

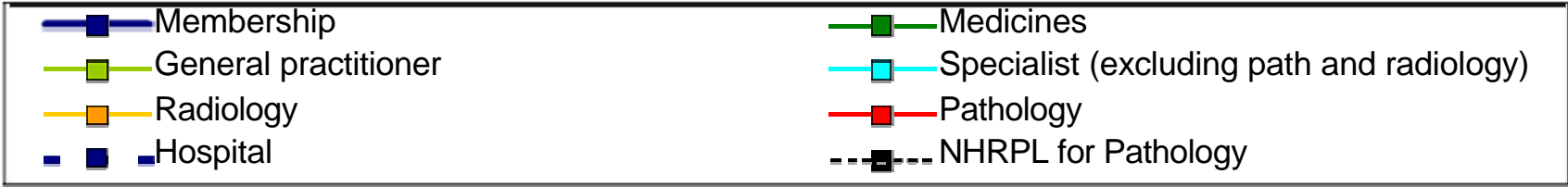
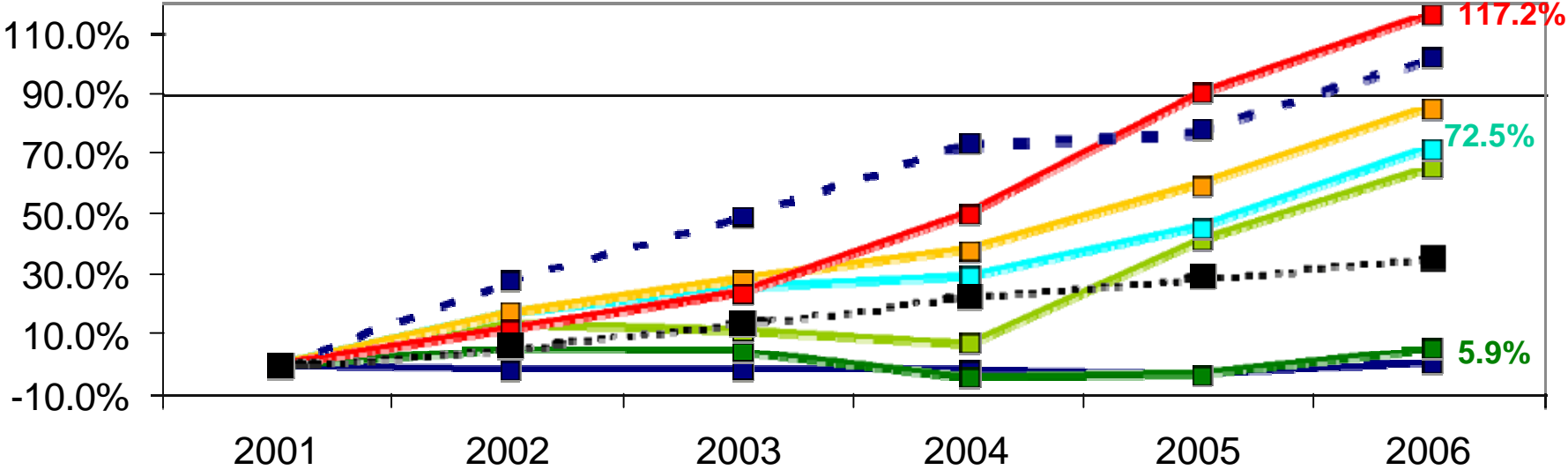
# **Pathology utilisation in the South African private sector.**

**Who is responsible and what is to be done?**

Carel Pretorius

# Cumulative change in medical expenditure

2001 baseline, not inflation adjusted



Reference: Council for Medical Schemes Annual reports published 2001 - 2006  
<http://www.medicalschemes.com>

## Are more patients receiving pathology?

	<b>Patients / Lifes</b>	<b>Lines / Patient</b>
2003	0.48	<b>17.97</b>
2004	0.49	<b>18.28</b>
2005	0.48	<b>19.09</b>
2006	0.49	<b>20.17</b>

## South African Pathology expenditure in perspective, 2005

Private sector      **R22.70 / beneficiary / month**

NHLS\*                R2.72 / beneficiary / month

\* NHLS annual report 2005/2006

# Halting the growth in diagnostic testing

*It is time to focus on reducing inappropriate test ordering*

Rohan J H Hammett, Roger D Harris

Medical Journal of Australia Vol 177, 5 August 2002, p 124

“In acute hospital settings, it has been estimated that as many as **a third of all tests ordered are inappropriate** in terms of their ability to contribute to the diagnosis and treatment of individual patients.”

