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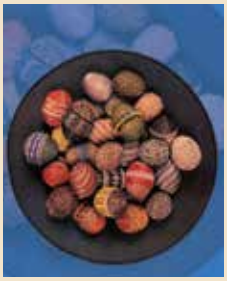

In support of contemporary Zulu telephone wire baskets

Photographs reproduced from the book *Wired* by David Arment and Mariska Fick-Jordaan, 2005, S/C Editions Santa Fe. ISBN 0-89013-449-9, with permission. © 2005 David Arment and Mariska Fick-Jordaan. The book is available David Krut Publishers, (011) 880 4242 or info@davidkrutpublishing.com and local book shops in South Africa. Proceeds from the book will benefi t the Wilson Education Foundation and educational development projects in South Africa

CMSA Membership Privileges

Life Membership

Members who have remained in good standing with the CMSA for **30 years since registration and who have reached the age of 65 years** qualify for life membership, but must apply to the CMSA office in Rondebosch.

They can also become life members by **paying a sum equal to twenty annual subscriptions** at the rate that is applicable at the date of such payment, **less an amount equal to five annual subscriptions** if they have already paid for five years or longer.

Retirement Options

The names of members who have **retired from active practice** will, upon receipt of notification by the CMSA office in Rondebosch, be transferred to the list of "retired members".

The CMSA offers two options in this category:

First Option

The payment of a small subscription which will entitle the member to all privileges, including voting rights at Senate or constituent College elections. If they continue to pay this small subscription they will, *most importantly*, qualify for life membership when this is due.

Second Option

No further financial obligations to the CMSA, no voting rights and unfortunately no life membership in years to come.

Members in either of the "retired membership" categories continue to have electronic access to the journal, *Transactions,* and other important Collegiate matter.

Waiving of Annual Subscriptions

Payment of annual subscriptions are waived in respect of those who have attained the age of **70 years**. Members in this category retain their voting rights.

Those who have reached the age of 70 years must advise the CMSA Office in Rondebosch accordingly as subscriptions are not waived automatically.

Robert McDonald rural paediatrics programme

The late Prof Robert McDonald founded the above programme in 1974 for "the propagation of paediatrics in the more remote and underprivileged parts of the Republic of South Africa by an occasional lecture or visit by someone in the field of the care of children".

Requests for funding are invited from teams of medical practitioners and senior nursing staff to travel to remote centres and areas to promote paediatrics and child health and better care of children, as well as to disseminate knowledge in that field, especially in underprivileged communities. This can also include visits by medical practitioners or nurses working in remote areas to larger centres, or centres of excellence.

The closing dates for applications are 15 July and 15 January of each year. The guidelines that pertain to the programme can be requested from Anita Walker, 12 Glastonbury Road, Umbilo, 3001. Tel: (031) 260 4017, fax: (031) 260 4439, and e-mail: walkera@ukzn.ac.za

Moving with the Times!

In 1888, George Eastman founded the first mass-produced dry plate for photographers and developed the first simple camera. This milestone turned a complicated process of taking photos into a convenient process of making photography "as convenient as the pencil". The company he founded was named Eastman Kodak Company, commonly known as Kodak, and had its headquarters in Rochester, New York, USA. With the slogan: "You press the button, we do the rest", George Eastman placed the first simple camera into the hands of a world of consumers in 1888.[1] Kodak held this dominant position in the photographic film industry during the 20th century, and in 1976, it commanded 90% market share of photographic film sales in the USA.

It is a known fact that the first attempt to build a digital camera took place at Eastman Kodak in 1975. But, the first true digital camera that recorded images as a computerised file was by Fuji Film. Within a short space of time, the Japanese and others perfected the technology. Kodak was slow in transitioning to digital photography, despite having invented the core technology used in the current digital cameras. The end result was that Kodak, the pioneer of modern day digital photography, declared bankruptcy in August 2012. By January 2013, it had sold many of its patents for just over half a billion US dollars to a group of companies, including Apple, Google, facebook, Amazon, Microsoft, Samsung, Adobe and HTC, under the name Intellectual Ventures and RPX Corporation.

You may be wondering about the relevance and place of the history of Kodak in the *Transactions* editorial. This stems from lessons learnt from the downfall of Kodak, which was due to a failed business strategy and management myopia. They simply didn't move with the times. The CMSA *Transactions* started as a paper-based journal approximately 57 years ago. In addition, the electronic version has been available on the CMSA website for the past nine years, since I took over as the editor-in-chief. Unfortunately, the production costs, including postage, have increased exponentially as new Fellows, Certificants and Diplomates come on board after each graduation ceremony. Currently, we distribute over 11 000 hard copies per issue and this is expected to increase after each graduation ceremony. The future production of a paper-based version of the journal is not sustainable in the long run with dwindling advert revenues, rising production costs and postage.

We are aware that many previously paper-based scientific journals have transitioned to being fully electronic journals (e-journals) because of high production costs and the emergence of smart phones and tablet computers. It is now common practice to have mobile apps on the Apple iPad, Android or Microsoft tablet computers or phones that facilitate downloadable versions of these e-journals. Some e-journals have extended their presence to social media such as facebook, Twitter and YouTube. These facilitate interactions among people in which information and ideas are created, shared and exchanged via virtual communities and networks.

The CMSA *Transactions* needs to change to an e-journal so that it can move with the times in the 21st century and beyond. I am aware that transition needs to be well managed, especially with our long-standing members who are used to paper versions. Just as we moved from telegrams to landline phones to mobile phones and now to smart mobile phones, it is possible to shift into the technological arena of e-journals. We should learn from the history of Kodak, which despite being the pioneer in the field of photography, lost its competitive edge by not moving rapidly enough with the times. The current issue of *Transactions* is conducting a survey among its members with the view of assessing who will be happy to change to the e-journal era, while affording others, who may still want the hard copy, to bear in mind the high production costs highlighted above. I hope that you will return your completed survey forms as soon as possible.

This issue has the regular features including the last presidential letter of Prof Anil Madaree, the outgoing 17th CMSA president; the thought-provoking oration of Prof Cheryl de la Rey, University of Pretoria, on leadership; the 2011 Arthur Landau lecture titled, *A pressurised journey: success, hope and despair,* by Prof Yosuf Veriava; a peer-reviewed article, reprinted with permission from the *Southern African Journal of Gynaecological Oncology* on *Venous thrombosis in the patient with cancer*; and the minutes of the 57th annual general meeting of the CMSA senate, held on 19 October 2012. The next time you receive *Transactions*, be prepared to make a transition into the world of e-journals, which can be downloadable to your tablet computer or smart phone, or simply sent to your e-mail address as an attachment. Watch this space as the *Transactions* moves with the times!

Prof Gboyega A Ogunbanjo
Editor: *Transactions*
E-mail: gao@intekom.co.za

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1. History of Kodak. Kodak [homepage on the Internet]. c2013. Available from: http://www.kodak.com/ek/US/en/Our_Company/History_of_Kodak/Imaging-_the_basics.htm

Instructions to Authors

1. Manuscripts

1.1 All copies should be typewritten using double spacing with wide margins.

1.2 In addition to the hard copy, material should also, if possible, be sent on disk (in text only format) to facilitate and expedite the setting of the manuscript.

1.3 Abbreviations should be spelt out when first used in the text. Scientific measurements should be expressed in SI units throughout, with two exceptions; blood pressure should be given in mmHg and haemoglobin as g/dl.

1.4 All numerals should be written as such (i.e. not spelt out) except at the beginning of a sentence.

1.5 Tables, references and legends for illustrations should be typed on separate sheets and should be clearly identified. Tables should carry Roman numerals, thus: I, II, III, etc. and illustrations should have Arabic numerals, thus 1,2,3, etc.

1.6 The author's contact details should be given on the title page, i.e. telephone, cellphone, fax numbers and e-mail address.

2. Figures

2.1 Figures consist of all material which cannot be set in type, such as photographs, line drawings, etc.
(Tables are not included in this classification and should not be submitted as photographs).
Photographs should be glossy prints, not mounted, untrimmed and unmarked. Where possible, all illustrations should be of the same size, using the same scale.

2.2 Figures' numbers should be clearly marked with a sticker on the back and the top of the illustration should be indicated.

2.3 Where identification of a patient is possible from a photograph the author must submit consent to publication signed by the patient, or the parent or guardian in the case of a minor.

3. References

3.1 References should be inserted in the text as superior numbers and should be listed at the end of the article in numerical order.

3.2 References should be set out in the Vancouver style and the abbreviations of journals should conform to those used in Index Medicus. Names and initials of all authors should be given unless there are more than six, in which case the first three names should be given followed by 'et al'. First and last page num¬bers should be given.

3.3 'Unpublished observations' and 'personal communica¬tions' may be cited in the text, but not as references.

Article references:

- Price NC. Importance of asking about glaucoma. BMJ 1983; 286: 349-350.

Book references:

- Jeffcoate N. Principles of Gynaecology. 4th ed. London: Butterworths, 1975: 96.
- Weinstein L, Swartz MN. Pathogenic properties of inva-ding micro-organisms. In: Sodeman WA jun, Sodeman WA, eds. Pathologic Physiology: Mechanisms of Disease. Philadelphia: WB Saunders, 1974: 457-472.

Lost Members

The CMSA office in Rondebosch is keen to establish the whereabouts of the following "lost members", some of whom may be deceased. Any information that can be of assistance must please be e-mailed to Naomi Adams at members@colmedsa.co.za or Tel: 021 689 9533.

Azam, Muhammed (College of Paediatricians)

Bennett, Margaret Betty (College of Radiologists)

Block, Sidney (College of Family Physicians)

Breen, James Langhorne (College of Obstetricians and Gynaecologists)

Burger, Cornelius du Plessis (College of Orthopaedic Surgeons)

Chatora, Tsitsi Vimbayi (College of Family Physicians)

Geddes, Eric William (College of Public Health Medicine)

Gibson, John Hartley (College of Obstetricians and Gynaecologists)

Hamilton, Simon (College of Anaesthetists)

Karaga, Kudakwashe Weens (College of Family Physicians)

Kok, Hendrik Willem Lindley (College of Neurologists)

Meyer, Julius (College of Psychiatrists)

Ndimande, Benjamin Gregory Paschalis (College of Anaesthetists)

Ndlovu, Mohelepi Percy (College of Family Physicians)

Phillips, Kenneth David (College of Family Physicians)

Raubenheimer, Arthur Arnold (College of Obstetricians and Gynaecologists)

Richmond, George (College of Physicians)

Teferi Woldetsadick, Nebiat (College of Otorhinolaryngologists)

Van Coller, Beulah Mariè (College of Paediatricians)

Van Greunen, Johannes Petrus (College of Obstetricians and Gynaecologists)

Information as at 2 April 2013

It is with gratitude that I write my final President's newsletter. When I wrote my first newsletter in October 2010, I set out seven objectives during my tenure. There are two areas that I would like to discuss. Firstly, I want to reflect on my original objectives and analyse whether or not they have been fulfilled. Secondly, I wish to highlight my vision for the future of the CMSA.

My first objective was that the CMSA should be chosen by the Health Professional Council of South Africa as the preferred provider of the specialist national qualifying examination. This has been achieved. The second was increased dialogue with bodies involved in postgraduate medical and dental training. This has also been fulfilled. We met with the Minister of Health several times and he invited the CMSA to be represented on the relevant committees. The third pertained to the College Project. This has been making good progress under the helm of Prof Zephne van der Spuy. The latest achievement has been the funding and filling of subspecialist posts on a national basis.

The fourth objective of increased liaison with sister colleges internationally has also been met. The CMSA hosted a meeting for the International Association of Academy and College Presidents in April 2012. This was a very good symposium. Bodies were represented from across the globe. The fifth objective of audit was achieved with the appointment of the Risk Committee. The sixth objective of research has only been partially met. Progress has been made regarding the seventh objective of the Durban building, but it has not yet been completed.

Now for a few thoughts on the way forward. At the outset, my fervent plea was that the CMSA remain autonomous. This is a great strength of the CMSA. It allows us to function and preach advocacy based on principles and facts, without the fear of being admonished and reprimanded. The second burning plea was that the CMSA remains as an umbrella body, and that we do not fragment ourselves into various independent Colleges. As a collective body, we are better able to forge a path that is not one of tunnel vision, and which allows us to negotiate and deliberate on behalf of all specialties.

The CMSA must remain the body that determines postgraduate training in South Africa. Therefore, it must continue to conduct examinations in all medical and dental specialities. With this, the CMSA should also direct the standard of medical care in South Africa. The College Project has taken a lead in this direction and should continue to do so.

I would like to see the examination process becoming more standardised, with less proclivity to subjective bias. We should endeavour to make more use of electronic means to help the examination process to be less cumbersome. This must be achieved adroitly without compromising clinical prowess.

Africa is by far the poorest continent and its health care is abysmal. The CMSA should play a role in initiating and being an active participant in trying to improve medical training and health care in Africa. Certain initiatives have been commenced, but these need to be intensified. In conjunction with this, I would like to see the CMSA take the lead in promoting research on African diseases. South Africa is probably the leading research country in the medical and dental field in Africa. There is a need for us to undertake cutting-edge research into diseases that are typical to Africa, such as the human immunodeficiency virus, tuberculosis, malaria, malnutrition, and perinatal and maternal mortality. It is important that we take the lead and don't wait for the Western world to show us the way.

It has been both a privilege and a pleasure to serve you as the 17th President of the CMSA for 2010-2013. I hope I have served members and their interests appropriately. I want to wish the incoming President, Prof Gerhard Lindeque, all the best. I know that the CMSA will achieve new heights under his guidance.

I want to thank the two Senates and Senators for their guidance and support during my Presidency.

I would also like to thank the following people for their support, hard work and advice in ensuring that the CMSA continues to function in an impeccable manner and that it grows in all dimensions:

- Bernise Bothma (CEO), and the Cape Town office staff.
- Ann Vorster (Academic Registrar), and the Johannesburg office staff.
- Anita Walker and the Durban office staff.
- Prof Del Kahn, and members of the Finance and General Purposes Committee.
- Prof Arthur Rantloane, and members of the Examinations and Credentials Committee.
- Prof Anu Reddi, and members of the Education Committee.
- Prof Tuviah Zabow (Treasurer).
- Members of the Executive Committee.
- My Vice Presidents, Prof Gboyega Ogunbanjo and Prof Jeanine Vellema.
- Dr Warren Clewlow (Chairman), and the Board of Trustees of the CMSA.

I also wish to thank the Presidents, Secretaries and Council Members of the constituent Colleges and members of the CMSA.

Prof Anil Madaree
President

Life-time achievement award: Prof Kurt-W Bütow

Professor Kurt-W. Bütow is the Professor of Maxillo-Facial and Oral Surgery, Head of the Academic Department and Chief Specialist, University of Pretoria, Honorary Consultant of 1 Military Hospital, South Africa and Head of the Facial Cleft Deformity Clinic at the University of Pretoria. He is presently the President of the College of Maxillo-Facial and Oral Surgery, South Africa, an International Education Committee Member of the IAOMS and Chairperson of the Committee of Academic Heads of MFO-Surgery, South Africa. Since 2010 he is a Program Director for the IAOMS fellowship training program in Cleft Lip and Palate and Craniomaxillofacial Surgery.

Educated in Windhoek and received training at various Universities and graduated with the following degrees: BSc in Chemistry and Botany-Biochemistry at the Rand Afrikaans University in Johannesburg, BChD, MChD in Maxillo-Facial and Oral Surgery at the University of Stellenbosch in Cape Town, DrMedDent at the University of Erlangen–Nuremberg in Germany, PhD and DSc at the University of Pretoria. He is a fellow, FCMFOS(pr), of the Colleges of Medicine of South Africa. He is the only South African Maxillo-Facial and Oral Surgeon who holds three doctoral degrees, two in different aspects of Cleft Lip and Palate Surgery/Treatment and one in Craniofacial Surgery. He received his training in the subspeciality Primary Cleft Surgery at the University Hospital in Erlangen, Germany, under the famous Prof Emil Steinhäuser.

In 1983 he returned to South Africa, where he was appointed at the University of Pretoria. He established the multidisciplinary Facial Cleft Deformity Clinic, which has grown to the largest clinic in Africa with more than 3800 patients. He performed more than 4000 primary facial cleft deformity procedures and treated may-may more patients for their secondary cleft deformity. He has published over 300 scientific papers and abstracts, with more than 120 on cleft treatment, including two books. He developed a number reconstructive surgical techniques and approaches involving the primary lip, anterior nasal floor, hard palate, soft palate, Eustachian tube patency, oblique cleft facial deformities and others, as well as new procedures for secondary facial cleft deformity reconstructions.

He trained surgeons in cleft lip and palate treatment from South Africa, Africa and Europe. During his academic career he has given over 350 extra-curricular lectures, the majority on cleft lip and palate, nationally and internationally in countries such as Australia, Austria, Canada, Chile, Republic of China (Taiwan), People's Republic of China and Hong Kong, Germany, Israel, Namibia, New Zealand, Switzerland and USA. As invited guest lecturer and international education officer for the IAOMS he delivered 20 lectures on facial cleft deformity treatment at the 7th Education course for the East African Association of Oral and Maxillofacial Surgeon in Dar es Salaam, Tanzania.

Admission Ceremony
18 October 2012

The admission ceremony was held in the Aula Auditorium of the University of Pretoria, Hatfield. This newly refurbished venue was wonderful for candidates and their families.

At the opening of the ceremony, the President, Prof Anil Madaree, asked the audience to observe a moment's silence for prayer and meditation.

Prof Cheryl de la Rey, Vice Chancellor and Principal of the University of Pretoria, delivered the oration.

