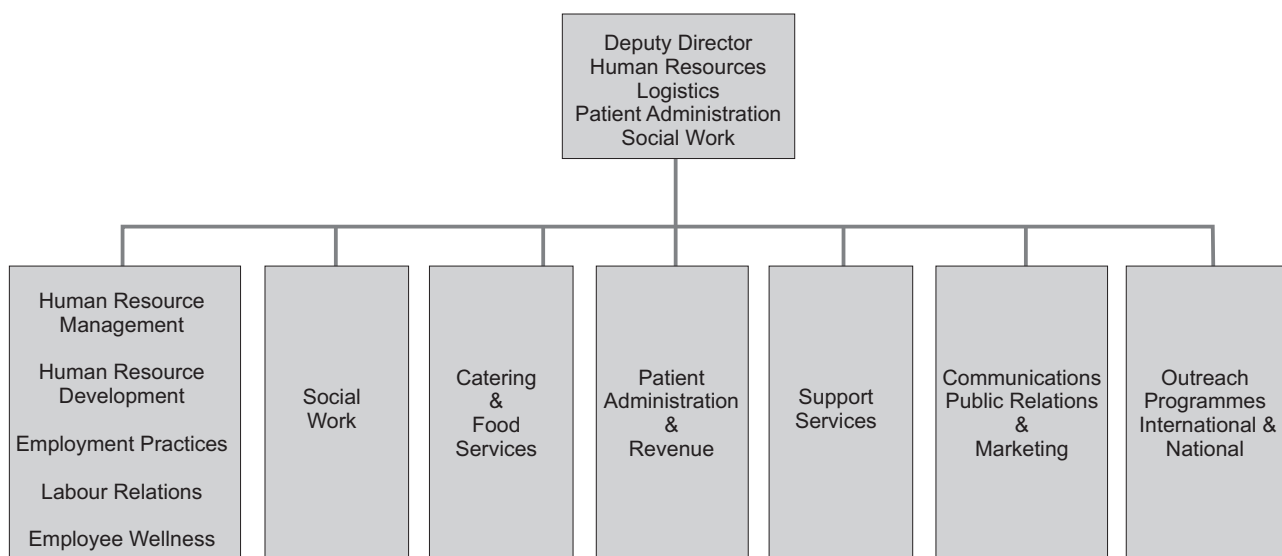
Deputy Director: Mr Phillip Wolfaardt

In a number of respects this reporting period was not without its challenges. However, despite these challenges, and in many cases constraints, the staff who make up this component have once again shown that they are up to many challenges. As can be seen in the report below, they have shown improvement on previous reporting periods. My appreciation goes to all members in this subdirectorate.

A special word of appreciation to Dr T Carter and Dr D Erasmus for their ongoing support.



The following diagram reflects the areas forming part of the subdirectorate:



The following report lists the activities within the responsibilities of my department.

Human Resource Management

Assistant Director: Mr EC Steyn

The establishment of Human Resource Management was suitably filled during the year.

Rank	Filled	Vacant	Total
Assistant Director	1	0	1
Chief Admin Officer	4	0	4
Chief Admin Clerk	2	0	2
Admin Officer	3	1	4
Senior Admin Clerk	22	5	27
Total	32	6	38

Administration

The personnel turnover statistics of Tygerberg Hospital and the Oral Health Centre are listed below:

Tygerberg Hospital

Nature	Administration	Professionals	Technical	Nursing	General
Resignations	8	31	7	73	19
Dismissals	1	0	0	2	3
Ill health	3	0	0	1	1
Retirement 65	0	2	0	3	6
Early retirement	2	0	2	15	19
Deceased	0	0	3	1	4
Transfers out	13	13	4	36	6
Contract expiry	17	33	3	0	0
Total	30	79	19	131	58

Transfers in	2	5	4	7	3
Appointments	41	132	17	301	63
Total	43	137	21	308	66

Difference	+13	+58	+2	+177	+8
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Oral health centres

Nature	Administration	Professionals	Technical	Nursing	General
Resignations	0	0	0	0	0
Dismissals	0	0	0	0	0
Ill health	0	0	0	0	0
Retirement 65	0	0	0	0	1
Early retirement	2	0	0	0	3
Deceased	0	0	0	0	0
Transfers out	1	0	0	0	1
Contract expiry	0	2	0	0	0
Total	3	2	0	0	5

Transfers in	1	2	0	0	0
Appointments	1	5	2	1	4
Total	2	7	2	1	4

Difference	-1	+5	+2	+1	-1
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The post position of Tygerberg Hospital and the Oral Health Centre is as follows:

Institution	Filled	Vacant	Session
Tygerberg Hospital	4 225	164	60
Oral Health Office	167	8	22

Administration

Policy and procedure on incapacity leave and ill health retirement in the public service (PILIR).

A statistical overview of the 2010 – 2012 cycle for the period 01 January 2010 to 31 December 2010 for Tygerberg Hospital and the Oral Health Centre is as follows:

Total cases	169
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Declined by Soma

Short period incapacity	38
Long period incapacity	1
Ill health retirement	3
Total	42

Approved by Soma

Short period incapacity	90
Long period incapacity	19
Ill health retirement	4
Total	113

Outstanding Cases

Short period incapacity	7
Long period incapacity	3
Ill health retirement	4
Total	14

Deviations

Short period incapacity	7
Long period incapacity	0
Ill health retirement	0
Total	7

This Secretariat, as with the other components forming part of this subdirectorates, also has an agency responsibility with the Khayelitsha District Hospital.

HRM: Employment Practises

Assistant Director: Ms B Houston

Approved staff complement

Rank	Filled	Vacant	Total
Assistant Director	1	0	1
Senior Administrative Officer	3	0	3
Administrative Officer	1	0	1
Administrative Clerk	5	1	6
Total	10	1	11

The vacant post of Administrative Clerk will be filled on 1 March 2011 and will resort in the Performance Management Division.

Recruitment and Selection

Statistics for period 1 January 2010 to 31 December 2010:

Total posts advertised	105
Total interview meetings for the period	93
Total appointments made	621
Temporary/contract	231
Probation permanent	390

Establishment control

The Approved Post List (APL) as at 01 April 2010 was as follows:

Sub-group	Cost per post (R'000)	2010/11 Approved number of Posts
Management SL 09-10	301	15
Management SL 11-12	648	12
Management SMS	817	2
Medical Interns SL 06-7	366	86
Medical Officer SL 08-10	628	3
Medical Officer SL 11-12	628	84
Medical Specialist SL 10-12	942	150
Pharmacology SL 11-12	777	1
Registrar SL 11	647	209
Nurses: Prof Gen	219	314
Nurses: Prof Spec	308	385
Nurses: Staff	153	339
Nursing Assistants	128	757

Administration

Sub-group	Cost per post (R'000)	2010/11 Approved number of Posts
Clinical Psychologist SL 06	152	4
Clinical Psychologist SL 09-12	346	4
Dieticians SL 06-8	207	16
Occupational Therapy SL 03-6	163	7
Occupational Therapy SL 07-8	214	11
Occupational Therapy SL 09-10	322	1
Pharmacy SL 06-8	306	2
Pharmacy SL 09-11	306	26
Physiotherapists SL 04-6	162	2
Physiotherapists SL 07-8	212	17
Physiotherapists SL 09-10	344	1
Radiographers SL 03-6	163	12
Radiographers SL 07-8	229	93
Radiographers SL 09-11	323	3
Social Workers SL 06-8	117	3
Social Workers SL 09-10	273	18
Speech Therapy SL 06-8	190	9
Clinical Technologist SL 03-6	89	5
Clinical Technologist SL 07-8	230	21
Clinical Technologist SL 09-10	313	15
Medical Technologist SL 07-8	226	11
Medical Technologist SL 09-10	306	2
Scientists Technical SL 07-8	213	2
Scientists Technical SL 09-10	318	8
Scientists Technical SL 11-12	466	7
Scientists Technical SL 13	712	2
Admin SL 01-5	127	282
Admin SL 06	168	206
Admin SL 07-8	215	64
Registry SL 02-6	98	2
Secretaries SL 03-7	172	3
Stores Admin SL 02-6	134	6
Stores Admin SL 07	199	3
Artisans SL 05-10	194	21
Engineers SL 03-6	100	1
Engineers SL 07-8	208	9
Engineers SL 09-10	296	8
Engineers SL 11-12	444	1
Handymen SL 03-4	112	20
ASOs SL 03-7	140	29
Domestic SL 01-2	84	168
Domestic SL 03-6	99	274
Domestic SL 09-10	244	1
Drivers SL 02-6	110	11
Food Service SL 01-2	84	55
Food Service SL 03-6	103	66
Food Service SL 07-8	191	7

Sub-group	Cost per post (R'000)	2010/11 Approved number of Posts
Food Service SL 09	279	1
General Workers SL 01-2	87	20
General Workers SL 03-5	99	38
Grounds SL 01-2	69	4
Messengers SL 01-2	87	11
Messengers SL 03-4	91	11
Operators SL 02	86	2
Operators SL 03-6	120	82
Porters SL 01-2	83	75
Porters SL 03-4	96	50
Security SL 03-6	117	27
Security SL 07-8	199	1
Telephone Exchange SL 03-6	134	17
Telephone Exchange SL 07	204	1
Tradesmen SL 01-3	85	33
Typists SL 03-6	161	44
Total		4,313

The posts approved in addition to the APL are as follows:

Sub-group	Cost per post (R'000)	Total
Medical Officer SL 08-10	628	4
Medical Specialist SL 10-12	942	-2
Registrar SL 11	647	6
Nurses: Prof Gen	219	38
Nurses: Prof Spec	308	3
Nurses: Staff	153	17
Nursing Assistants	128	-17
Optometrist SL 06-8	188	1
Pharmacy SL 09-11	306	1
Radiographers SL 03-6	163	1
Radiographers SL 07-8	229	2
Speech Therapy SL 06-8	190	3
Clinical Technologist SL 09-10	313	1
Scientists Technical SL 09-10	318	1
Admin SL 07-8	215	1
Typists SL 03-6	161	1
Total		61

Administration

Employment Equity statistics

Comparison between 15 March 2010 and 15 November 2010

Status	Occupational categories	Designated									Non-designated				
		Male									Male			Male	
		African			Coloured			Indian			White			Foreign nationals	
		15.3.10	15.11.10	Goal	15.3.10	15.11.10	Goal	15.3.10	15.11.10	Goal	15.3.10	15.11.10	Goal	15.3.10	15.11.10
Permanent	Senior officials and managers			0			0			0			0		
	SMS professionals			0			0			0			0		
	Professionals	10	7	86	35	39	150	7	8	3	115	112	55	6	7
	Technicians associated prof	25	26	113	80	81	196		0	4	17	17	72		0
	Clerks	19	23	93	152	149	161	1	0	4	25	24	59		0
	Service shop market sales Work	25	28	190	47	45	330	1	1	7	9	9	122		0
	Craft-related trade work	1	1	3	11	11	5			0	7	6	2		
	Plant and Machine Operators	1	1	2	9	9	3			0			1		
	Labourers and related work	43	44	108	173	170	188			4	17	17	69		
	124	212	595	507	816	1 032	9	18	23	190	345	380	6	14	
Non-permanent	Senior officials and managers			0			0			0			0		
	Professionals	6	9	55	29	24	96	14	14	2	112	104	35	2	4
	Technicians associated prof		0	6	3	5	11		0	0	1	0	4		1
	Clerks	5	0	4	2	1	6		0	0		0	2		0
	Service shop market sales		0	1	1	1	2		0	0		0	1		0
	Craft-related trade work			0			0			0	1	1	0		
	Plant and machine operators			0			0			0			0		
	Labourers and related work	1	1	0	1	2	1			0			0		
Non-permanent total	12	19	67	36	64	116	14	28	3	114	209	43	2	10	
Grand total	136	231	662	543	880	1 148	23	46	25	304	554	423	8	24	

Administration

Employment Equity statistics

Comparison between 15 March 2010 and 15 November 2010

Status	Occupational categories	Designated											Non-designated		
		Female											Foreign nationals		
		African			Coloured			Indian			White		15.3.10	15.11.10	
		15.3.10	15.11.10	Goal	15.3.10	15.11.10	Goal	15.3.10	15.11.10	Goal	15.3.10	15.11.10	Goal	15.3.10	15.11.10
Permanent	Senior officials and managers			0			0			0					
	SMS professionals			0			0			0					
	Professionals	7	9	76	174	175	130	18	17	2	170	180	44	4	3
	Technicians associated prof	44	41	100	496	506	170	3	3	2	51	49	58		0
	Clerks	59	63	81	219	229	139	1	1	2	110	109	47		0
	Service shop market sales Work	231	242	167	871	883	287	2	2	4	17	18	98	1	1
	Craft-related trade work			3			5			0			2		
	Plant and Machine Operators			1			2			0			1		
	Labourers and related work	99	103	95	351	342	163			2	2	2	55		
	440	813	523	2111	3928	896	24	46	11	350	714	305	5	8	
Non-permanent	Senior officials and managers			0			0	35		0			0		
	SMS professionals	11	8	49	31	32	83	1	31	1	107	110	28	3	3
	Professionals	3	4	5	28	40	9		0	0	3	4	3		0
	Technicians associated prof	8	1	3	7	1	5		0	0	1	2	2		0
	Clerks		0	1	6	1	2		0	0		0	1		0
	Service shop market sales			0			0			0			0		
	Craft-related trade work			0			0			0			0		
	Plant and machine operators		1	0		1	0			0			0		
Non-permanent total	22	27	59	72	149	100	36	62	1	111	232	34	3	6	
Grand total	462	840	582	2 183	4 077	997	60	108	13	461	946	339	8	14	

Staff Performance Management System

The results for the 2009/2010 reporting cycle on 1 April 2010 were as follows:

Summary per salary level

Salary level	Below satisfactory performers (0% - 59%)	Number of employees who qualify	Total number of employees in Institution	Percentage employees who qualify
Level 1 - 2	6	68	337	20,18
Level 3 - 5	5	350	1 701	20,58
Level 6 - 8	2	220	1 057	20,81
Level 9 - 10	2	120	520	23,08
Level 11 - 12	0	33	337	9,79
Total	15	791	3 952	20,02

Administration

Summary of occupational clusters

Occupational clusters	Below satisfactory performers (0% - 59%)	Number of employees who qualify	Total number of employees in Institution	Percentage employees who qualify
Medical	0	27	324	8,33
Nursing	3	376	1 766	21,29
Administration	12	333	1 593	20,90
Social Science	0	55	269	20,45
Total	15	791	3 952	20,02

Representation summary (race, gender and disability)

Equity	Below satisfactory performers (0% - 59%)	Number of employees who qualify	Total number of employees in Institution	Percentage employees who qualify
Coloured male	3	103	524	19,66
Coloured female	2	507	2178	23,28
White male	2	22	197	11,17
White female	1	89	411	21,65
African male	5	17	131	12,98
African female	2	48	450	10,67
Asian male	0	0	34	0,00
Asian female	0	5	27	18,52
Persons with disabilities	0	0	0	0,00
Total	15	791	3 952	20,02

Labour Relations

Mr R Japhta

Achievements

- In total, 12 of the 13 SPMS grievances received for 2009/2010 were resolved at Institutional level.
- All PILIR grievances were resolved.
- Training increased from 13% to 23%.
- Information sessions for staff and supervisors resulted in a decrease in the lodging of grievances and informal discipline.

Informal disciplinary action

Disciplinary action	Male				Female				Total
	A	C	I	W	A	C	I	W	
Correctional counselling	1	0	0	0	1	2	0	0	4
Verbal warning	1	0	0	0	1	0	0	0	2
Written warning	15	14	0	0	12	26	0	2	69
Final written warning	8	8	0	0	9	20	0	2	47
Total	25	22	0	0	23	48	0	4	122

Administration

Formal disciplinary hearings finalised

Outcomes of disciplinary hearings	Number
Written warning	0
Final written warning	5
Suspension without salary	20
Demotion	0
Dismissals	3
Not guilty	2
Case withdrawn	4
Case dismissed	1
Total	35
Formal hearings pending	11
Grand Total	46

Types of misconduct addressed at a disciplinary hearings

Type of misconduct	Number
Absent from work without reason or permission	29
Code of Conduct (improper/unacceptable manner)	0
Insubordination	1
Fails to comply with or contravenes Acts	0
Negligence	4
Misuse of PGWC property	0
Steal, bribe or commit fraud	0
Substance abuse	5
Sexual harassment	0
Assault or threatens to assault	2
Case withdrawn	1
Falsification of sick certificate	1
Unauthorised removal of state property	3
Total	46

Grievances lodged

Type of grievance	Number
SPMS grievances received	13
SPMS grievances resolved	12
Pilir grievances received	5
Pilir grievances resolved	5
Other grievances received	37
Other grievances resolved	16
Collective grievances received	2
Total	85

Categories of other grievances	Received
Misutilisation	1
Job evaluation	2
Filling of post	6
Derogatory remarks	2
Undermining of supervisory authority	2
Refusal to grant housing allowance	6
Refusal to grant sick leave	3
Refusal to approve acting allowance	1
Unprofessional treatment by supervisor	9
Refusal to grant parking for disabled person	1
Refusal to approve bursary	2
OSD	2

Pending grievances at head office and public service commission (PSC)

Type of grievance	Number
SPMS	1
Other grievances	3
Collective grievances	2
Pending at PSC	1
Total	7

Disputed lodged

Disputes	Number
Disputes declared	9
Disputes dismissed	1
Disputes withdrawn	1
Disputes deadlocked	1
Agreements reached	1
Disputes pending	5

Precautionary suspensions

Number of employees suspended	4
Number of people whose suspension exceeded 60 days	0
Number of employees still on suspension by 31 December 2010	2

Various comparisons are as follows:

Difference between 2009 and 2010		
	2009	2010
Corrective counselling	15	4
Verbal warnings	6	2
Written warnings	84	69
Final written warnings	84	47

Administration

Formal discipline

Difference between 2009 and 2010		
	2009	2010
Written warnings	0	0
Final written warnings	0	5
Suspension without remuneration	17	20
Demotion	0	0
Dismissals	10	3
Not guilty	5	2
Case withdrawn	0	4
Case dismissed	0	1

Grievances lodged

Difference between 2009 and 2010		
	2009	2010
SPMS	60	13
Other grievances	47	37
Pilir	34	5

Disputes

Difference between 2009 and 2010		
	2009	2010
Disputes declared	5	9
Disputes dismissed	0	1
Disputes withdrawn	0	1
Disputes deadlocked	2	1
Agreements reached	0	1

Precautionary suspensions

Difference between 2009 and 2010		
	2009	2010
Employees suspended	4	4

Training

Difference between 2009 and 2010		
	2009	2010
Number of employees trained	503	923

Industrial Relations training

Number of employees	923
Type of training	
Absenteeism presentations	
Disciplinary code and procedure	
Presiding and investigating officers	
Informal disciplinary procedure	
Grievance procedure	
Introduction to Labour Law	
Annual Labour Law seminar	
Induction	
Massified induction	
Sexual harassment	
Persal	
Pilir	
Percentage of employees trained against establishment of 4 055 employees	23%

Human Resource Development (HRD) and Staff Wellness (EAP)

Assistant Director: Mr M Booie

Summary

Learnerships 2009/2010

Diagnostic Radiography

Despite administrative challenges which lead to late registration of learners, Diagnostic Radiography continued to attract learners in 2010. Four first year learners enrolled in Diagnostic Radiography in 2010, including the nine second year learners. One learner absconded from the programme. No reason was given as a motivation for this resignation.

Certificate in General Nursing: Enrolled

Two learners are currently in pursuit of this qualification.

Expression of interest 2011

The Health and Welfare Sector Education and Training Authority (HWSETA) has called the expression of interest for 2011 learnerships and TBH submissions were finalised and accepted by the Directorate: Human Resource Development (DHRD).

Bursaries

A total of 49 full-time employees benefited from the part-time bursary scheme for the 2010 academic year. A total of 46 of these beneficiaries are drawn from professionals and technicians staff categories and only two

Administration

administrative staff members. HRD has received 50 part-time bursary applications for the 2011 academic year and the business plan with an estimated amount of R582 319 has been submitted to the Director: Human Resource Development.

Adult Further Education Training (AFET)

Adult Further Education Training registered 65 learners during the 2010 school year. These students were expected to write their exams in May/June 2011. The May/June 2011 exams will be the last of the old curriculum.

Internship

Expanded Public Works Programme (EPWP)

A total of 21 interns were contracted for 12 months from 1 November 2009 to 31 October 2010. Their contracts were renewed for another 12 months from November 2010. Nine interns secured permanent employment mainly outside the hospital. This group precedes the last intake of the first phase of EPWP.

Higher education and further education

Four third year students in Human Resource Management at the Cape Peninsula University of Technology (CPUT) were offered an opportunity to do experiential training for a period of three months – from April to June 2010 – through an ongoing agreement between Tygerberg Hospital and CPUT. These students circulated between HRD, Labour Relations, Personnel and Employment Practices.

Other students include those from Northlink College, the College of Cape Town and CPUT for a mandatory 18 months in-service training that contributes to the completion of their diploma qualification. The learners were placed at different departments such as Finance and Engineering with qualifications such as Boilermaking, Business Management, Financial Management, Public Management and Office Management. In total, the institution trained 14 students in this category and some of them are still in pursuit of in-service training.

Training

Training from 1% and CAA

Despite challenges such as staff shortages, the training statistics have shown significant appreciation for three consecutive reporting periods. The function is expanding and is embarking on other cost-effective programmes such as information sessions. On the whole, the training that includes in-house co-ordinated short courses and skills programmes, external and internal workshops,

external congresses and training provided by Provincial Training Institute, constitutes 63% with information sessions amounting to 23% whilst ICAS group interventions account for 6%.

Expenditure report depicts above R1 million over all and this consists of skills programmes, congresses, workshops and short courses, indirect costs such as catering, transport and accommodation.

Note: The part-time bursary and internship expenditures are derived from the Directorate: HRD at provincial level and Personnel TBH respectively.

Human Resource Development Committee

Draft terms of reference have been tabled to the DD: Administration for input after which this document will be presented to the relevant structures such as the Human Resource Development (HRD) Committee, IMLC and Tygerberg Transformation Committee.

Staff Wellness Programme (EAP)

The hospital continues to look after its staff by utilising the services procured by head office from ICAS, an independent counselling and advisory body. Prevalent and common cases that were dealt with include relationship issues, legal issues and information resources. The relationship between the internal EAP and ICAS continues to be a viable option.

Utilisation rates

Over the three quarters of 2010 from April, an average of 76 cases per quarter were dealt with. In comparison, the period between April 2009 and March 2010 depicts that a total of 201 cases were handled whilst 208 cases were reported at the same period in 2008/09.

It is a prevalent trend that the majority of these cases emanate outside the work context, for example relationship issues which have topped the list of all cases handled from quarter to quarter in 2010. It is conclusive from these quarterly reports that there is a slight increase in the average number of cases handled per quarter in 2010, consistent with awareness enjoyed by ICAS in the institution. As depicted in this report, group interventions embarked on this year include stress and resilience, financial management and sexual harassment. Organised per gender, this data depicts that females, as in other reporting periods, were more likely to present their problems than males.

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A further breakdown of utilisation rate per site as depicted in the table below illustrates that nurses had the highest number of cases and this bears as correlation with previous findings. Certain areas in Nursing were identified to be high-risk in terms of the most hazards to staff health and wellness.

Site utilisation 2010

Site	Q1 cases	Q2 cases	Q3 cases	Total
Clinical nurses	23	29	29	81
Administrative	20	12	26	58
Support services	13	18	22	53
Clinical – other	12	8	15	35
Total	68	67	92	227

Competency profile project

Instituted by the Directorate: Human Resource Development at provincial level, this project focused on the following:

- Identifying critical competencies per occupation for effective service delivery at primary, tertiary and secondary levels; and
- Measuring current organisational competencies, exposing competency gaps or deficiencies and developing strategies to address gaps through education and training initiatives.

The project adopted the phase approach that included these key steps:

- Conceptualisation;
- Competency framework development;
- Survey roll-out; and
- Competency-gap identification.

It was mainly targeted at occupational categories that were reflected in the CSP as priorities located in all three levels of care. The pilot survey was administered at Groote Schuur Hospital and Tygerberg Hospital's Human Resource Development.

The Tygerberg Hospital administration was the only team from a support-service genre that was surveyed due to its size. Full participation was received from staff.

Challenges

- Non-adherence to the processes and procedures such as funding requests, especially by senior staffers;
- Death of senior officials attending training;
- Poor training attendance record of certain staff categories, such as senior officials;
- Downtime due to prolonged public sector strike action and the 2010 Soccer World Cup;
- Lack of interest from potential ABET learners; and
- Need for a quality-assurance function.

Achievements

- Draft Human Resource Policy is ready for interrogation and further inputs;
- Human Resource Development Committee Terms of Reference draft has been developed;
- Improved attendance and commitment by HRD Committee members;
- Steady increased number of public service induction training. Similar assistance is being offered to other hospitals and districts;
- Awareness of the HRD function continues to reach diverse departments;
- Approval of a data capturer post on a permanent basis;
- Strengthening of intergovernmental relations with other organisations such as Government Employee Pension. Fund and Government Employees Medical Scheme; and
- Successful implementation of internship programme.

Administration

HRD annual training statistics 2010

Annual expenditure report 2010

HRD annual training statistics 2010									
Training intervention	Senior officials	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Grand Total
J&J health leadership programme		6							6
MDR TB		1							1
(KID-CRU) – HIV-associated neurological deficits		1							1
19th World Conference of Neurology		1							1
1st TSF master class		1							1
2010 African health care management conference		1							1
2010 Anaesthesiology Part 11 refresher course		3							3
2010 ENT/SAAA Conference		2							2
26th International Paediatric Conference		7							7
2nd annual patient safety and nursing excellence master class		1							1
2nd International Paediatric Oncology workshop		1							1
3 Bid committee for Procurement		6	2	2					10
34th National Conference of the SA Society of Obstetrics and Gynaecology		1							1
3rd International Paediatric Oncology Workshop			1						1
4th Annual Symposium on Haematology & Oncology		2							2
4th International Paediatric Oncology Workshop		1							1
50th SAAPMB 2010 Conference		6	6						8
80 Hour TOT Course		1							1
ACL Reconstruction		1							1
Adobe Photoshop Level 1		1		1					2
Advanced Airway Management & emergency Ventilation		1							1
Advanced cardio life support		10							10
Advanced management		3							3
Advanced neonatal life support		55							55
Advanced paediatric life support		8							8
Advanced splitting course		2							2
Advanced sterilisation course							1		1
Advanced trauma life support		2							2
Advise consent test support		35	30						65
Afrikaans		4	1	4	1			1	11
ALLSA congress		1							1
Annual colonoscopy surveillance		1							1
Annual Labour Law seminar		2							2
Annual Labour Law update			1						1
Annual orthopaedic conference		2							2
Annual South African Gastroenterology Congress		1	1						2
Antibiotic stewardship best care		6							6
AO spine principles course		4							4
APRSSA 2010		2							2
ARV's in paed and adults ICU		6							6
Asthma workshop		1							1
BAD/IOD session			1	8					9

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Training intervention	Senior officials	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Grand Total
Baby-friendly hospital initiative assessor course		1							1
BAS orientation in Finance				3					3
Basic course in sterilisation							8		8
Basic life support		54							54
Basic paediatric life support		4							4
Basic seating workshop		5							5
Basic surgery skills		2							2
Basic wheelchair seating course		1							1
Batho Pele		4	8	3				9	24
Batho Pele		4	10	7	1			12	34
Breast cancer		1							1
Breastfeeding			1						1
Breastfeeding assessor course		1							1
Care of the very preterm infant		1	1						
Cashiers			1	24					25
CCSSA congress		1							1
CCSSA refresher course		1							1
Child abuse workshop			1						1
Chronic pain management in Physiotherapy		10							10
Client care			1					4	5
Clinical course		1							1
Clinical supervision		4							4
Clinicom		9	1	17			1		28
Cochlear implant		2							2
COIDA			1	5					6
Community services pharmacist orientation		2							2
Complete decongestive therapy course		1							1
Continuous nutrition education		12							12
Critical care		1							1
CSSD forum workshop		2					2		4
CSSD foundation course							1		1
CSSD intermediate course							2		2
CT vascular training session		2							2
CT/MRI		1							1
Customer care			1	2			1	6	10
Debts				2					2
Diabetes		1							1
Diabetes hotline call centre		1							1
Diabetes update		1							1
Diabetes workshop			1						1
Disciplinary code and procedures		14	7	3	5			2	31
Diversity management		14	6	14	7	2		13	56
Duputytren workshop		3							3
ECG		2	2						4
Emergency point of care ultrasound		1							1
Emergency triage assessment and treatment		1							1

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Training intervention	Senior officials	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Grand Total
Encephalitis		1							1
English		2	1	1	5			1	10
ESTRO course		10							10
ETAT South Africa		2							2
Ethical issues with off-label drugs for children in South Africa		1							1
Ethics and etiquette				3					3
Ethics for AHP		1							1
Ethics in Psychiatry		1							1
Ethics workshop		3	1						4
Ethics: National Health Insurance		9							9
Ethics: Outcome-based assessment		4							4
Ethics: Responsibility in health care		7							7
Ethics and research		1							1
Excel basics		1							1
Excel intermediate			1	2					3
FCU conference		1							1
Female condom			2						2
Finance for non-finance managers		3	1						4
Financial instructions. Chapter 18			1	7					8
Fire fighting		2	2		7	1		2	14
First aid		9	2	10	4		3	22	50
Foreigner training			1	40					41
Functional Anatomy course		3							3
Fundamentals of Project Management		8	4	7	2				21
GCP for the research team		1							1
Good clinical practice		1							1
Grievance procedure		8	4	1					13
Group therapy course		1							1
Haemophilia Day: Discussion		2							2
Haemophilia update		2							2
Hand therapy workshop		2							2
Health promotion		2							2
Histopathology cases – Bocavirus – PSC (primary sclerotizing colangitis)		1							1
HIV and lung surgery		1							1
HIV management		1							1
HIV summer school		1							1
HIV and AIDS attics		1	1						2
HTC workshop		14	6	1					21
Human Resource Management		3	2	7	2				14
Hyperparathyroidism		1							1
ICAS workshop		3							3
ICU refreshment course		1							1
Implementing the 3 bid committee									1
Individual voice pronunciation and personal development				1					1
Infant maternal nutrition course		1							1

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Training intervention	Senior officials	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Grand Total
Infection control		5	3	1			1		10
Infection Prevention Day		3							3
In-service training: dynamic splinting		6	5						11
International paediatric conference		2							2
International Pediatric Oncology workshop		3	1						4
Introduction to computers		4	4	2	3			1	14
Introduction to Human Resource Management		1		1					2
Introduction to junior management		1	6	3	5			4	19
Introduction to Labour Law		6	4	5	3				18
Introduction to obstetric ultrasound workshop		1							1
Introduction to office management		1		8					9
Introduction to project management		13	6	4	3				26
Introduction to records management and registry		1		6				3	10
IPCAN conference		1							1
Irene circular fixation		1							1
ISOTEC tour		1							1
IUCD		1							1
Junior management development programme Block 1		1	7		4				12
Junior management development programme Block 2		1	7		4				12
Leadership course		7							7
Life skills				2				8	10
Lifestyle symposium		1							1
Major incident medical management and support		2							2
Management training		8	4	1	1				14
Managing absenteeism		2	3	1	3			6	15
Managing HIV in a Primary Health Care		1							1
Marketing of breast milk substitutes		2							2
Massified induction programme level 1 - 5			183	21	6	3	19	57	289
Massified induction programme level 6 - 12		107	14						121
Maternal and child health seminar		1	1						2
Maternal nutrition infant and young child		1							1
Measles training		1	2						3
Measles in SA: the past present and future: Lessons learnt from the 2010 measles epidemic		1							1
Media training			1						1
Medical malpractice and liability conference		1							1
Men sex men training							1		1
MEPUNSA flap dissection		1							1
Microsoft Certified IT Professional Course			1	1					2
Microsurgery		1							1
Millennium health plan		1							1
Minute taking and report writing				13	1				14
Ms Access 2003 Level 1			2	1					3
Ms Access 2003 Level 2			2	1					3
Ms Access 2003 Level 3		4	3	3					10
Ms Access 2007 Level 1			2	6					8

Administration

Training intervention	Senior officials	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Grand Total
Ms Access 2007 Level 2			2	6					8
Ms Access 2007 Level 3			2	6					8
Ms Excel 2003 Level 1		20	5	13	5				43
Ms Excel 2003 Level 2		19	5	13	5				42
Ms Excel 2003 Level 3		15	6	14	5				40
Ms Excel 2007 Level 1		9	13	23				2	47
Ms Excel 2007 Level 2		9	13	23				1	46
Ms Excel 2007 Level 3		9	12	21				1	43
Ms PowerPoint 2003 Level 1		12	1	8	1				22
Ms PowerPoint 2003 Level 2		14	1	10	1			1	27
Ms PowerPoint 2007 Level 1		16	7	10					33
Ms PowerPoint 2007 Level 2		16	7	10					33
Ms Word 2003 Level 1		7		2					9
Ms Word 2003 Level 2		6		2					8
Ms Word 2003 Level 3		6		3					9
Ms Word 2007 Level 1		6	5	17					28
Ms Word 2007 Level 2		5	5	14					24
Ms Word 2007 Level 3		5	4	14					23
National BFHI reassessment and assessment 2010		1							1
National Occupational Therapy forum		1							1
National Speech Therapy and Audiology forum		1							1
NEA conference		1							1
Neonatal MRI – 15 years of the Hammersmith experience		1							1
Neonatology seminar		5	2						7
New installation regulations 2009			1						1
New vaccinations, Cold Chain Management		3							3
NICS		1							1
Occupational Health and Safety		11	6	2		1	1	3	24
Occupational Therapy in health forum		9	2						11
Office management		2	2	19	1			3	27
Orientation in Finance				3					3
OT symposium: Ethics		5							5
Outcome measures in PT		6							6
PACSA 2010				2					2
Paediatric Oncology		1							1
Pain relieve		2							2
Patient admin. – Orientation of new appointees			1	10					11
Patient scanning in Nuclear Medicine		1							1
Paediatric life support		5	1						6
Paediatric management		2							2
Pediatric advance life support		1							1
Pediatric basic life support		2							2
Pediatric ventilation		4	1						5
Perinatal conference		1							1
Perinatal education programme		1							1
Persal introduction				10					10

Administration

Training intervention	Senior officials	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Grand Total
Persal leave administration				1					1
Pharmacist intern orientation		2							2
Physics training course		1							1
PMTCT		4	3						7
Poison centre (MIC)		3							3
PowerPoint		2						1	3
Preceptor follow-up workshop		1							1
Prescribed medical benefits		5	4	10					19
Presentation skills		3	4	3					10
Presiding officer		4	1						5
Pressure garment interest group course		1	1						2
Program in Project Management		1							1
Provincial EHW policy implementation and advocacy workshop		1							1
PTI/PSTA compliance reporting feedback workshop			1						1
Public service training forum conference		1							1
Quality assurance workshop		2	1	3	1	1		2	10
Quality assurance workshop for qualified Radiographers		4							4
RCS workshop		1							1
Records management		1							1
Refresher course part 1		2							2
Registrar symposium		1							1
Research in progress – measles		1							1
Resilience coaching research project		5							5
Road to health course		18							18
Role of Nuclear Medicine in endocrine diseases		1							1
Roller ball workshop		1							1
SA congress for Pharmacology & Toxicology		2	2						4
SA Heart Association conference 2010		3							3
SAGES conference		1							1
SAHA conference			2						2
SANC workshop			1						1
SASHT refresher course		1							1
SASOG conference 2010		9							9
SASPEN conference		1							1
Satellite programme		2							2
Saving mothers feedback + PPH		3							3
Seating workshop – wheelchairs and buggies		1							1
SEMDSA /NOFSA congress 2010		1							1
Sexual dysfunction: fertility and treatment		1							1
Shop stewards training				1					1
Skill development facilitation training				1					1
Sleep studies in children		1							1
South African Heart Association congress		3	1						4
South African Nursing Council workshop		4		4					5

Administration

Training intervention	Senior officials	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Grand Total
State of art lecture: The child with a disorder of sexual development		1							1
State of art talk: eye infections		1							1
Stellenbosch: UL dissection course		1							1
Stop harassment in the workplace		2	1	7	2				12
Substance abuse		6	2						8
Supply Chain Management				1					1
TB for nurses			2						2
TB of thyroid gland		1							1
The Bobath concept course		1							1
The medical profession and the right to strike		1							1
The new SA HIV treatment and guidelines		7							7
The operational Hospital Management conference	2	1							3
The social worker as a mental health practitioner		1							1
Theater efficiency		1							1
Thyroid hormone resistance		1							1
Time management		4	3	6			1	9	23
Tomorrow in private practice		1							1
Training for moderation phase com		3							3
Transmed		2	4	5					11
Trunk ball workshop		1							1
UL dissection course		1							1
Uniform patient fees schedule		3	9	19					31
USCID seminar		3							3
UWC workshop		1							1
VASSA conference		2							2
Ventilation of children with MDR TB – An ethical dilemma?		1							1
WFNMB 2010 conference		2	1						3
WHO growth charts workshop		2							2
Women in management		5	1						6
Word		1	3					1	5
Workplace violence training		6	1	1	1		1	2	12
Workshop on brachial plexus injuries		1							1
Workshop on international code of marketing of breast milk substitutes		4	2						6
Workshop on visual impairment		1							1
Wound care indaba			2						2
Wound healing conference 2010		6	1						7
Xhosa		16	9	5	2			3	35
XiO treatment planning system		1							1
XIVTH biennial congress		1							1
Total		1 099	537	574	91	8	43	180	2 535

Administration

ICAS								
Training intervention	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Electricity	Grand Total
Financial management information session	16	4	6	2			2	30
Sexual harassment	8	4	1	3			3	19
Stress and resilience	22	14	16	10			6	68
Will and estates	13	4	8	5			16	46
Total	59	26	31	20	0	0	27	163

Information sessions								
Training intervention	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Grand Total
Government Employee Medical Scheme	18	12	22	2			3	57
Government Employee Pension Fund	16	5	6	1			1	29
Pension information session	1	4	9				3	17
Pilir	1		14				6	21
Security risk management	26	11	19	16			4	76
South African Revenue Service	8	5	14			1	4	32
Staff Performance Management System	119	75	74	18	2	9	46	343
Total	189	112	158	37	2	10	67	575

Adult Further Education and Training (AFET)								
Grande	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Grand Total
Grande 12	0	7	4	4	0	7	43	65
Grand Total	0	7	4	4	0	7	43	65

Learnerships									
Type of learnership	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Learners	Grand Total
18.2 Certificate in General Nursing: Enrolled								2	2
18.2 Diagnostic Radiography								14	14
18.2 Basic pharmacist assistant								4	4
18.1 Post-basic pharmacist assistant				1					1
Grand Total	0	0	0	1	0	0	0	20	21

Administration

Bursaries								
Qualification	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Grand Total
B Tech: Nursing Oncology	3							3
B Tech: Primary Health Care	1							1
B Tech: Radiography	1							1
Bridging course: enrolled nurse to registered nurse		21						21
Degree: Paediatric Nursing Science	3							3
Diploma: Clinical Nursing Science, Health Assessment, Treatment and Care	2							2
Diploma: Critical Care	4							4
Diploma: HRM			1					1
Diploma: Paediatric Intensive Care	1							1
Diploma: Public Management			1					1
Diploma: Public Relations Management			1					1
Honors: Critical Care	4							4
LLB		1						1
LLM: Labour Law	11							11
Masters: Business Administration	1							1
Masters: Nutrition	1							1
Masters: Occupational Therapy	1							1
Masters: Public Health Management	1							1
Total	24	22	3	0	0	0	0	49

Internship									
Type of Internship	Professionals	Technicians	Clerks	Service workers	Craft and related	Plant and machinery	Elementary	Learners	Grand Total
Expanded Public Works Programme			27						27
National Diploma: Boilermaking			1						1
National Diploma: Business Management			1						1
National Diploma: Financial Management			2						2
National Diploma: Resource Management			4						4
National Diploma: Office Management and Technology			8						8
National Diploma: Public Management			2						2
Grand Total	0	0	45	0	0	0	0	0	45

Overall summary of TBH training for 2010			
Type of training	Training interventions	Number of employees trained	Number of beneficiaries
Training	305	2 535	1 396
ICAS	4	163	143
Information sessions	7	575	519
AFET	1	65	65
Learnerships	4	21	21
Bursaries	18	49	49
Internships	7	45	45
Grand Total	339	3 453	2 238

Administration

Annual expenditure report 2010		
Title of short course	No credit bearing	Credit bearing
19th World Conference of Neurology	8 500.00	
2010 African Healthcare Management Conference	21 848.90	
2010 ENT/SAAA Conference	14 920.50	
26th International Paediatric Conference	2 500.00	
2nd Annual Patient Safety + Nursing Excellence Master class	13 435.00	
Adobe Photoshop Level 1	700.00	
Advanced Management		75 600.00
Advanced Cardio Life Support	13 500.00	
Advanced Neonatal Life Support	42 525.00	
Advanced Paediatric Life Support	15 750.00	
Advanced splitting course	2 220.00	
Advanced sterilisation course	6 000.00	
Advanced Trauma Life Support	3 300.00	
Afrikaans		12 540.00
Annual Labour Law Seminar	5 384.88	
Annual Labour Law Update	1 925.00	
Asthma workshop	350.00	
Basic course in sterilisation	24 000.00	
Basic Life Support	27 000.00	
Basic Paediatric Life Support	450.00	
Basic seating workshop	7 000.00	
Basic wheelchair seating course	1 250.00	
Complete Decongestive Therapy Course	4 800.00	
CSSD foundation course	6 000.00	
CSSD intermediate course	12 000.00	
CT vascular training session	6 000.00	
Diabetes update	500.00	
Diversity management	106 151.79	
Duputytren workshop	450.00	
English		11 400.00
ESTRO course	22 780.00	
Fire fighting	11 872.00	
First aid		15 550.00
Finance for non-financial managers		12 600.00
Functional Anatomy course	10 500.00	
Fundamentals of Project Management		56 500.00
Good clinical practice	1 500.00	
Group Therapy course	1 000.00	
Hand Therapy workshop	1 600.00	
Human Resource Management		58 500.00
Implementing the 3 Bid Committee	6 940.00	
Individual voice pronunciation and personal development	8 424.00	
Infection control	5 600.00	
Infection Prevention Day	210.00	
Introduction to computers	5 600.00	
Introduction to Obstetric Ultrasound workshop	800.00	
Major Incident Medical Management and Support	2 900.00	
Maternal and Child Health Seminar	160.00	
Medical Malpractice and Liability Conference	15 432.80	

Administration

Title of short course	No credit bearing	Credit bearing
Microsoft Certified IT Professional Course	19 000.00	
Minute Taking and Report Writing		29 925.00
Ms Access 2003 Level 1	1 350.00	
Ms Access 2003 Level 2	1 350.00	
Ms Access 2003 Level 3	4 500.00	
Ms Access 2007 Level 1	5 200.00	
Ms Access 2007 Level 2	5 200.00	
Ms Access 2007 Level 3	5 200.00	
Ms Excel 2003 Level 1	17 200.00	
Ms Excel 2003 Level 2	16 800.00	
Ms Excel 2003 Level 3	16 000.00	
Ms Excel 2007 Level 1	15 510.00	
Ms Excel 2007 Level 2	15 180.00	
Ms Excel 2007 Level 3	14 190.00	
Ms PowerPoint 2003 Level 1	9 900.00	
Ms PowerPoint 2003 Level 2	11 900.00	
Ms PowerPoint 2007 Level 1	11 385.00	
Ms PowerPoint 2007 Level 2	11 385.00	
Ms Word 2003 Level 1	3 600.00	
Ms Word 2003 Level 2	3 200.00	
Ms Word 2003 Level 3	3 650.00	
Ms Word 2007 Level 1	9 240.00	
Ms Word 2007 Level 2	7 920.00	
Ms Word 2007 Level 3	7 590.00	
National Speech Therapy and Audiology Forum	5 054.00	
NEA Conference	2 800.00	
Neonatology Seminar	1 750.00	
New installation regulations 2009	3 418.86	
Occupational Therapy in Health Forum	1 650.00	
Office Management		34 398.00
PACSA 2010	25 300.00	
Paediatric life support	2 250.00	
Pediatric advanced life support	2 250.00	
Pediatric Basic Life Support	900.00	
Perinatal Conference	2 000.00	
Public Service Training Forum Conference	11 486.90	
Quality Assurance workshop for qualified radiographers	12 000.00	
Records management	16 746.25	
SASPEN conference	1 020.00	
Seating workshop – wheelchairs and buggies	2 000.00	
SEMDSA /NOFSA Congress 2010	1 740.00	
Skill Development Facilitation Training		6 499.00
Stop harassment in the workplace	44 232.00	
The Bobath concept course	3 500.00	
The Operational Hospital Management Conference	37 477.50	
The social worker as a mental health practitioner	400.00	
Time management	16 284.00	
UWC workshop	80.00	
Workplace violence training	34 788.00	
Wound Healing Conference 2010	3 640.00	

Administration

Title of short course	No credit bearing	Credit bearing
Xhosa		35 000.00
XiO treatment planning system	3 589.50	
Total	896 586.88	348 512.00
Grand total		1 245 098.88

Learnerships		
Diagnostic Radiography second years	HWSETA funding	1% funding
Allowance	188 500.00	
Uniform allowance	10 000.00	
1%		35 000.00
Basic pharmacist assistant	65 655.72	
Enrolled nurse		
Allowance	34 000.00	
Uniform allowance	2 000.00	
Diagnostic Radiography first years	70 000.00	
Allowance	66 000.00	
Uniform allowance	4 000.00	
1%		14 000.00
Post-basic pharmacist assistant	6 498.00	
	446 653.72	49 000.00
Catering		20 882.14
		1 314 981.02

Internship	
Expanded Public Works Programme	391 500.00
National Diploma: Boilermaking	4 800.00
National Diploma: Business Management	4 800.00
National Diploma: Financial Management	10 800.00
National Diploma: Human Resource Management	39 600.00
National Diploma: Office Management and Technology	56 400.00
National Diploma: Public Management	9 600.00
Total	126 000.00
Grand Total	517 500.00

International outreach programme

During this reporting the responsibility of a number of programmes and initiatives were undertaken .

Netherlands

Eight Dutch students were placed, six were medical students and two Physiotherapy students. Periods of placement ranged between three and four months.

In addition to this, a group of 20 nursing students spent 10 days in the Western Cape. During this time they followed a programme to assess health services.

Further, in terms of this initiative, a container of consumables was shipped from the Netherlands, the cost estimate of which exceeded R1 million. The items were distributed to various areas including NHLS, local schools and universities.

United Kingdom

Interaction with management in the NHS and the Head for Europe in Price Waterhouse saw an initiative where there would have been a co-operative agreement with the health representative of the NHS participation in the World Cup and local health professionals participating in the Olympics in 2012.

This project was taken over by our national Department of Health.

Namibia

The year saw ongoing interaction with the Namibian Ministry of Health in respect of a number of needs they had.

Administration

Communications

Ms LC Pienaar

The Communications Office continues to play a vital role in internal and external communications, including media liaison, publications, marketing, public relations, special events, receiving of donations, special visits, the local communities, international visitors and celebrities.

Special visitors

The office works in close collaboration with various departments to ensure that the organising of visits from local and international entities run smoothly. International visitors, special visitors and celebrities included the following:

Ms Patricia de Lille	13 January & 10 December
Netherlands delegation	16 February
Mr Breyton Pause	11 March
MEC Botha	4 March & 6 May
Tapei delegation	27 May
Locnville twins	21 December

Special events

Open Day	11 March
World Kidney Day	11 March
International Nurses Day	12 May
Mandela Day	18 July
Women's Day	5 August
TygerBear's Pink & Blue Campaign	12 August
Annual Spring Concert	9 September
TB Awareness Day	3 September
Opening of Lodging Facility	20 September
Staff Wellness Day	12 & 14 October
IPC Day	2 November
Hartman Lecture Awards	10 November
Annual Nurses' Pledge Ceremony	11 November
CEO Ball	12 November
Smile Week	16 November
Diabetic Open Day	17 November
Annual Children's Christmas Party	26 November

Patient Administration

Ms J Jooste

Emergency Services

Mr R James and Mr R Mouton

Resources

Senior administrative officer	2
Chief administrative clerks	7
Senior administrative clerks	173

Appointees

February 2010	4 senior Administrative clerks
August 2010	1 chief clerk
October 2010	6 senior administrative clerks

Service areas

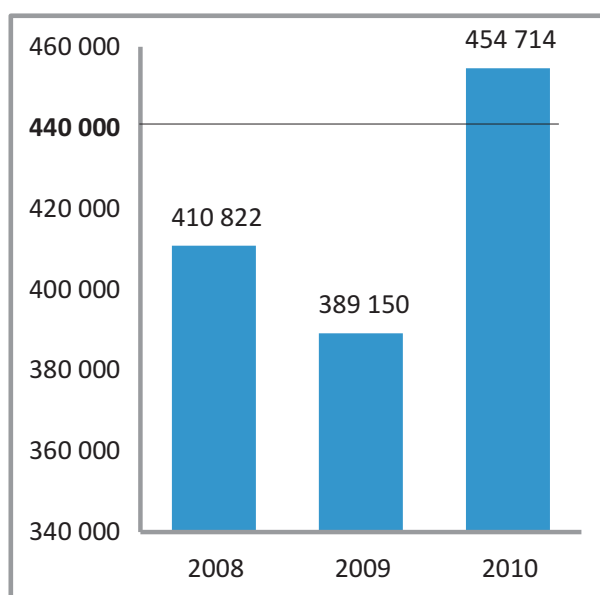
Receptions	24
Clinics	34
Special offices	4
Admission	1
Emergency service points	7

Patient statistics

OPD comparative annual visits 2008 - 2010

2008	2009	2010
410 822	389 150	454 714

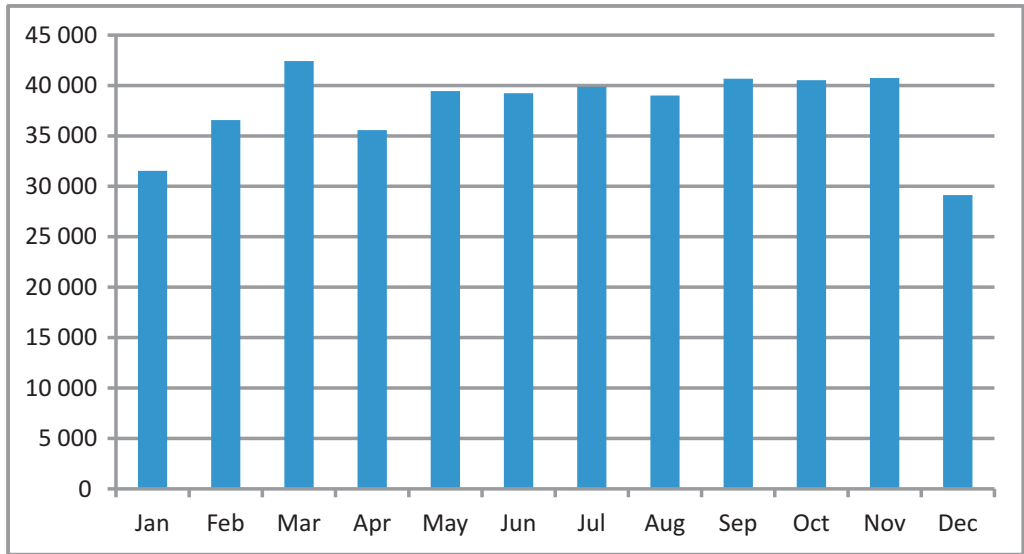
OPD visits 2008–2010



Administration

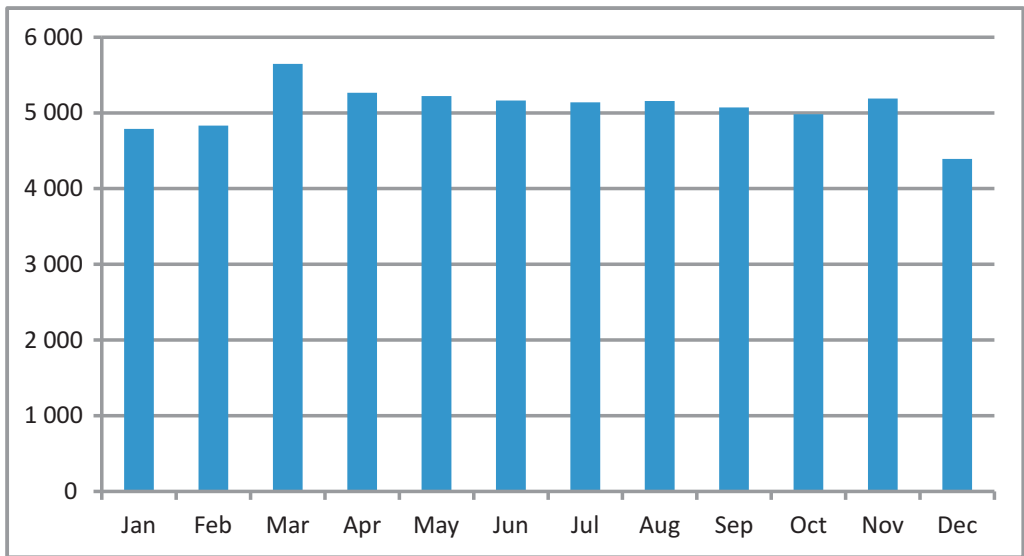
Monthly OPD Visits 2010

Jan	31 537
Feb	36 564
Mar	42 422
Apr	35 571
May	39 453
Jun	39 225
Jul	39 871
Aug	39 007
Sep	40 677
Oct	40 524
Nov	40 733
Dec	29 130



Monthly admissions 2010

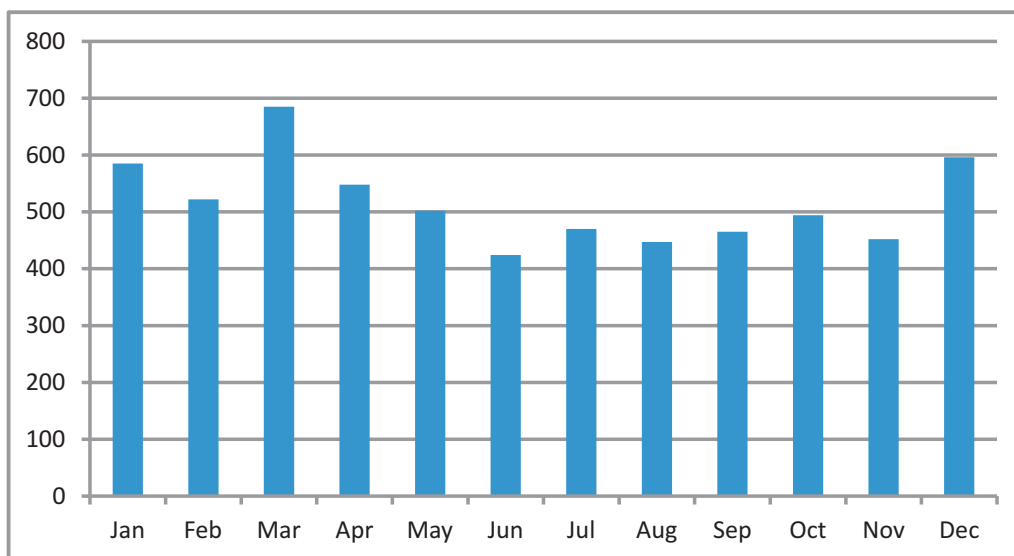
Jan	4 789
Feb	4 833
Mar	5 647
Apr	5 265
May	5 223
Jun	5 164
Jul	5 140
Aug	5 156
Sep	5 072
Oct	4 983
Nov	5 190
Dec	4 393



Administration

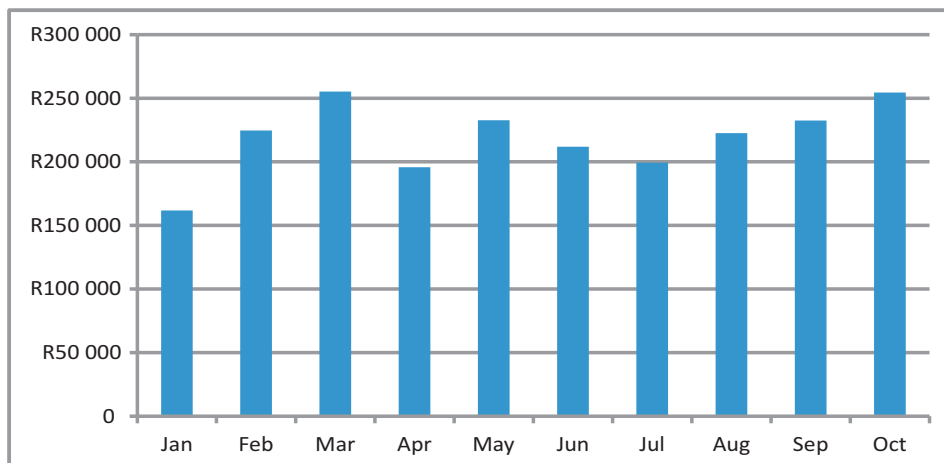
Monthly ward attendants (Patients seen in wards on an outpatient basis)

Jan	585
Feb	522
Mar	685
Apr	548
May	502
Jun	424
Jul	470
Aug	447
Sep	465
Oct	494
Nov	452
Dec	596



Cashier payments TBH patient administration 2010

Jan	R 161 758.88
Feb	R 224 578.17
Mar	R 255 259.60
Apr	R 195 773.49
May	R 232 674.44
Jun	R 211 844.14
Jul	R 199 394.91
Aug	R 222 598.04
Sep	R 232 418.45
Oct	R 254 437.04



Highlights

Debit/credit card machines

Debit/credit card machines were installed at the Oncology reception area and main admission office. The aim is to improve payment methods as well as to improve customer service.

Clinicom – Cache Conversion

A new version of Clinicom was introduced on 6 November 2010 with increased functionality – such as improved tariff charging and debtor searches.

Computer equipment

All the computers at the Emergency Services were replaced with brand new flat screen computers.

Administration

Training Statistics for 2010

Date	Training	Duration	Target group	Number of staff	Presenter
Jan	Basic computer literacy	3 days	Interns	20	Ms Moller
Feb	Procedural manual free services financial instructions	1 day	Reception staff	7	Mr James
Feb	In-patient transfers	1 day	Reception staff	6	Mr James
Mar	Orientation and policy	2 days	Recruits and interns	7	Ms Petersen
Mar.	Clinicom	1 week	Recruits and interns	7	Ms Petersen
Apr.	Cashiers and reception	90 min session	Reception staff	22	Mr Mouton, Ms Petersen, Ms Moller, Ms Spocter
30 Apr	Cashiers and reception	90 min session	Reception staff	20	Mr Mouton, Ms Petersen
10 Jun	Basic Clinicom	120 min session	Case manager	1	Ms Moller
15 Jul	UPFS	1 day	Supervisors and invoice controllers	8	Ms K Toerien
2 Aug	IOD/Coida	120 min session	OPD staff	6	Ms L Marais
5 Aug	IOD session	60 min session	OPD and IPD staff	22	Mr James
10 Sep	Clinicom Cache	1 month daily	OPD staff	130	Mr Jeftha
10 Nov	Orientation and policy	2 days	Recruits	10	OPD supervisors
10 Nov	Clinicom	1 week	Recruits	10	OPD supervisors
29 Nov	Cashiers and reception	90 min	Reception staff	24	OPD supervisors
2 Dec	Cashiers and reception	90 min	Reception	14	OPD supervisors

Challenges

Clinicom – Cache Conversion

The complex nature of the transition resulted in numerous system errors that impacted negatively on administrative processes. These cases were reported via the Information Technology helpdesk. The majority of the errors were resolved.

Staff shortages

Unplanned leave (sick leave, family responsibility leave) affects service delivery due to staff shortages. This was, however, addressed through recruitment – albeit not adequately resolved.

Inpatient and Account Control Department

Resources

Senior administrative officer	1
Chief administrative clerks	1
Account controllers	4
Senior administrative	50
Interpreter	1

Challenges

Cosmetic admissions

In accordance with financial prescripts, cosmetic patients are charged the prescribed maximum UPFS tariffs and revenue should not be forfeited when admitting these patients.

One of the challenges of the Patient Reception and Cosmetic department is to streamline the admission process of these patients. This is to ensure that estimations are accurate (correct procedures identified) and the full amount is paid prior to an admission.

Health Information System

With the Cache Conversion on 6 November 2010, a number of system errors were identified and subsequently rectified. However, a few system errors still prevailed during January 2011. An example is the premature releasing of invoices of long-term patients (more than 30 days) on the system. Thus invoices are being released whilst the patients are still in the hospital and charges can only be done by Fees on the Accounts Receivable system. This created an increase in the workload for Hospital Fees and Patient Reception.

Administration

Computer equipment

Outdated computers and printers in the wards impacts negatively on service delivery.

Highlights

In September 2010, the managers of Patient Administration presented their strategic plans at Drakenstein Prison in the presence of the Deputy Director and the Assistant Director of Patient Administration.

On Spring Day, appreciation, in the form of small gifts and eatables, was expressed to the ward clerks for their hard and diligent work. All the clerks received a small Christmas gift as a token of their supervisors' appreciation.

Inpatient training 2010

Date	Training/course/information sessions	Total attendees
01/02/2010	Decipher project/competency profiling	6
12/02/2010	Patient admin information session	35
25/02/2010	PMB workshop	4
05/03/2010	Foreign patients training session	21
09/03/2010	Needs analysis	1
23/03/2010 - 30/03/2010	PowerPoint	1
23/03/2010 - 24/03/2010	Minute taking and report writing	3
05/05/2010	Finance Instruction G32/2010	30
19/05/2010	Finance Instruction G23/2010 - Annexure C	39
11/06/2010	Absenteeism	Chief Clerk
September 2010	New release Cache Clinicom	49
07/10/2010	Excel	2
25/10/2010	Excel	3
28/10/2010	SPMS Session	12
23/11/ - 25/11/2010	UPFS + Chapter 18	10
01/12/2010	Cashier information session	4

Hospital Fees

Mr J Jordaan and Mr R James

Resources

Senior administrative clerks	35
Administrative officers	3
Senior administrative officer	2

Highlights

The reconciliation between BAS and HIS (billing) was implemented during the previous year and the institution was able to reconcile the year to date. Unallocated deposits are identified sooner and corrections are done continuously. A comprehensive year to date can now be rendered for audit purposes. Reconciliation reports are submitted monthly.

A new Billing System (Accounts Receivable) was implemented during November 2010. This is a more compatible Cache Version which is web based and ensures that services provided are correctly billed and debtor information is accurately managed and controlled.

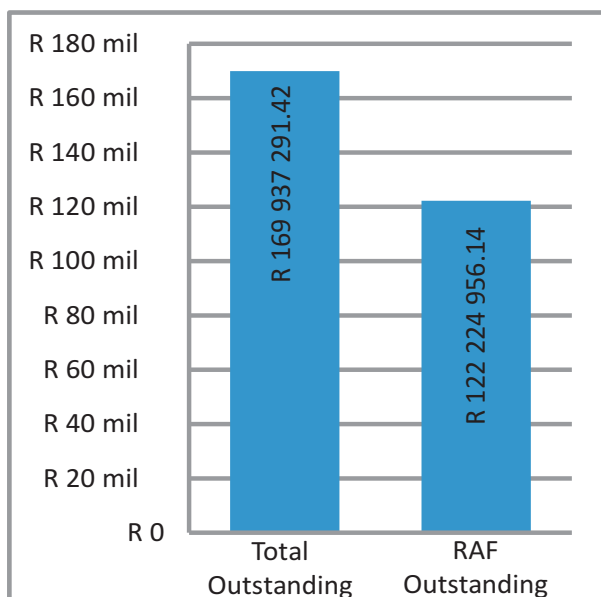
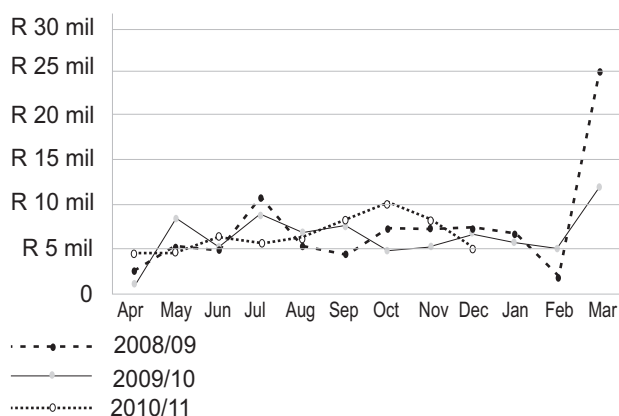
Administration

Training stats hospital fees 2010

Training	Duration	Target group	Number of staff
Communication skills	1 day	Administrative clerk	1
Orientation	2 days	Administrative clerk	1
Word beginners – advanced	3 days	Administrative clerk	1
Basic supervision	5 days	Administrative clerk	1
Fraud and risk management	1 day	Administrative clerk	20
Hospital memorandum chapter 18	1 day	Administrative clerk and supervisors	30
Account Receivable training	5 days	Administrative clerk and supervisors	40
UPFS and chapter 18	3 days	Supervisors	8
First aid	2 days	Administrative clerk	2

Challenges

For the past three years the Road Accident Fund (RAF) remains the biggest contributor to the outstanding balances of this institution. An amount of R122 224 956.14 as at the end of December 2010 reflects as outstanding on our system. This represents 72% of the total outstanding balance for debtors. The total outstanding balance is R169 937 291.42 as at 31 December 2010.



Financial year 2010/2011

April	R2 996 173.36
May	R2 629 809.07
June	R3 020 365.40
July	R2 408 350.02
August	R4 005 881.70
September	R2 272 615.00
October	R2 957 066.01
November	R3 664 658.72
December	R1 880 266.68

Medical aid revenue

Challenges

As of June 2010 Transmed introduced drastic benefit changes for the Guardian Plan members in their scheme rules.

Due to proposed changes to the structure of the medical fund subsidy, the hospital benefit will be limited to prescribed minimum benefit conditions only.

Not only did it put an administrative burden on the Fees Department, it also resulted in a decrease in revenue for the institution.