“in most settings, it is the relatively **cheap, common tests that account for the bulk of testing expenditure**”.

## Change of pathology request forms can reduce unwanted requests and tests

J Bailey, A Jennings, L Parapia

J Clin Pathol 2005;58:853–855.

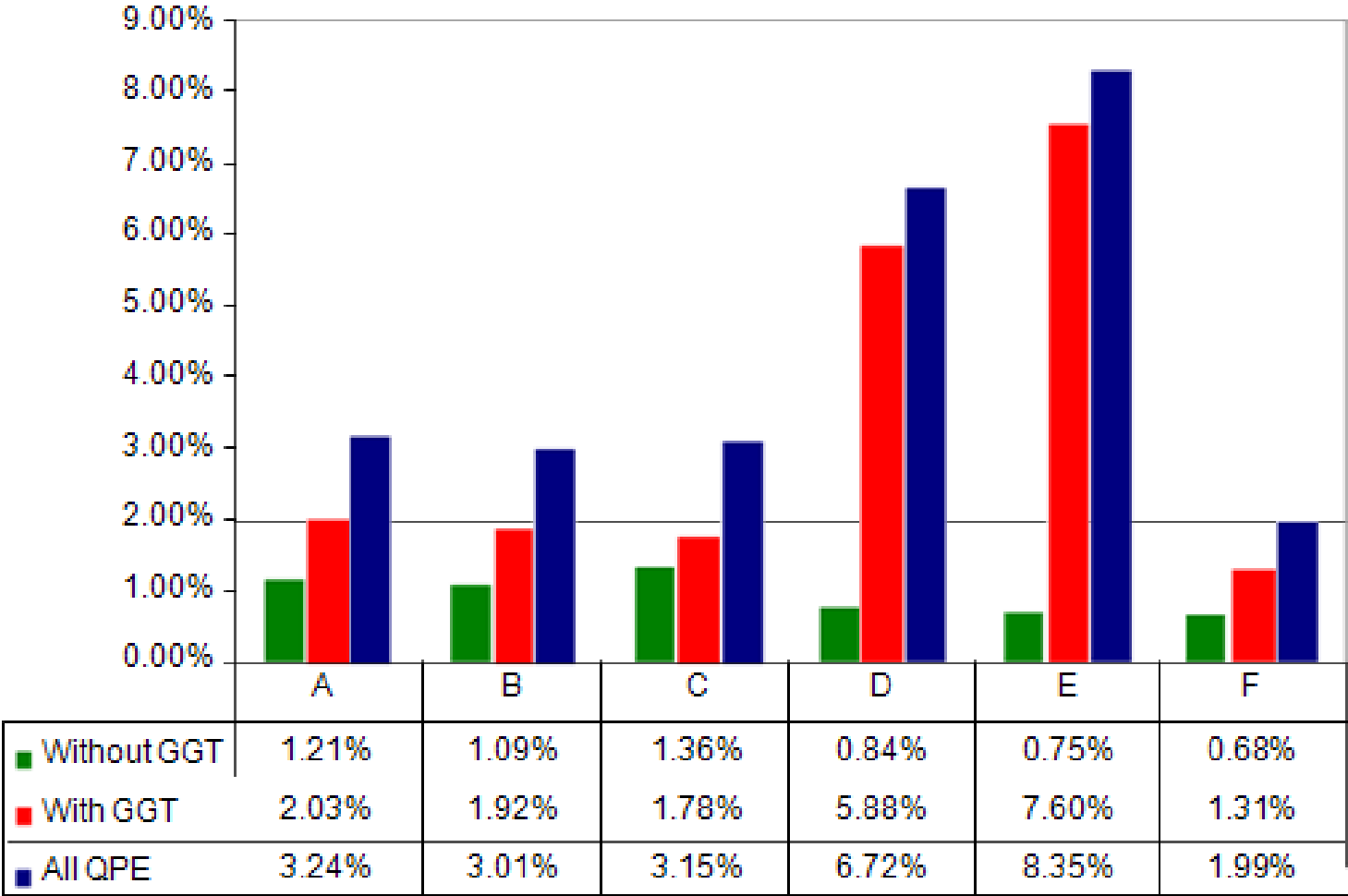
**30 most  
common  
procedures  
2005 in SA**