Eleven medallists were congratulated by the President on their outstanding performance in the CMSA examinations. The premier CMSA Phyllis Knocker/Bradlow Award was presented to Dr Elizabeth Sarah Mayne. Medals were awarded in the Fellowship disciplines of Emergency Medicine, Obstetrics and Gynaecology, Paediatrics, Public Health Medicine and Surgery. Medals were also awarded in the Diploma disciplines of Internal Medicine, Allergology and Emergency Medicine.

An Honorary Fellowship was awarded to Prof MC Asuzu by the College of Public Health Medicine. The citation was written and read by Prof S Naidoo.

The President announced that he would proceed with the admission to the CMSA of the new Certificants, Fellows and Diplomates.

The new Certificants were announced and congratulated.

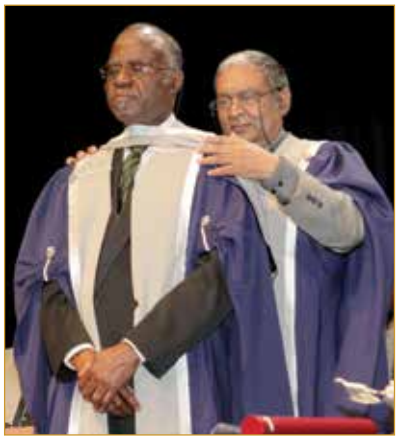
The Honorary Registrar - Examinations and Credentials, Prof Mike Sathekge, announced the candidates, in order, to be congratulated by the President. The Honorary Registrar - Education, Prof Jay Bagratee individually hooded the new Fellows. The Honorary Registrar - Finance and General Purposes, Prof Johan Fagan, handed each graduate a scroll containing the Credo of the CMSA.

The new Diplomates were announced and congratulated.

All in all, the President admitted 57 Certificants, 263 Fellows and 263 Diplomates.

At the end of the ceremony, the National Anthem was sung, whereafter the President led the recent graduates out of the hall. Refreshments were served to the graduates and their families.

Prof Cheryl de la Rey



Prof MC Asuzu, Honorary Fellowship

PHYLLIS KNOCKER/BRADLOW AWARD:
ELIZABETH SARAH MAYNE

Awarded to Fellows who achieved exceptional results in the Final Fellowship examination and whose professional careers have continued to show evidence of valuable contributions to basic or clinical research, participation in community health projects, or the advancement of the humanitarian aspects of Medical and Dental practice

Oration: Admission Ceremony: Prof Cheryl de la Rey

Address by Prof Cheryl de la Rey at the

Colleges of Medicine of South Africa Biannual Admission Ceremony, 18 October 2102

The President of the Colleges of Medicine of South Africa, distinguished guests, Certificants, Diplomates and Fellows, ladies and gentlemen. On behalf of the University of Pretoria, I wish to express our sense of honour at being the host for this very prestigious event. I wish to thank my colleagues in the Faculty of Health Sciences for their initiative and supportive role in arranging the hosting of this Admission Ceremony.

This venue, the Aula, was re-opened very recently at the end of August this year, after a two-year period of renovation and renewal. It is the University of Pretoria's largest auditorium, originally constructed in the late 1950s. While retaining the integrity of the architectural heritage, the Aula facade was rejuvenated. A new foyer was built and accessibility enhanced. The Aula is a focal point in the University's landscape. It is a venue that serves multiple purposes: hosting concerts, opera productions, high-profile lectures and graduations. It is my sincere pleasure to welcome you to the university and to this particular venue.

The renovation of the Aula is a small component of the larger renewal and expansion project that is being undertaken to increase capacity in line with our new strategy. You may have read in the media that one of the areas that we are expanding is our capacity for the training of medical doctors. As a public university, we are of the view that we should endeavour to do all that we can to align our growth strategy to meet the scarce skills needs of the country. However, to increase numbers without the requisite resources would seriously undermine the quality of the education and training offered by the university. I am pleased to share with you that the physical expansion of our Health Sciences Faculty can begin because of a special allocation from the Department of Higher Education and Training at the beginning of 2013. It is due for completion in 2014.

But human capacity development is not merely an issue of expanding numbers. It is also imperative that we consider the question of the quality of graduates. Perhaps this is especially important in developing countries like South Africa, where we are grappling with the delivery of basic services.

Tonight's ceremony marks the official admission of candidates into healthcare leadership roles and this means that the Fellows, Diplomats and Certificants have the potential to make an important contribution to the future of the health sector in South Africa. Therefore, I have elected to offer a few thoughts on the issue of leadership.

Ladies and gentlemen, one of the most frequently recited statements nowadays is: "What we really need is leadership, good leadership!" This statement is often made in conversations about the state of affairs in our country, and indeed, not only in South Africa, but also in many other places in the world today. It is a statement that typically evokes easy consensus. We all agree. After all, how could anyone not desire good leadership? This overall issue pervades all sectors, including health systems in Africa, where considerable emphasis is placed on strengthening leadership capacity. The World Health Organization has included the strengthening of governance, leadership and accountability in its global health agenda as aspects that underlie its contribution to building healthy populations.[1]

Leadership development is seen as central to the success of a national health system. It has been argued that good clinical leadership is pivotal to the delivery of a national health plan.[2] In recent seminars and workshops hosted at the University of Pretoria, some focusing on the implementation of the National Health Insurance, I have heard the view that the needed radical changes for effective and efficient delivery in the health system require first-class leaders who are also willing to embrace and drive the transformation of services.

Although there is apparent widespread agreement on the need for good leadership, what bedevils all efforts to strengthen capacity is that there is little consensus on what constitutes good leadership in general, and how this may be implemented on a sector-specific basis.

There was a time when there was a debate about whether leadership characteristics were innate, or whether they were learned. We have now moved to a generally accepted understanding that leadership can be acquired or learned.

This has generated a multiplicity of questions, such as:

- What essential characteristics constitute leadership?
- What style of leadership works best?
- What are the cultural dimensions of leadership?

As a consequence, there is a growing industry in leadership training programmes. The success of many of these programmes is predicated on two key factors: a clear conceptualisation of good leadership and the context in which leadership is exercised.

What kind of leadership is required in a world faced by challenges such as skewed access to basic resources, environmental degradation and many forms of power asymmetry? What is the role of leaders in our globalising world where we are becoming increasingly aware of our interdependence? Closer to home is the question of what quality of leadership is needed in order to bring about improvements in service delivery, employment and poverty alleviation?

In searching for answers to these and other related questions, some have argued for alternative leadership models that are not based on notions of hierarchy, dominance and assertiveness, but rather on values such as sustainability, diversity and social cohesion. The search for alternative models of leadership has spurned a growing array of different models of leadership, such as servant, participatory, transformational and responsible leadership.

In a 2006 book, Deborah Rhode[3] made the observation that a central difficulty that plagues analysis of leadership is not only the lack of consensus on what it might mean, but also that a striking feature of the volumes of writing on leadership is the scant attention given to ethics and the moral dimensions of leadership. Rather the focus has been predominantly on the broad question of what constitutes effective and strong leadership. This tendency has been accompanied by emphasis on rationality, logic and detachment. What about emotion, subjectivity, values and morality? After all, health care is a people-centred business.

Leaders face many challenges in education, health care and business. In the current financial climate, there is considerable pressure for further efficiency and effectiveness, but sometimes sectors such as education and health care are not recognised as having fundamental moral and ethical dimensions. A core aspect of the challenge in health care is that the culture of the health system needs to change.

In an effort to address these and related questions, there has been a growing interest in studying values, ethics and morality in leadership. Interestingly, I noticed a study that was published this year in the *British Medical Journal* that investigated the qualities that are perceived to characterise leadership in medical education. Medical education leaders identified social responsibility as the most dominant competency. Other important qualities were justice orientation, innovation and self-management.[4]

The South Africa of 2012 is a country of sharp and stark contrasts: wealth and poverty and first-class, cutting-edge infrastructure alongside squatter camps and violent crime. Yet as a population, we display high religiosity. Furthermore, the recent violent strikes and protests have brought the depth of social frustration and disillusionment with our systems and institutions to our attention.

The development of a rights-based health system that increasingly addresses the systematic barriers to care that are experienced by poor and vulnerable groups is imperative. Aside from policy and system issues, these recent protests perhaps also require that we re-assess the implementation of the values as enshrined in our ethics and practice codes.

Fairness, equality and human rights are values that are enshrined in our Constitution, and which provide us with a solid guiding framework. However, it is evident too, that at an individual and interpersonal level, there is a breakdown otherwise we would not be dealing with such high levels of corruption and abuse. A recent study on physician leaders found that emotional intelligence was cited as the most admired quality of leaders in health care. Emotional intelligence embraces a positive attitude, social skills and integrity.[5]

I wish to conclude by suggesting that each of us can take action to make a positive difference. Firstly, we should embrace an understanding of leadership that recognises that leadership is not the exclusive responsibility of those located at the apex of the health system or organisation.[6] A well-functioning health system needs personnel or clinicians who can demonstrate leadership skills and act as role models at all levels of healthcare provision. Leadership expertise is required in all settings of the sector to implement actions based upon good decision-making and a patient-centred approach to care.[7] To shift the national healthcare system, each professional must view him- or herself as a leader, but also as a change agent. Change and being a change agent is what South Africa needs to improve the quality of its healthcare services.

So I urge each of us, especially the graduates today, to take responsibility. As professionals, each of us has a leadership role to play, and this means that individually we must take responsibility for our attitudes and behaviour. Achieving good leadership is a process. A complex mix of attributes, behaviour and skills, and the ability to reflect upon and evaluate ourselves as leaders is required if we are to be effective leaders.[8]

In conclusion, on behalf of the University of Pretoria, I would like to express my appreciation of the important role that the Colleges of Medicine of South Africa is playing in providing the relevant leadership training that is having a direct impact the larger public health sector and its subsystems.

Thank you.

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MEDALLISTS

CAMPBELL MacFARLANE MEMORIAL MEDAL:
GRACE WIT BANDA
FCEM(SA) Part I

GP CHARLEWOOD MEDAL:
ANNEEN BIANCA VENTER
FCOG(SA) Part I

DAUBENTON MEDAL:
DOMINIC GILES DUDLEY RICHARDS
FCOG(SA)

DAUBENTON MEDAL:
CATHERINE ANNE CLUVER
FCOG(SA)

LESLIE RABINOWITZ MEDAL:
HAYLEY HUTTON
FC Paed (SA) Part I

HENRY GLUCKMAN MEDAL:
JACQUELINE FARIA MENDES
FCPHM(SA) Part II

TRUBSHAW MEDAL:
SHAAHEEN BISMILLA
FCS(SA) Primary

EUGENE WEINBERG MEDAL:
SALOME ABBOT
Dip Allerg (SA)

Y K SEEDAT MEDAL:
FAROUK PATEL
H Dip Int Med (SA)

CAMPBELL MACFARLANE MEDAL:
DAVID JOHN MCALPINE
Dip PEC (SA)

List of Medallists: 2012

FCA(SA) Part I - Hymie Samson Medal
Dr Karin-Ann BEN-ISRAEL – October 2012

FCA(SA) Part I - Glaxosmithkline Medal
Dr Muhammed Luqmaan VARIAWA – May 2012

FCA(SA) Part II - Jack Abelsohn Medal & Book Prize
Dr Dylan Alexander HEPBURN – October 2012

FC Derm(SA) Part I - Janssen Research Foundation Medal
Dr Prenavin MOODLEY – May 2012

FCEM(SA) Part I - Campbell MacFarlane Memorial Medal
Dr Victoria Sarah STEPHEN – October 2012

FCMFOS(SA) Final - SA Society of Maxillo-Facial and Oral Surgery Medal
Dr Eduardo Nuno Albuquerque Ferreira DA SILVA – October 2012

FC Neurol(SA) Part I - Sigo Nielsen Memorial Prize
Dr Michael Brian HUTH - October 2012

FCOG(SA) Part I - GP Charlewood Medal
Dr Rizwana AYOB - May 2012

FCOG(SA) Part II - Daubenton Medal
Dr Linda Ruth VOLLMER - October 2012

FC Ophth(SA) Primary IA - Neville Welsh Medal
Dr Thomas Johannes JORDAAN - October 2012

FC Ophth(SA) Intermediate IB - Ophthalmological Society Medal
Dr Steven Robert Jan LAPERE - October 2012

FC Ophth(SA) Final - Justin van Selm Medal
Dr Caroline GOODING - May 2012
Dr Mpopi Nthabiseng Lebohang LENAKE - October 2012

FC Orth(SA) Final - JM Edelstein Medal
Dr Neal Hillel GOLDSTEIN - October 2012

FC Paed(SA) Part I - Leslie Rabinowitz Medal
Dr Lindsey LEVIN - October 2012

FC Paed(SA) Part II - Robert McDonald Medal
Dr Yavini REDDY - May 2012

FCP(SA) Part I - AM Meyers Medal
Dr Reena KARA - May 2012
Dr Kajal NAIK - October 2012
Dr Trust ZARANYIKA - October 2012

FC Psych(SA) Part I - Lynn Gills Medal
Narushni PILLAY - May 2012

FC Psych(SA) Part II - Novartis Medal
Dr Theona BALLYRAM - March 2011
Dr Leigh VAN DEN HEUVEL - October 2012

FCPHM(SA) Occ Med - SASOM Medal
Dr Amy de Havilland BURDZIK - October 2012

FC Rad Diag(SA) Part I - Rhône-Poulenc Rorer Medal
Dr Nigel MUNSAMY - May 2012

FCS(SA) Primary - Anatomy - Frederich Luvuno Medal
Dr Bhavish Brahim KOWLESSUR - May 2012

FCS(SA) Primary - Trubshaw Medal
Dr Bhavish Brahim KOWLESSUR - May 2012

FCS(SA) Intermediate - Brebner Award
Dr Paul Stuart STEVENS - October 2012

FCS(SA) Final - Douglas Award
Dr Shalen CHEDDIE - May 2012

FC Urol(SA) Final - Lionel B Goldschmidt Medal
Dr Mark Richard PURDY - October 2012

Dip Allerg(SA) - Eugene Weinberg Medal
Dr Tamara Charmian KERBELKER - May 2012

DA(SA) - SASA John Couper Medal
Dr Frederick George OLIVIER - October 2012

Dip HIV Man(SA) - The HIV Clinicians Society
Dr Faye Catherine BIRKETT - May 2012
Dr Luzanne Heleen GRUNDLING - October 2012

Dip Ophth(SA) - Geoff Howes Medal
Dr Sayeed Hamzah MUSTAK - May 2012

Dip PEC(SA) - Walter G Kloeck Medal
Dr Victoria Lucy ROETS - May 2012

Dip PEC(SA) - Campbell Macfarlane Medal
Dr Victoria Lucy ROETS - May 2012

CITATION: Michael Chiemeli Asuzu Honorary Fellowship: College of Public Health Medicine

Professor Michael Chiemeli Asuzu has an illustrious career in public health medicine and has contributed enormously to the discipline of public health in Nigeria and other West African countries as well as in the Pacific island of Fiji. He is currently the Professor of Public Health and Community Medicine, College of Medicine, University of Ibadan, Ibadan, Nigeria and Honorary Consultant Community and Occupational Physician, University College Hospital, Ibadan. He is the past secretary and Chairman of the Faculty of Public Health, National Post-graduate Medical College of Nigeria as well as National Chairman of the Association of Public Health Physicians of Nigeria (APHPN), Visiting (Adjunct) Professor, Department of Community Medicine, Delta State University College of Health Sciences, Abraka, Delta State, Nigeria, and Director Ibarapa Community and Primary Health Care Programme, UI/UCH, Ibadan. Nigeria, Member of the Boards of Trustees, Association of Public Health Physicians of Nigeria, Diabetes and Hypertension Help Society, Nigeria (DHS), and Epidemiological Society of Nigeria (EPISON).

He completed his undergraduate medical training at the University of Ibadan in 1977 and thereafter a Master of Science in Clinical Epidemiology and Biostatistics for the Design, Measurement and Evaluation of Health Services from McMaster University in 1984. He then completed a Fellowship at the National Postgraduate Medical College in Public Health in Nigeria in 1986. He was a Rockefeller Foundation Training Fellow in Clinical Epidemiology, at McMaster University in 1983/84. In 2003, he was awarded FFPHM (UK), by election, in recognition of his contributions to public health and public health medicine. He received an Award of Honour for contribution to Public Health in Africa and by the Nigerian Public Health Conference in 2008. He has numerous public health publications particular in the areas of Epidemiology and Diseases control, Occupational Health, Health Management/Medical Education, Maternal and Child Health.

He is actively involved with the undergraduate and postgraduate medical education particularly in the field of Public Health Medicine (a.k.a. community medicine/health). His interest in the speciality led to the recognition of the role of the specialists in the health systems in Nigeria.

He is a member of a number of Nigerian professional organisations namely, the Nigerian Medical Association, the Association of Public Health Physicians of Nigeria, the Society of Occupational Health Physicians of Nigeria, the Nigerian Venereal Diseases Association (NIVEDA) and the Society for Research in Bioethics. He is member of the following institutions: the Board of Trustees of Diabetes and Hypertension Help Society, Nigeria (DHS), the Association of Medical Officers of Health in Nigeria, the Floral Fountain Health Foundation, Nigeria, and the Epidemiological Society of Nigeria (EPISON).

Internationally, he is a member of International Clinical Epidemiology Network (INCLEN), life member of the International Epidemiological Association (IEA) and recently launched African Epidemiology Federation and Global Environmental Epidemiological Network (GEENET).

He is an Associate Editor & Board Chairman, Journal of Community Medicine and Primary Health Care, and Associate Editor of the National Postgraduate Medical Journal, Nigeria and peer reviewer of a number of other journals.