To date an amount of R15 335 825.84 was received from AFACT in respect of RAF claims for the current financial year. This is an increase of R5 344 440.22 compared to the previous financial year.

Total revenue received from 1 April 2010 to 28 December 2010 is R55 872 788.00. This is an increase of R3 814 158.00 compared to the previous financial year.

Administration

The successful Electronic Data Interface (EDI) claims to medical schemes increase as follows:

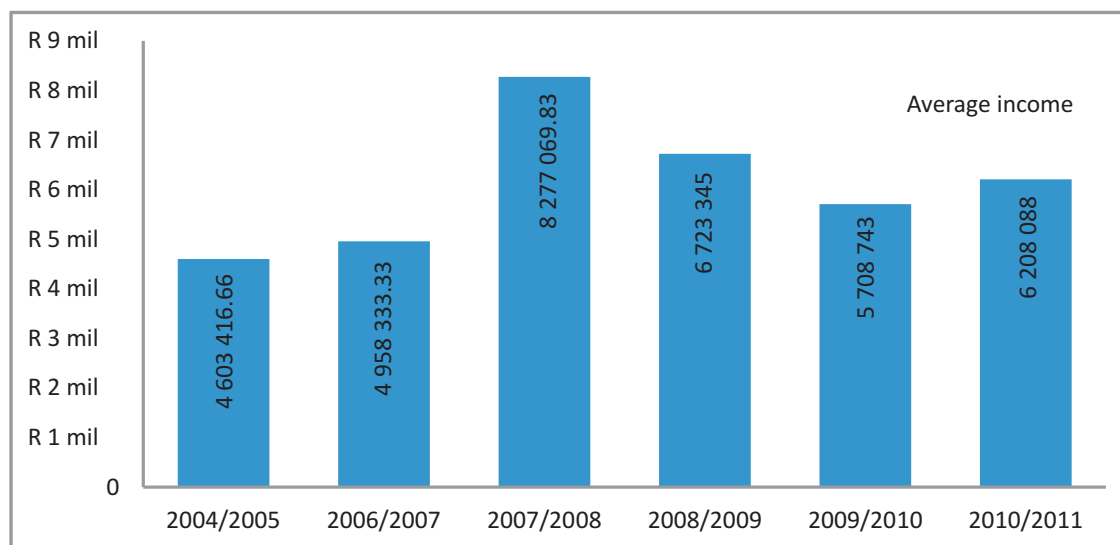
Year	In-patients	Out-patients	All cases	Total gross	Average number of days to close	Average cases per month	Average value per month
2010	1 648	8 467	10 115	R31 080 347	31	1 055	R3 267 654
2009	1 516	7 890	9 406	R29 563 617	31.92	941	R2 956 352
2008	1 480	8 492	9 972	R32 071 093	29.38	831	R2 672 591
2007				R23 481 125	28.01		R1 956 760

The following efforts were implemented to reduce the outstanding balance:

- Undelivered invoices returned by the Post Office were followed up and notices placed on medical folders to notify staff members to obtain correct details.
- Direct follow-ups with Nedbank regarding deposits received in sub-account.
- Debtors were telephonically contacted in connection with their outstanding balances.
- Overtime was performed on identified tasks. Unsuccessful account claims were reclassified to patients with no medical aid cases.

The average income per month in comparison with the previous financial years is decreased as follows:

2004/2005	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
R4 603 416.66	R4 958 333.33	R8 277 069.83	R6 723 345.00	R5 708 743.00	R6 208 088.00



Medical Records

Ms M Xontana: Senior Administration Officer

Overview

Medical Records is responsible for the effective management of patient records within the hospital, i.e. to ensure that information can be identified and timeously retrieved and all records are kept in safe custody and that there is a systematic disposal programme in place.

We currently house approximately 500 000 active folders, 300 000 X-rays and 4.8 million microfilms.

In respect of booked patients, 310 000 folders and X-rays were requested through a pick list.

A further 215 000 folders and X-rays were requested through the call-folder procedure.

A total of 65 000 documents were received for filing and 18 000 folders and X-rays were provided to clinical personnel for research purposes and doctors' summaries.

Administration

Resources

Senior administrative officer	1
Chief administrative clerk	1
Senior auxiliary services officer	1
Administration and registration clerks	54
Senior messengers	5
General store assistant	1
Vacant posts	2

Challenges

Space is our biggest challenge due to the increase of inactive folders and the breakage of equipment. The implementation of an electronic document system would be the solution.

Electronic Document Management System

An electronic document management system was piloted in Oncology for the past year. The benefits of such a system in the hospital resulted in its permanent implementation at Oncology.

Training statistics

Training implemented	Total trained
Office management	2
Records management course	50
Diversity management	3
Time management	2

Support Services

Mr AJM Harmse

Areas of responsibility:

In-house security service:

This component renders a 24-hour service.

Resources

Supervisor	1 chief security officer
Senior security officer	8
Security officer	17

Statistics of reported incidents for the year under review are as follows:

Threatening behaviour	2
Assault/abuse	6
Use of weapons	0
Bomb threats	0
Theft-burglary	69
Disorderly behaviour	0
Damage to personal property	1
Electrical faults/water leaks	189
Motor vehicle accidents	34
Unruly visitors	355
Unruly patients	51
Runaway patients	195
Helicopter landings	110
Unlocked doors	171
Fires	7

Personnel management

The staff was nominated and received training on related issues regarding their work objectives.

Courses were successfully completed, including training in Abet: Business Development Programmr, Human Resource Management, Basic Supervision, Investigating Officers, and Health and Safety Officers. This provided an opportunity to study further at Cape Peninsula University of Technology (CPUT).

A security course to enable the staff to register as a security service provider through the PSIRA Security Authority Regulating Board was provided and a few staff members attended and successfully completed the course.

Daily inspections within the department ensured that service requirements are adhered to.

Daily briefings with supervisors and staff took place, with regard to service delivery and problematic issues were discussed.

There were weekend and after-hour visits to the department to assist in resolving of work-related problems and to communicate with staff.

Private Security

Contract manager	1
	41 day shift and 29 night shift

Administration

Patient transport

Achievement

Patient transport is the function of Emergency Services/Metro Service (Healthnet). The office of patient transport was relocated to the H Passage on the ground floor.

Entrance number 4 is now utilised as the new transit lounge as the department could only cater for ± five patients at their old location. Since its location, a total of 20 discharged patients can be accommodated in the area.

As a result, patients don't occupy hospital beds for longer than necessary.

Constraints

Due to a lack of ambulance availability, patients are occasionally required to wait for transport after being discharged.

Due to the incorrect procedures that are followed by staff, patients that had to be transported to another hospital for treatment are rescheduled. This occurs sporadically. The result, however, has financial implications that are borne when a patient is discharged.

Local patients often utilise their own transport to the hospital and expect, as a matter of convenience, that the transport department (HealthNET) will take them home.

Service delivery

Resources

Senior administration clerk	1
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Challenges

The waiting period for an ambulances had a detrimental effect on the transportation of patients and nursing staff who accompanied infirm patients from other hospitals to Tygerberg Hospital.

HealthNET drivers are not willing to transport discharged children without an accompaniment and, as a result, beds are occupied for longer than necessary. In many of these cases the mothers are still hospitalised.

Currently, only one Senior Administration Clerk is allocated to render service in the department. This situation has become problematic in relation to vacation or sick leave.

Porter services are required to assist in order to ensure service delivery.

External cleaning services

Service delivery

The removal of medical waste and refuse is outsourced to a private contractor.

Resources

Supervisor	1 Principal General Foreman
Senior general foreman	1
General workers	9

Personnel management

Positive

Staff received training on issues related to their work objectives.

The staff was also trained in other fields, such as the Batho Pele principles and first aid.

The training resulted in the empowerment of staff.

Negative

As a result of refuse bags not being completely secure, spilling occurs while the bags are being removed by the refuse truck.

Pick-up points are filled with other types of garbage and piled with refuse bags, which makes it almost impossible to remove refuse.

Medical-waste boxes from various wards are not correctly secured.

Only nine staff members are available, which is not enough to render an effective service.

Even though a general cleaner from the kitchen was seconded to the cleaning department, it did not have the desired effect.

This situation has also become problematic due to sick or vacation leave.

In spite of these restrictions, staff member are motivated and attempt to do their best to render an effective service.

Administration

Mortuary

Financial achievement

The department deemed it unnecessary to purchase any additional equipment, which reduced its expenditure.

A total of R21 000 was paid by the undertakers after strict control measures were implemented to monitor payments made by the undertakers for the completed "B" forms (cremation forms).

Personnel management

Positive

The porter stationed at the mortuary who is familiar with the basic duties of the mortuary clerk, is of great help when the clerk is on annual leave.

Meetings were held with the funeral contractor to address problematic issues relating to cremations.

Medics can be complimented for the effective and efficient completion of the new death certificates issued by the Department of Home Affairs, resulting in expedient funeral arrangements.

Negative

There is a delay in the completion of "B" and "D" forms respectively for the cremation of paupers and the request of post mortems.

Pneumatic tube distribution

Financial achievement

The department did not deem it necessary to purchase any additional equipment, which reduced its expenditure.

Financial constraints

The tube system is currently being serviced by a private contractor/technician, who is responsible for all repairs.

As there is only one technician to service the tube system, service delivery is hampered, e.g. when a blockage occurs in a tube containing specimen.

It is also not cost-effective to utilise a technician as after hour call-outs carry high levies.

Service delivery

The Department's focus is on promoting operational efficiency in patient care.

The Department has only five operators to render a service to Tygerberg Hospital.

Personnel management

Positive

Information sessions were presented on SPMS, the Batho Pele principles and first aid.

The department functioned without an immediate supervisor, but a chief porter was appointed to be a supervisor of this department. Service delivery was immediately enhanced.

Negative

Due to the system's age and certain parts that are not available, tubes sporadically slip past their destination. This results in a variety of problems for the operator at ward level.

Hygiene

Tubes are repaired and cleaned on a regular basis.

Porter Services

Mr R de Jager

Service delivery

It was a great privilege to have been part of the 2010 Smile Foundation Week. A total of 24 operations were conducted on children with cleft palates. The foundation's mission is to give back a smile to our children.

During the national union strike, service delivery in other departments was negatively affected and the porters volunteered to assist these departments to ensure that operational requirements ran smoothly.

Personnel management

Positive

Unauthorised and uncommunicated absenteeism was reduced from 24% to 17.8% due to stringent disciplinary procedures.

Two officers were used to perform clerical tasks at patient administration and the mortuary. The latter exposure enhanced their level of competency and one of them was appointed as a senior administrative clerk at the mortuary. All vacancies in the department were filled.

Negative

Approximately 2% of the porters exhausted their sick leave and utilised the Pillar application.

Administration

Three porters found guilty of misconduct were suspended for three months without remuneration.

Training

A total of 11 porters registered to study towards a grade 12 qualification.

A total of 22 officers completed a basic first aid programme and 23 porters attended a Batho Pele workshop.

Monitoring measures

The proposal made by the UK students to monitor absenteeism in the workplace, was continued.

Due to this system, patterned absenteeism could be identified and even misuse of sick leave was dealt with in accordance with the disciplinary policy.

Quarterly stock-taking of equipment was initiated and broken or condemned stock could be identified.

The broken stock was sent to the maintenance department.

General constraints

Currently, personnel feel that the SPMS is a farce, which resulted in the adoption of a negative approach towards the quarterly review periods.

Linen Management

Mr J Trytsman

Resources

Assistant Director SL 9	1
Senior linen supervisor SL 4	4
Laundry aid III SL 3	1
Laundry aid SL 2	1
Outsourced linen contractor	1

Objective

The overall objective of hospital linen management is to maintain adequate supplies of clean and serviceable linen for the user departments at minimum cost. This can only be achieved through the closest possible co-ordination between laundry operations and linen distribution services, and by adhering to specific control mechanisms.

Basic principles

The basic principles to be observed when organising a managed hospital linen supply, can be summarised as follows:

- A maximum standardisation of articles in order to simplify laundry operations and linen distribution procedures.
- The system must always be geared to the current needs of the user departments. This can best be achieved by issuing an even exchange of articles based on current daily usage rates.
There should be adequate consultation with user departments regarding the control system and linen room stocks.
- Total stock in the linen cycle could be at least seven times the average daily usage.
- A further three-day buffer stock is desirable to cover public holidays and production or distribution contingencies.
- When a seven-day supply is delivered during a five-day period, the ward linen cupboards should normally not hold more than 1.5 times the daily requirement. However, this may be built up to a three-day stock during the week preceding a public holiday. Undue delays in the collection and delivery of linen must be eliminated and the laundry production time kept to a minimum in order to maximise utilisation of available linen.
- The laundry manager must be kept updated regarding the daily linen requirements so that laundry production can be programmed to correspond as closely as possible to distribution schedules.
- Observance of these basic principles and the effective quality, quantity and control systems obviously require a high degree of coordination of activities.
- Each hospital medical superintendent must therefore have clearly defined operational policies concerning the key factors of quality or quantity control and cost control.

The following elements should be considered within each area:

Quality in terms of:

- Linen design specifications and standardisation;
- Laundering methods and standards of finish; and
- Repairs and replacement.

Administration

Quantity in terms of:

- Total linen stock available;
- Reserve stock in the central linen rooms;
- Reserve stock in user departments; and
- Linen turnover in user departments.

Cost in terms of:

- Replacements of unserviceable or lost linen;
- Additional new linen;
- Laundering cost per article;
- Sewing room repairs;
- Internal transport; and
- Total cost of laundry and linen services per bed per week.

Quantity and cost of linen pieces washed at TBH laundry: January – December 2010

Month	Pieces	Cost
January	170 010	R31 105.20
February	193 867	R44 522.92
March	216 470	R67 490.09
April	198 536	R48 121.20
May	214 822	R75 449.28
June	226 889	R66 382.39
July	225 666	R64 428.83
August	242 080	R67 448.28
September	243 644	R79 118.97
October	234 291	R90 622.78
November	246 343	R44 683.39
December	204 841	R66 990.91
	2 617 459	R746 364.24

FINAL STOCK TAKING SHEET 2009/2010, TYGERBERG HOSPITAL

Code	Article	Basic stock	Count	Losses	Surplus
1	Sheets bed	12 704	12 704		
2	Sheets draw	6 687	6 687		
3	Towels dressing	100	100		
4	Towels huckaback	40	40		
7	Towels bath	7 028	6 992	36	
8	Pillowcases bed	8 124	8 124		
18a	Blankets cellulite	3 815	3 815		
18	Blankets bed	3 717	3 717		
37	Trendellenberg covers	400	400		
42a	Theatre towels large	4 095	3 043	1 052	
42b	Theatre towels medium	2 198	1 487	711	
42c	Theatre towels small	394	394		
43	Fenestrated towels	755	755		
50	Blankets bassinet	2 554	2 554		
51	Abdominal sheets	804	595	209	
53	Winter sheets	7 296	7 296		
58	Perineal leggings	312	285	27	
79	Nightgowns infant	2 403	1 823	580	
99	Sheets bassinet	2 672	2 672		
102	Shoes operation	3 743	3 533	210	
110	Surgical gowns L/s	6 146	6 146		
124	Surgical gowns S/s	162	115	47	
125	Theatre trousers	4 949	4 949		
128	Nightgowns adult	64	27	37	
131	Theatre vests	2 901	2 901		
163	Gowns operation adult	9 826	9 545	281	
164	Gowns operation child	311	311		
165	Theatre dresses nurses	2 847	2 847		
	TOTAL			3 190	

Administration

Losses replaced at Tygerberg laundry

These losses were as a result of:

- theft;
- inaccurate stocktaking;
- condemned linen not replaced;
- ambulance transport;
- mortuary/funeral services (collection of bodies);
- use of linen for other uses, e.g. cleaning, etc.; and
- inaccurate counting at various points (soiled versus clean)

Budget allocated to Linen Management

Estimate expenditure:

Linen Management: minimum expenditure for 2010/2011

The expenses below only indicate approximate amounts/totals due to the fact that linen totals and the purchasing of goods vary each month.

Linen service (contract) expense will remain constant

1. Outsourced linen services (Pronto):	Monthly	Year	
Linen service *(contract)			
Extra services (weekend washing: theatre linen)	R 58 000.00	R 696 000.00	<i>(Experience will be saved after receiving new theatre stock)</i>
	R 35 000.00	R 420 000.00	
		R 1 116 000.00	
2. Outsourced laundry services			
(Washing)	R 50 000.00	R 600 000.00	
(Mending)			
(Condemning)			
(Replacement)			
(Pick-up and delivery)			
3. Linen manager and linen supervisors			
Office Supplies	R 2 000.00	R 24 000.00	
4. Laundry/household aids			
Sluice supplies	R 25 000.00	R 300 000.00	
			R 2 040 000.00

Administration

Original Requisition

12-May-10

GENERAL REQUISITION: B 97 - 93052 AND B 97 - 93053

Code	Article	Total Stock Requisitioned	Sizes (Large & Medium)	Unit Price	Total Value (R)
3	Towels dressing	1 000		R 17.10	17 100
4	Towels huckaback	500		R 11.53	5 765
37	Trendellenberg covers	2 000		R 41.83	83 660
42a	Theatre towels large	20 000		R 40.22	804 400
42b	Theatre towels meduim	20 000		R 27.46	549 200
42c	Theatre towels small	15 000		R 15.24	228 600
43	Fenestratedtowels	2 000		R 15.96	31 920
51	Abdominalsheet	3 000		R 94.52	283 560
58 / 170	Perineal leggings	2 000		R 34.20	68 400
102	Shoes operation	750		R 13.18	9 885
110	Surgical gowns L/s	0		R 107.22	0
124	Surgical gowns S/s	0		R 46.51	0
125	Theatre trousers	7 500	(M 3 750)	R 49.83	373 725
			(L 3 750)		
131	Theatre vest	10 000	(M 5 000)	R 47.65	476 500
			(L 5 000)		
165	Theatre dresses nurses	1 000	(M 500)	R 68.66	R 68 660
			(L 500)		
		84 750			R 3 001 375

* Enough stock

* Discontinued

* Sizes must also be submitted

* Mr Mkosi corresponded with Mr Visagie and the sizes are added above.

* (50% of total stock requisition for codes 125, 131 & 165)

Telephone Exchange and Radio Room

Mr L van Renen

Telephone exchange

Tygerberg Hospitals' telephone exchange has a Philips electronic exchange that provides 24-hour service.

The telephone exchange is manned by one principal Telecom operator and 17 Telecom operators.

The telephone exchange consists of eight consoles, one of which is used at doctors' enquires.

Out of the eight, six consoles manage approximately 4 000 of the 12 000 incoming calls per day.

The outgoing calls amount to approximately 4 000 of which the telephone exchange handles approximately 3 000.

This total includes approximately 2 000 cell phone and trunk calls.

Radio room

The two Operators in the Radio room handles approximately 3 000 calls for transmission during the working hours of 17:30 to 16:00.

The Operator that mans the console at Doctors' Enquires handles approximately 1000 calls per day.

SMS message system

Tygerberg Hospital's radio room also uses an SMS message system to contact doctors that have no beepers or beepers that are faulty.

The SMS message system is used to send SMS messages to the personnel who have no beepers.

Approximately 100 SMS's are sent per day at approximately R5 500 per month.

The total number of outgoing calls was 4 408 644 at a cost of R3 284 006.29.

Administration

Accommodation

Mr EC Steyn and Ms CB Johnson

Doctors' quarters

	Rooms
Single rooms	38
One bedroom flats	36
Two bedroom flats	5

Protea Court

Protea Court consists of three towers that facilitate the temporary and permanent housing of staff and students that work or study at Tygerberg Hospital.

There are 479 beds in total and the accommodation ranges from single rooms to two-bedroom flats.

A total of 182 permanent tenants reside at Protea Court. The majority is from the nursing department.

The first floor in Tower 3 was allocated to the Cancer Association of South Africa (CANSA) to assist in the recuperation of patients.

Two floors in Tower 3 (40 beds) are allocated to the Emergency Services department.

A total of 39 tenants moved in and 93 moved out of Protea Court in 2010.

Single Rooms/beds (including suitcase rooms)	192
Double rooms	254 beds
One bedroom flats	6
Two bedroom flats	4 beds
Single room with sitting room	1

Reprographics

Mr W Adonis

Overview

The department provides an efficient service in supplying photocopies and printing to all departments within the institution.

Requests for photocopies, printing and laminating are ordered by means of the prescribed requisition format.

The department ensures printing for NHLS, Khayelitsha Hospital and the Nursing School and charges are levied as per finance instruction.

Confidentiality is imperative with regard to the photocopying of patient folders and reports, exams, etc.

Resources

Chief clerk	1
Principal operators	4
Typist	1

Outputs (year 2010)

ID Photo's taken	1 205
Photo copies	5 230 150
Copies printed	4 995 954
Laminating	4 820

Service Delivery

The department handles vast volumes of printing and copying.

Finishing i.e. stapling, gluing, cutting and laminating is provided and the following equipment is used:

1 x 1050 Bizhub Minolta and/or 1 x 920 Bizhub Minolta	(photocopies)
2 x Risographs	(printing)
1 x Wohlenburg 920	(cutting)
1 x Royal Sovereign	(laminating)
1 x camera & 1 x printer	(Identity tags/badges)

The department maintains a high production on two Riso printing machines which have been in use since January 2005. Sporadic breakages occur due to the age of the Riso's, resulting in downtime and a backlog of work. The upgrading of these machines would ensure better service delivery.

Administration

Transport

Mr AZas

Overview

The main function of the component is to provide an effective and efficient motor transport service .

The department has 30 vehicles.

Resources

Chief clerk	1
Senior clerk	1
Drivers	11
General assistants	2

Service delivery

The requests for transport to various destinations occasionally places pressure on the component due to insufficient drivers available due illness or various leave types.

Availability of vehicles is hampered when vehicles are booked in at the government garages for mandatory services as well as when any breakages occur in said vehicles.

The staff utilise their knowledge and experience of the various transport destinations, and the shortest, yet safest possible routes to ensure excellent service delivery.

Two drivers were employed in December and this relieved the demand for drivers within the component.

Pest Control

Mr E de Wee

Overview

The function of the Pest Control Department is to ensure that the hospital building (wards, basement, kitchen, administration) including exterior building (Protea Court, Disa Court, doctors' quarters, Carel Du Toit School, X-block and Dental Faculty) is kept pest free.

Resource

Chief auxiliary officer	1
Senior auxiliary officer	3

Service delivery

The officers work on various programmes during the week on a rotation basis.

The kitchens are fumigated on a weekly basis (Tuesdays and/or Thursdays, at night).

The officers also fumigate the basement (underneath the kitchen) on a regular basis to ensure a clean environment.

Registry/Archives/Mailroom

Mr L Potgieter

Registry

The Registry department handles all incoming mail to Tygerberg Hospital.

Outgoing mail for the period 4 February 2010 to 3 February 2011 included 57 343 items (letters and parcels) and expenditure amounted to R169 586.90.

Resources

Chief clerk	1
Senior clerk	1

Service delivery

An average of 250 faxes is dispatched on a monthly basis, bearing in mind that various departments or components utilise their own fax machines.

Incoming faxes are much more as the Registry's fax number is on Tygerberg Hospital's official documents.

Archives

The filing system in the Archives department is in accordance with the rules of the Department of Health.

This system is continuously updated as and when required.

Messengers in the mailroom

The messengers service the whole of Tygerberg Hospital, including its surrounding buildings as well as the collection and delivery of documents to Head Office situated in the Cape Town city bowl.

Administration

Resources

Chief messenger	1
Messengers	9 (7 at Tygerberg Hospital and 2 at the Gene Louw Building)

One of the Hospital's messengers collects and delivers mail or documents on a daily basis to the following places:

- Protea Court;
- Laundry;
- Forensic services;
- Disa Court;
- Sarleh Dollie;
- SAPD mortuary;
- Ravensmead Day Hospital; and
- Emergency Medical Services.

Food Services

Ms NM Bekwa

Summary of Activities

- Meal provision to all patients as applicable in the Food Services Policy;
- Costing of meals and recipes as indicated in the policies;
- A total of 1 200 patients (special diets and normal diets inclusive);
- A total of 1 2284 451 meals were served for the year.
- Maintaining a high level of hygiene;
- Human capital development as well as management including managing performance; and
- Adhering to all food services guidelines.

Resources

Assistant Director	1
Food Services managers	7
Principal Food Services supervisors	3
Senior supervisors	28
Food Services aids level 1 and 2	85
Senior administration clerk	4
Pronto	8 per shift

Infrastructure development

The diet kitchen was renovated and part of the main kitchen is currently being renovated.

Our quarterly equipment was ordered and received in due time.

We are awaiting the food trolleys to be delivered at the end of March 2011.

Computers and fridges plus microwaves purchased for the Department aided the personnel.

Partnerships

Local partnerships with the provincial hospitals of the Western Cape as well as Eastern Cape, working together with the INP office plus the colleges responsible for human development of our food services staff, e.g. Northlink College.

Achievements

- An improvement in the costing of meals for TBH and submission to the INP office on time every month;
- An improvement in the Pest Control programme due to adherence to the drafted programme for the Unit; and
- Improved work attendance due to personal interventions to ensure that a solution is reached.

Teaching and Training

The ASD: Food Services received an Honours degree in Public Administration at the Stellenbosch University and is she currently completing her Masters degree in Public Administration.

One Food Services manager graduated with her BTech degree in Food Technology and she is currently completing the undergraduate degree in Information Management.

Two SACs are currently studying towards their diplomas in Public Administration at the Cape Peninsula University of Technology (CPUT).

Five Food Services aids are currently registered at ABET level 4. The level will be completed in 2011.

Two Food Services aids are currently registered for an undergraduate degree in Social Work.

Administration

Highlights

- The meal cost per patient on average is currently R17.10. Costing was submitted on time to the INP office.
- An improvement in late coming as well as the general attendance by staff.
- Visibility of the managers on the floor during serving to ensure that all meals go out as expected in terms of quality and need.
- Hygiene samples as well as food samples are sent to NHLS on a weekly basis to ensure that the results come before a dish is used (prompt response from the laboratory as well).
- Positive support and guidance from the Labour Relations department.
- Rotation of staff to different areas in the Unit in order to gain complete exposure has proven to succeed.
- Vacant posts advertised and filled within time frames.
- Monthly meetings with the main stores to ensure that we do not run out of stock from their suppliers has aided them in understanding their vetting circumstances thereby ensuring that orders are placed timeously before vetting takes place.
- A daily personnel hygiene check sheet ensured that all jewellery that is not applicable in the Food Services policy is not worn by staff and steps are taken to ensure adherence.
- Encouraging Food Services supervisors regarding constant development of their subordinates assisted them to gain confidence.
- Key control registers in place to ensure that allocated employees open the stores and fridges.
- Registers are checked daily by the production manager.
- Improved response by top management on meal evaluation.

Social Work

Ms M de Jager

Summary

Our greatest challenge was to continue rendering a comprehensive and holistic Social Work service with emphasis on treatment, support, outreach, prevention, training and empowerment of children and women.

Among the milestones during the year were the following:

The TygerBear School Outreach Project was launched in conjunction with the Department of Education. Therapeutic services were rendered to 100 children and their families, which included 616 sessions with parents, children and team discussions with teachers.

The MOBI Project that was launched in December 2009 successfully rendered therapeutic services including assistance at the De Doorns bus accident on 5 May 2010 and the Blackheath taxi/train accident on 25 August 2010. Psycho-social services were rendered during the acute critical incident phase as well as support to the staff involved at Worcester Hospital and the EMS staff.

Another highly successful Pink and Blue Child Awareness Campaign was held at Ratanga Junction on 12 August 2010 with the former Provincial Minister of Social Development, Dr Ivan Meyer, as guest speaker. Approximately 4 000 children were involved in this campaign.

TygerBear's Wheelchair Project, Be My Feet, supported 14 patients of Tygerberg Hospital with wheelchairs.

A therapeutic music group for traumatised children was established at the TygerBear Unit.

Practical support was introduced in the form of daily food provision and toiletries to mothers of children who were admitted to hospital during the measles outbreak.

Several information pamphlets were compiled for psycho-education and awareness, for example, on the impact of smoking on individuals and families, child development, teenage pregnancy and accidental poisoning of children.

A project focussing on building self-image with mothers was launched successfully during Women's Month.

Administration

Psycho-social services were rendered by the internal Staff Support Unit to 254 new referrals of staff members which included 995 consultations.

Resources

Social Work manager	1
Social Work supervisors	3 (1 post vacant)
Social workers production	18 (2 posts vacant)
Khayelitsha District Hospital: social worker	1
Clerks	2 (1 post vacant)

Output

The Department of Social Work is responsible for the psycho-social well-being of in-patients and out-patients of Tygerberg Hospital as well as the Children's Hospital, the Gene Louw building for radiation oncology, the Carel du Toit Centre for Hearing Impaired Children as well as the TygerBear Social Work Unit for traumatised children and their families. Social workers render services in the form of individual therapeutic work with patients, group work with patients and families and community outreach programmes, both in the hospital as well as in the community. This amounted to 32 580 consultations with patients. This does not include consultations with family members and community resources once the patient is no longer hospitalised.

A large percentage of time goes into administration work generated by the discharge problems of patients, applications for social security services and the protection of vulnerable children.

Networking with other health disciplines and teamwork within the hospital is essential for the rendering of effective social work services. A weekly stroke meeting, weekly child-abuse team meetings, regular meetings regarding diabetic patients, renal and Oncology patients and attendance of ward rounds, and case discussion groups are attended.

The impact of poverty, unemployment and the challenging socio-economic environment has further increased referrals for social work services pertaining to domestic violence, teenage pregnancy, substance abuse, family conflict and violence against women and children. When these already highly stressed families are once again confronted with secondary crises caused by illness and trauma, more complex social work interventions are needed.

The Department of Social Work also runs a Staff Support Unit rendering crisis counselling services to the staff of Tygerberg complex as well as development and awareness programmes. A report on the work of the Staff Support Unit can be found at the end of this report.

The Department also took responsibility for the training and supervision of the social worker of the Khayelitsha District Hospital and is involved in the strategic planning of social work services in the new hospital, the developing of social work protocols and the establishment of an effective administrative system.

At the TygerBear Social Work Unit for traumatised Children, an additional 463 new referrals were received from the community which represents an increase of 25.8%. Most of these referrals were from social work agencies, the police, the sexual offences courts and day hospitals. More than 50% of referrals requested therapeutic services for sexually abused children.

Group work programmes included:

- Support groups for laryngectomy patients;
- Safety programme for pre-schoolers as well as primary school children;
- Support groups for traumatised children from pre-school to teenagers have been running throughout the year;
- Safety awareness groups for children;
- Parent guidance groups for parents of traumatised children;
- Support groups for mothers provided Kangaroo Mother Care; and
- Facilitation of a group for parents of autistic children with the Department of Speech Therapy.

Infrastructural development

The department still had major problems with the Clinicom system and the availability of computers.

Staff members without computers have been equipped with new computers during the last quarter of 2010. This also enhanced interdepartmental communication. Eight computers still need to be upgraded. A number of social workers were sent on computer training in Ms Word, Excel and PowerPoint. The training needs of the staff will be addressed in 2011.

The department received three new printers. Although this relieves pressure on social workers, we desperately need more printers to produce urgent reports in order to

Administration

expedite the safe discharge of patients and the protection of children. The compulsory storage of records for at least five years is problematic due to the lack of storage facilities within the Department of Social Work. It therefore, presents a challenge to be addressed.

The distance some social workers need to travel between their offices and wards, and the ineffective lifts, still impacts on service delivery.

Community outreach programmes

The Department of Social Work runs a 24-hour consultation service for professionals working with children.

An extensive relief programme makes provision for parents who sit with their children and do not have access to meals at Protea Court.

Volunteers are trained and utilised for administration work, assisting in awareness programmes, the Comfort Bear Project, sorting of toys and clothes, packing of food parcels and toiletries and other general tasks.

Health care professionals from the community attend the weekly child-abuse team meeting on an ad hoc basis. The social worker from the St Joseph's Home for Chronically III Children attended regularly.

The following topics were discussed at the fortnightly child-abuse team meetings apart from case discussions:

- Assessment and building a therapeutic relationship;
- The child with behavioural problems;
- Teenage pregnancy and parenting skills;
- Communicating with children;
- Children and trauma;
- Discipline;
- Domestic violence;
- Attachment problems; and
- Trauma counselling.

A resource centre is in operation at the TygerBear Unit and it provides information on child abuse and clinical work with children for professionals and students working with children as well as information for parents and children visiting the Unit.

The Department of Social Work assists the Down's Syndrome Association to run a weekly support service for parents of children with Down's syndrome and other developmentally challenged children.

There is participation in Tygerberg Hospital's Open Day.

District protocol meetings at the Department of Social Services are regularly attended.

There is regular liaison with SAPS and special courts for sexual offences.

A pamphlet on early childhood development was developed.

Workshop for mothers on the re-prevention of accidental poisoning was held.

The psycho-social needs of pregnant teenagers.

Impact of smoking.

Workshop for parents of children with a cleft palate was held.

Assistance was given to the Burns Unit in their fun run for patients.

Community outreach programmes in Fairbridge Mall during school holidays were attended.

Beanie Day: Knitted caps were distributed to child patients.

Pink and Blue Children's Awareness Programme was presented at Ratanga Junction on 12 August 2010.

Annual Survivor Celebration for child patients was held at Disa Hall.

Visitors to TygerBear Unit:

Regular visits from volunteer groups i.e. Serenitas Retirement Home, Farmersfield Retirement Village, ATKV, VLV, Woman's bear knitting groups.

Individual volunteers

Various other national interest groups such as The Lion's Club, Rotary Club, state departments, church groups, woman's groups, schools, technical colleges and universities were accommodated for observational visits.

The Department of Social Work accommodated international visitors from the United Kingdom, The Netherlands, Namibia and Norway.

Administration

National cooperation and partnerships

- The Department of Social Work is represented at the District Protocol Committee as well as the Project Oversight Committee (co-ordinating criminal court services regarding child abuse cases);
- The Department also networks with state departments such as Justice, Social Services, Labour, Police, Education, RAPCAN and the Clothing Industry Fund, institutions, SASSA;
- Liaison with NACOSA Western Cape;
- Liaison with the Hospice organisation;
- Member of the Oncology Forum;
- Member of the Western Cape Play Therapy Association; and
- Member of the Kidney Foundation.

Achievements with regard to research activities

- Participation in a continuous study on home-based treatment of childhood neurotuberculosis;
- Participation in a study on career stress of social workers working with sexually abused children;
- Supervision of and participation in study on factors which lead to early termination of therapeutic services to children at the TygerBear Unit;
- Supervision and participation in a study on juvenile perpetrators of sexual abuse;
- The Laryngectomy Patient's View of Social Work Support Services in a Hospital Setting by H Steyn published in *Social Work*, 46 no.1, 2010; and
- Tracheostomy Home Care – The Experience from a Resource Limited Setting: A Vanker, S Kling, J Booyesen published on line in the journal, *Archives of Diseases in Childhood* on 23 September 2010.

Initiatives/achievements pertaining to the educational role of the department

Undergraduate

Social Work II, UCT	2
MB, ChB V, Stellenbosch University	180
Social Work IV, UWC	3
Job shadowing students, Fairmont High School	2
Social Work I, UWC, orientation visit	1
Social Work I, Stellenbosch University	1
Orientation Social Work IV, Stellenbosch University	35
Educare students, Northlink College	1

Postgraduate

M. Diac. Play Therapy, UNISA	3
BA Psychology Hons, UWC	4
BA Psychology Hons, UNISA	4
B Psychology, University of the Free State	1

The following training was done:

- Participation in Tygerberg Hospital's induction programme for new doctors;
- Orientation of UWC Social Work students: internal medicine;
- Orientation of social worker from Namibia;
- The role of the social worker regarding Rheumatology patients;
- Attitudes in the workplace – nursing;
- Management of children with facial deformities;
- Social work in the Burns Unit;
- Motivation – nursing;
- The role of the social worker in child abuse;
- The new Children's Act;
- The role of the social worker in the Department of Child Psychiatry with reference to the Children's Act of 2005;
- Child pornography;
- The child presenting with encopresis;
- Caring for the carer, seminar at The 2nd International Paediatric Conference;
- The role of the social worker in Radiation Oncology presented to students of SU, UWC and UCT, and visitors from the USA;
- MB, ChB V students: Module Illness and Disease and The Family;
- Parenting skills presented to parents of traumatised children;
- Training of Theology students, Stellenbosch University;
- Social work services available for Kangaroo Mothers in TBH; and
- Trauma counselling.

Staff development

The following staff development sessions were arranged and attended:

- Computer training in Microsoft Word, Excel and PowerPoint;
- Seminar on stress management;
- Colour therapy;
- Astro therapy;
- Solution-focussed therapy;
- Working with ADHD children;

Administration

- The new Children's Act;
- Attendance of the 2nd International Paediatric Oncology Conference;
- Early Childhood Development;
- Bereavement counselling;
- Teenage motherhood;
- Open and closed projections in clay work;
- Narrative therapy;
- Logo therapy;
- The angry child;
- Children in cyber space;
- HIV treatment;
- Sexual harassment in the workplace;
- Attachment therapy;
- Integrated learning therapy;
- Mediation learning therapy;
- Kangaroo Mother Care presented by Sr Franken of the Tygerberg Children's Hospital;
- Teenage pregnancy;
- Strength-based therapy;
- Haemophilia;
- The social worker as a mental health practitioner workshop presented by the Department of Social Work, Stikland Hospital;
- Drug abuse;
- Matrix;
- Satanism/cultism;
- Financial Management;
- The new Children's Act regarding children and disabilities;
- Daad summer school, Lesotho: HIV; and
- Women in management.

Conclusion

The goals of the Department of Social Work could only be achieved by the dedication and commitment of the staff whose purpose is to uplift and empower vulnerable people to function independently by utilising their own strengths and support in the community.



Staff Support Unit: Department of Social Work

Introduction

The Staff Support Unit is a structure through which social services are rendered to employees and their immediate families. It is also a tool for the early identification of problems and early intervention. Furthermore it is a management tool for the management of employees with problem behaviour.

Utilisation of services

The utilisation rate for the period was 11%. Individual services were rendered to 331 employees and a further 115 employees were reached through group work, presentations and training. The total number of staff reached is 446 people. Many employees, who were treated individually, were seen more than once. The number of contacts with employees was 995.

Individual work

Individual services are summarised in table 1. The Staff Support Unit is open to all employees and their families who need counselling services. A confidential short-term service is rendered and where necessary, employees are referred to resources in the community for further assistance.

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Table 1: Individual work: utilisation

Cases treated	331
Attendances	995
Number of new cases opened	244
Follow up attendances	318
Interviews conducted	616
Correspondence	169
Consultations: Management	95
Consultation: Other	87
Telephonic counselling	116
Reports	37
Notes	447
Telephone calls	248

Client characteristics are summarised in the following tables.

More females utilised the services, but this reflects the distribution of gender in the hospital.

Table 2: Gender

Gender	N	%
Female	233	70
Male	98	30
Total	331	100

Age distribution is summarised in Table 3.

Table 3: Age distribution

Age	N	%
41 years to 50 years	126	38
31 years to 40 years	94	28
20 years to 30 years	52	16
51 years to 60 years	49	15
61 years to 65 years	8	2
<20 years	1	0.5
Unknown	1	0.5
Total	331	100

The majority of users were Afrikaans speaking, as indicated in Table 4.

Table 4: Language

Language	N	%
Afrikaans	260	78
Xhosa	56	17
English	9	3
Other	6	2
Total	331	100

From Table 5 it can be seen that 45% of employees who utilised the service, have been working in the hospital for longer than five years.

Table 5: Length of service

Length of service	N	%
> 10 years	149	45
2.1 to 5 years	49	15
5.1 to 10 years	23	7
1.1 to 2 years	50	15
< 1 year	41	12
Unknown	19	6
Total	331	100

General workers comprised 46 % of the employees who used the service of the Staff Support Unit. Other users were nursing personnel, administrative staff and professional staff.

Table 6: Staff category

Staff category	N	%
General	151	46
Nursing	102	31
Administrative	57	17
Technical	19	6
Professional	2	1
Total	331	100*

A total of 270 informal referrals and 61 formal referrals were received. Formal referrals are done as part of the disciplinary process. Most employees who use the services are self-referred. This is an indication that the Staff Support Unit is accepted by employees. Many employees contact the Unit on advance given to them by colleagues who have benefited from the service. Supervisors also make use of the services, as can be seen in table 7. This is an indication that the Staff Unit is also accepted by the managers in the hospital. Marketing amongst family members, organised labour and the Staff Health Clinic can be improved.

Table 7: Referrals to the Staff Support Unit

Referred by	N	%
Self-referred	176	53
Supervisor informal	83	25
Supervisor formal	61	18
Family members	3	1
Other	8	2
Total	331	100*

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The problems presented are described in Table 8. The most commonly presenting were employment related, emotional problems, family problems and substance abuse (alcohol and drug problems).

Table 8: Problems presented

Problem	N	%
Employment related	81	18
Emotional problems	75	17
Family problems	71	16
Alcohol problems	41	9
Problem behaviour: children	41	9
Marital problems	34	8
Financial problems	32	7
Drug abuse	15	3
Child care	14	3
Family violence	10	2
Divorce	7	2
Housing	6	1
Other	16	4
Total	443	100*

Employees are referred to resources in the community for help, where necessary. Most referrals were to welfare organisations in the community.

Table 9: Referrals to resources in the community

Referred to	N	%
Welfare organisations	17	20
ICAS	16	18
Rehabilitation clinics	15	17
Medical services	14	16
Legal services	12	14
TygerBear Unit for traumatised children	4	5
Psychiatry TBH	4	5
Psychiatrist in private practice	2	2
Financial services	2	2
Psychologist in private practice	1	1
Total	87	100

A total of 107 cases were successfully terminated.

HIV counselling

In addition to the above, ten employees were seen in the Infectious Diseases Clinic for post-test counselling, adherence counselling and ART education.

Group work presentations

A large number of employees were reached through group work and presentations. The topics that were addressed, are displayed in Table 10.

Table 10: Group work and presentations

Topic	N
Team building	21
Attitudes in the workplace	55
Trauma support	12
Motivation	27
Total	115

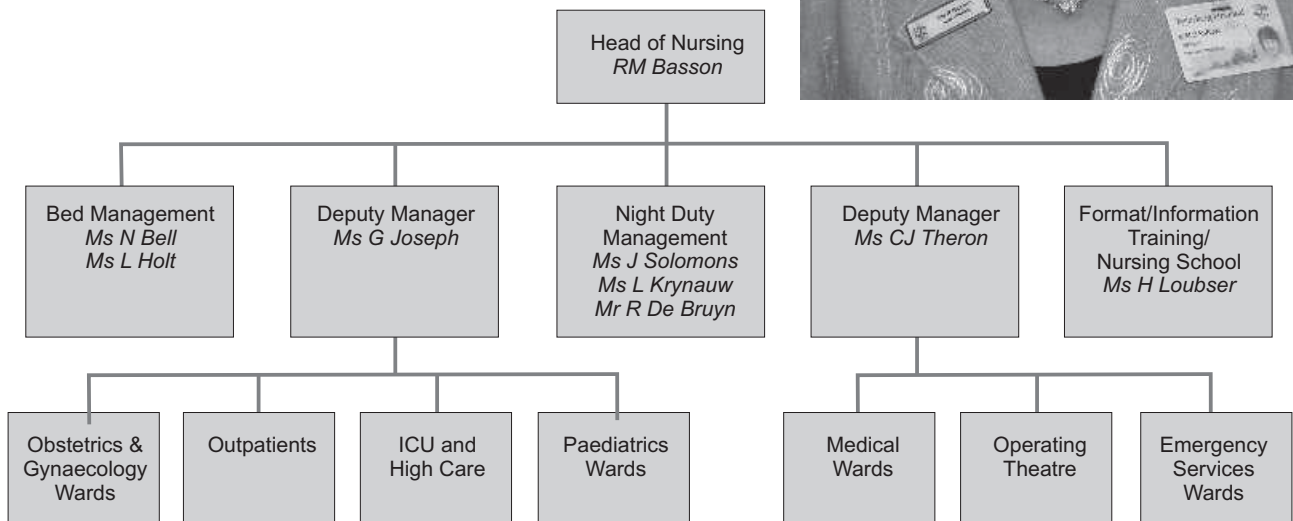
Conclusion

From the above report it is evident that the Staff Support Unit renders a comprehensive service to the employees of the hospital, which includes individual work and group work at the community level of the hospital.

Nursing

Nursing

Head of Nursing: Ms RM Basson



Summary

During 2010, the Nursing Services focused on creating patient-friendly environments as part of improving the quality of patient care in clinical areas. The implementation processes involved the procurement of patient items for waiting areas, addressing hygiene in clinical areas, partaking in renovations and upgrading initiatives, and emphasising positive attitudes.

The subdirectorates consist of clinical and non-clinical modules

Clinical:

- ICU;
- Surgery;
- Paediatrics;
- Theatre;
- Medicine/Psychiatry/Oncology;
- Trauma and emergency services;
- Private wards;
- Obstetrics and Gynaecology; and
- Outpatients services.

Non-clinical

- CSSD;
- Nursing School;
- Support services (housekeeping);
- Nursing Informatics; and
- Crèche.

Resources

Posts	Filled
Nursing services manager	1
Deputy managers nursing	2
Assistant managers nursing	11
Bed managers	2
Professional nurses	653
Staff nurses	321
Nursing assistants	743
Operators (CSSD)	64

Appointments	Filled
Professional nurses	197
Staff nurses	22
Nursing assistants	95

Nursing

Resignations	Filled
Professional nurse	59
Staff nurses	11
Nursing assistants	26

Achievements

The Nursing Services achieved, amongst other, the following:

- Implementing Best Care Always initiatives in Intensive Care Units.
- Assisting in skills development of staff for the new Khayelitsha Hospital.
- Celebrating and motivating nurses by awarding clinical excellence.
- Training of staff nurses to professional nurses and professional nurses in postbasic postgraduate specialities to meet the needs of patient care.

Nursing School

Ms HW Loubser

Personnel

Lecturers	5
Clerks	2

Training

Nurse auxiliaries

Co-ordination of clinical nurse auxiliary training in Tygerberg Hospital.

Sarepta Old-age Home

Ten pupil nurse auxiliaries.

Healthnicon

A total of 20 pupil nurse auxiliaries.

Nurse auxiliary to staff nurse

Tygerberg Academic Hospital Nursing School

A total of 40 pupil nurses completed their training in 2010, reflecting a 98% pass rate. Learners from the Tygerberg Academic Hospital, Red Cross Children's Hospital, Groote Schuur Hospital, Helderberg Hospital, Community Health Centres, associated psychiatric Hospitals and honorary learners were accommodated in the training programme.

Staff nurse to professional nurse

Western Cape Rehabilitation Centre Nursing School	15 learners
Healthnicon	20 learners

Four year training for professional nurse

During 2010 undergraduate students nurses from the Western Cape College and the University of the Western Cape were accommodated in the hospital with a total of 3 053 clinical placements.

Other and Postgraduate students

Radiography students

A total of 54 students from the Cape Peninsula University of Technology (CPUT) were accommodated for observation.

Nursing administration

A total of 20 postbasic professional nurse students were accommodated for clinical management during August 2010.

Critical care nursing

Eight postbasic professional nurses in Critical Care from Stellenbosch University, three from the Western Cape College and one in Paediatric Critical Care from the University of Cape Town were accommodated in the hospital.

Diploma in Midwifery (R254)

Four students in the Diploma in Midwifery were accommodated from Stellenbosch University.

Diploma in Advanced Midwifery and Neonatology

Three students in the Diploma in Midwifery were accommodated from Stellenbosch University.

Diploma in Advanced Psychiatry

Two students in the advanced Diploma in Psychiatry were accommodated from Stellenbosch University.

Diploma in Oncology

Three students from the Cape Peninsula University of Technology was accommodated.

None-nursing Students

MTh students were accommodated in the Emergency and Cardiology units and Emergency students from the Ambulance School.

Nursing

Induction

During 2010, 230 officers were accommodated in induction as coordinated by the Nursing School.

Professional events

The Hartman Memorial Lecture was held on 10 November 2010 and a pledge for staff nurses was held on 11 November 2010.

Community service practitioners

A total of 31 community service nursing practitioners completed their Community Service 2010.

Staff celebrations

A successful school reunion of learners since 1995 was held at Nelsons Creek in October 2010.

Obstetrics and Gynaecology

Ms J Sapto

Services

- C2A labour ward;
- C2A postnatal ward;
- C2A high care;
- C2A recovery ward;
- F2M antenatal;
- J2 mothers and babies;
- J5 mothers and babies;
- J4 Gynaecology;
- FG Gynaecology and Oncology;
- Breastfeeding Clinic;
- Outpatients: High-risk Clinic, Teenage Clinic, Special Care, New Bookings, Diabetic Clinic, Foetal Evaluation and Sonar; and
- Family Planning Clinic.

Resources

Assistant manager nursing	1
Professional nurses	76
Enrolled nurses	36
Nursing assistants	76

Number of beds	173
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Average bed occupancy	78.58%
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Highlights

- The module hosted a highly successful Mother and Child seminar during August 2010. The seminar and was well attended by staff from both private and public institutions in the Metro.
- The launch of Mothers to Mothers during July 2010 at the institution contributed to education of HIV positive mothers regarding choices of infant feeding and safe preparation of formula feeds.
- The labour ward received various new equipment that contributed to improved maternal and neonatal care.
- The changes in the patient area in the labour ward resulted to improved care of the acutely sick patients.
- The module participated in the Open Day of the institution during March 2010 and the public showed a lot of interest in Family Planning and Infant Feeding information.

Academic

- Four professional nurses successfully completed the Diploma in Advanced Midwifery during 2010.
- Three nursing assistants successfully completed the bridging course to Staff Nurse.
- At the Hartman Memorial Award Ceremony four nurses were awarded for clinical excellence.
- One professional nurse was nominated for the provincial Cecelia Makiwane Award and represented the institution at this prestigious event.

Special donations

- Voluntary Aid assisted in the creation of a patient-friendly environment by sponsoring curtains to C2A, J5M and C3B as well as chairs for the television room for patients in F2M and television sets to ward F-Ground and J4.

Special events

- The module hosted a successful programme on International Nurses Day on 12 May 2010.
- Pregnancy Education Week, International Midwifery Day and Breastfeeding Week were celebrated.

Nursing

Theatre/Operating rooms

Mr RE Visagie

Summary

This Unit renders a competent, safe, compassionate and ethical-based health service to hospitals and clinics in the drainage area.

The unit performs in average 40 cases per day in the general theatres and 25 cases per day in the emergency theatres.

Resources

Area manager	2
Professional nurses	78
Staff nurses	26
Nursing assistants	66
Administration clerks	4
General assistants	45
Housekeepers	4

Output

Theatres for elective cases	25
Catheterisation laboratory	1
Radiology theatre	1
Emergency theatres	3
Decontamination theatre for nuclear radiation	1

Comment on output

A total of 26 251 cases were performed in 2010.

Infrastructural development

The upgrading of the first floor theatre doors is still in progress.

Highlights

- Hartman Awards were handed to:
 - Ms S Kitshoff – professional nurse
 - Ms E Beukes – staff nurse
 - Ms B Februarie – nursing assistant
- Strategic planning sessions were held in the module – 99% of objectives for 2010 were reached.
- Testing the readiness for a nuclear decontamination theatre was held on 3 November 2010 with Eskom.

Conclusion

The planning for upgrading of the third floor theatres and staff rest rooms to uplift the morale is a priority.

CSSD

Mr MR Schuller

Summary

The opening of the new CSSD unit in March 2010 reduced manual cleaning of contaminated instruments for theatre and wards, compared to cleaning of equipment in the old unit.

Services

CSSD manager	1
Administration clerk	1
Principal operators	7
Senior housekeeper	1
Operators	47
General stores assistants	5
Linen stores assistants	5
Housekeeper	1
Housekeeping aids	6

Number of machines

Sterilisers	10
Steris washer disinfectors	1 x single chamber, 2 x multiwasher disinfectors
Ethilene Oxide Sterivac machines	3

Outputs

A total of 6 439 trays processed through steam sterilisation on average per month.

Ethilene oxide sterilisation machine: 32 679 items processed through the CSSD gas unit: disinfection and ethilene oxide sterilisation on average per month.

Highlights of the year

- The CSSD manager was appointed on 1 February 2010.
- The opening and commissioning of the new CSSD on 13 March 2010 included training staff on how to work with the new washer disinfectors and steam sterilisers.

Training and development

- IPC basic sterilisation course*
Three principle operators and five operators all passed.

Nursing

- *IPC intermediate sterilisation course*
One principle operator passed.
- *IPC advanced sterilisation courses*
One operator passed.
- 3M training in regards to Attest Chemical Indicator.
- The Zenith Medical Company presented a training session about instrument care.
- The manager completed the Basic Management course and two disciplinary courses in this year period.
- The administrative clerk completed a minute taking course in May 2010.
- The CSSD staff were orientated by the manager with regards to the validation system to improve record-keeping and processing documentation.

Special events

The CSSD staff held their end-of-year function on 10 December 2010.

Special programmes

New CSSD validation system to ensure correct recording of processes within the unit

- Decontamination area: maintenance register for washer disinfectors where all repairs on washer disinfectors are recorded.
- Sterilisation area: New validation system integration of steriliser's content sheet with the printouts. Assist in tracking and tracing of equipment processed.
- Chemical attest validation: Staff trained in the interpretation of resulted and record thereof to make sure that all equipment processed are validated and sterility guaranteed.

Emergency Services, Orthopaedics, Day Surgery and Private Ward

Ms GC Joseph

Services

- Emergency;
- Trauma;
- Resuscitation emergency;
- Surgical emergency;
- Medical emergency;
- Triage;
- Trauma admission ward;
- Private Out-patients Department, ward;
- Day Surgery Unit; and
- Orthopaedic wards.

Number of beds

Resus	4 ICU 2 resus trolleys
F1 medical emergency	10 high care 17 ward beds
C1D surgical emergency	15 surgical beds 23 trauma beds
Trauma	20 trolleys
J7 trauma ward	32 beds
D4 private ward	27 beds
Day surgery	13 adult 5 cots 4 abscess beds
J6 septic orthopaedic	29 beds
A3 East L2 orthopaedic	31 beds
A3 West L3 orthopaedic	31 beds
F4 L3 orthopaedic	32 beds

Patient totals/occupancy

Day surgery	2 673 patients booked 1 884 operations done
F1 medical emergency	8 094 patients
C1D surgical emergency	7 912 patients
Resus	803 patients
Trauma	15 595 patients
Triage	6 595 patients
Private ward	76% occupancy
J7 trauma ward	90% occupancy
A3 East	85% occupancy
J6	90% occupancy
A3 West	95% occupancy
F4	85% occupancy

Nursing

Highlights

- Appointment of Level 2 heads in Internal Medicine, Surgery and Orthopaedics;
- Old Mutual Revitalising Project in F1;
- Resus in new complex; and
- Busy with emergency centre complex.

Paediatrics

Ms AF Jacobs

Services

- Paediatric Neonatology;
- Kangaroo mother-care;
- Paediatric intensive care;
- Paediatric surgery;
- Paediatric orthopaedics;
- Milk kitchen;
- General outpatients; and
- Speciality clinics.

Subspecialists

- Paediatric Neurology;
- Paediatric Endocrinology;
- Paediatric Oncology;
- Paediatric Respiratory;
- Paediatric Nephrology;
- Paediatric Infectious Disease; and
- Paediatric Cardiology.

Number of beds

Beds	310
Kangaroo Mother-care beds	34
High Care	5 - 10 average
Paediatric Intensive Care	10
Neonatal Intensive Care	8

Average bed occupancy

Paediatric wards	65 – 90%
Neonatology	80 – 115%

Highlights of the year

Donations

- Various donations received from various organisations, i.e. toys, clothes, knitted items, Easter eggs and Christmas trimmings.
- A Christmas party was organised for 400 children and 250 parents.

- Teambuilding: One session held at Schoongezicht

Awards for clinical excellence

Registered nurse	D Baartman
Enrolled nurse	H De Bruyn
Nursing assistant	A Hendricks

Ms E de Beer received the Elsa Reiner Award.

Intensive Care Module

Ms R Walsh

Services

- A1 West surgical ICU;
- A1 East Burn Unit;
- A2 cardiac thoracic surgery;
- A4 nero surgery adults and paediatrics, thoracic surgery;
- A5 high care – medical and surgical;
- A5 unit – Respiratory Unit;
- Broncho theatre;
- A6 high care Cardiology;
- A6 unit – Cardiology;
- A7 peritoneal and haemodialysis, kidney transplant, transplants and peritoneal outpatients, follow-up clinics; and
- Total parental nutrition care.

Resources

Assistant manager	1
Professional nurses	160
Enrolled nurses	56
Nursing assistants	85

Average bed occupancy	100%
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Highlights

- A total of 100 parental nutrition patients were nursed during 2010.
- A total of 16 family-related kidney transplants were done during 2010.
- Ward A2 cardiac – Thoracic Unit received an award by the Infection Prevention and Control (IPC) team for the best performance in lowering the infection rate in the hospital for the year 2010.

Nursing

Academic

- Five professional nurses successfully completed the Diploma in Critical Care during 2010.
- Four nursing assistants successfully completed the bridging course to Staff Nurses.
- Three nurses were awarded Clinical Excellence Awards at the Hartman Memorial Lecture in October 2010.
- Nursing staff attended the following conferences: Nephrology in April 2010, Cardiology in August 2010 and Critical Care in October 2010.

Special Events

Staff celebration functions were successfully held on International Nurses Day 2010 and Woman's Day 2010. The Intensive Care Module participated in the Open Day event of the institution. Renal Replacement Therapy was promoted as well as hand hygiene.

Internal Medicine Module

Ms SD Henry

Services

- The Internal Medicine Module consists of Internal Medicine, Psychiatry and Oncology wards and units.
- The module included four medical wards, one Metabolic Unit, one Dermatology ward and one Neurology ward.
- Psychiatry – two in-patient wards and two out-patient departments, namely, Child Psychiatry and Adult Psychiatry.
- Oncology – two in-patient wards and five out-patient departments.

Resources

Professional nurses	65
Staff nurses	38
Nursing assistants	75
Module clerks	3
Housekeeping supervisors	10
Household aids	44

Number of beds

Internal Medicine	152
Psychiatry	41
Oncology	47

Highlights

- The Hartman Award Ceremony took place in November 2010. The nurses awarded for clinical excellence were professional nurse J Kruger, staff nurse F Isaacs and nursing assistant T Bombi.
- Staff development took place amongst all categories of staff.
- Two registered nurses completed their studies in Advanced Psychiatry at Stellenbosch University.
- One registered nurse completed her studies in a Masters Degree in Oncology (Cum Laude).
- Two staff nurses completed their studies as registered staff nurses.
- TB Open Day was held on 3 September 2010
- Diabetic Open Day was held on 17 November 2010
- A memorial service was held on 6 November 2010 for family of haematology patients who passed away.
- A bazaar was held in November 2010.
- The Oncology department received a donation of flat screen television sets.

Nursing

Surgical Module

Ms CJ Theron

Services

Area	Beds	Bed occupancy	Service
Ward D1	22	84%	Vascular surgery – 15 beds Abdominal surgery – 7 beds
Ward D2	31	79%	Abdominal surgery – 16 beds Head neck and breast – 8 beds Vascular surgery – 7 beds
Ward D3	24	60%	Plastic surgery
Ward D5	31	80%	Head, neck and breast surgery
Ward D6	31	67%	Urology
Ward D7	31	66%	Ophthalmology surgery
Ward G5	19	63%	Ear, nose and throat surgery (2 paediatric beds)
Total	19	71%	

Resources

Area	Operational manager	Professional nurse	Staff nurse	Assistant nurse	Total
Ward D1	1	6	4	10	21
Ward D2	1	4	4	11	20
Ward D3	1	4	5	8	18
Ward D5	1	6	3	12	22
Ward D6	1	5	5	10	21
Ward D7	1	6	2	13	22
Ward G5	1	5	6	10	22
Total	7	36	29	74	146

Highlights

Ward D1

- Ward upgrade and renovation completed in June 2010.
- Staff nurse V Baatjies received an award for clinical excellence in Nov 2010. The award was the second runner-up academic unit for IPC at Tygerberg Hospital (TBH).

Ward D2

- Professional nurse L Matiwana received an award for clinical excellence.
- The planning commenced for the ward grade for 2011.

Ward D3

- Nursing assistant AA Parsons: clinical excellence.
- Professional nurse G Olifant completed a BTech degree.
- Professional nurse F Andrews completed Nursing Administration.

Ward D5

- Donations of a television, microwave, curtains and a couch were received.

Ward 6

- The bathroom shower was renovated by the personnel in the area.
- On a quarterly basis a gift and card is awarded for best service provided.

Ward D7

- NA L Adams received an award for clinical excellence.
- Received wall mounted ophthalmoscope for the ward.
- Tiling was done around basins in the area.

Nursing

Ward G5

- This ward was upgraded and renovated during 2010. Security doors were fitted.
- The ward was assisted by the Rotary Club, Bellville, to upgrade the area with curtains, televisions, art and a refrigerator.
- The children's room was upgraded and a television donated for this area.

Unit for Infection Prevention and Control (UIPC)

Ms M Mocke

Services: IPC

The staff component of the UIPC is as follows: one Head of Department, four clinical programme co-ordinators, one Admin Clerk, one Admin Officer and one Data Capturer Intern.

The UIPC team provided clinical service and training based on the outcome of surveillance (in association with Department of Microbiology). The unit was instrumental in setting up a cost-effective IPC programme, co-ordinating the H1N1 vaccination campaign, participating in revitalisation projects, surveillance programmes, audits, outbreak investigations, writing of tender specifications, product evaluations and advise provincially and nationally on IPC-related matters.

During 2010, the data management team advanced the daily laboratory report based on data from Microbiology and Virology. This report assisted the clinical programme co-ordinators in monitoring outbreaks of infections in various wards and to measure the outcome of the interventions. In June 2010, TB was declared an alert organism for TBH which requires visits to each patient with TB. Airborne-precaution trolleys for MDR-TB were established and a strict TB-containment protocol was put into place to provide the best possible care for patients and protection for staff. Section 1 and 2 of the IPC manual was produced and transmission-based precautions were redesigned and printed in colour. The UIPC team focussed on training and (excluding "on-the-spot teaching") provided training to 369 TBH staff members and 210 candidates from external facilities.

Number of patient visits due to:

- Alert organisms – 798;
- Notifiable medical conditions – 227;
- EPI surveillance – 17 + 1 118 patients admitted due to national measles outbreak; and
- Manage two outbreaks in 2010 (MRSA neonatology, pseudomonas A1B).

Highlights of the year

- The UIPC produced Section 1 and 2 of the IPC manual. It was loaded as PDF files on the I-drive of the PAWC computers. This was a combined effort between IPC, QA, OH, OHS and Information Management.
- The IPC survival kit originated from Prof. S Mehtar. The IPC team provided assistance, drove the pilot study and launched it officially at the annual IPC Day on 2 November 2010.
- Prof. Mehtar and Ms Mocke chaired sessions and presented papers at the 2nd *Infection Prevention and Control African Network (IPCAN) congress* at Spier, Stellenbosch, in August 2011.
- Prof. Mehtar published a book, *Understanding Infection Prevention and Control*, in 2010.

Biomedical Science

Department of Biomedical Science

Prof. Paul van Helden

Summary

The Division of Molecular Biology and Human Genetics

Clinical services XC

- One Respiratory OPD clinic a week;
- One bronchoscopy theatre session a week; and
- Four weeks a year on Medical ICU call duty, including ward round, consultation service (ward referrals), after-hours on call and weekend ward rounds.

Clinical genetic and genetic counselling services are shown in Table 1.

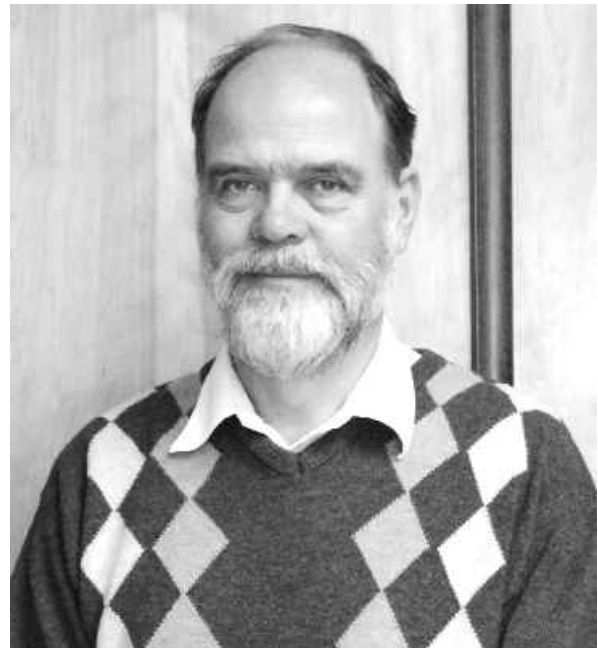
Table 1: Clinical Genetic and Genetic Counselling

Clinic	Type	Frequency
TBH Prenatal Counselling	Genetic only for some patients, otherwise interdisciplinary with Foetal Medicine	1/week
TBH Paediatric Genetics	Genetic	1/week
TBH Haemophilia	Interdisciplinary with Paediatric Haematology	1/month
TBH Breast-Cancer Clinic	Interdisciplinary with breast surgeons	1/month
TBH Cleft Palate	Interdisciplinary with Craniofacial Surgery	2/month
Outreach to level-2 hospitals	Genetic only	Regular
Outreach to LSEN schools	Genetic only	Regular

Direct patient community benefit

CV diseases: Direct DNA-based testing is available for HCM, LQTS and PFHBI. Information is also made available to PACE for patient and family-based advice and counselling. Information for the lay person is also made available for their website.

Highly transmissible MDR and XDR strains have important implications for TB control, healthcare workers, patients and communities. The findings of our research continue to be communicated to the TB control



programme and to clinicians through presentations at meetings in the region. This includes city and provincial authorities, as well as NHLS.

We are supporting NHLS with genotyping and lending assistance with diagnosis of problematic cases of TB and drug-resistant TB.