Cumulative f R

3797	<b>Platelet count</b>	5.56	<b>1.42</b>
3755	<b>Full blood count</b>	11.00	7.91
4032	Creatinine	15.85	9.90
4171	Sodium + potassium + chloride + CO2 + urea	20.32	17.96
→ 4057	<b>Glucose: Quantitative</b>	24.57	19.70
3805	Prothrombin index	27.14	21.45
3743	<b>Erythrocyte sedimentation rate</b>	29.65	22.30
3999	<b>Albumin</b>	32.04	23.61
3947	<b>C-reactive protein</b>	34.18	26.19
4130	<b>Aspartate aminotransferase (AST)</b>	36.30	27.49
→ 4050	<b>Glucose strip-test with photometric reading</b>	38.38	27.91
4131	<b>Alanine aminotransferase (ALT)</b>	40.38	29.14
4134	<b>Gamma glutamyl transferase (GGT)</b>	42.35	30.35
4001	<b>Alkaline phosphatase</b>	44.22	31.45
4133	<b>Lactate dehydrogenase (LD)</b>	46.09	32.60
4117	<b>Protein: Total</b>	47.77	33.19
4009	<b>Bilirubin: Total</b>	49.42	34.09
3867	Miscellaneous microscopy ( fluids, urine etc.)	51.07	35.01
4076	Blood gas and ancillary tests - max 6/patient/ d	52.71	38.59
→ 4025	<b>Chol/HDL/LDL/Trig</b>	54.33	43.56
4010	<b>Bilirubin: Conjugated</b>	55.94	44.22
4507	Thyrotropin (TSH)	57.38	47.43
3893	Bacteriological culture: Miscellaneous	58.73	48.40
3806	Therapeutic drug level: Dosage	60.04	49.07
3762	Haemoglobin estimation	61.29	49.33
4113	Potassium	62.54	49.84
4519	Prostate specific antigen	63.70	51.76
4094	Magnesium: Spectrophotometric	64.78	52.20
4017	Calcium: Spectrophotometric	65.85	52.63
4484	Thyrotropin (TSH) + Free Thyroxine (FT4)	<b>67.81</b>	<b>56.87</b>

# s-Protein Electrophoresis +/- GGT

(123 627 patients, 4871 PE)



## Relative risk for serum protein electrophoresis.

RR determined by logistic regression with Lab A as reference (STATA vers 9.0).

Results adjusted for age and clustering within referring doctor.

Laboratory	Odds Ratio	P> z	95% CI	
B	0.9532	0.7620	0.6987	1.3004
C	0.8360	0.2710	0.6075	1.1505
<b>D</b>	<b>2.4720</b>	<b>0.0000</b>	<b>1.7990</b>	<b>3.3967</b>
<b>E</b>	<b>2.4810</b>	<b>0.0000</b>	<b>1.7757</b>	<b>3.4664</b>
F	0.6898	0.0970	0.4448	1.0699

The risk of having a PE depends on the Lab !!