His vision is to contribute to the recognition and development of disciplinary public health and community medicine as fundamental to dealing with issues in the medical and health professions and health services as they are. He would also like to contribute to the development of local, regional and national health services, throughout the continent, which are based on authentic community, primary medical and health care services based on the health-for-all agenda. Lastly, he envisions to contribute to develop a local, regional, national and global health community where there is equity in the health services, between individuals, communities, regions, nations, professions and other interest groups such that everybody knows, without anybody having to say or claim it, that s/he has a guaranteed right to health, equity, happiness and meaningful longevity.

He has an active interest in the speciality of Public Health Medicine (Community Medicine/Health) and would like to form an alliance of Public Health Medicine, Community Health and Preventive Medicine (as the speciality is called in different countries). He is very keen to form a Federation of Colleges of Public Health Medicine in Africa comprising of three existing Colleges namely, West African College of Physicians Faculty of Community Health, National Postgraduate Medical College of Nigeria and the College of Public Health Medicine (South Africa). We share his vision of expanding the profession to other African countries namely Eastern, Central and Northern African Countries through the proposed Federation.

We wish to acknowledge this huge contribution to public health in Nigeria and other West African countries. We believe that he will assist in fostering relationships between our colleges and will advise us on areas such as curriculum change, career pathing and on matters of urgency facing us as a specialty in the immediate future

Prof S Naidoo

List of Successful Candidates: September 2012

Fellowships

Fellowship of the College of Anaesthetists of South Africa: FCA(SA)

ABDALLAH Mosbah	UKZN
ALPHONSUS Christella Sinthuja	UKZN
AUBIN Anthony James	UCT
BELHAJ Sami Mohamed	UKZN
CAIRNS Carel	UKZN
DE BRUIN Nicolaas	WSU
DE WAARD Anneme	UP
DESAI Anil	UP
HADJIMICHAEL Maria Anna	WITS
HALUMAN Nirasha	WITS
HEPBURN Dylan Alexander	WITS
JACKSON Tracy	UCT
KAMBARAMI Timothy Chamunorwa	UCT
KOCK Alexander	UP
KRANSINGH Samantha	UKZN
LINKS Andre	US
MAHARAJ Hemanta	US
MOKGALAKA Dorcas Ntsebeng	UP
ODENDAAL Marleen	UP
PASSMOOR Duncan William	WITS
PIENAAR Rudolf Philip	WITS
RASHID Shahid	WITS
REID Leah	UCT
RYAN Lisa	UKZN
SAFFIN Andrew Peter	WSU
SEMENYA Elizabeth	WITS
STOLTENKAMP Heidi Lynn	UKZN
STUBBS Melissa Kim	WITS
VAN DER BYL Ashley	WSU
VAN WYK Beate	UCT
WASSERMANN George Henry	UCT

Fellowship of the College of Cardiothoracic Surgeons of South Africa: FC Cardio(SA)

DONGO James Lehlohonolo	UL
GELDENHUYS Agneta	UCT

Fellowship of the College of Dermatologists of South Africa: FC Derm(SA)

AHMAD Fatima	US
KGABALE Olehile Quinn	WITS
MOKWENA Tshepo Trevor	UP
MOOSA Muhammed-Ameen	WITS
NTOMBELA Bubele Magnificent	UKZN

Fellowship of the College of Emergency Medicine of South Africa: FCEM(SA)

ALSHEHRI Mohammed	UCT
KALLA Moosa	UCT
KOEKEMOER Marsha	UCT
LATEGAN Hendrick Jaco	UCT
NDEBELE Nontobeko Fortunate Menzi	UCT
PHILLIPS Laverne	UCT
SIMELELA Fetolang Rebecca	WITS

Fellowship of the College of Family Physicians of South Africa: FCFP(SA)

DUNBAR Graeme Leslie	UCT
IGBOJIAKU Okoroma John	UKZN
ONI Ezekiel Eranmosele	UKZN

Fellowship of the College of Forensic Pathologists of South Africa: FC For Path(SA)

DATE CHONG Mandy	US
KHAN Akmal	UCT

Fellowship of the College of Maxillofacial & Oral Surgeons of South Africa: FCMFOS(SA)

DA SILVA Eduardo Nuno Albuquerque Ferreira	UCT
GELDENHUYS Barry	WITS

Fellowship of the College of Medical Geneticists of South Africa: FCMG(SA)

FEBEN Candice Leigh	WITS
MOOSA Shahida	WITS

Fellowship of the College of Neurologists of South Africa: FC Neurol(SA)

MAHNE Anna Cecilia	UP
MARAIS Suzaan	UKZN
NAIDOO Neil	UKZN
SADIQ Mohammad Eitzaz	WITS

Fellowship of the College of Neurosurgeons of South Africa: FC Neurosurg(SA)

DE BRUYN Izak Jacobus	UFS
GOVENDER Gonasagren	UKZN
IBEBUIKE Kaunda Emeka	WITS
MJOLI Ntethelelo	UCT
MKHONZA Mfundo Felix	UP
WOPULA Zwelabantu	WITS

Fellowship of the College of Nuclear Physicians of South Africa: FCNP(SA)

DORUYTER Alexander Govert George	US
HATUTALE Anni-Liina N	UP
MSHELIA Dahiru Saleh	UP
SONDAY Zarina	UCT
TAG Naima	US

Fellowship of the College of Obstetricians & Gynaecologists of South Africa: FCOG(SA)

ADAM Ameera	US
BUGA Chandia Edward	WITS
CEBEKHULU Sylvia Nnaniki	UKZN
DE CAMPOS Joao Pedro Diogo	UP
DENA Mary	WITS
DHAVER Navashree	UKZN
ESSEL Kwabena Antwi	UCT
HOFMEYR Franelise	US
ILOANUSI Nicholas	WITS
JACK Noxolo Brenda	WITS
JONES Keir	UP
KALIM Mahnaz	US
KALU Charles Ugochukwu	WITS
LA GRANGE Jané	US
MAJEKE Busiwe	WSU
MANDONDO Sibongile Desiree	WSU
MASHILOANE Sinah Magalane	UL
MCHUNU Makaaya	UKZN
MGUDLWA Batembu	WSU
MOKONE Nteboheleng Moleboheng Pontsho	WITS
MOODLEY Avril	UCT
MOTHIBE Nontando Claribel Sarah	WITS
MUKHUDWANI Khathutshelo Roy	WITS
NGENE Nnabuike Chibuoke	UKZN
POTGIETER Janine	UP
PULE Palesa	WITS
RAMSAMY Indra	WITS
SEBOLA Patricia Duma	UP
SICHIMWA Godfrey	WITS
SULEIMAN Fatma Muslim	WITS
VAN ZYL Gideon	US
VOLLMER Linda Ruth	UCT

Fellowship of the College of Ophthalmologists of South Africa: FC Ophth(SA)

CHAFEKAR Khursheeda	UP
DINDAR Ismail Ahmed	WITS

FLETCHER Taryn	WITS
LENAKE Mpopi Nthabiseng Lebohang	UCT
NIEMANDT Marcel Chris	UKZN
STOLER Darren Craig	WITS
VAN DEN HEEVER Henning	US

Fellowship of the College of Orthopaedic Surgeons of South Africa: FC Orth(SA)

ASHOUR Rami Abdualla	UKZN
BASSON Helene	UP
BURGER Johannes Dawid	US
DACHS Robert Paul	UCT
DUZE James	WITS
FRANK Ruvyn	UKZN
GOLDSTEIN Neal Hillel	WITS
GREYLING Pauline	UP
MONNI Toni	UP
MORULE Pule Benedict Masego	WITS
NIAZI Javed Iqbal Khan	WSU
PIETRZAK Jurek Rafal Tomasz	WITS
SONJANI Siyabonga	UKZN
STANDER Hanrich Johan	UCT
SULIMAN Mohammed	WITS
TWALA Makhaya Owen	WITS
VAN DEN BOUT Henri Elbert Theodoor	UP
VAN DER WATT Christelle	US

Fellowship of the College of Otorhinolaryngologists of South Africa: FCORL(SA)

CAPON Timothy Paul	WITS
DIFELA Kagelelo	UCT
JACOBS Christopher Richard	WITS
JAMES John Herman	WSU
MANSOOR Jennefer Angelin	

Fellowship of the College of Paediatricians of South Africa: FC Paed(SA)

AMBARAM Priya Ramanlal	WITS
BAADJES Bjorn	US
BANDA Francis Msume	UCT
BATCHELOR Sarah Jane	WITS
BOTES Alida Maria	UCT
DREYER Owen	UKZN
GOVERE Eugene	UKZN
HALLES Keith	WITS
KAJEE Zaheera	US
MATHEWS Elmarie Joy	UP
MOODLEY Samantha	UKZN
MOONSAMY Preoshni	WITS
NAIR Nadia	UKZN
NGAMBE Tharcisse	WITS
PAMACHECHE Togara Manomano	WITS
PENTZ Adele	UP
RADEBE Lindokuhle Thobile	UKZN
SEONANDAN Pratheesha	UKZN
SINGH Roshika	UKZN
STREET Liza	WITS
SWANSON Lenise Christine	US
TIAM Modinat Mayowa	WITS

Fellowship of the College of Paediatric Surgeons of South Africa: FC Paed Surg(SA)

ARNOLD Marion	US
HARRISON Derek Stanley	WITS

Fellowship of the College of Pathologists of South Africa - Anatomical: FC Path(SA) Anat

MORSE Nicole Joy	UCT

Fellowship of the College of Pathologists of South Africa - Chemical: FC Path(SA) Chem

FORTGENS Philip Hendrik	UCT
GOVENDER Devina	UKZN
PASSMAN Marc	WITS
PILLAY Taryn	WITS
PUNCHOO Rivakraj	WITS

Fellowship of the College of Pathologists of South Africa - Clinical Pathology: FC Path(SA) Clin

SHIKONGO Sirkka Kaunependa	WITS

Fellowship of the College of Pathologists of South Africa - Haematology: FC Path(SA) Haem

DHANSAY Rafiq Achmad	WITS
NAIDOO Suraya	UKZN
SEDICK Qanita	WITS

Fellowship of the College of Pathologists of South Africa - Virology: FC Path(SA) Viro

GOVENDER Kerusha	UKZN
MARITZ Jean	US
MDLALOSE Nokukhanya Beryl	UKZN

Fellowship of the College of Physicians of South Africa: FCP(SA)

BAPOO Nabeel Ahmed	US
BIZAARE Maresce Kerry	UKZN
BUTHELEZI Nkululeko Nduduzo	UKZN
COETZEE Ankia	US
COOPER Robert	US
DEMPSEY Paul	WITS
GREYLING Koenraad Edwin	US
HARIPERSAD Asheen	UCT
KANYAMA Cecilia	UCT
MADITSI Maletswai Dennis	UKZN
MAHARAJ Anusha Priya	WITS
MASON Carolyn Ruth	WSU
MOEKETSI Khulile	UCT
MOKONE Thomas Modise	UL
MOTTAY Lynelle Sarasvathie	UCT
NAICKER Poobalan	WITS
NAIDOO Jashira	UCT
NAIDOO Pranusha	WITS
NGOMA Jonathan	UCT
NQEKETO Ntsika Lunga	UL
PILLAY Diana	UKZN
PRETORIUS Christel	UFS
RANCHOD Rakesh Nagin	WITS
ROESTOFF Tumelo Kingsley	WITS
SINGH Lucille Sarah	WITS
THEMISTOCLEOUS Andreas Constantinos	WITS
VAN DER WALT Andrew John	WITS
WASSERMAN Sean	UCT

Fellowship of the College of Plastic Surgeons of South Africa: FC Plast Surg(SA)

DOWER David William Rory	UL
EKSTEEN Ehren Cronje	UP
JENKIN Aimee Thelma	WITS
JOHNSON Susan Frances	UKZN
LANDMAN Nicolette	UP
VENTER Marisse	WITS

Fellowship of the College of Psychiatrists of South Africa: FC Psych(SA)

BROOKER Janine Anne	UKZN
GOVENDER Navanthree	WITS
GREWAL Ravinder	WSU
HADEBE Veronica Sibongile	UKZN
LANDMAN Willem Johannes	
MHLONGO Mpho Dianah	UKZN
NAIDOO Marshinee	WITS
OLLA Khatija Bibi	UKZN
PHAHLADIRA Lebogang Simon	UCT
PHASWANA Tshepiso Daphne	UP
TAYLOR Joanna Jane	WITS
VAN DEN HEUVEL Leigh	US

Fellowship of the College of Public Health Medicine of South Africa - Occupational Medicine: FCPHM(SA) Occ Med

BURDZIK Amy de Havilland	UCT
MOTHEMELA Mokgadi Saraphine	UCT
PHASWANA Shumani Makwarela	UKZN

Fellowship of the College of Diagnostic Radiologists of South Africa: FC Rad Diag(SA)

BOSHOFF Pieter Ernst	WITS
DU TOIT Jacqueline	US
ESHRAGHI Hoda	WITS
GOUVEIA Alan John Grota	WITS
GOVENDER Nishentha	WITS
JANSEN VAN RENSBURG Colin	WITS
JOGESSAR Raksha	UKZN
JOSEPH Febin	UP
MAPFUMO Blessing	WITS
MOOSA Hanief	WITS
NAUDE Yvette	UP
POTGIETER Liezel	WITS
SIKWILA Christopher Temba	
TJONGARERO Natasha Tuavanga	US
VAN DER MERWE Braham Swanepoel	US
WANER Jonathan Ilan	WITS

Fellowship of the College of Radiation Oncologists of South Africa: FC Rad Onc(SA)

ALLEYNE-MIKE Kellie Rozelle	UCT
EKSTEEN Sybil	US
ELHASSAN Moawia Mohammed Ali	UCT
MOHAMMED Khadiga Elfadil Ahmed	UCT
NYASOSELA Richard Ukapolola Unadyanji	WITS
VAWDA Nafeesa	UCT

Fellowship of the College of Surgeons of South Africa: FCS(SA)

ADEWUNMI Abdus-Sami Adegoke	WITS
BOTHA Rene	UP
BRUCE John Lambert	UKZN
CHOWDHURY A H M Sharfuddin Mahmud	UCT
CHRISTIAN Wendy Dawn	UCT
DUBE Bhekifa	WSU
FABER Alexander	WITS
FORGAN Timothy	US
FOURIE Rebecca Leony	UP
HARRAN Nadine	WITS
JENNINGS Vicky Adele	WITS
KAIRUKI Muganyizi Clemence	WITS
LEGODI Kgadimonyane Peter	UL
MONARENG Taalib Teboho	WITS
MOORE Rachel	WITS
NAIDOO Vimal	UKZN
NANDE Elkana Mweikange Halleluja	UCT
PRODEHL Leanne May	WITS
RAOLEKA Happy Nkabati	UL
SURRIDGE Daniel Johnathan David	WITS

Fellowship of the College of Urologists of South Africa: FC Urol(SA)

ADAM Ahmed	UP
ESTERHUIZEN Ernistus	UKZN
OCTOBER Nathan Alistair	WITS
PURDY Mark Richard	WITS
VENTER Pieter Johannes Lodewikus	UP

Certificates

Certificate in Cardiology of the College of Physicians of South Africa: Cert Cardiology(SA) Phys

KALK Thomas	WITS
KYRIAKAKIS Charles George	US
LUBBE William Wayne	US
MCCUTCHEON Keir Robert Gregor	WITS
PANDIE Shaheen	UCT

Certificate in Child Psychiatry of the College of Psychiatrists of South Africa: Cert Child PsychSA)

KIRIMI Netsa Keith	UFS
MAHARAJ Pralene	WITS
PRICE-HUGHES Ronelle	WITS

Certificate in Clinical Haematology of the College of Physicians of South Africa: Cert Clinical Haematology(SA) Phys

WAJA Muhammed Faadil	WITS

Certificate in Critical Care of the College of Anaesthetists of South Africa: Cert Critical Care(SA) Anaes

EAGAR Mark Alan	WITS
NETHATHE Gladness	WITS
WISE Robert Deon	UKZN

Certificate in Critical Care of the College of Paediatricians of South Africa: Cert Critical Care(SA) Paed

APPEL Ilse	UCT
MOSHESH Nthabeleng Marcia	WITS
NAIDOO Kuban Dhasaradha	WITS
PARKER Noor Mohamed	UCT

Certificate in Critical Care of the College of Physicians of South Africa: Cert Critical Care(SA) Phys

GOVENDER Seshen	UKZN

Certificate in Developmental Paediatrics of the College of Paediatricians of South Africa: Cert Dev Paed(SA)

REDFERN Andrew William	UCT
SAUNDERS Hilda Henriëtte	US

Certificate in Endocrinology & Metabolism of the College of Paediatricians of South Africa: Cert Endo & Metabolism(SA) Paed

CHIBA Ajay Chhagan	WITS
TAYOB Shafeeka	UKZN

Certificate in Endocrinology & Metabolism of the College of Physicians of South Africa: Cert Endo & Metabolism(SA) Phys

DELPORT Eluned Florence	UP
GORDON Debra Maxine	WITS
MAHOMEDY Tasneem	WITS

Certificate in Gastroenterology of the College of Physicians of South Africa: Cert Gastroenterology(SA) Phys

CHOPDAT Nazeer Ahmed Ismail	WITS

Certificate in Gastroenterology of the College of Surgeons of South Africa: Cert Gastroenterology(SA) Surg

COETZEE Emile Du Toit	UCT
CROTS Martin	UFS

Certificate in Gynaecological Oncology of the College of Obstetricians and Gynaecologists of South: Cert Gynaecological Oncology(SA)