We are working closely with Médecins Sans Frontières (MSF) in Khayelitsha to see whether direct molecular diagnostics can make a difference to the drug-resistance problem there. As first steps, we are trying to quantify the extent of drug resistance there and define the mechanisms by which this epidemic arises.

Since 2000 a CMCB project under the leadership of Prof. Tommie Victor has been running which involves a consultation with clinicians and the TB-control programme to study the drug-resistant TB epidemic in 72 clinics in the Boland/Overberg-Southern Cape/Karoo (BOKS) regions. This work is ongoing and we have obtained additional funding to enlarge the TB clinic at Lawaaikamp in George, where we also work. We provide molecular results of TB and drug-resistance tests, entered at the laboratory at Tygerberg in real time, to clinical staff at Lawaaikamp within a few days. It is therefore not only the patient that benefits directly but also the community as a whole and the TB-control programme.

In the latter half of 2008 a molecular epidemiological study of drug-resistant TB was initiated in the Eastern Cape in collaboration with Dr A Trollip, the Eastern Cape Department of Health, and the National Health Laboratory Services (NHLS). Initial results have been presented to the Eastern Cape Department of Health. In

Biomedical Science

this feedback meeting we emphasised the extent of extremely drug-resistant tuberculosis (XDR-TB) in the province, the unusual population structure and the high prevalence of aminoglycoside resistance. The Department of Health (DoH) has requested our input in capacity development, quantification of the extent of transmission, molecular mechanisms underlying aminoglycoside resistance, and cross-resistance. We have also suggested that research is required to develop methodologies to rapidly identify TB cases with a high risk of drug resistance.

A commentary was written discussing the draft guidelines on the management of multi-drug-resistant tuberculosis (MDR-TB). We have suggested revisions to these guidelines to limit the evolution of drug resistance. We are currently working on a study to demonstrate the relationship between certain resistance-causing mutations and the risk of developing drug resistance. This may have a profound effect on how we interpret molecular-based drug-susceptibility testing.

We have written a document for the national Department of Agriculture (on their request) explaining the situation of the diagnosis of unusual Mycobacteria in animal disease. This work has been continued and expanded and appeared as an explanatory document in peer-reviewed literature this year (2010).

We have also been involved in a project on aminoglycoside-induced hearing loss in collaboration with researchers at Stellenbosch University and the University of Cape Town. This project is important because it could have a significant impact on the lives of many South Africans. South Africa currently has a very high incidence of MDR-TB, and aminoglycoside antibiotics are used to treat these patients, following the World Health Organisation's recommended guidelines. It has been shown that aminoglycosides can cause irreversible hearing impairment in individuals who harbour specific mutations in mitochondrial DNA. We recently developed a rapid and cost-effective assay (Bardien et al., BMC Medical Genetics, 2009) based on the SNaPshot technique (Applied Biosystems) that can be used to detect the presence of five (this has now been updated to six; Human et al. BBRC 2010) of the known mutations in a multiplex reaction. Using this method we have shown that the A1555G mutation is present at a frequency of approximately 1% in the black population (Bardien et al. SAMJ 2009). This is an alarming statistic, given the high frequency of MDR-TB in this particular

ethnic group. We screened 97 members of a South African family in which 11 of the individuals were deaf following streptomycin treatment. Using our genetic test, we determined that 76 of the individuals have the A1555G mutation and are therefore at high risk of developing deafness when treated with aminoglycoside antibiotics (Human et al. 2009 BBRC). It is hoped that this genetic test will be incorporated into a national South African TB-control strategy with the ultimate aim of reducing the number of individuals who develop deafness following treatment of MDR-TB.

We do specialised diagnostics for critical animal species for the National Zoological Gardens (NZG) and SANParks and advise them accordingly.

We look at clinical assessment, care, genetic counselling and testing of patients with birth defects, and counselling of patients/families regarding possible prevention. Teaching and research in this field is important because of its rapid development.

CXRs and case report forms of study participants are evaluated.

Clinical drug trials are investigated.

Laboratory work

- PCR speciation of *Mycobacterium tuberculosis* strains infecting study participants;
- IS6110 DNA fingerprinting of *Mycobacterium tuberculosis* strains infecting study participants; and
- Management of Interferon gamma release assay testing in the immunology lab for TBH patients – mainly Paediatric Oncology patients.

Division of Anatomy and Histology

Teaching

1st semester:

- MBChB II;
- MMed; and
- Speech Therapy III.

2nd semester:

- Dentistry;
 - Occupational Therapy II; and
 - Physiotherapy II.
- Teaching hours per week: 5; and
 - Six test/exams set up, administered, marked and marks processed every semester.

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Clinical work:

- Genetic counselling

Division of Medical Physiology

Teaching

The Division of Medical Physiology is predominantly responsible for teaching and training both undergraduate (MBChB, BChD, BSc Physiotherapy, Occupational Therapy, Dietetics) and postgraduate students (BScHons, MSc, PhD, MMed) studying at the Faculty of Health Sciences.

Research

The two main fields of research are the Cardiovascular Research Group and the Reproductive Physiology Research Group.

Clinical Services

- One respiratory clinic per week;
- One bronchoscopy theatre session per week;
- Eight weeks a year on Medical ICU call duty, including ward rounds, consultation services (ward referrals), after-hours on call and weekend ward rounds;
- Active participation in training of clinical assistants;
- Specialist clinics (pulmonology): one clinic each week;
- Bronchoscopy theatre list: one afternoon and one full day-theatre list per week; and
- 49 days and 56 days ICU after-hour calls.

Clinical Genetics and Genetic Counselling

Clinical Genetics and Genetic Counselling experienced an eventful year in 2010:

- A Clinical Genetics registrar was appointed.
- Prof. Greetje de Jong retired and we were unable to fill her post. However, the hospital and university agreed that the post should be retained by appointing a second Clinical Genetics registrar to the position, as well as a part-time Genetics counsellor.
- A new university-based Clinical Genetics area was opened on the third floor of the FISAN Building. We are, however, still waiting for dedicated Clinical Genetics space in Tygerberg Hospital.
- The NHLS Cytogenetic Laboratory at Tygerberg Hospital was unfortunately closed (against the recommendations of the clinical geneticists).
- The currently available genetic clinics are outlined in Table 1.
- A new monthly clinic for breast cancer genetic counselling was established in the course of 2010. In

addition to work in outpatient clinics, patients are assessed in the wards (especially neonates with dysmorphism) on a daily basis, including an on-call service. Newborns are assessed for congenital abnormalities on a daily basis. Due to capacity limitations, there remains a significant unmet need for genetic services, e.g. among children with specific genetic disorders e.g. familial cancers (other than breast cancer, which has a specific programme). The current workload in Clinical Genetics according to level of care is given in Table 2.

Table 2: Outpatient consultants, inpatient assessments and admissions for Termination of Pregnancy (TOP) in 2010

2010			
	Level 3	Level 2	Total
TBH Perinatal			
Prenatal Counselling	372	739	1 111
Stillbirths	71	753	824
Admission for TOP foetal abnormalities (includes postnatal assessment)	(55)	-	-
TBH Paediatric			
Congenital Abdominal Clinic, Haematology, Cleft Clinic	444	-	444
Secondary hospitals			
(Paarl, Worcester, Karl Bremer)	10	-	10
Outreach			
Clinics	-	76	76
Schools	-	198	198
Total	898 (34%)	1 766 (66%)	2 663

Resources

Posts (full time)	Number	Filled
Professor		
Principal Specialist	5	5
Specialist	4	3
Registrar	4	2
Medical Officer	2	2

Posts (sessional)	Number	Filled
Part-time posts	2	2

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Comment on output

Clinical Genetics is mainly an outpatient discipline. A considerable clinical service has been delivered in 2010. The clinical situation is improving with the appointment of a new Clinical Geneticist, Dr M Urban, a genetic counsellor and the first new registrar. However, the future of the laboratory service remains a concern, as NHLS is not replacing staff or equipment.

We performed Quantiferon tests for Tygerberg Hospital whenever requested, i.e. for Paediatric Oncology. This is a specialised test for TB infection that is not available through the state sector.

Infrastructural development

The Division of Molecular Biology and Human Genetics

Genetics

In 2010 the Clinical Genetic and Genetic Counselling Service obtained university space in the FISAN Building – it now has six offices in a designated area. However, there is still no dedicated space in Tygerberg Hospital – this still requires urgent attention.

Community outreach programmes

The Division of Molecular Biology and Human Genetics

Report of Prof. V Corfield's outreach activities in 2010

Prof. Corfield has continued her involvement in outreach activities that engage the general public in a greater awareness and appreciation of biomedical science. In the past 12 years, she has received support and encouragement for this work from many different role players and has actively encouraged the participation of others in many events.

During 2010 there were several requests to present popular workshops and exhibits (that were previously developed) at national, regional and local forums, such as National Science Week, Scifest Africa, Science Centre school visits, a Netherlands NGO (SEEDS) outreach road show; meetings of lay groups, namely, supporting cross cultural adoptions or persons with certain heart conditions (PACE) and the SA Defence Force's HCT roll-out. The activities variably featured at these events use a workshop *HIV comes to the Party*, which emphasises drug resistance and antibiotics; a workshop *TIK's Tricks*, which highlights the neurophysiology of the drug TIK (methamphetamine); a skin exhibit *The Skin you're in*, which looks at the skin in health and disease; a workshop

entitled *DNA Detective: what's in your genes?*, which examines genomics and forensic applications in DNA fingerprinting; and *Enzyme Antics*, which introduces the role of enzymes in digestion and in biotechnological applications. In 2010, in response to public interest in the microbicide Tenofovir, Prof. Corfield developed an HIV exhibit which looks at anti-retrovirals and clinical trials.

Highlights in 2010 were activities that empowered others to become involved in furthering public awareness and engagement in biomedicine and in examining the ethical and societal issues raised by new technologies. Two tools that particularly helped accomplish this were: 1) the completion of phase two of the Wellcome Trust International Engagement (WTIE) grant awarded to Prof. Corfield (principal awardee) in partnership with the MTN Science Centre in Cape Town, and 2) the production of a Biotechnology DVD for the Public Understanding of Biotechnology (PUB) initiative of SAASTA (a division of the Department of Science and Technology).

The WTIE project entitled *Catalysing partnerships: the role of science centres as intermediaries between the public and scientists in engagement with biomedical science in South Africa*, plans to bring science centres and scientists together to make biomedical science issues more accessible to the general public. The first phase, completed in 2009, defined which interventions best engage target audiences (scholars, teachers, the general public). Based on knowledge gained, regional workshops were held at three Science Centres, namely the Cape Town Science Centre, Unizul in KZN and Scibono in Johannesburg. About 30 participants attended each workshop by invitation; those attending represented a mix of scientists from local tertiary and research institutions and from science centres across the region (including science centres in rural areas). Several MRC employees also attended, as well as postgraduate students and staff from MRC centres/units in the Western Cape, KZN and Gauteng. As a result of their participation, several new public engagement activities have been, or are being, developed. The final phase of the project will involve production of a "how-to-engage" manual and a website.

The Basic Biotechnology DVD by Contrast Films was commissioned by PUB to serve as a resource for high schools to increase awareness and understanding of biotechnology and to explore the ethical issues raised. The DVD featured Prof. Corfield presenting four

Biomedical Science

workshops that she developed which look at the science of DNA genetics and forensics, genetically modified organisms, cloning and bioinformatics. The DVD has been distributed to schools and interested persons across South Africa.

During 2010, Prof. Corfield was also involved in other activities that furthered public awareness of various aspects of science. One of these is the DNA Project, which is a non-profit organisation which seeks to raise awareness of the importance of DNA forensic evidence through many activities. The two facets in which Prof. Corfield was involved were the development of teaching modules for a BSc Hons course in DNA Forensics (currently offered at UOFS) and a workshop, DNA CSI, which she has helped develop and has presented to ADT Security staff at their Cape Town training academy. She was also involved in further projects with PUB, including assessing the Basic Biotechnology programme rolled out by the Gateway Science Centre in Umhlanga and she updated several PUB fact sheets (including Biotechnology in Medical research, Cloning and Stem cells, DNA profiling, and GMOs).

Several of the events in which Prof. Corfield is involved in have received media coverage, including radio interviews about Scifest, the Gauteng WTIE workshop, as well as a State of the Nation debate on FM Classic: *Has the Human Genome Project delivered?* with David Gleeson and Prof. Michelle Ramsay. The Star carried a feature on the Murder Mystery event that she developed to look at the issues raised by DNA profiling.

The Clinical Genetics and Genetic Counselling group provides outreach services to LSEN Schools (school for learners with special educational needs). Dr Urban has been a committee member of the South African Society for Human Genetics which takes up public interest issues in genetics – members of the committee being appointed to convene an undergraduate essay competition on a Human Genetics theme and to participate in platforms (TV and conferences) addressing issues related to the appropriate use of human genetic testing.

The Division of Anatomy and Histology

Community service

Anatomy provides material, logistic and infrastructural support to organisers of a CPD course offered under the auspices of the faculty in a range of topics from Kyphoplasty, Neurosurgery, and Spinal Orthopaedics to

Temporal Bone Surgery for ENT specialists. Dr Madeleine Hanekom does clinical duty at Karl Bremer Hospital and the Mfuleni Day Hospital treating multi-drug-resistant TB patients.

Dr Hanekom judged in the ESCOM Expo for Young Scientists, a competition with the aim of creating awareness for sciences among all school children.

Dr Hanekom was involved in clinical drug trials with Prof. Andreas Diacon at various healthcare facilities which contribute to service delivery and the healthcare of study participants.

Educational tours to the Anatomy Morphology Museum for Grade 11 and 12 learners has become an important aspect of the outreach programme. 500 learners from schools as far as Malmesbury, Villiersdorp and Mossel Bay attended talks on drug abuse, HIV, appreciation of the human body and the interrelationship between humans and the external environment. Other topics covered were congenital abnormalities, osteoporosis, fractures and implants, neuropathology (especially strokes), diabetes, forensic pathology, temperature regulation in endotherms/ectotherms, physical anthropology, embryology, heart disease, the risks of smoking, TB, and much more. The learners were also taken on a tour of the dissection halls where they are introduced to the organs of the human body and are given a talk on respect for life, ethics, religious points of view about death and dying, euthanasia, and cremation vs. burial.

The Division of Medical Physiology

Community outreach programmes

Prof. Hans Strijdom is involved in Media24's *Rachel's Angels* empowerment programme through which high-school students from disadvantaged backgrounds visit our faculty and division to be introduced to the possibility of studying medicine.

Various members of staff act as regional final judges in the ESCOM Expo for Young Scientists, a competition with the aim to create awareness for sciences among all school children.

Several members of staff are involved in the mentor/tutor programme of the Faculty of Health Sciences.

Prof. Andreas Diacon is involved in the clinical service

Biomedical Science

component of the Department of Internal Medicine at Tygerberg Hospital, where he makes a significant contribution to service delivery, as well as student teaching (both under-and postgraduate). He also maintains and staffs research clinics at various healthcare facilities and contributes to the healthcare of study participants.

National co-operation partnerships

The Division of Molecular Biology and Human Genetics

- IIDMM, UCT: collaboration on the Gates Grand Challenge project;
- Lung Institute, UCT: collaboration on diagnostic and biomarker projects; and
- The Clinical Genetic Service co-operates with the Groote School Clinical Genetic Service to provide healthcare to the Western Cape.

The Division of Anatomy and Histology

- Collaborative work with Dr Helen Cox from Médecins Sans Frontières, Khayelitsha.

The Division of Medical Physiology

The Heart Research Laboratory, under the guidance of Prof. Amanda Lochner, maintains close ties with the Cape Heart Centre (Hatter Institute, UCT), the Disease Signalling Group (Physiological Sciences, SU), the School of Physiology (Wits), Medical Biosciences (UWC) and the Cape Peninsula University of Technology (CPUT).

The Reproductive Physiology Research Group, headed by Prof. Stefan du Plessis, actively collaborates with the research groups of Prof. Gerhard van der Horst (Medical Biosciences, UWC) and Dr Guillaume Aboua (CPUT).

Prof. Andreas Diacon, together with Dr Stven Friedrich, is creating a new research platform for TB diagnosis. Prof. Diacon is also still involved with clinical research at the Department of Medicine.

Co-operation with the private sector

The Division of Molecular Biology and Human Genetics (Prof. Gerhard Walzl)

- Dr Johan Theron, Panorama Medi-Clinic: Sarcoidosis project

The Division of Medical Physiology

The Department has forged excellent relations with the Cape Metro Rescue Services and with Professional

Emergency Care, who give a complete demonstration (using the “jaws of life” etc.) to second-year MBChB students on what is available for disaster management in the Western Cape, and a practical class in CPR (cardiopulmonary resuscitation). This is followed up with First Aid Courses Levels 1-7 for interested students in the faculty. Arrangements have also been made for second-year students to join the Metro Services crews in ambulances over weekends to gain first-hand practical experience in emergency care in the community.

Prof. Barbara Huisamen takes part in a collaborative study with the SMME Conbrio Brands to substantiate claims of the over-the-counter diabetic remedy Diavite. They are currently investigating the antihypertensive effects of this drug in a rat model of hypertension induced by a high-fat diet.

Prof. Stefan du Plessis is involved in a study to CE accredit specialised microscopic slides for the Dutch manufacturer Leja.

Prof. Andreas Diacon is investigating novel anti-tuberculosis agents and regimens in collaboration with drug manufacturers and international partners.

International co-operation and partnership

The Division of Molecular Biology and Human Genetics (Prof. Gerhard Walzl)

- Max Planck Institute for Infection Biology, Berlin, Germany – Prof. Stefan Kaufmann;
- MRC, The Gambia – Dr Martin Ota;
- Case Western Reserve University, Cleveland, USA – Prof. Henry Boom;
- Leiden University, Netherlands – Prof. Tom Ottenhoff;
- Makerere University, Uganda – Prof. Harriet Mayanja;
- London School of Hygiene and Tropical Medicine, UK – Prof. Hazel Dockrell;
- Amhauer Hansen Institute, Addis Ababa, Ethiopia – Dr Abraham Aseffa; and
- NIH, Maryland, USA – Dr Clifton Barry

The Division of Anatomy and Histology

Collaborative work with Ms Dorien van de Berg from the Faculty Nature and Technique, Institute for Life Sciences and Chemistry, Molecular Biology, Utrecht, the Netherlands

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The Division of Medical Physiology

Prof. A Lochner is involved in a joint project with Prof. K Ytrehus from the Department of Physiology, University of Tromso, Norway. The project is entitled *The effects of melatonin on the ischaemic heart* and is sponsored by a joint research grant under the South Africa-Norway programme on research co-operation.

The Endothelial Dysfunction Research Group (Prof. Hans Strijdom), and the Obesity/ Insulin resistance/ Diabetes and the Heart Research Group (Prof. B Huisamen) both received medical students from the University of Linköping, Sweden for a four-month internship period for laboratory skills training.

Prof. Stefan du Plessis collaborates extensively with Dr Ashok Agarwall, Director of the Reproductive Research Centre, Cleveland Clinic, Ohio, USA. He was also involved in joint projects with Dr Alex Varghese (India), as well as with Drs Charles Kimwele and Kavoo Linge from the University of Nairobi, Kenya.

Prof. Stefan du Plessis acted as preceptor for four summer interns from the Cleveland Clinic, Ohio, USA.

The Reproductive Research Group hosted an elective student from Avans Hogeschool (Breda, The Netherlands).

Prof. Andreas Diacon has continued and expanded his research activities into novel antituberculosis agents and regimens in collaboration with drug manufacturers and international partners. The SU-based part of the enterprise has now grown to 13 members performing tests on sputum samples collected at various research locations in Cape Town such as Delft, Mfuleni, Brooklyn Chest Hospital and Intercare Hospital. Prof. Diacon is also still involved with clinical research at the Department of Medicine and is rendering clinical services.

Research

The Division of Molecular Biology and Human Genetics

Publications: peer-reviewed research papers	47
Chapters in books	1
Conference presentations	46
Conference posters	43
PhD graduates	2

The Division of Medical Physiology

Publications: peer-reviewed research papers	23
Chapters in books	2
Conference presentation	15
Conference posters	19
PhD graduates	1

Teaching and Training

Courses attended by the staff or students in 2010

1. Dr S Hemmings and Ms S Malan attended the *Next Generation Sequencing & Functional Annotation* workshop at UCT on 6–12 December 2010.
2. Ms S Malan, Mrs C de Villiers and Ms C Todd attended the *Fluorescence Live Cell Imaging Microscopy* course at the Cell Imaging Unit of Stellenbosch University in May 2010.
3. Ms S Malan attended the *NRF Grant Writing* workshop held at STIAS, Stellenbosch University on 3 August 2010.
4. Dr S Hemmings, Ms S Malan and Mrs J Mouton attended the SAFENET fire-fighting training course held Stellenbosch University.
5. Dr C Kinnear, Ms A Muller and Ms K Stanley attended the SAFENET First Aid Level 1 course held at Stellenbosch University on 25–26 November 2010.
6. Ms C Todd attended the Scientific Writing Skills Workshop held at the Language Centre, Stellenbosch University on 13–14 May 2010.
7. Mrs C de Villiers attended the *Introduction to Biostatistics* course hosted and presented by the Biostatistics Unit of the MRC from 30 August to 1 September 2010.
8. Ms S Fortuin attended the Bergen University, Norway from January to June 2010. Additional funding under South Africa - Norway Programme on research co-operation (Phase 2) was awarded for six months of training in mass spectrometry sample preparation and data analysis of *M. tuberculosis* isolates from South Africa at Bergen University under the supervision of Prof. Harald G Wiker and Dr Gustavo A de Souza.
9. Ms S Fortuin received training at the Max Plank Institute, Martinsried, Munich, Germany in October 2010. Training at the institute was provided by Prof. M Matthias Mann and Dr Nagarjuna Nagaraj on the enrichment and analysis of phosphoproteins in *M. tuberculosis*.
10. Prof. NC Gey van Pittius attended the *Programme for the Development of Leadership and Team Skills*

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(POLs) presented by the University of Stellenbosch Executive Development (USB-ED) arm of the US Business School, Bellville, South Africa.

11. Prof. NC Gey van Pittius attended *Introduction to Biostatistics*, a short course presented by the Medical Research Council Biostatistics Unit in Parow.
12. Dr M Urban: attended an introductory course on student teaching.

Research interns (MRC sponsored)

1. Ms NC Ngombane (research intern) registered for the second year of her MSc degree in 2010.
2. Ms P Seepe (research intern) registered for the second year of her MSc degree in 2010.

Career development graduates

This is done by offering contract positions using grant funding and is regarded as one of the most important activities in the CMCB. It is through activities such as these that South Africa can retain the capacity it has trained. It also offers individuals the opportunity to utilise their skills and gain experience.

The Division of Medical Physiology

Teaching

Undergraduate teaching

- MBChB first-, second- and third-year students;
- BChD first- and second-year students; and
- Allied Health second-year students (BSc Physiotherapy, Occupational Therapy, Dietetics)

Postgraduate teaching

- BScHons (MedSci); and
- MMed students

Postgraduate research training

- MSc students; and
- The division delivered one PhD, seven MSc and five BScHons students during 2010.

Several members of staff act as external examiners and moderators to other universities (both national and international).

Laboratory training of final-year medical students before embarking on their international elective rotation

Elective students

- Avans Hoogeschool, Netherlands: one science student for five months laboratory and research training; and

- Internship programme with University of Linköping, Sweden: two medical students for a four-month internship program involving laboratory and research training.

Courses attended by staff

- Erna Marais and John Lopes attended the Prontac training course.

Highlights

Direct patient and community benefit

1. CV disease: Direct DNA-based testing is available for HCM, LQTS and PFHBI. Information is also made available to PACE for patient and family-based advice and counselling. Information for the lay person is also made available for the PACE website.
2. Highly transmissible MDR and XDR strains have important implications for TB control, healthcare workers, patients and communities. The findings of our research continue to be communicated to the TB-control programme and to clinicians through presentations at meetings in the region. This includes city and provincial authorities, as well as NHLS.
3. We are supporting the NHLS with genotyping and providing assistance with diagnosis of problematic cases of TB and drug-resistant TB.
4. We are working closely with MSF in Khayelitsha to see whether direct molecular diagnostics can make a difference to the drug-resistant problem there. As first steps, we are trying to quantify the extent of drug resistance there and define the mechanisms by which this epidemic arises.
5. Since 2000 a CMCB project, under the leadership of Prof. Tommie Victor, has involved a consultation with clinicians and the TB-control program to study the drug-resistant TB epidemic in 72 clinics in the Boland/Overberg-Southern Cape/Karoo (BOKS) regions. This work is ongoing and we have obtained additional funding to enlarge the TB clinic at Lawaaikamp in George, where we also work. We provide molecular results of TB and drug-resistance tests, entered at the laboratory at Tygerberg in real time, to clinical staff at Lawaaikamp within a few days. It is therefore not only the patient that benefits directly but also the community as a whole and the TB-control programme.
6. In the latter half of 2008 a molecular epidemiological study of drug-resistant TB was initiated in the Eastern Cape in collaboration with Dr A Trollip, the Eastern Cape DoH and the NHLS. Initial results have been presented to the Eastern Cape DoH. In this feedback

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meeting we emphasised the extent of XDR-TB in the province, the unusual population structure and the high prevalence of aminoglycoside resistance. The DoH has requested our input in capacity development, quantification of the extent of transmission, molecular mechanisms underlying aminoglycoside resistance and cross-resistance. We have also suggested that research is required to develop methodologies to rapidly identify TB cases with a high risk of drug resistance.

7. A commentary was written discussing the draft guidelines on the management of MDR-TB. We have suggested revisions of these guidelines to limit the evolution of drug resistance. We are currently working on a study to demonstrate the relationship between certain resistance-causing mutations and the risk of developing drug resistance. This may have a profound effect on how we interpret molecular-based drug-susceptibility testing.
8. We have written a document for the national Department of Agriculture (on their request), explaining the situation with diagnosis of unusual *Mycobacteria* in animal disease. This work has been continued and expanded and will appear as an explanatory document in peer-reviewed literature this year (2010).
9. We do specialised diagnostics for critical animal species for the National Zoological Gardens (NZG) and SANParks and advise them accordingly.
10. We perform diagnostic tests for tuberculosis infection (interferon gamma release assays) at our cost for selected hospital patients.
11. The Clinical Genetics and Genetic Counselling group offers clinical genetic and genetic counselling services to patients, family members and the community in the Tygerberg Hospital drainage area.

Technical advances

1. In all our projects we improve and advance technology and try to make use of the latest technology. Through this we have vastly improved our ability to do DNA sequencing and handle data. Some examples are given below.
2. We have two small robotic stations to assist with large-scale PCR assays, to maximise labour efficiency.
3. We have introduced whole genome amplification (WGA), so that we can make maximum use of minimal samples.
4. We instigated the use of High Resolution Melt analysis for *ab initio* genetic mutation screening, a

technique that is cheaper, faster and the most modern. This methodology has now been applied to diagnose the presence of *M. tuberculosis* in cerebral spinal fluid and fine-needle aspiration biopsies.

5. We have expanded our ability to do immunology work and have new instrumentation which can measure over 30 cytokines in a single sample.
6. We have one automated western-blotting station that is able to perform time-consuming western blots usually done by students or technicians. This has greatly reduced the amount of man-hours spent on performing western blots.
7. We have acquired an Orbitrap system for proteomics work, the latest technology.
8. We have initiated work in nanotechnology.
9. We are the entity of choice for speciation diagnostics for non-tuberculous *Mycobacteria*.
10. We are the centre of choice for TB clinical trials.

Participation in health or science policy development process (consultancies, workshops, public hearings, etc.)

Various members of the CMCB have been part of numerous workshops with the national DoH, the Eastern and Western Cape DoHs, the Department of City Health and NHLS regarding XDR-TB and plans to address this problem. Prof. NC Gey van Pittius has contributed to the University of Stellenbosch *Policy in Respect of Exploitation of Intellectual Property*.

We are currently busy with (MRC) policy briefs regarding TB drug resistance.

Prof. Walzl is a member of the Expert Advisory Group established for the development of the TB Research Roadmap, spearheaded by the Research Movement of the Stop TB Partnership. Prof. Walzl is a co-leader of the Critical Knowledge and Tools Subgroup of the WHO Stop TB Partnership Working Group for New Drugs.

Interactions with the National Department of Education (DoE)

There was no direct contact with the DoE in 2010, but Prof. Corfield presented basic biotechnology workshops to educators under the PUB programme and the SEEDS workshops and via the Scifest and Nat Sci week to students which represent DoE schools.

Oral/conference communication skills

Prof. Corfield has developed and presents a workshop to facilitate the development of oral/conference

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communication skills and discussions on fraud in scientific research. During 2010 she presented separate workshops to lecturers /senior postgraduate students at Stellenbosch University, to MRC interns in Cape Town and Pretoria, to NRF interns in Pretoria, and to students in CMCB.

Other research capacity development activities

Prof. Warren gave a talk on the molecular epidemiology of XDR-TB to healthcare professionals at 2 Military Hospital in 2010.

Prof. Warren gave a talk on tuberculosis to members of the SANDAF at 9 SAI in 2010.

Prof. Warren presented two lectures in the MBChB module: Infections and Clinical Immunology in 2010, by the title: *South African Molecular Epidemiological Data*.

Numerous radio, TV and newspaper interviews locally and abroad. Owing to an extreme administrative burden and opportunistic interviews no accurate records were kept.

Stellenbosch University in the world's top 20 institutions for tuberculosis research

Recently, Science Watch.com listed Stellenbosch University in the top 20 institutions out of 9 186 institutions which attracted citations to their papers published on the topic of tuberculosis in Thomson Reuters indexed journals. Furthermore, an analysis of the Scopus database, to determine specific competency areas of particular institutions, demonstrated that tuberculosis is the main competency area at SU in the medical and infectious diseases section, and showed how the SU-hosted CBTBR has impacted on the competency areas of the institution. These statistics clearly indicate that the CBTBR has made a major impact in the field of tuberculosis.

International training

Doctoral student Duduzile Ndwandwe completed a three-month predoctoral training fellowship in TB Basic Sciences in the laboratory of Dr Sarah Fortune at the Harvard School of Public Health in Boston. Her fellowship was supported by the Columbia University – Southern African Fogarty AIDS International Research and Training Programme.

Postdoctoral fellow Cliff Magwira completed a three-month traineeship in the laboratory of Dr Petros

Karakousis at Johns Hopkins University in Baltimore under the auspices of the Global Infectious Diseases Research Training Programme.

Doctoral student Andile Ngwane completed a six-month training fellowship in TB Basic Sciences in the laboratory of Dr Gilla Kaplan at the University of Medicine and Dentistry in New Jersey. His fellowship was supported by the Columbia University-Southern African Fogarty AIDS International Research and Training Programme.

Postdoctoral fellow Gail Louw is presently on a three-month traineeship in TB Basic Sciences in the laboratory of Dr Megan Murray at the Harvard School of Public Health to study the whole transcriptome analysis of drug-resistant *M. tuberculosis* strains. Her fellowship is also supported by the Columbia University – Southern African Fogarty Global Infectious Disease Research Training Programme.

Knowledge brokerage

CBTBR researcher Prof. Gey van Pittius spoke on Radio Sonder Grense on 15 December 2010 about his research discovery of a new tuberculosis strain using mammals as a host.

Awards and honours

Eileen Hoal-van Helden received the SU Rector's Award for Excellence in Research in November 2010.

Muneeb Salie is visiting the laboratory of Mary Carrington, a world expert in the KIR genes, in NIH/NCI, Frederick, MD, USA. He will be there from mid-October 2010 to January 2011.

Natalie Roetz was awarded a bursary to attend the Wellcome Trust Advanced course on Genomic Epidemiology in Africa in Kilifi, Kenya in early December 2010.

Doctoral students Andile Ngwane and Steven Parsons received Fogarty Fellowships for research training visits of three to six months (May – November 2010) in Prof. Gilla Kaplan's laboratory at the Public Health Research Institute (PHRI) in New Jersey, USA.

Suereta Fortuin was awarded an MRC internship and a six-month Fogarty scholarship for 2011.

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The Division of Medical Physiology

Awards and honours

Sonja Alberts and Lesley van Rooyen received the SU Rector's Award for Excellence in Service Delivery, in November 2010.

Travel grants to attend the SA PhD Project Conference at Emperor's Palace were received by Cindy Hill, Siddiqah George, Gerald Maarman and Tandi Lubelwana.

Siddiqah George received a coveted grant to attend the Helsinki Summer School in Finland.

The CRM Award for Most Valuable Support in Mentoring of Interns was awarded to Stefan du Plessis for his work as part of the Summer Internship Programme at the Cleveland clinic, USA.

Three of our postgraduate students received a place among the top five best oral presentations at the 38th PSSA meeting, with Llewelen Rapuling appointed as the overall winner of the Wyndham competition.

Marissa Slabbert received the prize for the best oral presentation by a basic scientist under the age of 35 in the Maternal and Women's Health category at the 54th Academic Year Day of the Faculty of Health Sciences, SU.

Stefan du Plessis was awarded a certificate for the winning poster in the Health Sciences Education category at the 54th Academic Yearday of the Faculty of Health Sciences, SU.

Amanda Lochner received a Gold Medal from the SA Academy of Science & Arts for her lifetime contribution to cardiovascular research.

Clinical Psychology

Clinical Psychology

Dr D Alexander

Summary

We provide a service to in-patients and out-patients through the adult neuropsychiatry, liaison psychiatry/medical psychology and the child and family psychiatry units. The medical psychology unit is situated in the psychology department (ALG). There are no administrative support staff in this department; administrative functions are therefore diverted to Wards F and J Lower Ground, a situation which is not ideal for the staff or the patients. The psychologists providing clinical services to the adult neuropsychiatry patients are based in Ward J Lower Ground, whereas the psychologists providing services to the child and family unit are based in F Lower Ground. The services provided by the psychology department include the assessment, diagnosis, treatment and referral of patients and their families to appropriate referral agents.

In addition to the clinical service delivery a major part of our work includes the clinical supervision of intern clinical psychologists and psychiatry registrars and the teaching of medical students, psychiatry registrars, nursing and allied-health-professions students, and clinical-psychology interns. Research activities are limited at present due to a reduced staff complement.

During 2010, the head of the department was on sabbatical leave for six months. One Child and Family post remained unfilled due to insufficient funds. The vacant Medical Psychology post was filled by a contract worker following the resignation of a staff member due to the poor salary. A permanent employee was only appointed in the position in October. A contract worker provided 20 hours of work in an unfilled intern post.

Resources

Posts (full time)	Number	Filled
Principal Psychologist	1	1
Senior Clinical Psychologist	4	3
Intern (Number only)	5	4

Posts (sessional)		
Part-time posts	0	1 (20 hrs in intern post)



Output

Clinical Psychology Services – Statistics

	Outpatients	Inpatients	Other
Patients	1200	521	
Consultations	2460	1158	
Hours	3966	2089	
Other hours			4820

Psychometric Evaluations

	Outpatients	Inpatients
Patients	175	44
Hours	825	370

Comment on output

The three clinical psychology service units offer specialist services which are labour intensive and time consuming. The psychology output in respect of patient numbers is limited due to the nature of the service. Each patient consultation takes 1 – 1½ hours at a time and there are repeated sessions over a period of months, depending on the patients' needs and circumstances. Over and above direct index patient contact, there is contact with the family and other collateral sources to ensure a holistic approach to patient care. Psychometric and neuropsychological assessments can take 3 – 10 hours to process. Despite the time and manpower challenges, these services are crucial to informing appropriate treatment and rehabilitation plans, suitable placement and referral of patients, and psycho-education of families and the community. Because the work is labour intensive there are insufficient psychologists to deal with the huge demand despite making use of alternative therapy such as group therapy. Senior staff are also required to fulfil a variety of tasks, which impact on their availability for direct patient contact.

Clinical Psychology

Infrastructural development

The psychometric and neuropsychological test material was largely outdated and insufficient for our needs. In addition, record forms of existing tests were depleted and some crucial tests were lacking. The process of upgrading these resources was started and new test material, record forms, and test manuals were purchased to the value of R40 000.

Community Outreach Programmes

Clinical Psychology interns were allocated to community clinics in the Bellville, Kraaifontein, Delft and Elsies River areas where they worked one afternoon (three hours) a week.

The following presentations were made;

“Keeping your brain healthy and fit” as part of Mental Health Awareness Week at Blaauwberg Netcare Hospital and “Neurocognitive Sequelae of Substance Abuse” to occupational therapists from private and other institutions.

Psychology workshops focussing on mental skills training to para-athletes in preparation for the World Championships in New Zealand and the Paralympics in 2012.

“The use of Positive Psychology in the rehabilitation of patients with head injuries” to private sector neuropsychologists at their monthly meeting.

Partnerships

University of the Western Cape – Teaching of Neuropsychology to the Clinical and Counselling Psychology master's students.

Research

External examiners for master's theses:

- University of Cape Town; and
- University of Pretoria

Collaboration with the University of Cape Town on the following projects:

- The implementation and evaluation of a cognitive rehabilitation service for children with impairment in attention following traumatic brain injury.
- A research protocol for a PhD degree was submitted, entitled: “Neurocognition and disordered thinking: its association, temporal stability and treatment outcomes in first episode psychosis”.

Teaching and training

In addition to the academic programmes of the Department of Psychology and the Department of Psychiatry, the teaching of psychology to the following undergraduate and postgraduate students is undertaken by our department: MBChB I, Foundation Phase, II, III, IV & V (middle rotation and late rotation); PAT AGB; BSc Dietetics III; M Physiotherapy; MMed Psychiatry; Psychology 178 Part 1 and 2; and M Nursing.

Senior psychologists in our department also supervise the training of intern clinical psychologists and psychiatry registrars.

Highlights

A psychotherapy interest group for senior psychologists and psychiatrists was initiated as well as a supportive therapeutic group for adolescents and a rehabilitation group for patients with head injuries.

Services were provided to the following committees:

Internal

- University of Stellenbosch Health Sciences Faculty Board;
- University of Stellenbosch HREC;
- Post Graduate Committee (Department Psychiatry);
- MBChB Psychiatry Department Training Committee; and
- Psychotherapy committee.

External

- SASCOC Medical and Anti-Doping Commission (Psychology representative);
- Triathlon South Africa Executive Committee; and
- International Triathlon Union Para-Triathlon Committee.

Community Health

Community Health

Dr Sydney Carstens

Summary

The presence of the Department of Community Health in Tygerberg Hospital revolves mainly around the clinical activities of the Unit for Infection Prevention and Control (UIPC) and the Occupational Health/Minor Ailment Clinic.

UIPC

The Division of Community Health within the Department of Interdisciplinary Health Sciences of Stellenbosch University established the UIPC in 2004, and in 2006 it was sited at Tygerberg Hospital.

The UIPC focuses on and advocates integrated research, training and service-provision for health care facilities (HCFs) and communities in Infection Prevention and Control (IPC), including TB and blood-borne viruses. It is the first academic unit of its kind in Africa and it is headed up by Prof. Shaheen Mehtar, a Medical Microbiologist with many years of experience in the field on IPC. He is ably assisted by four IPC Clinical Programme Co-ordinators, one of whom holds the Postgraduate Diploma in IPC.

The UIPC provides 14 Stellenbosch University-registered short training courses in IPC and related subjects. The courses are managed by Sr Marina Aucamp, who has extensive international experience and qualifications in IPC. Apart from South Africa, the UIPC has extended its teaching and research programmes to Namibia, Botswana, Swaziland, and soon to Lesotho, and potentially to Zimbabwe.

The unit leads and participates in several research programmes which are mainly related to TB-IPC and interventions suitable to low- and middle-income countries, with emphasis on integrated health and community-systems strengthening. The programmes are managed by Dr Frederick Marais, who has international experience in programme development, service provision and community participatory approaches in the field of IPC.

Clinical service is provided by the IPC team and it is based on the outcome of surveillance (in association with the Department of Microbiology) carried out at TBH. During its short existence, the UIPC has been



instrumental in setting up a cost-saving IPC programme, designing and supporting a Sterile Service Department and engaging in a Burns Unit revitalisation programme. At provincial, national and international level, the UIPC advises on IPC related matters.

Occupational Health Clinic and Minor Ailment Clinic

The Minor Ailment Clinic provides a consultation service (primary medical care) to employees on duty. This ensures that employees do not have to be absent from work for extended periods to see a medical practitioner.

The Occupational Health (OH) Clinic primarily deals with employees of Tygerberg Hospital and the Department of Health of the Provincial Government of the Western Cape. There are however several agreements with other organisations including the National Health Laboratory Service (NHLS) that allows OH Clinic services to be rendered to their employees too.

The services rendered by the OH Clinic also involves the management of referrals of indigent patients within the public sector, who have diagnosed with occupational diseases.

Services rendered by this clinic span the whole spectrum of Occupational Health including: workplace-hazard identification and risk assessment, individual risk-based medical surveillance (including blood lead levels in lead workers and pre-placement medical evaluation of workers exposed to ionising radiation, for example radiographers), managing workers with occupational diseases as well as those with occupational-related illnesses (sonographers with carpal tunnel syndrome). These services range from acute management and

Community Health

evaluation of impaired function to the establishment of appropriate work placement or adaption of work activities. Input is also provided in other specialist outpatient clinics, including the Dermatology Clinic.

All employees with needle-stick injuries or splash injuries during office hours will receive treatment at the clinic – counselling, serological evaluation and the provision of antiretroviral post-exposure prophylaxis (this service is rendered by the medical emergency ward F1 after hours. Follow-up visits of these employees will however take place at the OH Clinic.

Highlights

Unit for Infection Prevention and Control (UIPC)

In 2010, Prof. Mehtar published a book, *Understanding Infection Prevention and Control*, that is aimed at strengthening health systems in IPC.

Dr Marais was selected and fully sponsored by the NIH, USA, as co-trainer with their African-based International Training Institute engaging communities to improve global health.

During 2010, the UIPC completed the second year of the TB-IPC programme in Swaziland, a PATH/CDC-funded contract that has been extended for a year. Following a baseline survey, extensive TB-IPC training was undertaken, including a novel Train-the-Trainer course.

The UIPC is also participating with the Health Systems Research Unit of the Faculty of Health Sciences at Stellenbosch University in a study investigating the management of TB and TB/HIV co-infection, and referrals from Tygerberg Hospital (TBH) to primary health care services in the Western Cape. The aim is to develop interventions toward enhancing the management and referral process to ensure continuity of treatment. The unit has submitted several IPC-related research grant proposals, including an NRF Community Engagement Programme application, and is awaiting the outcomes.

During 2010 the UIPC has significantly increased training of executive managers and health care workers (HCWs) in IPC policies and procedures by offering courses ranging from basic IPC sessions to postgraduate diplomas. The unit supported three MCur students with their IPC-related research studies.

A group of 35 sterile-service staff members was trained in Namibia. There have been requests from Botswana and

Swaziland to provide IPC training to health care workers – a commitment that was not possible to undertake due to lack of resources. The unit has also been approached to provide IPC training to nurses in Lesotho.

Finally, the UIPC developed and launched a unique IPC survival kit that will be distributed to all health care workers at TBH. The kit, assembled in a neck pouch, consists of Z-cards containing core elements of IPC and alcohol hand rub. The utility of the kit will be evaluated during 2011.

Resources

Unit for Infection Prevention and Control UIPC

Posts (full-time)

- Associate Professor and senior specialist – Prof. S Mehtar: MBBS (Punjab University), MRC Path, FRC Path (UK), MD (London).
- IPC Nurses – Clinical Programme Coordinators: Sr M Mocke, Mr Cekiso, Sr D Jefferies and Sr K Vos.
- IPC Training Coordinator: Sr M Aucamp – BSoc Sc, PDIC.

Posts (full time)	Number	Filled
Specialist	1 (permanent)	1
Data Analyst	1 (permanent)	1
Nurses	4 (permanent)	4
Training Co-ordinator	1 (temporary)	1
Administrator	1 (permanent) 1 (temporary)	both filled
Intern: Data Capturing	1 (temporary)	1
Total Posts	10	10

Posts (part-time)

- Senior Lecturer (shared with Division of Nursing, Stellenbosch University): Dr F Marais – PhD (UK), MPH (UK), MHP (UK), BSc.Hons (UK), RN.

Senior Lecturer	0.5 (50% time) (temporary)	0.5 (50% time)
Training Administrator	0.5 (20 hrs/wk) (temporary)	0.5 (20 hrs/wk)
Database Administrator	0.5 (50% time)	0.5 (50% time)
Total Posts	1.5	1.5

Occupational Health (OH) Clinic and Minor Ailment Clinic Principal Specialist/Head of Clinical Unit:

- Dr SE Carstens – MB, ChB, MMed Community Health, FCPHM (SA) Occ Med;

Community Health

- Specialist: Dr WAJ Meintjes – MB, ChB (Pret), DOM (Stell), FCPHM (SA) Occ Med, MMed (Occ Med);
- Senior Medical Officer: Dr L Joseph – BSc; MB, ChB;
- Occupational Health Nursing Practitioner: Sr DM Arendse – Diploma in Nursing, B.Tech (Occupational Health), Diploma in Nursing Management;
- Registered Nursing Practitioner: Sr JW Samuels – Diploma in Nursing;
- Staff Nurse: Ms Cornelius; and
- Administrative Support: Ms Damonse.

Output

Unit for Infection Prevention and Control (UIPC)

Accurate information is vital in order to control health care associated infections (HAIs) and disease outbreaks in HCFs. During 2010, UIPC data management advanced the Daily Pathogen Report based on data from the TBH Medical Microbiological and Immunology Laboratory. This report assists the IPC nurses in monitoring outbreaks of infections in various wards and determining if control measures are effective in reducing their rate.

In addition, the UIPC monitors IPC practices in the wards and units of TBH and helps write policies and SOPs to improve IPC practices. Currently, robust data has only been available since 2006. By 2010 a significant reduction from 3.9/1 000 patient days to 2.3/1 000 patient days has been recorded. There has been a dramatic reduction in all blood-culture isolates as well as from other sites such as CVP, wound swabs and the respiratory tract. This is explained by the extensive and rigorous IPC practices implemented in the ICU and high-care areas.

In 2010, two major outbreaks, one caused by rotavirus and the other by MRSA, was noted in the neonatal and paediatric platform. The mortality rate in both outbreaks was equal to that normally realised in the Unit.

A dramatic change in the reporting system from the NHLS since 2008 has resulted in a modification of surveillance within the UIPC. While the daily report continues, some alert organisations are less reliably reported.

The Unit presented and participated in several IPC-related events at TBH: Global Hand Hygiene Day (15 October) and the Provincial IPC Day (3 November), including the launch of the IPC Survival Kit. In addition, close collaborative relationships have been established with QA, IPC and OHS that contribute toward a reduction in HAIs within TBH.

Source: All DPR data is stored on a SUN SQL server and are available to qualified researchers for further analysis. The UIPC delivered a range of IPC-related training courses at local, national and international level. The courses and student numbers included: modules of the Postgraduate Diploma in Infection Control (n=45), Basic TB-IPC for Managers (n=13, TBH; n=47, Swaziland), Basic TB-IPC for Healthcare Workers (n=78, Swaziland), Basic SSD (n=30), Intermediate SSD (n=12), and Advanced SSD (n=11). The TBH in-service courses and attendees included: TB training for nursing staff (n=85), IPC training for first year nursing students (n=55), IPC training for Theatre Science students (n=12), principles for management of pulmonary TB patients (n=12), H1N1/swine flu (n=17), hand hygiene (n=35), Measles training (n=10), IPC for general assistance/domestic staff (n=9), first year Radiography students (CPUT n=38), post-basic Trauma and Critical Care students (WCCN n=50), and post-basic Nursing Administration students (SUN and CPUT n=20).

Occupational Health Clinic and Minor Ailment Clinic

Minor Ailment Clinic visits	1 810
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This included consultations with 416 clerks, 410 housekeeping staff members, 341 nursing staff members, 175 kitchen staff members, 168 porters and 133 general workers.

Occupational Health Clinic	2 935
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This included pre-employment or placement, periodical and exit medical evaluations, but also follow-up visits for occupational diseases and injuries. Sharp object and splash injury cases for the year totalled 341 (mostly medical students, nursing staff and doctors). This is included in the OH Clinic-visit statistics.

Comment on output

The UIPC has performed exceptionally well with the given resources rendering service way beyond the borders of the hospital and even outside South Africa within the wider SADC region.

The OH Clinic has continued to see a gradual increase in referrals from other clinical disciplines as well as other public health institutions in the Western Cape.

Infrastructural development

No major infrastructural development took place in the period under review.

Community Health

Community outreach programmes

UIPC

A staff member represents the UIPC as a member of the community-based Cape Town NGOs, TB/HIV Care Association and TADSA. In addition, the UIPC presented the third IPC Day (conference) at the Faculty of Health Sciences on 3 November 2010 for 130 attendees from 44 institutions, mainly in the Western Cape.

There were no community outreach programmes undertaken by the staff of the OH Clinic.

National co-operation and partnerships

UIPC

- Ongoing work with the National Department of Health through the Western Cape Provincial IPC Committee.
- Ongoing work with the HSRC.

Occupational Health (OH) Clinic

The OH Clinic of the SANDF in Simon's Town has been accredited as part of the wider training platform of registrars in Occupational Medicine, through a formal agreement with the SANDF. This now forms part of the training platform for MMed in Occupational Medicine training.

International co-operation, outreach actions and partnerships

UIPC

- The UIPC is the headquarters of the Infection Prevention and Control Africa Network (IPCAN) which currently has 150 members from 24 African countries. Prof. Shaheen Mehtar is the founder and Chair of IPCAN. The expansion of education and training as well as joint projects are ongoing;
- Programme for Appropriate Technology in Health (PATH), Washington, DC: sponsored research
- CDC/PEPFAR: sponsored research;
- URC/Namibia: sponsored training interventions;
- NIH, USA: staff member sponsorship as co-trainer with the first African based International Training Institute Engaging Communities to Improve Global Health;
- UC Berkeley, USA: establishing collaborative community-based/participatory research and educational partnerships;
- The Hospital Infection Society offers bursaries for students to attend the Postgraduate Diploma in Infection Control course; and
- Visits to several SADC countries (including Swaziland and Namibia) for IPC training and audits.

Co-operation with private sector

UIPC

- Medi-Clinic: Funding of IPC training coordinator post for two years, started in 2010, and advisor to Medi-Clinic on IPC-related matters;
- Safmed: Support for one trainer in Sterile Services; and
- Copper Development Association Africa, Germiston: Review of healthcare facility plans and development in African countries.

Service on councils and committees

- Unit for Infection Prevention and Control (UIPC);
- WHO task leader: task group on Decontamination and Sterilisation;
- WHO core group member on Patient Safety Global Alliance;
- WHO chair of subcommittee on Safety Injection Global Network;
- MRC Grants Committee;
- National Advisory Committee on Immunisation;
- National Advisory Committee on IPC;
- Provincial IPC Committee;
- Working Party on Waste Management;
- WHO/SIGN – chair of meeting on Injection Safety;
- WHO/SIGN – chair of best practises in Phlebotomy;
- TBH Infection Control Committee;
- Centre for Infectious Diseases – SUN;
- Chair: Infection Prevention and Control Africa Network;
- Working group member: NIH CBPR educational initiative in Africa; and
- Committee member: TB/HIV Care Association, and TADSA, Cape Town.

Research

Unit for Infection Prevention and Control (UIPC)

Publications

- Mehtar S (2010). *Understanding Infection Prevention and Control*. Juta Publishers, Cape Town, South Africa.
- Marais F, Mehtar S, and Chalkley L (2010). *Antimicrobial efficacy of copper touch surfaces in reducing environmental bioburden in a South African community healthcare facility*. *Journal of Hospital Infection*, 74: 80 - 82.
- Sissolak D, Bamford CM, and Mehtar S (2010). *The potential to transmit Mycobacterium tuberculosis at a South African tertiary teaching hospital*. *International Journal of Infectious Diseases*, 14 (2010) e423 - e428.

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Conference presentations

The UIPC presented several papers at local, national and international conferences.

Occupational presentations

- Dr Meintjes, specialist at the Occupational Health Clinic, presented the following paper at the IMCA conference in Dubai: Meintjes WAJ. *The use of medical equipment in saturation*. IMCA conference. Dubai, United Arab Emirates, 2010.

Forensic Medicine

Division of Forensic Medicine

Prof. Shabbir Ahmed Wadee

Summary

From January 1 to 31 December 2010, 2 767 admissions were made to the Tygerberg Forensic Pathology Laboratory of the Forensic Pathology Service at the Tygerberg Academic Complex. Of these admissions, 1 382 were deaths due to unnatural causes, 914 were deaths due to natural causes and 471 are still under investigation. All unnatural cases, cases under investigation and some natural cases had formal and complete autopsies performed with the necessary special investigations and tests taken where appropriate.

During the course of the autopsy, tissue was procured for histological analysis and processing by the Chief Medical Technologist in an in-house histology laboratory. Tissue was taken from 1 002 cases from the Tygerberg Forensic Pathology Laboratory and 70 cases from referral centres (46 cases from Paarl, 10 cases from Stellenbosch and 14 cases from Worcester), comprising 1 072 cases in total. As a result, 12 965 blocks were processed from Tygerberg, 245 from Paarl, 97 from Stellenbosch and 173 from Worcester. A total of 12 885 Haematoxylin and Eosin (H&E) stains were performed from Tygerberg, 245 from Paarl, 97 from Stellenbosch and 173 from Worcester. A total of 181 special histological stains were performed when more precise causes of death were required.

In deaths where injuries involved the brain, spinal cord and related areas, selected brains were formalin-fixed for at least three weeks and kept for a weekly formal brain cutting conference with neuropathologists Prof. Richard Hewlett and Dr Dan Zaharie. A total of 133 such cases were macroscopically examined at the brain-cutting meetings and tissue was processed for histological examination, where necessary. Fourth year medical students, elective medical students, registrars and rotating registrars, and others are accommodated and trained at these meetings. In addition, a monthly postgraduate session with the Division of Neurosurgery is held, with input from the Head, Prof. B Hartzenberg, and academic and clinical staff.

During the course of 2010, 80 Death Investigation Dockets were received. Some of these autopsies have been performed in the division, whilst other dockets were referred for a second specialist opinion from outlying areas. Referrals were made by the Directorate of Public



Prosecution and also investigating officers from the South African Police Services. During the year, a total of 137 subpoenas were received by the professional medical staff to attend both the High and Regional Court. Professional staff was required to present expert medical evidence arising from autopsies performed at the Division.

Resources

Posts (full-time)	Number	Filled
Professor	1	1
Principal Specialist	1	1
Senior Specialist	1	1
Registrar	6	5
Medical Officer	2	2
Chief Technologist	1	1
Lab Assistant	1	1
Principal Typist	1	1
Admin Officer	1	1
Admin Clerk	1	1

Posts (sessional)		
Specialists	3	4 hours p/w

Comment on output

With the increasing population of the area, high rate of homicide and motor vehicle collisions, autopsy numbers continue to remain high. Autopsies are done or medical staff seconded for Paarl, Stellenbosch and Worcester Forensic Pathology Services when their medical personnel are on leave and if required. As the number of autopsies and registrars in training increases, the concomitant volume of histology also increases.

Forensic Medicine

Infrastructural development

The training of the forensic officers is an ongoing process, including practical-skills transfer and information technology training. This is jointly undertaken by the senior specialists and the Division of Forensic Medicine of the Health Science Faculty of the University of Cape Town.

As a member of the National Forensic Pathology Services Academic Subcommittee, Prof. Wadee, the divisional head, attended various scheduled meetings outside Cape Town and contributed in writing and now reviewing the Guidelines for the Medico-legal Investigation of Death and Forensic Service in South Africa. Biannual meetings of the National Forensic Pathology Services Committee scheduled in Pretoria were attended. These meetings were attended in co-operation with the National Department of Health and heads of Forensic Medicine from the health science faculties nationally and relevant role players.

Community outreach programmes

A death notification form completion talk to interns at Tygerberg Hospital was held during the induction period. Similar talks were arranged by Stellmed and the Medical Research Council at Tygerberg Hospital and Worcester respectively. At a Chronic Disease Conference in the Eden District in February 2010, one of the topics presented was death certification training (Dr Lene Burger).

International cooperation and partnerships

A Safe Passage Study in association with Anatomical Pathology/Obstetrics and Gynaecology as well as the Paediatrics divisions at the Health Science Faculty of Stellenbosch University and Pathology and Neuro-pathology Departments at Harvard University in Boston and the Psychiatry and Paediatrics Department at Columbia University in New York, USA, on maternal alcohol consumption in pregnancy and the sudden infant death syndrome (all consultants).

Research

Three articles were accepted and published in reputable journals nationally and internationally.

One chapter in a book was published during the 2010 academic year.

Teaching and training

Undergraduate teaching

During the year 2010, 119 MB, ChB IV and 70 MB, V students were trained in the Forensic Medicine undergraduate module. The lectures for the two week academic rotation for MB, ChB IV and V students were also revised and standardised. The undergraduate module involves tutoring small groups of approximately 10 to 12 students who spend two weeks in the Division, undergoing intensive group teaching. This was undertaken primarily by the professional staff and with assistance from the administrative personnel. Undergraduate students for the module were very positive in their feedback of the module undertaken by the Division and the Faculty.

Postgraduate teaching

- Five registrars and two medical officers in the Division of Forensic Medicine underwent training varying from year one to four of their Specialist Forensic Pathology training.
- Three registrars from the Anatomical Pathology Division spent two months each as rotating registrars in the Postgraduate Autopsy Technique module. They were supervised and trained by senior specialists of the Forensic Pathology Division.
- Two registrars successfully completed the MMed Forensic Pathology Part 1.
- One registrar successfully completed the MMed Forensic Pathology Part 2.
- One Forensic Pathology registrar from Denmark spent four weeks in November as a fellow at the Division of Forensic Medicine as well as the Tygerberg Forensic Pathology Facility.

Electives

- The electives were tutored and trained by medical personnel in the Division.
- One internal elective medical student from the Health Science Faculty, Stellenbosch University, was accommodated in the programme for 2010.
- Two overseas elective Forensic Science students from Avans University of Applied Sciences in Breda, Netherlands, were accommodated in the Division during October.
- One Forensic Pathology postgraduate elective/registrar from Denmark spent four weeks in November at the Division of Forensic Medicine as well as at the Tygerberg Forensic Pathology Facility. She found the exposure and experience extremely

Forensic Medicine

educational and totally unlike the Pathology seen at the training centre where she is currently registered.

Forensic officer training

The training of the new technical personnel is an ongoing process, including practical-skills transfer and information technology training. This is undertaken jointly with the Division of Forensic Medicine of Health Science Faculty at the University of Cape Town. Forensic officers were trained, examined and certified in October 2010 at the Health Science Faculty at Stellenbosch University. A total of 16 forensic officers were trained from 11 to 15 October 2010.

Job shadowers exposure and teaching

Three learners from high schools in Cape Town spent time in the Division and the Histology Lab and used the time to experience some aspects of Forensic Medicine and considering Medicine as a career option.

Medical Imaging and Clinical Oncology

Medical Imaging and Clinical Oncology

Prof. Annare Ellmann

Medical Physics

Dr Wilhelm Groenewald

Summary

The Medical Physics Division renders services not only to divisions within the Department of Medical Imaging and Clinical Oncology but also to the entire hospital. Support to the Department includes dosimetry services to Radiation Oncology, Nuclear Medicine and Diagnostic Radiology, lecturing of Medical and Radiation Physics to postgraduate students and radiographers and participation in research projects. In addition, Medical Physics is responsible for protecting of staff and patients who are exposed to ionising radiation, e.g. X-rays, and laser beams within Tygerberg Hospital (TBH).

A highlight on the Medical Physics calendar of 2010 was hosting the 50th Jubilee Conference of the SA Association of Physicists in Medicine and Biology in Stellenbosch from 15 to 17 September. A total of 91 national and international delegates attended this prestigious event. During the three-day meeting, 33 papers and 18 posters were presented.

Resources

Posts (full-time)	Number	Filled
Senior Manager: Medical Physics	1	1
Manager: Medical Physics	1	1
Assistant Manager: Medical Physics	1	1
Medical Physicist	2	2
Intern Medical Physicist	1	1
Chief Medical Technical Officer	2	2
Chief Medical Technologist	1	1
Chief Radiographer	1	1
Auxiliary Service Officer: Medical Physics	1	1
Secretary: Medical Physics	1	1



Output

Medical Physics and Dosimetry

Quality control procedures on radiotherapy units	260
Patient treatment plans checked	2 348
Patients treatment charts checked	1 100
Radionuclide administrations	15
Radiation monitors issued to TBH staff	5 707
In vivo diode dosimetry system calibrations	150
Stability tests on dosimeters	12
Brachytherapy procedures checked	504

Nuclear Medicine

Stability tests on dosimeters	312
Nuclear Medicine equipment QC Procedures	1 562

Radiation Technology Laboratory

Immobilisation masks	195
Compensating filters	40
Alloy shielding filters	150
Plaster impressions	15
Bite blocks	54
Wax build-up	15
Special devices	6

Comment on output

Since Medical Physics is a service provider to Nuclear Medicine, Radiation Oncology and Diagnostic Radiology, the number of Medical Physics procedures is generally determined by the activities of the divisions mentioned above.

Medical Imaging and Clinical Oncology

Infrastructural development

Medical Physics played a significant role in the procuring and commissioning of new radiation equipment. In the past year, medical physicists contributed significantly towards the successful commissioning of the new Siemens SYMBIA E gamma camera as well as preparation of specifications for installing a Positron Emission Tomography (PET) facility in the Nuclear Medicine Division. Commissioning tests on the ELEKTA single photon energy medical linear accelerator (Baby LINAC) were completed and our first patients on the Baby LINAC were treated in March 2010.

National cooperation and partnerships

Medical Physics maintains active involvement in the functioning of REMACSA (Radiation Emergency Medical Advisory Centre of South Africa).

Research

Medical Physics staff presented two papers at international conferences as well as a paper at a national conference. Monique du Toit contributed to research resulting in a manuscript that has been accepted for publication in the International Journal of Molecular Imaging.

Teaching and training

Radiological Physics courses were presented to MMed and MSc students in Nuclear Medicine, MMed Radiation Oncology students, MMed Diagnostic Radiology students and Diploma and BTec Radiography students.

Highlights

International Atomic Energy Agency (IAEA) activities: In the past year Medical Physics once again participates in activities of the IAEA, specifically in Africa under the AFRA (African Regional Co-operative Agreement for Research, Development and Training related to Nuclear Science and Technology) agreement.

Tumelo Moalosi attended a meeting for heads of Nuclear Medicine Centres and Chief Medical Physicists in Africa in Vienna, Austria, from 5 to 7 July 2010. Hannellie MacGregor attended an IAEA regional course on Electron Beam Dosimetry in Cairo, Egypt, from 12 to 16 April 2010. Anne-Mari Rossouw organised a very successful workshop on Rapid e-Learning at the Tygerberg campus. The workshop was held on 17 November 2010 and 22 people attended.

Nuclear Medicine

Prof. Annare Ellmann

Summary

Nuclear Medicine is still actively involved in all three of our primary business areas, namely service delivery, teaching and training, and research. Service delivery was once again under constant pressure because of equipment shortages. In spite of this, regular positive feedback about our service and the appearance of the division were regularly received from patients, either during their visits or as letters of appreciation afterwards. A new gamma camera was installed in December 2010, which will alleviate some of the pressures. Many members of the Nuclear Medicine team participated in the activities of the World Federation of Nuclear Medicine and Biology, including the big international congress held in Cape Town in September 2010. Virtually all staff members could attend the congress. Our longstanding co-operation with the International Atomic Energy Agency (IAEA) continued. Through the national PET project of the IAEA, a PET workshop with three international experts was possible.

Resources

Posts (full-time)	Number	Filled
Professor/chief specialist	1	1
Specialist	2	
Radiopharmacist	1	1
Registrar (number only)	3	3 + 2 super-numerary
Radiographers (Assistant Director)	1	
	4	1
Radiographers chief	6	4
Radiographers senior	12	6
Radiography students		12

Output

Nuclear Medicine procedures

Adrenal Scintigraphy	14
Cardiac: GSPECT	1 174
Cardiac: Myocardial Perfusion Scintigraphy	1 111
Cerebral Perfusion Studies and Receptor Imaging	38
Flow Studies	158
Gallium Scintigraphy	27
GIT bleeding studies	11
GIT: Gastric Emptying studies	27
GIT: Gastro-oesophageal reflux studies	21

Medical Imaging and Clinical Oncology

GIT: Swallow studies	18
Haematology: blood volume determination	21
Haematology: Ferrokinetics + RBC Sequestration, iron absorption	10
Hepatobiliary studies	3
Infection Imaging	55
Liver and Spleen Scintigraphy	7
Lung Aspiration studies	18
Lung Scintigraphy: Perfusion	70
Lung Scintigraphy: Ventilation	82
Lymph Imaging	144
Miscellaneous Scintigraphy	57
Parathyroid Imaging	117
PET Oncology	212
PET Infection/Inflammation	38
PET Other	27
PET CT studies	276
Renal Scintigraphy	29
Renal: GFR Measurement	52
Renography: Captopril	13
Renography: Diuresis + Differential	221
Renography: Transplant	73
Detection vesico-ureteric reflux	21
Skeletal Scintigraphy	1 427
SPECT/CT studies	534
Thyroid Clinic first Visit	258
Thyroid Clinic follow-up	473
Thyroid I-131 therapy	154
Thyroid Scintigraphy	265
Thyroid uptake	262
Thyroid: whole body iodine Scintigraphy	26
Tomographic studies	765
Total	8 309

Comment on output

For the year 2010 patient numbers and procedures increased by 1%. There was once again a high cancellation rate of 15% of bookings. In addition, 15% of studies were not completed during a single visit, which while being normal for a minority of studies, this should not be the case for most studies. The division faces a number of challenges related to patient bookings. These challenges are due to a number of factors including difficulties faced by patients with contacting the hospital and transport (especially when coming from rural areas). Efforts have been made to contact patients to confirm appointments and to ensure that they arrive timeously and prepared correctly for their checkups.