BIOCHEMISTRY		UW TESTS		HAEMATOLOGY	
<input type="checkbox"/>	1164 UFT/PROTEOCG	<input type="checkbox"/>	H485 HIV Ab (ELISA) ONLY	<input type="checkbox"/>	F8 FBC/PLATELETS/ESR
<input type="checkbox"/>	780 UEA, CREATININE	<input type="checkbox"/>	L900 HIV Ab - WEST SLOT (1st Positive)	<input type="checkbox"/>	F48 FBC/PLATELETS
<input type="checkbox"/>	1487 GTT - 2h 75g (Random)	<input type="checkbox"/>	X304 HIV WEST SLOT (Confirmatory)	<input type="checkbox"/>	820K SLENDRO SCREEN
<input type="checkbox"/>	1488 GTT - 2h 75g (Pregnant)	<input type="checkbox"/>	D332 PCR QUALITATIVE HIV	<input type="checkbox"/>	Z37 OC SCREEN
<input type="checkbox"/>	1487 GTT - 2h 100g (Pregnant)	<input type="checkbox"/>	D480 P24 ANTIGEN	<input type="checkbox"/>	L819 FIBRINOLYTIC PROFILE
<input type="checkbox"/>	2403 GTT - 1h 50g (Pregnant)	<b>THERAPEUTIC MONITORING</b>		<input type="checkbox"/>	H448 INFLAMMATORY MARKERS (Various)
<input type="checkbox"/>	R182 FEN PROFILE	<input type="checkbox"/>	X347 HIV INHIBITOR MONITORING (CD4 & Viral Load Only)	<input type="checkbox"/>	800K THROMBOSIS SCREEN (Platelet or Venous)
<input type="checkbox"/>	8120 CALCIUM	<input type="checkbox"/>	H352 FBC/PLATELETS	<input type="checkbox"/>	F373 ANTI-PHOSPHOLIPID Ab SCR
<input type="checkbox"/>	M492 CREATININE CLEARANCE	<input type="checkbox"/>	G397 CD 4 COUNT	<input type="checkbox"/>	Y308 ANTENATAL Ab SCREEN (Syphilis Specific)
<input type="checkbox"/>	Q141 FERROFITE	<input type="checkbox"/>	F481 HIV VIRAL LOAD	<input type="checkbox"/>	W787 ANTENATAL Ab ID + TITRE
<input type="checkbox"/>	J146 FRUCTOSAMINE/ALB	<b>IMMUNOLOGY</b>		<input type="checkbox"/>	V382 BLOODGROUP / Rh
<input type="checkbox"/>	Q144 GLUCOSE - Fasting	<input type="checkbox"/>	T326 STD PROFILE (+ HIV)	<input type="checkbox"/>	X341 IS / FbV
<input type="checkbox"/>	H148 GLUCOSE - Random	<input type="checkbox"/>	X394 STD PROFILE (+ HIV)	<input type="checkbox"/>	L385 PLATELETS
<input type="checkbox"/>	L348 HAEMOLYSED/CLATED Hb	<input type="checkbox"/>	X399 CMV Ab	<input type="checkbox"/>	8099 F1/BNP
<input type="checkbox"/>	Q384 PHOSPHATE	<input type="checkbox"/>	G383 HEPATITIS A (IgM)	<input type="checkbox"/>	C330 PT
<input type="checkbox"/>	U247 PROTEIN	<input type="checkbox"/>	G385 HEPATITIS A (IgG)	<b>CITROGENETICS</b>	
<input type="checkbox"/>	L171 UREA/CO	<input type="checkbox"/>	Q312 HEPATITIS B (Carrier)	SPECIMEN	
<b>ENDOCRINOLOGY</b>		<input type="checkbox"/>	H309 HEPATITIS B (Immunity)	<input type="checkbox"/>	M643 NEAR
<input type="checkbox"/>	Q289 HIRSATIEM PROFILE	<input type="checkbox"/>	J309 HIV 1/2	<input type="checkbox"/>	F8 MICROSCOPY
<input type="checkbox"/>	X488 INFERTILITY SCREEN (F)	<input type="checkbox"/>	R334 HIV 1/2	<input type="checkbox"/>	8816 CERVICAL SCREEN
<input type="checkbox"/>	Y487 INFERTILITY SCREEN (M)	<input type="checkbox"/>	8337 RUBELLA Ab	<input type="checkbox"/>	Q388 VEGNAL SCREEN
<input type="checkbox"/>	Z882 MENOPAUSEL SCREEN	<input type="checkbox"/>	Y343 SYPHILIS SEROLOGY	<input type="checkbox"/>	F325 C-CLAMYDIA/TRACH PCR
<input type="checkbox"/>	8488 TSH (T4)	<input type="checkbox"/>	V346 TROPPLASMA Ab	<input type="checkbox"/>	H634 MOONORL AGR
<input type="checkbox"/>	Q389 ANDROSTENEDIONE	<input type="checkbox"/>	X342 URICELLA Ab	<input type="checkbox"/>	Z485 FUNGI MICRO + CULTURE
<input type="checkbox"/>	Q219 CORTISOL - Serum	<b>AUDIO IMMUNE</b>		<input type="checkbox"/>	Q388 GROUP B STREPTOCOCCI
<input type="checkbox"/>	8211 CMEA	<input type="checkbox"/>	F8 ARTERIAL PROFILE	<input type="checkbox"/>	O888 HERPES 1-2 PCR
<input type="checkbox"/>	X216 FSH	<input type="checkbox"/>	F8 AUTO BOARD SCREEN	<input type="checkbox"/>	L487 TB MICRO + CULTURE
<input type="checkbox"/>	88126 HOMA INDEX - Fasting	<input type="checkbox"/>	F373 ANTI-PHOSPHOLIPID Ab	<input type="checkbox"/>	F621 TB (AFB) MICRO Only
<input type="checkbox"/>	8222 INSULIN - Fasting	<input type="checkbox"/>	F342 ANP ONLY	OTHER	
<input type="checkbox"/>	T223 LH	<input type="checkbox"/>	H184 ANTI - DNA	<input type="checkbox"/>	ROUTINE SEMEN ANALYSIS
<input type="checkbox"/>	V226 OESTRADIOL (E2)	<input type="checkbox"/>	X778 CRYSTAL Ab	<input type="checkbox"/>	POST VASOSTOMY
<input type="checkbox"/>	Y228 PROGESTERONE	<input type="checkbox"/>	H334 RENIN/ACTO FACTOR	SPECIALISED SERVICES WILL BE AVAILABLE BY APPOINTMENT ONLY	
<input type="checkbox"/>	Z228 PROLACTIN	<b>TUMOUR MARKERS</b>		Contact numbers during office hours	
<input type="checkbox"/>	W289 17a-OH-PROGESTERONE	<input type="checkbox"/>	J182 AFP	613-854 888	
<input type="checkbox"/>	8331 TESTOSTERONE	<input type="checkbox"/>	M189 CA 15 (Ovary)	or Night Hospital: 823-362-8843	
<input type="checkbox"/>	Z384 TSH	<input type="checkbox"/>	X189 CA 99 (Breast)	Abg Facility: 843-277-8223	
<input type="checkbox"/>	V387 T3 FREE	<input type="checkbox"/>	L184 CEA/CA 199 (GIT)		
<input type="checkbox"/>	W383 T4 FREE	<input type="checkbox"/>	X432 PHCO QUANTITATIVE		
<b>HEALTH SCREENING/VITAMINS</b>					
<input type="checkbox"/>	E121 NTX CROSSLINGS				
<input type="checkbox"/>	Q408 OSTEOCALCIN				
<input type="checkbox"/>	E142 VIT B12/FOLATE				