SANG Edward Kipngetich	

Certificate in Infectious Diseases of the College of Paediatricians of South Africa: Cert ID(SA) Paed

LE ROUX David Martin	UCT

Certificate in Infectious Diseases of the College of Physicians of South Africa: Cert ID(SA) Phys

HEYS Izak Cronje	US

Certificate in Maternal and Foetal Medicine of the College of Obstetricians and Gynaecologists of South Africa: Cert Maternal & Foetal Medicine(SA)

CHILOPORA Garvey Chipiliro	UCT

Certificate in Medical Oncology of the College of Paediatricians of South Africa: Cert Medical Oncology(SA) Paed

VAN HEERDEN Jaques Johan	UCT

Certificate in Medical Oncology of the College of Physicians of South Africa: Cert Medical Oncology(SA) Phys

DAVID Ria	WITS

Certificate in Neonatology of the College of Paediatricians of South Africa: Cert Neonatology(SA)

LLOYD Lizel Georgi	UP
MAMDOO Fahmida	UKZN
MATHIVHA Khakhu Tshilidzi	WITS
RABAN Moegammad Shukri	UCT
THOMAS Reenu	WITS
VAN DER MERWE Sarah Katrina	US
YASER Abdallah	UCT

Certificate in Nephrology of the College of Paediatricians of South Africa: Cert Nephrology(SA) Paed

NAIDOO Sanushka	WITS

Certificate in Nephrology of the College of Physicians of South Africa: Cert Nephrology(SA) Phys

BEZUIDENHOUT Ehrard	UFS
MOODLEY Jayendran	UKZN

Certificate in Paediatric Neurology of the College of Paediatricians of South Africa: Cert Paediatric Neurology(SA)

GOVENDER Vasantha	UKZN

Certificate in Pulmonology of the College of Paediatricians of South Africa: Cert Pulmonology(SA) Paed

ABBOTT Salome	UP
GITHINJI Leah Nyawira	UCT
POOLE Graham Adrian	US

Certificate in Pulmonology of the College of Physicians of South Africa: Cert Pulmonology(SA) Phys

ALLWOOD Brian William	UCT
BHAMJEE Shiraaz	WITS
BRAND Liezl	WITS

Certificate in Rheumatology of the College of Physicians of South Africa: Cert Rheumatology(SA) Phys

BUDHOO Amritha	UKZN
RICHTER Erne	US

Certificate in Trauma Surgery of the College of Surgeons of South Africa: Cert Trauma Surgery(SA)

GYEBI Samuel Asi WITS

Certificate in Vascular Surgery of the College of Surgeons of South Africa: Cert Vascular Surgery(SA)

ISLAM Jahangirul UKZN
MOUTON John Pierre US
NATHA Bhavesh UCT
VERMAAK Jacobus Stephanus WITS

Part I, Primary and Intermediate Examinations

Part I of the Fellowship of the College of Anaesthetists of South Africa: FCA(SA) Part I

BAWA Bhavini WITS
BEN-ISRAEL Karin-Ann WITS
COMBRINCK Erdee WSU
DASS Deshandra US
FOURIE Adolf Johannes UL
GAYAPARSAD Menoka WITS
GQIBA Akhona Lolwethu UKZN
KANJEE Jayd UKZN
MAHARAJ Dyuti WITS
MAHLOGO William UP
MAZIBUKO Andile Zamokuhle UP
MOODLEY Niriksha UKZN
MOORUTH Vivek WITS
NYOKA-MOKGALONG Simangele Cecilia UCT
RODRIGUES Jacques UCT
RUMBOLL Charles Knight
SLABBER Petrus Jacobus UKZN
THIBELANG Kwenayabotlhe
VAN DEN HEEVER Andreas WITS
VAN DER WALT Nicolaas WITS

Part I of the Fellowship of the College of Dermatologists of South Africa: FC Derm(SA) Part I

LIMBA Babalwa Phindiswa Zinziswa WITS
MAKHUBELE Jabulile UP
MAREE Chanel UP
MARUMA Frans Madimetja UFS
MAZIBUKO Mthobisi Neliswa UKZN
MOGALE Lebogang Patricia UP
MORRISON Mercedes WITS
QWESHA Welcome Mfihlakalo WSU
SIBISI Silindile Ayanda WITS

Part I of the Fellowship of the College of Emergency Medicine of South Africa: FCEM(SA) Part I

BAIKAI Changi
BAILLIE Tamsyn Beth WITS
DE MAN Martin
EVANS Derrick Reginald UCT
EVANS Katya UCT
JOOSTE Gisela UCT
JOOSTE Willem Johannes Lodewyk
KHALEMA Diteboho WITS
KHAN Waseela US
MADI S'fisosikayise WITS
MALIAKEL Jupiter George WITS
MOKUTE Kago Thuto
MOLOKOANE Keamogetswe WITS
NTI Gaongalelwe
SEBAKENG Makamu Lechani
STEPHEN Victoria Sarah

Final Part A of the Fellowship of the College of Family Physicians of South Africa: FCFP(SA) Final Part A

HANLEY Sherika UKZN
INDERJEETH Nishana UKZN
JOSEPH Kuncheria UP
MAPHOPHE Themba UKZN
MOOLLA Salma Abdulkadir UCT

Part I of the Fellowship of the College of Forensic Pathologists of South Africa: FC For Path(SA) Part I

MATLALA Kwena Selaki

Primary Examination of the Fellowship of the College of Maxillofacial & Oral Surgeons of South Africa: FCMFOS(SA) Primary

ABDOOLA Irshaad
NUSRAT Aymen Arabi WITS
RABIE Evan Roche

Part I of the Fellowship of the College of Medical Geneticists of South Africa: FCMG(SA) Part I

BEZUIDENHOUT Heidre US
KRZESINSKI Emma Iva US

Part I of the Fellowship of the College of Neurologists of South Africa: FC Neurol(SA) Part I

CROSS Helen Margot UCT
DJAN David Kwabena Twene WITS
GOVENDER Shaelin UKZN
HUTH Michael Brian WITS
KOULASSAR Aradhna UKZN
ROOS Izanne Craill UKZN
SMITH Marcelle Raye Dolores
STANLEY Alan Michael UCT

Part I of the Fellowship of the College of Nuclear Physicians of South Africa: FCNP(SA) Part I

FADIJI Isaac Olusola WITS
LAWAL Abubakar K-Bai WITS
MBAKAZA Olwethu Natash WITS

Part I of the Fellowship of the College of Obstetricians & Gynaecologists of South Africa: FCOG(SA) Part I

BABAWALE Musiliu UL
CHAUKE Hecate Derrick UKZN
COETZER Marsel
HUKUIMWE Misai
KENNEDY Yollande WITS
KORANTENG Mama-Asu Afua WITS
KWAW-ASANTE Kofi
MABELA Lekwapa McRaymond UL
MAKHANYA Vuyo UKZN
MAKULANA Tshililo Victor UP
MARSHALL Vaughan
MASHAYAMOMBE Rumbidzai Esinath WITS
MASIMILA Davinia Alpharita Helene WITS
MASUKUME Gwinyai
MELAMU Mpolokeng Baradi Prudence WITS
MOAGI Mahloromela Emmanuel UP
MOOSA Sumaya UKZN
MUGWEDE Maidei WITS
MUROVE Bobb Tariro
MWEDZI Fanuel
RAMBANAPASI Harrison
SETATI Matuma Phillemon WITS
SIBANDA Mpumelelo
SIEMEFO KAMGANG Francois de Paul UKZN
SITHALE Tshepo Charles
VAN DER WESTHUIZEN Nadia UFS

Primary 1A Examination of the Fellowship of the College of Ophthalmologists of South Africa: FC Ophth(SA) Primary 1A

GANI Aboobaker
HAARHOFF Andre Willem US
JALDI Hojatollah
JEEVA-PATEL Trishal WITS
JORDAAN Thomas Johannes UFS
KRIEK Jozef Albertus WSU
LETSWALO Gabriel
MATHE Nombuso UKZN
NGETU Lumko Robert
NIEDER-HEITMANN Norman US
PUTTER Magdel
TAYOB Hamza
VAN ECK Elizabeth Catharina UFS
VAN ZIJL Teaan WITS

Primary Examination of the Fellowship of the College of Otorhinolaryngologists of South Africa: FCORL(SA) Primary

DZONGODZA Titus
MATINHIRA Naboth Nevson
MOHABIR Sheryl
MOODLEY Kerusha UKZN
RAMAGAGA Serwalo Marion UP

Part I of the Fellowship of the College of Paediatricians of South Africa: FC Paed(SA) Part I

ABRAHAMS Ilhaam UCT
AGABA Faustine WITS
AKBAR ALLY Mehnaaz Banu WITS
APPALSAMY Pranesha UKZN
BARNARD Kim WSU
BAYANI One
BROWDE Kate Rebecca UCT

BRUWER Dina Gertruida	UFS
CARR Amy Elizabeth	UKZN
CHETTIAR Melissa Lavinia	UKZN
DENNIS Tanya	WITS
DUMA Nolwandle	
GELDENHUYS Chandre Xenia	US
IRUSEN Shaegan	WSU
KOOBLAL Yajna	US
LEVIN Lindsey	UCT
MACHABA Lethabo	WITS
MAHLANGU Busisiwe Carol	WITS
MAHLASE Gabriel Lindokuhle	UKZN
MAKHANTHISA Muofhe Mercy	UKZN
MAKHUPANE Thabelo	
MANCHIDI Mokhulwane Klaas	UKZN
MASIKARA Mbaakanyi Kris	
MATHENJWA Zakithi Nonhlanhla	
MBETHE Audrey Philisiwe	
MOLOTSI Marang Ontlametse	
MONNANE Refilwe Gloria	UFS
MONTGOMERY Stephane	WITS
MOODLEY Parusha	UFS
MOPELI Refiloe Keketso	
MOREMI Dietsa Makoma	UL
MORIENYANE Mampoi Tsepiso Grace	UFS
MOSALAKATANE Thembisile Dintle	
MOSIATLHAGA Maletimela Annie	
MOTENE Aletta Lefentse	UKZN
MTESHANA Phindile Zandile	
MVALO Tisungane Knox Titus	UCT
MWANDLA Nokukhanya Swazi	WITS
NETSHITUNI Vhutshilo	US
NGCOBO Princess Nonhle	
NKOSI Winter-Rose Sizakhele	
NTWIGA Jolly	UKZN
ONDONGO-EZHET Claude Christelle	
Eleonore	WITS
OYEMWIMINA Osarenren Andrew	UKZN
PADAYACHEE Natasha	WITS
PILLAY Derisha	UP
PRINCE Kim Didi	UCT
PROCTER Claire Mary	UCT
QINA-TYHALI Babalwa Zandile	
RAGA Sharika Vinod	
ROTTANBURG Daniella Eva	WITS
SETLHAKE Seatshogeng Pretty	
THATHA Thabani Paulos	
THERON Nicke	UFS
TSIMANE Katlego	
TSUTSU Noxolo	WSU
VAN DYK Leana	
VAN WYK Liana	UCT
VENKETRAMEN Jayenthrie	UKZN
WALLY Oaitse	
WILLIAMS Sadeeka	UCT
WILLOUGHBY Mark	UKZN

Part I of the Fellowship of the College of Pathologists of South Africa – Anatomical: FC Path(SA) Anat Part I

CHETTY Dharshnee Rama	UCT
CRONJE Christina Margaretha	UP
NAIDOO Vaneshree	UKZN

Part I of the Fellowship of the College of Pathologists of South Africa – Haematology: FC Path(SA) Haem Part I

CHETTY Teruschka	UP
VAN DER LINDE Riana	UL
WEBB Caroline Louise	UCT

Part I of the Fellowship of the College of Pathologists of South Africa - Oral Pathology: FC Path(SA) Oral Part I

MOSALLEUM Esraa

Part I of the Fellowship of the College of Physicians of South Africa: FCP(SA) Part I

BARE DUMBU Yvonnie	
BASSON Anneen Lizette	WITS
BEZUIDENHOUT Karla	US
BOLON Jonathan Graham	WITS
BOTI-MTSHEMLA Nomvuselelo	WSU
BOTSILE Elizabeth	
BRIJLAL Urisha	US
CIROTA Jacqueline Rachelle	UCT
DANNHEIMER Hanneke Lisa	WITS
DELLO-IACONO Adriano Luke	WITS
FAKEY Dilshaad	UKZN
FORTEIN James	UFS
GABRIEL Michele Chantal	UKZN
GASKIN Gillian	UKZN
GODINHO Lee-Anne	WITS
GREENSTEIN Lara Sonia	WITS
GRIFFITHS Bradley Paul	UCT
GULE Manqoba Vusumuzi	WITS
HASSEN Muhammed	
HELLIG Jocelyn Ann	US
JEEHA Rajeev	UKZN
JOUBERT Lloyd	UFS
KAHN Thania	
KASWA Ramprakash	WSU
KERBELKER Zita Shayne	UCT
KGOLE Mamokoma Becky	UP
KHAMKHAM Almokhtar	UKZN
KHAN Mahamuda	
KOCH Karen	
MACHAILO Joseph Tebogo	WITS
MAPASA-DUBE Busisiwe	
MAPHANGA Dineo	
MARECHERA Dambudzo Sabbath	
MASUKU David Sifiso	
MATHIBA Rofhiwa Margaret	WITS
MBULI Lindisa	UCT
MNGAZA Zukiswa	UFS
MOGAMBERY Tace Adora	UKZN
MOHAPI Makgotso	WITS
MOJA Lebogang	WITS
MOKGOKO Didintle	WITS
MOKHELE Nnete Nimrod	UCT
MOLEFI Thulo	WITS
MOLOI Mothusi Walter	
MORROW Amy Juliette	WITS
MOSHANE Peter	
MUSEMWA Caroline Tendai	
NADAR Sandhiran	UKZN
NAIDOO Darrin Ryan	UKZN
NAIDOO Larisha	UKZN
NAIDOO Poobalan	
NAIK Kajal	WITS
NAMALE Phiona Enid	UCT
NDAMASE Siviwe	
NINISE Sixolile	WSU
PATCHAPEN Yvette	WITS
PEER Mohamed	
PERUMAL Rubeshan	
PITSO Lebohang	UFS
POSWA Nontsikelelo Thelma	UFS
PRIOR Claire	
RALISE Mantsebo Elizabeth	WITS
RAMCHANDRE Kaveer	UKZN
RAMSUNDER Nikash	UKZN
RUSH Colin	UCT
RUSSEL Raisul Islam	UKZN
SETIME Mpho Alphonce	
SHABANGU Thulisani Phillipine	WITS
SHAW Jane Alexandra	US
SHEIKH Abid Mubashir	
SHMENDI Akram Elmokhtar M	UKZN
SIDDI GANIE Naazim	
SINGH Akira	UKZN
SINGH Sanushka	WITS
SIRKAR Atish	UKZN
TADZIMIRWA Ratidzo	WITS
TAOLO Erasmus	
THOMAS Preetha Mookenthottathil	WITS
THOMAS Riju Mathew	WITS
TIVA Tlangelani Thanks	UP
TOP Gysbert	UFS
VAN DER MERWE Pieter du Toit	US
VAN HOUGENHOUCK-TULLEKEN Wesley	WITS
WUNG Pei-Chee	UFS
ZARANYIKA Trust	UCT
ZIKHALI Tafadzwa Thubelihle M	

Part I of the Fellowship of the College of Psychiatrists of South Africa: FC Psych(SA) Part I

BODLANI Nomaphelo	WSU
ELOFF Ingrid Geeske	WSU
JOSE Cicyn	UCT
ODAYAR Kavendren	WSU
RAMNARAIN Pooja Meghna	UKZN
TAUKOOR Bhoodeo	UKZN
YAKOOB Ismail	WSU

Part I of the Fellowship of the College of Diagnostic Radiologists of South Africa: FC Rad Diag(SA Part I

BASSON Frederik Christoff	
BOVE Michele	WITS
COMBRINCK Nantes	
DAFFUE Kevin	
DAYA Sheetal	WITS
DORFMAN Shane	WITS
HLWATIKA Pilasande	UKZN
KRIM Ahmed O	WITS

MAFOLE Elizabeth Kenalemang	UL
MAGAGULA Senzwesihle Clive	UKZN
MALANGA Peter	UL
MHLAMBI Kgatliso Innocentia	WSU
MOEPI Sello Hermans	
MOSIANE Ofentse	UL
O'HAGAN Anelma Suzanne	
PARAG Yethiksha	UKZN
PHEZA Zolelwa Patience	UKZN
PIETERS Michael Shaun	UFS
PIETERSE Jacobus	
SHAYINGCA Thandaza Mitchel	WITS
SINGATA Chuma	UCT
STUTTERHEIM James	UKZN
VAN DER WESTHUIZEN Gerhard	UFS
VAN ZYL Christoffel Johannes	UFS

Part I of the Fellowship of the College of Radiation Oncologists of South Africa: FC Rad Onc(SA) Part I

ACULLU Denis	US
ASMAL Mohammed	WITS
BHADREE Shona	UKZN
GROENEWALD Marli	UCT
JAFTA Zukiswa	WSU
NDUMBALO Jerry	WITS
RAMDAS Yastira	WITS
SETLHAKO Irene Ikanyeng	UCT

Primary Examination of the Fellowship of the College of Surgeons of South Africa: FCS(SA) Primary