The number of private patients (H2, H3, private) increased by 1.5% during 2010, generating invoices to the value of R 688 000. PET-CT scanning at Tygerberg Hospital declined during 2010, probably due to Groote Schuur Hospital increasingly using the fixed number of booking slots available to all three academic hospitals. This stresses the importance of an increased PET-CT scanning capacity for state patients in the province. A new activity in Nuclear Medicine is the closer collaboration with clinical colleagues with participation in monthly Radiation Oncology multidisciplinary meetings (MDM) for the management of cervix cancer. There is ongoing participation in the Lung Unit MDM, Haematology MDM, Radiology-Nuclear Medicine meetings, and Psychiatry-Nuclear Medicine meetings. Currently, PET-CT waiting times are often as long as one month, which is not acceptable for many patients with serious illness e.g. those waiting for cancer treatment.

There was a marked increase in the number for SPECT-CT studies. This placed serious stress on the only SPECT-CT camera in the division and also often lead to long waiting times for patients.

Nuclear Medicine is still the only centre in South Africa performing Datscan and SISCOM studies, resulting in referrals from as far as Gauteng.

Infrastructural development

Nuclear Medicine received a new gamma camera that was installed in November 2010. During 2010, we received news that Nuclear Medicine at Tygerberg is to receive a donation of a state-of-the-art PET/CT scanner for use by all three academic hospitals. While the scanner is to be donated, the required building changes and additional items of equipment are to be financed by the province. This is expected to be implemented as a turnkey project during 2011. During 2010, Prof. Warwick and Ms du Toit have been involved in drawing up the PET-CT scanner, developing a scoring system and providing input on the bids submitted by vendors to the donors.

Community outreach programmes

As Nuclear Medicine is a tertiary speciality, there are limited outreach possibilities locally and nationally. However, we have an active training programme for African students. Requests are regularly received through the IAEA for official Nuclear Medicine training of physicians and other scientists from Africa, but also directly from students. Contrary to the past when most students enrolled for the MSc in Medical Sciences

Medical Imaging and Clinical Oncology

(Nuclear Medicine), requests are now received for four year specialist training via the Stellenbosch University MMed (Nuc Med) training programme. Given the limited number of specialists in Nuclear Medicine at Tygerberg Hospital, numerous of these potential students cannot be accepted. Radiopharmacists and technology students have also been trained, either in-house or at Stellenbosch University and the Cape Peninsula University of Technology (CPUT) respectively.

We have also had visits from several groups of medical students and registrars from the University of Nebraska in the USA. Nuclear Medicine participated in the annual open day held at Tygerberg Hospital. Several staff members, including nurses and radiographers, manned the exhibition area and accompanied learners and other interested persons on guided tours to the division.

National co-operation and partnerships

Several members of the division were involved in national activities. Prof. S Rubow served on a committee of the Medicines Control Council, while Profs. Ellmann and Warwick served on the Council of the College of Nuclear Physicians of the Colleges of Medicine of South Africa (CMSA). Prof. Ellmann also served on the senate of the CMSA. Prof. Warwick was a member of an advisory board on neuroendocrine tumours for Novartis.

There is still research collaboration with Prof. D Stein of Psychiatry at UCT, and joint training with the Nuclear Medicine and Paediatric Department at UCT.

Both Profs. Rubow and Ellmann were involved in training Radiography students at CPUT. Prof. Rubow was a reviewer for grant applications to the South African National Research Foundation and the MRC.

Co-operation with the private sector

There is good interaction between Nuclear Medicine and the private Nuclear Medicine practises. The collaboration with the private PET consortium continued in 2010. Sometimes the practises made use of our facilities, while Nuclear Medicine sometimes sent patients to a private facility when our gamma cameras were non-functional. Two private nuclear physicians had been appointed as extraordinary lecturers and make a valuable contribution to the training programme of the division. The Division's consultants, including the radiopharmacist, were consulted from at times by private nuclear physicians for opinions on some of their difficult cases.

International co-operation and partnerships

There is continuous close collaboration with Prof. P Dupont of the Laboratory for Cognitive Neurology and Medical Imaging Center, Catholic University, Belgium. Dr Liesbet Mesotten from Belgium visited the division for two weeks in August to assist with postgraduate teaching and training through financial support from the clinical grant from the Department of Higher Education and Training. Dr Mesotten also visited in November 2010 to assist with the planning of the PET-CT facility at Tygerberg Hospital. Prof. Rubow participated in an audit of a Radiopharmacy facility in Sudan, under the auspices of the AFRA section of the IAEA. Prof. Ellmann attended a research co-ordinators' meeting at the IAEA in Vienna, Austria, to draft a research protocol for a coordinated research project on the application of SPECT-CT in sentinel node imaging, with experts and participants from 11 different countries.

Prof. Ellmann handed over the presidency of the World Federation of Nuclear Medicine and Biology (WFNMB) at the highly successful 10th congress of the WFNMB in Cape Town in September 2010, which was attended by nearly 1 000 delegates from all over the world. Several members of the Nuclear Medicine Division were members of the organising committee or of scientific committees. Nearly all staff members of Nuclear Medicine attended the congress and presented numerous papers and posters.

Research

Three papers were published in international peer-reviewed journals, 11 abstracts in the World Journal of Nuclear Medicine and one abstract in the Journal of Nuclear Medicine.

Nuclear Medicine is involved in a multicentre-coordinated research project of the IAEA, with participation from nine countries, investigating the longitudinal monitoring of complicated Osteomyelitis by SPECT/CT in Diabetic foot, post-traumatic Osteomyelitis with or without metal implants and endo-prosthesis joints infections.

Dr N Korowlay is the Tygerberg supervisor.

Prof. Ellmann, with coworkers Drs Venesen Pillay (Nuclear Medicine registrar) and Hennie Botha and Haynes van der Merwe (gynaecology specialists), are involved in a multicentre-coordinated research project of the IAEA, with participation from 11 countries,

Medical Imaging and Clinical Oncology

investigating the use of sentinel lymph node detection in breast, melanoma, head and neck, and pelvic cancers.

Prof. Ellmann is the Tygerberg supervisor.

Teaching and training

Nuclear Medicine is involved in the orientation of MB, ChB 1 students and in lectures and middle clinical rotations of MB, ChB students.

One student completed the fellowship of the College of Nuclear Physicians of the CMSA. Two students from Africa enrolled for the MSc in Medical Sciences (Nuclear Medicine) in February 2010.

Two students obtained the MSc in Medical Sciences (Nuclear Medicine).

There are ongoing academic activities, including regular meetings with Radiology, journal club meetings, seminars and clinical multidisciplinary meetings.

Highlights

Several staff members were involved in the activities of the World Federation of Nuclear Medicine and Biology. Prof. Ellmann was the president and chairperson of the governing council (GC) until September 2010, and thereafter former-president and member of the GC. Prof Rubow served on the local organising committee. Profs Ellmann, Rubow and Warwick and Dr Korowlay also served on scientific subcommittees and were session chairpersons.

Radiodiagnosis

Prof. Richard D Pitcher

Summary

Prof. Richard Pitcher took up his appointment as Head of the Division on 1 January 2010.

Overall, service delivery increased 5.1% with 160 555 examinations performed – 34% (54 899) were done after hours.

The modular four-year postgraduate academic curriculum was in its third year of operation, with further refinement and some expansion of the academic programme. The programme continues to derive invaluable support from the funding of the Department of Education for visiting lecturers.

The so-called “Special Postgraduate student” programme (whereby doctors on the waiting list for Radiology registrar posts are enrolled for the University's MMed part 1 Radiological Diagnosis teaching courses in Anatomy, Physics and Physiology) is in its fourth year of successful operation. Eight students are enrolled. The Division continues to derive immense benefit from the academic mentorship of Prof Jan Lotz, who holds a supernumerary Ad Hominem Associate Professorship funded by the Private Radiological fraternity of South Africa.

The Division continues to derive immense benefit from the academic mentorship of Prof. Jan Lotz, who holds a supernumerary Ad Hominem Associate Professorship funded by the Private Radiological Fraternity of South Africa.

Resources

Posts (full-time)	Number	Filled
Associate Professor/Chief Specialist	1	1
Supernumerary Associate Professor/Principal Specialist	1	1
Specialist	7	7
Registrar	20	20
Supernumerary Registrar	2	2

Posts (sessional – number of hours per week)

Specialists	1 (20 hours per week)	1 (20 hours per week)
Locum posts	1	1

Output

Radiological examinations

General radiographs	60 051
Chest radiographs	56 381
CT's	16 965
Sonars	11 129
Fluoroscopy cases	7 023
Vascular/interventional cases	4 424
MRI's	2 566
Mammograms	2 016

New imaging techniques introduced in 2010

- CT colonography; and
- CT enteroclysis.

Medical Imaging and Clinical Oncology

Comment on output

Increased year-on-year service demands in:

- MRI (7.7%);
- CT (3.2%);
- Ultrasound (1.7%);
- Fluoroscopy (6.7%);
- General X-rays (6.7%);
- Chest X-rays (5.1%); and
- Mammography (3.0%).

Waiting lists for CT and MRI outpatient services remain a major challenge.

Infrastructural development

Voice Recognition (VR) dictation was integrated with the Picture Archiving and Communication System (PACS) in January 2010 for use by the Division's 22 registrars.

Community outreach programmes

Prof. Pitcher serves on the Provincial PACS-RIS Steering Committee. The province's digital imaging project is ambitious and long-term, with the ultimate vision being an integrated platform for central, regional and district hospitals. The contract for the Central Academic Hospitals PACS-RIS was awarded in November 2008.

In September 2010, Prof. Pitcher was appointed by Dr Beth Engelbrecht, Deputy Director-General of Tertiary and Emergency Services, to convene the regional and district hospital integrated PACS-RIS Tender Specification Committee, with the purpose of the initial commissioning of PACS-RIS at the regional hospitals in Worcester and George and the Khayelitsha District Hospital. Following this, there will be roll-out to Paarl Regional Hospital and Mitchell's Plain, Karl Bremer and GF Jooste District Hospitals. It is envisaged that Worcester, George and Khayelitsha will be commissioned by end of the 2011/2012 financial year.

In view of Prof. Pitcher's commitments in the Provincial Digital Imaging Project, a contract locum consultant radiologist was appointed to cover his divisional clinical duties funded by the Modernisation of Tertiary Services Grant.

During 2010, Prof. Pitcher collaborated with the Centre for e-Innervation, through the Provincial PACS-RIS Steering Committee, to upgrade data lines between the regional/district hospitals and the central academic hospital, for transmission of images on the Provincial digital platform. It is envisaged that 20 Mbps datalines will

connect regional and central Hospitals, while 2 Mbps datalines will connect district hospitals and central hospitals.

Prof. Jan Lotz is the Editor-in-Chief of the South African Journal of Radiology. Dr Christelle Ackerman served on the Editorial Board of the South African Journal of Radiology. Prof. Pitcher was invited reviewer for the South African Journal of Radiology and the South African Medical Journal.

Prof. Pitcher served as an advisor to the Director: Professional Support Services, Department of Health: Western Cape Province.

Co-operation with the private sector

A supernumerary, ad hominem associate professorship and principal specialist post is funded by the South African private radiological fraternity.

Provincial co-operation and partnerships

The three Tesla Magnetic Resonance Imaging (MRI), Cape University's Brain Imaging Centre (CUBIC), joint initiative between the University of Cape Town and Stellenbosch University, partly funded by Siemens, represents a collaboration between the universities in the Western Cape and private enterprise.

Research

A collaborative research project evaluating the utilisation of CT head scans for acute intracranial pathology in a resource-limited healthcare environment was initiated with the Radiology Department of the Kimberly Regional Hospital.

A collaborative research project evaluating the utilisation of CT head scans in a private South African radiological facility was initiated with the Cape Gate Medi-Clinic Emergency Unit.

Publications

- | | |
|--|----|
| • International publications | 6 |
| • International proceedings | 4 |
| • National presentations | 6 |
| • National proceedings | 5 |
| • Masters degrees successfully completed | 5 |
| • Doctoral research projects in progress | 2 |
| • Masters research projects in progress | 14 |

Medical Imaging and Clinical Oncology

Teaching and training

International visiting lecturers

- Dr Julie Schatz, Musculoskeletal Radiologist, Department of Radiology, Royal Prince Alfred Hospital, Sydney, Australia – September 2010.
- Prof. Douglas Jamieson, Paediatric Radiologist, British Columbia Children's Hospital, University of British Columbia, Vancouver, Canada – December 2010

Undergraduate teaching

Four didactic radiology lectures to second year students are incorporated in the undergraduate curriculum.

During the fourth or fifth undergraduate year, students are incorporated in the undergraduate curriculum.

During the fourth or fifth undergraduate year, middle clinical rotation, students spend a week in Medical Imaging and Clinical Oncology, exposed to Radiology, Nuclear Medicine and Radiation Oncology, completing a project and end-of-block assessment.

Educational research

A research project is currently underway evaluating the effectiveness of orientation material presented by the Division of Radiodiagnosis to our middle clinical rotation students. A further research project is underway evaluating the Stellenbosch University final year medical knowledge of the radiation dose and radiation risk from commonly requested radiological examinations.

Postgraduate teaching

- Prof. Pitcher was an external examiner at the University of Pretoria M. Med Part II examinations in September 2010.
- Prof. Pitcher was appointed to serve as an academic representative on the Executive Committee of the Radiological Society of South Africa.

Modular academic programme

This four year postgraduate academic curriculum was its third year of operation, with further refinement and some expansion of the academic programme. It was funded by the Department of Education.

- Prof. Steven Beningfield, Head of Department, University of Cape Town (Hepatobiliary Imaging);
- Dr Tracy Kilborn, Head of Department, Red Cross War Memorial Children's Hospital (Paediatric

Imaging); and

- Dr Nicole Wieselthaler, Consultant, Red Cross War Memorial Children's Hospital (Paediatric Imaging).

Special postgraduate students

Eight "special postgraduate students" were enrolled in the Division of Radiodiagnosis at the University of Stellenbosch in 2010.

Registrar Complement

A total of 22 postgraduate students (registrars) and two supernumerary registrars from African countries (Namibia, Libya) are currently in training. The registrar:consultant (FTE) ratio is currently 2.6:1

Fellowship of the College of Radiologists, Colleagues of Medicine of South Africa

Prof. Pitcher and Dr Christelle Ackerman served as Councillors of the College of Radiology of the Colleges of Medicine of South Africa. Dr Ackerman was a college examiner at the April 2010 College Fellowship Part II Examinations in Bloemfontein.

Successful candidates: Dr Dirk van der Merwe, Dr Anne-Marie du Plessis, Dr Hofmeyer Viljoen.

Master of Medicine, Radiological Diagnosis, Stellenbosch University

Successful candidates: Drs Pieter Janse van Rensburg (cum laude), Jaco du Plessis, Dirk van der Merwe, Anne-Marie du Plessis, Manana Pienaar.

Fellowship of the Royal College of Radiologists of Great Britain

Successful candidate: Dr Pieter Janse van Rensburg.

Educational research

A research project is currently underway evaluating Stellenbosch University final year registrar knowledge of the radiation dose and radiation risk from commonly requested radiological examinations.

Educational outreach

International undergraduate students

Four international undergraduate elective students spent a month or more in our department during 2010:

- Wesley van Hout (March 2010);
- Kim Goldsmith (22 March to 11 June 2010);
- Faithful Ighalo (17 May to 11 June 2010); and
- Anne Scholl (11 October to 05 December 2010).

Medical Imaging and Clinical Oncology

National postgraduate students

One postgraduate South African elective student, Dr Vicci du Plessis, spent two weeks in our division.

Highlights

International awards

In January 2010, Dr Pieter Janse van Rensburg, registrar, was awarded the Frank Doyle Medal for the autumn 2009 sitting of the Final FRCR Part A Examination. This medal is awarded to the highest scoring candidate who has passed all six modules at the first attempt.

National awards

Dr Shaun Scheepers, registrar, was awarded joint first prize for his oral presentation at the Radiological Society of South Africa (RSSA) SGR Gastroenterology Congress in August 2010.

Dr Arthur Maydell and Dr Hein Els, registrar, were prize-winners in the Radiological Society of South Africa (RSSA) Poster Competition at the first SGR Gastroenterology Radiology course in August 2010.

Radiation Oncology

Dr Magda Heunis (acting)

Summary

The department offered a full spectrum of oncological services; including radiosurgery, proton beam therapy and neutron therapy through association with iThemba LABS and CSI at N1 City.

A focal teaching workstation was purchased through Department of Education funds and the utilisation thereof has been incorporated in the teaching scenario of the registrars.

Resources

Posts (full-time)	Number	Filled
Professor	1	1
Head Clinical Unit	1	1
Specialist	4	3
Registrar	5 (+1 supernumerary)	6
Medical Officer	6	6
Radiographers	22	20 (+1 contract post)

Posts (sessional – number of hours per week)

Locum posts	1 (20 hrs/week)	1 (20 hrs/week)
Number of beds (usable)		47

Through lengthy discussions with the provincial government final agreement has settled on 47 beds in the Gene Louw building, which are essentially all Level 3 beds – being Oncology treatment. In cooperation with CANSA, the 20 “hotel beds” in Protea Court is functioning well.

Output

New patients per year	1 802
Out-patient visits	20 393
Speciality clinics	6
Admissions	1 648
Theatre procedures	198
Planned patients	2 348
Simulated and scanned patients	3 823
Machine statistics (treatment fields)	62 176
Chemotherapy administrations	6 575
S-tube insertions (X-block theatre)	198
S-tube treatment procedures	504

Livelihood is a record-keeping system that was started as a pilot programme at Oncology. It proved highly successful and links well to the Tygerberg main hospital system. Extension of the program is in process.

Comment on output

Outputs in terms of machines are restricted due to radiographer shortage. This in turn leads to waiting lists. Outputs in terms of chemotherapy are limited by lack of “modern” oncology systems – limited space, lack of oncology trained sisters and use of old drug schedules.

Infrastructural development

Intensity Modulated Radiation Therapy (IMRT) was initiated and treatment is spending on further training of staff.

A new single photon energy LINAC (“Baby LINAC”) was implemented for patient treatment from March 2010.

Community outreach programmes

International co-operation by the training of a supernumerary registrar from Kenya. In collaboration with CANSA a hostel was opened in Protea Court where patients can stay who live far and need daily treatment, but are not ill to be admitted to hospital. This facility

Medical Imaging and Clinical Oncology

houses 20 beds, provides food and helps with social support and transport.

National co-operation and partnerships

A continued clinical programme at iThemba LABS (formerly known as the National Accelerator Centre), Faure. iThemba LABS is recognised by the HPCSA as a satellite centre of Tygerberg Oncology.

The Centre for Stereotactic Irradiation (CSI) – a public-private partnership between Netcare and Stellenbosch University – has been very beneficial in terms of registrar/radiographer training.

Co-operation with the private sector

Prof. F Vernimmen assisted with consultation and training registrars in stereotactic radiation at the N1 Oncology Centre and participated in a combined Radiosurgery Clinic at CSI.

International co-operation and partnerships

Participation in international clinical trials.

A partnership was initiated between the Oncology Unit, Pulmonology and Calypso Research, based in Seattle, USA.

Research

Journal Articles (subsidised)

- Willems P, August L, Slabbert, JP, romm H, Oestreicher U, Thierens H, Vral A. Automated micronucleus (MN) scoring for population triage in case of large scale radiation events. *International Journal of Radiation Biology* 2010; 86(1): 2-11.

Journal Articles (non-subsidised).

- Simonds HM. Long-term Complications of Pelvic Radiotherapy. *South Afr J Gynaecol Oncol* 2010; 2(2): 62-65.

Proceedings: international

- Bohm ELJF. *Bedeutung der Translation fur die Radiotherapie.* Seminar – Department of Radiation Oncology, University of Halle, Germany, 2010: 1-2.
- Bohm ELJF. *Translation Principles in Radiation Oncology.* DNA Repair in Cancer Protection, Symposium der DFG Forschergruppe 527 Suszeptibilitätsfaktoren der Tumorgenese, University of Mainz Klinikum, Mainz, Germany, 2010: 1-2.
- Paris GE. *The Perceptions and Expectations of Lung Cancer Patients Attending A South Africa State Oncology Centre; An Observational Cross-Sectional*

Prospective Qualitative Study of 40 Patients. Multidisciplinary Symposium in Thoracic Oncology, Chicago Hilton, Chicago, USA, 2010:1-2.

- Simonds HM, Du Toit N. *Conformal Radiotherapy in Cervical Cancer: The Effect of HIV Infection on Completion Rate and Response.* 13 Biennial meeting of the international gynaecologic cancer society (IGCS 2010), Prague Congress Centre, Prague, Czech Republic, 2010: 1-2.
- Simonds HM. *Conformal Techniques Lead to a High Completion Rate of External Beam Radiation for Cervix Carcinoma in a Developing World Setting.* 13 Biennial meeting of the international gynaecologic cancer society (IGCS 2010), Prague, Czech Republic, 2010: 1-2.

Proceedings National

- Simonds HM. *Gynaecological Cancers: a Clinician's Perspective.* IAEA Workshop on Clinical Applications of PET/CT, University Stellenbosch Business School, Bellville, South Africa, 2010.

Teaching and training

This division is involved in the middle clinical rotation of fourth and fifth year medical students during their Radiation and Imaging rotation.

- Supernumerary registrar from Kenya sponsored by the Kenyan government; and
- Continued involvement with the College of Medicine of South Africa examinations.

Highlights

Lectures delivered at local specialist forums by departmental members in different fields of Oncology:

- Barnardt P, Narinesingh D. Case Report: *Retroviral Disease and Primary Breast Lymphoma (PBL).*
- Bohm Eljf, Serafin AM, Fernandez P, Van Der Watt G. *New Markers for the Identification of Prostate Cancer.*
- Du Toit N, Maurel JJP. *A Review of Chemoradiation for the Radical Treatment of Locally Advanced Rectal Carcinoma at Tygerberg Hospital (2001-2006).*
- Du Toit N, Simonds HM. *Conformal Radiotherapy in Cervical Cancer: The Effect of HIV on Completion Rate and Response.*
- Fourie AE, Simonds HM, Warwick J, Ellmann A. *Evaluating the Role of PET-CT scanning in the Staging of Cervical Carcinoma Stage IIIB and the Impact on Treatment Decisions.*
- Vernimmen FJAI. *Use of the Fraction Equivalent Graph in Clinical Radiotherapy.*

Department of Medicine

Prof. MR Moosa

Summary

For the Department the year started eventfully with an accreditation visit by the health Professions Council of South Africa. The visit intense preparatory work but went off uneventfully. The Department and all its divisions were found to be performing very well and accredited for training for the following five years. The other major event that was well received was the implementation of the occupational specific dispensation (OSD) which finally resulted in the improvement of the salaries of medical staff. Individual accolades were the Rector's award for Community Interaction received by Prof. Irusen, the Rector's award for Research received by Prof. Brink and the Rector's award for Outstanding Service received by Mr Gerald Fortuin. Professor Bolliger was honoured by the World Association of Bronchology and Interventional Pulmonology and Prof Brink, the AWK with the Havenga award.

Academically the Department has maintained its research outputs with a similar number of publications as previously (Figure 1). While this is satisfactory, an increase in publications would have been much more desirable. On the teaching and training side, our results at the undergraduate level have been excellent with an Internal Medicine pass rate of 96.6% in the final year. We are particularly proud of the performance of our post graduate candidates in the Colleges of Medicine of South Africa (CMSA) examinations (Table 1). In the Part I Basic Science examinations, 57% of the individuals who wrote passed at the first round. In the Part II clinical examinations all the candidates passed at the first attempt allowing us to maintain an unbroken pass rate of 100% with the best student in the Internal Medicine examination. Regarding all our terms of commitments to less developed countries, we are very proud of the large number of supernumerary fellows that are training in various subdivisions in the Department (Table 2). The majority are from African states.



Table 1: Successful candidates in various formats of CMSA examinations

FCP I Passed	FCP Part II passed	Other
Dr Bouwwer	Dr Lambiotte	Cert ID (SA)
Dr Bruwer	Dr Mudaly	Dr Cupido
Dr Odumuso		Cert Nephro
Dr Parker		Dr Boima
		Dr Brönn
		Dr Chothia

The Department is immensely proud of the results and reputation that it has achieved in regard to its postgraduate teaching and training. Notwithstanding this the Department held a workshop in May to discuss various postgraduate issues including the training in basic sciences and assessment of registrars. Most of the decisions agreed upon are currently being implemented. Six MMed students graduated from the Department. Prof. Peter Jacobs was awarded the degree DSc for thesis entitled: Immunohaematopoetic stem and progenitor cell transplantation – A 30 year prospective and systematic research investigation. Members of the Department were able to secure substantial research grants. Some of the largest are: Medical Education Partnership Initiative (MEPI) Grant of \$9.4m over five years – Professor Jean Nachege; Dr Sissolak received \$37 500 from Columbia University for the project “Columbia-South Africa Training Program for Research on HIV-associated Malignancies” from August 2010 to July 2013; Dr Hanel Sadie received the MRC Career Award of R1m over four years.

With regard to service delivery the appointment of Dr Andy Parrish as Head of General Internal Medicine in 2009 was a major coup for the Department. Dr Parrish commenced his responsibilities with great enthusiasms

Medicine

and made a significant contribution in the governance of General Medicine. Sadly Dr Parrish was forced to relocate to the Eastern Cape, for personal reasons, in July 2010, much to our regret. However, he continues to maintain contact and hopefully will continue to contribute to the Department. The various divisions have continued with outreach and support activities. A new outreach service was that of Dermatology which commenced a monthly clinic in Worcester which has proven highly successful. A service which has been under pressure for some time is the Poisons Information Centre (PIC) which provides a national service and which was headed by Dr Joy Veale. Her retirement early in the year left a big vacuum and has put the service under threat. Attempts at improving the PIC service and restoring it to its former level of operation are currently under way. In improving the PIC service and restoring it to its former level of operation are currently under way. In order to improve the service patients receive in medical admissions ward (F1) negotiations have been entered into with the Emergency Medical Services to set an Emergency Medical Centre at Tygerberg Hospital. The project is hampered by the design of the hospital and lack of financial and human resources. The paucity of ICU beds and lack of dedicated haematology beds are ongoing concerns but the new CEO has undertaken to prioritize the latter. Another major concern for the Department is the anticipated service shifts which will occur when the new Khayelitsha Hospital (KDH) is commissioned in late 2011. The Department

provided input on a workable model for the management of medical patients at KDH. The Department continues to maintain an excellent working relationship with hospital management to ensure optimal service delivery.

The major reshuffling of the Faculty in 2005 - 06 had caused enormous upheavals but the Department has now consolidated very well and is functioning effectively as cohesive unit. With the one exception, all the divisional heads have been formally appointed. In an effort to promote research in the Department, funds from a vacated administrative post were channelled to create a new research scientist post which will be used to promote basic science, and bench-to-bedside research. Dr Tabie Grayling was the first registrar to make use of the opportunity created to encourage clinicians to enter the laboratory environment to do research for their research assignments. The Department participates actively in the examination activities of the College of Physicians and Prof. Moosa serves on the Council of the College of Physicians. Members of the Department serve various structures at Faculty, national and international levels including editorships. In the coming year, the Department plans to continue to address the challenges faced in service delivery, especially in General Internal Medicine, to strengthen postgraduate teaching and to promote research, especially in General Internal Medicine, to strengthen postgraduate teaching and to promote research, especially basic research.

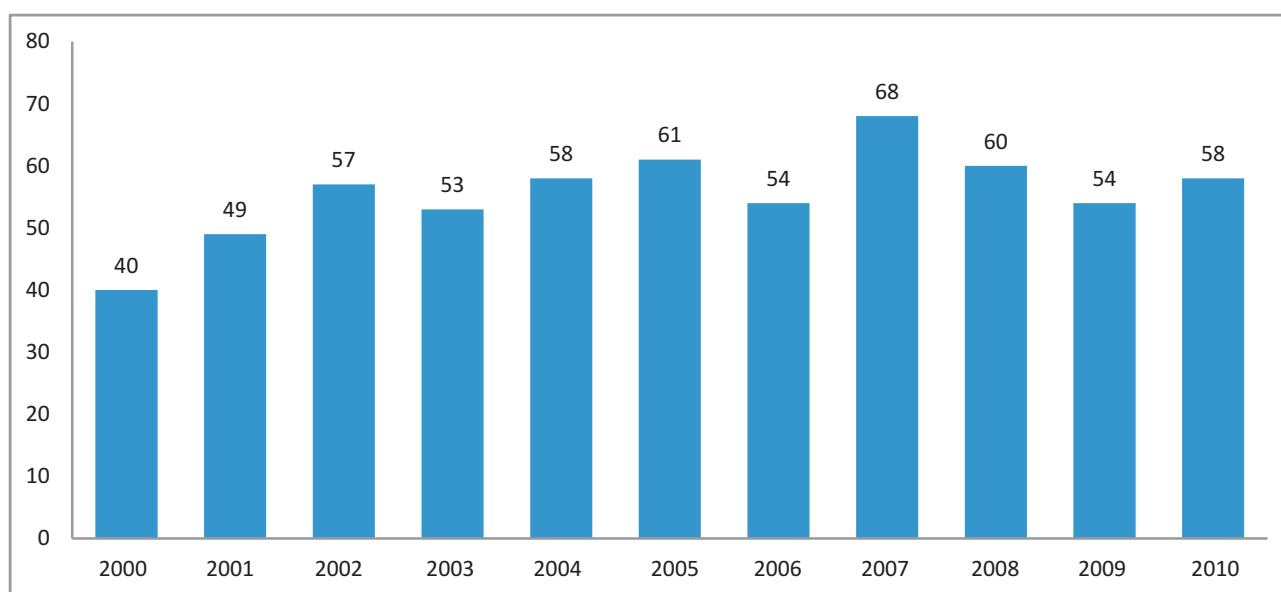


Figure 1: Total publications of the Department of Medicine 2000- 2010

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Table 2: Supernumerary fellows in the Department of Medicine in 2010

2010	Start Date	Country	Division
Dr Aderemi Adeniyi	10 October 2006	Nigeria	Nephrology
Dr Motana Katengua	01 January 2005	Botswana	Int. Medicine
Dr Vincernt Boima	1 September 2008	Ghana	Nephrology
Dr Fatima Ahamed	11 August 2008	United Arab Emirates	Dermatology
Dr G Cupido	05 January 2009	Namibia	Infectious Diseases
Dr Florian von Groot-Bidlingmaier	01 January 2009	Germany	Pulmonology
Dr Mohamed Alteer	31 August 2009	Libya	Int. Medicine
Dr Kushroo Aubeelack	18 June 2009	Mauritius	Int. Medicine
Dr Flora Kokwaro	1 March 2010	Kenya	Int. Medicine
Dr Maurizio Bernasconi	1 January 2010	Switzerland	Pulmonology

Cardiology Unit

Prof. AF Doubell

Summary

The Cardiology Unit is an integral component of Tygerberg Hospital and the Faculty of Health Sciences, Stellenbosch University. The clinical activities of the unit centres around the 25-bed Intensive Care Unit, the cardiac catheterisation laboratory, the echocardiography laboratory and the Out-patient Clinic (four clinics per week: three general cardiology clinics and one focussed cardiology clinic lipid disorders). The service rendered and the teaching platform provided is very dependent on the ECG, Holter ECG, stress ECG, pacemaker, echocardiography and catheterisation service.

Our effort at excellence in service delivery, teaching and research is still hampered by critical shortages of staff (cardiologist, medical officer, technical staff and nursing staff). As far as equipment is concerned it must be noted that critical deficiencies still exist e.g. lack of monitors in the Emergency Coronary Care Unit (A6) and in the Echo Unit as well as a lack of echocardiography facilities in the emergency areas in the hospital. However an important step forward was the decision to install a new cardiac catheterisation laboratory with the generous assistance of the DG Murray Trust. Building alterations commenced in November 2010 and installation of the new equipment is planned for the first term of next year.

Despite the challenges we face:

- Cardiology has maintained its service excellence (albeit at great personal sacrifice of staff members);
- Good student teaching remains a hallmark of the unit;

- The Unit has managed to maintain a reasonable academic output with 15 publications; and
- The Unit has remained an important role-player amongst academic cardiology centres in the country with Prof. Doubell being on the executive committee of the South Africa Heart Association. The Journal now appears in electronic and printed form and is accredited by the Department of Education (DoE).

Resources

Staff

Professor	Prof AF Doubell
Specialist Cardiologists	Dr H Weich
	Dr P Herbst

The fourth cardiologist post is currently filled by a senior registrar to increase out training capacity. This is a temporary measure for the next (three year) training cycle.

Cardiologists in training:

- Dr Hofmeyer (started training in November 2008);
- Dr W Lubbe (training cycle started 1 December 2009);
- Dr C Kryiakakis (training cycle starts 1 January 2010);
- Dr A Pecoraro (training cycle started 1 August 2010);
- Dr Talle (supernumerary trainee from Nigeria – departed in February 2010); and
- Dr Mokwunyei (supernumerary trainee from Nigeria – followed Dr Talle up in July 2010).

Medical Officers

Dr HP Cyster

A 5/8 Medical officer post in echocardiography vacant (this post is currently used to fund the post Dr Pecoraro is

Medicine

appointed in- supplemented with a Discovery grant awarded to Dr Pecoraro).

Research staff – University of Stellenbosch appointments:

Prof L Burgess; and

Me M Cartens.

Technical Staff

Control Technologist	1 (Y Singh)
Technologists	4 (S Ahmed, M Claasen, A Husselman, 1 post vacant)
Technical Assistants	5 (M. Africa, C Faroe, S. Baron, H.Charles, E. Kainda)
Technology students	4 (Palesa Rantoaleng, Jorande Loubser, Shiela Matshika, Alet Meiring)

Administrative Staff

Secretary	Y. Waller
Typist	E. Burger

Registrars

Rotated for periods of 6 months

- Dr Mohammed Alteer;
- Dr Robert Cooper;
- Dr Pieter Rossouw;
- Dr Mariette Swart;
- Dr Ankia Coetzee;
- Dr Nabil Bapoo;
- Dr Andre Nortje; and
- Dr Jane Moses.

Emergency medicine registrars

Rotated for periods of 6 weeks

- Dr Shaikjee; and
- Dr Hodson.

Number of beds

Coronary intensive care unit	8
Coronary high care	17
D4 (elective admissions)	5

Patient Statistics

Inpatients

A6 admissions	
Unit	887
Ward	1 305
D4 elective admissions	408
Total	2 600
Patients seen in the ER	1 079
Resuscitations	55

Out-patients

Cardiac Clinic

New patient consultations	775
Follow-up patient consultations	3 591

Lipid Clinic

New patient consultations	49
Follow-up patient consultations	801
Adult cardiology total	5 216
Paediatric cardiology clinic	1 032

Electrocardiography

Standard ECG	13 998
Exercise ECG	1 029
Holter recordings	114
Total	15 141

Echocardiograms

TTE (Adult)	4 564
TTE (Paediatric)	564
TEE	95
Total	5 223

Cardiac catheterisation

Left and coronary	1 138
Femoral	685
Radial	453
Grafts (incl. in above)	100
Aortograms (incl. in coronary stats)	39
Coronary flow wires (incl. coronary stats)	38
Pulmonary arteriogram (incl. under MVP)	21
Right heart studies	25
Total	1 163

Medicine

Coronary interventions

PCI (number of patients)	425
PTCA balloons	501
Stents	491
Coronary aspirations (incl. above)	38
Intra aortic balloon pump (IABP)	31
Percutaneous Mitral Ballon Valvuloplasty	21
Divers cardiac interventions	5
Aortic valvuloplasty	2
Pulmonary valvuloplasty	1
Tricuspid valve replacement (TVI)	1
Coarctation stent	1
Valve screening (fluoroscopy)	40
Pericardial aspirations	56
Pericardioscopy	12

Pacemaker implantation

New	72
Replacement	37
Lead replacement	2
Epicardial lead	2
Total	111
VVI	67
VVIR	11
VDD	6
DDD	13
DDDR	9
CRT	3
Temporary pacing	165
A6	62
Cathlab	103
Pacemaker follow up	1085
Swan Ganz catheters	1
Arterial lines	4
Ventilation	49

Comment on output

Staff shortages

Consultant

The last round of applications for a training post in cardiology yielded exceptional applications. In order to train additional cardiologist it was decided to keep a consultant post vacant for one training cycle (three years) and to appoint a senior registrar against this post. On completion of this training cycle the post will revert back to the consultant post.

Medical

In order to create an additional research/training post in cardiology it was agreed with management to keep a

post in Echocardiography (5/8 medical officer post) vacant in the short term in order to utilize this post to establish a research/training post for one training cycle (three years). On completion of this training cycle the post will revert back to the 5/8 medical officer post in echocardiography. During this period the echocardiography service required from this post will be provided by the cardiology trainee appointed against this post.

Technologists

Safeera Ahmed resigned during this year. One post was already vacant.

Nursing staff

The acute nursing shortage in the coronary care unit continues to result in cases of suboptimal medical care which is of grave concern.

Infrastructural development

Monitors:

We are still awaiting monitoring equipment for the echocardiography laboratory (four months). The monitors required for A6 has been allocated for next year.

Echocardiography machine

There is a growing need to provide Echocardiography service at the point of contact in the emergency areas of the hospital, particularly in the CCU. This service is currently provided by transporting very expensive equipment from the Echocardiography Unit to the emergency area. One new mobile machine has been allocated to the Coronary Care Unit and should be delivered early in 2010. The provision of Echocardiography facilities for F1 and the Obstetric High-care Unit are next priorities. There after the other intensive care units should be planned for.

Educational role

The unit is actively involved in the departmental teaching programme.

Under-graduate

The Cardiology module was presented to the second year students. The clinical content of the module is under chairmanship of Prof. Doubell.

Student Interns (late rotation) rotate through Cardiology for a seven-day period during which intensive bedside

Medicine

teaching is presented. The middle rotation students attend an ECG seminar weekly (two visits per student during their two week rotation in Internal Medicine).

We participated in the two-day CPR course for undergraduate students co-ordinated by the Department of Anaesthetics. Cardiology provided two full-day lectures.

Training of technologists (four posts) accommodates the curriculae of both the Central University of the Free State and the Durban Institute of Technology.

Post-graduate

A structured teaching programme was presented for registrars rotating through Cardiology for six months at a time.

The registrar training programme was significantly expanded during this year and now includes structured and supervised echocardiography training under guidance of Dr Herbst.

Prof. Doubell was an examiner in the August/October Cert Cardiology examination.

Continued medical education

An Echocardiography outreach for Paarl Hospital has been presented to and accepted by the management of Tygerberg Hospital. The required equipment will be provided jointly by the hospital management and the division of cardiology (Stellenbosch University Cardiology Research Fund).

Drs Herbst and Pecoraro presented a weekend cardiology programme to the staff at Worcester Hospital.

Dr Weich presented a state of the art talk at the Departmental Academic meeting on TAVI.

Highlights

- S Ahmed, PG Herbst, Cyster H, Doubell AF: Award for the best research poster at the Annual Academic Day, Department of Medicine, and Faculty of Health Sciences. 2010.
- W Lubbe: Merit award (bronze medal) for research presentation (category best poster, adult cardiology) at the 11th annual congress of the South African Heart Association held in Sun City in August 2010.
- H Weich: Performed a unique trans-catheter tricuspid valve replacement (second ever reported,

first in Africa).

- A Doubell: Member of the EXCO of the South African Heart Association Editor of the cardiology journal, SA Heart.

Research

Journal articles- subsidised

- Burgess LJ, Sulzer NU. The Role Print Advertising in Clinical Trial Recruitment: Lessons from a South African Site. *Open Access Journal of Clinical Trials* 2010; 2:83-87.
- Burgess LJ, Sulzer NU. Clinical Trials in South Africa: Need of Capacity Building and Training. *SAMJ*; July 2010; 100(7): 402.
- Burgess LJ, Sulzer NU. Primary prevention of atherosclerotic vascular disease. *SADJ* 2010; 65(7): 316-319.
- Burgess LJ, Sulzer NU. The growing disparity between clinical trial complexity and investigator compensation (Editorial). *Cardiovascular Journal of Africa* 2010; 21(5): 272-273.
- Terblanche M, Burgess LJ. Examining the readability of informed consent forms. *Open Access Journal of Clinical Trials* 2010 2: 157-162.

Journal articles – non-subsidised

- Burgess LJ, Sulzer NU. The Globalisation of Clinical Trials: A South African Perspective. *Clinical Trial Magnifier* 2010; 3(2): 115-116.

Proceedings National and International

- Kyriakakis CG, Weich H, Doubell AF. Percutaneous pericardioscopy and pericardial biopsy in suspected tuberculosis: avoiding unnecessary anti-tuberculosis therapy. 11th Congress of the South African Heart Association, Sun City, South Africa 2010. SA Heart 2010; 7:208.
- Ahmed S, Herbst PG, Cyster H, Doubell AF. What causes left atrial spontaneous echocardiographic contrast (LASEC)? Is it stasis, turbulence or both? 11th Congress of the South African Heart Association, Sun City, South Africa 2010. SA Heart 2010; 7:191.
- Lubbe WW, Cyster H, Doubell AF. Sinus of Valsalva aneurysm and left ventricular non-compaction: Is there a link? 11th Congress of the South African Heart Association, Sun City, South Africa 2010. SA Heart 2010; 7:2011.
- Weich H, Ackerman C, Viljoen H, Doubell AF. First case of a transcatheter aortic valve implantation (TAVI) in an anomalous origin of the right coronary

Medicine

artery. 11th Congress of the South African Heart Association, Sun City, South Africa 2010. SA Heart 2010; 7:229.

- Weich H, Mabin T, van Zyl W, van Wyk J, Viviers R. Initial experience with the Edwards SAPIEN transcatheter aortic valve device. The Western Cape experience. 11th Congress of the South African Heart Association, Sun City, South Africa 2010. SA Heart 2010; 7:204

Presentations at the Annual Academic Day of the Faculty of Health Sciences, Stellenbosch University

- Kyriakakis CG, Weich H, Doubell AF. Percutaneous pericardioscopy and pericardial biopsy in sususpectes tuberculosis: avoiding unnecessary anti-tuberculosis therapy. 2010.
- Ahmed S, Herbst PG, Cyster H, Doubell AF. What causes left atrial spontaneous echocardiographic contrast (LASEC)? Is it stasis, turbulence or both? 2010.
- Lubbe WW, Cyster H, Doubell AF. Sinus of Valsalva aneurysm and left ventricular non-compaction: Is there a link? 2010.

Other Presentations at National and International Congress (abstracts not published)

- Terblanche M, Burgess LJ. Informed consent - a process not an event. Fourth Annual SACRA conference, Birchwood Estate, Gauteng, 22 to 23 September 2010.
- Snyman J, Nel E, Burgess LJ. The Training Needs of a study co-ordinator. Fourth Annual SACRA conference, Birchwood Estate, Gauteng, 22 to 23 September 2010.
- De Necker I, Pieterse H, Naude C, Burgess LJ. Duties and responsibilities of a study coordinator. Fourth Annual SACRA conference, Birchwood Estate, Gauteng, 22 to 23 September 2010.
- Burgess LJ. Fraud and Misconduct in Research. Fourth Annual SACRA conference, Birchwood Estate, Gauteng, 22 to 23 September 2010.
- Weich H. How to tackle an ostial LAD lesion. EuroPCR congress Paris 2010.
- Weich H. First case of TAVI in a patient with an aberrant right coronary artery. PCR Valves congress London 2010.

Other on-going research

Pericardial disease

- We are investigating the use of ADA isoenzymes in tuberculous effusions; and

- The role of pericardioscopic percutaneous pericardial biopsies in the management of tuberculous effusions.

Myocardial disease

- Assessment of left ventricular function in patients with severe pre-eclampsia.

Valve disease

- The role of ANP and BNP in predicting the outcome of balloon mitral valvuloplasty;
- The long term outcome of mitral balloon valvuloplasty – a 10 year audit (will complete in 2011)
- Markers of risk for thromboembolism in mitral stenosis;
- Percutaneous valve replacement;
- Noval echocardiographic assessment to determine the severity of mitral stenosis; and
- Developing new echocardiographic criteria for the diagnosis of rheumatic valvular heart disease.

New technology

- Evaluation of heart sounds with the aid of an “auscultation jacket” – collaborative research project involving the Department of Mechanical and Mechatronic Engineering. Currently investigating the value of laser-based sensors of heart sounds.

Contract research

- The unit an active drug-trial unit continues to be a leader in this field in the Faculty

National co-operation and partnerships

Prof. Doubell is the founder of the National Cathlab Registry initiative which aims to recruit all cardiac catheterization laboratories (cathlabs) in the country to participate. The registry continues to launch at new sites. Currently the roll-out of this programme is being extended to all cathlabs wishing to participate.

Dermatology

Prof. H Jordaan

Summary

The missions of the Department, namely effective administration, basic research, excellent service, pregraduate teaching, postgraduate teaching and outreach were achieved satisfactory. Research and outreach activities were curtailed by inadequate human resources.

Medicine

Resources

Posts (full-time)	Number	Filled
Associate Professor		
Principal Specialist	1	1
Specialist	1	1
Registrar	4	4
Medical Officer	1	0
Supernumerary Registrar	1	1

Posts (sessional)

Part time posts	1 (4 h/week)	1
Locum posts	1	1
Full time equivalents	4 h/ week	

Number of beds	12
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Output

OPD visits	10 201
Patch tests	21
Admissions	12/month
Theatre	±1 000

Comment on output

Patients were consulted by two specialists and five registrars. Patients expressed satisfaction with the quality of service. Special investigations such as skin biopsies for dermatopathology and patch tests contributed to the effective management of patients. Approximately 100 in-patients patients were managed. The commonest reasons for admission were widespread or complicated psoriasis, widespread dermatitis refractory to treatment, subepidermal blistering disorder, and patients with HIV-associated skin lesions. Co-operation with other departments are promoted actively.

Community outreach programmes

- Continuation of a monthly outreach clinic at Worcester Hospital – 120 patients managed (increase of 30%);
- South to South Partnership for Comprehensive HIV care and treatment (six lectures);
- Course at University of Fort Hare, East London Campus: HIV and the Skin;
- Radio interviews: RSG (three) and Radio Tygerberg (two);
- Educational lectures to members of the public (two);
- Teaching lectures to GPs (six) as a component of a GP Refresher Course; and
- Consultations at HIV Clinics in KZN and the Eastern Cape (Ukwanda initiative).

Research

Number of publications: 2

Educational role

Elective students spent time in Dermatology: 4

Highlights

- Prof. HF Jordaan - member of SARAA Advisory Board for TB Guidelines (era of anti-cytokine biologic drugs);
- Dr WI Visser – invited speaker NWU, Symposium of Diseases Relevant to SA;
- Prof. HF Jordaan – member of The Melanoma Advisory Board;
- Prof. HF Jordaan – member of EXCO of the DSSA;
- Prof. HF Jordaan - invited speaker, Child TB Training course, Goudini Spa;
- Dr WI Visser – invited speaker, Dubai & Beirut: Side-effects of Epidermal Growth Factor Receptor Inhibitors;
- Prof. HF Jordaan and Dr WI Visser were members of the Organising Committee of the Annual Congress of the DSSA (May); and
- Prof. HF Jordaan – Examiner FC Derm Part 2 and MMed (Derm) Part 2.

Endocrinology

Prof. BH Ascott-Evans

Summary

Major staff shortages (career registrar and full-time medical officer), due to maternity leave, severely curtailed our ability to function at a high level and had a negative effect on academic output.

Resources

Posts (full-time)	Number	Filled
Professor	2	2
Specialist	1	0
Senior Registrar	1	1
Medical Officer	2	2
Medical Technician	1	1

Posts (sessional)

Specialists	4 h/week	4h/week
Part Time posts	12h/week	8h/week

Number of beds	13	2 shared with GIT
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Medicine

Output

OPD visits	3 506
New patient visits	409
Admissions (Ward A 10)	428
DEXA scans	903

Comment on output

In spite of numerous obstacles we are still one of only four centres in RSA which trains specialists in Endocrinology. We are a supraregional centre for complex metabolic bone diseases and assess endocrine patients from all over South Africa and beyond.

Infrastructural development

An Ambulatory BP monitoring (ABPM) device was bought for A10 Hospital equipment budget.

Community outreach programmes

- A Diabetes Open Day was held;
- The combined high-risk pregnant diabetes clinic with gynae continues to expand;
- Patient education programmes (talks/radio/TV) in osteoporosis and general diabetes; and
- Numerous CME talks throughout RSA.

National co-operation and partnerships

- Dr W Ferries is an Excom Member of the Society for Endocrinology, Metabolism and Diabetes of South Africa (SEMDSA);
- Prof. B Ascott-Evans is an Excom member of the National Osteoporosis Foundation of South Africa (NOFSA); and
- Prof. FS Hough is a chairman of NOFSA, Editor-in-Chief of JEMDSA (official journal of SEMDSA) and chairman of the Organising Committees NOFSA Congress (Cape Town) and Densitometry Training (Johannesburg).

International co-operation and partnerships

- Numerous International Clinical Studies
- Prof FS Hough:
 - Member of Scientific Advisory Committee of the International Osteoporosis Foundation (IOF)
 - Member of the Membership Committee of the International Bone and Mineral Society (IBMS)
 - Member of the Advisory Committee of the American Paget's Foundation
 - Ordinary member of the American Endocrine Society, American Society for Bone & Mineral metabolism etc.

International co-operation and partnerships

- Prof. Hough and Prof. Ascot-Evans et al wrote 2010 guidelines for osteoporosis. It was adopted by the National Department of Health and Private Medical funders; and
- Prof. Ascott-Evans: chairman of National Neuro-Endocrine Tumour Society.

Research

Presentations at meetings

Refereed abstracts and conference presentations

- H Sadie-van Gijsen, FS Hough, WF Ferries. Msx2 Expression Is Positively Associated With the Osteoblastic Potential of Adipose-derived Stromal cells. *J Bone Miner Res* 25 (Suppl1) 2010 available at (<http://www.asbmr.org/Meetings/AnnualMeeting/AbstractDetail.aspx?aid=5577fd65-f987-4aaa-9153-f2ae30510099>) ASBMR. Toronto, Canada. 15 to 18 October 2010.
- M Sanderson, H Sadie-van Gijsen, FS Hough and WF Ferries. Glucocorticoids up-regulate mcp-1 and inhibit proliferation in naïve mesenchymal stromal cells and primary pre-osteoblasts. *JEMDSA* 2010; 15(1), 39.
- H Sadie-van Gijsen, W Smith, EF du Toit, FS Hough, WF Ferries. Differentiating adipose-derived stromal cells (ADSCS) into osteoblasts: not all ADSCS are created equal. *JEMDSA* 2010; 15(1), 39.
- M van den Heever, CU Niesler, FS Hough, WF Ferries. The expression of the tumour suppressor pcd4 in 3T3-L1 pre-adipocytes and adipose-derived stromal/stem cells. *JEMDSA* 2010; 15 (1), 33.
- H Sadie-van Gijsen, N Crowther, FS Hough, WF Ferries. Mitogenic and lipogenic actions of insulin on cultured adipose-derived stromal cells. *JEMDSA* 2010; 15(1), 24.

Publications

Outputs of the basic science labs, Division of Endocrinology, Department of Medicine for 2010 Papers

- Sadie-van Gijsen H, Crowther NJ, Hough FS, Ferries WF. Depot-specific differences in the insulin response of adipose-derived stromal cells. *Mol Cell Endocrinol.* 2010 Oct 26; 328(1-2):22-7.
- NJ Crowther, WF Ferries. The impact of insulin resistance, gender, genes, glucocorticoids and ethnicity on body fat distribution. *JEMDSA.* 2010; 15(3): 115-120.
- NOFSA Guidelines for the Diagnosis and Management of Osteoporosis. FS Hough, BH

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Ascott-Evans et al. JEMDSA 2010; 15(3) (supplement 1).

- Executive summary of NOFSA Guidelines. FS Hough BH Ascott-Evans et al. JEMDSA 2010; 15(3).

Educational role

- *Undergraduate: Magda Conradie*
 - Endocrine Module:
 - Module chair undergraduate endocrine module 1998 to date; and
 - Involved in restructuring of current curriculum and integration of pre-clinical and clinical modules in endocrinology 2010.

Elective students

- Internal examiner of elective portfolio (x4) 2010.

Postgraduate

- Prof. FS Hough:
 - Chair: Departmental Postgraduate Committee.
 - Promoter /examiner of M and D degrees; and
 - Co-ordinator: New Hons BSc Pharm Med programme.
- Prof. B Ascott-Evans:
 - Examiner D and M degrees; and
 - FCP examiner.

Highlights

- Publication of new National Guidelines for the Diagnosis & Management of Osteoporosis; and
- Expansion of a Postgraduate Diploma in Pharmaceutical Medicine (in collaboration with Pharmacology).

Personal achievements

- SEMDSA award for best basic science oral presentation 2010: Sadie-Van Gijsen H, Crowther N, Hough FS, Ferries W: Mitogenic and lipogenic actions of insulin on cultured adipose-derived stromal cells. JEMDSA 15: p.24 (2010).

Best oral presentation award at US, Faculty of Health sciences annual academic day

- Mitogenic and lipogenic actions of insulin on cultured adipose-derived stromal cells.
- H Sadie-Van Gijsen, N Crowther, FS Hough, W Ferris (Winning presentation in the session: Medicine: from bench to patient and back).
- The expression of the tumour suppressor Pcd4 in 3T3 L-1 pre-adipocytes and adipose derived stromal

cells. M van der Heever, CU Niesler, FS Hough and WF Ferries. (Best presentation in category).

Grants

- MRC Self-Initiated Grant (PI William Ferries): A study of the effects of GCs on the differentiation potential of mesenchymal stem cells;
- Harry Crossley Foundation Research Support Grant (PI William Ferris): The characterization of PDCD4 in mesenchymal stem and progenitor cells;
- MRC Self-Initiated Grant (PI Hanél Sadie-Van Gijsen): Signalling pathways involved in the differentiation of mesenchymal stem cells into an osteoblastic and adipocytic phenotype; and
- Harry Crossley Foundation Research Support Grant (PI Hanel Sadie van Gijsen): Investigating the role of Msx2 in determining the osteoblastic potential of rat adipose-derived mesenchymal stem cell.

Unit for Gastroenterology and Hepatology Unit

Prof. CJ van Rensburg

Summary

- Academic activities related to the Department of Internal Medicine, Department of Pathology and General Surgery;
- Consulting of patients with gastrointestinal problems;
- Diagnostic and therapeutic gastrointestinal endoscopic service;
- Gastrointestinal Motility Laboratory Service;
- Training of students and fellows in Gastroenterology, Collaboration with NHLS;
- Training of Anaesthetist (Diploma in Sedation & Pain Management);
- Training of international elective students;
- Academic Year Day: 12 and 13 August 2010;
- Lectures for third and fourth year medical students;
- Member of SAGES Executive Committee (portfolio Academic);
- Members of SAGINS (nursing staff);
- Member CPD Committee;
- Member of Laser Committee;
- Active participation at interviewing new senior medical staff;
- Original research in collaboration with Surgery Department, Groote Schuur Hospital & The International Centre for Genetic Engineering and Biotechnology, UCT;

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- Examiner for the CMSA;
- Prof. CJ van Rensburg:
 - Editor of the South African Gastroenterology (official Journal SAGES);
 - Editor of the World Journal of Gastroenterology;
 - Member of various committees:
 - Management Committee;
 - Departmental Resources Committee and Postgraduate Committee (Dr E Wilken);
- Various workshops and congress were attended:
 - Hepatitis B virus heterogeneity: A means to personalised care. Pisa, Italy. January 2010. Attended by Prof. C van Rensburg;
 - Fellows weekend for Gastroenterology attended by Dr M Marias: 2 to 4 February 2010 at Spier, Stellenbosch;
 - SAGES 2010 Annual Congress from 7 to 10 August 2010:
 - Prof. van Rensburg chaired various sessions;
 - Dr M Marais was speaker. Presented her abstract (oral) on effect of PPI's on Barrett's esophagus;
 - Attended annual DDW: New Orleans. May 2010. Prof. CJ van Rensburg & Dr M Marais. Dr Marais published a full report on the congress in the SA Gastroenterology Review: August 2010;
 - World Conference of Gastroenterology (UEGW) from November 2010 in Barcelona, Spain where Dr M Marais presented her abstract: Poster presentation. Above congress was also attended by Dr Wilken; and
 - Prof. C van Rensburg attended the AASLD Hepatitis congress in Boston USA. in November 2010.

Resources

Posts (full-time)	Number	Filled
Professor Principal Specialist	1	1
Specialist	1	1
Registrar	1	1

Posts (sessional)

Part time posts	1	1
Number of beds	2	2

Output

Outpatients visits	10 100
Follow-up patients	7 179

Gastroscopies	4 042
Colonoscopies	1 902
Sigmoidoscopies	140
ERCP's	299
Dilatations	80
Manometric investigations	16
Stent placements	53

Comment on output

The output is comparable to the previous year. Lack of equipment, medical officer and specialist personnel, administrative support and resources made routine service delivery unsatisfactory and at times impossible. The Manometry Laboratory is currently not functioning due to old equipment. Patients need to be referred to GSH.

Infrastructural development

- Endoscopic equipment cleaning areas are being upgraded since October 2010. Two endoscopic washing machines were purchased and will be installed shortly.
- Endoscopy cleaning operators were appointed which contributed to the efficacy of service delivery which improved continuity in theatre areas.
- Funds were allocated for the repair of gastroscopes. Two Fujinon gastroscopes with a stack were added to our equipment. We received a high definition 180 Olympus light source, processor and colonoscope.
- We received three Hill Rom theatre beds.

Community outreach programmes

- Annual Colonoscopy Outreach Surveillance Programme: West Coast Trip- 16 to 20 August 2010. A total of 63 colonoscopies and 11 gastroscopies were performed. (Prof. CJ van Rensburg);
- Dr E Wilken published an on-line article on Colorectal cancer for Health24.com;
- Prof. CJ van Rensburg and Dr M Marais published a review article: "Obesity and the metabolic syndrome: Impact of gene-diet interaction. (SA Gastroenterology Review: April 2010);
- Dr M Marais published a review on the treatment options of obesity (SA Gastroenterology Review: April 2010);

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- Dr E Wilken published a review article on ascites and the value of SAAG (SA Gastroenterology review April 2010);
- Dr I Carr published a case report on dysphagia in the elderly (SA Gastroenterology Review: April 2010); and
- Attendance of various CPD meetings at both private and state sectors.

National co-operation and partnerships

In participation with UCT the following projects:

- “The role of genetic polymorphisms of carcinogen metabolizing enzymes in the development or susceptibility to oesophageal cancer”. Reference number: 040/2005; and
- The efficacy of profound acid inhibition with Esomeprazole 40mg bd to reverse-C-MYB MRNA expression in patients with Barrett's oesophagus. Reference number: M08/07/036.

Research

- Number of publications: 4
- Feasibility questionnaires for a number of studies were completed.

Educational Role

- Actively involved in training of pre-graduate Stellenbosch students daily;
- Post-graduate registrars in Surgery and Internal Medicine – eight per annum; and
- International elective students from Europe & Cuba are trained here as well as undergraduate teaching daily in the Unit.

Highlights

Dr M Marias presented her abstract “The efficacy of profound acid inhibition with Esomeprazole 40mg bd to reverse C-MYB MRNA expression in patients with Barrett's oesophagus” at SAGES congress 2010 (oral presentation), Stellenbosch Academic year day (for which she won a prize for best presentation) and at the UEGW 2010 (Barcelona) as a poster presentation.

Research Interests/Projects

- Establishment and maintenance of University of Stellenbosch Barrett's oesophagus Access database for research purposes (currently contains approximately 150 patients);
- Genetics in Barrett's oesophagus. Identification of clinically-informative biomarkers within the spectrum

of gastro-oesophageal reflux disease in the South African population; and

- A study of HBV resistance in HIV infected and HIV uninfected patients at Tygerberg Hospital: Dr M Anderson, W Preiser, CJ van Rensburg and J Taljaard.

General Internal Medicine

Prof. MR Moosa

Summary

Although nowadays classified, similar to subspecialty services, as a division, this “division” remains the hub of the department of Medicine.

In addition to medical patients' seen on a referred basis, the traditional source of patients to internists, very significant numbers of patients are not referred by other doctors, but reach our services through other channels. The division of Medicine is responsible for emergency medicine, emergency high care, high care and co-care of patients from special units (Haematology, Rheumatology, infectious disease, pulmonary division, etc.) As a rule of thumb General Medicine is the default service in cases where a subspecialty division cannot supply a service, i.e., the ICU being full, disease without recognised subspecialty services at the hospital and are disease.

Resources

Posts (full-time)	Number	Filled
Professor Principal Specialist	2	1
Specialist	11 (9/11 from subspecialty divisions)	11
Registrar	12	12
Medical Officer	4	4

Posts (sessional)

Specialists	154	3 persons (14 hours)
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Number of beds		(including F1 and High Care)
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Medicine

Output

Outpatients visits	7 505
Emergency Medicine & Emergency High Care (F1)	8 633
General Medicine(D10,9,8 & A8E)	6 594
A5W Internal Meds High Care (A5W)	902
Mortality	1 069 (\pm 40% in F1)

Comment on output

Of the 154 beds under supervision of General Internal Medicine 115 (68%) is classified as secondary beds and 49 (32%) as tertiary beds. On the weekly head count \pm 50% of patients managed in these beds are tertiary implying a misalignment for resources. Of these 20 (18%) or more, mostly in D8, where the plan is to establish a six-bed subspecialty Haematology Unit, is from Haematology. This exceeds the planned number by more than three times and is often long stays.

The admission numbers (in absence of data on duration of stay available to me), leaves 3.4 days on average of in-patient-days taking available bed-days. This is exceedingly short for referral department, especially one with a strong component of tertiary medicine.

Deaths: The high number in F1 (40%) is a concern as so many are either patients with end-stage disease or patients, clearly chronically ill, that presents to us terminally.

Intubation and ventilation: At times one has the feeling that F1 is an auxiliary ICU, but without the necessary support personnel. Compounding this is patients that arrive on our doorstep intubated and ventilated, but where one queries the indication. With sudden collapse without regaining consciousness in an elderly person it is unlikely that a CT to remediable lesions or patients that are heavily sedated in order to introduce an endotracheal tube and arriving to us on being ventilated puts strain on available resources.

The departure of Dr Andy Parrish, Head of Secondary Services in the East metropole, a man with fresh ideas, was a loss to General Medicine.

Out-patients: It is currently functioning relatively well compared to a few years ago.

Community outreach programmes

- Khayelitsha District Hospital (currently using space in TBH awaiting opening of own hospital) - Two on-site physician visit per week; and
- Dr Bouwens continued her visit to the Huis Martina and Hernus Kriel old-age homes.

National co-operation and partnerships

- Dr Hans Prozesky serves on the National EDL executive committee.

International co-operation and partnerships

- Prof Brink formed part of a group (including Profs Corfield & Moolman-Smook) within the division of Molecular Biology and Human Genetics has associations with groups in Italy (PJ Schwartz), Van der Bilt, USA (AL George) and Oxford University.

Research

- A total of 10 journal articles associated with persons that play major roles within general medicine; and
- A number of presentations were also made at national and international meetings.

Educational role

The bulk of training for undergraduate students in internal medicine happens within General Internal Medicine. Added to the official University of Stellenbosch students are also South African students that studied in Cuba and have to do their finishing year in South Africa and elective students from other countries. Registrars in Internal Medicine spend 37.5% of their time within General Internal Medicine. Personnel also participate giving lectures at a graduate level, post graduate level and ancillary medical services.

Highlights

Prof Brink was awarded the Havenga award for contributions to medicine from "Die Akademie van Wetenskap en Kuns".

Clinical Haematology

Dr F Bassa

Summary

- Appointment of an additional consultant/Head of division;
- Creation of strategic plan for high care unit awaiting implementation once funds available; and
- Increased collaboration with Haematopathology.

Medicine

Resources

Posts (full-time)	Number	Filled
Specialist	2	2
Registrar	3	0

Number of beds	8 Haematology beds. Usually 15-20 inpatients
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Output

OPD visits	4 567
New patient referrals	399
Chemotherapy	1 322

Comment on output

It is an extremely busy service with increasingly complex patients being managed, many of whom are HIV positive. Level of care of inpatients, particularly those with neutropenia continues to be suboptimal. This is of great concern. Creation of the High-care Unit needs to be prioritised. This has been addressed on several occasions with hospital management.

Infrastructural development

We have drawn up and submitted plans for development of a Haematology High-care Unit. This has been scrutinised by several committees and has been approved by the strategic planning committee. We have also requested expansion of Out-patients Unit in X Block.

National co-operation and partnerships

- Recipients of the D 43 grant;
- Drs Sissolak and Bassa are members of the Tygerberg Lymphoma study group; and
- Close collaboration with the Department of Haematopathology, with regard to service delivery, undergraduate and postgraduate teaching as well as research.

Research

Journal Articles

- Sissolak G, Juritz J, Wood L, Sissolak D, Jacobs P. Lymphoma – Emerging realities in Sub-Saharan Africa. *Transfusion and Apheresis Science* 2010, Vol 42, issue 2, p141-150.
- Sissolak G, Sissolak D, Jacobs P. Human Immunodeficiency and Hodgkin Lymphoma. *Transfusion and Apheresis Science* 2010, Vol 42, issue 2, p131-139.

Congress presentations

- Akin Abayomi, Avril Sommers, Ravnit Grewal, Gerhard Sissolak, Fatima Bassa, Deborah Maartens, Peter Jacobs, Cristina Stefan, Leona W Ayers. Malignant lymphoma incidence and HIV-related lymphoma subtypes seen in the Western Cape of South Africa, 2000-2009. 12th International Conference on Malignancies in Aids and Other Acquired Immunodeficiencies (ICMAOI), Bethesda, MD, USA. 26-27 April 2010.
- G. Sissolak, A. Dippenaar, A-L. Cruickshank, F. Desai, C. Karabus, A. McDonald. Trauma related bleeding complications in South African Haemophilia patients: management, prognostic factors and outcome. XXIX International Congress of the WFH in Buenos Aires, Argentina, 2010 (poster).

Educational role

- Actively involved with the undergraduate training programme. Contribute towards both teaching and assessment of undergraduates;
- Participants in the Haematology module where we both teach and assess students;
- Dr Bassa is the co-ordinator for the final year programme for the Department of Medicine;
- Teach visiting elective students from the University of Nebraska Medical Centre, both undergraduate and postgraduate who come about twice annually;
- We participate weekly in the postgraduate teaching programme in the Department of Medicine; and
- We are also participants in the combined clinical Haematology/Haematopathology postgraduate teaching programme.