Request form

SPECIALISED SERVICES WILL BE AVAILABLE BY APPOINTMENT ONLY  
 Contact numbers during office hours  
 613-854 888  
 or Night Hospital: 823-362-8843  
 Abg Facility: 843-277-8223

# Role players.

- **Providers**
  - Laboratories / Pathologists
  - Professional bodies
  - Academia
- **Funders**
  - Administrators
  - Medical Schemes
  - Managed care companies
  - BHF
- **Statutory bodies**
  - HPCSA
  - CMS
  - DOH

# Providers

- Pathologists
  - Hospital ownership
  - Corporations outside HPCSA oversight
  - Professional veneer
  - R 3 000 000 000 per annum
  - Oligopoly / Duopoly
- Professional bodies (SAMA)
  - Ineffective ethical oversight
  - Concerned with fee negotiations
- Academia (Evidence Based Medicine)
  - NHLS
  - College of Medicine / College of Pathology
  - Universities

# Funders

- Administrators

Financial managers not Disease managers

Under investment in disease management

Turnover based

Medical Advisors co-opted into business advocates

Soft on creative billing / fraud

- Medical Schemes / Trustees

- Managed care companies

- ? • BHF

# Statutory bodies

## •HPCSA

Protect public against medical professionals

Ensure ethical conduct

Request form (procrastination)

Fees (illogical)

Traditional medicine and EBM

## ✓CMS

Protect public against medical schemes

Resources ?

## ?DOH

Reference prices

Doctors employed by hospitals?

law of unintended consequences

Capacity / Resources ?

## Discussion

23:59:00