ANTOS Olivia	WITS
ANYIKWA Anderson Chinedu	
ASANTE Evrett Nana Kwame	
BOSKOVIC Viseslav-Willy	UFS
BOWER Janice	
CHANG Hung-Jou	
COCCIA Anna Claudia	UP
DARR Humaa	UCT
DE JAGER Simon Grant	UKZN
DE WET Christiaan	WSU
DELL Angela	US
EGBUNIKE Ikechukwu Amaechi	
ELKHARBASH Abdurahman	UCT
ELSHIERE Alladden Idres M	UKZN
ESSA Imraan Ebrahim	UKZN
FRITTELLA Lucio Paolo	WITS
GANDHI Karan Rohit Kumar	
GILBERT Shaun Mark Ricardo	
HORN Joubert Jan	
HUMAN Lizelle	UFS
IBRABISH Osama Hussni S	WITS
IMMELMAN Reynard Jacques	WITS
IPUTO Rebecca	
ISMAIL Shenaaz Banu	UKZN
JILATA Ncumisa	WSU
JONAS Lusanda	
KHANYILE Sivesonke	
KHOHOMELA Rambelani	
KILANI Lydia	
KRETZMANN Hayden Gerald	
KRIEL Nikoli	
KRUGER Neil	UKZN
KUMALO Vusisizwe	WSU
LEITCH Ailsa Marjorie	
MABOGOANE Tumiso BM	UCT
MAELANE Shilly Peter	UL
MAHARAJ Prashanth	UKZN
MANICKCHUND Yashoda	UKZN
MANJRA Muhammad Ahmed	UKZN
MATHOLE Andrew Chiften	UL
MAZOKO Mugisha Clement	UKZN
MBANJE Chenesa	
MCCAUL Jeannie Katharine	UKZN
MEHTAR Mohammed	WITS
MIHALIK Margit	
MKHIZE Sibusiso Sydney	
MOHAMMEDALI Shamshudin	UKZN
MOKWATLO Peter Noko	WITS
MOLEPO Maketo Kgale Adolph	UL
MORRIS Ian	
MPANZA Morena Nthuse	WITS
MUFAMADI Mashudu	
MUNTHREE Nash	UFS
MUSERERE Ernest Dzingirai	
MUSONI Maurice	WITS
NAIDOO Ashley	UKZN
NASAR Ali Mohammed Omar	
NCHABELENG Molefe Stephen	
NDOU Wofhatwa Solomon	
NHLAPO Lerato Ashford	
NTSOANE Matsobane Alpheus	UL
OLOTU Boladele	UKZN
PATEL Nirav	WITS
PICKARD Henri	UCT
PILLAY Daniel Denzil	UKZN
PILLAY Sumana Lakshmi	UKZN
PINTO Greggory Augustus	UCT
PRETORIUS Vincent Ian	US
RAJPAUL Jitesh	UKZN
RAMABULANA Mpho Maano	
RAMLOUTAN Vishan Mohanlal	UKZN
RETIEF Pieter Francois	UP
RHOMA Issadig Al-Mabrok S Shthewi	
ROGERS Nicholas Stuart	
ROOPAN Shekar Naresh	UKZN
ROSS Douglas Graham	UFS
SANDERS Claire Joy	WITS
SEKGOLOLO Joseph Motshedi	
SETUMO Minnaar Jood	UL
SINGH Natasha	
SMITH Stephen David	WSU
SOOKA Himal Navin	WITS
STEVENSON Nico	US
SWANEPOEL Stefan	UFS
TRUTER Marilize	
VAN DER WALT Willem Daniel	
VAN HEUKELUM Marcus	
VAN ZIJL Nicholas	
VENTER Shawn	UKZN
VISSER Mireille	UCT
VORSTER Andre Stephanus	
WINEBERG Devorah Leah	
WORKMAN Matthew Ian	US
WU Chun-Yen	UFS
ZULU Sipho Petros	UKZN

Primary Examination incl Neuroanatomy of the Fellowship of the College of Surgeons of South Africa: FCS(SA) Primary - Neuroanatomy

ANYIKWA Anderson Chinedu	
KELLY Adrian Graham	WSU
MAZOKO Mugisha Clement	UKZN
NTSOANE Matsobane Alpheus	UL
PRETORIUS Vincent Ian	US
VISSER Mireille	UCT

Primary Examination of the Fellowship of the College of Urologists of South Africa: FC Urol(SA) Primary

STEENKAMP Bonifatius Andrew

Intermediate Examination of the Fellowship of the College of Maxillofacial & Oral Surgeons of South Africa: FCMFOS(SA) Intermediate

VAFAEI Nika	WITS

Intermediate Examination of the Fellowship of the College of Ophthalmologists of South Africa: FC Ophth(SA) Intermediate 1B

DU TOIT Schalk	US
HOLLHUMER Roland	WITS
KHAN Monawwar	UKZN
LAPERE Steven Robert Jan	UCT
MUSTAK Sayeed Hamzah	UCT

Intermediate Examination of the Fellowship of the College of Orthopaedic Surgeons of South Africa: FC Orth(SA) Intermediate

BISMILLA Muhammad Naadir	WITS
DIMITRIOU Dimitrios	WITS
KHAN Nabil Ali	WITS
MAINE Moses Motsapi	UP
NAIDOO Sharmlin Narainsamy	UKZN
NAIDOO Thivani	UKZN
NGWAZI Muziwamandla MacLeod	UKZN
SERON Shashi	UKZN
SWAN Adrian Kenneth	UCT
TROISI Katherine	UKZN
VAN DER WALT Nicolaas Stephanus Tjaart	UKZN

Intermediate Examination of the Fellowship of the College of Surgeons of South Africa: FCS(SA) Intermediate

ABDELATIF Asila	WITS
ALBIBI Khalid Abdulsalam	US
ALHEREK Abdalhamed	UKZN
BENAMRO Faraj	UKZN
BOTHA Elmarie	UP
DOWNS Jennifer	UCT
DUBE Goodwill Qedusizi	
ELABIB Ali	UKZN

GDEH Daou Abulkasem	WITS
HOWLETT Justin Brian	UKZN
JOLAYEMI Oluwafunso	UKZN
JUGMOHAN Ben	WSU
KAJEE Afsana	WITS
KARANJA Susan Wanjiru	UKZN
KASAKANGA Kasongo Marie-Josee	UL
KAWEESA Peter	UL
KAYOMBO Emile Tshisola	
KOPOLO Matongo Mfuneko	WITS
LOUW Arnold Howard	UKZN
MANKAHLA Ncedile	UCT
MATHYE Eustacia Charles	
MATSEVYCH Oleh Yevhenovych	
MBEBE Thembisile Dalina	UKZN
MOODLEY Neil	UKZN
MOYDIEN Mahammed Riyaad	UCT
MUTYABA Denis	US
NAJJAAR Azzaam	WSU
PERUMAL Neville	UKZN
PHAKULA Martin Lahliwa	UL
PILLAY Jehron	UKZN
PLASKETT Jeremy	UCT
PUTTERGILL Brooke	WITS
RADWAN Mohammed Hosein Mohammed	US
ROOI Adelaide Lilian	WITS
SALOOJEE Ahmed	UKZN
SCHROEDER Enzo Ago	US
STEVENS Paul Stuart	UP
TAYLOR Peter	UFS
THOMPSON Eddison	WITS
THOMSON John-Edwin	WITS
TIMAKIA Kritish	UKZN
UYS Hendrik Kendal	WSU
VAN SCHALKWYK Lucienne	UFS
VISAGIE Stefanus Jonker	

Intermediate Examination of the Fellowship of the College of Urologists of South Africa: FC Urol(SA) Intermediate

MAMITELE Wisani Craig	UP

Higher Diplomas

Higher Diploma in Internal Medicine of the College of Physicians of South Africa: H Dip Int Med(SA)

ELMEZUGHI Khaled Khalifa	UKZN
WAWERU Alvin Wachira	UCT

Higher Diploma in Orthopaedics of the College of Orthopaedic Surgeons of South Africa: H Dip Orth(SA)

BABA Sachin Ramanlali	UKZN
NAIDU Preyen	UKZN

Higher Diploma in Sexual Health and HIV Medicine of the College of Family Physicians of South Africa: H Dip Sexual Health & HIV Med(SA)

ADENIYI Oladele Vincent	UKZN

Higher Diploma in Surgery of the College of Surgeons of South Africa: H Dip Surg(SA)

LUNDA Watu Samy	UP
NDJO Yungu Moke Michel	WITS
NGANGO John Munyarugerero	

Diploma in Allergology of the College of Family Physicians of South Africa: Dip Allerg(SA)

COOVADIA Khalid Mahomed	UCT
GARBA Bilkisu Ilah	WITS
GOLDSTONE Erica Delene	UKZN
MEKGOE Omphile Tshegofatso	WITS
RABIE Rozelda	UP
WEIL Ronit	WITS

Diploma in Anaesthetics of the College of Anaesthetists of South Africa: DA(SA)

ADAM Shaun Edward	
BARNES Robert Charles	UKZN
BECK Colin	
BLOM Michelle Irene	UKZN
BOOYSEN Karin	
BOTES Natalie Katharine	WITS
BOY Graham Anthony	
CAMPBELL Ryan	
COETZEE Ettienne	
COHEN Anthony Joel	WITS
DALTON Cornelia Maria	
DANIELS Abigail	
DIPPENAAR Petrus Johannes	
DOLLIE Nadia	UKZN
DU PLESSIS Anje	UKZN
ERASMUS Ansa	
ERASMUS Schoombee	
ERWEE Stephanus Petrus	
FIANDEIRO Daniel	UKZN
FISHER Katherine Tamah Ruth	
FOURIE Elizabeth Dorothea	UCT
GOLDING Tarryn	UKZN
GOVENDER Viven	
GRANT Lizani	WSU
HAUSER Noel Donald	
HOFFMAN Emlyn Paul Laurie	
ISAACS Mariam	
JACOBS Hendrina Johanna	WSU
KHASHA Sibusiso Christopher	
KISTEN Prabasshini	
KIWALABYE Ian Nviiri	
KOTZE Christiaan Burger	
LAING Johan	WSU
LALKHEN Hoosain	
LAMBAT Fatimah Bibi Ebrahim	
LARSON Ilke	
LOMBARD Gerrit Petrus	WSU
LONGLEY Jessica	
LOUW Kurt Garreth	
MAGQIBELO Yandiswa Victoria	
MAHOMEDY Nazeer Ahmed	
MARSHALL Edwin Arthur	
MATTHEYSE Linda	UKZN
MNGOMA Octavia Gcinile	
MOFUBELU Sello	UFS
MUNN Matthew	
NAIDOO Saiyuran	UKZN
NEETHLING Elmari	UFS
NEL Andrew	
NOETH Hannelo	UFS
NXUMALO Nolwazi	
ODENDAAL Hendrik	WSU
OLIVIER Frederick George	
ONWUKIKE Stanislaus Chukwudi	
PATON Abigail Cornelia	
PILLAY Leresse	UKZN
POTGIETER Francois Retief	
PRICE Monique	WITS
QUPE Ntsika	
REDFORD Lindsey Elizabeth	WITS
SCHÄRF Liesel Anne	UFS
SCHUSTER Delia	US
SEILBEA Lindi Yvonne	UKZN
SINDANE Busisiwe Tshegofatso	
SINGARAM Shree	UKZN
SMITH Abraham Barry	
SONI Zaheera Jalaluddin	WITS
SONI Zakiyya	
SUNKER Suhail	UKZN
SWART Robert Nicolas	UFS
VAN DER MERWE Edna	
VAN STAADEN Hamida Beverley Christine	UKZN
VAN ZYL Anneme	UFS
VON DELFT Nils	WSU
VUTHELA Simanga Pedian	UFS
WESTCOTT Georgina Elizabeth	WSU
WILLIAMS Farhaan	

Diploma in Child Health of the College of Paediatricians of South Africa: DCH(SA)

CAWOOD Shannon Kim	
CHANDIWANA Nomathemba	
DUNLOP Jackie Lee	
EL HADAR Entsar Ahmed	
ETUKUDO Inyang	WITS
FENNER Lanese Mirielle	UKZN
FILLIS Rowena Benita	UCT
GAIBEE Zeenat	UCT
JAGATHPAL Nishan Jay	UKZN
JORDAAN Lize	UFS
KRUGER Michelle	
LAWRIE Gillian	UKZN
MALESA Mapula Malekhumo	
MARAIS Marvin Lloyd	UKZN
MSIMANGO Simphiwe Hazel	UKZN
NGCANA Thandeka Vuyiswa Zamansundu	
NGOBESE Makhosazane Judith	
NOTHLING Suzanne	US
PILLAY Terishia	UKZN
PILUSA Jane Hlologelo	UCT
PLATTEN Michael	
RADEBE Palessa	
RAUBENHEIMER Janine	UFS
RICHARDSON Chantel Jane	
SEWRAJ Navasha	US
SHIMANGE Queen Nhlanhla	

SONDAY Leilah	UCT
STRASHEIM Eben Albert	
THACKWRAY Nicolas John	UCT
TIEMERSMA Sybrich	UKZN
TSHAZI Zingiswa	
VAHED Anisa	WSU
VALENTINE Tamarin Jean	
WAGNER Leigh	UKZN
ZONDO Leod	

Diploma in Forensic Medicine of the College of Forensic Pathologists of South Africa – Path: Dip For Med(SA) Path

BYARUHANGA Moses Elly	
CHIKWAVA Simbarashe Kumurai	WITS
FUZANI Ephraim Zimamele	
JARAVAZA Rufaro Diana	
KALUNGI Sam	
KHUBANA Unarine Munei	
MALE William Mutumba	
MEDAR Sajida	WITS
MEDDOWS-TAYLOR Jessica Clair	
NKOSI Solomon Zephania	WITS
RAMOROBI Boitumelo Brenda	WITS

Diploma in HIV Management of the College of Family Physicians of South Africa: Dip HIV Man(SA)

ALABI Adeyinka	WSU
BABOOLAL Sasha	UKZN
BERHANU Rebecca	WITS
BESTER Aimee	UL
BOSKOV Miroslava	
CASSIM Rubeena	WITS
EDWIN Christina	UKZN
ENGAR Farea	UKZN
FRIEND Chantel	
GAFFOOR Rushaan	
GOVENDER Krishnaveni	UKZN
GRUNDLING Luzanne Heleen	
HLONGWANE Tsakane Musa	
IKPEFAN Ewan Omozuanvbo	
ISMAIL Zahiera	
JENSEN Cecilie	
JIYANA Samkelo	WSU
JONES Megan	
KEKANA Lerato Gwendolyn	
KOMOLAFE Ayoola Oluwakayode	
KUATE Lesego	
LETSATSI Virginia Basadibotlhe	
MAPHOTO Ramokone	UL
MASHAMAITE Sello Sophonia	WITS
MATHER Roxane	
MAYET Zaheera	
MBABANE Zukiswa	
MBUYA Ndayi	WITS
MICHAELIS Isabel Alexandra	
MOODLEY Sashmi	UKZN
MORRIS Rachel	
MOTAU Ayanda	UKZN
MOTSE Kagiso	WITS
MULLER Anna Madeleine	
NADARAJU Samantha	
NAIDOO Stephanie	UKZN
NKOSI Patrick Thamsanqa	UKZN
NTOMBELA Njabulo	
ODUOLA Tesleem Aderemi	
POOE Mamogwera Ungrid	
PRELLER Susan Petro	
PURAN Rishen	UKZN
RAMODIKE Mapula Caroline	
ROSSOUW Lize	
SHEIK Sadiyya	WITS
SMITH Robert Baehner	UFS
THOBEJANE Mapurunyane David	
VAN DER WESTHUIZEN Izak Stephanus	
WATTRUS Camilla Zoe	US
WENTZEL Jana	
WOOLLEY Philippa Jane	

Diploma in Mental Health of the College of Psychiatrists of South Africa: DMH(SA)

BERWERS Juan	
BRONKHORST Aletta	WSU
FOURIE Jurie Johannes	UFS
FREWEN Lynn-Hay	
JOOSTE Nadia	WSU
MAHLASE Motswakgole Josephine	
MASHABANE Innocentia Anna	
MGWEBA Lihle	
NODADA Qaqambile	
OJODUN Olumide	US
RAMJEE Sunita	UP

Diploma in Obstetrics of the College of Obstetricians and Gynaecologists of South Africa: Dip Obst(SA)

BABAWANDE Stephen Olusola	
BALIE Gaynor Miranda	
BIGGS Emma Elizabeth	
BOKILA Mambakatala Eugene	
BOTHA Lienka	UCT
DE WET Elsje Sophia Elizabeth	
FORTUIN Helyn-Ann	
GOVINDASAMY Suveshni	WSU
HARTELL Claudine Samantha	
HICKMAN Rhodine	UCT
JAFTA Vuyokazi Confidence	
KALONJI Mpamba Sylvain	
KEYSER Chrisna	
LA COCK Catherina Magaretha	
LEISTNER Elke	
LIDDLE Olivia Bronwyn	US
MAGAGULA Ernest Billy	
MCCRINDLE Lorna Young	UCT
MPEHLE Catherine Sibongile	WSU
MPEPO-HLONGWANE Kuhle	UCT
MUDAU Ranwedzi Ishmael	
NAGE Debra Gaikanelwe	UCT
NGONYAMA Fikiswa	
OBIDIEGWU Linus Ntomchi	
OKAFOR Umeadim Emmanuel	
OKUS Reuben Ogheneruemu	
PILLAY Santhuri	WSU
PRETORIUS Cornelius Hermanus Zacharias	UFS
SCHUTTE Marcelle	
STAPLES Annelise	WSU
STOTT Brenda Alison	WITS
VAWDA Ridhwana	UKZN

Diploma in Ophthalmology of the College of Ophthalmologists of South Africa: Dip Ophth(SA)