Post-Doctoral students

- *Gerhard Sissolak- PhD*
South African lymphoma – Treatment outcome and genetic profiling of Diffuse Large B-Cell Lymphoma using the immunohistochemistry based tissue microarray method
Promoter: Prof. Peter Jacobs
Co-Promoter: Prof. Glynn Wessels
Co-Investigators: Prof. James O Armitage, Department of Medicine and Prof. John Chan, Department of Pathology, University of Nebraska Medical Centre, Omaha.

Supervision of MMed projects

- A five-year retrospective analysis on treatment outcome of Burkitts Lymphoma at TBH (Dr D Kotze)

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- A five- year retrospective analysis on treatment outcome on acute myeloid leukaemias at TBH (Dr R Moodley).

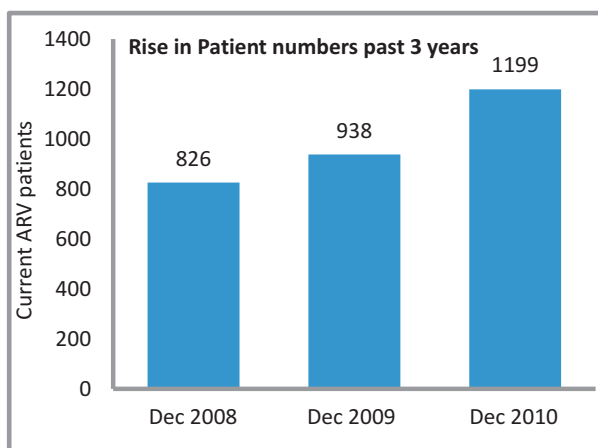
Infectious Diseases

Dr Jantjie Taljaard

Summary

Services

The National anti-retroviral therapy roll-out programme was initiated in 2004 and since then the clinic has prepared and initiated more than 3000 patients on ART. Despite the fact that we succeeded in down referring 202 adult patients almost 20/month to primary care ART clinics during 2010, the total number of patients at the clinic on ART at the end of 2010 increased by more than 25% from 958 to 1199.



We also continued with 2 HIV specialist clinics – Women's health & HPV screening and a HBV/HIV co-infection clinic. A combined HIV obstetric high care was initiated in collaboration with the Obstetrics and Gynaecology department. We continue to focus our clinic services towards supporting level 1 and 2 in the management of more complex and seriously ill patients. The electronic database facilitating patient care and follow-up contributes significantly toward faster consultations, better communication with clinics and ability to audit output.

Outreach

Monthly outreach visits to TC Newman, Paarl, Hospital, Worcester Hospital and Brewelskloof Hospital continued, as well as weekly outreach visits to Khayelitsha District Hospital. Lack of human resources is preventing us from increasing our scope of outreach in the region. Other areas in great need for support include Karl Bremer

Hospital, Stellenbosch Hospital and Malmesbury Hospital. Khayelitsha District Hospitals is in need of more continuous specialist physician/ID support.

Management

Monthly multidisciplinary business meetings are schedules in order to continuously evaluate the care that is being delivered. All staff members are represented at the meetings – doctors, nurses, pharmacists, clerks, counsellors and social workers.

Monthly mortality and morbidity meetings – mortalities are discussed in detail and used as a learning opportunity to change or enhance our patient care.

Teaching

Dr Phillip Botha successfully completed his training time in ID during 2010. Dr Heys started as a supernumery ID fellow at the end of 2010.

Members of the division of Infectious Diseases has also remained involved with undergraduate teaching with the emphasis on the 4th year module in ID and clinical immunology. We contributed the majority of the material towards HIV, STI, TB and tropical medicine teaching.

All the members of the division was involved in CME activities during 2010 including STD management courses for nurses and HIV management courses for doctors, nurses and pharmacists.

Elective medical students from the Netherlands, Germany, New Zealand and Austria are exposed to HIV care and assist with research projects; this has been an enriching experience for staff and students alike. Also continuing are the weekly journal club, topic of the week discussions and mortality-morbidity meetings, supplemented by in-house training of nursing and counselling staff.

The University of Fort Hare collaboration continues in 2010. The group of 32 registered nurses were the fourth group of students to complete the one-year course in advanced management of HIV infected patients. As usual the course included highly successful practical mentorship visits to Tygerberg Hospital during September. This course aims to prepare and empower nurses to initiate antiretroviral therapy in the communities they serve, and is aligned to the National initiative, NIM-ART.

A new collaboration between the Department of Medicine and the Irish Internal Medicine training board has resulted in the very successful rotation of one Irish ID subspecialist registrar for the last six months of the year. He will be followed by another registrar for the first 6

Medicine

months of 2011. We also hosted another senior ID registrar from University of Utrecht for a four-month period.

Research

The HIV Research Unit located within the clinic is conducting a number of clinical research projects. This marriage of research and clinical care benefits patients by offering additional procedures and treatment and provides funding for additional health care team members- 40% of staff are funded by research. Current protocols include our ShareCare down-referral project, HPV Project (a study investigating the effect of CART on HPV infection in HIV positive women), two studies testing ART drug levels in blood and in hair, the hepatitis cohort study, and comparative study of the progression of cervical dysplasia in HIV infected vs. non-infective women.

Apart from seven publications in journals, the team has also completed several clinical audits and contributed to academic meetings.

Resources

Posts (full-time)	Number	Filled
Specialist Grd 2 (Subsp)	2	2
Registrar	1	1
Medical Officer	2	2
Supernumery ID fellows		1

Posts (sessional)

Medical Officer	4	4
Specialist	4	0

Output

<i>Adult ARV stats</i>	2008	2009	2010
New started on ARV	368	399	511
Transfer out (tfo)	192	170	202
Transfer (tfi)	18	38	56
Lost to follow (ltf)	104	111	139
Deaths	21	26	31

<i>Adult HIV</i>	2008	2009	2010
HIV first visit	573	591	755
HIV follow-up visits	1 161	1 102	1 006
HIV contact	11	2	2
ARV doctor visits	4 154	4 900	5 563
ARV nurse visits	4 241	5 293	2 281
ARV pharmacy visits	10140	11888	3 184
Total Clinic visits			12791

Comment on output

With the HIV epidemic maturing in South Africa and with increasing numbers of patients on ART we see more patients referred for complicated multi organ disease, resistant HIV and complicated drug reactions. In spite of the provincial and national policy of initiating and managing HIV patients in primary care, the ID clinic at TBH has seen increases in the number of patients initiated on ART from our immediate drainage area. The paucity of primary care ART clinics in our area is mainly due to inadequate infrastructure at the community healthcare centres and a lack of trained and funded personnel. There is an urgent need for more primary care ART clinics in our area. This will enable the small group of ID clinicians to concentrate on more complicated ID problems and broaden our support to regional hospitals and TB hospitals.

Infrastructural development

Building of the new Infectious Diseases pharmacy (mainly for dispensing of ART) started in November 2010. This is a very exciting and long awaited initiative that would enable patients to receive their ART at the ID clinic. Apart from decreasing waiting times for patients and improving the overall experience of visiting the IDC it also improves the very difficult working conditions of the ART pharmacy team.

Community outreach programmes

No new initiatives. Continued with annual end-of- year party for HIV children and their caretakers.

National co-operation and partnerships

Anova Health- PEPFAR sponsored projects: Projects related to electronic data management systems to improve patient care. Currently there are three projects related to current funding:

- Outreach of an ID specialist to Brewelskloof rural TB hospital and Worcester and Paarl Infectious Disease clinics;
- Referral of stable HIV patients from TBH to primary care clinics for follow-up by ART trained primary healthcare nurse practitioner;
- Improved screening for Cervix Ca; and
- The Centre for Infectious Diseases and the University of Fort Hare (via the SUR-MEPI grant): Training nurses in the advanced management of HIV-and-Aids related diseases, including initiation of ART and IPT.

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Language translation Unit (UCT)

As part of the SUR-MEPI grant we have entered into a partnership to introduce PALS-PLUS like HIV/TB/STD training into undergraduate medical student training. This is a very exciting case based interactive training method that has until now only been used to train primary health nurses.

Research

Nine publications

- Cornell M, Grimsrud A, Fairall L, Fox MP, van Cutsem G, Giddy J, Wood R, Prozesky HW, Mohapi L, Graber C, Egger M, Boule A, Myer L. Temporal changes in programme outcomes among adult patients initiating antiretroviral therapy across South Africa, 2002–2007. *Aids* 2010; 24: 2263-2270.
- Eshun-Wilson I, JJ Taljaard et al. Evaluation of paradoxical TB-associated IRIS with the use of standardized case definitions for resource-limited settings. *J Intern Ass of Phys in AIDS Care*. 2010; 9(2): 102-108.
- CFN Koegelenberg, EM Iruken, R. Cooper, AH Diacon, JJ. Taljaard, A. Mowlana, F von Groote-Bidlingmaier and CT Bolliger. High mortality from respiratory failure secondary to swine-origin influenza A (H1N1) in South Africa. *Q J Med* 2010; 103:319-325.
- JJ Taljaard. Sepsis: High risk groups, diagnosis and management. *CME July* 2010.
- C Bamford, JJ Taljaard. High risk of MDR transmission in a tertiary care hospital. *S Afr Med J* Feb 2010.
- Boule A, Clayden P, Cohen K, Taljaard J, Wilson D. Prolonged deferral of antiretroviral therapy in the SAPIT trial: Did we need a clinical trial to tell us that this would increase mortality? *South African Medical Journal* 2010; 100(9):566-71.
- Roos E. Barth, Quirine Huijgen, Jantjie Taljaard, Andy IM Hoepelman. Hepatitis B/C and HIV in sub-Saharan Africa: an association between highly prevalent infectious diseases. A systematic review and meta-analysis. *International Journal of Infectious Diseases* 2010, Vol14(12), 1024-31.
- Mitha M, Cupido G, Taljaard J A rare case of typically lipodystrophy in an HIV patient not on a PI regimen. *Southern African HIV Journal*, Summer 2010.
- Taljaard JJ. Infection prevention and control and drug resistant tuberculosis. *SA Resp Jnl* 2010; 16(4): 116-119.

Educational role

Undergraduate

Dr Taljaard – Secundus for Infection and Immunology module.

Post graduate

- Sub- specialisation in Infectious Diseases – Dr Gordon Cupido; and
- Post basic training for nurses in HIV management (University of Fort Hare) – J Taljaard (didactic lectures), family clinic doctors and nurses (1 week TBH practical rotation).

Elective students

- Dr Jacob Dutihl visited our unit for a 4 month period from August 2010. He is an ID fellow from the University of Utrecht, the Netherlands; and
- Undergraduate elective students from USA, New Zealand, Germany, Netherlands and France visited our division throughout 2010 for periods of one to three months.

Highlights

Treating a large number of chronic-disease patients with regimes unforgiving of non-adherence while at the same time streamlining patient flow to avoid treatment fatigue requires more than a regular clinic visit. The IDC interactive clinical database is running smoothly. Paper-based note-taking is still preferred by physicians and required by hospital regulations, but here it is done on template which is a per-visit updated report of previous diagnoses, treatment status, medications and laboratory investigations. Prescription errors are mostly eliminated and doctors respond to prompts, easing rotating staff into their new jobs. Monitoring and reporting of clinical conditions, treatment associated adverse events, mortality and morbidity reports, provincial statistics, and collaboration on national and southern African cohorts have all been made possible by electronic record-keeping.

Transfer-out letters are instantly created and neatly summarize years of data in an instant. Apart from the ID Clinic database, the Infectious Diseases consultation database keeps record of referrals, while the COLPOS database, the soon-be-implemented lymphoma and hepatitis databases form secure, convenient and powerful server-based tools for retrospective and future monitoring of these cohorts.

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With HIV being a chronic disease, patients are expected to remain on treatment for decades. But they do move around to other provinces. Not surprisingly, they also return to our care after a year or two. Future choice of treatment regimens depend on good record-keeping and easy access to clinical e-noted. Lack of storage space within the clinic has prompted the implementation of an electronic e-filing system. This is web-based, giving doctors remote access to patient folders and management protocols of Infectious Diseases/HIV. Offices are being liberated from overflowing filing cabinets and mountains of clinic folders. The database has now expanded to include support of the newly established HBV/HIV co-infection clinic in collaboration with the divisions of medical virology and gastroenterology.

Example of information generated by database:

Adults		
Number of patients who started during the month		
Gender	Total	
Female	17	
Male	11	
	<u>28</u>	
Number of patients on TBH Rollout by the end of the month		
Gender	Total	
Female	750	
Male	449	
	<u>1199</u>	
Number of patients who stopped TBH Rollout ART during the month		
Gender	Endpoint	Total
Female	Died	2
Female	Interrupt Therapy for Rollout	1
Female	Lost to Follow Up	16
Female	Transferred	4
Male	Died	1
Male	Lost to Follow Up	14
		<u>38</u>

Division of Nephrology

Prof. MR Davids

Summary

The clinical technologist Alex Hardy had her contract renewed for three years from April 2011.

Dr Vincent Boima (Ghana) passed his nephrology exams and returned home after completing his training. Dr Karen Bronn and Yazies Chothia also passed their exams and completed their training.

The International Society of Nephrology awarded two more fellowships for training in our unit, to Drs Dhiraj Manadhar from Nepal (started October 2010) and Dr Jonathan Wala from Kenya (from 25 January 2011).

Registrars from the MMed (Internal Medicine) programme completing their Nephrology rotation:

Pieter van der Bijl, Jane Moses, Hannes Koornhof (Jan 2010); Leanne Schroder, Tabie Greyling, Zaahira Cassimjee, (Jul 2010); Ankia Coetzee, Andre Nortje, Bilal Bobat (Oct 2010), Flora Kokwaro, Michael Cass, Annari du Plessis (Jan 2011).

Resources

Posts (full-time)	Number	Filled
Professor Principal		
Specialist	2	2
Specialist	1	1
Registrar	4	4

<i>Number of beds</i>	9	9
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Output

Admissions

Ward A7	300
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Patients on chronic dialysis at year-end

Haemodialysis	63
Peritoneal dialysis	40

OPD Visits

Nephrology OPD	2 172 (new 422, follow up 1 750)
Peritoneal Dialysis	720
Transplant Clinic	2 723
Haemodialysis	7 804

Medicine

Procedures

Chronic	7 544
Acute	563
Plasmapheresis	109
Charcoal haemoperfusion	1

Kidney Transplants

New renal transplants	25
Living donor transplants	16
Surviving pts. followed up at TBH	157
Cumulative total transplants	874
Potential cadaver donors referred	34

Infrastructural development

Major problems with water quality – poor feed water supply pressure, new RO system required. Five new dialysis machines purchased. Portable reverse osmosis unit purchased.

Community outreach programmes

Nephrology training of fellows from the developing world continues: Dr Manadhar from Nepal, Dr Wala from Kenya. Dr Boima from Ghana completed his training. Dr Adeniyi from Nigeria is now doing the M Clin Epi degree. These fellows are mainly sponsored by the International Society of Nephrology.

PPIs with Paarl Unit of National Renal Care and Hermanus Unit of Fresenius Medical Care continues successfully. Improves access to dialysis and improves QOL of patients involved.

International co-operation and partnerships

Involvement in the PACT cohort study with other African centres and Harvard University School of Public Health.

Co-operation with the private sector

Nycomed Nephrology Fellowship – Dr Chothia, the first trainee, qualified as a nephrologist.

Research

Number of publications: 3

- Herselman MG, Esau N, Kruger J-M, Labadarios D, Moosa MR. Relationship between body mass index and mortality in adults on maintenance haemodialysis: a systematic review. *Journal of Renal Nutrition* 2010; 20(5): 281-292.
- Herselman MG, Esau N, Kruger J-M, Labadarios D, Moosa MR. Relationship between body mass index

and mortality in adults on maintenance haemodialysis: a systematic review. *Journal of Renal Nutrition* 2010; 26: 10-32.

- Schubert C, Bates W, Moosa MR. Acute tubointerstitial nephritis related to antituberculous drug therapy. *Clinical Nephrology* 2010; 73(6):413-419.

Educational Role

A total of 14 International Medicine registrars trained in nephrology, three nephrologists completed their sub-specialist training successfully, good pass rate in nephrology for undergraduate MBChB students.

Neurology Unit

Prof. John Carr

Summary

Professor Carr was able to work at the Scottish Brain Imaging Research Centre for 4 months while on Sabbatical Leave. Dr Bateman spent the year working on TB meningitis research, having received a Discovery Research Award. Prof Carr was appointed a full professor in the Faculty of Health Sciences.

Resources

Posts (full-time)	Number	Filled
Specialist	3	3
Registrar	2	2

Posts (sessional)

<i>Specialist</i>	1	1
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Output

OPD Visits	3 613
Admissions	368
EEG	1 576
EMG	556

Research

- Keyser RJ, Lombard D, Veikondis R, Carr J, Bardien S. Analysis of exon dosage using MLPA in South African Parkinson's disease patients. *Neurogenetics* 2010; 11(3):305-312.
- Bardien S, Marsberg A, Keyser R, Lombard D, Lesage S, Brice A, Carr J, LRRK2 G2019S mutation: frequency and haplotype data in South Africa Parkinson's disease patients. *J Neural Transm.* 2010; 117(7):847-853.

Medicine

- Keyser RJ, Lesage S, Brice A, Carr J, Bardien S. Assessing the prevalence of PINK1 genetic variants in South African patients diagnosed with early- and late-onset Parkinson's disease. *Biochem Biophys Res Commun.* 2010; 16;398(1):125-9.

Pharmacology and Tygerberg Toxicology and Poison Information

Prof. B Rosenkranz

Summary

Services

The services function of the Division of Pharmacology includes Therapeutic Drug Monitoring (TDM, 32 drugs) and the operation of the nationwide Tygerberg Poison Information Centre, both offered as a 24-hour service. On request of the Division of Nephology, tacrolimus was added to the routine TDM service in 2010. A total number of 18 660 samples were analysed in the TDM laboratory in 2010, of which 68.6% were for Tygerberg Hospital as the main customer. The remainder of laboratory analyses was for each other provincial hospital and for various outreach services.

The Tygerberg Poison Information Centre in total provided 5 989 consultations. 47% of the cases dealt with children below 13 years. 41% of all cases were related to non-drug chemicals, 38% to drug overdoses, and 10% to biological exposures. 36% of the calls came from the Western Cape and 64% from other provinces or even from outside the country. The importance of the 24 x 7 service is stressed by the fact that 54% of all emergency calls were received after-hours.

Teaching

Undergraduate and postgraduate programmes for medical and physiotherapy students were successfully presented by the Division of Pharmacology. One BSc (Honours) degree was awarded during 2010. Pharmaceutical Medicine was started as a new programme by the Division, together with Tiervlei Trial Centre.

Research

Research activities included the pharmacokinetics of TB drugs and antiretroviral in special patient populations (five projects) and an in vitro metabolism project to assess the potential interaction between traditional medicines and conventional drugs. These projects included the

establishment of bioanalytics for some of the drugs and in vitro marker substances used. The clinical studies were performed together with clinical departments at Tygerberg Hospital and external clinics. Further projects included the transport of drugs across biological membranes, and chemical and biochemical studies on the inhibition of the reverse transcriptase enzyme. The Tygerberg Poison Information Centre and the TDM laboratory performed and published surveys on use and application of their services.

Resources

Posts (full-time)	Number	Filled
Professor Chief Specialist	1	1
Senior Specialist/Researcher	4	2
Principal Pharmacist/Scientist	2	2
Researcher	1	1
Technologist	6	6
Administrative Assistant	1	1

Posts (sessional)

Specialist	3	3
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Output

Tygerberg Poison Information Centre consultations	5 989
Laboratory services	18 660

Comment on output

The activities of the Tygerberg Poison Information Centre have been hampered by the lack of appropriate financial support from PGWC, especially for after-hours service. Therefore, the Centre unfortunately had to cancel its after-hours services for nine weeks in 2010. The service of the Centre has been supported by Emergency Medicine by allowing two of their highly skilled staff members to perform their overtime duties in our Centre. This has been appreciated.

Members of the Division actively participated in the drug and therapeutics committee, the provincial pharmacy and therapeutics committee and the ethics committee of the Faculty of Health Sciences.

The research output of the Division was presented in peer-reviewed publications and in presentations on international and national scientific meetings (see below).

Medicine

Infrastructural Development

The contact to the clinical departments was maintained and strengthened by regular involvement of Clinical Pharmacology in teaching and special ward rounds, including follow-up visits poisoning and envenoming cases.

Community outreach programmes

Routine TDM laboratory analyses were performed for several outreach clinics.

Education to health care providers and the public was provided by the following lectures:

- Update on the management of acute poisoning". Society of Private Nurse Practitioners of South Africa, Ndabeni, Cape Town. March 2010;
- *The Ripple Effect*, a monthly publication for industrial workers, published the "Poisoning: early and pre-hospital management chart" in December 2010 issue. They are also producing an A3 full colour poster for distribution to factories and companies;
- Veale DJH. The Pain Summit – Adcock Ingram, Mount Grace, Johannesburg, March 2010 (Dextro-Propoxyphene)

World Health Organisation

The International Programme on Chemical Safety (IPCS) website: www.who.int/ipcs/poisons/en/ Poison Centres: Poison Prevention and Management section has an article on "A day in the life of a Poison Information Centre specialist" which features the Tygerberg Poison Information Centre.

Prof Orish Orisakwe, Head of the Pharmacy School, University Port Harcourt, Port Harcourt, Nigeria completed a 6 week toxicology training rotation at the Centre during 2010. The visit was funded by the National Research Fund.

Close links have been established to the NGO, HOPE Cape Town (www.hopecapetown.com) to whom offices have been provided in the Division of Pharmacology. HOPE Cape Town sponsors a research project on traditional medicines by one of the PhD students. Prof. Rosenkranz is involved in this organization as a member of the board.

National co-operation and partnerships

- Participation in the joint working group of the national poison information centres under the umbrella of the Department of Environmental Health;

- Three joint research meetings with the Division of Clinical Pharmacology (UCT) and the School of Pharmacy (UWC) in order to facilitate collaborative research projects;
- Scientific co-operation with the Tygerberg Children's Infectious Diseases Clinical Research Unit (KID-CRU) and the Desmond Tutu TB Centre (Stellenbosch University); research projects include the use of stavudine in paediatric patients with HIV in rural settings, pharmacokinetics of antiretrovirals and legacy TB drugs in children; and
- Prof. Rosenkranz is board member of the CMSA College of Clinical Pharmacologists and of the South African Society for Basic and Clinical Pharmacology.

International co-operation and partnerships

- Scientific co-operation with the Department of Pharmacy, University of Florida, Gainesville (US) in the area of pharmacometrics (population pharmacokinetics);
- Co-operation with Wuerzburg University, Germany (International Research Training Grant, IRTG project) in research projects related to the pharmacokinetics of antiretrovirals in special patient populations including children and drug-drug interactions; IRTG provides capacity building and training for South African and German postgraduate students, training seminars and student exchange visits. Two medical students from Wuerzburg University have spent five months each in the Division of Pharmacology to work on their doctoral thesis;
- Prof. Rosenkranz is an active member of the UK Faculty of Pharmaceutical Medicine (RCP) (international committee) and of IUPHAR (membership committee);
- Consultancy to WHO on Toxicology (snake anti-venoms); and
- Prof. Rosenkranz served as external examiner for the Department of Pharmacology and the Centre for Tropical Clinical Pharmacology and Therapeutics, University of Ghana Medical School, Accra, in December 2010.

Co-operation with the private sector

- Analysis of drugs for private pathologists and other institutions;
- Biological tests performed for the WP Blood Transfusion Services; and
- Donation to Tygerberg Poison Information Centre

Medicine

from Agricultural Crop Protection Dealers Association of SA.

Research

Research Publications (peer reviewed journals)

- Cicardi M, Banerji A, Bracho F, Malbran A, Rosenkranz B, Riedl M, Bork K, Lumry W, Aberer W, Bier H, Bas M, Greve J, Hoffmann TK, Farkas H, Reshef A, Ritchie B, Yang W, Grabbe J, Kivity S, Kreuz W, Levy RJ, Iugter T, Obtulowicz K, Schmid-Grendelmeier P, Bull C, Sitkauskienė B, Smith WB, Toubi E, Werner S, Anné S, Björkander J, Bouillet L, Cillari E, Hurewitz D, Jacobson KW, Katelaris CH, Maurer M, Merk H, Bernstein JA, Feighery C, Floccard B, Gleich G, Hébert J, Kaatz M, Keith P, Kirkpatrick CH, Langton D, Martin L, Pichler C, Resnick D, Wombolt D, Fernandez Romero DS, Zanichelli A, Arcoletto F, Knolle J, Kravec I, Dong L, Zimmerman J, Rosen K and Fan W-T. Icatibant, a new bradykinin-receptor antagonist, in hereditary angioedema. *New England Journal of Medicine* 2010; 363: 532–541
- Singh A, Arriati M, Singh M, Hawtrey A. Biotin-directed assembly of targeted modular lipoplexes and their transfection of human hepatoma cells in vitro. *Drug Delivery* 2010; 17(4): 426-433.
- Van Zyl JM, Arriati M, Hawtrey A. The effect of certain N-tritylated phenylalanine conjugates of amino-adenosine-3', 5-cyclic monophosphate on moloney murine leukaemia virus reverse transcriptase activity. *South African Journal of Science* 2010; 106(7/8): 69-73
- Levy M, Muszkat M, Rich B, Rosenkranz B, Schlattmann P. Population pharmacokinetic analysis of the active product of dipyron. *International Journal of Clinical Pharmacology and Therapeutics* 2010; 48(12): 791-797
- Rosenkranz B. GLP-1 Agonists: a novel treatment for South African diabetic patients. *SA Journal of Diabetes & Vascular Disease* 2010; 7: 51-53
- Veale DJH, Wium CA, Muller GJ. Amitraz, A new generation pesticide: An analysis of poisoning cases over the past five years – 2005 – 2009. 10th AstraZeneca Research Day, Faculty of Health Sciences, Stellenbosch University, Tygerberg Campus, Cape Town, February 2010.
- Van Zyl JM. Studies on the inhibition of Moloney murine leukemia virus reverse transcriptase by N-tritylamino acids and N-tritylamino acid-nucleotide compounds. 10th AstraZeneca Research Day, Faculty of Health Sciences, Stellenbosch University, Tygerberg Campus, Cape Town. February 2010.
- Veale DJH. A prospective study of the incidence and spectrum of acute poisonings in South Africa based on hospital admission and poison information centre data. 30th International Congress of the European Association of Poison Centres and Clinical Toxicologists, Bordeaux, France, May 2010
- Rosenkranz, B. Pharmacokinetic principles using ARVs as example. 2nd International Symposium, International Research Training Group (IRTG), Kloster Banz/Bad Staffelstein, May 2010
- Van Zyl JM, Hawtrey AO, Ariatti M. The effect of certain N-tritylated phenylalanine conjugates of amino-adenosine-3'-5'-cyclic monophosphate in murine reverse transcriptase activity. 54th Annual Academic Day, Faculty of Health Sciences, Stellenbosch University, August 2010.
- Thee S, Schaaf HS, Hesseling AC, Seifart H, Rosenkranz R, Donald PR. Ethionamide pharmacokinetics in children with tuberculosis - preliminary results. 54th Annual Academic Day, Faculty of Health Sciences, Stellenbosch University, August 2010.
- Innes S, Norman J, Smith P, Capparelli E, Rosenkranz B, Cotton MF. Bioequivalence of stavudine given as "opened" compared to intact capsules. 54th Annual Academic Day, Faculty of Health Sciences, Stellenbosch University, August 2010.
- Veale DJH. Poison information centres in Africa – an update. 44th Annual Congress of the South African Society for Basic and Clinical Pharmacology and 7th Annual Congress for Toxicology of South Africa, Cape Town, October 2010.
- Wium CA, Muller GJ, Veale DJH. A poison information centre analysis of non-drug chemical exposures in children over a period of 2 years (2008-2009). 44th Annual Congress of the South African Society for Basic and Clinical Pharmacology and 7th Annual Congress for Toxicology of South Africa,

Presentations

- Rosenkranz B. Biomarkers as surrogate endpoints in clinical trials. *Med Chem Res* (2010) 19:S3 – S14. 4th International Symposium Current Trends in Drug Discovery Research, Central Drug Research Institute, Lucknow, India, February 2010.
- Rosenkranz B. Pharmaceutical Medicine – What is this and how to get there? International Seminar on Pharmaceutical Education and Research 2010, Kashipur, India, February 2010.

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Cape Town, October 2010.

- Van Zyl JM, Hawtrey AO, Ariatti M. The effect of certain N-tritylated phenylalanine conjugates of amino-adenosine-3'-5'-cyclic monophosphate in M-MuLV reverse transcriptase activity. 44th Annual Congress of the South African Society for Basic and Clinical Pharmacology and 7th Annual Congress for Toxicology of South Africa, Cape Town, October 2010.
- Fasinu PS. Pharmacokinetic drug interaction as a route for improving oral drug bioavailability. 44th Annual Congress of the South African Society for Basic and Clinical Pharmacology and 7th Annual Congress for Toxicology of South Africa, Cape Town, October 2010.
- Innes S, Norman J, Smith PJ, Smuts M, Capparelli E, Rosenkranz B, Cotton M. Bioequivalence of opened versus closed capsule dosing for stavudine. 44th Annual Congress of the South African Society for Basic and Clinical Pharmacology and 7th Annual Congress for Toxicology of South Africa, Cape Town, October 2010.
- Innes S, Pommer F, Kredo TJ, Choonilal N, Dobbels E, Taliep E, Rosenkranz B, Klinker H, Cotton M. The impact of therapeutic drug monitoring of lopinavir on management of HIV-infected children in South Africa. 44th Annual Congress of the South African Society for Basic and Clinical Pharmacology and 7th Annual Congress for Toxicology of South Africa, Cape Town, October 2010.
- Rosenkranz B. Chairman of session "Nanoparticles, Oxidative Stress and Drug Safety". 44th Annual Congress of the South African Society for Basic and Clinical Pharmacology and 7th Annual Congress for Toxicology of South Africa, Cape Town, October 2010.
- Rosenkranz B. Experiences with phase I studies in non-ICH regions: Experiences in South Africa. 12th Annual Congress for Clinical Pharmacology, Wuerzburg, Germany, November 2010
- S. Thee, H.I. Seifart, B. Rosenkranz, K. Magdorf, P.R.Donald, H.S.Schaaf. Ethionamide pharmacokinetics in children with tuberculosis – preliminary results. 41st Union World Conference Against Lung Disease, Berlin, November 2010

Book publications

- Muller GJ (Co-author). Guidelines for the Prevention and Clinical Management of Snakebite in Africa, World Health Organization Regional Office for Africa, Brazzaville, 2010. ISBN 978 929 023 1684.

Congress organisations

Members of the Division organised the 44th Annual Congress of the South African Society for Basic and Clinical Pharmacology and 7th Annual Congress for Toxicology of South Africa which took place in Cape Town in October 2010, on behalf of both scientific Societies. The motto was "Minimizing risk – optimizing efficacy: Pharmacology and Toxicology in the next decade". This very successful congress with five invited international guest speakers attracted 119 registered participants.

Patents registered

Hawtrey AO, Van Zyl JM, Smith J, Van der Bijl P. Lung surfactant. Patent No. 2009/07800, South Africa 2010.

Educational Role

Undergraduate

Teaching pharmacology to undergraduate students has always been regarded as top priority by the Division. In spite of personnel restrictions, the Division not only managed to sustain its academic lecturing service with excellence for many hundreds of undergraduate medical students, but its involvement throughout the medical curriculum was expanded to about 64 contact sessions. Furthermore, the key goal previously set by the Division during training of final year students in clinical pharmacology was actively pursued by a clinical pharmacologist involved on an ongoing basis in training and assessing of students at the bedside. This not only helped students to establish good background knowledge of Clinical Pharmacology, but also helped to integrate their acquired knowledge in treatment strategies and recommended drugs for major diseases. The Division also lectured pharmacology to third-year physiotherapy students (23 hours, seven contact sessions) as part of the criteria set by the HPCSA. The goals of these lectures were to acquaint students with drug action that could affect physical therapy treatment in patients.

Post-graduate

The Division continued with its two-year part time BSc Honours course and one final year student graduated in December. Five students enrolled in the Pharmaceutical Medicine course which has been newly established as a series of four short courses in the Division, together with Tiervlei Trial Centre (course leaders: Profs. B Rosenkranz, S Hough and H Nell). Furthermore, mentoring for MSc and PhD students has been re-established in the Division. During the

Medicine

year of reporting, two MSc students were enrolled and one PhD student started working on his project. A total of 11 pharmacist-intern students were tutored consecutively during a two-week period toxicology training programme in the Poison Information Centre. This forms part of their proof of competency which is included in their portfolio as required by the SA Pharmacy Council. Furthermore, a clinical pharmacology registrar from UCT performed a two-month toxicology training rotation at the Centre.

Rheumatology

Dr M Manie

Summary

We have made a strategic decision to reduce our outpatient load. We have drawn up guidelines to assist the down-referral process.

One of our highlights for last year was Dr Joe Latief's success in the Rheumatology exams in May 2010. Dr Erne Richrer succeeded Dr Latief in September 2010 as the new career registrar in Rheumatology. We were also pleased to secure the continued input of Dr Dave Whitelaw who had retired. He continues to do one clinical session and one undergraduate teaching session per week.

During the second semester we were fortunate to secure the services of a nursing colleague sponsored by Abbot to do a monthly session which entails ultrasound examination of joints.

Dr Maine attended the EULAR congress in Rome in June and the EULAR post graduate course in Naples in September 2010.

Resources

Posts (full-time)	Number	Filled
Principal Specialist	1	1
Specialist	1	1
Registrar	2	2
Medical Officer	1	1

Posts (sessional)

Registrar	2	2
Medical Officer	1	1

Output

Outpatients visits	3 962
Admissions	211

Comment on output

We have attempted to reduce clinic visits by actively down referring to CHC's.

Community outreach programmes

We started our outreach programme to Worcester Hospital last year. This has already had a positive impact in reducing referrals and educating medical officers in rheumatic diseases.

Research

Dr Manie presented "Chloroquine associated maculopathy- The Tygerberg Hospital experience" at the annual Academic Year Day last year.

Educational role

We have continued with our popular monthly post-graduate joint examination technique teaching course with Dr Allan Tooke.

We have also introduced a structure basic and applied post-graduate teaching programme. This entails two hours on a Friday morning. In the post-graduate teaching programme we have a rotating medical register and a career register.

The undergraduate students, fifth and sixth years, rotate through rheumatology as part of their orthopaedic module.

Respiratory Research

Prof. CT Bolliger

Prof. EM Irusen

Summary

A5 ICU is a seven-bed medical unit is currently under the combined supervision of both respiratory and critical care specialists (three permanent consultants, two part-time consultants and one senior registrar in respiratory medicine). In view of the ongoing shortage of ICU beds in the Western Cape, the admissions of non-medical patients occur frequently. The current nurse: patient ratio is 2:1.

A total of 349 patients (M:F= 130:216) with a mean age of 37.6 years were admitted to A5 ICU during 2010. A total of 263 patients (75%) were medical patients and 86 (25%) nonmedical. The majority of the non-medical patients were referred from the abdominal surgery department [32 patients (9%)] and obstetrics and gynaecology

Medicine

department [24 patients (7%)]. The mean Apache score was 18. The average length of stay was 6.1 days. There were 70 deaths for the year, translating into a mortality rate of 20%.

The influenza A (H1N1) virus had less of an impact in 2010. Three patients with laboratory confirmation of the virus were admitted to the Unit. Nine patients, however, were admitted with complications of measles. Five of them died. The admission of patients with a potentially contagious infection highlighted two major deficiencies present in A5I CU. The lack of sufficient nursing staff translated into the unit functioning as a six-bed unit during these periods and secondly, the fact that A5ICU has only one isolation bed limited the unit's ability to accept more than one patient with a potentially contagious infection, without compromising infection control.

The persistent shortage of trained ICU nursing staff continues to limit the admissions to the unit. Currently, there are five sisters and two nurses during the day and four sisters and two nurses at night. In the case of the absence of any nursing staff or alternatively, the use of our isolated bed, the unit downscales accordingly; an unfavourable situation in an environment where access to ICU resources is greatly limited.

In the course of 2010, A5 ICU acquired a capnograph machine and non-invasive cardiac output monitoring device. However, basic ICU equipment including new resuscitation aids and beds are urgently required in order for the unit to provide optimal care for the patients.

Bronchoscopy Theatre

Resources

Posts (full-time)	Number	Filled
Professor Principal Specialist	2	2
Specialist	2	2
Registrar	2	5
Senior Registrar	5	1

Posts (sessional)

Specialists	3	1
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Number of beds	7	7
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Output

Stats for Respiratory-Allergy clinic 2010

Follow up Patients	1 771
New Patients	1 167
Total	2 938

Date	Follow-up patients	New patients
January	152	93
February	149	109
March	136	108
April	114	83
May	164	88
June	173	119
July	173	96
August	107	63
September	146	92
October	162	172
November	157	117
December	110	27

Lung function Lab- Total procedures	6567 Average/month
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Datum	Jan	Feb	Mrt	Apr	Mei	Jun	Jul	Aug	Sept	Okt	Nov	Des	Totaal
Veselskoop	40	53	56	17	28	61	48	43	48	43	58	50	545
Rigiede brongoskoop	3	1	0	1	1	1	1	1	1	1	0	2	13
BIOPSIE	14	21	10	0	9	6	5	12	5	9	9	11	111
Vervreemde voorwerp	0	0	2	0	0	0	1	1	1	0	0	0	5
Brongiale spoelings	17	36	24	7	8	32	21	26	24	26	27	29	277
BAL	1	4	1	0	1	2	3	3	5	12	3	2	37
TBNA	15	23	20	6	11	28	25	13	16	20	23	15	215
Tru-cut Biopsies	2	0	4	0	2	2	2	3	5	1	0	0	21
Abrahms biopsie naald	1	3	6	11	10	12	10	8	8	9	3	2	83
TTNA	14	23	38	44	34	35	37	39	33	37	21	29	384
Thorack sonar	23	43	45	68	47	61	45	45	71	46	33	33	560
OWD	9	9	8	14	7	2	5	11	7	3	5	4	84
Torakoskopies	4	6	1	1	3	2	1	2	1	1	4	0	26
Alge.	14	11	19	6	29	28	14	27	28	15	23	17	231
Lokaal	66	91	98	84	88	110	86	69	95	80	90	70	1 027

Medicine

Primary evaluations	4869	406
Paediatric Lung function	886	74
Plethysmography	380	32
Diffusion capacity	347	29
Exercise studies	85	7

Intensive Care-Total procedures	128 552
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	Adult	Paediatric	Total	
Bloodgases	18 315	13 726	32 041	1 526
Haematocrits	18 315	13 726	32 041	1 526
Ventilator circuits	168	454	622	14
Ventilator calibrations	1 453	3 423	4 876	121
Arterial line placement/repair	2 483	3 482	5 365	207
Pulmonary artery catheter placement/ repair	4		4	
CVP placement/repair	1 115	48	1 163	93
MIP & MEP procedures	44		44	4
Assistance with ventilation	3 873	7 572	11 445	323
Blood sample collection Electrolytes/Metabolytes (Na, K, Ca, Cl, Glu & Lac)	113	39	152	9
Monitor assembled	2 477	5 681	8 158	206

Infrastructural development

- Super dimension electro cautery System (Prof. Bolliger).

- measures, workshop in smoking cessation;
- Prof. Bolliger, Department of Medicine: Chairman of Research Committee

Community outreach programmes

Prof. Irusen

Faculty

Module chair: Respiratory

Interdepartmental: Training of registrars from anaesthesiology, occupational medicine and emergency medicine in Internal Medicine, Radiology and Pulmonology.

Department:

Co-chair: Thursday Academic Programme

Awards

- SA Thoracic Society – Best Publication in Pulmonology in SA, May 2010 (co-author); and
- Rector's Award: Excellence in Community Interaction, Nov 2010.

Regional

Prof. CT Bolliger

- Co-operated with National Council against Smoking (NCAS) in tobacco control

National co-operation and partnerships

Prof. EM Irusen:

- Serves on advisory boards of GSK and MSD;
- President of the SA Thoracic Society;
- Scholarship reviewer;
- College of Medicine examiner;
- National examiner: Masters & PhD dissertations;
- CPD: more or less 30 lectures per year on all aspects of respiratory disease.

Prof CT Bolliger:

- Consultant for GSK, Pfizer;
- Consultant to a private Swiss hospital group at the Hirslanden clinic, Aarau, Switzerland;
- Consultant to the hardware companies Superdimension and Calypso;
- Works closely with the Swiss Federal Office of Public Health, currently implementing a project called "Hospital Quit Support", establishing smoking cessation clinics at all major Swiss hospitals. Currently follow-up phase 2008/2009;

Medicine

- Task force member of ATS/ERS taskforce on flexible bronchoscopy guidelines;
- Co-operation with Pulmonology/Thoracic Surgery Rikshospitalet, Oslo, Norway; and
- Chairman smoking cessation guidelines for the Africa/Middle East region.

International co-operations and partnerships

Prof. Irusen

- COPD Coalition: I'm on international executive. We've lobbied with WHO on anti-smoking strategies and work with healthcare professionals and governments prioritise the care of COPD patients. We also co-ordinate World COPD Day;
- Gold National Leader (Gold-Global Initiative for Chronic Obstructive Lung Disease);
- TASS project: Targetting Asthma in Sub-Saharan Africa. Has been extensively involved in outreach in terms of respiratory health – especially asthma, throughout sub-Saharan Africa;
- Collaborative Research: Prof T Robbins, University of Michigan: Respiratory epidemiology; and
- Journal Reviewer: Clinical Drug Investigation, Clinical Infectious Diseases.

Prof. Bolliger

- Editor-in-Chief: *Respiration* (journal).
- Editor-in-Chief: *Progress in Respiratory Research* (Book Series)

Prof. Bolliger is on the following editorial boards:

- Associate Editor *Nicotine Tobacco Research*;
 - EB member of *Brazilian respiratory Journal*;
 - Consultant to *CHEST*; and
 - *Pneumon* (Greek national pulmonology journal)
- Prof. Bolliger is president of EAB (European Association of Bronchology and Interventional Pulmonology). 2010.

Prof. Bolliger

- ERS evaluation committee member; and
- Project leader HQS, national hospital based smoking cessation project.

Research

Number of publications: 12

Textbooks and contributions to textbooks: 5

Educational role

- Elective postgraduate students for training and research in Interventional Pulmonology with Prof Bolliger;
- Dr FT Von Groote-Bidlingmaier (started on 1 January 2009);
- Dr Vanono (September 2010);
- Dr A Nanguzgambo (September 2009 – February 2010); and
- Dr M Bernasconi (started January 2010).

Pre graduate students:

Kiki Chung (September 2010).

Highlights

- Prof. Bolliger honorary lecture for contribution to Interventional Pulmonology, World Congress of bronchology and esophagology, Budapest, June 2010; and
- Prof. Bolliger, Calypso intrabronchial transponder placement for accurate tumour location for radiotherapy Planning, first study “in man” October 2010.

Respiratory Research Unit publication list 2010

Articles

- Koegelenberg C, Irusen EM et al. High mortality from respiratory failure secondary to swine origin influenza A (H1N1) in South Africa. *QJMed* 2010; 103:319-325.
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Obstetrics and Gynaecology

Obstetrics and Gynaecology

Prof Gerhardus Barnard Theron

Brief History

Prof JN de Villiers was the first Head of Department and he held this position up until 1970. Prof WA van Niekerk then became Head. This was the beginning of the Tygerberg era. In 1983, Prof HJ Odendaal succeeded Prof van Niekerk. Prof TF Kruger succeeded Prof JH Odendaal in 2003. These four heads of department made significant contributions towards the discipline of Obstetrics and Gynaecology, which led to the international recognition of Tygerberg Hospital and the University of Stellenbosch, Department of Obstetrics and Gynaecology. Prof Theron succeeded Prof Kruger in March 2010.

Summary

We are committed to quality care, research and training. The Obstetric service strives towards the improvement and extension of the infrastructure for the delivery of excellent service. The gynaecology service strives to perform fewer conventional gynaecological procedures and more endoscopic procedures, as well as the use of a day theatre for minor gynaecological problems.

Planning for the effective provision of level 2 and 3 services commenced in 2009. The appointment of Dr S Gerhardt as the Head of Specialist services in the department in August 2009, paved the way for major changes that commenced in January 2010.

Generation of external funds for research and post-degree fellowships is a priority for the department.

Resources

Posts (full-time)	Number on establishment	Number filled
Chief specialist	3	3
Principal Specialist	4	2
Natural Scientist (specialist)	2	2
Specialist	10	10
Registrar	20 (1 each at Worcester + Paarl Hospital)	20
Medical Officer	13	12
Intern	12	12
Technologist	2	2
Radiographer	1	1



Posts (sessional)

Specialist	5 persons 42 hours/week	Filled
Part time posts	2 specialist posts filled with 5/8th appointment	

Number of beds

Obstetrics	107
Gynaecology	43 (+15 radiation therapy beds)

Output

Obstetrics report	2009	2010
<i>In-patients</i>		
Admissions	8 577	8 239

Complicated labour admissions

Pre-eclampsia	682	738
Eclampsia	108	90
HELLP	86	72

Abruptio placentae	127	126
Placenta praevia	105	101

Obstetrics and Gynaecology

Deliveries

	2009	2010
Total number of deliveries	6 103	5 975
Normal vertex delivers	3 939	3 631
Forceps deliveries	21	7
Vacuum extractions	124	64
Breech delivers	206	151
Caesarean sections	2 113 (34.6%)	2 132 (35.7%)
Twins	297	214
Number of low birth weight babies ≤ 2 500g	459 (7.4%)	376 (6.2%)
Very low birth weight babies ≤ 1 500g	869	447
Extremely low birth weight babies ≤ 1 000g	2 370 (38.1%)	2 433 (40.6%)
Perinatal Mortality rates (≤ 500g 1000g) (≤ 1 000g)	553/1000	640/1000
Miscarriage	294	165

Procedures/examinations

Manual removal of placenta	78	144
Sterilisations: Postpartum and during Caesarean section	358	465

Maternal Deaths

Total number	271	15
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Foetal Evaluation Clinic

Antenatal foetal Heart Rate Monitoring

Total number of patients	983	2 058
New patients	1 545	1 603
Follow-up patients	438	455
Twins	53	77
External cephalic versions	88	46

Dopplers

Total number of patients	3 286	3 912
New patients	2 400	2 643
Follow-up patients	886	1 269
Foetal evaluation referrals (back to AN clinic, HRC or C2A)	1 845	2 057

Out-patients

Obstetrics

	2009	2010
Second visit and high risk patients	17 929	18 422
New patients	1 114	553
Post-natal patients	921	647
Diabetic clinic	1 078	1 054
Special care clinic	584	684
Anaesthetic referrals	351	342
Total	21 977	21 702

Gynaecological report

In-patients

Seen on call	3 644	3 722
Total admissions	2 150	3 846

Operations

Evacuations	554	565
Cold knife biopsies	36	34
Operative hysteroscopies (general theatre)	47	79
Vaginal hysterectomies	77	106
Abdominal hysterectomies (including TAH and BSO)	170	265
Laparotomies	168	76
<i>Ectopic pregnancies:</i>		
Laparoscopy	9	9
Laparotomy	140	57

Out-patients

Follow-up patients

General Gynaecology	4 385	4 330
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New patients

General Gynaecology)	2 605	2 844
Endocrinology	670	639
Colposcopy Clinic	1 625	1 932
LLETZ	685	633
Andrology	721	434
Oncology	1 717	1 697
Cytology	294	293
Urogynaecology unit	979	1 049
TOP (evaluations seen at Gynaecology)	1 084	1 073

GEC theatre

Terminations of pregnancies	796	837
Day theatre cases	127	166
Hysteroscopies	313	361
Grand Total	15 316	15 655

Obstetrics and Gynaecology

General Specialist Services

Dr GS Gebhardt

The General Specialist Services are responsible for all acute obstetric and gynaecology referrals from midwife obstetric units, community health centres, clinics and district hospitals within the Metro East. The 24-hour emergency centre has a triage area (4 obstetric and 3 gynaecology beds), 13 dedicated antenatal and delivery beds, and 8 postnatal beds. During 2010 a total of 8 520 obstetric patients and 4 113 gynaecology referrals were managed here. Of these patients 8 239 obstetric patients were admitted to the labour ward with 5 975 deliveries. During 2010, the labour ward operated at an average bed occupancy rate of 113%. This made management of acute cases extremely difficult as there are constantly more patients in the ward than equipment or personnel can manage. To improve quality of patient care and provider satisfaction against this background, the following changes were implemented in 2010:

- Re-organisation of the obstetric platform with a consultant-driven service and continuity during office hours in the wards, clinic and labour ward to improve clinical skills, ensure patient safety as well as improve patients flow;
- A duty roster with fair division of working hours and responsibilities;
- Consultant supervision of elective caesarean sections with 3 dedicated training lists for interns per week;
- Afternoon ward rounds to improve patient flow;
- A weekly quality-assurance meeting between nursing and clinical staff;
- Implementation of a maternity ward operational plan including an escalation plan;
- Development and implementation of obstetric protocols; and
- Development of a clinical governance framework.

The old equipment was gradually replaced with 10 new obstetric beds, eight new cardiotocograph machines, six new infant overhead heaters, five new vacuum extractors and a transport incubator. The infrastructure redevelopment of labour ward that started in 2010 was unfortunately halted and the project handed over to the Department of Public Works.

Consultants were appointed in vacant posts during 2010 bringing the total on the general specialist platform to six.

There is a general specialist as well as a gynaecology clinic every weekday from 07h00- 16h00. The obstetric clinic managed 18 422 patients during 2010, making it one of the busiest clinics in the hospital. The gynaecology clinic managed 7 174 patients. In addition, a total of 837 terminations of pregnancy were performed.

The general specialist services do outreach to the surrounding district hospitals and midwife obstetric units. A gynaecology clinic has been set up on a two weekly basis at Eerste River Hospital with a monthly theatre list as well. An additional colposcopy outreach service will also start in 2011. A colposcopy outreach service every second week at Helderberg Hospital has decreased the waiting time for clients with abnormal cervical cytology smears to two weeks. In addition training and feedback sessions are done on a monthly basis at the midwife obstetric units in the Tygerberg drainage area.

The Khayelitsha District Hospital's relationship with Tygerberg was strengthened during the year with support to the fully independent 24 hour emergency maternity service. Preparations for their independence, addition of gynaecology cases and planning the move to the new site once commissioned, commenced in 2010.

Family Planning and Reproductive Health Care Unit

Dr PS Steyn

Head (Senior Specialist): Dr PS Steyn

Specialist: Dr J Kluge

Rotating Registrar: 1

Senior Nursing staff: Mrs Cupido, Mrs Naude

Senior Auxilliary Nursing staff: Mr Kotze

Secretary: Ms L Nontshiza

Obstetrics and Gynaecology

Patient statistics

Female Programme	2009	2010
<i>Patients Counsellled:</i>		
In clinic	9 612	9 745
In wards	8 002	7381
Patients accepting a method	14 629	14 980
Sterilizations done	634	779
Booked for sterilization, did not turn up	41	208
Cancellation of sterilization	33	44
Female condom use	3 300	1 820
Emergency Contraceptive use	86	220
Intrauterine Contraceptive Device Fitting	88	57

Cervical Smears

Total taken	455	335
CIN lesions	61	39
Referred for Colposcopy	34	13

Male Programme

Consultation before Vasectomy	579	543
Vasectomy done	258	225
Health Education/Consultation	861	491
Male condoms issues	248 600	297 600

Comments

There is steady increase in patients and referrals from clinics. This is despite active outreach as well as a helpline available to primary and Secondary Health Care facilities. This emphasises the necessity of a referral centre for reproductive health and family planning.

Sterilisation services are currently not optimised and it is of concern that patients are not turning up for lists (or are cancelled when they are booked on the main lists due to lack of theatre time).

Training

Family planning updates attended by health care providers: 44 in Parow (City Council), 120 GP's in Brackenfell, 123 in Cape Metro Region (PAWC) and 60 in West Coast. Training in insertion of intra-uterine device- Part 1 and 2: 32 Nursing staff at Karl Bremer Hospital and 20 in Worcester. Outreach to different clinics 3 times per month for practical training in IUD-insertion.

The unit is involved in the module in Reproductive Health of the Province.

Unit of Gynaecological Oncology

Dr MH Botha and Dr FH van der Merwe

The year 2010 was a busy and productive year for the Unit of Gynaecological Oncology. Our first priority was patient centred clinical service delivery to women with gynaecologic cancers. The HIV epidemic continues to affect our population which has an effect on the incidence of cervical intra epithelial neoplasia and cervical cancer. Patients presenting to the unit are managed by a multidisciplinary team with a holistic approach where patient dignity is of utmost importance. We appreciate the close working relations from colleagues in other departments. These include, but are not limited to Dr Hannah Simonds of Radiotherapy, Dr Pieter Barnard of Chemotherapy, Dr Mercia Louw of Pathology, the departments of Urology, General Surgery and Radiology.

Equally important priorities of the unit include teaching, training and research. The highly regarded training of sub-specialists in Gynaecological Oncology at our institution was recognised by the Discovery Foundation who awarded a fellowship sponsorship to a second candidate. This is in addition to another sub-specialty training position funded by the Medic Clinic Corporation.

Research achievement from the unit includes the finalisation of details for a multi-centre study on cervical cancer prevention, sponsored by the Carisa initiative. This is a joint initiative set up between the Cancer Association and the Medical Research Council of South Africa. Another important HPV vaccination trial in co-operation.

With an international team lead by the well-known Prof Anna Giuliana is about to start after months of preparation. Research on fertility preservation in cancer survivors lead to Dr MH Botha successfully completing of a PhD degree in 2010.

The academic output of the Unit during 2009 was commendable despite the heavy clinical work load and involvement in various Gynaecological Oncology forums. The unit is also very proud of Dr E Hugo (fellow) who obtained the Diploma in Gynaecologic Oncology of the Colleges of Medicine of South Africa. She is the first Fellow from this Unit and the second in South Africa to obtain this qualification.

Obstetrics and Gynaecology

Posts

Head of Clinical Unit	1
Senior Specialist	1
Fellow in Gynaecologic Oncology	1 (bursary from Medi-Clinic)
Registrar (three month rotation)	1

Nursing Staff

Chief Professional Nurse	1
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Administrative

Typist	1
Clinic clerk	1

Patient Statistics

New patient managed by the unit

	2009	2010
Carcinoma cervix	215	200
Carcinoma endometrium	41	38
Carcinoma ovaries	45	46
Carcinoma vagina	1	3
Carcinoma Fallopian tube	1	2
Uterine sarcoma	13	10
Carcinoma vulva	10	15
Melanoma vulva	1	5
Bartholin gland		1

Other:

Unknown primary	7	2
Carcinoma anus	1	1
Colon carcinoma	3	1
Bronchus lung carcinoma		2
Carcinoma appendix		1
Gestational trophoblastic disease	7	13
Gestational trophoblastic neoplasia	4	7
Total	345	349

Colposcopy clinic

	2009	2010
New	756	1 063
Follow-up	870	854
Total	1 626	1 917

Oncology clinic

	2009	2010
New	320	278
Follow-up	1 488	1 382
Total	1 808	1 660

Cytology clinic

	2009	2010
New	59	61
Follow-up	235	228
Total	294	289

Staging clinic	514	463
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LLETZ(Colposcopy clinic)	563	633
Pap smears	1 287	1 239

Biopsies	364	569
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Obstetric Critical Care Unit

Dr E Langenegger

During 2010, 402 critically ill patients were admitted to the ward. There were four maternal deaths in the Obstetric Critical Care Unit. 60 patients were ventilated. The unit provides world class invasive and non-invasive monitoring.

Dr Langenegger is the editor of the ESMOE training programme. There are two master trainers in the department and they train all the interns.

There is a combined Obstetric Cardiac Clinic which provides one-stop clinical, obstetrics evaluation, echo and delivery planning for 30 patients on a monthly basis.

There is also a new acute postnatal area in the labour ward. An additional four beds have increased the turnover in the unit and enable us to provide a better level of care.

Personnel

Senior Specialist	1
Medical Officer	2

	2009	2010
Total patients admitted	447	402

Procedures performed

Arterial lines	318	275
Central venous pressure lines	274	129
Swan Ganz Catheter	14	10

Obstetrics and Gynaecology

Respiratory support

	2009	2010
Ventilated	50	45
CPAP	27	72
Non-invasive ventilation	95	72
Deaths	6	4

Urogynaecology and Reconstructive Surgery

Dr JARensburg

The Urogynaecology Unit experienced a productive year in 2010. The unit has established the needed infrastructure to accommodate a fellow in the field of urogynaecology. This fellowship will end in March 2011.

The Perineal Clinic which has been moved to Groote Schuur Hospital at the Colorectal Unit, due to the lack of equipment at Tygerberg Hospital, is functioning well and Tygerberg patients are well received at this unit. The Urogynaecology fellow Dr Juul has made adequate progress and at the time of writing this report has completed his fellowship training time. The physiotherapist continues to provide her specialised service on a sessional basis.

The following are of importance:

Surgery

Good co-operation with PGWC has been established which involved the needed devices and equipment for complicated reconstructive surgery and incontinence surgery. The Unit is in the process of expanding its laparoscopic expertise and is negotiating for additional theatre time in order to decrease the long waiting lists as well as to fulfil the requirements to qualify for sub-specialisation status - one urogynaecology has been registered as a sub-specialty with HPCSA.

Rescheduling of clinics

Clinics were rescheduled to establish a one stop clinic function with success. The clinic includes urogynaecological consultation service and physiotherapy service on the same day. Sr Nothnagel and the administrative personnel ensure the flawless running of these clinics.

Personnel

Specialists	1
Registrar	1 (part time)
Fellow	1 (Bursary from Netcare)
Urologist	1
Physiotherapist	1
Nursing staff	1

Patient statistics

	2009	2010
New patients seen	196	220
Follow-up patients seen	688	727
Urodynamic studies performed	97	108

Reproductive Medicine

Prof TF Kruger

Micro surgery is performed on Level II and Level III in the S & T theatres and our unit is one of the few endoscopic theatres providing a service in an academic hospital.

We have an out-patient theatre which is used for endoscopic procedures and which results in a huge saving to the hospital as procedures are done on an outpatient basis.

The Andrology Department provides a service for the region and helps patients with infertility, cancer patients and urology patients.

Freezing of semen is also offered for cancer patients requiring this service. We also offer a low cost IVF service to patients.

Personnel

Chief Specialist	1
Senior Specialist	1
Senior Specialist	5/8 post
Fellow	2
Natural scientist	2
Technologist	2

Obstetrics and Gynaecology

Assisted Reproduction

Andrology	2009	2010
Number of semen analysis	720	726
Number of post-vasectomy patients (included in total)	329	276
Wet semen preparations examined	720	726
Semen counts performed	489	438
Samples examined after centrifugation		276
Supravital semen stains evaluated	25	
Semen morphology smears prepared		1 250
Semen morphology smears stained		1 250
Sperm morphology evaluations performed	1 627	1 383
Antispermatozoa antibody tests performed	328	370
Reports placed on computer system	720	726
Fructose tests (Azoospermia samples)	35	50

IVF

Patients aspired	29	26
Number of ova handled	68	
Semen samples prepared for ova inseminations	26	26
Number of patients receiving embryo transfers	14	
Semen samples prepared for IUI	24	32

In 2010 there was a slight increase in total semen analyses performed, but a decrease in the total number of semen samples investigated after vasectomy. There was a slight reduction in the number of women aspirated for an IVF procedure but a few more IUI's were performed. Thus overall the workload for the Andrology/IVF laboratory remained the same.

Ultrasound

Prof LTGM Geerts

2010 was a year of significant change in the Ultrasound Unit, related to the departmental reorganisation and division into level II and level III services. This led to separated statistics on level II

and level III services rendered within the Ultrasound Unit (from 1 June 2010) as well as the start (10 March 2010) of a dedicated consultant-lead Foetal Medicine Clinic which delivers a holistic care package for women with complicated pregnancies requiring detailed foetal surveillance. The main case load of this clinic consists of women with complicated twin pregnancies, severe placental insufficiency as well as red cell iso-immunisation. This clinic has increased the workload of the unit since these women now receive total care and not just ultrasound assessments in this facility. The need was met by the allocation of a dedicated registrar and the availability of level III beds for foetal medicine patients. The Unit has seen further increases in workload especially in terms multiple gestations and Doppler assessments. Reasons for this are a combination of better referral patterns for twins and anomalies as well as the increasing obesity in the population. The year saw an increase in late diagnosis of foetal anomalies, related to the changes in service delivery at primary care level.

Personnel

Principal Specialist	1
Chief Medical Officer	1
Chief Sonographer	1
Registrar	1
Assistant Nurse	1
Typist (shared with O & G)	1
Clinic Clerk (shared with FEC)	1

Ultrasound outpatient visits and speciality clinics

Obstetrics	2009	2010
Total visits	7276	7 893
Twin visits	1 029	1 248
Foetal anomaly visits	676	622
Doppler visits	3 321	3 809
Invasive procedures	352	370
Foetal medicine clinic	250 (since 10/3/10)	
Foetal medicine admissions	14 (since 1/8/10)	
Level III visits	2269 (since 10/6/10)	

Foetal Medicine clinic	250 (since 10/3/10)	
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Foetal medicine admissions	14	
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Gynaecology

Total visits	1 617	1 424
Level III visits	515 (since 1/6/10)	

Obstetrics and Gynaecology

Comment on output

General Obstetrics

The number of deliveries, patients with severe obstetric complications and morbidity has stabilised in 2010. The focus in 2010 continued to be good clinical governance in the antenatal clinics, labour ward and postnatal wards. The hard work and good planning resulted in a reduction in both perinatal and maternal deaths. The number of perinatal deaths (birth weight $\geq 1000\text{g}$) declined from 50.2 to 41.4/1000 deliveries. The number of maternal deaths was reduced from 27 to 15. The caesarean section rate increased slightly from 34.6 to 35.7%.

General Gynaecology

The cost effective, patient friendly and evidence based service was continued in 2010. The sustained increase in the number of patients seen with cervical intra-epithelial neoplasia at the Colposcopy Clinic reflects an important effect of the HIV pandemic on women's health. Special measures were required to provide the service and through outreach to extend the service to Metro East district hospitals. The service experienced an increased number of operative hysteroscopies, and both abdominal and vaginal hysterectomies. Planning, training and improving the infrastructure to increase the number of gynaecological laparoscopic procedures during 2011 were actively pursued.

Research

The department is involved in research with a focus of addressing research questions relevant to the health needs of South Africa. Members of the department are extensively involved with international research collaboration. International funding agencies contribute generously towards research done in the department. The number of publications in peer-reviewed subsidised journals increased from 24 in 2009 to 30 in 2010.

Under & postgraduate training

High quality under and postgraduate training is offered. Three registrars completed their training. All three were successful in the Part II examination as well as were awarded MMed (O&G) degrees. Dr E Viljoen was awarded with the Dubenton Medal as the best Part II candidate for 2010. Dr E Hugo and Dr T Matsaseng successfully completed their fellowship training in Gynaecological Oncology and Reproductive Medicine respectively.

Outreach programmes

Gynaecological Oncology

The unit for Gynaecological Oncology visits Worcester and Paarl Hospitals on a fortnightly rotation. The aim of the visits:

Training of specialists, registrars and medical officers working in these hospitals is supplied.

New patients are evaluated in order to ascertain management in local hospital and relevant referral and follow-up of patients.

The Unit is involved in the provincial screening program for cervix carcinoma and also provides training in cervical cytology in the rural areas.

Continued medical education remains a priority of the unit and outreach programmes towards the rest of the public sector in the Province in terms of CME activities was an important focus. Several rest of the public sector in the Province in terms of CME activities was an important focus. Several half-day courses on cervical cancer screening have been presented in the Western Cape Province including George, Oudtshoorn, Worcester, Paarl, Vredenberg and in the Metro region. The demand for this course remains high.

Another CME activity initiated by the Unit is the Northern suburbs Gynaecologic Oncology meeting that is an outreach programme towards private gynaecologists with the focus of gynaecologic malignancy.

The Unit's role in education in the rest of Africa was strengthened by a visit to the National University of Rwanda and to Zambia. Dr A Diarra from Mali is the speciality trainee and will go back to work in his home country in 2012.

The co-operation with the Gynaecologic Oncology Unit of the University of Cape Town is strong and there is regular contact about clinical protocol development and at academic meetings.

Towards the end of 2010 a decision was taken to accept patients from the George referral area to Tygerberg Hospital due to long waiting times at Groote Schuur Hospital.

Obstetrics and Gynaecology

Community Obstetrics

There are monthly visits to the midwife obstetric units within the Tygerberg substructure to develop skills and to provide clinical feedback from audit meetings. Obstetrics training and outreach has been extended to include the whole Metro East, this includes the Michael Mapongwana Maternity Obstetric Unit (MOU) in Khayelitsha and the Kraaifontein MOU as well as Khayelitsha Day Hospital (KDH) and Helderberg Hospital (HH). The focus is improved care and a reduction of maternal and perinatal deaths (Millennium Development Goal 4 & 5). A metro east Morbidity and Mortality meeting was also initiated on a 3 monthly basis, to provide a discussion and feedback mechanism for morbidity/mortality in the geographical service area.

EMOE

Essential skills in developing Obstetric Emergencies: Trained 43 interns in 2010. Staff from KDH, Karl Bremer Hospital (KBH) and HH were also trained.

Family Planning and Reproductive Health Care Unit

The Unit of Family Planning, with the help of funding from international organisations, is actively promoting life orientation courses amongst the youth, educators, NPO's and the Department of Education through their adolescent health project group.

A Life skills programme – Today's choices, including an interactive CD – covers the whole Further Educational Tract (Grade 10 to 12 or FET) phase, are now available from grade 10 and 12.

We have developed parent involvement and social learning through video scenario manuals.

More than 1 million learners have been reached.

The Unit continues to operate a contraception help line for enquiries and support – this is supported by the World Population Foundation and was expanded to cover the whole of South Africa | 2007.