BABOOLAL Sandika Oogerchand	UKZN
BURGER Celeste	US
COETZEE Ingrid Daniela	US
DE LANGE Johannes Tobias	UP
ERASMUS Clayton Burt	UFS
HANN Mignon Chin-Ae	
HAYES Morgan Philip	UKZN
KLEYNHANS Erika	WSU
LOUW Caren	
NAUDÉ Malcolm	UP
PAULSEN Angelette	UP
PROXENOS Charles	WSU
VAN DER MERWE Pieter Jacobus Stephanus	
VAN NIEKERK Hermanus Albertus	

Diploma in Primary Emergency Care of the College of Emergency Medicine of South Africa: Dip PEC(SA)

ADAMS Samantha	UKZN
ALABI Adeyinka	WSU
BULAJIC Bojana	
ELOFF Elsamaria	
GERATY Sian	
GOUWS Brendan Morgan	
GROVE Willem Jacobus	UFS
HOFMANN Sonja	
KHAN Muhammed Yaseen	
KOEKEMOER Heinrich Pieter	
NAICKER Bavani	UKZN
NAIDOO Shavina	
NDLOVU Duduzile Slindile	
RAMRAJ Pranesh	
SHAH Ruvendra Dhayanund	UKZN
STEYN Petrus Paulus	
VILJOEN Ilana Maria	UFS
VOKA Di Betu	WITS

By Peer Review

Prof Peter ZILLA	College of Cardiothoracic Surgery
Prof Peter OWEN	College of Dentistry
Dr Elma DE VRIES	College of Family Physicians
Dr Romona Devi GOVENDER	College of Family Physicians
Dr Andrew John ROSS	College of Family Physicians

CMSA Minutes 2012

ANNUAL GENERAL MEETING
FIFTY-SEVENTH ANNUAL GENERAL MEETING OF THE COLLEGES OF MEDICINE OF SOUTH AFRICA (CMSA) HELD AT 11:00 ON FRIDAY 19 OCTOBER 2012 IN THE SENATE HALL, HATFIELD CAMPUS, UNIVERSITY OF PRETORIA, LYNNWOOD ROAD, HATFIELD

PRESENT

Prof A Madaree	(President) in the Chair
Prof GA Ogunbanjo	(Senior Vice President)
Prof J Vellema	(Vice President)
Prof D Kahn	(Chairman: FGPC)
Prof JLA Rantloane	(Chairman: ECC)
Prof A Reddi	(Chairman: EC)
Prof T Zabow	(Honorary Treasurer)
Prof JJ Fagan	(Honorary Registrar: FGPC)
Prof MM Sathekge	(Honorary Registrar: ECC)
Prof JS Bagratee	(Honorary Registrar: EC)
Prof RP Abratt	Dr SM le Grange
Prof S Andronikou	Prof BG Lindeque
Prof RD Barnes	Dr TE Luvhengo
Dr EMP Beckh-Arnold	Prof LJ Martin
Prof JG Brink	Prof BM Mayosi
Prof K-W Bütow	Prof V Mngomezulu
Prof RN Dunn	Prof SS Naidoo
Prof RW Eastman	Prof MV Ngcelwane
Dr HI Geduld	Prof AM Segone
Prof R Gopal	Prof PL Semple
Prof D Govender	Prof F Senkubuge
Prof RJ Green	Prof LM Sykes
Prof AMP Harris	Prof ZM van der Spuy (IPP)
Dr M Heunis	Prof MG Veller
Prof G Kariem	Prof A Walubo
Prof S Kling	Prof JM Warwick
Prof A Krause	

Members and others attending by invitation:

Dr ML Baloyi

APOLOGIES

The apologies were noted.

SECRETARY

Mrs Bernise Bothma	CEO

IN ATTENDANCE

Mrs Lize Trollip	(Deputy CEO)
Mrs Ann Vorster	(Academic Registrar)
Mrs Jane Savage	(Minute Secretary)

WELCOME

The Chairman welcomed everyone to the 57th Annual General Meeting.

1. REGISTRATION OF PROXIES

The CEO duly registered 24 proxies.

2. MINUTES OF THE FIFTY-SEVENTH (57th) ANNUAL GENERAL MEETING, HELD ON 21 OCTOBER, 2011

The minutes were adopted and signed.

3. MATTERS OF URGENCY

None.

4. MATTERS ARISING FROM THE MINUTES OF THE LAST ANNUAL GENERAL MEETING

None.

5. ANNUAL REPORT OF CEO ON BEHALF OF SENATE FOR THE PERIOD JUNE 2011 TO MAY 2012

The CEO reported that the Annual Report of Senate appeared on pages 25 and 26 of the current issue of *Transactions* (tabled), reflecting the activities of the last financial year.

She further reported that the annual reports of the various constituent Colleges appeared on pages 27-39 of the same issue.

ACCLAMATION

The annual report was adopted.

6. FINANCIAL REPORT OF HONORARY TREASURER: PROF T ZABOW

Prof Zabow presented the financial report, as follows:

"This is a statutory requirement of our operations which is presented at the Annual General Meeting.

I have been entrusted with the oversight of, not control of, the heart of this organisation, which is really the finances. Obviously, tremendous responsibilities go with this. Fortunately, the decision-making is something that can be carried out with wise counsel, and extends to obtaining opinions inside and outside of the CMSA on investments, making budgetary changes, and conducting salary and pension assessments.

Having said that as an introduction, the report is before you and will be available on the CMSA website in accordance with the Companies Act in due course. My audience, you have before you pie charts and numbers that compare the income, expenditure and administrative costs for two years.

I would just like to highlight a few things that are not always obvious. One is that although the heart of this institution is prob-

ably healthy, anything can happen at any time. The total assets of the organisation are R86 million. You may think that this is acceptable, but it is not a lot of money with which to run this kind of institution. It should also be taken into consideration that the CMSA has valuable "family silver" in its properties. Significant monies are invested in trust funds, as well as in general funds, which are needed for operational costs. Fortunately, the CMSA does not have many liabilities, but there are always accounts that have to be paid at the end of the financial year. Funds also need to be reserved for staff leave and monies paid in advance, i.e. examination fees or subscriptions.

The income, as depicted on the chart (2011/2012), reflects an increment of our income and expenditure. On the second page, you will see our expenses, also pie-charted, and otherwise. Our expenses for the year increased by 19% because of unbudgeted expenses, e.g. the Joint Conference of Colleges and Academies in April. It should also be borne in mind that our entrants to the examinations have also increased. So you have the results of the operations, but more importantly, the examination results which normally fluctuate from year to year.

To give you an idea of how dynamic we are, and how difficult management is, I have the figures for the numbers of candidates from 2002 to 2012. The number of candidates has doubled in a decade. The process that is followed involves budgetary planning and controls on budget. This is where I am perceived as being stringent and very strict. However, we have to adhere to the rules. The Finance and General Purposes Committee (FGPC) reviews and assists in the planning of the budgets, and then at quarterly intervals, the variances indicate how we are doing. The real pressure follows that. That is the Audit Review, which is an in-depth interrogation of all transactions. The auditors then submit a management report suggesting changes on the way in which certain things should be carried out. Finally, a most insightful interview with the on-site auditor and senior partner from the auditing firm is held. The draft annual financial statements are then scrutinised by FGPC. Once finalised, they enter the public domain, and are presented at the AGM. By then, the necessary statutory requirements have been met."

In response to a query from Prof Vellema about the R500 000 bad debts relating to outstanding annual subscriptions, the CEO informed members that the membership hub in the Cape Town office was managed by two staff members who make changes to the database on a daily basis. They try to locate members who have defaulted. Members whose addresses had changed are sent a letter, inviting them to rejoin the CMSA. The constituent Colleges are then given the names of potentially defaulting members and asked to assist by encouraging their colleagues to pay their two years' of annual subscriptions.

Prof Zabow thanked everybody for his or her assistance. He acknowledged that the assistance was not limited to input from the Accounts Department, but extended to every office that was responsible for the careful management of finances.

Prof Madaree thanked the Honorary Treasurer for a well deliberated report.

ACCLAMATION

7. REPORT OF PRESIDENT: PROF A MADAREE

Prof Madaree reported as follows:

"I believe that 2012 has been a productive year for the CMSA and I will mention a few notable highlights:

Memorandum of Understanding between the Health Professions Council of South Africa and the Colleges of Medicine of South Africa

As you know, the Memorandum of Understanding is in the process of being signed.

Increase in the number of candidates

This year, 510 Fellows, 99 Certificants and 462 Diplomates graduated: a total of 1 061 graduands.

Meetings with allied bodies

We have embarked on meetings with allied bodies which have been most successful.

Firstly, we held meetings with the National Department of Health via the Minister of Health. I would like to thank Alf Segone for facilitating these meetings. The last one was held on 13 September this year. These meetings will continue to be scheduled as matters of mutual interest arise.

Secondly, we had the first meeting with the Vice Chancellors on Wednesday. I was unable to attend, but from received reports, it appeared to have been a fruitful meeting, and will also now be ongoing.

The third body is the Health Professions Council of South Africa (HPCSA) with whom an official meeting has not yet been held. However, the President of HPCSA, Prof Sam Mokgokong, who regularly attends our Senate meetings, is interested in holding meetings on a regular basis in order to discuss matters of mutual interest.

The Joint Conference of Sister Colleges and Academies, held in Cape Town from 2-4 April 2012, was very successful. We managed to foster some good links with African colleges and academies. I would like to thank Lize for heading up this project, and also the Chairman of the fora, as well as Jeanine, for taking the minutes of that meeting.

To all the Senators and Office Bearers, I say thank you for assisting me so ably and certainly for streamlining my duties as President.

Lastly, I would like to record my thanks to the staff, to Bernise and Lize, and the staff in Cape Town, to Ann and Dominique and their team in Johannesburg, and finally, to Anita and Antoinette in Durban. I appreciate the smooth running of the offices.

In conclusion I would like to congratulate Gerhard Lindeque on his election as President, and Gboyeja Ogunbanjo as the Vice President."

ACCLAMATION

8. REPORT OF CHAIRPERSON OF THE EXAMINATIONS AND CREDENTIALS COMMITTEE: PROF A RANTLOANE

Prof Rantloane gave the following overview of the main activities of the Examinations and Credentials Committee (ECC):

"Mr Chairman, my report is fairly brief and speaks only to the core function of the CMSA, i.e. the examinations and its outcome. I want to give the AGM the comfort and assurance that we invite candidates in the different disciplines and specialties to take examinations, but also that we now actively look at outcomes that do not accord with our expectations. So, for those examinations that have a trend of producing poor results, a mechanism is in place to interrogate, remediate and intercede on behalf of candidates. We recognise the distinction between what the CMSA does by conducting an assessment, and what the teaching and training platforms achieve, but it is recognised that there has to be some degree of advocacy on our part to assist candidates.

The second item that I would like to flag is the one continuing concern of the ECC despite the fact that there are now very clear policies, guidelines and regulations which guide the examination process across the platform. From time to time, we receive complaints from candidates who have taken our examinations regarding aspects of the examination. Typically, they are candidates who have failed. Importantly, what it is necessary to point out to colleagues at the AGM, is that what is worrisome, is that not infrequently, when we investigate these complaints, we find that the CMSA is liable, having dropped the ball at various points. So, essentially, the message that I want to leave with colleagues at this meeting is that we need to adhere to the policies, guidelines, rules and regulations that have been set in respect of every examination. Secondly, when candidates enter for an examination, they do so under a specific set of rules that should have been available in the public domain for a prescribed period. Therefore, it is not acceptable to invent the rules as the examination proceeds.

The odd candidate still attempts to cheat in the examinations. However, the ECC is continually looking at ways of reducing the opportunities for candidates to breach examination regulations, and striving to institute fair sanctions. The need may arise for the installation of devices that will assist in monitoring the examination process to discourage candidates from cheating.

I wish to express my sincere thanks to Mrs Vorster and her team in Johannesburg, and my colleagues on the ECC, where there has been a huge improvement in attendance at meetings; the time having changed from 16:30 to 15:00."

The President expressed his appreciation to Prof Rantloane.

ACCLAMATION

9. REPORT OF CHAIRMAN EDUCATION COMMITTEE: PROF A REDDI

Prof Reddi reported as follows:

"I am going to start by recording my gratitude to Anita and Antoinette, not because I want to be different, but mainly because they do all the work and I take the credit.

For the benefit of the new members, the functions of the Education Committee are the lectureships and scholarships. The issue that I would like to place on record at this AGM is the revision of the regulations relating thereto. The revision was presented to Senate for ratification, but we are still working with the JN Jacobson Lectureship in Radiology.

The other function is CPD, with which I am ably assisted by Clive Daniel, who attends the accreditation meetings at HPCSA. The Education Committee has taken over more of this function because the University of KwaZulu-Natal CPD accreditation programme has become dysfunctional.

The third function that we have thus far relates to the syllabi. Most Presidents would have received some correspondence from us indicating what a properly compiled syllabus, course content and bibliography should include. We look forward to working with the Presidents of Constituent Colleges regarding re-evaluation of the regulations and an update of the other components thereof, i.e. eligibility of entrance into the examination, definition of the examination and benchmarking.

Presidents, when you receive correspondence from the Education Committee with my signature on it, I urge you to please to pay attention, as we are really eager to get the regulations sorted out because this will bring the various Colleges up to date with what is required of them when they enter the examinations, and certainly from the Constituents' perspective."

ACCLAMATION

The President thanked Prof Reddi for the smooth running of his Committee.

10. REPORT OF CHAIRPERSON OF THE FINANCE AND GENERAL PURPOSES COMMITTEE: PROF D KAHN

Prof Kahn briefly summarised the activities of the FGPC:

"Obviously, the business of the FGPC is the finances. The Honorary Treasurer has already presented the financial status of the CMSA. The rest of the business of the FGPC includes discussion and arrangement of the agenda for the Senate meeting and the general administration of the CMSA, of which you are all aware.

Some of the issues that the FGPC has grappled with over the past year have been human resources matters and finalising the Memorandum of Incorporation in view of the new Companies Act.

I would like to thank the CEO, Deputy CEO and the rest of the staff in the Cape Town office, who have worked hard this year."

ACCLAMATION

11. REPORT OF EDITOR OF *TRANSACTIONS*: PROF GA OGUNBANJO

Prof Ogunbanjo reported as follows:

"Firstly, as reflected in one of the documents that contains the pie charts, it can been seen that the production costs of the journal are still well controlled and constitute less than 3% of total expenditure. This is important because the number of copies for circulation increases annually. The cost of postage has increased

in terms of circulation, which is now standing at 11 000 copies. However, because of the economic downturn, the number of advertisements has decreased. One of the tasks that we will be undertaking will be to establish which of our members would like to receive e-copies of the journal.

Prof Savvas Andronikou and I will be working closely together as a team to source articles and tweak the journal. I am quite excited that he has come on board.

Finally, I would like to thank the CEO, Academic Registrar and Office Manager in Durban, because they supply most of the content that goes into the journal. I should not forget to mention Prof Zabow, because without him there would be no funds!"

Prof Mayosi asked whether the Editor had considered applying for Department of Higher Education accreditation for *Transactions*. If it received accreditation, authors could benefit from a subsidy. The requirements are that there has to be evidence of continual publication and the introduction of peer review of content. The latter does not have to extend to all articles in the journal. Prof Mayosi pointed out, that for example, registrars' dissertations could be a market to target, where registrars would be invited to publish in *Transactions*. The dissertations would be peer-reviewed. This would serve as an educational function and enhance the status of *Transactions,* and its partners, the universities, would also benefit.

Prof Ogunbanjo responded positively, stating that this would constitute the next phase of the journal.

The President thanked Prof Ogunbanjo for his continued efforts to improve the content and appearance of *Transactions*.

12. ANNUAL APPOINTMENT OF AUDITORS

APPROVED

That Deloitte & Touche be reappointed as Auditors for the next year.

13. CORRESPONDENCE

None.

The business of the meeting was concluded at 13:18.

CMSA CPD Fee Structure from 1 March 2013

Level 1 (1 CEU/hr max 8/d) Small groups: Presentations, meetings, symposia, ward rounds, case study discussions, journal clubs, mentoring/supervising Larger groups: Conferences, symposia, refresher courses	R450 per application R100 per CEU for local R200 per CEU International (Accreditation to include presenters, authors and reviewers)
Level 2 Publications (book, journal article) Article review Presenters/authors paper/poster at congresses Keynote/invited speaker Presenter short course/workshop	R200 per application
Learning material with MCQ evaluation	R200 per MCQ
Journal clubs with outcome/evaluation	R500 per application
Level 3 Learning portfolios, Practice audit	R1820

Arthur Landau Memorial Lecture: A "pressurised journey": success, hope and despair

(Prof Veriava was the Arthur Landau lecturer for 2011)

Yosuf Veriava, MBBCh, FCP(SA) FRCP(UK), HonDoctorate
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Keywords: hypertension, blood pressure measurement

Abstract

As a clinical entity, hypertension appears to have been recognised since ancient times. Major developments in methods of blood pressure measurement and an understanding of the pathophsiology and management of this disorder occurred during the latter half of the past century. This, together with the development of effective antihypertensive agents and major therapeutic trials, led to a more rational, evidence-based approach to its management. A major consequence of these developments has been an improvement in hypertensive morbidity and mortality. Despite such successes, there are reasons to despair. The prevalence of hypertension and the global burden of blood pressure-related complications is unacceptably high. Blood pressure is uncontrolled in a significant number of hypertensive individuals, and even if controlled, the risk of cardiovascular events is higher than that in normotensive persons.

Introduction

Hypertension is an important global public health problem, and is particularly relevant to most healthcare professionals. It is a disorder, which, in relation to its prevalence, natural history, clinical management and outcomes, reflects elements of success, hope and despair.

A sustained elevation of blood pressure is common in most communities globally, and results in significant cardiac, cerebral, renal and vascular morbidity and mortality.[1] According to Sir George Pickering, the dividing line between what we regard as hypertension and normotension is arbitrary, and the relationship between morbidity and mortality and arterial pressure is quantitative: the higher the pressure, the worse the prognosis.[2] This continuous relationship, without a threshold above which cardiovascular complications arise, is accepted by most epidemiologists. However, in a clinical setting it is necessary to define such a threshold so that it can serve as a basis upon which to make clinical decisions and interventions.

Epidemiological aspects

The high prevalence of hypertension, its often inadequate detection and treatment, and its contribution to the burden of disease consequent upon its complications, leads to despair.

In a very recent publication, Twagirumukiza et al analysed studies pertaining to 11 countries and reported the estimated prevalence of hypertension in sub-Saharan Africa.[3] The overall prevalence rate for 2008 was estimated at 16.2%, ranging from 10.6% in Ethiopia, to 26.9% in Ghana. South Africa had a prevalence of around 23%. The estimated prevalence was 13.7% in rural areas and 20.7% in urban areas. The total number of people with hypertension in sub-Saharan Africa was estimated to be 75 million in 2008, and to be 125.5 million by the year 2025. In an accompanying editorial, these estimates were unexpectedly low, when compared to the USA and most European countries. This was explained on the basis of the low mean ages of the sub-Saharan population that had been included. After standardisation, the rates reflected those of Western populations (23.3%).[4]

In addition to the high prevalence of hypertension globally, the global burden of blood pressure-related complications is large. Worldwide, 7.6-million premature deaths (approximately 13.5% of global deaths) and 92-million disability-adjusted life years constitute 6.9% of global deaths, and are attributable to high blood pressure. High blood pressure accounts for 54% of strokes and 47% of ischaemic heart disease worldwide. Eighty per cent of this attributable burden occurs in low- and middle-income economies, and over half in people aged 45-69 years.[1]

Historical aspects

The historical account which follows, *A historical look at hypertension: celebrating 100 years with the Southern Medical Association,* was published in the *Southern Medical Journal.*[5]

Hypertension appears to have been recognised as early as 2 600 BC, when the ancient Chinese suspected hypertension according to the quality of one's pulse.[6] At that time, a hard pulse which could not be compressed was often treated with bleeding and leeches. It was only thousands of years later, in 1733, when the English Reverend Stephen Hales performed his backyard experiments on horses, using an almost 3-m measuring device for the first direct measurement of blood pressure.[7] An important breakthrough in the measurement of blood pressure in 1896 occurred when Riva-Rocci developed a wraparound rubber cuff that occluded the artery of the upper arm.[8] This was the first portable monitoring device that was used in humans to measure

systolic pressure, detected when the first pulse palpated as the cuff was slowly deflated. It was not until 1905, more than a century ago, that a landmark breakthrough occurred when Korotkoff described the systolic and diastolic sounds he heard with a stethoscope.[9] Korotkoff's findings led to the clinical recording of blood pressure throughout the world.

At that time, hypertension was understood to be an essential natural adaptive reaction to pathology, in either the kidney (white hypertension) or blood vessels (red hypertension), which was necessary to provide perfusion to vital organs. Experts suggested that lowering blood-elevated blood pressure might do more harm than good. It was not until 1913 that an attempt was made to lower blood pressure when Janeway abandoned the use of the term "essential hypertension" and called the disorder "hypertensive cardiovascular disease".[10]

Despite Janeway's beliefs, hypertension remained untreated over the initial part of the 20th century. The prominent cardiologist, Paul Dudley White, regarded hypertension as an important compensatory mechanism which should not be tempered with, even if it was possible to lower blood pressure.[10]

Throughout the first half of the 20th century, the treatment of hypertension was ineffective. It was only during the latter half of that century that significant strides were made in the understanding of the aetiology, pathophysiology and management of hypertension.

The natural history and complications of hypertension

The natural history of hypertension commences with a normal blood pressure. Both the systolic and diastolic blood pressure slowly rise until middle age, when hypertension is diagnosed. After the age of 55, it is the systolic blood pressure which continues to rise, and in people over the age of 60, isolated systolic hypertension becomes the most common form of hypertension. It is noteworthy that with the rise in systolic blood pressure after the age of 55, the diastolic blood pressure declines and the pulse pressure widens.[11]

Initially, hypertension begins with a combination of hereditary and environmental factors which set into motion transient, but repetitive, perturbations of cardiovascular homeostasis (pre-hypertension), not enough to raise blood pressure to levels that are defined as abnormal, but enough to begin a cascade, that over many years, leads to blood pressure that is usually elevated (early hypertension). Some people, by adopting an appropriate lifestyle, may return to a normotensive state, but the majority will progress to established hypertension, which then will induce a variety of complications.[12]

The natural development of hypertension passes through a phase of pre-hypertension, with blood pressure levels between 120-139 mmHg (systolic) and 80-89 mmHg (diastolic). This category of hypertension replaced the entity of high normal blood pressure in the *Seventh report of the Joint National Committee on the Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC VII).*[13] The International, European and South African societies of hypertension have not included the entity of pre-hypertension in their classifications. They have retained the entity of a high normal blood pressure [130-139 mmHg (systolic) and 85-89 mmHg (diastolic)].[14,15] Even at high normal blood pressure levels, there is an increased risk of cardiovascular disease. Compared with optimum blood pressure, high normal blood pressure is associated with a risk-factor-adjusted, hazard ratio for cardiovascular disease of 2.5 in women and 1.6 in men.[16] Furthermore, the incidence of the progression to hypertension rises stepwise across the nonhypertensive blood pressure categories.

It is noteworthy that even blood pressure that falls within the pre-hypertension range also relates to the risk of cardiovascular disease. As part of the Bogalusa Heart Study, which involved 1 379 young adults (an age range of 20-44 years), echocardiography and carotid ultrasonography were performed, together with the taking into account of cardiovascular risk factors.[17] The prevalence of prehypertension was significantly higher among men than women, and among blacks than whites. The prehypertensives had a greater adverse cardiovascular risk profile. Male sex and body mass index contributed to the prehypertension status. Additionally, people with pre-hypertension had a significantly higher left ventricular mass index, left ventricular internal diameter and carotid intima-media thickness.

While the issue of pre-hypertension is controversial, and drug therapy is not recommended, the institution of lifestyle measures to prevent progression to hypertension in individuals with this category of blood pressure may be worthwhile.

Blood pressure is one of a number of risks for cardiovascular disease and the interactive effects of various risks tend to be multiplicative. Two individuals with similar levels of blood pressure may have quite a different prognosis. The prognosis for cardiovascular disease is worse if additional risk factors are present in the case of an equivalent blood pressure value.[18]

The importance of systolic blood pressure in relation to cardiovascular complications was neglected in the past. An elevated systolic blood pressure was regarded as a natural accompaniment of ageing. It was difficult to treat, and there was uncertainty about the benefits of lowering it. In the Multiple Risk Factor Intervention Trial (MRFIT), which involved approximately 350 000 men in the USA, followed for 11.6 years, there was an eightfold gradient of risk for systolic blood pressure deciles, compared to a fourfold gradient of risk for diastolic blood pressure in relation to the occurrence of strokes.[19] Furthermore, it can be extrapolated from such data that systolic blood pressure and pulse pressure are of greater value than diastolic blood pressure in the elderly in predicting cardiovascular risk.

It is noteworthy that diastolic blood pressure negatively relates to the risk of coronary events and that pulse pressure is a superior predictor in individuals who are older than 60 years of age. Diastolic blood pressure is the stronger predictor in people who are younger than 50, while all three blood pressure indices are predictors in people between the ages of 50-59.[11]

Most of the attention that was given to hypertensive complications focused on coronary heart disease, hypertensive heart failure and strokes. Other areas of hypertensive complications which were neglected in the past are now receiving greater attention. These include hypertensive renal disease, cognitive decline and sudden death.

Hypertension is both the cause of renal damage and a consequence. In an ethnically unrepresented cohort of patients with end-stage renal disease in the South African Dialysis and Transplant Registry, hypertension accounted for 15.9% of end-stage renal failure.[20] Hypertension accounted for 34.6% of end-stage renal disease in the under-represented group of patients of African ancestry. Both malignant and nonmalignant hypertension contributed to end-stage renal disease. Hypertension is the leading cause of end-stage renal disease in individuals of African ancestry.

Blood pressure measurement

The measurement of blood pressure is the most common procedure that is carried out by doctors and nurses. The correct method of blood pressure measurement is crucial, particularly in patients with hypertension. There is marked intrinsic variability of blood pressure, such that an observer, even if careful and meticulous in adhering to recommended guidelines, could obtain a value which would not be the same from one moment to the next, or from one occasion to another. Failure to recognise such variability may result in a patient being falsely labelled as hypertensive, or even normotensive, and consequently being treated unnecessarily, or not being treated at all.

There are three clinical settings in which blood pressure is measured. These are an office setting, an ambulatory setting and while at home. It is not uncommon for blood pressure to be much higher in a doctor's office than it would be in an out-of-office setting. This difference is referred to as the "white coat effect".[18] Furthermore, considerably large amounts of data indicate that out-of-office blood pressure, whether recorded via ambulatory measurements or at home, is a better predictor of outcome than that measured by a doctor in a clinical setting. The normal values in the home and ambulatory settings are lower than those in the office setting.[18]

Self-measurement of blood pressure at home has several advantages over a conventional blood pressure measurement that is taken in a doctor's office. Essentially, there are considerably more blood pressure measurements on which to rely, a better correlation with target organ damage and prognosis, and conceivably, an improvement in compliance with therapy.

The recommendations from the American Society of Hypertension[21] for blood pressure measurements that are taken at home are as follows:

- Blood pressure measurements that are taken at home should become a routine component of blood pressure measurement in the majority of patients with known or suspected hypertension.
- Two or three readings should be taken while the subject is resting in the seated position, both in the morning and at night, over a period of a week. A total of at least 12 readings are recommended in order to make clinical decisions. An average of the blood pressure readings is the value that should be used.
- Blood pressure measurements taken at home are indicated in newly diagnosed hypertension. It may be possible to distinguish between white coat hypertension and sustained hypertension.
- The target home blood pressure measurement goal for treatment is less than 135/85 mmHg, or less than 130/80 mmHg in high-risk patients.
- Blood pressure measurements taken at home are useful in the elderly, in whom both blood pressure variability and the white coat effect are increased; and in diabetics, in whom tight blood pressure control is of paramount importance; as well as in renal disease.

Ambulatory blood pressure monitoring has been available for many years. Initially, it was considered to be a research tool, but with greater and wider usage, experience gained and the accumulation of a vast body of data, it developed a role in the evaluation of patients with hypertension. Ambulatory monitoring also appears to provide a better estimate of true blood pressure, than clinic measurements. This can be attributed to the larger number of obtained readings, and also to the fact that they are taken under more representative circumstances. The validity of this statement is supported both by cross-sectional studies that have showed that ambulatory blood pressure gives a closer correlation than clinic pressures for target organ damage.[18] Compared to blood pressure measurements taken at home, ambulatory blood pressure measurements, have an advantage in that a 24-hour blood pressure profile can be obtained, during which a nocturnal dip or dipping can also be evaluated.

According to the recommendations in the South African Hypertension Society (SAHS) guidelines,[15] the indications for ambulatory blood pressure measurements in a clinical setting are:

- Suspected white coat hypertension.
- To guide antihypertensive medication.
- The elderly.
- Diabetes mellitus.
- Refractory hypertension.
- Masked hypertension.

These indications are similar to those that apply to blood pressure measurements taken at home.

The accepted view that office-based blood pressure monitoring is inferior to ambulatory blood pressure monitoring in predicting target organ damage has been challenged by a recent study which indicated that one or more high-quality, nurse-recorded auscultatory blood pressure measurements were equally as effective as ambulatory blood pressure measurements in predicting target organ damage in a population sample of African ancestry.[22] In this study, a single nurse took all the blood pressure measurements and followed the correct procedure. This finding supports the practice of using office-based blood pressure monitoring to diagnose hypertension.

In the latest meta-analysis which incorporated 20 studies that examined the relative effectiveness of clinic and home blood pressure monitoring, compared with ambulatory blood pressure monitoring to diagnose hypertension, neither clinic nor home monitoring had sufficient sensitivity or specificity to be regarded as a single diagnostic test.[23] If ambulatory blood pressure measurements are taken as the reference standard, then treatment decisions based on clinic- or home-based blood pressure measurements alone might result in substantial overdiagnosis.

Ambulatory blood pressure monitoring before the start of lifelong drug treatment might lead to more appropriate targeting, particularly around the diagnosis threshold. This observation will influence future guideline recommendations.

Both ambulatory and blood pressure measurements taken at home have led to the recognition of white coat and masked hypertension. White coat hypertension is diagnosed when an office-based blood pressure measurement is greater than 140/90 mmHg, with a normal ambulatory or home blood pressure measurement.[24] The issue of whether or not patients with white coat hypertension are also at risk of target organ damage and cardiovascular events has not been fully resolved. In a study which investigated this problem, the event-free rate per 100 patient years in individuals with white coat hypertension was similar to that of normotensives, and significantly less than that in individuals with sustained hypertension.[25]A more recent study reported a delayed increase in strokes after eight years, a 25% increase in stroke risk after 10 years, a survival lower than that of normotensives and a 1.5-twofold higher risk of new-onset diabetes and lipid abnormalities.[26]

Masked hypertension is the reverse of white coat hypertension. With masked hypertension, the office-based blood pressure measurement is persistently normal, and the ambulatory blood pressure measurement remains elevated.[24] It occurs in 10-20% of the population.[27] Most of the subjects with masked hypertensikon are younger than 50 years of age and are at an increased risk of target organ damage and cardiovascular events. The diagnosis is missed if reliance is placed simply on office-based blood pressure measurements. The risk ratio for cardiovascular events is the same as that for a hypertensive individual.[24]

Hypertension management

The treatment of a patient with hypertension during the early and mid part of the past century consisted of nonpharmacological interventions. Apart from a low sodium diet, other therapeutic modalities were ineffective. The introduction of diuretics in 1958 ushered in the modern era of antihypertensive drug therapy. These agents and the subsequent availability of other groups of antihypertensive agents made it possible to control all grades of hypertension, with a consequent decline in morbidity and mortality from this disorder.[28,29] Some of these earlier antihypertensive agents, although effective in lowering blood pressure, were poorly tolerated because of unpleasant side-effects. It was only from the 1970s onwards that newer drugs with fewer side-effects and better tolerance were developed.

While the benefits of reducing blood pressure and the risk of major cardiovascular disease were well established, uncertainty remained about the comparative effects of different blood pressure-lowering agents. The Blood Pressure Lowering Treatment Trialists' Collaboration examined 29 randomised trials prospectively in this regard.[30] This evaluation revealed that there were no significant differences in total major cardiovascular events between regimens based on angiotensin receptor antagonists, calcium-channel blockers, diuretics or beta blockers. There was evidence of some difference between active regimens in their cause-specific outcomes. However, it was noteworthy that for every group, the achieved blood pressure reduction directly related to the observed difference.

While the achieved blood pressure level is primarily responsible for the outcomes, there are conditions in which there is evidence in favour of some drugs versus others, either as initial treatment or as part of a combination. The recommendation for the preferential use of certain agents listed in the SAHS guidelines is based on this consideration.[15]

A fundamental and often debated issue is the choice of the initial antihypertensive agent when commencing antihypertensive therapy. In the past, most guidelines, such as the JNC VII and the SAHS, recommended beta blockers and diuretics as first-line agents in the initiation of therapy.[13,31] This recommendation was based on the positive outcomes of earlier trials in which diuretics and beta blockers were used. Beta blockers are no longer recommended as first-line agents, except in instances where there are compelling indications for their usage. The SAHS 2006 guidelines allow for the use of either a low-dose diuretic or an angiotensin-converting enzyme inhibitor or a calcium-channel blocker in the initiation of antihypertensive therapy.[15] Evidence that the combination of a diuretic with a beta blocker was more likely to precipitate new-onset diabetes[32] compared to other agents, as well as the relative lower efficacy of beta blockers in reducing hard end-points such as strokes when compared to other agents,[33] was responsible for this change.

The choice of the diuretic to be used is now a subject of debate. The SAHS recommends a low-dose thiazide diuretic, while the JNC VII[13] and the recently published National Institute for Clinical Excellence (NICE) guidelines[34] recommend "thiazide-like" diuretics, such as indapamide and chlorthalidone. This recommendation is based on lack of evidence for low-dose diuretics in relation to cardiovascular protection.

The blood pressure targets for antihypertensive treatment remain at a level below 140/90 mmHg for uncomplicated hypertension, and a lower level below 130/80 mmHg for high-risk cardiovascular or complicated hypertensive patients.[15] However, the NICE guidelines have a higher blood pressure target level of 150/90 mmHg for patients with hypertension over the age of 80.[34]

Resistant or refractory hypertension remains a major therapeutic challenge. Despite the various approaches to address this difficult problem, blood pressure remains uncontrolled in a significant number of patients with resistant hypertension. The recent investigation into targeting the sympathetic nervous system by inhibiting its activity in patients with resistant hypertension has provided hope for the future.