Ultrasound

Prof Geerts provided continued assistance to community-based sonographers in Winelands, Overberg and West Coast region as well as direct drainage areas of Karl Bremer and Tygerberg Hospital. To improve the efficiency of the obstetric ultrasound services in the region, a meeting was held

with all concerned sonographers to ensure all understand the aims of the provincial policy and their responsibility towards it. Representation from nursing was ensured to address the lack of adherence referral policies by clinical staff of antenatal services. Three ultrasound courses were offered by the Unit's staff at the premises of Tygerberg Hospital, attended by both private practitioners and staff members from the public sector and involving both theoretical and practical training.

A new training programme was started for junior registrars to ensure their basic obstetric ultrasound skills can meet the need for patient care from the early stages of their career. This was expanded to a medical officer from KDH.

The staff of the ultrasound unit is also responsible for the practical training of successful CPUT students qualifying as sonographers B.Tech.

Obstetric Critical Care Unit

E Langenegger presented an Obstetrics Emergency Workshop to general practitioners and is also involved in the national life saving skills workshop aimed at level 1 care.

Film and Television Unit – W Myburgh

The Film and Television Unit is generating a regular income, which is used to purchase its own professional film production equipment, thus enabling Mr Myburgh to produce DVD footage of a high quality.

- PowerPoint training series consisting of 4 DVD's;
- Recording of lectures onto DVDs for general training purposes;
- Video recordings for dieticians at Intemba Labs;
- Recordings for Radiology Department; and
- Honours long distance education training videos.

National co-operation and partnerships

Obstetric Critical Care and Esmoe – E Langenegger

- Esmoe master trainer, developed two modules for programme;
- A mannequin for training was purchased by the Department of Health;
- ESMOE editor;
- Facilitator and editor for the Obstetric Anaesthetic emergency training module (ESMOE, Anaesthetic);
- South African master trainer for the BASIC course

Obstetrics and Gynaecology

(Basis Assessment and Support in Intensive Care);

- NCCEMD assessor; and
- Critical Care Society WC: Annual invited speaker.

Family Planning – P Steyn

- Department of Health – Training in Eastern Cape, Northern Cape and Mpumalanga in family planning;
- Department of Education – Western Cape, Kwazulu Natal, Free State, Northern Cape Province, Northern Province and Western Cape FET colleges;
- Department of Health – Countrywide emergency contraception helpline; and
- National Stop Aids Now! Consortium, which is made up of ten civil society organisations all working with children who are affected by HIV/Aids. Theatre for life, the Catholic Institute of Education (CIE), the Children's Institute (CI). Dance4Life. God's Golden Acre (GGA) Save the Children UK (SC.UK), the SA Scout Association, Stellenbosch University, Targeted Interventions (TAI) and Twilight Children.

Safe Passage Study – Pass Study- HJ Odendaal

Local Principal Investigator of the Safe Passage Study (PASS – Perinatal Alcohol SIDS Stillbirth) Research Network.

Ultrasound Unit – L Geerts

Prof Geerts has drawn up a new policy to address aneuploidy screening in the province, with the aim of improving access as well as efficacy and efficiency. This should ultimately lead to higher detection rates at much lower cost. She co-authored a manuscript with staff from the University of Cape Town on "Effectiveness of prenatal screening for Down syndrome on the basis of maternal age in South Africa" (S Afr Med J 2011;101: 45-48.) addressing the previous and current status and shortcomings of aneuploidy screening in the public sector, which is mainly based on advanced maternal age.

There is an ongoing collaboration with members of the Department of Psychiatry from the University of Cape Town (UCT) and Stellenbosch (US), on a prospective study to assess the effects of maternal stress as well as amphetamine use on the developing foetus.

Prof Geerts is collaborating with a large organization of general practitioners to make accreditation in obstetric ultrasound a reality in South Africa.

Prof Geerts was invited to give two state-of-the-art lectures at the 2010 SASUOG Congress hosted by the University of the Free State and one at the SASOG Congress hosted by the University of Pretoria. Prof Geerts serves on the scientific committee for the 2010 SASUOG Congress hosted by the University of Cape Town.

Staff members of the unit are actively involved in the training and formal assessment of CPUT students (BTec (Ultrasound)).

As the national SA coordinator for the Foetal Medicine Foundation (UK) program on first trimester screening, Prof Geerts is responsible for training as well as accreditation and auditing. For this purpose she runs an annual NT-course with hands-on training and she also lectures on this topic at regional or national meetings.

Prof Geerts was co-author, by invitation, to a chapter "Prenatal diagnostic services and prevention of birth defects in South Africa" for an international book on "Genomic variation and genetic disorders in developing countries", editor D Khumar, Oxford University Press. The work was done in collaboration with a clinical geneticist at Groote Schuur Hospital, co-author Dr M Urban, and addresses the current status and shortcomings of prenatal screening and diagnosis in South Africa, in the public as well as the private sector.

Prof Geerts collaborates in the Safe Passage study. Prof Geerts's contribution is mainly on the effects of alcohol on foetal development and growth and placental function as well as the development of a rigorous quality assessment program and two manuals on the optimal technique for biometry and Doppler assessment.

Prof Geerts was invited to provide data for an international "individual-patient-data meta-analysis" on the prediction of maternal and perinatal outcome in severe early onset preeclampsia, named PUPULAR.

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Gynaecological Oncology- MH Botha and FH van der Merwe

Closer co-operation between the University of Cape Town (UCT) and the Stellenbosch University (US) resulted in joint publication for the first time in the history of the two Units.

The unit is intimately involved in activities of the South African Society for Gynaecologic Oncology.

A meeting with another focus was hosted to highlight gynaecologic surgery, including practical theatre sessions with leading experts in this field, followed by academic lectures.

Talks on cervical cancer prevention have been given to various audiences all over South Africa at various points.

The unit is also involved in training of nurses from the Eastern Province.

Urogynaecological Unit-K van Rensburg

The Pelvic Floor Society of Cape Town continues with monthly talks with excellent participation between UCT and US. Dr van Rensburg initiated CPD points for these meetings and the allocation of points will commence in 2011.

No fellowship training is as yet offered at any other universities in South Africa and we thank Prof TF Kruger and Prof W van der Merwe for their contribution helping this happen. We would also like to thank the colorectal unit at Groote Schuur Hospital under the chairmanship of Prof Goldberg.

Dr van Rensburg holds the position of secretary on the SAUGA committee and is also a member of ICS.

Dr Juul is a Member of IUGA and SAUGA.

Reproductive Biology

Dr Marie-Lena Windt – De Beer was elected as the new secretary for the South African Society for Reproductive Sciences and Surgery.

Prof R Menkveld: Works together with Prof Ralf Henkel, Department of Biomedical Sciences, and University of the Western Cape.

WHO Workshops presented by Prof DR Franken – December 2010, for scientists and technologists from Africa.

Internal co-operation, outreach actions and partnerships

Prof T Kruger works with:

- Dr S Oehninger Jones Institute, Norfolk Virginia;
- Prof DR Franken: WHO workshop for the performance of basic semen analysis for African countries – December 2010.

Prof R Menkveld works with:

- Dr J Rhemrev, Bronovo Hospital, The Hague, The Netherlands. Dr L Bjordahl, Karolinska Institute, Stockholm, Sweden. Prof C Barratt, Reproductive and Developmental Biology Group, Division of Medical Sciences, University of Dundee, Scotland, UK; and
- Dr D Mortimer, Oozoa Biomedical Inc., Vancouver, Canada

Dr P Steyn – Family Planning works with:

- The Netherlands. World Population Foundation (WPF) and Stop AIDS Now (SAN) with curriculum designed for life orientation for teenagers;
- The Netherlands. University of Maastricht – Prof Rob Ruiters, programme evaluation and intervention mapping;
- United Kingdom. Faculty of Family Planning and Reproductive Health care in the RCOG- advisor to the editorial board of the Journal of Sexual and Reproductive Care;
- United States of America. University of Washington – collaboration with James Trussell on Family Planning and population studies; and
- United States of America. University of Washington – collaboration with developing the SAGE Multimedia Encyclopedia of Women in today's World (Family planning and Sterilisation).

Dr S Gebhart works with:

- Prof Ogechi Ikediobi, University of California, San Francisco on the influence of antiretroviral pharmacogenetic traits and drug levels in hair on treatment outcomes in HIV-positive South African individuals; and
- Prof L Warnich, Department of Genetics, University of Stellenbosch, on several projects

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related to the genetics and pharmacogenetics of HIV and pre-eclampsia.

Prof H Odendaal works with:

- The Universities of Harvard, Columbia, Boston and North and South Dakota on the Safe Passage Study of the Prenatal Alcohol in Sudden Infant Death Syndrome (SIDS) and Stillbirth (PASS) Network, is a federally-funded, prospective study of 12,000 women and their infants to determine the relationship between prenatal alcohol exposure, stillbirth and SIDS. The study is done in two (but not exclusive) populations in the Northern Plains of the USA and Cape Town, which are at high risk for prenatal alcohol exposure, stillbirth and SIDS; and
- The Free University of Amsterdam – preterm labour and intracranial bleeding.

Prof D Hall works with:

- United States of America: A phase III, Randomised, double blind, placebo controlled, multicentre study to assess the efficacy, safety and tolerability of Prochieve 8% progesterone gel in preventing preterm delivery in pregnant women at increased risk for preterm delivery. Collaboration with completed - completing February 2010.;
- United Kingdom: Cochrane Collaboration: Working on systematic reviews. Status: One completed 2010, two ongoing;
- Australia: Preterm prelabour rupture of membranes close to term trial. National Principal Investigator for South Africa, protocol with CHR. Status: Recruitment on-going;
- Italy and France: Urinary excretion of inositol phosphoglycan in newborn babies from pre-eclamptic mothers. Principal investigator – South Africa. Status: Recruitment complete samples shipped to Oxford for analysis;
- Canada: The Centre for Research in Women's Health, Director ME Hannah, University of Toronto. Agreement to collaborate and / or share information, Status: Ongoing, low-key;
- Canada: PIERS Study. A WHO funded, screening study for pre-eclampsia in developing countries. Status: Recruitment on-going; and
- France: Member of International Workshop on Reproductive Immunology/Immunological Tolerance and Immunology of Pre-eclampsia. Status: Next meeting 2012.

Prof L Geerts works with:

- (UK) Foetal Medicine Foundation, regarding program on first trimester screening (assistance in training an assessment);
- (UK) D Khumar, Oxford University Press (collaborated with Dr M Urban, then from University of Cape Town, for a chapter "Prenatal diagnostic services and prevention of birth defects in South Africa" in an international book on "Genomic variation and genetic disorders in developing countries"). The work addresses the current status and shortcomings of prenatal screening and diagnosis in South Africa, in the public as well as the private sector; and
- (USA) Harvard University, University of North and South Dakota, Columbia University and Boston University for the Safe Passage study. The topic of the main study is the effect of alcohol intake during pregnancy on still-births and sudden infant deaths. The ultrasound aspect focuses on the effects of alcohol on foetal development, growth was developed, and that can be used in the clinical setting as well. (Netherlands) Data from a previous study performed in the ultrasound unit are being incorporated in an international "individual-patient-data meta-analysis" on the prediction of maternal and perinatal outcome in severe early-onset preeclampsia, named PUPOLAR.

Dr M H Botha and Dr F H van der Merwe work with:

- The unit collaborates in a study on uptake of screening for cervical cancer in South Africa. The principal investigator is Prof Greta Dreyer from the University of Pretoria. The study will have two recruitment sites in Northern Gauteng and one in the Western Cape. Recruitment will commence towards the latter half of 2011; and
- The Unit is involved in an HPV observation study in HIV positive patients. The recruitment into the study is nearly completed. This study takes place in collaboration with Dr M Zeier (principal investigator) from the Infectious Diseases unit in Tygerberg Hospital. The vaccine preparedness study with Prof Guiliani an international authority on HPV vaccination from the USA will start recruitment at the end of 2011. Many months of preparatory discussions culminated in a research visit from the international faculty to Stellenbosch in February 2011.

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Prof W Steyn works with:

- The role of the foetal electrocardiogram in the assessing of foetal welfare in patients with week placental function. Project together with the University of Utrecht (Gerard Visser);
- PASS Study – participant in Project under guidance of Prof HJ Odendaal;
- PIERS Project – study together with the University of British Columbia, Vancouver;
- Margo Graatsma – PhD-student University of Utrecht. Study leader whilst visiting Tygerberg Hospital;
- New initiative – University of Utrecht; University of British Columbia (see above);
- Academic collaboration and partnership – University of Utrecht; University of British Columbia (see above);
- Edgardo Abalos (Argentina), Lelia Duley (UK) and David Henderson-Smart (Australia) on Cochrane reviews on Moderate Hypertension in Pregnancy (Published 2007); and
- Local organiser WHO trial WHO evidence based medicine educational trail.

Dr ML Windt works with:

- Institute of Biomedical Sciences Abel Salazar (ICBAS), University of Porto (UP), Porto, Portugal, St Antonio General Hospital (HGSA), Porto Portugal.

Dr R Menkveld works with:

- Dr Jan Vermeiden, IVF, IVF Unit, Free University of Amsterdam, Amsterdam, The Netherlands;
- Dr J Rhemreve, Department of Obstetrics and Gynaecology, Pretoria Academic Hospital. Research co-operation and training of laboratory personal;
- Professor Lbjorndahl, Karolinska Institute, Sweden, training of laboratory personnel and EQC program for basic semen analyses on behalf of the Special interest group – Andrology (SIGA) of the European Society of Human Reproduction and Embryology (ESHRE); and
- Member of the ESHRE SIG's training committee and member of the ESHRE SIGS's scientific committee.

Prof DR Franken works with:

- WHO – on-going presentation and hosting of annual workshops since 1997.

Prof G Theron works with:

- National Institute of Child Health and Human Development as co-researcher van Die Phase III Randomised trial of the safety and efficiency of three neonatal antiretroviral regimens for the prevention of intrapartum HIV-1 transmission;
- The International Maternal Paediatric Adolescent AIDS Clinical Trials Group (IMPAACT) as: Principle investigator of the Promoting Maternal and Infant Survival Everywhere (PROMISE/1077) study;
- Protocol vice chair for a randomised double blind placebo-controlled trial evaluate the safety of immediate (antepartum-initiated) versus deferred (postpartum-initiated) isoniazid preventative therapy among HIV infected women in high TB incidence settings. Also sponsored by The National Institute of Allergy and Infectious Diseases (NIAID), The Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) and Scientific Collaboration with the Tuberculosis Trials Consortium (TBTC) of the Centres for Disease Control and Prevention;
- University of Oslo in Norway as a guest lecturer; and
- The Wellcome Trust in the United Kingdom as a co-investigator of a study investigating Mother-Infant Transmission of Drug-driven Immune-escape HBV variants.

Dr E Langenegger works with:

- RCOG international office: ESMOE modules; and
- University of Queensland, University of Hong Kong: Establishing the Basic Assessment and Support in Intensive Care workshops in WC.

New co-operation agreements with the private sector

The Medi Clinic group have provided a bursary, allowing a newly qualified consultant to do a fellowship in Gynaecological Oncology, Dr A Diara is the fourth person to be appointed in the fellowship post.

The Netcare Group instituted the first fellowship in Urogynaecology (L Juul).

Collaboration between Vincent Palotti Hospital (Life Health Care) and the Unit for Reproductive Biology.

Obstetrics and Gynaecology

Three PhD students are coupled to this project.

Prof Geerts meets four to six times a year with sonologists, geneticists and foetal medicine specialists from private practise in the Cape Metro East region to discuss complex cases and review current clinical approach.

Prof Geerts arranged the “Managing your risk” course presented by the Medical Protection society on the premises of Tygerberg campus involving an international accreditor. This course is to be the first of a series, concentrating on increasing awareness amongst clinicians on the factors that trigger litigation, how to communicate better with patients and to be safer in day-to-day practice. The plan is to run several courses of this series throughout the year and in repeat cycles. Regular meetings with the Diagnostic Ultrasound Unit, a group of sonologists, geneticists and foetal medicine specialists from private practice in the Cape Metro East region, to discuss complex cases and review current clinical approach.

Prof Geerts is collaborating with a large organization of general practitioners to make accreditation in obstetric ultrasound a reality in South Africa.

Research

<i>Journal Articles (subsidised)</i>	2009	2010
Maternal Foetal Medicine	16	14
Reproductive Medicine	4	11
Urogynaecology	2	
Gynaecology	1	4
Family Planning	1	1
Total	24	30

Journal Articles (non-subsidised)

Reproductive Medicine	3	2
Family Planning	3	1
Gynaecological Oncology	2	2
Maternal Foetal Medicine	2	5
Obstetrics and Gynaecology		2
Total	10	12

Unique Activities and training

Ultrasound Unit- L Geerts

- The ultrasound unit is the only one of the two tertiary units in the Western Province to offer in utero intravascular transfusions to the foetus. This invasive procedure requires a high level of expertise and technical skill and also offered to women from the private sector, not only in the region but also from other provinces;
- The Ultrasound Unit of Tygerberg Hospital is the only one in the country offering regular ultrasound training courses with an active hands-on training component;
- Three formal one-day obstetric ultrasound courses aimed at different scanning levels and attended mainly by private practitioners, but also employees of the public sector. This course has been running for many years now and is managed by Stellmed;
- Ultrasound tutorials are offered for 3rd year medical students with demonstration in the ultrasound unit (two tutorials per clinical rotation);
- Formal foetal medicine lectures are offered for registrars on a weekly basis;
- State-of-the-art lectures are presented at the Biennial Congress of SASUOG;
- Hands-on training and formal assessment in obstetric and gynaecological ultrasound is offered for registrars in O&G as well as Radiology, medical officers and BTec (US) students of CPUT; and
- Hosted the course “Managing your risk” on behalf of the Medical Protection Society.

Reproductive Biology

Endoscopic Training – TFKruger

During 2010 this training was included in the curriculum for obstetrics and Gynaecology.

We are busy drawing up a basic primary course for endoscopy; this will take the form of a PhD and will be presented by Dr Leith. We should commence with this course in the middle of 2011.

We also hosted the first workshop for the basic curriculum for the registrars at Groote Schuur hospital and has laid the base for future training.

Paediatrics and Child Health

Paediatrics and Child Health

Professor Mariana Kruger

Summary

The Tygerberg Children's Hospital (TCH) is situated in the Tygerberg Academic Hospital Complex and serves as the academic hospital for the Eastern Metropolitan region of Cape Town and the Western Cape. There were 13 856 children admitted during 2010 and 24 678 (12 604 tertiary paediatrics and 12 074 secondary paediatrics) seen in the paediatric departments. The services offered included general paediatric services, and paediatric specialist services for Neonatology, Pulmonology, Cardiology, Haematology-Oncology, Nephrology, Gastroenterology, and Infectious Diseases and in collaboration with our paediatric surgeons' paediatric surgery. The TCH also offers both 24-hour emergency services, as well as dedicated paediatric intensive care.

Paediatrics and Child Health offer excellent education programmes to both under and post-graduate students, including subspecialist training. Several staff members are also involved in the Advance Paediatric Life Support courses nationally. Collaboration between the University of Stellenbosch (US) and Vrije Universiteit Amsterdam has created the opportunity for a joint PhD programme, with Dr Regan Solomons as the first staff member to enrol. Paediatric endocrinology has been successful in the appointment of a full time diabetic educator, extending our education role to parents and patients as well.

The year 2010 had many service challenges of which the most important challenge was the measles epidemic lasting from late January till April 2010. This necessitated the opening of an additional ward with 30 beds to cope with the work load. This challenge illustrated the lack of isolation facilities in general in the Tygerberg Children's Hospital (TCH), and the larger Tygerberg Hospital (TBH). There was also an increased need for paediatric intensive care beds (PICU beds) and additional 2 beds were opened with the support of senior management at TBH. The measles epidemic coincided with the diarrhoea epidemic, for which the staff provided excellent care under tremendous stress. The measles epidemic did increase the mortality due to pneumonia, as a complication of measles in the young child.



Neonatology's burden of disease is especially very low birth weight babies, which increased by 10%. A wonderful achievement of the neonatology is the increase in survival of extreme low birth weight babies from 69% in 2009 to 72% in 2010, which is comparable to survival in developed countries. The huge workload due to prematurity lead to long inpatient stay with major overcrowding at times. Nosocomial sepsis with especially multidrug-resistant *Staphylococcus Aureus* significantly disrupted service delivery, with closure of wards to isolate these infants.

The department is active in outreach activities to district hospitals and primary care clinics in the region, including assisting in morbidity meetings and providing in-service training to staff in these facilities.

Resources

Posts (full time)	Number	Filled
Professor/Chief Specialist	2	2
*Chief Specialist	1	1
Principal Specialist	6	6
Senior Specialist	21	21
Specialist Registrars	7 (PGWC n=3)	7 (PGWC n=3)
Registrar	30	30
Medical Officer	26	26

Paediatrics and Child Health

Posts (sessional)	Number	Filled
Specialists	6 (58 hours/week)	6 (58 hours/week)
Locum posts	1	1

Number of beds (usable)	249	249
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*Appointment of Dr E Malek – Head of General Paediatric Specialist Services for Metro East Geographic Service Area (Newly created post)

Output

Subspecialist Paediatrics

Total patient admissions 2010 (Clinicom data)

A9 ICU (NICU & PICU)	1 007
G1	1 045
G2	2 037
G3	730
G7	852
G8	855
G9	1 249
G10	1 695
A9 Measles	343
GG Short Stay	4 043
Total	13 856

Neonatology

Staff: Prof G Kirsten, J Smith, Drs P Henning, A Bekker, S Holgate, G Kali, A Madide, L van Wyk, SK van der Merwe, 4 Registrars, 10 Medical Officers

A9 High Care and Intensive Care Unit

Beds n=8	2010	2009	2008
Admissions	408	387 (420*)	503
Average Hospital stay in days	8.2* (Clinicom data for NICU and PICU combined)	21.1	17.1
Average bed occupancy%	80% * (Clinicom data for NICU and PICU combined)	82.40%	63.29%
% Growth	5.4%	-30%	
Caesarean sections	2 122	2 113	2 391
Mortality	76 (18.62%)	162 (38.5%)	(156) 32.2%

*Data from clinicom

Neonatal Unit- Babies born outside TBH

Beds n=36	2010	2009	2008
Admissions	987 (1036*)	946	1 018
Average Hospital stay in days	10.5*	11.5	11.3
Average bed occupancy%	96.6% *	75.9%	75.30%
% Growth	4.3%	-7%	
Deaths	33 (3.34%)	27 (4.68%)	29 (4.58%)

*Data from clinicom

Ward G2 Neonatal Unit – Babies born in TBH

Beds n=38	2010	2009	2008
Admissions	2 017 (2 037*)	2 302	1 780
Average Hospital stay in days	6.3*	8.6	9.3
Average bed occupancy%	150% *	82.1%	84.60%
% Growth	-12.3%	29%	
Mortality	53 (2.62)	57 (2.48%)	52 (2.9%)

*Data from clinicom

Paediatrics and Child Health

Ward G8 Neonate & Kangaroo-Mother Care-Step Down facility

Beds n=30	2010	2009	2008
Admissions	736 (855*)	835	533
Average Hospital stay in days	11.25*	11.4	13.3
Average bed occupancy%	80% *	79.2%	27.07%
% Growth	-11.8%	36%	
Mortality	2	1 (0.12%)	2 (0.36%)

*Data from clinicom

2010 PPIP indices:

Total births in TCH (TBH): 4693

PNMR (≥ 500 g) = 82/1000

ENNDR (≥ 500 g) = 13/1000

PNMR (≥ 1000 g) = 42.7/1000

ENNDR (≥ 1000 g) = 6.1/1000

Mortality of babies born in TCH (TBH) per birth weight category –n=96

Birth weight	% mortality
≤ 1000 g	27.6
1001 to 1500g	3.1
1501 to 1999g	1.2
2000 to 2499g	1.8
≥ 2500 g	1.8

Mortality of babies born in TCH (TBH) per birth weight category –n=96

Cause of death	% of total
Prematurely-related complications	28.7
Extreme prematurity	19.8
Infection-related	21.8
Peripartum hypoxia	14.8
Congenital anomalies	11.9
Other	2.9

Deaths of babies referred to TCH per weight category – Admissions: n=493

Birth weight	% mortality
≤ 1000 g	20.5
1000 to 1499g	25
1500 to 1999g	11.7
2000 to 2499	10.3
≥ 2500 g	32.3

Mortality of babies born in TCH (TBH) per birth weight category –n=96

Cause of death	% of total
Prematurity-related complications	16.2
Infection-related	26.5
Extreme prematurity	14.7
Peripartum hypoxia	11.8
Congenital anomalies	16.2
Other	14.7

Geographic distribution the NICU deaths of babies referred to TCH –n=45

Place (Hospital) of origin	Number
Paarl	13
Helderberg	7
Other	6
Worcester	5
Karl Bremer	5
Khayelitsha	4
Stellenbosch	2
Swartland	2
Robertson	1

Paediatrics and Child Health

Paediatric Intensive Care and Tracheostomy Units – A9

Staff: Prof R Gie, Drs P Goussard, S Kling, L Heyns, 2 Registrars, Medical Officer

Beds n=8	2010	2009	2008
Admissions	629	625 (280*)	510
Average Hospital stay in days	*	6	8.1
Average bed occupancy%	*	120% (137.5%*)	120% (112.2%)
% Growth	*	17 - 20%	17 – 20%
Deaths	74 (11.8%)	73 (11.7%)	62 (12.1%)

* Clinicom combined data with NICU – no split for PICU, therefore cannot provide data

Ward G9 Paediatric Pulmonology and Allergy (Pulmonology 10 beds, Paediatric Tracheostomy 9 beds)

Staff: Prof R Gie, Drs P Goussard, S Kling, L Heyns, Dr A Vanker, Dr D Rhode, 2 Registrars, shared MO for G9

Pulmonology Beds n=10 Tracheostomy Beds n=9	2010	2009	2008
Admissions Pulm	512	534 (389*)	450
Average Hospital stay in days	7.0	7.0	8.2
Average Bed occupancy %	# 76%	#76.67%	#73.35%
Deaths	2 (0.4%)	4 (1.02%)	3 (0.91%)
HIV related (CHIP)	1	1	
Exposed	1	1	
Infected	0	/	/

#Include for all 3 sub disciplines in G9: Pulmonology; Cardiology & Neurology

Procedures and other activities

Lung function tests (A5 Lung Unit Technologies)	886
Wet wraps	41
Asthma education	208
Allergy skin tests	78
Out of ward referrals	165
Theatre procedures	
a. Bronchoscopies	552
b. Thoracic surgery	51

Ward G9 Cardiology

Staff: Dr J Lawrenson, L Andrag, G Comititis, R de Dekker (RXH), 2 Registrars, shared MO in G9

Beds n=10	2010	2009	2008
Admissions	147	155 (54*)	331 (83*)
Average Hospital stay in days	*	9.1	/
Average bed occupancy %	*	*	*
Inpatient Consultation & Echocardiography	708	570	/
# RXH Theatre procedures operations	278	269	/
#RXH Theatre Catherizations	212	258	

*Clinicom data combined all 3 subdisciplines – no split for Cardiology, therefore cannot provide data

#Done at RXH as common platform of service delivery

Paediatrics and Child Health

Ward G9 Neurology

Staff: Prof J Schoeman, Drs R van Toorn, P Springer, Dr R Solomons (G10), Dr H Saunders (Senior Registrar), 2 Registrars, shared MO in G9

Beds n=10	2010	2009	2008
Admissions	397	245 (78*)	281 (189*)
Average Hospital stay in days	6.75	8.3	7.9
Average bed occupancy%	129%	*	*
% Growth	62%	*	*
Deaths	14 (3.52%)	1 (1.28%)	5 (2.64%)

Other activities

Paediatrics & Neonatal EEG's reported	714
CT scans brain	1 626
MRI brain scan	448

Ward G7 Gastroenterology Unit

Staff: Drs E Nel, L Cooke (G Ground), Registrar, shared MO in G7

Beds n=9	2010	2009	2008
Admissions	285	368 (256*)	302 (224*)
Average Hospital stay in days	15.4	11.2	13.8
Average bed occupancy %	90.3%	91.5%	*
% Growth	-22.5%	21.8%	*
Deaths	19 (6.6%)	18 (5%)	14 (6.25%)

*Clinicom data CHIP data

Theatre procedures

Gastroscopy (including enteroscopy)	20
Colonoscopy	8
Liver biopsy	6
Sigmoidoscopy	1
Adult sigmoidoscopy	234

Infectious Diseases Unit

Staff: Prof MF Cotton, Drs H Rabie (HIV Clinic), ADramowski, Registrar, shared MO in G7

Beds n=14	2010	2009	2008
Admissions	193	219	170
Average hospital stay in days	16.8	17.0	17.4
Average bed occupancy %	72%	91.5%	85.74%
% Growth	-11.9%	28.8%	
Deaths	11 (5.6%)	8 (3.7%)	17 (8.13)
HIV related (CHIP)	10	1	*
Exposed	*	7	16
Infected	10	4	1

Paediatrics and Child Health

Ward G3 Oncology & Haematology

Staff: Prof M Kruger, C Stefan, Drs A Dippenaar, R Uys, Registrar

Beds n=9	2010	2009	2008
New patients	30 Haematology 60 Oncology	25 Haematology 46 Oncology	
Admissions	475	464 (587*)	668
Average hospital stay in days	3.4	5.2	6.3
Average bed occupancy %	51.5%	90.5% (56.09%)	66.14%
Mortality CHIP	4 (0.84%)	2 (0.43%)	1 (0.14%)
% Growth	23%	15 (3.23%)	
Deaths	10	1051	12 (1.80%)
Day patients	1317		/

* Clinicom data

Ward G3 Nephrology

Staff: Dr C du Buisson, Dr JL Shires – part time, Registrar, shared MO in G3

Beds n=9	2010	2009	2008
Admissions	140	/	/
Average hospital stay in days	6	/	/
Average bed occupancy %	81%	/	/
Deaths	1	/	/
Old Rena OPD patients	978	/	/
New Renal OPD patients	125	/	/

/ No data available

Ward G3 Nephrology

Staff: Dr C du Buisson, Dr JL Shires – part time, Registrar, shared MO in G3

Beds n=5	2010	2009	2008
Admissions total	171 (139*)	151 (132*)	142 (75*)
Diabetics patients	98	64	
Endocrine patients	73	87	
Average length of stay	10	12 (11.5)	10.7
Average Bed occupancy %	82%	137.5%	*
% Growth	13.2%	6.3%	
Deaths	1 (0.6%)	2 (1.5%)	2 (2.6%)

*Data from clinicom

General Paediatrics

Short Stay G Ground: < 48 hour admissions

Staff: Prof S Schaaf, Drs L Cooke, H Finlayson, M du Preez (part time), 3 Registrars, 4 Medical Officers

	2010	2009	2008
Total admissions to G Ground	4 738	4 834	4 458
% of increased general admissions	↓2%	↑8.5%	/
Average patient admissions/day	13	13	12
Average hospital stay/days	75%	1.7	2.0
% bed besetting average	74%	73%	70%
Gastro daily occupancy %	17 (0.13%)	64%	/
Deaths	2	20 (0.15%)	10 (0.1%)
HIV related mortality	0	11	5
HIV exposed		4	1

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Ward G10 Measles

Data during Measles outbreak from March – June 2010

Staff: Prof B Marais, Dr H Finlayson, Dr M du Preez

Beds =20	March	April	May	June	Total
Admissions	332	317	178	116	943
Patients seen	454	410	217	124	1 205
ICU Transfers	4	6	3	4	17
Average occupancy	27 (90%)	32 (91.5%)	22 (73.3%)	14 (46.7%)	24 (80%)
Deaths	2	7	1	1	10

CHIP mortality for all Paediatric wards (2010)

CHIP Mortality	Deaths	Hospital Mortality rate
*0-28 days	9	6.7
28 days -1 year	75	55.6
1-5 year mortalities	40	29.6
5-13 years	9	6.7
Unknown	2	1.50
Number of mortalities	135	

*Excluding neonatal mortalities

Length of stay	Number	%
Dead on Arrival/DOA	4	3
< 24 hours	32	23.7
1-3 days	41	30.4
4-7 days	23	17
8-14 days	19	14.1
> 14 days	16	11.9

Gender	Number	%
Female	62	45.9
Male	67	49.6
Unknown	6	4.4

Main causes of death in children	Number	%
Pneumonia ARI	39	28.9
Acute diarrhoea with hypovolaemic shock	19	1.5
Septicaemia, possible serious bacterial infection	20	14.8
Other Nervous system	7	5.2
Chronic diarrhoea	5	3.7
Cirrhosis, Portal hypertension, live failure, hepatitis	5	3.7

Five Facilities where most patients were referred

Referring	Number	%
Helderberg Hospital	26	19.3
Delft CHC	15	11.1
Not referred	14	10.4
Karl Bremer	12	8.9
Eerste River Hospital	11	8.1
Paarl Hospital	9	6.7

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HIV Mortality

HIV clinical Stage	Number	%
Stadium I/ Stage I	0	0
Stadium II/Stage II	0	0
Stadium III/Stage III	4	3
Stadium IV/Stage IV	17	12.6
Not staged (but indicated)	7	5.2
Not staged (not indicated)	81	60
Unknown	26	19.3

HIV Mortality according to Category

Weight category	Number	%
Negative	64	74.4
Exposed	12	8.9
Infected	20	14.8
No result	5	3.7
Not tested (but indicated)	14	10.4
Not tested (not indicated)	13	9.6
Unknown	7	5.2

Mortality according to weight Category

Weight Category	Number	%
Overweight for age	7	5.2
Normal	69	51.1
Underweight for age	28	20.7
Marasmus	10	7.4
Kwashiorkor	11	8.1
Marasmic Kwashiorkor	3	2.2
Unknown	7	5.2

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Outpatient Complex Subspecialist Clinics

Clinics	2010 Total	2009 Total	Total 2008
Haematology	177	155	/
Liver	1	/	5
Immunology	113	166	149
Oncology	392	410	507
Respiratory	1 308	1 258	1 154
Gastroenterology	604	664	649
High Risk Babies	1 442	1 390	1 557
Neurology	2 537	2 271	2 249
Allergy	689	762	736
Premature follow up	347	288	332
Nephrology	1 103	1 120	1 145
Cardiology	1 032	1 069	1 180
Bronchopulmonolray Dysplasia	23	30	50
Diabetic	586	479	401
Endocrinology	490	447	771
Rheumatology	205	184	158
Infectious Diseases	1 003	848	655
Genetics	293	265	267
Chemist prescriptions	250	236	260
Total	12 604	11 983	11 865

General paediatrics clinics

Clinics	2010	2009	2008
Emergency	2 538	7 695	6 932
OPD 8am -4pm	29	30	27
Daily average seen	4 797	5 246	3 660
OPD afterhours 4pm-8pm & weekend	39%	40%	35%
OPD afterhours 4 pm-8am %	12 074	12 941	10 592
Total			

Clinical governance

Achievements:

- Establishment of a general paediatric specialist service platform within the Department of Paediatrics;
- Strengthening of general paediatric specialist and subspecialist clinical outreach and support services within the Metro East GSA, as well as subspecialist outreach to Paarl and Worcester;
- Commencement of a general paediatric specialist outpatient clinic Tygerberg Hospital;
- Co-ordination of Metro response to service pressure crises during the measles outbreak;
- Participation in provincial strategic planning processes (Paediatric High Care; DHS Child Health Plan);
- Formal liaison with Western Cape Provincial Department of Health programmes, processes and role players; including Provincial MCWH & Nutrition, Metro East District Health Services, and City of Cape Town Health Department;
- Drafting of Metro East Child and Neonatal Service Plan for the Metro East Women and Child Health Technical Task Team;
- Establishment of Paediatric Departmental Quality Assurance Committee to oversee all QA matters within the Department of Paediatrics and Child Health at Tygerberg Hospital including standards, policies, adverse incidents, clinical audit processes; including mortality and morbidity audit. (CHPIP and PPIP data, participation in provincial and national PPIP and CHPIP processes);

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- Clinical guidance and leadership for the Paediatric Technical Working Group Report on Impact Assessment of the New Khayelitsha District Hospital and related service drainage shift-drafting of extensive documentation and presentation to GSA;
- Technical support and leadership for Paediatric Provincial Coordinating Committee activities including Provincial Coordinating Committee activities including Provincial Child Nutrition Technical Task Team, Provincial Child-Friendly Standards of Care Working Group and the Paediatric Emergency Standards Task Group; and
- Clinical guidance for the District Health Service Diarrhoeal Disease Season processes and protocols.

Infrastructural development

Endocrinology

- Moved to G9 (from G3); and
- Acquisition of stadiometer, roller mat, tuning forks.

Neurology

- Created new clinic space in C3A West.

Haematology

- Ward renovations with new paintings and a television for the playroom.

Ambulatory Paediatrics

- Toy boxes in clinics – donation by Dr M du Preez;
- Introduction of Emla topical anaesthetic for procedures;
- Two additional cardiac and saturation monitors for the resuscitation area; one to be used for transfer of patients to PICU; and
- An open incubator with neopuff for small infants with apnoea to be transported to the NICU.

Tygerberg Children's Hospital Trust Contribution to Infrastructure

Company	Equipment/Ward	Purchase Price
Browning Surgical CC	Tuning forks for Endocrinology	R 2,144.25
Browning Surgical CC	1 x Magill catheter for G7	R 253.65
Calaska Trading 132 (Pty) Ltd t/a Meditek-Hemco	5 x bassinets; 4 x trolley drawer anaesthetic; 1 x dressing trolley for G8	R 22,729.10
Fresenius Kabi (Pty) Ltd	3 Syringe Drivers for wards G1(2) and G8	R 18,895.50
Harlow Printing Limited	2 Leicester Height Measures; 2 Dunmow; 1 Carriage for Endocrine Unit	R 5,112.36
Katago Trust	Desk, systems cabinet, files & pigeon hole unit for C3A	R 8,825.31
Katago Trust	Desk, systems cabinet, files for C3A and Sr Opperman	R 8,926.08
Masstores t/a Makro SA	Chairs and tables for upgrading of Paed Surgery Reg Room G4	R 7,127.00
Masstores t/a Makro SA	Projector for upgrading of Paed Surgery Reg Room G4	R 3,998.99
Medhold Medical	Vivid Cardiac System for new Echocardiography Laboratory	R 536,206.93
Medhold Medical	4 x Dinamaps for G3, G9 and G10	R 53,664.92
Medihosp cc	Theatre carts and drawers for Ward G Ground	R 63,324.84
Paul Davies Construction	Building at G Lower Ground Psychiatry: 50% deposit	R 21,675.00
Paul Davies Construction	Building at G Lower Ground Psychiatry: 50% balance	R 21,675.00
Sanbonani Holdings (Pty) Ltd	10 x Kangaroo Chairs for G8	R 29,930.50
Sidewinder Medical	Refurbishment of Bedfront Nitric Oxide Dosing & Monitoring System for Neonatology Unit	R 37,050.00

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Company	Equipment/Ward	Purchase Price
Silverforms Landscaping	Landscaping for G Lower Ground Psychiatry outside recreational area	R 38,233.00
Silverforms Landscaping	Landscaping for Hospital School Ithuba Unit outside recreational area	R 39,610.00
Siyakhanda Medical Services	1 x medical trolley for G8 and 1 x resus trolley for G1	R 19,267.73
Tafelberg Furniture Stores	Dryer & Top Loader for Ward G8	R 16,898.00
Tafelberg Furniture Stores	Dryer for Ward G1	R 6,899.00
Tafelberg Furniture Stores	6 Fridges for wards G1, G2, G8 & G9 and Washing machine for G9	R 22,205.00
Tafelberg Furniture Stores	Sleeper couch for upgrading of Paed Surgery Reg Room G4	R 2,599.00
University Stellenbosch	Computer for Registrar Office, A9	R 8,436.00
University Stellenbosch	Printer for secretary at C3A	R 1,995.00
Waltons	Notice and White board for C3A	R 1,783.71
Waltons Stationary	Optiplan 5 drawer filing cabinet for secretary at C3A	R 6,494.58
Waltons Stationary	Optiplan 4 drawer filing cabinet for C3A	R 2,278.02
Waltons Stationary	Chairs for C3A	R 2,676.72
Waltons Stationary	Optiplan Cabinets for C3A	R 6,494.58
West Coast Technology	3 Foot operated suction units for PICU	R 3,334.50
Ysterplaat Medical Supplies	Exam Couch and Bed Step for HoD at C3A	R 2,673.30
Ysterplaat Medical Supplies	3 x exam couch and 2 x bed step for C3A (2) and G8	R 7,392.90
Total		R 1,030,810.47

Community outreach programmes

Regional

- Oncology/Haematology outreach visits & teaching to Paarl & Worcester and other clinics;
- Participation in GP training course at Constantiaberg with lecture on haematological emergencies – Prof C Stefan;
- Focus area – outreach and support to district hospitals and CHCs in the Eastern Metro, where there are no resident paediatricians under leadership of Dr E Malek;
- Attendance and CME lectures at Eerste River – Helderberg and ERH Hospitals;
- Assistance with implementation of CHIP systems at Eerste River – Helderberg and ERH Hospitals;
- Close liaison with the PGWC and City of Cape Town during the Diarrhoeal campaign with education and skills sessions and regular meetings within the Eastern and Tygerberg sub- districts;
- Outreach to Brooklyn Chest Hospital by Prof S Schaaf, M Marais & Donald with registrars 142 children (long-term) were admitted to BCH in 2010;

- HIV-rollout programme every second week at Brooklyn Chest Hospital – Dr Helena Rabie;
- An MDR-TB clinic in Khayelitsha with approximately 15 to 25 children seen per month – Prof S Schaaf;
- Scottsdene MDR-TB clinic started in 2010: 15 children/clinic – Prof S Schaaf. This is a child-friendly initiative to minimize travelling time and expenses for families with a child with MDR-TB;
- Workshop regarding “Nasal CPAP” at Swartland Hospital in Malmesbury (now 4th district in Metro East to manage mild RDS) – Prof G Kirsten & Dr S Holgate; and
- Neonatal Resuscitation Workshops at Worcester and Malmesbury – Dr P Henning.

National

- Workshops regarding “Early management of VLBW infants” in Cape Town. George, Bloemfontein and Johannesburg – Prof G Kirsten; and
- CMSA outreach visit to Nelson Mandela Academic Hospital in Umtata in May 2010 – Prof J Smith & Dr G Kali.

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International

- WHO Childhood TB Subgroup of the DOTS Expansion Working Group of Global STOP TB Strategy – Prof R Gie (Chair);
- Continental President of the International Society of Paediatric Oncology (SIOP) – Prof M Kruger;
- Advocacy Group of SIOP – Prof M Kruger (Chair);
- African workshop in collaboration with IARC (International Agency for Research on Cancer) regarding cancer tumour registries and cancer registration – Local organising committee: Prof C Stefan (Chairperson), M Kruger, Drs A Dippenaar, R Uys, Mrs P Permall. A total of 14 African countries participated (105 participants);
- Oncology/Haematology Twinning project with Windhoek General Hospital, Namibia – Prof C Stefan; and
- Outreach to Paediatric Oncology Units in other African countries:
 - Maputo, Mozambique – Prof C Stefan
 - Addis Ababa, Ethiopia – Prof C Stefan
 - Harare, Zimbabwe – Prof C Stefan
 - Kigali – Rwanda – Prof C Stefan
 - Bango Baptist Hospital, Mbingo Baptist Hospital and Mutengene Baptist Hospital, Cameroon – Prof P Hesselning & M Kruger. Memorandum of Understanding on cooperation between The Cameroon Baptist Convention Health Board and the Department of Paediatrics signed in December 2010.

Educational Role

Undergraduate students – 97% pass rate

Successful candidates in PhD

- Prof DC Stefan – A framework for an undergraduate haematology curriculum at Stellenbosch University. *Promoter: Prof EM Bitzer & co-promoter: Dr F Cilliers*

Newly Registered PhD Students

- Dr UD Feucht – Evaluating and improving the care of HIV-infected and HIV-affected children in the first years of the implementation of a large-scale antiretroviral therapy programme in Pretoria, South Africa. *Promoter: Prof M Kruger & B Forsyth;*
- Dr P Goussard – Bronchoscopy findings and management of children presenting with significant airway obstruction due to tuberculosis. *Promoters: Prof RP Gie & CT Bolliger;*
- Dr SEV Innes – Lipodystrophy and metabolic abnormalities among children on HAART in South

Africa. *Promoters: Prof MF Cotton & Rozenkranz;*

- Dr EWA Zöllner – Adrenal suppression in asthmatic children on steroids. *Promoters: Prof S Hough & E Irusen; and*
- Dr A Mandalakas – Development of a novel conceptual framework of childhood tuberculosis within which to study the impact of an isoniazid preventative therapy (IPT) program for childhood TB prevention in high burden communities. *Promoters: Prof AC Hesselning & RP Gie.*

Joint PhD Degree with Amsterdam Vrije Universiteit

- Dr R Solomons with NRF bursary – Improving early diagnosis of tuberculosis meningitis in children. Study leaders: Prof J Schoeman (University of Stellenbosch); M van Furth (Amsterdam).

Successful candidates in the FC Paed (SA) Part I

- Dr MJ de Wet;
- Dr R Stander; and
- Dr TA Ferreira- van der Watt.

Successful candidates in the FC Paed (SA) Part II

- Dr Pam Brink;
- Dr CC Edeani;
- Dr H Hassan;
- Dr NL O'Connell;
- Dr GA Poole; and
- Dr PC Rose.

Successful candidates in the MMed (Paed)

- Dr D Rhode under the supervision of
 - Title: *Lung surgery in children in a middle income country: indicators, surgical course, complications and short-term outcome;*
- Dr A van der Schyff under the supervision of
 - Title: *Clinical characteristics and outcome of rhabdomyosarcoma in South African children also published in Afr J Heamatol Oncol 2010; 1(2): 40-47; and*
- Dr PC Rose under the supervision of
 - Title: *Value of bone marrow biopsy in children with suspected disseminated mycobacterial disease.*

Successful candidates in the Cert Pulmonology (SA) Paed

- Dr D Rhode; and
- Dr A Vanker.

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Successful candidates in the Cert Neonatology (SA)

- Dr L van Wyk.

Successful candidates in the Cert Cardiology (SA) Paed

- Dr G Comitis.

Training awards

Discovery Foundation

- Dr HH Saunders – Development Paediatrics;
- Dr A Vanker – Paediatric Pulmonology; and
- Dr TC Gray – Paediatric Pulmonology.

NRF Scholarship

- Dr R Solomons – PhD research;
- Southern Africa Consortium for research for Research Excellence (SACORE) in conjunction with Stellenbosch University Centre for Infectious Diseases (CID); and
- Dr Steven Innes – A PhD scholarship for the amount of R190 000. The grant is funded by Wellcome Trust.

Novartis Bursary

- Dr Liz Walters - MSc Clin Epidemiology: R40 000.

Education related activities

- Dr L Heyns – is a diplomat representative on the senate of the Colleges of Medicine of SA (CMSA), a member of the Council of the College of Paediatrics of SA and a member of the Finance and General Purposes Committee, CMSA;
- Dr L Heyns presented advanced paediatric life support courses nationally;
- Dr S Kling is the secretary of the Council of the College of Paediatrics of SA;
- Prof Johan Smith hosted a high frequency oscillatory ventilation workshop from 3 to 5 March at Stellenbosch University;
- Prof. Johan Smith went on a College of Medicine (CME) visit to Transkei (Mtata) from 20 to 22 May 2010 for Obstetrics and neonatal emergencies;
- Prof. C Stefan with the Paediatric Oncology team (Prof. M Kruger, Drs A Dippenaar & R Uys) – 2nd Paediatric Oncology Workshop 16 – 18 September 2010;
- Prof. Schaaf, Drs L Cooke, E Malek and H Finlayson – Diploma in Child Health (DCH) examiners for CMSA;
- Prof. Priscilla Springer is an examiner and moderator for Dev Cert Subspecialty Developmental Paediatrics for the Council of College of Paediatrics of SA, CMSA;

- Dr Ekkehard Zöllner – Diabetes training in St. Josephs Home; and
- Prof. Cristina Stefan is teaching second year students in Physiology.

Partnerships

- Novo Nordisk donated the salary for the newly appointed diabetic educator.

Research

- Prof. Mariana Kruger & Dr L Horn – EDCTP Grant Euro 49 236 Project CB.10.41302.010: Network of Southern African Research Ethics Committee (REC) Chairpersons and the development of a review textbook for African REC members (SAREN-Southern African research Ethics Network). Project Coordinator and partnership with Dr L Horn.
- Prof. Peter Hesselning – Swiss cancer league grant for study of nutrition in patients with Burkitts lymphoma in Cameroon.
- Prof. Cristina Stefan – CANSA award: HIV and paediatric cancer.
- Prof. Cristina Stefan – co-researcher in the EMBLEM study (epidemiology of lymphomas).
- Prof. Cristina Stefan – co-researcher in the EMBLEM study (epidemiology of lymphomas).
- Prof. Stefan – Research – FINLO Grant R20 000 – The use of mobile phone as a teaching tool in the diagnosis of childhood cancer.
- Prof. Stefan – Research Grant SU – R10 000 – HIV and other infections in South African children with cancer.
- Prof. Donald received the Union Medal for his contribution to tuberculosis research. This is a great honour for a lifetime commitment to research and a wonderful role model to all of us.
- Prof. Cotton and Kid-Cru team – received a NIH award for the IMPAACT TB infant vaccine BCG.
- Prof. Cotton – received a NRF B3 rating.
- Drs Bekker & Slogrove and Prof A Hesselning: USAID/TREAT Tb grant awarded – ORAP study, titles: “A health systems assessment of Isoniazid Preventative Therapy (IPT) delivery to TB-exposed new-borns in the Western Cape Province, South Africa.”
- Prof. A Hesselning, M Cotton and Drs A Mandalakas, S van Wyk, H Rabie, E Sinanovic as recipients of another research award: IPT Guidelines in HIV-infected children – CRDF-NIH joint collaborative grant.
- Dr Etienne Nel – Collaboration with ESPGHAN for

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future projects: Paediatrics gastro-enterology training course; ESPGHAN sponsorship for paediatric gastro-enterology trainee; invited to Nestle Nutrition Institute Meeting.

- Dr Marelle Claassens obtained the Faculty Bursary and the SACORE MSC Scholarship.
- Dr Adrie Bekker was awarded the Early Career Award Program grant by the Thrasher Research Fund for her project "Pharmacokinetics of INH in HIV-exposed and unexposed low-birth weight South African infants."
- Dr Adrie Bekker also secured financial support from the Harry Crossley Foundation for 2011.
- Dr Ronald van Toorn – Harry Crossley Foundation Grant.
- Dr Shahra Sattar: JHU Summer School (SATBAT Fogarty programme).
- Dr Catherine Wiseman: MPH UCT (SATBAT Fogarty programme).
- Dr Karen du Preez: Masters in Public Health Management: LSHTM (SATBAT Fogarty Programme)
- Dr Christelle du Buisson was involved in renal development of new addition of the Oxford Handbook of Paediatrics.
- The Paediatric Neurodevelopment Unit is supported by Prof Marceline van Furth from Vrye University in Amsterdam in the TBM Home treatment programme and have sent an epidemiologist Ms Sabine van Elsland to test a compliance tool and extend the TBM home treatment programme to Worcester.

Publications

Journal articles (subsidised)

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- Kruger, M., Reynders, D., Omar, F., Schoeman, J., Wedi, O. (2010) Challenges for solid tumour diagnosis in a resource-limited setting. *Pediatric Blood & Cancer* 2010; 55(5): 838.
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- Handbook of Paediatrics (7th Edition), Oxford University Press, 2010. Contributions by: Cooke ML, Lawrenson J, Nel E. Reviewed by: Cotton M, Esser M, Schaaf S, Van Toorn R

Invited speakers/participants

International

Prof Mariana Kruger

- The 42nd SIOF Congress on 21 to 24 October 2010 in Boston, Massachusetts. Title: Ethical Issues in Clinical Trials in the developing world.

Dr Louise Cooke

- The only South African delegate invited to attend Advanced Clinical Nutrition course in Switzerland July 2010.

Prof. Cristina Stefan

- Invited as medical mentor in Mozambique, part of the twinning with Recife – Brazil and for an analysis of paediatric oncology and cancer registration by IARC and IOP Dana Farber;
- Invited speaker: to the 6th Paediatric Oncology Congress from 5 to 7 March in Casablanca, Morocco. – brain tumours in South Africa; and
- Invited to the International Society of Paediatric Oncology meeting from 10 to 12 March 2010, Accra, Ghana.

Prof. Mariana Kruger

- The 2nd International Paediatric Oncology Workshop, Faculty of Health Sciences, Stellenbosch University, Cape Town, 12 to 17 September 2010. State of the art lecture: Children, cancer, clinical trials and ethics; Invited speaker: Ethical issues in paediatric oncology-end of life support;
- The 26th International Paediatrics Association Congress of Paediatrics, Johannesburg, 4-9 August 2010. Invited speaker Cord blood banking – a priority. The child in research;
- NIAID Forum to Promote TRIUMPH: TB Research in Underserved Maternal and Paediatric Populations with HIV; Bethesda, Maryland, USA, 29 to 30 July 2010. Invited speaker: Ethics review issues – an African perspective; and
- The 9th Continental Meeting of the International Society of Paediatric Oncology in Africa: Accra, Ghana, 10 to 12 March 2010. Keynote address: The rights of sick children, Oral presentation: Rare diseases – our ethical responsibility.

Dr Sharon Kling

- Psychosocial aspects of allergic disease. The 26th International Paediatric Association Congress Paediatrics, Johannesburg, South Africa, August 2010.

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Prof. Johan Smith

- Invited speaker: New York: 10 to 14 June 2010: International Symposium of Advanced Respiratory Care: A practical approach.

Prof. Simon Schaaf:

- Multidrug-resistant tuberculosis in children: South African perspective. The 2nd Mozambican Paediatric Conference, Maputo Mozambique, 23 to 26 February 2010;
- Kampmann B. Meet the Expert (Invited). Multidrug-resistant Tuberculosis in Children. 50 years ICAAC – 50th Interscience Conference on Antimicrobial Agents and Chemotherapy. Boston, Massachusetts, USA, 12 to 15 September 2010;
- Seddon JA, Willemse M, Hesselting AC, Donald PR. Results from the field: MDR-TB in children: clinical features and outcome of culture-confirmed cases. 41st World Conference on Lung Health of the International Union Against Tuberculosis and Lung Disease (The Union). Berlin, Germany, 11 to 15 November 2010; and
- MDR-TB in children: diagnosis and management. 41st World Conference on Lung Health of the International Union Against Tuberculosis and Lung Disease (The Union). Berlin, Germany 11 to 15 November 2010.

Prof. Ben Marais

- The 42nd IUATLD world conference, Berlin, Germany – invited speaker; Child TB working group – convenor;
- MSF Epicentre research project Mbarara, Uganda – invited speaker; child TB advisor;
- WHO-Bangladesh child TB training initiative – consultant/organiser;
- IUATLD International child TB training workshop, SA – course organiser Asian Society of Paediatric Infectious Diseases (ASPID), Taipei, Taiwan – invited speaker;
- Infection and Immunity, Oxford, UK – invited speaker;
- WHO/TDR Child-TB “diagnostic reference standard” working group meeting, Geneva, Switzerland – invited speaker/participant;
- Lance TB-series launch at World Health Assembly (WHA) Geneva, Switzerland invited speaker and co-editor;
- Philippines Child TB-Training Guidance – expert advisor;

- Rede-TB International TB Symposium, Rio de Janeiro, Brazil, child-TB workshop – invited speaker and workshop facilitator;
- US-SA joint research forum on TB, Johannesburg, SA. organised by the NIH and MRC – invited speaker and participant; and
- Summer Institute in Clinical Trials Research Methods, University of Cape Town in collaboration with George Washington University, Cape Town, SA – invited speaker.

Dr Christelle du Buisson

- Presentation at the International Children's Continence Society meetings.

Prof. Gert Kirsten

- Survival and outcome at one year of extremely low birth weight infants after the introduction of Kangaroo Mother Care, nasal CPAP and in-out surfactant to the neonatal ward in a state hospital. 11th International Child Neurology Congress, Cairo, Egypt, May 2010;
- The 29th Conference on Priorities in Perinatal Care in Southern Africa, Goudini, Western Cape, March 2010: In-out surfactant administered to extremely low birth weight infants with RDS in a hospital with limited neonatal intensive care facilities: Survival and outcome at 1 year of extremely low birth weight infants after the introduction of Kangaroo Mother Care, nasal CPAP and in-out surfactant to the neonatal ward in a state hospital; Continuous Kangaroo Mother Care of 800-1200g infants: Tygerberg Hospital experience; The calcium, phosphate and energy content of expressed human milk from Xhosa mothers of very low birth weight infants; and
- Middle Eastern Neonatal Intensive Care Workshop, Stellenbosch, July 2010: Delivery room management of the neonate; pathophysiology of neonatal RDS and non-invasive respiratory support; Complications of prematurity, Complications associated with percutaneous and deep venous lines; feeding protocols in the NICU.

Dr JI (Netta) van Zyl

- Symposium: The Perinatal Brain and Motor development, the benefit of Follow up Studies, Vrije University, Amsterdam, 6 October 2010: Management, survival and outcome of very low birth weight infants in a South African state hospital.

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National

Prof. Mariana Kruger

- South African and Enteral Nutrition (SASPEN), Spier Estate, Stellenbosch, 3 to 5 March 2010. Keynote address: The ethical approach to evidence-based medicine.

Dr Louise Cooke

- SASPEN Congress: "Causes and management of diarrhoea in children in a clinical setting".

Dr Sharon Kling

- When is it asthma? ALLSA Annual Congress, Euphoria Golf Estate, Limpopo April 2010; and
- Are ventilator graphics useful in the PICU? Goal directed care, Critical Care Society of Southern Africa Annual Congress, Drakensberg, October 2010.

Dr Etienne Nel

- Diarrhoea and Malnutrition. Clinical Nutrition Challenges: Evidence vs Practice. 2010 SASPEN Congress. Spier Estate, Stellenbosch. 3 to 5 March 2010;
- Indications for Paediatric Gastrointestinal Endoscopy. Gastroenterology workshop. Tygerberg Hospital, Tygerberg. 13 March 2010;
- HIV and Hepatitis B Co-infection in children. Emerging Problems in Paediatric HIV Conference, Johannesburg. 5 November 2010; and
- Gastro-oesophageal reflux in Children. Nexium Advisory Board Meeting, Sandton, Johannesburg. 27 November 2010.

Prof. Simon Schaaf

- Epidemiology and management of multidrug-resistant tuberculosis in children. Keynote speaker: The emerging threat of multidrug-resistant tuberculosis: global and local challenges and solutions. Academy of Science, South Africa and Institute of Medicine of the National Academics (US). Pretoria, South Africa, 3 to 4 March 2010;
- Drug-resistant tuberculosis: disease in the family. The 2nd TB Conference, International Conference Centre, Durban, 1 to 4 June 2010;
- Drug-resistant tuberculosis in kids. 2nd TB Conference, International Conference Centre, Durban, 1 to 4 June 2010; and
- Old and new Anti-TB drugs in children – where do we stand? The 26th International Paediatric Association

Congress of Paediatrics. Johannesburg, South Africa, 4 to 9 August 2010.

Prof. Cristina Stefan

- Paediatric Leukaemia/lymphoma – single centre experience, XIVTH Biennial Congress SA. Lymphoma Study Group. 2 to 5 October 2010, Constantiaberg, Cape Town; and
- Do we teach what we want or do we teach what the students need? – Scholarship for teaching and learning Conference (SOTL), Stellenbosch 11 to 12 May 2010.

Prof. Ben Marais

- The 2nd SA National TB conference, Durban, South Africa.

Dr Christelle du Buisson

- Presentation at the South Africa Transplant Association.

Regional

Dr Heather Finalyson

- IPCAN Conference Spier, Stellenbosch September 2010: Invited Speaker "2010 Measles Epidemic Scoring an own Goal"; and
- TBH IPC Day November 2010: Invited Speaker "The Return of an Old Foe: 2010 Measles Epidemic".

Dr Sharon Kling

- When is an intervention not in the child's best interests? UCT Paediatric Refresher Course, Cape Town February 2010.

Prof. Simon Schaaf:

- Clinical epidemiology of drug-resistant tuberculosis in Southern Africa, Africa and globally. Workshop on drug-resistant TB. Current practise, controversies and clinical challenges. Cape Town, 3 to 5 September 2010;
- Managing children with drug-resistant tuberculosis. Workshop on Drug-Resistant TB. Current practice, controversies and clinical challenges. Cape Town, 3 to 5 September 2010; and
- Screening and treatment of children and adult contacts of drug-resistant tuberculosis index cases. Workshop on Drug-resistant TB. Current practice, controversies and clinical challenges. Cape Town, 3 to 5 September 2010.

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Prof. Ben Marais

- Trainer – South to South and PEPFAR TB/HIV Integration Projects.
- URC & CDC Child TB workshops – invited speaker.

Prof. Gert Kirsten:

- Correct feeding of neonates. Paediatric Management Group Scientific Meeting, Drakensberg, April 2010;
- The impact of intubation-surfactant-extubation (InSurE) on the outcome of infants <1500g treated in a private hospital NICU. The 54th Academic Year Day, University of Stellenbosch, August 2010;
- Seminar in Neonatology, George, October 2010: New thoughts on the management of Meconium Aspiration Syndrome; Ways to limit BPD in the VLBW infant; and
- Panorama Medi-Clinic Neonatal Seminar, Cape Town, November 2010: Iatrogenic complications in the NICU; Group B streptococcal infection in the neonate.

Highlights

- Prof. M Kruger was appointed as the International Society of Paediatric Oncology (SIOP) Africa Continental President: 2010 to 2013;
- Prof. M Kruger was appointed as member of the Health Professions Council Professional Board, since 1 July 2010;
- Prof. Johan Smith: Vice-President of USANA (United South African Neonatal Association);
- Prof. Johan Smith: Executive Board of International Postgraduate Organisation for Knowledge transfer Research and Teaching Excellent Students (IPOKRATES);
- Prof Johan Smith: Patent registration: Novel synthetic lung surfactant (Synsurf), currently with ISIS Innovation (<http://www.isis.innovation.com>) Project number 74001: Improved Synthetic Pulmonary Surfactant an inexpensive and more effective synthetic pulmonary surfactant, named Synsurf, for patients who suffer respiratory distress syndrome (RDS);
- Dr John Lawrenson is part of an international committee working on the standardization of echo screening for the detection of rheumatic heart disease in communities;
- Dr John Lawrenson is the scientific organiser of the World Congress of Paediatric Cardiology and Cardiac Surgery due to be held in Cape Town in 2013;

- Dr Etienne Nel was appointed member of Nexium advisory board and NNI advisory board;
- The African Paediatric Gastroenterology Network was established in August 2010;
- The Paediatric GI website was launched;
- Collaboration with ESPGHAN initiated for training of fellows in Paediatric Gastroenterology and establishing a course in Paediatric Gastroenterology;
- Prof. Cristina Stefan – NCI Fellowships: 2010 (July to August) principles and practices of cancer prevention and control course molecular prevention course NCI Washington, USA;
- Prof. Cristina Stefan – Chair Educ. – SIOP African Continent;
- Prof. Cristina Stefan – clinical co-ordinator – BL-East Africa, NCI nomination; and
- Prof. Cristina Stefan – Ebrahim Award: haematology prize.

Centres

Children's Infectious Disease Clinical Research Unit (KID-CRU)

Summary

KID-CRU is an internationally recognised research unit for children with HIV and TB. It augments the clinical service provided in the Family Clinic for HIV and the Paediatric HIV service for children by providing comprehensive care to children screened for studies through diagnosis and through counselling, testing, recognition of health problems of the mothers and other care-givers. Children on studies have access to ARV resistance testing, not available for those who need this test outside of research.

Personnel

Administration	3
Auxiliary Workers	2
Counsellors	11
Data Clerk	2
Data Manager	1
Director	1
Drivers	3
Lab Assistants	2
Medical Officers	7
Specialist	0.58
Pharmacist	3
Project Managers	3
Registered Nurses	7

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Social Worker	1
Staff Nurse	8
Study Co-ordinators	1
Unit Manager	1
Total	57

Output

Patient visits

Detailed statistics were kept for the last 6 months of 2010 and will continue in the future.

Screenings	11
Enrolments	5
Scheduled visits (Dr)	1066
Pharmacy	260
Adherence	67

KIDCRU On-study (Active) patients

	Total enrolled	Currently active on study
P1060	89	73
P1070	4	0
P1073	4	4
P1066	2	2
Cipra P4	193	147
CHER	136	105
GSK APV 29005	6	4
GSK APV 2002	24	14
BMS	3	2
Lipo-atrophy	156	156
ART and INH Prophylaxis	19	15
Total	636	522

Infrastructural development

A library has been established by Dr Magdel Rossouw, with books and journals available for research purposes. See: G:\Personeel\Paediat\KIDCRU\Training\Library.

National partnerships and co-operation

- HAART – INH study with Prof Zar of RCCH;
- Pepfar funding through ANOVA for district ARV support (Dr H Rabie); and
- CIPRA-SA-CHER study at KID-CRU and Perinatal HIV Research Unit, Soweto.

International partnerships and co-operation

International Maternal Paediatric Adolescent AIDS Clinical Trial Group – Clinical trial site with 4 active studies.

Tuberculosis Trial Consortium – funded by CDC.

Community outreach programmes

The Adolescent and Adult Community Advisory Boards – each comprising 20 members meet on a monthly basis to discuss matters of interest and give input on what type of research is wanted by the community.

World Aids day:

- Dr Elke spoke on Paediatric HIV at Municipality Hermanus, organised through Right to Care; and
- The adolescent CAB staged a play at Tygerberg Hospital.

Teaching and training

Weekly teachings and presentations are being held on different work related aspects and guest speakers have been invited. See G:\Personeel\Paediat\KIDCRU\Training\Weeklysining\Teaching 2010 presentations.

Community Advisory Board Training:

- CAB-responsibilities and standard operating procedures;
- How to deal with illiterate participants in clinical research;
- Protocol training for all members of staff is on-going;
- Recruitment and retention for clinical trials for GCP; and
- Developing of standard operating procedure workshops for GCP.