Sympathetic nervous system activity can be inhibited by means of an implanted pulse generator in the carotid sinus baroreceptor region (functional inhibition),[35]or by means of radiofrequency percutaneous catheter-based ablation of the renal sympathetic nerves around the renal artery.[35] In the first of these, reflex inhibition of sympathetic activity, by means of baroreceptor stimulation, results in a decreased heart rate, vasodilitation, a decrease in renal renin secretion and a consequent sustained reduction in both systolic and diastolic blood pressure.[34] There is a substantial decrease in noradrenaline spillover, with decreases in renin release and sodium reabsorbtion and vasodilatation, with renal sympathetic nerve ablation. Preliminary results indicate a sustained fall in both systolic and diastolic blood pressure. However, further studies are required to confirm these promising results.[36]

Conclusion

Most of our understanding of the pathogenesis of hypertension, its consequences and management, have occurred over the latter half of the past century. The hypertensive journey commenced well before this period and reflected considerable despair, followed by hope, and finally, some success. However, there is no doubt that large gaps in the understanding of the aetiology, pathogenesis and approach to the prevention and management of this disorder still exist. Hopefully, extensive ongoing research in this field will lead to greater success in the future.

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Venous thrombosis in the patient with cancer

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Abstract

The relationship between cancer and thrombosis has been known for many years. Thrombotic risk is increased in the patient with cancer, and the diagnosis of venous thromboembolism at the time that a malignancy presents influences patient outcome. Risk evaluation, prophylaxis and treatment of venous thromboembolism are practical issues that face doctors who are dealing with these patients.

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Introduction

Almost 150 years ago (1865), Armand Trousseau described the clinical signs of thrombosis associated with cancer.[1] Sadly, within a year he diagnosed this in himself, and died of gastric cancer in 1867. Overall, approximately one in six patients with cancer will experience a clinical thrombotic event during the course of their disease, and between 3-25% patients who present with an idiopathic venous thrombosis are diagnosed with an active underlying malignancy. A large difference exists in different studies, depending on the level of aggressiveness of the diagnostic work-up.[2] Cytotoxic chemotherapy increases the risk of venous thromboembolism (VTE) even more. The risk of developing thrombosis is 6.5-fold in these patients, compared to 4.1-fold in patients with cancer only.[3] Similarly, patients with cancer who are undergoing surgery have a two- to threefold increased risk of developing thrombosis, compared to patients undergoing the same surgery without underlying malignancy.[4]

Various analyses, including data from registries, population-based databases and clinical trials, estimate the percentage of patients with active cancer who develop VTE to be between 1-30%. Therefore, it is necessary to individually evaluate each patient for the risk of VTE. The thrombosis may be in the form of idiopathic deep vein thrombosis (DVT) or pulmonary embolism (PE), migratory superficial thrombophlebitis (Trousseau syndrome), arterial thrombosis, disseminated intravascular coagulation, thrombotic microangiopathy, and nonbacterial thrombotic endocarditis (marantic endocarditis).[5] VTE is the second leading cause of death in patients with cancer who are receiving chemotherapy, and it is likely that it is underdiagnosed in clinical practice.[6] Although anticoagulants are highly efficacious in most patients, patients with cancer have a higher risk of recurrent thrombosis and anticoagulant-related bleeding, compared to patients without cancer.[7]

Several practical questions arise when evaluating risk, and managing thrombosis in patients with cancer.

Why are patients with cancer prone to thrombosis?

The well-known Virchow's triad of endothelial damage, stasis and hypercoagulability causing thrombosis is present in many of these patients, and each factor adds to the total thrombotic risk. Endothelial damage may be due to chemotherapy, antiangiogenic drugs and indwelling catheters, as well as changes in the endothelial cell function. These cells become more procoagulant with, among other changes, the downregulation of thrombomodulin. Stasis may be due to patients being confined to bed, and the obstruction of venous flow by large tumours and prolonged theatre time, in surgery cases. Hypercoagulability in patients with cancer has been extensively investigated, and includes causes such as the expression of tissue factor (TF or factor III in the coagulation cascade) on tumour cells. TF expression is seen in many tumours, including melanoma, lymphoma, ovarian cancer (especially the clear cell variant), acute promyelocytic leukemia (APL), sarcoma, pancreatic and colorectal cancer and neuroblastoma.[8] It is interesting that TF expression may inversely correlate with tumour differentiation, in part possibly explaining the higher thrombotic risk in poorly differentiated tumours.[9] Cancer procoagulant is a calcium-dependent cysteine protease that is present in malignant and foetal tissue, and that activates factor X directly, and has been shown to be present in malignant melanoma, APL, as well as cancers of the kidney, breast and colon.[10] Monocytes and platelets are also activated via tumour-specific antigens, immune complexes, or cytokines, in patients with cancer. It is clear that tumour-related factors, patient's host response to the tumour, inherited patient factors, as well as treatment-related factors, all add to the prothrombotic state in patients with active cancer.

Should all patients with idiopathic DVT be screened for cancer, and what tests should be carried out?

A meta-analysis found increased detection of cancers in patients who are extensively examined when presenting with idiopathic VTE.[11] No

prospective studies have been carried out to show cost-effectiveness or improved survival, and these patients should have a careful history taken (as well as family history), and undergo a complete physical examination, including a rectal examination in men, and a pelvic examination in women. Laboratory testing should include a full blood count, UK and E, liver function test, calcium, urinalysis and faecal occult blood test, and prostate-specific antigen in men over 50 years' old. Iron studies, performed in the morning preferably, may indicate an early iron deficiency. A chest radiograph should be carried out. In patients with recurrent idiopathic thrombosis, extensive examinations are indicated. The more common occult malignancies associated with idiopathic VTE include ovary, pancreas and liver, as well as renal cell, stomach and haematological cancers (lymphoma).

Does thrombosis influence the outcome in patients with cancer?

A retrospective study has shown that patients have a poorer outcome when the malignancy develops within two years after VTE is diagnosed.[12]

Are there any biomarkers or laboratory tests that predict thrombotic risk in a patient with a known malignancy?

A full blood count showing a haemoglobin less than 10g/dl, platelet count more than 300 000/ml, and white cell count more than 11 000/ml, prior to starting chemotherapy, are predictors of thrombotic risk. Neutrophilia and monocytosis indicate increased risk, especially. An increased D-dimer also indicates increased thrombotic risk. Other thrombotic markers that are not available in routine laboratories are soluble P-selectin levels, Factor VIII levels, prothrombin fragment F1 and 2, as well as TF assays, e.g. circulating TF microparticles and TF antigen levels. Recently, thrombin-generation testing has been shown to help identify patients at high thrombotic risk.[13]

Is it possible to predict the thrombotic risk of an individual patient with cancer?

All patients should be individually evaluated for risks associated with:

- The specific malignancy (site, metastasis and histological differentation)
- Patients' inherited risk [body mass index, age, inherited thrombotic tendencies, e.g. Factor V, (Leiden), gender, and history of previous thrombosis]
- Treatment-related risks (surgery, chemotherapy, erythropoietin and indwelling catheters, antiangiogenic therapy such as lenolidomide or thalidomide, hormonal therapy, and tamoxifen and bevacizuma).

Different scoring systems have been developed, such as the Khorana score[14] (Table I) and the Vienna (Ay) risk score.[15] The Vienna risk score added increased D-dimer and soluble P-selectin as two additional biomarkers to the Khorana score.

Should ambulatory patients with cancer receive primary thromboprophylaxis?

Currently, only patients with myeloma who are receiving high-dose steroid therapy combined with thalidomide or lenolidomide have the National Institute for Health and Clinical Excellence (NICE) and American Society of Clinical Oncology (ASCO) recommendation for outpatient thromboprophylaxis. The National Comprehensive Cancer Network (NCCN) guidelines also state that prophylaxis should be considered in other high-risk patients. The Khorana scoring system would be helpful in identifying these patients. Because of the risk of significant bleeding, generally it is not recommended that anticoagulation therapy is given to these patients. All patients should always be assessed for bleeding risk when anticoagulation therapy is considered. Different studies (PROTECHT, CONKO-004 and FRAGEM) have shown that low molecular weight heparin (LMWH) is effective in reducing thrombotic risk, but whether the current prophylactic dosage used in other patients, is high enough in patients with malignancies, is uncertain. In the elderly, warfarin showed lower efficacy. Current ASCO recommendations are against the use of aspirin to treat venous thromboprophylaxis, but a recent study showed it to have some effect in low-risk myeloma patients. Recent NCCN guidelines state that aspirin should not be used in non-myeloma patients for VTE prevention. It is also not recommended that patients receive prophylactic anticoagulation therapy due to the presence of indwelling catheters. Very close monitoring of ambulatory patients receiving chemotherapy and anticoagulation therapy is required.

Table I: The Khorana scoring system

Risk factor	Risk score
Site of malignancy: Stomach and pancreas	2
Site of malignancy: Lung, lymphoma, gynaecological, bladder and testicular	1
Platelet count (pre-treatment) ≥ 350 000/ml	1
Haemoglobin < 10 g/dl or erythropoietin use	1
White cell count > 11 000/ml (pre-chemo-therapy)	1
Body mass index ≥ 35 kg/m^2	1

High risk = ≥ 3, intermediate risk = 1-2, low risk = 0

Should all hospitalised patients with malignancies receive pharmacological thromboprophylaxis?

Clinical trials, such as Prophylaxis in Medical Patients with Enoxaparin (MEDENOX), Prevention of Recurrent Venous Thromboembolism (PREVENT) and Arixtra for Thromboembolism Prevention in a Medical Indications Study (ARTEMIS), confirmed the need for medical patients at high risk of VTE to receive thrombopro-phylaxis. No specific randomised controlled trials in patients with cancer only have been carried out, but a percentage (5-15%) of the medical patients had malignancies. No separate bleeding complications were reported in the clinical trials. Unfractionated heparin (UFH) and low-molecular-weight heparin (LMWH) may be used. It is recommended that medical patients at high risk of VTE, such as those with malignancies, receive thromboprophylaxis. Dosages for prophylaxis may be given as fixed dosages, or weight-adjusted dosages (see Table II).

Table II: Pharmacological drugs used for prophylaxis and venous thromboembolism treatment

Drug	Prophylaxis dosage	Treatment dosage	Testing	Comment
Warfarin	According to INR rather use low molecular weight heparin	According to INR, rather use low molecular weight heparin	Regular INR testing Target INR 2-3	Difficult-to-control INR Bleeding and thrombosis, despite therapeutic INR
Clexane® (enoxaparin)	40 mg subcutaneous daily, or 1mg/kg subcutaneous daily for high-risk patients	1 mg/kg 12 hourly	Anti-Factor Xa level three hours after subcutaneous low molecular weight heparin: *Prophylaxis*: 0.3-0.5 IU/ml *Therapeutic*: 0.5-1.0 IU/ml	Suggest platelet count after 5 days
Unfractionated heparin	5 000 units 8 hourly subcutaneous	80 units/kg load, then 18 units/kg/hour, adjust according to PTT	PTT for therapy: target PTT 2-2.5 x control PTT performed 6 hours after initiation, and after each dose adjustment	Risk of heparin-induced thrombocytopenia highest (platelet counts are important)
Fragmin® (dalteparin)	5 000 units subcutaneous daily	200 units/kg daily	As with Clexane®	As with Clexane®
Arixtra® (fondaparinux)	2.5 mg subcutaneous daily	< 50 kg: 5 mg 50-100 kg: 7.5 mg > 100 kg: 10 mg		Use carefully in older patients and those with renal dysfunction

INR: international normalised ratio, PTT: partial thromboplastin time

What about mechanical prophylaxis for hospitalised patients?

Mechanical prophylaxis includes aggressive mobi-lisation, electrical calf stimulation, venous foot pumps, graduated static compression stockings, and intermittent pneumatic compression devices. All these methods have the advantage of not increasing the risk of bleeding, and may be used in cases where the bleeding risk is temporarily too high for pharmacological thromboprophylaxis. It may also be used in addition to pharmacological thromboprophylaxis, but on its own is not adequate to prevent thromboprophylaxis in high-risk group patients. It reduces the risk of deep DVT, but not PE. The Clots in Legs or Stockings After Stroke (CLOTS) study,[16] that was carried out in medical patents with strokes, showed a non-significant absolute reduction of thrombotic risk with thigh-length compression stockings, and more skin complications such as ulcers, blisters and necrosis.

What are the contraindications for pharmacological thrombopropylaxis?

The contraindications for pharmacological thrombo-propylaxis are thrombocytopenia (less than 50 000/ml), bleeding (active major, as well as chronic bleeding lasting longer than 48 hours), decreased platelet function, e.g. medication and uraemia, recent major surgery, being still at risk of bleeding, and recent central nervous system bleeding, as well as patients at a high risk of head injuries (falls). Care should also be taken with regard to spinal anaesthesia. Specific suggestions for each type of drug exist.

How should patients with cancer be prepared for surery?

Planned surgery in these patients carries a very high risk of thrombosis, and this risk persists for a long period postoperatively. Preoperative prophylaxis is indicated, and has been shown to be superior to starting prophylaxis postoperatively. Different clinical trials have shown that extended prophylaxis, up to four weeks post-surgery, is safe and effective. In the @RISTOS study that followed 2 373 patients who underwent surgery for cancer, 40% of symptomatic VTE events occurred more than three weeks after surgery, and 46% of deaths were due to PE.[17] The NCCN and ASCO guidelines both suggest that all high-risk patients should be considered for extended prophylaxis.

The NCCN defines these patients as those:

- Undergoing surgery for gastrointestinal malignancies
- Undergoing anaesthesia for more than two hours
- Partaking in bed rest for longer than four days
- In the advanced stage of the disease
- With a previous history of thrombosis
- Who are elderly (older than 60 years) and undergoing major abdominopelvic surgery.

Specific drugs and dosages for treatment are shown in Table II.

How should a VTE be treated in a patient with a malignancy?

Patients are treated with LMWH, e.g. enoxaparin 1mg/kg twice daily, as standard therapy. LMWH is more efficacious than warfarin therapy, and reduces the risk of symptomatic recurrent VTE by 52%.[18] The NCCN guidelines also suggest that LMWH is preferred as monotherapy without warfarin, for the first six months, in patients with proximal DVT or PE, if financially possible. If patients are put on warfarin, it should overlap with LMWH as needed for at least five days, and until international normalised ratio (INR) values are more than 2. The INR control may be difficult in many of these patients, especially with nausea, vomiting and drug interaction. Up to nine per cent of patients with cancer treated with LMWH, and 20% of those treated with warfarin, can develop recurrent VTE.[19] Although randomised control trials are lacking, observational data support the use of LMWH in this setting. The recommended practice is to switch patients, who develop a recurrence while on warfarin therapy, to LMWH. Raising the intensity of warfarin therapy is not recommended. Dose escalation of LMWH appears to be effective in the majority of patients who develop a recurrence while on LMWH.[20]

Should all patients with cancer continue secondary thromboprophylaxis after a VTE?

Patients with a DVT should receive at least three to six months of anticoagulation therapy, and those with a PE, at least six to 12 months. If active cancer or persistent risk factors are present, indefinite anticoagulation therapy is indicated.[21]

What about new drugs and cancer treatment?

At present, the new oral anticoagulants (dabigatran and rivaroxiban) have not been approved for use other than in orthopaedic surgery in South Africa. Semuloparin, a new ultra-low-molecular-weight heparin was evaluated in the Prevention of Venous Thromboembolism in Cancer Patients Undergoing Chemotherapy (SAVE-ONCO) study,[22] a large study with more than 3 000 patients receiving chemotherapy for a locally advanced or metastatic solid tumour (lung, colon-rectum, stomach, ovary, pancreas or bladder cancer). This drug is a new anti-Factor Xa drug, with a higher anti-Factor Xa activity, and showed a 64% reduction, compared to placebo, in composite of symptomatic deep VTE, non-fatal PE, or VTE-related death, without increasing the risk of bleeding.

Conclusion

The relationship between cancer and thrombosis has been known for a long time. VTE has a negative predictive value in the outcome of a patient with cancer. Various factors in patients with cancer contribute to the risk, and some types of cancer have a higher thrombotic risk, including haematological malignancies, ovarian cancer, and tumours of the kidney, brain, pancreas, stomach and lungs. Although mechanical thromboprophylaxis carries much less bleeding risk, it does not protect the high-risk patient against developing a PE.

Aspirin should not be used as a pharmacological thromboprophylactic agent, except in low-risk myeloma patients. Currently, LMWH is the preferred drug for prophylaxis, as well as treatment, as it is often difficult to control the INR values in patients on warfarin who have cancer. After surgery in patients with cancer, at least seven to 10 days, and up to four weeks, of antiocoagulation is indicated. Newer drugs are being developed, such as semuloparin, to be used as prophylaxis in high-risk patients.

In summary:

- Patients with cancer are at high risk of developing a thrombotic event.
- Scoring systems are available to evaluate the ambulatory patient who is undergoing chemotherapy, but patients should be individually evaluated for tumour-related, patient-related and therapy-related risks. At present, the only absolute indication in the group of ambulatory patients who should receive thromboprophylaxis are those with myeloma on high-dose steroid therapy and thalidomide regimens.
- Mechanical prophylaxis may be used temporarily when the bleeding risk is high, but is not adequate on its own in the high-risk group of patients, and causes skin complications.
- All admitted patients with active cancer should be considered for pharmacological thromboprophylaxis, unless contraindicated.
- Patients undergoing surgery who have an underlying malignancy should be considered for pharmacological thromboprophylaxis, unless contraindicated, and extended prophylaxis is indicated.
- Treatment of VTE and PE are the same for patients without a malignancy, but LMWH is preferred as monotherapy, if possible. If active cancer or persistent risk factors are present, indefinite anticoagulation therapy must be considered.
- The following guidelines, dealing in detail with various aspects of VTE in malignancies, are available online: ASCO (www.asco.org); NCCN (www.nccn.org); NICE (www.nice.org.uk).

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CMSA Senate

21 October 2011

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* In the previous edition (Transactions 2012;56(2)) the wrong names were printed with the photograph. We apologise for the mistake. **Publisher**

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