Other

- Prof. M Cotton is a member of the Paediatric Essential Drug List for Hospitals group.
- Publication in New England Journal of Medicine will influence public policy – Lopinavir performs better than Nevirapine infants failing Nevirapine for prevention of vertical transmission.. Palumbo P, Lindsey J, Hughes MD, Cotton MF et al. Antiretroviral Treatment for Children with Peripartum Nevirapine Exposure. N Engl J Med 2010; 363:1510-20
- Dr Elke Maritz – New Investigator Award May 2010 within IMPAACT network to develop the following protocol: A substudy of PROMISE, IMPAACT 1077FF, to assess the safety and efficacy of cotrimoxazole prophylaxis in HIV-exposed, uninfected infants receiving replacement feeding for prevention of infant morbidity and mortality.

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South to South

Dr L Smith

Introduction

Programme Overview

The South to South Programme for Comprehensive Family HIV Care and Treatment (S2S), a USAID specialist partner in the Prevention of Mother-to-Child HIV transmission (PMTCT), Paediatric HIV and Psychosocial programming, respond to specific clinical and health systems strengthening needs within South Africa. S2S support the Department of Health and other USAID Implementing Partners through:

- District specific, technical and programme capacity building activities;
- Human resource development through training and mentoring;
- Technical assistance to implementing partners and the National Department of Health; and
- Development and distribution of performance and training support tools and resources.

Vision

To achieve quality HIV services which promote healthy families, healthy communities and healthy living.

Mission

As a driver of change, S2S, in partnership, aims to ensure that mothers & children living with HIV/Aids in Africa have access to quality comprehensive prevention, care and treatment services through the implementation of health policies and the generation and dissemination of sustainable innovative health system strengthening solutions.

Programme implementation

District specific, technical and program capacity building activities

S2S multidisciplinary technical teams supported the Foundation for Professional Development (FPD) in two districts; S2S assisted with the translation of policies & guidelines into quality service delivery by addressing existing knowledge and skills gaps and providing system support through onsite cluster implementation workshops, on-going clinical mentoring and modelling, skills building, knowledge transfer, and supportive supervision.

Human resource development through training and mentoring

S2S offered 11 one-week *comprehensive paediatric HIV care and treatment training courses* held at Tygerberg. This course utilises a variety of training platforms, including a targeted didactic program which emphasizes case management and service implementation. It is facilitated by selected specialists from the Faculty of Health Sciences, University of Stellenbosch. Practical hands-on experience is emphasised where participants and clinical mentors participate in ward rounds at the Tygerberg HIV Family clinic and Brooklyn Chest Tuberculosis Hospital.

S2S also hosted a five one-week *Performance and Capacity Enhancement (PACE) workshops*. PACE content included: health worker well-being, job satisfaction, communication skills, team building, and managing conflict, motivation, coping with change, and managing stress. As of 1 October 2010 the PACE modular content no longer functioned as a stand-alone workshop, but was incorporated into a comprehensive support programme, Care of the Caregiver, as part of Health care worker capacity building onsite level.

Below, a summary of Human Resource Development and Training achievements:

Performance measures January-December 2010

Site support and follow-up	Achieved
Number of sites supported	24
<i>Training and Health worker support</i>	
Number of health workers trained in the provision of family centred HIV services (PMTCT, Paediatric Care and Support, Paediatric Treatment, performance and capacity building)	2 496
Number of District specific skills building (cluster implementation workshop) events held	30
Number of healthcare workers trained in the supported Districts	1 388
Number of individual mentoring sessions provided in the supported Districts	939
Number of non-District training events held (Paediatric HIV and PACE)	16
Number of healthcare workers who attended the above trainings	169

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Technical Assistance to Implementing Partners and the National Department of Health

S2S-supported meeting and events:

Dr Liezl Smit was one of only two representatives from South Africa invited to attend and present in the United States Government PEPFAR PMTCT/Paediatric Technical Working Group meeting on Early Infant Diagnosis in Arusha, Tanzania on 13 to 15 May 2010.

S2S hosted four, one-day PMTCT partner meetings – these meetings allowed PEPFAR PMTCT partners to discuss and evaluate various approaches to the National PMTCT Programme's Accelerated Plan and align their activities to National Department of Health provincial and district work plans.

- 27 May 2010 – Northern Cape and Free State (Bloemfontein);
- 28 May 2010 – Gauteng and North West Province (Johannesburg);
- 8 June 2010 – Eastern Cape and KwaZulu-Natal (Durban); and
- 9 June 2010 – Limpopo and Mpumalanga (Polokwane).

S2S assisted with the facilitation of a two-day workshop on paediatric HIV case detection, assessment and initial management for nurses from four provinces held by Keth 'Impilo in Cape Town from 7 to 8 October 2010.

S2S Hosted two, one-day workshops to launch the IMCI NIMART and the Paediatric HIV Toolkit for South African healthcare workers in partnership with the Department of Maternal and Child Health to orient USAID funded organizations to the initiatives on 12 to 13 October 2010 in Cape Town and 14 to 15 October 2010 in Johannesburg.

Other S2S-supported projects and activities:

- Printing and dissemination of *national PMTCT Registers National PMTCT guidelines*;
- Printing of North West Province Pre-ART register;
- Printing and dissemination of *National Department of Health PMTCT best practices document*, "Tried and Tested";
- Procurement of eight *vehicles* for PEPFAR partners to help support 1 800 additional sites acquired after the PEPFAR and National Department of Health rationalization exercise;
- Procurement of *22 000 male circumcision packs and 61 diathermy machines*, which were transferred to MaTCH and ANOVA Health. S2S also procured various minor medical supplies such as scales,

stadiometers, thermometers and stethoscopes for its district supported sites; and

- Tasked with developing an *Online repository* – a mechanism to support information exchange among the treatment partners and working groups for TB/HIV, PMTCT, Cervical Cancer, HCT, and Management systems that need a resource to post information related to their specific task, such as partner better practices, curricula, tools, etc.

Development and Distribution of Performance and Training Support Tools and Resources

S2S developed and adapted useful and focused tools and materials to enhance the family-centred HIV services provided at supported health facilities. A brief summary of tools are listed below:

PMTCT training materials and tools:

- PMTCT toolkit for South African Healthcare Workers;
- ANC PMTCT register;
- ANC PMTCT poster;
- PMTCT pregnancy wheel; and
- PMTCT package of care.

Paediatric care and treatment training materials and tools:

- Paediatric HIV care & treatment – a toolkit for South African healthcare workers (in collaboration with ECHO, endorsed by the National Department of Health);
- Normal developmental milestones of the young child poster;
- Paediatric pre-ART master card; and
- HIV-exposed infant master card.

Psychosocial & adherence support training materials and tools:

- Psychosocial & adherence counselling support toolkit; and
- Psychosocial & adherence counselling support training facilitator and participant manuals.

Monitoring and evaluation tools:

- PMTCT standards of care;
- Paediatric standards of care;
- Referral to CCMT treatment initiation; and
- PCR results tracing card for facilities.

A HIV care treatment series, in partnership with Francois Xavier Bagnoud Centre (FXBC), School of Nursing and University of Medicine and Dentistry of New Jersey.

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Desmond Tutu TB Centre (DTTC)

Prof. N Beyers

Resources

Posts (full time)

Professor/Principal Specialist	2
Extra ordinary Professors	3
Data Manager, Data Specialists, data clerks	15
Project Managers, study co-ordinators, counsellors, research assistants	198
Medical Officer	8
Specialist Consultant	1
Total	227

Infrastructural development

The eight field offices of the ZAMSTAR study (in Site C, Khayelitsha Kuyasa, Delft-South, Wallacedene, Mzamomhle, Nyanga, Kayamandi and Mbekweni) have been maintained and expanded. ZAMSTAR activities in communities have stopped, but the offices are now used for new studies. When studies have finished, the offices will be donated to the Department of Health.

Site C office has been donated to childhood TB studies.

The two field offices in Ravensmead and Uitsig are being maintained.

The paediatric rooms in the field offices of Ravensmead, Uitsig and Site C are maintained as “child-friendly” for the childhood TB studies.

The e-nose study is ongoing and maintaining offices in Adriaanse and Elsies River.

There are nine community VCT Centres which operate in collaboration with various NGOs. These NGOs have been equipped with tents and/or caravans and other necessary equipment to do VCT outreach in communities.

Work on the PMTCT programme continue in two Maternity Obstetric Units (MOUs) and five well-baby clinics in Khayelitsha.

The fleet of vehicles (15 vehicles and three trailers) have been maintained and new parking area established.

Old vehicles have been replaced with four new vehicles.

Two Additional caravans were taken into use – first for the ZAMSTAR prevalence survey (which was completed in December 2010) and the caravans were then donated to the exit study in Ravensmead and Uitsig.

The offices in the faculty (lower ground floor, clinical building) have been upgraded.

New offices (where the old security was at the Western entrance of Lower Ground floor) have been transferred to DTTC and will be ready in in 2011 – some will be ready in January and the rest in March/April 2011.

The P3 level laboratory built for the ZAMSTAR prevalence survey is being maintained and used for final laboratory work on ZAMSTAR and also for other studies e.g. exit study, e-nose study etc.

A total of 55 new computers were purchased.

The Personal Digital Assistants (PDAs) used in ZAMSTAR have been donated to other studies.

Website (www.sun.ac.za/tb) was maintained

Research

The paediatric research team focuses on translation and interdisciplinary research on the diagnosis, prevention and treatment of childhood TB across the age and disease spectrum, in the context of a setting with high burden of TB and HIV. The team comprises of approximately 40 personnel including clinical, lab and supportive personnel. The team works in four community sites and three hospitals. Our research focuses on the following aspects of TB in children through a sustainable program of research. Projects implemented over the past calendar year include the following:

Community-based household contact tracing diagnostic, prevention and biomarker studies

- Parent study: The Utility of Interferon-Gamma Release Assays in TB –HIV co-infected Children: PIs: Anneke Hesselting, Anna Mandalakas. Funders: NIH (DMID), Norwegian Scientific Council and NUFU;
- Effect of passive tobacco smoking: Karen du Preez; Funder Union or fellowship, NUFU, NIH;
- Effect of private health care access to treatment delay in adults: Susan van Wyk, Anneke Hesselting; Funder: Union or Fellowship, NUFU;
- TB infection and exposure among HIV-exposed,

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uninfected and HIV-infected children in a high-burden setting: using routine service data to verify HIV-exposure status: Wiseman, Hesselning, Mandalakas; Funder: South African Fogarty grant (SATBAT);

- Helminth co-infection and the effect on TB infection risk in children; funder: NUFU and South African National Research Foundation; and
- Health systems research to strengthen IPT implementation in at-risk children in the community: Susan van Wyk, Nelda van Soelen, Karen du Preez, Anna Mandalakas, Anneke Hesselning and Cape Town City Health; Funder: I-Catch (International Community Access to Child Health Program), American Academy of Paediatrics and Union or Fellowship.

TB/Helminth co-infection study

- Immune polarization in childhood tuberculosis: The role of helminth co-infection. Investigators: Anneke Hesselning, Nelda van Soelen, Gerhard Walzl; Funder: German Research Foundation (DFG).

Hospital-based diagnostic and other clinical studies

- Utility of IGRAs in detection of TB infection in HIV-infected hospitalised children: Mandalakas, Hesselning; funder: Thrasher research Fund;
- E-nose study: Beyers, Gie, Claassens, Walters; funder: UBS Optimus Foundation;
- Mortality and disease spectrum amongst HIV-infected infants with bacteriologically confirmed tuberculosis: Catherine Wiseman, Anneke Hesselning, H.S Schaaf, R.P. Gie, M.F. Cotton; funder: DTTC internal; and
- Disease severity study: Catherine Wiseman, Hesselning, Schaaf, Donald and Gie; Funder: DTTC.

Hospital-based continuity of care studies

- Karen du Preez: Anneke Hesselning, Rory Dunbar, Simon Schaaf; funder: Union or fellowship (du Preez), DTTC collateral funding;
- Missed opportunities for chemoprophylaxis in children with culture confirmed tuberculosis; and
- Referral and treatment outcome of children with culture-confirmed TB diagnosed in hospital.

Neonatal TB programme

- Adrie Bekker, Anneke Hesselning and Simon Schaaf; Funder: Thrasher Foundation, USAID ORAP grant (PI: Adrie Bekker on both);
- Maternal infant TB audit;

- Continuity of care study; and
- PK study.

MDR research programme

- Simon Schaaf, James Seddon and Anneke Hesselning; Funders: USAID TREAT TB, Sir Halley Stewart Trust, SAMRC and NIH (NICHD).

Community development and interaction studies

- Exploring the challenges faced by field workers in conducting clinical research: Grace Brintjies and team; Funding: DTTC, NUFU.

Vaccine studies

- Hesselning, Jones, Jaspan; Funders: Elizabeth Glazer Paediatric Aids Foundation, Thrasher Research.

Community outreach programmes

The TB-free Kids Project has been maintained as a “flagship project” of the University. Many activities have been done in the community. Ms Erica Jacobs is now doing an Exit Study in Ravensmead and Uitsig.

The ZAMSTAR study has been completed and now the databases are being finalised and combined with the Zambian data.

In the prevalence survey conducted and completed in 2010, more than 33 000 people were enrolled and sputum samples processed.

A cohort of 4 693 adults with and without TB has been established and these people will be followed up until end of 2010.

A big dissemination meeting was held in December 2011 for all stakeholders.

A close-out meeting, dissemination and farewell function was held at the end of 2010 to thank the community workers for all the work done on ZAMSTAR.

The paediatric studies at DTTC focuses on the following areas of research:

- Community-based household contact tracing diagnostic, prevention and biomarker studies;
- This prospective community-based study design; and
- To assess the diagnostic utility of new blood-based tests for TB infection; interferon-gamma release

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assays (IGRAs). To date, we have enrolled 550 children in three study communities; enrolment and longitudinal follow-up are ongoing. This large cohort study has also served as a platform for several sub studies (see below), student projects, capacity building and training.

There is also a study investigating environmental smoke and its effect on children a total of 196 children were included from three study communities (Uitsig, Ravensmead, and Site c, Khayelitsha), of which 65.3% were exposed to ETS in the household.

A study investigating private health care enrolled 210 patients from Site C.

Studies on TB Infection and exposure among HIV-unexpected, HIV-exposed, uninfected and HIV-infected children as well as studies investigating Helminth co-infection and the effect on TB infection risk in children are taking place in Khayelitsha.

Health systems research to strengthen IPT implementation in at risk children in the community took place in Ravensmead and Nolungile Clinic (Khayelitsha). A decentralised clinic for the management of children in contact with MDR-TB has been established in Site B Khayelitsha and more than 150 children have been managed in this clinic.

Exploring the challenges faced by field workers in conducting clinical research this is a study initiated by field workers.

The TB-HIV integration project, currently in year four of its five-year lifespan has the dual goals of reducing the TB burden by increasing TB case finding and ensuring appropriate TB care and of reducing HIV transmission in communities and minimizing the impact of HIV on individuals. There are three objectives:

- The project's first objective, to increase access to HIV counselling and testing services, has been achieved through the establishment of nine Community VCT Centres in partnership with NGOs. These centres have tested 32 782 clients and now contribute 27% (up from 12.5% the previous year) of all cases in Cape Town tested in non-clinic setting.
- The project's second objective is to strengthen health systems and improve access, quality and collaboration between HIV and TB services.

- Many health systems strengthening activities and training and mentoring have been implemented in all 101 TB clinics in Cape Town;
- A wide range of interventions to improve TB case finding, TB cure rates and infection control and to reduce susceptibility to TB and HIV have been implemented at the 22 high-burden clinics in the city;
- Capacity development has continued: 30 clinic staff trained, 39 GP trained;
- Four sputum collection points established in partnership with GPs;
- DTTC has partnered with Department of Health to establish a data management system for managing the results from the centralised laboratories of the NHLS in an attempt to increase the number of TB cases diagnosed; and
- Sputum booths have been distributed to all 101 TB clinics in the City during 2010.
- The final objective to improve access to PMTCT services and address comprehensive antenatal and postnatal care:
 - This intervention is implemented at Site B and Michael Mapongwana in Khayelitsha and the well-baby clinics associated with these facilities;
 - Following on a review of the programme, plans have been developed to improve early booking; increase uptake of HIV testing and repeat testing at 36 weeks; improve provision of antiretroviral dual therapy; improve counselling on feeding practices to reduce mixed feeding and improve record-keeping;
 - Generic programme support has been provided for the revision of Provincial PMTCT protocol, development of PMTCT IEC material and standardisation of antenatal records; and
 - Support has also been extended to other Sub-districts who support success in several of their interventions.

The study on TB in health care workers and infection control has expanded and together with Department of Health, Dr Mareli Claassens is expanding her studies in the five other provinces (Northwest, KZN, Eastern Cape, Limpopo, Mpumalanga) to evaluate reasons for primary default and to do home visits to trace these primary defaulters.

House for Mama Maphosela

DTTC has for a number of years been involved with Mrs

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Maphosela who takes care of more than 30 orphans and vulnerable children. During 2010 plans for a new house has been completed and with funding received from Archbishop Tutu, the building on a house will finally start in 2011.

National Partnerships and co-operation

DTTC is closely aligned with the national, provincial and local Department of Health and assists on all levels in the development of guidelines, manuals and training material.

All activities are planned in close collaboration with the various levels of the department of health. A monthly meeting is held with government partners.

All activities are planned and implemented with the support of the local Community Advisory Boards (CABs)

International partnerships and co-operation

DTTC remains a Collaborating Centre of the International Union Against TB and Lung Disease.

DTTC continues to be regional collaborating partner (for the Africa region) for TREAT TB.

Regular meetings are held with national Department of Health and USAID to maintain support from the Department of Health for this initiative.

DTTC hosted a meeting with the entire province to establish new priorities for TB research in SA.

DTTC has numerous on-going collaborations with the following:

- Johns Hopkins University;
- London School of Hygiene and Tropical Medicine;
- University of Zambia;
- KNCV;
- University of Amsterdam;
- Oslo University;
- Case Western University;
- KIT;
- CDC Tuberculosis Clinical Trials Consortium (TBTC): with more than 20 international sites ;
- Bergen University, Norway;
- Case Western Reserve University, USA;
- Columbia University, USA;
- Imperial College, London;
- All Indian Institute of Medicine;
- St. John Medical College, India;

- Bernard Nocht Institute of Tropical Medicine, Hamburg, Germany;
- Max Plank Institute for TB Research, Berlin, Germany;
- Charite Hospital, Berlin, Germany;
- McGill University, Canada;
- South African TB Vaccine Initiative (SATVI);
- Division of Clinical Pharmacology, University of Cape Town;
- Health Economics Unit: University of Cape Town;
- University of Western Cape: Human Nutrition Division; and
- South Africa MRC: Centre for Biostatistics.

Grant Funding obtained over reporting period (excluding degree scholarships)

- NIH RO1 PK second line TB drugs: NIH Ro1 (Profs. Hesselting and Schaaf);
- Thrasher Research Fund (Dr Bekker);
- Treat TB ORAP grant (Dr Bekker);
- SAMRC (Prof. Hesselting);
- NIH CRFD (Prof. Hesselting);
- Harry Crossly (Dr du Preez);
- SATBAT (Dr Wiseman); and
- Union Operational Research (OR) training grants: Drs du Preez and Van Wyk.

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Degrees

- Laurianne Loebenberg: PhD Immunology (graduated 2010); and
- Susan van Wyk: MSc Clin Epid (SU; cum laude; graduated 2010).

Teaching and training

- On request of and in partnership with the health Directorate of City of Cape Town, DTTC presents a TB Clinical Forum once a month which is attended by clinicians working in the City clinics;
- A five-day operational research protocol development workshop for colleagues from the Department

of Health in each of the nine provinces and their associated academic institutions was held in May 2010;

- Prof. Donald Enarson visited DTTC twice for a week period each time to teach and mentor the staff of DTTC;
- Supervision was provided to at least 13 post-graduate students (4 PhD);
- Prof. Beyers is involved in teaching of undergraduate students (MBChB11-V1);
- Prof. Hesselning and Prof. Beyers teach in the M Clin Epidemiology course;
- Prof. Beyers teaches in various faculty courses including the NIH Ethics course and the Masters Classes for researchers; and
- The annual childhood TB Course was again held at Goudini in September 2010 and participants from more than 20 countries attended. The course will be repeated in 2011.

Special achievements

- Ms Wena Moelich is still seconded to National Department of Health to roll out the “Kick TB 2010” national campaign; and
- A number of DTTC staff gave talks on Radio Tygerberg – especially in the run up to for World Aids Day (1 December) and World TB Day (24 March)

Prof. Hesselning

- Chair: CDC Tuberculosis Trial Consortium (TBTC) Paediatric TB Interest Group TB-PIG; 2010- present;
- Chair: World Health Organization New Diagnostics Working Group, Childhood TB Sub-group 2009-present;
- Secretary: International Union against Tuberculosis and Lung Diseases Lung Health Section 2009-present;
- Chair: IUTALD International working on BCG 2006-2010;
- Member: and chair World Health Organisation Dots Expansion Working Group on Childhood Tuberculosis 2005-2011: Gie (Hesselning: member);
- Associate editor: International Journal against Tuberculosis and Lung Diseases; and
- WHO Consultant: Stop TB Global Plan: Research update; tools (2009-2011).

Prof. Schaaf

- Member of the Paediatric TB/HIV Provincial Steering Committee, Western Cape Province 2007-present (Schaaf, Hesselning).

Psychiatry

Psychiatry

Prof. RA Emsley

Summary

- NEPAD Grant secured for an African schizophrenia outcome study collaboration for the period 2008 to 2012; and
- Stanley Medical Research Institute Research Award Grant 2010 to 2012.

Resources

Posts (full-time)	Number	Filled
Professor	1	1
Principal Specialist	2	2
Specialist	5	5
Medical officer	7*	7*

Number of beds (usable)	41 (+3 seclusion)	41 (+3 seclusion)
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Output

	2009	2010
<i>In-patient admissions</i>		
D.LG – adults	249	264
G.LG – adults	199	204
D.LG – C&A	103	98
G.LG – C&A	112	146
Total admissions	663	712

Out-patient visits

J.LG – adults	1 379	1 464
Liaison/emergency Psychiatry – adults	1 704	1 451
F.LG – C&A	1 986	2 762
Total out-patient visits	5 069	5 677

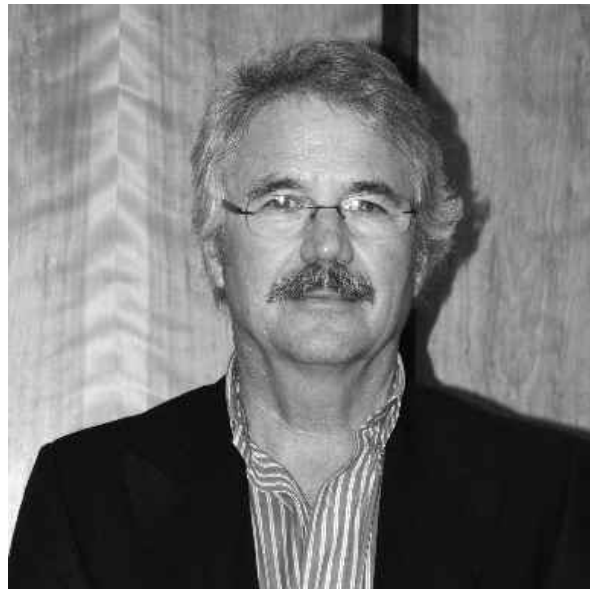
Procedures

ECT	47(4pt's)	27(4pt's)
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The Department also delivers a full clinical service at Stikland Psychiatric Hospital for which the statistics are not included here. (Statistics for Clinical Psychology also included here).

Comment on output

There has been a steady increase in inpatient admissions in both the child and adolescent, and adult psychiatry divisions. Access to inpatient beds have remained in demand, possibly because of increased numbers of more ill patients requiring hospital admission.



Methamphetamine- and HIV-related admissions have remained high. Many patients are still required to be put on a waiting list prior to admission. Out-patient visits have increased similarly.

Infrastructural development

Upgrading and renovations to ward D Lower Ground (LG) at Tygerberg Hospital were completed during 2010. Ward G.LG moved to D.LG whilst ward D.LG moved to ward D.Ground. The first phase of establishing in 2010 is now awaiting competition in 2011.

Community outreach

Ongoing service delivery and in-service delivery and in-service training (adults and children) continued in community mental health clinics in the West Coast/ Winelands and Eastern Metropole Districts. Besides 24-hour telephonic support, registrars are seconded to clinics for half a day each per week. To help combat the escalating substance problems in the Western Cape, the department continued to provide psychiatric support, outreach and training to a number of substance treatment NGOs including SANCA, CTDC, Toevlug, Ramot and Hesketh King as well as government departments including the Department of Social Development (DSD). Dr Lize Weich continued the training of primary health care workers in the Western Cape in the management of substance use disorders.

The Assertive Community Treatment (ACT) Stikland Hospital, under guidance of Dr Ulaa Botha, continues with support to individuals with psychiatric illness and their families in Kraaifontein, Bishop Lavis and Elsies River. This service includes a day centre for the Northern suburbs at Stikland Hospital.

Ms Janine Roos was appointed as Director of the Mental Health Information Centre (MHIC) in November 2010. As

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a Brain Awareness Week partner, the MHIC hosted Brain Awareness Week (BAW) from 15 to 21 March 2010. This event is an international DANA Alliance campaign dedicated to raising public awareness of the progress, promise and benefits of brain research. These celebrations presented an opportunity for the general public to visit various exhibitions at a public and university libraries. There were also competitions with prizes for the winning entries as advertised at the exhibitions. A radio interview, which covered the importance of BAW, as well as changes, rehabilitation, psychotherapy and the role of family and friends after brain injury, was followed by a web-based forum by experts on brain related disorders. Via the MHIC, the Department of Psychiatry also maintains regular contact with consumer support groups such as the SA Depression and Anxiety Group, Cape Support for Mental Health, BIG/MIND, the SA Federation for Mental Health and the Postnatal Depression Support Group. Other important partners are the Department of Health: Mental Health and Substance Abuse Sub-directorate, professional organisations such as the SA Society of Psychiatrists, the SA Medical Association, the Medical Association, the Medical Research Council and the pharmaceutical industry.

Dr Francois Pretorius, in cooperation with the National Institute for the Deaf, established a regular monthly Visual Interaction Clinic at Worcester Hospital, where psychiatric services are made available to individuals using SA Sign Language as their first language. This service is unique in Africa.

Strategic partnerships

Prof. Robin Emsley secured a NEPAD Grant for an African schizophrenia outcome study collaboration. Funding was allocated for the period 2008 to 2012. The study is being conducted in collaboration with Prof. Gureje from the University of Ibadan in Nigeria. Part of the funding was for capacity development, thus young psychiatrists from both Stellenbosch University and Ibadan, as well as research nurses from Ibadan, have already received training in Research Methodology and interreliability testing during 2008.

Prof. Emsley was awarded a Stanley Medical Research Institute Research Award Grant, USA 2010 – \$500 000 over three years.

The MRC Unit on Anxiety Disorders continued functioning as a cross-University centre, including the University of Cape Town (UCT) and the University of the

Western Cape (UWC), in which several different principal investigators focus collaboratively on key scientific themes.

In her capacity as provincial psychiatric substance services coordinator, Dr Lize Weich was involved in various projects. She also served as a member of the SANCA Board, the steering committee for SA Quality Measures, the Opioid Treatment advisory board as well as the Western Cape Substance Abuse Forum executive committee.

The Foetal Alcohol Syndrome Prevention Epidemiological Research (FASER-SA) team planned a variety of awareness activities on International Foetal Alcohol Spectrum Disorders Awareness Day celebrated each year on 9 September 2010 in the communities of Wellington and Robertson.

The FASER-SA team was awarded a grant sub-contract to follow-up children in the Wellington area from our 1997, 1999 and 2002 studies who were diagnosed with Foetal Alcohol Spectrum Disorders (FASD). This study commenced on 1 January 2008.

Research

The Department of Psychiatry is actively involved in original research covering a wide variety of topics including anxiety disorders, schizophrenia and genetics. In 2010, 16 papers were presented at international congresses and 12 nationally. Furthermore, 62 articles were published.

International proceedings

- Bruwer BR, Sorsdahl K, Stein DJ, Williams DR, Harrison JR, Seedats S. *Barriers to Mental Health treatment and predictors of treatment drop-out among South Africans: Results from the South African stress and health study*. International anxiety disorder symposium, Spier, Cape Town, South Africa, 2010: <http://www.sasop.co.za/>.
- Chiliza B, Asmal L, Emsley RA. *Impact of methamphetamine use in first episode psychosis*. The XXVII International College of Neuropsychopharmacology World Congress, Hong Kong Convention and Exhibition Centre, Hong Kong, China, 2010: <http://www.cinp2010.com/>.
- Chiliza B, Schoeman R, Oosthuizen PP, Koen L, Niehaus DJH, Emsley RA. *Impact of methamphetamine use in first episode psychosis*. The 2nd Schizophrenia International Research Society

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- Conference, Firenze Fiera Congress Center, Florence, Italy, Elsevier 2010. <http://www.schizophreniaconference.org/page6.-html>.
- Chiliza B. *Cannabis, amphetamines and early psychosis: Evaluating the risks for progression, neurobiologic models of interaction and implications for treatment*. The 2nd Schizophrenia International Research Society Conference, Florence, Italy, Elsevier 2010: E50-E51.
 - Emsley RA, Alptekin K, Canas F, Gorwood P, Naber D, Olivares JM, Roca M, Martinez G, Schreiner A, Hargarter L. *Physician awareness of partial and non-adherence to antipsychotic medication in schizophrenia: Results from a survey conducted across Europe, the Middle East and Africa*. The 7th Conference of the International Early Psychosis Association, Amsterdam, Netherlands, 2010: <http://conference.iepa.org.au/>.
 - Emsley RA, Oosthuizen PP, Koen L, Niehaus DJH, Martinez L. *A prospective study of the clinical outcome following treatment discontinuation after remission in first-episode schizophrenia*. The 7th Conference of the International Early Psychosis Association, Amsterdam, Netherlands, Blackwell Publishing Asia 2010: 12.
 - Koen L, Niehaus DJH, Jordaan E, Emsley RA. *A role for structural equation modelling in subtyping schizophrenia in an African population*. The 23rd ECNP Congress, Amsterdam, Netherlands, 2010: 155.
 - Malan S, Hemmings SMJ, Spies G, Seedat S. *Childhood trauma and telomere shortening and HIV associated neurocognitive impairments in women*. XVIIIth World Congress on Psychiatric Genetics, Athens, Greece, 2010: www.ospg2010.org/.
 - Schoemaker J, Naber D, Jansen W, Panagides J, Emsley RA. *Safety and efficacy of long-term aripiprazole versus olanzapine in schizophrenia or schizoaffective disorder patients*. The 18th European Congress of Psychiatry, Munich, Germany, Elsevier 2010: 1621.
 - Seedat S, Fennema-Notestine C. *Contributory effects of childhood trauma to white matter tract injury in HIV infected and uninfected women*. The 4th Annual CFAR International HIV/AIDS Research Day, California, USA, 2010: <http://cfar.ucsd.edu/events/agggregator/previous>.
 - Seedat S. *Advances in PTSD: Treatment*. International Anxiety Disorders Symposium, Spier, Cape Town, South Africa, 2010: <http://www.sasop.co.za/default.asp>.
 - Sorsdahl K, Stein DJ, Grimsrud A, Seedat S, Flisher A, Williams DR. *Traditional healers in the treatment of common mental disorders in South Africa*. ISAD 5th Biennial Conference, Westin Bayshore hotel, Vancouver, Canada, Elsevier 2010: S42.
 - Warwick JM, Carey P, Cassimjee N, Lochner C, Hemmings SMJ, Moolman-Smook H, Beetge EC, Dupont P, Stein DJ. *Dopamine transporter binding in social anxiety disorder: The effect of treatment with escitalopram*. The 10th Congress of the WFNMB, CTICC, Cape Town, South Africa, WFNMB and WARMTH 2010: 74.
 - Warwick JM, Carey PD, Cassimjee N, Lochner C, Hemmings SMJ, Moolman-Smook H, Beetge E, Dupont P, Stein DJ. *Dopamine transporter binding in social anxiety disorder: The effect of treatment with escitalopram*. SNM Annual Meeting, Salt Palace Convention Centre, Salt Lake City, USA, Society of nuclear medicine 2010: 1819.
 - Wright GEB, Drogemoller BI, Van Der Merwe L, Koen L, Kinnear CJ, Niehaus DJH, Warnich L. *Genetic variation of membrane-bound catechol-O-methyltransferase and susceptibility to schizophrenia and antipsychotic induced abnormal involuntary movements in an African population*. The 8th Cold Spring Harbour Pharmacogenomics and Personalised Therapy Meeting, New York, USA, 2010: <http://meetings.cshl.edu/meetings/pharm10.shtml>
- National proceedings*
- Botha UA, Koen L, Joska JA, Hering LM, Oosthuizen PP. *Assessing the efficacy of a modified assertive community-based treatment programme in a developing country*. The 16th Biennial Congress of the Society of Psychiatrists of South Africa, East London, South Africa, 2010: <http://www.sasop.co.za/>.
 - Bruwer BR, Sordhal K, Stein DJ, Williams DR, Seedat S. *Barriers to Mental Health treatment and predictors of treatment drop-out among South Africans: Results from the South African stress and health study*. Stellenbosch University Academic Yearday, Tygerberg Campus, Tygerberg, South Africa, 2010: 150.
 - Emsley RA. *The importance of relapse prevention in schizophrenia*. The 16th Biennial Congress, South African Society of Psychiatrists, East London, South Africa, 2010: <http://www.sasop.co.za/>.

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- Hawkrigde SM. *Paediatric bipolar disorder: More heat than light?* The 16th Biennial Congress, South African Society of Psychiatrists, East London, South Africa, 2010: <http://www.sasop.co.za/>.
- Jordaan GP, Nel DG, Hewlett RH, Emsley RA. *Alcohol-induced Psychotic Disorder: A comparative study on the clinical characteristics of patients with Alcohol Dependence and Schizophrenia.* The 16th National Congress of the SA Society of Psychiatrists, East London, South Africa, 2010: <http://www.sasop.co.za/>.
- Jordaan GP, Warwick JM, Hewlett RH, Emsley RA. *Resting brain perfusion in Alcohol-induced Psychotic Disorder: A comparison in patients with alcohol dependence, schizophrenia and healthy controls.* Stellenbosch University Academic Yearday, Tygerberg Campus, Tygerberg, South Africa, 2010: 147.
- Niehaus DJH, Koen L, Jordaan E, Mashile M. *Correlation of non-verbal communication skills with academic performance in the late rotation psychiatry module: Sub-study-comparison of written examination marks with oral examination marks.* 16th Biennial Congress of the Society of Psychiatrists of South Africa, East London, South Africa, 2010: <http://www.sasop.co.za/>.
- Parry CDH. *Is there a causal relationship between alcohol and HIV? Implications for policy, practice and future research.* The 16th Biennial Congress, South African Society of Psychiatrists, East London, South Africa, 2010: <http://www.sasop.co.za/>.
- Pienaar WP. *Bio-ethics by Case Discussion 2, Personality disorder and the DSM-V.* 16th Biennial Congress, South African Society of Psychiatrists, East London, South Africa, 2010: <http://www.sasop.co.za/>.
- Pienaar WP. *Personality disorders: The orphan child in the AxisI-AxisII dichotomy.* The 16th Biennial Congress, South African Society of Psychiatrists, East London, South Africa, 2010: <http://www.sasop.co.za/>.
- Seedat S. *Biological Aspects of PTSD (Posttraumatic Stress Disorder).* The 3rd Regional Psychotrauma Conference, Nairobi, Kenya, 2010: <http://www.africamentalhealthfoundation.org/>.
- Seedat S. *Mental health and HIV/AIDS in South Africa.* The 16th Biennial Congress, South African Society of Psychiatrists, East London, South Africa, 2010: <http://www.sasop.co.za/>.
- Wright GEB, Drogemoller BI, Koen L, Kinnear CJ,

Niehaus DJH, Warnich L. *Membrane-bound catechol-O-methyltransferase genetic polymorphisms: One of the pieces in the schizophrenia-susceptibility puzzle?* 16th Biennial Congress of the Society of Psychiatrists of South Africa, East London, South Africa, 2010: <http://www.sasop.co.za/>.

Chapters in books

- Hoppe LJ, Ipser J, Lochner C, Thomas KGF, Stein DJ. Should there be a category: "Grooming disorders?". In *Neurobiology of grooming behavior*, Cambridge University Press, New York, USA, 2010: 226 - 251.
- Matsunaga H, Seedat S. "Obsessive-compulsive spectrum disorders: Cross-national and ethnic issues". In: *Obsessive-compulsive spectrum disorders – Refining the research agenda for DSM-V* (eds: Eric Hollander, Joseph Zohar, Paul J. Sirovatka, Darrel A. Regier), American Psychiatric Association, Virginia, USA, 2010: 205 - 221.

Awards

Prof. Robin Emsley

- Awarded a Stanley Medical Research Institute Research Award Grant, USA 2010 to 2012; and
- Received a NEPAD Grant for African Schizophrenia outcome study collaboration (2008 to 2012).

Prof. Soraya Seedat

- Was in collaboration with researchers at UCT, awarded a five-year National Institutes of Health (NIH) grant for a study titled *Mechanisms of HIV Neuropathogenesis: Emerging Domestic and Global Issues* (2009 to 2013);
- Was awarded a Centre for AIDS Research Developmental Grant from the University of California San Diego for 2011;
- Was awarded an African collaboration grant for a collaborative genetics study with Dr Eugene Kinyanda from the MRC HIV Unit in Kampala, Uganda;
- Elected as Vice-chair of the Health Research Ethics Committee, Faculty of Health Sciences, Stellenbosch University, 2011 to 2013;
- Elected to the International Scientific Programme Committee (ISPC) for the 10th World Congress of Biological Psychiatry, Prague, Czech Republic, 29 May to 2 June 2011;
- Elected as Editor-in-Chief of the Journal of Child and Adolescent Mental Health in 2010;

Psychiatry

- Re-elected to the South African National Committee for the International Brain Research Organisation, 2009 to 2011;
- Appointed as collaborator on a (i) Zambia AIDS-related TB study of *Common mental disorders among TB and HIV-positive patients accessing treatment at primary health care facilities in Zambia* and (ii) the World Psychiatric Association Grant for an international study of student career choice in psychiatry; and
- Re-elected to the MRC Grants Committee, 2010 to 2012.

Dr Bonginkosi Chiliza

- Received the CINP Rafaelsen Young Investigators Award 2010. He also received a World Congress of Biological Psychiatry Travel Grant and participated in the International Observership Programme of the Department of Psychiatry of the George Washington University, Washington DC, USA.

Ms Melany Hendricks

- Completed an LLB degree (UNISA).

Dr Belinda Bruwer

- Received the College of Psychiatrists' MS Bell prize for the Best Registrar Poster at the Biology Psychiatry Congress.

Prof. Christine Lochner

- Received NRF-incentive funding for unrated researchers for the next six years. She also participated in a task team subcommittee for the DSM-V; and
- Received funding from the Trichotillomania Learning Centre in the USA as well as an NRF Grant for 2011 to 2012 (competitive programme for rated researchers).

Ms Sharain Suliman (MRC)

- Received both the Faculty of Health Sciences' Clinical Research Grant and the Hendrik Vrouwes Scholarship to complete work on her PhD project.

Ms Georgina Spies (SARCHI)

- Won the poster presentation award in the Neurosciences category at the Annual Academic Year Day 2010 at the Faculty of Health Sciences.

Ms Lorren Fairbairn (SARCHI)

- Received Hendrik Vrouwes scholarships for 2010.

Dr Sian Hemmings (SARCHI)

- Received a travel award from the World Congress of Psychiatric Genetics to attend the 2010 congress in Athens, Greece.

Dr Gerhard Jordaan

- Was awarded the winning presentation in Neurosciences at the Annual Academic Day, Faculty of Health Sciences, Stellenbosch University, August 2010.

Dr Laila Asmal

- Received an Oppenheimer Memorial Trust Award (R20 000) and funding for scientific travel (R10 000, Health Sciences Faculty, Stellenbosch University) for a research visit to Massachusetts General Hospital, Harvard University. She also received a Biological Psychiatry research award.

Ms Marlene de Vries (FASER-SA)

- Was awarded the best poster presentation in the session Public Health Care and Health Systems at the Annual Academic Year Day, Faculty of Health Sciences, Stellenbosch University, August 2010.

Teaching and training

- Number of FC Psych Part II successful candidates: 4 (Drs Kumarie Moodliar, Elsa du Toit, Ravi Govender and Judy Ludwick)
- Number of MMed degrees awarded: 4 (Drs Kumarie Moodliar, Judy Ludwick, Rochelle le Roux and Bulelwa Mpinda)
- Number of D degrees awarded: 2 (Drs Annerine Roos and Renata Schoeman)
- Number of MMed students registered for above period: 29
- Number of MMed students currently registered: 22
- Number of D students currently registered: 14

Ms Michele Ainslie appointed as teaching and learning manager and service learning coordinator in the Department of Psychiatry in January 2011.

Profs Robin Emsley and Soraya Seedat, Dr Bonga Chiliza and Ms Karen Cloete presented a workshop for MMed students of the Department of Psychiatry on "Article writing" and "How to get started on your MMed project".

Psychiatry

Support and service

Prof. Robin Emsley served as

- Committee member and Officer of the Section on Schizophrenia of the World Psychiatric Association;
- Member of the committee on education and mentorship of the World Federation of Societies of Biological Psychiatry;
- Council member, Faculty of Psychiatry, Colleges of Medicine of South Africa;
- Committee representative of the Southern African Biological Psychiatry Group;
- Fellow and member of the Training Task Team Collegium International Neuro-Psycho-pharmacologicum;
- International Advisory Council Member of the Schizophrenia International Research Society and member of Education and Training and Financial Committees;
- Faculty member of the Lundbeck International Psychiatric Institute;
- Faculty member of the Janssens International Psychiatry Academy;
- Member of International Advisory Boards for Janssen-Cilag, Otsuka, Servier; and
- Served on the editorial boards of nine international and one national psychiatric journal.

Prof. Soraya Seedat

- Was elected as a member of Senate of the Medicine South Africa, 2009 to 2011;
- Member of the World Federation of Societies of Biological Psychiatry: Task Force Committee on the Developing World, 2006 to present;
- Member of the Collegium International Neuro-Psychopharmacologicum and on the committee of the Constitution and Bylaws Committee; and
- Member of the American Psychiatric Association and president of the South African Society of Biological Psychiatry.

Prof. Willie Pienaar

- Member of the Tygerberg Hospital Ethics Committee;
- Member of the Ethics Unit of the Health Sciences Faculty; and
- Chair of the Mental Health Drug Therapeutic Forum of the Associated Psychiatric Hospitals.

Dr Bonga Chiliza

- Elected as the chair of the SASOP Western Cape sub-group and re-elected as chair of South African

YMCA National Board; and

- Chair of the Annual Academic Committee in the Faculty of Health Sciences.

Dr Funeka Madikiza

- Served as chair of the Human Rights, Law and Ethics Committee of SAMA.

Dr Debbie Alexander

- Serves on the Health Sciences Faculty Board, the Ethics research Committee and the SASCOC Medical and Anti-doping Commission (representing Psychology); and
- President of the National Federation of Triathlon South Africa (Olympic Sport).

Dr Chris Verster

- Representative of Psychiatry and committee member of the Provincial Pharmaceutical and Therapeutic Committee.

Dr Sue Hawkridge, Felix Potocnik, Chris Verster, Lize Weich and Gerhard Jordaan

- Members of the associated psychiatric hospitals Mental Health Drug and Therapeutic Forum.

Dr Francois Pretorius

- Chair of the SA Society for Mental Health and Deafness and acts as a consultant to the Africa Contact Group for Mental Health and Deafness; and
- Chair of the Provincial Co-ordinating Committee for Mental Health.

Ms Melany Hendricks

- Member of the Health Research Ethics Committee of the Faculty of Health Sciences.

Dr Gerhard Jordaan

- Appointed as a member of the Lentegour Hospital Facility Board.

Drs Rob Allen, Laila Asmal, Mohamed Coovadia, Srnka Flegar, Bulelwa Mpinda, Rene Nassen, Anusha Lachman, Charl Prinsloo and Robert Wicomb joined the department as new lectures and consultant psychiatrists.

Surgical Sciences

Surgical Sciences

Prof. BL Warren

Summary

This division follows an ethic of optimal service delivery within available resources and achieves this through teamwork and attention to detail. Together with a large volume of routine work, 2010 saw the continuation of several programmes of innovation:

Oncoplastic reconstruction in the treatment of breast cancer.

Endovascular repair/reconstruction for arterial trauma/degenerative disease. For the first time, endovascular abdominal aortic aneurysm repairs (EVARs) equalled the number of open repairs.

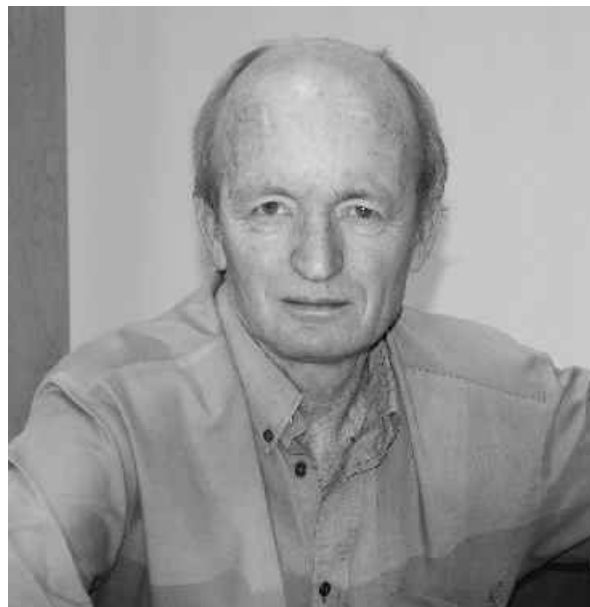
Laparoscopic colo-rectal resection and incisional hernia repair. The expansion of the endosurgical programme received a boost via the acquisition (from research-generated funds) of a second camera-monitor unit. This will allow for conditions requiring urgent surgical attention, such as acute appendicitis and acute cholecystitis to be managed by minimal access more frequently.

Units

- Surgical Gastroenterology;
- Vascular surgery;
- Head, neck and breast surgery;
- Surgical intensive care;
- Burn Unit;
- Trauma surgery; and
- Karl Bremer Hospital surgical service.

Registrars

A total of 20 registrars are part of the Tygerberg staff establishment and one each at Karl Bremer, Paarl and Worcester Hospital. The training post at Worcester Hospital was established in mid-2009. Because of the distance involved, Tygerberg registrars do not rotate in Worcester (as is the case for Karl Bremer and Paarl Hospitals), but the appointee spends the first year of surgical training at Worcester and then moves into a pre-identified vacancy at Tygerberg Hospital for the remaining four years of residency. There are also two supernumerary registrars in training, one from Nigeria and another from Namibia. The first foreign supernumerary registrar to train as a specialist surgeon



in this division, Dr Ales Makupe from Zambia, had his MMed (Chir) degree conferred on him in December 2009 and returned to practise in his home country.

Academic highlights

Publications in a peer-reviewed journal emanated from the division.

All six candidates for the final fellowship examination of the College of Surgeons of South Africa, FCS (SA) were successful, with Dr Stefan Hofmeyer being awarded the Douglas Medal for being the best candidate of the year in this examination. This is the second time in the past four years that a candidate from this division has achieved this reward.

Paediatric Surgery

Prof. SW Moore

Summary

Paediatric surgery currently functions within 15 beds in ward G4, but more than 50% of its patients lie within the beds of the paediatric service outside of this ward.

Paediatric surgery admitted 1 002 patients to ward G4 in 2010 (Clinicom).

A total of 226 urgent paediatric inpatient referrals in paediatric wards were consulted.

A total of 96 neonates were operated within and associated with the neonatal section.

In addition to the in-house referrals, there were 1 045 outpatients (Clinicom) seen in the two specialised clinics (General Paediatric Surgical Clinic and Ano-rectal Clinic).

Surgical Sciences

These figures exclude daily emergency referrals from G Ground paediatric admissions.

Surgical procedures

The available theatre time (very limited) could handle 706 elective procedures (theatre lists).

There were 136 emergency operations performed (excluding vascular access frequently called for within the intensive care and other units).

There is also a day theatre list (one half day per week – 254 cases) and the first hour of the abscess list is reserved for children where the staff assist the intern.

Resources

Posts (full-time)	Number	Filled
Professor principal Specialist	1	Yes
Specialist	2	1 + 1 in training
Registrar	1	Yes
Medical officer	1	Yes

Posts (sessional)

Part-time posts	1	Yes, one W/E per month
Locum posts	1 (during staff crises)	Not at present
Full time equivalents	1 quarter	

Number of beds	15	L2 beds still being negotiated
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Output

OPD visits	1 029
Speciality clinics	±220
Admissions	1 134
Theatre procedures	953 elective and emergency procedures

Comment on output

Output is severely challenged by lack of intensive care and theatre availability. Delay in implementation of promised additional theatre list.

Infrastructural development

- Very discouraging. Equipment shortages or

equipment malfunction and no replacements;

- No upgrading or infrastructure development, despite promises; and
- CSP proposals are discriminatory and completely unfair. It is also totally unworkable. The service will suffer.

Community outreach programmes

- Teaching initiative with the Addis Ababa University in Ethiopia further explored;
- Improved liaison and service to clinics; and
- Attempts to initiate an outreach training theatre list at Eerste Rivier Hospital cancelled due to lack of anaesthetic staff.

Co-operation with the private sector

- Blaauwberg Hospital public-private-partnership explored.

Research

- Revision of student handbook "Student Noted in Paediatric Surgery";
- Publications in peer-reviewed and international journals in 2010:5; and
- Chapters in books published: 13.

Teaching and training

Regular meetings take place between units to discuss policy and individual patients.

These include weekly meetings with Radiology, Paediatric Oncology and General Surgery as well as Neonatology Paediatric Gastro-enterology, Endocrinology, Fetal Medicine, Anatomical Pathology and Clinical Genetics.

The teaching commitment involves both undergraduate and postgraduate teaching programmes.

Undergraduate teaching

Paediatric surgical staff are involved in teaching second year MB, ChB, third year MB, ChB, fourth and fifth year MB, ChB students and student interns, as well as being involved in tests and examinations in General Surgery as well as Paediatric Surgery.

Postgraduate teaching

Involves both training of general surgeons in Paediatric Surgery and specialist training. General Surgery trainees also receive tutorials at intermediate and final modules as well as practical training on rotation.

Surgical Sciences

Specialist training

Stellenbosch University is an accredited Paediatric and paediatric surgical training centre, actively engaged in goal-directed research.

One of the highlights of 2010 is the further development of the new MMed programme at Stellenbosch University as an HPCSA approved four year Masters programme to allow specialisation in Paediatric Surgery. It currently has three enrolled postgraduate students and follows a systematic teaching and training course.

Highlights

Prof. Moore was awarded the prize for the best paper in the South African Journal of Surgery 2009 - 2010.

Division of Plastic and Reconstructive Surgery

Prof. FR Graewe

Summary

The spectrum of our activities included all aspects of Plastic and Reconstructive Surgery. Tygerberg Hospital has a big trauma workload and we are providing an emergency Plastic Surgery service. We are involved in breast reconstruction surgery after and during breast cancer treatment in co-operation with the Head, Neck and Breast (HNB) Unit, ENT Division and Maxillofacial Department. We have a Craniofacial Unit and Cleft Lip and Palate Unit. We perform microsurgery on a regular basis. Our spectrum includes most areas of reconstructive and cosmetic surgery.

Resources

Posts (full-time)	Number	Filled
Professor principal Specialist	1	1
Specialist	1	1
Registrar	4	4

Posts (sessional)

Specialist	1	1
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Number of beds	9 adult + 4 paediatric beds	
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Output

From 1 January 2010 – 30 April 2010

Koeberg local anaesthesia cases	439
General theatre procedures	559
Admissions	147

Infrastructural development

We performed two Smile Weeks supported by the Smile Foundation South Africa in 2010. The first Smile Week took place in June just before the kick-off for the 2010 Soccer World Cup. It was a teamed effort by the Smile Foundation South Africa and a European Charity Organisation "We love Africa". The second Smile Week at Tygerberg Hospital took place in November 2010.

National co-operation and partnerships

Cooperation with the Smile Foundation South Africa.

International co-operation and partnerships

Cooperation with the World Craniofacial Foundation (WCF) to help in Africa with craniofacial deformities.

Research

- Van der Walt JC, Graewe FR, McIntosh C. *Fixation of mandible fractures: a simplified method*. SADJ. 2010 Sep;65(8):358 - 63;
- Wessels WL, Graewe FR, van Deventer PV. *Reconstruction of the lower eyelid with a rotation-advancement tarsoconjunctival cheek flap*. J Craniofac Surg. 2010 Nov; 21(16): 1786 - 9;
- Van Deventer PV, Graewe FR. *Enhancing pedicle safety in mastopexy and breast reduction procedures: The posterionferomedial pedicle, retaining the medial vertical ligament of Wuringer*. Plast Reconstr Surg. 2010 Sep; 126(3):786 - 93;
- Naser C, Pienaar C. *Simple geometric method for designing a transposition flap: the circles technique*. Plast Reconstr Surg. 2010 Dec; 126(6):323e-324e. No abstract available.

Teaching and training

Lectures on Plastic Surgery to medical and paramedical students, ward rounds with fourth year medical student and training to postgraduate students in Plastic Surgery is ongoing. According to our academic teaching programme, we offer microsurgical-training courses on a bimonthly basis to all interested medical students or practitioners.

Surgical Sciences

Department of Neurosurgery

Prof. HB Hartzenberg

Summary

The division of Neurosurgery has continued to provide its core functions – being both the clinical service to the community it serves, as well as a key role in providing education to our students of Stellenbosch University and broader Africa as well as Europe. We have hosted a number of elective undergraduate students mainly from Germany and also a neurosurgical trainee from Bonn, Germany, during 2010. We have two other African trainees as well from Ghana and Libya.

We have opened a cadaveric skills laboratory at our faculty where postgraduate training continues. A number of educational workshops have also been hosted.

A combined neurosurgery/orthopaedic spine service has been started with Dr AJ Vlok, neurosurgeon and spine surgeon, having been appointed to this service and representing our division on this important platform with the orthopaedic-spine service.

Resources

Posts (full-time)	Number	Filled
Professor Principal Specialist	1	1
Specialist	2	2 up to April 2010 then 1
Registrar	5	7 (2 supernumeraries)
Medical officer	1	1

Posts (sessional)

Specialists	48 (3 specialist)	48
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Number of beds	52	
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Output

Outpatient visits		2 929
Admissions		2 042
Theatre procedures		511

Comment on output

The statistics when compared to the previous year do not show any significant changes. The interpretation of these figures in terms of accuracy can be questioned. The source is Clinicom.

Infrastructural development

We received one new microscope mainly for our spinal work. This upgrade has been in the pipeline.

Community outreach programmes

Prof. Hartzenberg presented lectures as part of Nursing CPD at Panorama Medi-Clinic; At brain injury support group meeting at the Panorama Medi-Clinic.

Dr Vlok presented three lectures as well as case studies at the AO Spine educational workshop in Durban.

National co-operation and partnerships

Two registrar training workshops with the University of Cape Town (UCT) Neurosurgery.

Co-operation with the private sector

Baroque Medical: Registrar training workshops, Storz SA training workshops, Southern Medical – training workshops.

Research

Dr Vlok published two articles: *Shallow water diving injuries – devastating but preventable* in the South African Medical Journal, September 2010, and *Unknown primary case study* in the South African Orthopedic Journal, October 2010.

Prof. Hartzenberg presented two papers at the Society of Neurosurgeons Congress in Johannesburg, *Skull Base Surgery – Craniofacial Approaches* and *Occupational Hazards in Neurosurgery*.

Teaching and Training

- Teaching of undergraduates: Lectures during the Neuroscience module and Muscular module;
- Tutorials every Wednesday at 07:30 for final year medical students;
- Final examinations in Surgery final year students, two annually;
- Overseas elective students mainly from Germany are accommodated; and
- One resident from Bonn, Germany, spent five months in the division.

Highlights

Congresses and workshop attendances:

- Prof. HB Hartzenberg attended the Society of Neurosurgeons of SA Congress in Johannesburg in August 2010;

Surgical Sciences

- Dr AJ Vlok attended the North American Spine Society Congress and the AO Spine workshop in December in Davos, Switzerland; and
- Dr A Gretschel attended the Neuro Critical Care Symposium in April in Copenhagen, Denmark, and Eurospine in September in Vienna, Austria.

Works hosted at the Faculty of Health Sciences, Stellenbosch University were the neurosurgical refresher course with Southern Medical Implants and Storz in July and a lateral spine workshop in collaboration with Southern Medical implants in December.

Department of Urology

Prof. CF Heyns

Summary

Prof. CF Heyns received the Sanofi Aventis prize for urological excellence and outstanding service in furthering the practice of Urology in South Africa from the Urological Association of South Africa. Prof. Heyns was elected as vice-president of the Urological Association of South Africa and also serves as president of the College of Urologists of South Africa and vice-president of the International Society of Urology.

Dr André van der Merwe is still rendering an outstanding service in respect of kidney transplants through the establishment of laparoscopic living-donor nephrectomy, where the donor's kidney is removed through a minimally invasive procedure. He also did pioneering work with the new retroperitoneal technique – laparoendoscopic single-site surgery (LESS) – where the donor's kidney is removed through a single small incision under the bikini line. This work was approved for a presentation at the conference of the American Urological Association and was also approved for publication in the esteemed American journal Urology.

Dr Amir Zarrabi received the Discovery Foundation Academic Fellowship Award. It is a particularly coveted grant that is only awarded to a select few young specialist in the public sector, giving them a substantial amount of funding for research. Dr Kenny du Toit received the Bard prize for the best poster at the congress of the Urological Association of South Africa in October 2010.

Resources

Posts (full-time)	Number	Filled
Professor principal Specialist	1	1
Specialist	3	3
Registrar	6	6
Medical officer	2	2

Number of beds	32
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Output

Out-patients

C6A West	5 161
C6A East	6 048
Total	11 209

Specialist clinics

Oncology	1 661
Andrology	452
Stricture	511
Urodynamics	243
Prostate biopsies	317
Total	3 189

Admissions

Ward D6	1 275
Ward D4	38
Ward G4 (Paediatrics)	170
Total	1 483

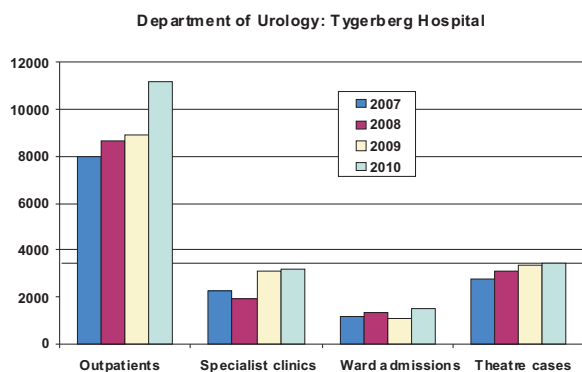
Theatre procedures

Head theatre	837
Cystoscopy theatre	2323
Day theatre	236
Shock-wave lithotripsy	64
Total	3 460

Comment on output

The service load of the Department of Urology is still increasing progressively, especially the amount of outpatients. In the period 2007 to 2010 the number of outpatients grew from 7 975 to 11 209 (41% increase), while the number of ward admissions of 2010 increased from 1 210 to 1 438 (23% increase) and the number of theatre cases from 2 809 to 3 460 (23% increase). Most of these cases were in the outpatient theatres. Attached is a graph indicating the service load increase.

Surgical Sciences



There are various possible reasons for the increased service load. One of these is the fact that the day hospitals refuse to dispense chronic medications for longer than six months, so patients are repeatedly referred back to Tygerberg Hospital just for the prescription to be repeated. There are also no or only very limited urological services at secondary hospitals, so patients are simply referred to Tygerberg. Notwithstanding the normal increase in population numbers, there is also a proportional increase in older people, the age group that develops urological problems the most frequently. There is moreover an increasing amount of people that come to the Western Cape due to inadequate tertiary services in the Eastern Cape, giving a local address, while an increasing number of refugees from Somalia, Zimbabwe and the Congo are treated here. Due to the limited amount of beds available to Urology and especially the limited main theatres time, most patients are managed through the cystoscopy and day theatres.

Research

- Journal articles: 10
- Papers at international conferences: 13
- Papers at national conferences: 18
- Chapters in books: 1

Prof. Heyns was co-editor of the book *International Consultation on Urogenital Infections* published by the European Association of Urology.

Department of Ophthalmology

Prof. David Meyer

Summary

This annual report is dedicated to the committed staff of the Ophthalmology Division who under challenging conditions rendered an exceptional service to the patients in our drainage area and beyond.

Thanks to the occupation specific remuneration system for theatre nursing staff we have not experienced the acute shortages as had been the case in the recent past. Our outpatient staff shortage is still acute. During 2010, 25 327 patients attended our outpatient department, making it the busiest surgical clinic in the hospital – 2 191 patients more than the previous year (a 9.5% increase).

Patient admissions to our wards (D7, D4 and G4) totalled 2 918 – a similar number to 2009 (2 831). Surgical cases totalled 2 176 operations (2 074 in 2009) divided into 216 day surgery cases, 1 070 (734 in 2009) cataract operations. During outreach efforts 100 additional operations were performed.

All these service activities took place in parallel with a very active academic and research programme, that is clearly reflected in the full research report of Stellenbosch University. A very big thank you is therefore in order to every single dedicated staff member, especially the clinical staff.

Resources

Posts (full-time)	Number	Filled
Professor	1	1
Principal specialist	1	1
Specialist	3	2
Registrar	10	9
Medical officer	3	3

Posts (sessional)

Specialists	1	6
Part time posts	1	5/8
Full time equivalents	5	5

Number of beds	D7=31 G4=4	35
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Output

OPD visits	25 327
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Specialist clinics

Medical Retina

Surgical Retina

Paediatric Ophthalmology

Oculoplastics

Refraction (960 refractions performed and 816 sets of spectacles dispensed)

Admissions (D7, D4 and G4)	2 918
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Surgical Sciences

Theatre procedures

General ophthalmic	1 070
Day surgery	216
Cataract	890
Total	2 176

Laser procedures

Yag laser	297
Argon laser	562
Diode laser	60 (app)
Total	909

Comment on output

It is unfortunately still a fact that most of the eye care in the Western Cape is rendered at the three academic complexes in the province. The Ophthalmology Outpatient Clinic is the busiest surgical outpatient clinic in the hospital with 25 327 patients served in 2010. This represents an increase of 9.5% from 2009. Cataract surgeries were reduced from 1 059 in 2009 to 890 in 2010 (a 16% reduction) – reflecting the fact that more tertiary and trauma cases are referred to Tygerberg Hospital than was previously the norm, displacing the limited operating time available for elective cataract cases.

One of the important reasons why the number of cataract operations in the academic hospital has reduced, is the excellent high volume cataract surgery service now available at the Eerste River Hospital as well as the services of an ophthalmologist available since late 2009 in Worcester. The central academic hospitals cannot continue to render the required services to an ever-increasing population, hence the establishment of secondary eye-care units outside acceptable long-term solution for responsible eye care to the communities.

The province furthermore needs to reconsider creating a single tertiary-dedicated eye hospital to serve the whole province and continue supporting the two main teaching complexes.

Community outreach programmes

Two registrars were sent to a national workshop on the prevention of blindness, sponsored by the Community Eye Health Institute, University of Cape Town, where they participated in designing treatment and blindness prevention strategies for the province.

South African outreach: The division maximises its outreach opportunities in partnership with NGO's such as

the Bureau for the Prevention of Blindness, the SA Air Ambulance Service and Lion's International. Our clinical and surgical services render invaluable assistance in under-serviced areas and small towns in the Western and Northern Cape whenever needed.

African outreach

Namibia: Our neighbouring country Namibia was visited on three occasions during 2010 by Prof. Meyer. He then performed complex ophthalmic surgery on special cases at the state hospital in Windhoek as a gesture of goodwill. During these visits, academic activities include surgical and clinical skills transfer to local surgeons as well as full academic evening sessions with the CME activity presented by Prof. D Meyer. Approximately 45 subspecialty operations were performed and 160 patients consulted in Windhoek during these one-week visits.

Zimbabwe: From 6 to 8 October 2010, Prof. D Meyer and Dr N Freeman visited Zimbabwe by invitation from the Zimbabwe Ophthalmological Society and presented a very successful post-graduate training course on Paediatric Ophthalmology.

National co-operation and partnerships

Academically and clinically the divisions of Ophthalmology at Groote Schuur, Red Cross and Tygerberg Academic Hospitals cooperate in combined meetings on a quarterly basis via the Ophthalmological Society of South Africa and by exchanging lectures. A positive and cordial relationship exists between the two institutions.

The collaborative research initiative in retinal diseases continues between this division and the Department of Human Genetics at the University of Cape Town.

This division trains one registrar at a time for the National Defence Force (NDF) at two military hospitals. This collaboration has existed successfully for almost 20 years, but the NDF has elected not to replace the registrar who qualified in 2009, but have undertaken to do so again in 2011.

The first registrar arrived in 2008 fully sponsored by the Northern Cape. After completion of the training, the registrar will return to his home province and render dearly needed specialist services there.

International co-operation and partnerships

The first supernumery registrar from an African country

Surgical Sciences

arrived in April 2008 fully sponsored by the Namibian Department of Health and Social Welfare. The training of this candidate continued successfully in 2010 and he will upon qualification return in 2012 as a fully qualified ophthalmologist to serve his country.

Co-operation with the private sector

The Cape Eye Hospital, as part of the post-graduate accredited teaching platform, renders academic as well as technical support with instrumentation and training (e.g. excimer laser refractive surgery and corneal transplant surgery) not readily available to registrars at Tygerberg Academic Hospital.

Research

- Number of publications: 8
- Text books and contributions to text books: 1
- Schoeman JF, Andronikou, Stefan C, Freeman N, van Toorn R. *Tuberculous Meningitis-related Optic Neuritis: Recovery of Vision with Thalidomide 1 4 Consecutive Cases*. Journal of Child Neurology 2010; 25(7): 822 - 828.
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- Meyer D. *Glaucoma*. MIMS drug therapy review 2010/2011 2010; 2: 277 – 283.
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Teaching and training

Undergraduate training

A need for additional clinical training and curriculum development for the MB, ChB programme in Ophthalmology was identified. Because the current staff are overworked and unable to devote sufficient time to clinical training and curriculum development, the division obtained additional funding from the Department of Education to enable us to appoint two part-time specialists as lecturers to provide additional training in examination methods and to refine the curriculum in Ophthalmology. We trust that these initiatives will result in an improved and updated curriculum available for use by academic staff. We also trust that the level of confidence of medical students in their ability to perform an eye examination will improve as well as their knowledge base and clinical skills ophthalmology.

Postgraduate training

A similar need to postgraduate training in vitreo-retinal surgery was identified and this need was also met by appointing a specialist lecturer to assist MMed students on a sessional basis with the aim to enhance patient care and improve surgical outcomes.

Dentistry

Faculty of Dentistry

Prof. Y Osman

Summary

The Faculty of Dentistry is a world-class oral-health centre committed to the promotion of oral health through the excellence of its learning, service and research. A product of the transformation process in South Africa, this faculty is firmly rooted in the struggle for the social, political and economic well-being of the South African community.

The faculty plays a prominent role in the advancement of oral health in South Africa and in Africa in association with the WHO, by engaging with the broader social, political and economic determinants of oral health, and through the training of well-rounded professionals with a holistic understanding of development, health and oral health care.

The ethos of the faculty is one that actively promotes participation, democracy, equity, transparency, innovation, good governance, and a deep respect for the rights and well-being of all.

Resources

Academic staff on the UWC establishment

Posts (full-time)	Number	Filled
Chief Specialist	3	2
Principal Specialist	12	12
Senior Specialist	5	4 5/8
Specialist	3	3

Posts (sessional)

Specialists	11	11
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Academic staff on the PGWC establishment

Chief Specialist	3	3
Senior Specialist	3	3
Specialist	0	0
Registrar	23	23
Medical Officer	1	1

Posts (sessional)

Specialist	8	235 hours
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Output

OPD Visits		132 126
Speciality Clinics		4659
Theatre procedures		1323



Infrastructural development

Upgrade of facilities

The clinical facilities at both sites are suffering from overuse and need maintenance and replacement regularly at a consequential high cost. The Provincial Government of the Western Cape provides limited funds for recapitalisation.

DoE funding was used to create a library facility in Tygerberg. Currently we are still using library facilities from Stellenbosch University's Faculty of Health Sciences, but on a smaller scale.

At Mitchells Plain, DoE funding was used to upgrade teaching facilities in the form of a simulated laboratory. At Tygerberg, the facilities can currently not be upgraded or extended until the transfer of the building to UWC is achieved. The failure to transfer the building could have serious repercussions because maintenance from SU is minimal.

There is no single large venue to adequately accommodate the whole faculty for assemblies, research days, oath taking and the hosting of conferences.

There needs to be adequate upgrading of IT equipment for staff. An audit revealed outdated hardware that needs to be replaced immediately. There has been an upgrade of the students' IT laboratory in Mitchells Plain.

Community outreach programmes

- Scottsdene Evening Clinics on a Tuesday and Thursday;
- Bottelary School visit on a Tuesday;
- Visits to Paarl School; and
- Weekend Outreach programmes – Vredenburg.

Dentistry

International co-operation and partnerships

Collaborating Universities:

- *Eastman Dental, University College, London*
Joint programme in Sedation and Pain Control;
- *King's College, University of London*
Global Task Force in Children's Oral Health;
- *Oslo University*
Postgraduate exchange programme;
Postgraduate training programme;
SALUD Patient Information Project;
Combined PhD programme;
- *Kansas Missouri University*
Staff exchange programme;
- *Michigan University*
Health Open Educational Resources project;
- *University of Göteborg, Faculty of Dentistry*
Student and staff exchange programme at Philani Dental clinic at Site C Khayelitsha for research and service delivery activities; and
- *Aga Khan University – Nairobi*
Joint programme in Sedation and Pain Control.

Research

Publications

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- Rowland M, Naidoo S, Abdulkader R, Moraru R, Huang GB, Pau A. *Perceptions of intimidation and bullying in dental schools: a multinational study*. International Dental Journal 2010, 60: 106-12.
- Moodley K, Naidoo S. *Ethics in dental practice: an overview – part 2*. SADJ 2010, 65(92): 134 -135.
- Naidoo S. *Dental ethics case 1: What should I do when I suspect a child patient is being abused?* SADJ 2010 May, 65(4): 184.
- Naidoo S. *Dental ethics case 2. What are your responsibilities to patients who may have an eating disorder?* SADJ 2010 Jun, 65(5): 220.
- Naidoo S. *Dental ethics case3: Informed consent: risks and benefits of treatment*. SADJ 2010 Jul, 65(6): 270-1.
- Van As AB, Dwyer J, Naidoo S. *Dog bites to the face of children*. South African Journal of Epidemiology and Infection 2010, 25(2): 36-38.
- Naidoo S, Doyal L. *Dental ethics case 4: Good communication is key: how much should I tell a patient when things go wrong?* SADJ 2010 Aug, 65(7): 328-9.
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- Naidoo S, Doyal L. *Dental ethics case 5: Stalled payments for orthodontic treatments balancing responsibilities*. SADJ 2010 Oct, 65(9): 434-5.
- Reddy M, Naidoo S. *A review of the epidemiology and update of infection control recommendations for Tuberculosis*. SADJ 2010 Oct, 65(9): 462-9.
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- McMillan WJ. *Teaching for clinical reasoning – helping students make the conceptual links*. Medical Teacher 2010, 32: e436-e442.
- McMillan WJ. *“Your thrust is to understand” – how academically successful students learn*. Teaching in higher education 2010 Feb, 15(1): 1-13.
- McMillan WJ. *Moving beyond description: Research that helps improve teaching and learning*. AJHPE 2010 Aug, 2(1).
- Hudson APG, Harris AMP, Mohammed N. 2009. *Maxillary canine management in the pre-adolescent: A guideline for general practitioners*. SADJ 2010 Sept, 65(8): 366-70.
- Nortjé CJ. *General practitioner's radiology case 80*. SADJ 2010 Mar, 65(2): 75.
- Nortjé CJ. *General practitioner's radiology case 81*. SADJ 2010 Apr, 65(3): 126.
- Nortjé CJ. *General practitioner's radiology case 82*. SADJ 2010 May, 65(4): 178.
- Nortjé CJ. *General practitioner's radiology case 83*. SADJ 2010 June, 65(5): 228.
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- Nortjé CJ. *General practitioner's radiology case 85*. SADJ 2010 Aug, 65(7): 325.
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- Gordon NA, Rayner CA. *Smoking practices of dental and oral health students at the University of the Western Cape*. SADJ 2010 Aug, 65(7): 304-8.
- Patton L, Ranganathan K, Naidoo S. *Oral Lesions, HIV-Phenotypes, and Management of HIV-Related Disease*. Oral Disease 2010.
- Flint SR, Croser D, Reznik D, Glick M, Naidoo S, Coogan M. *Best management of HIV disease and infection control protocols to eliminate risk in the dental setting*. Oral Disease 2010.
- Naidoo S, Berthold P. *Inexpensive and effective*

Dentistry

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 - Reed A, Thomas J, Roelofse JA et al. *Guidelines for the safe use of procedural sedation and analgesia for diagnostic and therapeutic procedures in children.* SAJAA 2010, 16(6): 1-37.
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 - Allie A, Dreyer WP, de Waal J. *Oral medicine case book 25.* SADJ 2010 April, 65(3): 130.
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 - Peck MT, Padayachee S, Dreyer WP, de Waal J. *Oral medicine case book 30.* SADJ 2010 September, 65(8): 380.
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Teaching and training

Student enrolment

Course	Total
BOH & OH	74
BChD	426
MSc Dent	32
MChD	24
PDD	170
PhD	5
Total	731

Highlights

Mr Jonathan du Toit, undergraduate student supervised by Ms K Crombie, was the winner of the SADA/Dentsply Student Clinician competition and was awarded a all-expenses-paid trip to the USA.

Mr Fadi Titinchi was the runner-up in the competition. UWC therefore secured both 1st and 2nd positions in this national competition.

Prof. Y Osman was awarded the Charles Valcke Award 2010 for the Poster Presentation in Dental Materials at the IADR in Pretoria.

Clinical Engineering

Department of Clinical Engineering

Mr J du Preez

Summary

During the past year some changes came about and some of them have and will have a major impact on the Department of Clinical Engineering. One of the changes that has a major impact on the clinical engineering occupation is the new HR requirements set out in staff replacement and promotion as per the implementation of the OSD. The requirement calls for registration with the Engineering Council of South Africa (ECSA). And current registration criteria makes it impossible for qualified technicians in the Department of Health to register while, but without registration, current staff cannot be promoted into higher positions. This already lead to resignations in this occupation and unless changed will undoubtedly lead to more. To date, no registered applicants with registration have applied for positions advertised. Most positions have been advertised more than once with the same negative result. The meaning of this is unfortunately clear.

Clinical Engineering was classed as a scarce skill a number of years ago, but no scarce skill allowance was ever paid. This lead to a steady decline of personnel numbers in this occupation within the Department of Health. The OSD implementation also meant the loss of



all supervisors as they are no longer paid as such. Skills transfer was made a thing of the past as the new pay scales looked at increasing the entry-level pay scale while leaving the rest basically as they were.

According to a work study done in 2003 there should be 30 technicians in Clinical Engineering at Tygerberg Hospital. Currently we have 14 filled posts. A ripple effect of this and the stated problem above will mean a rise in outsourcing, that already became apparent this year.

Statistics

The statistics for the Department of Clinical Engineering reflect the following:

09 to 10		10 to 11		
Repairs booked in	Repairs booked out	Repairs booked in	Repairs booked out	
2 308	2 231	2 281	2 177	1 April to 30 June
2 213	2 134	2 711	2 609	1 July to 30 Sept
2 356	2 231	2 293	2 154	1 October to 31 December
2 323	2 136	2 046	1 830	1 January to 31 March
9 200	8 732	9 331	8 770	Total

Clinical Engineering

	09 to 10		10 to 11	
Average number of repairs Technician	727.6666667		730.8333333	
Average time per repair requisition (in Hours) (12Tech)	1.52		0.31	
Number of outsourced repairs	911	11.65%	1 464	15.70%
Number of in-house repairs	7 821	88.35%	8 155	84.3%
Reported negligent damages	90		160	43.75%
The total monetary value of the damages for the financial year 01/04/2010 - 31/03/2011	R1 363 304.35			
Number of new Equipment purchases	1 029		1 130	109.82%

From the above the following is clear:

Repair requests increased slightly.

The number of repairs requested via repair requisitions is 9331 of which 8770 were completed. This means that a total of 551 (6%) repair requests were not finalised at the end of the financial year. The reason for this ranges from companies that still need to return or complete the repairs, to the workshop still waiting on spares ordered. The procurement process plays a major role in the time taken with repairs when spares have to be ordered. This process can delay the repair process by up to two months or longer. The spares have to be advertised on Trade World. Responses are checked and adjusted and then the spares are ordered.

Average number of repairs per technician	731
Increase of outsourced repairs	4%
Total outsourced repairs	1 464
Reported cases of damaged equipment	160
Value of damaged equipment	R1 363 300(+/-)

Due to strict measures implemented, more damages were reported this year. This action led to a better understanding of the value of damages experienced within Tygerberg Hospital though it is not a 100% true reflection. A damage report is issued when a repair is requested for equipment and is it clear that it was not normal wear and tear.

Due to a number of bed-quality equipment that found its way into the hospital, the Department of Clinical Engineering requested that it be involved in all purchases of equipment. The downside of this request was the

amount of specifications that the clinical engineering department (CED) now has to produce. Due to staffing problems, it is not always possible. For these cases generic specifications are supplied. At present, CED submits specifications for equipment even on Trade World tenders that range from theatre instruments such as scissors to complex specifications of electronic medical equipment.

Approximately R27,5 million was spent on new equipment in the past financial year. CED was involved with most of the specifications. Therefore more than 140 specifications were drafted.

CED is still tracking all equipment with regards to repairs and service costs on an in-house MIS system. All equipment issued with a unique number is thus tracked. The unique number is issued for various reasons. One reason is because so many manufacturers are represented in this hospital, different equipment ends up with the same serial number. The MIS system is access based and needs to be replaced soon.

Staff establishment

- Mr J du Preez (Head of Department)
- Ms M Rosouw (Divisional manager)
- Ms R Elsegood (Senior Administrative clerk)

Unit managers: workshops

- Mr J Carstens (Anaesthetic/respiration)
- Mr J Rautenbach (Communications)
- Ms E Pieters (Electronics)
- Mr K Vollmer (Instruments)
- Mr H Theart (Optical)
- Mr J Mould (X-ray/imaging)

Clinical Engineering

Medical Equipment

Some of the big ticket items such as a gamma camera was bought and installed this year. The funding for this came from the MTS Fund. This addressed a big need at the Nuclear Diagnostic Department.

Equipment acquisitions from the internal funding

In the financial year 2009/2010 the institution received much-needed capital equipment to address some needs as far as clinical equipment are concerned. This equipment ranged from small instruments to X-ray machines, monitors, theatre tables, haemodialysis machines, scopes, diathermies, microscopes, etc. to basically cover all the different departments within this hospital. More than 280 items were ordered in this period.

Equipment requests

The requests for clinical equipment from the different departments equalled approximately R170 million and management had to trim it down to fit within the budget allocated to Tygerberg Hospital. This indicated the need for new equipment within this hospital. Lack of requests was also picked up meaning that no requests were received requests. Clinical engineering was involved in the decision-making process and information about equipment regarding technical support, replacement value, replacement schedules etc. was shared with management to help in the final allocation.

The department's goals

The Clinical Engineering section is striving to provide the institution with a professional, safe, cost-effective and efficient clinical engineering support service with the limited resources available.

Human Nutrition

Human Nutrition

Prof. Renee Blaauw

Summary

The Division of Human Nutrition consists of three components:

Service delivery

Tygerberg Academic Hospital is divided into 3 firms in order to cover all aspects of nutritional care and to render a comprehensive nutrition service to all areas in the hospital. They consist of:

- *Firm 1*
Burns, Cardiology, Surgery, Diabetes Mellitus and Endocrinology, Internal Medicine, Orthopaedics, Dermatology, Gynaecology, Paediatrics, Ophthalmology, Neurosurgery, Enteral Nutrition, and Eating Disorders.
- *Firm 2*
Nephrology, Surgical Intensive Care Unit, Respiratory Intensive Care Unit, Oncology, Paediatrics (all aspects), Enteral Nutrition, and Psychiatry.
- *TPN team*
In April 2010 a TPN team was started consisting of a nutrition support sister, 3 dietitians and a medical practitioner, assisting with the TPN prescriptions. Support is provided by a pharmacist regarding the TPN orders. In January 2011 a Paediatric TPN team was established, consisting of 1 paediatrician and 2 dietitians with assistance from a pharmacist. The team was established to better manage the increased demand for paediatric TPNs.

Food services

Menu planning for normal and special diets, quantity and quality control, monitoring of the Meal ordering and diet system (MODS), Nutrition service in one private ward.

Clinics

- General on call for all clinics in the hospital for both adults and paediatrics;
- Specialised clinics: Eating disorders, Nephrology, Diabetic, Abdominal Surgery and Oncology clinics;
- Cystic fibrosis and biliary atresia consultations at Paediatric outpatients;
- Dietetics clinics (C7C): 2 x per week; and
- HIV clinic (for adults and paediatric).



Tube-feed room:

This is a highly specialised area where all tube-feed and supplementary drinks are hygienically prepared and distributed. Staff members consist of six specially trained food service workers. Our department is fully responsible for the administrative and human resource management of MODS 2 (ordering system for tube feeds).

Training and research

Dietetics comprises three fields of speciality: clinical nutrition, food-service management and community nutrition.

This is an integral part of undergraduate training as well as a focus area for the division, offering the unique distance-learning Masters in Nutrition. The African Micronutrient Research Group (AMRG) renders analytical services, extending as far as sub-Saharan Africa. The AMRG was successfully re-assessed by SANAS in 2010 and ISO/IEC 17025 accreditation was granted for a continued five year period.

Resources

Academic staff

Posts (full-time)	Number	Filled
Professor	2	2
Associate Professor	1	1
Senior Lecturer	3	3
Lecturer	4	4
Junior Lecturer	1	1
Administrative	3	3
Laboratory technicians*	3	3
Researcher	1	1

Human Nutrition

<i>NICUS posts*</i>	Number	Filled
Manager	1	1
Dietician	1	1

Posts (Sessional – how many hours per week)

Part-time posts (5/8)	2	2
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*Locum posts**

Full-time equivalents

*NICUS posts**

Dietician (3/8)	1	1
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*Private funds

Posts in Tygerberg Academic Hospital: Dietetic and other

Assistant Director	1	1
Principal Dietician	5	4
Senior Dietician	10	9
Comm serve Dietician	1	1
Locum posts	0	1
Chief Profession Nurse	1	1
Typist	1	1
Food Services Supervisor	1	1
Food Service Aid	5	4

Output

In-patients and Out-patients

Once-off visits	2 068 (*191)
Patients seen more than once	14 897 (*1928)
Total visits	46 871 (*2876)
Outpatients – C7C clinic (new)	89 (*22)
Outpatients – C7C clinic (follow-ups)	316 (*10)
On-call (Adults)	720
On-call (Paediatrics)	556
HIV clinic: Adults	118
HIV clinic: Paediatric	114
Informal consultations	113
Ward rounds	713
Tube feeds	4 902
Supplementary drinks	9 535
Laboratory: Patients	37
Analysis	49
Project patients	837
Analysis	279
Food services: Special diet	139 204
Full diet	241 501

<i>TPN</i>	
New Referrals	97
Consultations (Medical)	518
Consultations (Nursing)	3 100

<i>Tube feeds</i>	
New referrals	2 033
Nursing consultations	9 933
Pegs patients: New	198
Nursing consultations	1 766
Gastrostomy patients	142

Nutrition Information Centre (NICUS): Advisory

Correspondence	4 768
Telephonic	490

Educational

Radio talks	24
Lay publications	30
Talks	9
Television	2
Training workshops	7

Community nutrition

Individual Consultations	1 765
Group activities	1 789

Campus health services & SU Sport performance Institute (SUSPI) (New consultations)	42
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Comment on output

The above statistics includes the service provided by the fourth-year Dietetics students' contact with patients, which is indicated with an asterisk (*).

Infrastructural development

In order to position the AMRG as a support centre for the Food Security Initiative (FSI) and other nutritional research, analytical equipment was replaced and upgraded. In this regard the AMRG replaced one HPLC with an UHPLC and upgraded the control software for another HPLC. Equipment was further extended with a new analytical balance, SPE sample preparation station, and an infrared spectrophotometer (ATR-FTIR).

1. Dionex UHPLC;
2. Bruker Alpha-T FTIR;
3. Calliper Rapid Trace SPE workstation; and
4. Mettler Toledo semi-micro analytical balance.

Human Nutrition

Community outreach programmes

- Food Security project – protocol was completed;
- Improving especially women's health – one of the main outcomes of campus health service, where we provide a dietetic service;
- Campus health services: A dietician from our division consults with students and personnel at campus health services one day every two weeks;
- SUSPI: A dietician from our division consults with athletes at SUSPI one day every two weeks;
- Fourth-year Dietetics students assisted with training of staff at two step-down facilities (St Joseph's and Sarah Fox) on the correct implementation of the Western Cape Policy for Food Service Units;
- Final year dietetics student support: The Stikland Hospital Day Centre with health promotion activities to patients; and
- MDG advocacy by doing MDG promotion and education at schools.

National partnerships and co-operation

Lecturers provide input in various areas:

- Input regarding the National Tender Document (RT9/11);
- Input in the Provincial Food Service Policy;
- Input in the National Guidelines: Paediatric Diabetes Mellitus;
- Input in a situation analysis of usage of specialised nutritional products in tertiary and regional hospitals in the Western Cape; and
- Input in Enteral Feeding Guidelines for Western Cape Hospitals.

Co-operation with the private sector

- Collaboration with industry through our Glycaemic Index (GI) Laboratory. GI testing is performed on foods upon request from industry.

International partnerships and co-operation

Collaboration with the University of Oslo, Norway: NOMA Project (developing and delivering cooperative regional Master Programmes in "Nutrition, Human Rights and Governance"). Collaborative project between Stellenbosch University, the University of Oslo, Akershus University College, Norway, Makherere University, Uganda, and Kyambogo University, Uganda.

Research

Journal Articles (subsidised): 11 (Division)

Journal Articles (non-subsidised): 3 (Division)

Invited reviewer for the following scientific journals:

- Development Southern Africa Journal;
- Public Health Nutrition;
- Current Nutrition and Food Science journal;
- South African Journal of Clinical Nutrition; and
- South African Family Practitioner.

Two senior lectures and one professor received the Rector's award for Excellence in Research.

Teaching and training

4 th Year Dietetics students	24
3 rd Year Dietetics students	19
2 nd Year Dietetics students	28
1 st Year Dietetics students	36

Elective students 2010

Belgium (Sint-Lieven & Kempen University)	4
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Postgraduate

M Nutrition (Research)	10
M Nutrition (Structured)	78
PhD (Nutritional Sciences)	9

A senior lecturer and one junior lecturer received the Rector's Award for Excellence in Teaching.

Master's completed

- Bruk L. *Aspects of body image perception of preadolescent girls in North-eastern Johannesburg, South Africa*. M Nutrition, 2010. 179 pp. Supervisor: Labadarios D. Co-Supervisor: Herselman MG.
- Davies H. *An investigation into the most appropriate prediction method for birth outcomes and maternal morbidity, and the influence of socioeconomic status in a group of pregnant women in Khayelitsha, South Africa*. M Nutrition, 2010. 271 pp. Supervisor: Visser J. Co-Supervisor: Thomlinson M.
- Rademeyer CE. *The knowledge, attitude and practice of health and skincare therapists at accredited clinics around South Africa with regard to nutrition*. M Nutrition, 2010. 128 pp. Supervisor: Marais D. Co-Supervisor: Visser J.
- Van Niekerk HS. *The effect of a low volume pharmaconutrition supplement with antioxidants and glutamine (Intestamin®) administration to critically ill patients on prevalence of infection, ventilation requirements and duration of Intensive care unit stay. A Pilot Study*. M Nutrition, 2010. 146 pp. Supervisor: Labadarios D. Co-Supervisor: Visser J.

Human Nutrition

- Van Zyl E. *Glutamine supplementation in oncology: A systematic review*. M Nutrition, 2010. 357 pp. Supervisor: Labadarios D. Co-Supervisor: Visser J.

Highlights

Service to committees

Staff members are involved in the following capacities:

- Member of the INP Committee (Integrated Nutrition Programme);
- Member of the Hospital Dieticians working group (PGWC);
- Member of Core Committee for Allied Health Professions at Tygerberg Hospital;
- Member of Breastfeeding committee of TBH;
- Member of Provincial Food Service Management Menus task team;
- Member of Provincial Ration Scales task team;
- Member of Provincial NTP Policy task team;
- Member of Interprofessional Learning and Teaching work group;
- Member of Graduate Attribute task team;
- Member of organising committee for the course in Clinical Supervision (the Clinical Skills Lab);
- Member of the NAC (Nutrition advisory committee);
- Member of the advisory committee for Maties Community Service (2006 to current);
- Member of the recruitment committee for the division, in order to improve the diversity profile of undergraduate Dietetics students (2005 to current);
- Member of the GESOG committee (2009 to current);
- SASPEN (South African Society for Parenteral and Enteral Nutrition) council: president-elect (vice-president) and immediate past president;
- SASPEN congress scientific committee: 10th Congress, 21 – 23 September 2011) Diep in die Berg conference centre, Pretoria);
- SAJCN (South Africa Journal of Clinical Nutrition) editorial assistant;
- SAJCN management & editorial board;
- Member of editorial boards (the Open Nutrition Journal, Current Nutrition and Food Science, Bentheim Science, USA (2007 to present);
- Elected deputy editor: Nutrition, Science Direct, USA (2008 to present);
- Member of editorial board, Journal of Renal Nutrition, Kidney Foundation, USA (1999 to present);
- Referees for various peer-reviewed journals; and
- Invited member to the Provincial Technical Working Group: Infant and Child Nutrition. This is an advisory subcommittee to the Department of Health's provincial co-ordinating committee for Child Health.

Presentations/Workshops

Invited to present a lecture to a group of Global Health students from the Northwestern University, Chicago, USA on Global Health and Nutrition (2009 and 2010)

- *Legally marketing the dietetic profession*. Prof. R Blaauw;
- *The dietary management of complications of Diabetes Mellitus*. Prof. R Blaauw;
- *Pyridoxal 5 phosphate plasma concentrations in children receiving tuberculosis chemotherapy including isoniazid*. Prof. Herselman;
- *Relationship between body mass index and mortality in adults on maintenance haemodialysis: a systematic review*. Prof. Herselman;
- *Relationship between serum protein and mortality in adults on long-term haemodialysis: Exhaustive review and meta-analysis*. Prof. Herselman;
- *The effect of caffeine supplementation on Olympic distance tri-athletes and triathlon performance in the Western Cape region*. S Potgieter; and
- *Strengthening public health nutrition research and training capacities in West Africa: Report of a planning workshop convened in Dakar, Senegal*. Prof. M McLachlan.

Poster presentations: Congresses

- Potgieter S. *Anthropometry, an update*. ADSA mini Symposium 2010. Kelvin Grove, Cape Town;
- Potgieter S. *Sport supplements and Ergogenic aids*. Bike, Marathon, Training, Stellenbosch, South Africa, 2010; and
- Potgieter S. *Sport supplements and Ergogenic aids*. Maties rugby, Stellenbosch University Sport Performance Institute, 2010.

Publications

Journal Articles (subsidised)

- Blaauw R. *The use of specialised enteral formulae for patients with diabetes mellitus*. **South African Journal of Clinical Nutrition** 2010; 23(1): S55-S57.
- Bosman L, Herselman MG, Kruger HS, Labadarios D. *Secondary Analysis of Anthropometric Data from a South African National Food Consumption Survey, Using Different Growth Reference Standards*. **Maternal and Child Health Journal** 2010; Sep [Epub. ahead of print]: 1 – 9.
- Brown KH, Mclachlan M, Cardoso P, Tchibindat F, Baker SK. *Strengthening public health nutrition research and training capacities in West Africa: Report of a planning workshop convened in Dakar, Senegal, 26 -28 March 2009*. **Global Public Health**

Human Nutrition

- 2010; 5(6): S1 - S19.
- Burger H-M, Lombard MJ, Shephard GS, Rheeder JR, Van der Westhuizen L, Gelderblom WCA. *Dietary fumonisin exposure in a rural population of South Africa. Food and Chemical Toxicology* 2010; 48: 2103–2108.
 - Cilliers K, Labadarios D, Schaaf HS, Willemse M, Maritz JS, Werely CJ, Hussey G, Donald PR. *Pyridoxal-5 phosphate plasma concentrations in children receiving tuberculosis chemotherapy including isoniazid. Acta Paediatrica* 2010; 99: 705–710.
 - Herselman MG, Esau N, Kruger J-M, Labadarios D, Moosa MR. *Relationship between body mass index and mortality in adults on maintenance haemodialysis: a systematic review. Journal of Renal Nutrition* 2010; 20(5): 281–292.
 - Herselman MG, Esau N, Kruger J-M, Labadarios D, Moosa MR. *Relationship between serum protein and mortality in adults on long-term haemodialysis: Exhaustive review. Nutrition* 2010; 26: 10–32.
 - Marais D, Koornhof HE, Du Plessis LM, Naude CE, Smit K, Hertzog E, Treurnicht T, Alexander M, Cruywagen L, Kosaber I. *Breastfeeding policies and practices in health care facilities in the Western Cape Province, South Africa. South African Journal of Clinical Nutrition* 2010; 23(1): 40–45.
 - Schübl C. *Management of severe malnutrition. South African Journal of Clinical Nutrition* 2010; 23(1): S22–S24.
 - Van Zyl MK, Steyn NP, Marais ML. *Characteristics and factors influencing fast food intake of young adult consumers in Johannesburg, South Africa. South African Journal of Clinical Nutrition* 2010; 23(3): 124–130.
 - Visser J. *Micronutrients: do small things matter? South African Journal of Clinical Nutrition* 2010; 23(1): S58–S61.

Journal articles (non-subsidised)

- Lombard L, De Beer H, Du Plessis LM, Visser J, Reuter H. *Knowledge, attitudes, beliefs and practices of rheumatologists in South Africa, with regard to their patients' diet, nutritional supplements and lifestyle. South African Rheumatology Journal* 2010; 2(2): 8–19.
- Lombard MJ. *NICUS reviews the current dietary guidelines and recommendations for the prevention of gout. The Specialist Forum* 2010; September: 60–66.
- Weidemann A, Siebert TI, Blaauw R. *The possible*

role of fructose-overload in the aetiology and outcome of polycystic ovarian syndrome (PCOS) in obese women. Obstetrics & Gynaecology Forum 2010; 20: 29–32.

Abstracts

- Du Plessis LM, Koornhof HE, Daniels LC, Sowden M, Adams R. *The Value and importance of utilising Health Promoting Schools as a service learning platform for undergraduate dietetic students. South African Journal of Clinical Nutrition* 2010; 23 (2).
- Najaar, Marais D, Moodley K. *Knowledge, beliefs and practice of Dieticians and Doctors in SA on the use of the internet in Healthcare. SA J Clin Nutr* 2010; 23 (3) S7.
- Blaauw R. *The use of specialised enteral formulae for patients with diabetes mellitus. SA J Clin Nutr* 2010; 23(1): S55–S57.

Research presentations:

- Daniels L, Jackson D. *Knowledge, Attitude and Practices of Nursing Staff regarding the Baby Friendly Hospital initiative in Non Accredited Obstetric units in Cape Town. 23rd Biennial Congress for Nutrition Society and 11th Biennial Congress for Dietetics, Durban. 20–22 September 2010.*
- Du Plessis LM, Koornhof HE, Daniels LC, Sowden M, Adams R. *The value and importance of utilising Health Promoting Schools as a service learning platform for undergraduate dietetic students. Biennial Nutrition Congress, Durban, September 2010.*
- Du Plessis LM (on behalf of the management team). *A Community Based Nutrition Security Project. Division of Human Nutrition's Food Security Initiative. Rural Health Research Day. Graham and Rhona Beck Skills Centre, Robertson. 26 November 2010.*
- Visser J. *Micronutrients: do small things matter? SASPEN Congress, Spier, South Africa, March 2010.*

Awards

- LM du Plessis received the ADSA/SASA Award for Excellence in Nutrition Education, presented at the Biennial Nutrition Congress, (2010);
- Two senior lectures and one professor received the Rector's award for Excellence in Research; and
- A staff member from the AMRG received the Rector's Award for Excellence in Service Delivery.

Occupational Therapy

Occupational Therapy

Ms F Peters

Summary

Tygerberg Hospital Occupational Therapy Department participated in the second Occupational Therapy Technicians (OTT) upgrading programme that resulted in 12 more occupational-therapy assistants upgrading their qualifications to OTT. Received additional funding of R1, 660.000 for mobility assistive devices. This assisted greatly with waiting lists. The fifth Metro Occupational Therapy in Health (MOTH) forum (AGM) was held, with the theme: *Uplifting the OT profile through embracing the “teachings” of Occupational Science*, a workshop presented by Prof. Lana van Niekerk. Occupational Therapy staff once again assisted in convening another successful Tygerberg Burns Society Fun Walk (6 November 2010). Review of the Orthopaedic Tender document (with Dr Samuel Isaacs, Head Office). Pressure garment material has been added to the tender. Tygerberg Hospital Occupational Therapy Department continues to convene the Pressure Garment Interest Group (PGIG), the Work Assessment Group (WAG), the Occupational Therapy Paediatric Interest Group and the Occupational Therapy Adult Psychiatry Interest Group. These play a pivotal role in service delivery, especially in the development of the service. Ms F Peters is the current chairperson of the National OT Forum. Continued interdisciplinary approach (especially among AHPs) in especially paediatric care. New Lymphoedema Clinic started, August 2010.

Resources

Posts (full-time)	Number	Filled
Assistant Director:	1	1
Supervisors	4	4
Production	7	7
Community Service	2	2
Occupational Therapy Assistants (OTAs)	5	5
Total	19	19

Posts (sessional)

Occupational Therapist	24 hours per week	1
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Output

Clinical area	Headcount
Surgery (Amputations, Burns, Hands, Internal, Orthopaedics, Plastics, Pressure Garments, Rheuma)	6 579
Paediatrics	2 111
Neurology and Neurosurgery	1 275
Psychiatry (Adult and Child)	1 006
Work Assessment (manual stats)	1 068
Total	13 267
Total 2009	11 305

Comment on output

- Higher stats this year, due to stats being captured by clerk; and
- Staff shortages due to 3 resignations in 2010 and study leave impacts stats.

Infrastructural development

- Re-opening of the G7 therapy room.

Community outreach programmes

- Child Health Autism support group;
- Support to teachers – Visual, Perceptual, and Hand Function programmes; and
- Work visits during work assessment.

Continued professional development

Presented/hosted

- *Ethics lecture for Allied Health Professionals* – by Prof. Willie Pienaar, 17 September 2010.
- *Best Practise in Occupational Therapy* – by Roberta Gordon, 4 June 2010.

Occupational Therapy

- *Substance Abuse Workshop* at Port Elizabeth Hospital Complex – by Rogini Pillay and Anne Lucas, 19–23 March 2010.
- *The Importance of Leisure Time in Adolescence* – by Phillipa Boyes, May 2010.
- *Confidentiality in relation to HIV/AIDS* – by Zahira Vallie, 21 September 2010.
- *Role of Occupational Therapy in Rheumatology* – by Tahseen Ahmed, 4 February 2010 and 7 and 14 October 2010.
- *Role of Occupational Therapy at Tygerberg Hospital* – by Rogini Pillay, 20 April 2010.

In-service training sessions

- Carpal Tunnel Syndrome and Extensor Tendon Injuries 9 (9 April 2010)
- Dupuytren's Contracture and Flexor Tendon Injuries (29 April 2010)

Current studies towards achieving master's degrees in Occupational Therapy, Rehabilitation and Public Health

- *Exploring the experience of mothers on motherhood while having a child on the spectrum of autism* (Elana Laminette);
- *An exploration of burn survivors' experience of pressure garment therapy at Tygerberg Hospital* (Rogini Pillay); and
- *Exploring parents' and occupational therapists' perceptions on the utilization of the Occupational Therapy service at 3 paediatric outpatient units in the Western Cape* (Fatima Peters).

Attended

OT staff have attended several CPD activities during 2010, ranging from clinical-based activities (such as splinting courses, a lymphoedema course, seating courses), and generic activities (such as Diversity Management, Advanced Management and Project Management).

Teaching and training

- Continued teaching and training to mainly undergraduate Occupational Therapy students from Stellenbosch University and the University of the Western Cape; and
- Elective placements from the University of Cape Town, the University of Pretoria and Germany.

Physiotherapy

Physiotherapy

Mr Khotso Nondabula

Summary

A short narrative of the “package of care” delivered by physiotherapy at TBH:

The job purpose of a physiotherapist is to provide a holistic clinical service consisting of curative, preventative, rehabilitative and health-promotive procedures in the fields of respiratory, neurological and orthopaedic therapy. It is difficult to allocate physiotherapy procedures according to the three levels of care because all patients are assessed and managed according to their needs. Outcomes are based on the resources available and the patient's medical plan as determined by their 1°, 2° or 3° status.

Clinical services provided by TBH Physiotherapy Department:

- In-patient service to all wards of TBH (excluding private and KDH ward);
- After-hours and weekend duty;
- Out-patient service to clients residing in the catchment area of TBH;
- Out-patient consultation in difficult cases referred from other clinics;
- Out-patient monitoring of certain elective procedures, for example shoulder replacements; and
- Specialist outpatient clinics: Hands clinic, Craniofacial (CF) clinic, and Hypoxic Ischaemic Encephalopathy (HIE) clinic.

The TBH Physiotherapy Department is involved in education and training of staff, students and the public through various programmes.

Achievements

Occupational health-and-safety risk assessments were done in several departments at TBH to assist with Injury on Duty cases and to give input to the evaluation of news equipment during the purchasing process.

The department played an integral role in the acquisition of patient hoists and more suitable restraints for restless patients in the neurosurgery ward.

An evaluation of polymer axillary crutches was conducted as a proposed replacement for the wooden crutches on tender.



One staff member served on the executive committee of the TBH Transformation Committee.

Academic activities and achievements:

- TBH Physiotherapy Department:
Achieved: 1 x LLB
- Enrolled:
1 x postgraduate (MPhil in Health Sciences)
1 x undergraduate (BCom Law)
- Stellenbosch University (SU) Physiotherapy Department:
Promotion to full professorship x 1
Achieved: PhD x 1; MPhil x 1

Resources

Posts (full-time)	Number	Filled
Assistant Director	1	1
Chief Physiotherapist	4 & 5/8	4 & 5/8
Senior Physiotherapist	13	13
Community Service Physiotherapist	1	1

Staff establishment 2010:

- The AD retired in September 2010, but he remained on contract until end December 2010; and
- One S/L 7 staff member resigned – this position will be filled from 1 January 2011. The department made use of a contract worker for the month of December 2010.

Additional financial resources:

- Overtime: R110 000 allocated for financial year
- Consumables: R18 200 allocated for financial year
- Capital equipment and current: R14 000 approved.

Physiotherapy

Output

Total productivity outputs (attendance):

January to December 2010 statistics totalled 40 783 patient attendances by TBH physiotherapy staff and students.

Attendance per clinical area:

General Medicine In-patient & Respiratory OPD	6 405
Neurology OPD	315
Surgical In-patient	16 427
Amps OPD	20
Orthopaedic In-patient	5 809
Ortho OPD (including Hands)	2 316
Paediatric In-patient	4 691
Neuropaediatrics OPD (including CF & HIE)	376

Comment on output

The total attendances for 2010 were close to that of 2009, which indicates that productivity levels have remained relatively unchanged.

Other Concerns:

- Some catchment areas do not have physiotherapy services and the clinics that are run by students are closed for several months of the year. The main areas affected are: Belhar, Kuils River, Durbanville, Ravensmead, Mfuleni and Blackheath;
- There is increased exposure to MDR and XDR-TB;
- The role of Physiotherapy and Nursing with regard to responsibility for routine mobilisation of patients remains unclear;
- Turnover is high and discharges are quick with last-minute referrals due to the high demand for beds;
- There is frequent interruption in the supply/availability of mobility assistive devices; and
- There are equipment losses due to theft.

Infrastructural development

Departmental

The only item that was approved and purchased on the list of needed capital equipment was a Bobath Electrical Plinth to the value of R14 000.

The renovation of the department has been scheduled for 2011.

Co-operation with the private sector

TBH has a public-private partnership in place with the private physiotherapist that delivers clinical services to the private ward D4.

Research

Number of publications from the department for 2010, from SU Physiotherapy Department staff on Joint Appointment Staff: 9

Teaching and training

- The department accommodates undergraduate and postgraduate students from the UWC and SU physiotherapy departments;
- Students from other SA universities are accommodated on elective placements; and
- Training is provided to undergraduate MB ChB final-year students regarding Orthopaedic Physiotherapy Practice as part of their Orthopaedic clinical rotation at TBH.

Student placements 2010

University	Number
US III	31
US IV	71
US OMT MSc	6
US Medical Student Interns	78
UWC II	45
UWC III	13
UWC IV	10
Elective placements	2

- The department co-ordinated a visit by the UCT Physiotherapy students to the TBH Burns Unit;
- Two open days for scholars interested in studying Physiotherapy were held;
- Kinetic Handling lectures and demonstrations were given to Radiography and Nursing students; and
- A lecture on post-surgical shoulder rehabilitation was presented to Orthopaedic Department.

Human-resource development:

Lectures/courses were attended by staff:

	Number Presented	Officers Trained
Profession-specific CPD activities sponsored by DOH	2	4
Other PGWC/ICAS lectures/courses	8	9
Other CPD activities attended	17	49

Physiotherapy

Highlights

- Representation on committees/portfolios outside the Physiotherapy Department:
 - Occupational Health & Safety Committee;
 - Mobility Assistive Devices Committee;
 - Human Resource Development Committee;
 - Clinicom Committee;
 - PACS RIS (digital imaging of X-rays & CT scans); and
 - Laser Committee;
- Participation in TBH initiatives: TBH Open Day & Staff Wellness Day;
- One staff member was invited to be a stimulus speaker at the Stellenbosch University Physiotherapy Department Clinical Platform Meeting;
- Re-organised and expanded clinical education platform; and
- The assistant director retired after 38 years of continuous service to DoH. Ms A Swart will be taking over from him in January 2011.

Speech Therapy and Audiology

Speech Therapy and Audiology

Ms Haley Elliot

Summary

Assessment and management of adults and children with communication and hearing difficulties.

Areas of service delivery include:

Adult and paediatric swallowing disorders, neurologically based communication disorders, paediatric developmental speech and communication disorders (0 to 6 years), head and neck Oncology, fluency disorders, autistic spectrum disorder, cleft lip and palate, voice pathologies, adult and paediatric diagnostic hearing assessments (including newborn-hearing screening), adult and paediatric hearing aid fitting and rehabilitation, cochlear implant assessments and management.

Resources

Posts (full-time)	Number	Filled
Assistant Director	1	1
Chief therapist	5	4
Senior therapist	5	5
Community service	1	1

Posts (sessional)

Part-time posts	1 sessional appointment (30 hours); 1 & 5/8 Audiology post	1
Full-time equivalents	1 Privately funded part-time Audiologist for Cochlear Implant Unit	January - December 2010

Output

Speech Therapy outpatient contacts	2 690
Speech Therapy inpatient contacts	697
Audiology outpatients	5 003
Audiology inpatients	1 311
Audiology outreach	240
Speech Therapy outreach	258
Total	10 199

Infrastructural development

The acquisition of the Verifit Hearing Aid Verification System to objectively verify hearing aid fittings in paediatric and "difficult-to-test" population groups.



Community outreach programmes

- ENT support at Stellenbosch Provincial Hospital in the form of a weekly Audiology Clinic;
- A weekly Speech Therapy Clinic at Hottentots Holland Hospital provides outpatient Speech Therapy services to patients in that catchment area;
- One staff member volunteered as a Speech Therapist for Operation Smile (cleft lip and palate reconstruction and rehabilitation) and joined a mission to Madagascar;
- Ongoing relationship with Stellenbosch University (SU) and the University of Cape Town (UCT);
- Ongoing supportive Speech Therapy and Audiology services to the Carel du Toit Centre for hearing-impaired children;
- Outreach visits to Stikland Hospital (care centre) and special care centre in Grabouw for advice and support for patients with feeding difficulties;
- A language stimulation information session held at the Macassar Day Hospital for crèche teachers in the area;
- A Speech Therapy and Audiology information presentation held for medical staff in ward J8;
- Support to the satellite Cochlear Implant Unit in Windhoek and East London;
- The establishment of a cochlear implant satellite unit in Port Elizabeth; and

Speech Therapy and Audiology

- The 400th cochlear implant surgery took place in January 2010.

Research

- One staff member completed her Masters Degree in Audiology;
- Presentations at the SACIG Annual General Meeting in May 2010 on "Residual Hearing after Cochlear Implantation" and "Changes over time in the Psychophysical Parameters for adult Nucleus 22 CI users"; and
- Presentations at the Cochlear Southern ENT Conference in October 2010 on "Selection Criteria in the SA context" and "A challenging case".

Teaching and training

- All staff members are involved in student training and supervision of UCT or SU students; and
- HPCSA Cochlear Implant Licencing Course presented by the Tygerberg Hospital (TBH)/SU Cochlear Implant Unit in August 2010 and October 2010.

Highlights

- Neonatal hearing screening programme: 978 infants were screened in G1 and G8 before discharge;
- Six patients received cochlear implants through TBH in the 2010/2011 financial year, with additional funding from the Harry Crossley Foundation, enabling another eight patients to receive implants;
- The growth of the support group for adult patients with neurologically-based communication difficulties;
- Ongoing multidisciplinary support groups for children with Autistic Spectrum Disorder or Pervasive Development Disorder or developmental delay;
- Participation in the multidisciplinary management of paediatric HIV inpatients;
- Participation in the multidisciplinary Sensory Aversion Clinic;
- One audiologist represented the Province at the National Speech Therapy/Audiology Forum; and
- Bimonthly early groups for Xhosa-speaking children was initiated in 2010.

Hospital School

Hospital School

School Principal: Susan Potgieter

Summary

The school has learners from preschool age up to Grade 12 learners. Our learners must be hospitalised here at Tygerberg to be enrolled at the school. We bring learners to the school and we also address the needs of the learners that cannot come to school due to their medical condition.

Preschool

We concentrate on perceptual skills and vocabulary. We expose the learners to educational equipment that they often lack at home or at their own preschools.

Primary school

Grades 1 – 7. We follow the national curriculum with the learners. Our aim is to make the transition from their home school to our school and back as smooth as possible.

High school

Referred to as iThuba. The learners are mostly from the Psychiatric ward. We work in collaboration with the hospital team, with whom we meet every second week to report back on the learners' progress here at school. We follow the national curriculum.

The learners from iThuba go on outings once a term and the outings must correlate with the curriculum.

For the preschool and primary school learners we arrange for organisations to come and address the learners here at school.

Reading is very important. We have a well-stocked library and encourage the learners to read.

Resources

Posts (full-time)	Number	Filled
Principal	1	1
Educators Post level 1	4	4
<i>Governing Body posts:</i>		
Occupational Therapist	1	3
Secretary	1	1



Volunteers	Number	Filled
Library (2x per month)	1	1
Kinetics (4x per month)	4	4
Music (2x per month)	1	1
Northlink College Chefs (2x per month)	6	6
Pre-school (2x per week)	1	1
Tygerberg Art School (1x per term for primary school and 4x per term for iThuba)	2	2

Output

WCED Register	Learners
Tygerberg	246
iThuba (psychiatric)	17
Total per month	263
Total for 2010	1170
School days for 2010	197

Comment on output

The amount of learners in the school depends on the amount of beds filled in the hospital. In 2010 the industrial strikes played a major role in the amount of learners in the school. Hospital procedures also take priority.

Individual attention to the learners makes a big difference. A lot of attention in the school is paid to help the learners overcome the amount of schoolwork they miss out when they are in the hospital.

A positive attitude from the staff of Paediatrics is a huge benefit to the school. The nursing staff are not always on board with their attitude towards the school.

Hospital School

Infrastructural development

We are very fortunate to have good facilities here at the hospital. Our colleagues from other schools are always amazed by how clean and well equipped we are here and that the school facilities are well looked after.

Community outreach programmes

We have a very good relationship with HOPE and we work well together. Other partners are Northlink College – their chef students and Kinetics students, Tygerberg Art School, SANCCOB, other schools, the SAPS, TygerBear and the social workers.

National co-operation and partnerships

We have formed a good relationship with the Western Cape Department of Education and our district office.

In the past the school functioned under the radar. Presently we are networking with all the schools in our district because we need the exposure. The school needs to be seen as a "proper" school and not a school that keeps the children busy while they are in hospital.

Donations

From the Harry Crossley Foundation, the Viking Fishing Trust, wheel chairs from ACSA, books from Biblionef.

Teaching and training

It is expected of all the educators to undergo 40 hours of in-service training a year. This year our goal was not only professional training but also training to empower them regarding stress, trauma and self development. The principal attended a 3-day workshop – Manage and lead schools in the South African context.

Highlights

A highlight for the school was when we had an open day for all the hospital staff as well as the university staff. A lot of awareness for the school was created as a result and more people are now aware of how the school contributes to the wellness of the learners.

Voluntarily Aid Service

Voluntarily Aid Service

Ms F MacClune

Committee members

Ms G Scott	Vice-Chairperson
Ms L Layman	
Ms R Rogers	
Ms O Oliver	
Ms M Rhoode	
Ms M Arendse	
Ms H Rudman	
Ms M Parker	Financial Advisor
Ms M de Jager	Head of Social Work Unit (officially)
Ms Z Vallie	Occupational Therapist (per invitation)

Personnel

The organiser, cashier/stock-controller, manager of the catering service, six kitchen personnel, one shop assistant at the pharmacy, and one shop assistant at kiosk exit 1 are all compensated by the Voluntarily Aid Service.

General

After 37 years the Voluntarily Aid Service TBH still renders a service to patients and personnel. The volunteers work with love and devotion all over the hospital. The qualified and dedicated administrative staff ensure effective service despite a shortage of volunteers.

Services

60 members at different working points rendered 7411 hours of service in total. During the school holidays 16 junior volunteers worked 518 hours. The following areas were served:

- Ward visits and ward duty;
- Children's wards;
- Clinics;
- Hairdressing service: Hair care for 1022 patients;
- Shop trolley to wards, clinics and pharmacy;
- Gene Louw Building, Radiotherapy Department: catering service and hair wash for patients;
- Christmas project: 420 gifts were handed out in the children's wards including Paediatric Oncology, patients in the Gene Louw building, psychiatric wards and the Burns Unit;
- Gift/Tuck-shop;
- Catering service on ground floor, theatres and pharmacy; free refreshments are provided to 6th year medical students during examinations;



- Uniform shop for nursing and other personnel in the peninsula and rural districts;
- Weekend service: gift and tuckshop; and
- Assistance at CSSD and the milk kitchen.

Need alleviation

Applications for financial assistance for needy patients are received on a regular basis. In co-operation with the Social Work Unit, financial assistance with transport money.

Total amount paid out for need alleviation:

Petty cash	R20 000,00
Clothing for Patients project	R2 939,00
Food parcels	R70 000,00
Additional professional and therapeutic help for department	R20 00,00
Total	R112 939,00

Special projects

Some of the donations made to the hospital:

Department of Occupational Therapy:

Transport money and sandwiches for work evaluation patients	R9 300,00
Transit Lounge: Transport money, sandwiches, tea and coffee	R476,70
Transport daily: Transit Lounge and other patients out of office	R9 375,00
Tea and sandwiches to sixth-year medical students	R1 544,78
Christmas project	R816,30
D Ground and D Lower Ground: Toiletries and underwear for patients	R2 639,30

Voluntarily Aid Service

CEO's office: Plants hiring fee per year	R5 677,20
Curtains C3B	R7 719,00
Donation Women's day	R1 500,00
Donation World Cup	R1 000,00
Donation Curtains Ward C2A	R13 145,00
Donation Curtains Ward D9	R13 145,00
Curtains and two heaters Sonar and FAC waiting room	R5 045,00
Curtains rails ward G5	R6 040,00
Curtains Wards J4 and TV	R10 585,90
Curtains Ward J5	R16 271,00
Chairs for TV room Ward F2	R3 279,88
Nine portraits for Ward A8 East	R 2 430,00
Prize for Best Occupational Therapy Student of the Year	R500,00
Donation TBH open day	R3 376,80
Curtains Ward J5	R855,00
Three TVs for ward F Ground	R17 064,67
Curtains and Fridge Transit Lounge	R4 385,00
Total amount paid out for special projects	R136 171,73
Total amount spent on Hospital Projects	R249 110,73

Fundraising and donations

The Voluntarily Aid Service depends on donations and fundraising projects to raise funds. The constitution of Voluntarily Aid Service determines that 75% of the annual net profit to TBH must be used to improve the health, welfare and comfort of the patients.

Summary

The dedicated work done by the members of the Voluntary Aid Service is appreciated by the patients and staff. Volunteers offer their services with love and interest in the well-being of patients.

The voluntarily Aid Service is thankful towards the CEO and his personnel, the Deputy Director: Nursing and her personnel for the friendly co-operation and support received throughout the past year.

Statistics

In-patient statistics per ward 2010

Ward	Actual beds	Total admis	Ward int trans in	Cum. admis	Total disch	Deaths	Day patients	Ward int trans out	Separations	Cum. disch	In-patient days	Patient days	Avg los	% Occ (u)
A1 Burns	22	321	52	373	284	62	2	20	348	368	6 592	6 593	18.9	82.0
A1 Surgical ICU	12	40	739	779	7	44	0	724	51	775	3 839	3 839	75.3	87.6
A10 Metab	14	417	45	462	421	3	17	21	441	462	2 683	2 692	6.1	52.6
A2 Thoracic Surg High Care	10	446	414	860	565	16	14	262	595	857	5 560	5 567	9.4	152.4
A2 Thoracic Surg ICU	14	28	427	455	59	18	0	382	77	459	1 981	1 981	25.7	38.7
A3H Orthopaedics	31	1 577	143	1 720	1 592	0	24	105	1 616	1 721	10 012	10 024	6.2	88.5
A3W Orthopaedics	31	898	173	1 071	891	8	13	151	912	1 063	10 036	10 043	11.0	88.7
A4E Neuro Surg + Thoracic Surg	31	267	450	717	515	41	3	152	559	711	7 536	7 538	13.5	66.5
A4W Neuro Surg High Care	18	561	452	1 013	620	36	4	353	660	1 013	8 334	8 336	12.6	126.7
A4W Neuro Surg ICU	12	32	205	237	0	54	0	180	54	234	905	905	16.8	20.6
A5E Respiratory ICU	7	80	306	386	5	100	0	280	105	385	2 334	2 334	22.2	91.3
A5W Internal Meds High Care	13	48	870	918	188	98	0	632	286	918	3 462	3 462	12.1	72.9
A6 Cardiology High Care	16	816	522	1 338	979	14	13	339	1 006	1 345	4 376	4 383	4.4	75.0
A6 Cardiology ICU	8	518	319	837	260	48	1	529	309	838	2 001	2 002	6.5	68.5
A7 Renal High Care	6	361	51	412	366	14	7	22	387	409	2 053	2 057	5.3	93.8
A7 Renal ICU	4	4	8	12	2	0	0	9	2	11	53	53	26.5	3.6
A8 Internal Medicine	28	52	1 286	1 338	1 088	126	3	129	1 217	1 346	9 084	9 086	7.5	88.8
A8W Dermatology + Neurology	27	364	249	613	488	16	37	66	541	607	5 251	5 270	9.7	53.4
B5E Day Surgery	15	2 056	33	2 089	31	0	1 974	84	2 005	2 089	24	1 011	0.5	18.4
C1D Resus	4	835	275	1 110	45	168	7	887	222	1 107	1 412	1 416	6.4	96.8
C1D Trauma + Surgery	23	6 117	147	6 264	3 171	89	520	2 468	3 780	6 248	10 881	11 141	2.9	132.6
C2A Labour Ward	19	6 275	1 958	8 233	154	284	74	7 721	512	8 233	7 938	7 975	15.6	114.9
C2A Labour Ward High Care	4	56	323	379	14	6	0	358	20	378	1 266	1 266	63.3	86.6
D Ground – Psychiatry	22	114	220	334	265	0	0	58	265	323	5 310	5 310	20.0	66.1
D1 Vascular Surgery	22	550	692	1 242	865	38	13	325	916	1 241	6 746	6 763	7.4	84.0
D10 Internal Medicine	30	43	1 555	1 598	1 300	167	0	143	1 467	1 610	9 448	9 448	6.4	86.2
D2 Abdominal Surgery	31	699	1 078	1 777	1 199	55	27	494	1 281	1 775	8 901	8 915	7.0	78.7
D3 Plastic/Reconstructive Surg	25	1 001	143	1 144	1 033	0	21	88	1 054	1 142	4 796	4 807	4.6	52.6
D4 Private + Cardiology	29	916	375	1 291	1 011	23	65	196	1 099	1 295	5 232	5 265	4.8	49.7
D5 Abdom + Head/Neck and Breast	31	601	748	1 349	946	39	5	352	990	1 342	9 046	9 049	9.1	79.9
D6 Urology	32	961	348	1 309	1 170	14	8	102	1 192	1 294	7 770	7 774	6.5	66.5
D7 Ophthalmology	32	2,573	61	2 634	2 400	0	115	117	2 515	2 632	7 654	7 712	3.1	66.0
D8 Internal Medicine	28	253	1 232	1 485	1 182	135	47	120	1 364	1 484	8 732	8 756	6.4	85.6
D9 Internal Medicine	29	53	1 353	1 406	1 145	151	2	116	1 298	1 414	9 150	9 151	7.1	86.4

Statistics

Ward	Actual beds	Total admis	Ward int trans in	Cum. admis	Total disch	Deaths	Day patients	Ward int trans out	Separations	Cum. disch	In-patient days	Patient days	Avg los	% Occ (u)
DLG Psychiatry (GLG)	20	145	70	215	104	2	0	94	106	200	3 718	3 718	35.1	50.9
F1 Medical Emergency	20	7 611	175	7 786	1 263	421	281	5 812	1 965	7 777	6 803	6 944	3.5	95.0
F1 Medical Emergency High Care	6	4	2	6	1	1	0	3	2	5	33	33	16.5	1.5
F2M Obstetrics Antenatal	34	1 711	1 420	3 131	1 377	1	44	1 719	1 422	3 141	9 451	9 473	6.7	76.3
F4 Orthopaedics	32	701	140	841	723	14	7	96	744	840	8 569	8 573	11.5	73.3
FGR Gynaecology	24	839	162	1 001	823	27	25	113	875	988	6 269	6 282	7.2	71.6
G1 Neonatal Medicine	30	524	517	1 041	856	33	9	144	898	1 042	10 640	10 645	11.9	97.1
G10 Paediatric Medicine	30	1 166	526	1 692	1 432	13	106	139	1 551	1 690	6 856	6 909	4.5	63.0
G2 Neonatal Medicine	24	2 020	19	2 039	1 013	53	19	952	1 085	2 037	11 563	11 573	10.7	132.0
G3 Paediatric Oncology	18	637	107	744	638	12	41	53	691	744	3 948	3 969	5.7	60.3
G4 Paediatric Surgery	25	1 361	256	1 617	1 434	1	70	116	1 505	1 621	5 916	5 951	4.0	65.1
G5 Ear, Nose & Throat	19	1 299	71	1 370	1 183	5	63	117	1 251	1 368	4 337	4 369	3.5	62.9
G6LM Paediatric Orthopaedics	25	1 047	51	1 098	1 015	1	46	35	1 062	1 097	7 793	7 816	7.4	85.6
G7 Paed Infectious Diseases	23	269	369	638	526	38	7	76	571	647	6 961	6 965	12.2	82.9
G8 Neonatology / KMC	30	169	686	855	747	9	10	90	766	856	8 739	8 744	11.4	79.8
G9 Paed Internal Medicine	30	790	454	1 244	970	21	54	189	1 045	1 234	7 966	7 993	7.6	72.9
GG Paediatric Emergency	20	4 022	19	4 041	2 524	12	350	1 156	2 886	4 042	4 756	4 931	1.7	67.5
H1X Radiation Oncology	21	691	73	764	655	45	12	44	712	756	5 621	5 627	7.9	73.3
H2X Radiation Oncology	26	819	64	883	779	49	11	34	839	873	6 195	6 201	7.4	65.3
J2M Obstetrics Post Natal	29	587	2 311	2 898	2 647	0	14	244	2 661	2 905	7 409	7 416	2.8	70.0
J4 Gynaecology	33	2 275	623	2 898	2 595	7	127	174	2 729	2 903	8 453	8 517	3.1	70.6
J5B Obst Post Neonatal	0	101	10	111	102	1	2	5	105	110	383	384	3.7	
J5M Obstetrics Post Natal	23	235	3 570	3 805	3 511	0	248	57	3 759	3 816	4 397	4 521	1.2	53.8
J6 Orthopaedics	29	679	148	827	665	8	4	154	677	831	8 965	8 967	13.2	84.6
J7 Trauma Surgery	31	640	764	1 404	1 187	27	5	191	1 219	1 410	8 481	8 484	7.0	74.9
X(Close) – DLG Psychiatry*		21	38	59	44	0	0	30	44	74	1 060	1 060	24.1	89.2
X(Close) A9 East P – 05/07/10 ***		48	299	347	227	5	1	114	233	347	2 024	2 025	8.7	84.4
X(Close) – A9 Paed/Neonat ICU	28	437	563	1 000	50	172	8	771	230	1 001	8 179	8 183	35.6	80.0
X(Close) – GLG Psych – 04/05/2010**		93	34	127	59	0	0	87	59	146	2 770	2 770	46.9	83.4
Report Total	1 310	60 874	30 796	91 670	53 412	2 845	4 580	30 796	60 490	91 633	368 653	370 943	6.13	77.5

*Ward closed 1 March 2010

**Ward closed 1 June 2010

***Ward was opened during February till July 2010

Statistics

Out-patient statistics attendance rates 2010

Speciality group	Attended not treated	Unrecorded	Attended	Walk-ins
Gynaecology	174	46	14 862	4 688
Maternity	146	21	17 289	27 503
Medicine	832	207	118 286	22 086
Nonspecialist as per DoH	318	68	27 671	76 974
Orthopaedics	449	8	20 891	2 820
Paediatrics	94	21	14 165	11 908
Psychiatry	11	22	3 198	1 546
Surgery	924	71	61 736	25 742
Grand Total	2 948	464	278 098	173 267

Service groups visits 2010

Service groups	Attended not treated	Attended and treated	Cancelled	Cancelled on day	Did not attend	Not recorded	Walk-in
Clinical Psychology	2	1 370	0	49	176	3	
Human Nut/Dietetics		3 803	10	322	386	92	2
Occupational Therapy	227	12 759	181	324	2 829	115	1 001
Physiotherapy	43	36 512	24	7 540	155	165	29
Podiatry	2	546	2	3	373	1	1
Radiotherapy	15	16 891	1	9	10	816	10
Social Work	52	21 530	7	197	434	5	1 419
Speech							
Thy/Audiology	21	3 452	2	572	1 502	253	404
Stomatherapy RN		148				3	743
Grand Total	362	97 011	227	9 016	5 865	1 453	3 609

Out-patient statistics 2010 – specialist clinics

	New	Follow-up
Burns	254	356
Cardio Thoracic Surgery	543	959
Cardiology	7 006	18 945
Child Psychiatry	227	1 313
Clinical Haematology	4	140
Dermatology	2 342	7 340
Diagnostic Radiology	27 191	73 577
Ear Nose and Throat	3 196	5 870
Ear Nose and Throat Paed	797	1 232
Emergency Medicine	3 202	721
Endocrinology	476	3 184
Gastroenterology	3 111	10 067
General Medicine	1 562	5 598
General Paediatrics	23	113
General Psychiatry	805	2 432
General Surgery	2	3
General Surgery Abdominal	1 530	2 334
Geriatric Medicine	31	241
Gynaecological Endocrinology	151	488
Gynaecological Oncology	1 398	2 231

Statistics

	New	Follow-up
Gynaecology	5 661	9 407
Head Neck and Breast Surgery	923	5 075
Infectious Diseases	877	18 048
Maxillo-Facial Surgery	21	114
Neonatal Medicine	289	1 595
Nephrology	319	12 372
Neurology	2 007	3 198
Neurosurgery	856	2 073
Nuclear Medicine	1 794	1 642
Obstetrics	9 036	35 923
Occupational Health	551	2 685
Ophthalmology	4 660	16 121
Orthopaedic Joint Replacement	109	1 044
Orthopaedic Trauma	2 064	9 235
Orthopaedics	943	3 959
Orthopaedics Hands	1 151	3 946
Paed Allergy	55	669
Paed Cardiology	148	898
Paed Clinical Haematology	1	1
Paed Clinical Immunology	12	119
Paed Emergency Medicine	10 192	1 768
Paed Endocrinology	87	1 016
Paed Gastro-Enterology	74	556
Paed Human Genetics	56	243
Paed Infectious Diseases	310	688
Paed Medical Oncology	92	1 815
Paed Nephrology	90	1 030
Paed Neurology	396	2 301
Paed Orthopaedics	160	1 557
Paed Respiratory Medicine	87	1 269
Paed Rheumatology	21	174
Paed Surgery	647	465
Pharmacy – Repeats Scripts	50	4 213
Plastic Reconstructive Surgery	1 506	2 810
Radiation Oncology	1 946	22 054
Reproductive Medicine	307	127
Respiratory Medicine	1 348	4 681
Rheumatology	353	3 566
Trauma	16 429	4 971
Urology	2 739	9 299
Vascular	862	1 826
Grand Total	123 080	331 697

Statistics

Out-patient statistics attendance rates 2010

Departments	Total head counts		Total attendances	
	New	Follow-up	New	Follow-up
Clinical Psychology	202	1 136	210	1 162
Human Nut/Dietetics	997	2 036	1 222	2 583
Occupational Therapy	3 040	9 532	3 449	10 538
Physiotherapy	6 331	26 801	6 593	29 991
Podiatry	99	435	99	450
Radiotherapy	1 012	15 011	1 109	15 807
Social Work	7 076	13 232	7 905	15 096
Speech Thy/Audiology	1 232	2 571	1 254	2 623
Stoma therapy RN	167	69	188	703
Grand Total	20 156	71 423	22 029	78 953

Service groups visits 2010

	Over 60 min		Under 30 min		Under 60 min	
	Hospital	Private	Hospital	Private	Hospital	Private
TBH B1AB Abdominal/Neuro/Reconstructive	854	141	18	3	97	18
TBH B1CD Emergency/Surgery	3 075	968	247	39	1 164	288
TBH B1EF Cardio Thoracic	556	54	4		23	3
TBH B1GH Adominal/Paeds/Vas/Mamm	990	87	48		201	30
TBH B1IJ Shared ENT + Urology	1 022	72	71	3	439	35
TBH B3QR Paeds Surgery/Ortho	184	21	13	3	55	6
TBH B3ST Gynaecology	712	86	15	2	172	14
TBH B3UV Trauma/Ortho	245	156	169	36	196	61
TBH B3WX Orthopaedics	713	362	30	8	172	61
TBH B3YZ Ophthalmology	746	68	224	16	848	60
TBH C1AT Burns Adults	292	16	234	7	241	12
TBH C2AT Obstetrics	1 214	23	220	7	1 553	15
TBH C4B Theatre	447	41	182	14	304	28
TBH C5BT Day Case Surgery	169	20	624	103	553	43
TBH C6AT Urology/Cystoscopy	169	19	1 319	174	514	67
TBH C8DT Cardiology Catheter Lab	237	37	249	39	612	85
TBH CGW Koeberg Theatre	76	14	85	16	141	23
Total	11 701	2 185	3 752	470	7 285	849

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**Western Cape
Government**

Health