

SA HEART NEWS

Dear SA Heart Member

Welcome to this newsletter which will be posted on our new interesting website. SA Heart Journal will now also be available and distributed in electronic format with only a limited number of printed copies in order to contain costs. Please read this as carefully as you have read the printed version and feel free to comment on our ideas. We would like to know if our two weekly e-Bulletin is of any value and what other information you would like to see included in either the newsletter and/or the e-Bulletin. Our new website will have a discussion forum on which different topics will be discussed from time to time. Please feel free to browse and experiment and do not hesitate to give us your much valued feedback.

We are entering into discussions with industry to find ways in which to reduce funding issues of devices but we need case studies to lend credence to our appeal and so, without your assistance, this project may not be as successful. Please forward specific cases on other funding problems to our private practice committee as well. Your contact persons in this regard are Drs Makoali Makotoko, David Jankelow and Jean Vorster.

Congratulations to Prof Mpiko Ntsekhe who has been appointed as the new Head of Cardiology at UCT. He will also chair our SHARE committee with the assistance of Prof Karen Sliwa. Dr Tom Mabin will head the SA Heart Central Congress Organising Committee. Industry will be represented by Di Pithy and Dan Willemse. I will still chair our WCC 2016 bid committee. The process has been delayed by WHF and it is uncertain as to when the final decision regarding the venue for WCC 2016 will be made.

The 6th WPCSC & SA Heart 2014 is now history. Congratulations to Dr Chris Hugo-Hamman with this achievement. Even though SA Heart 2014 was not displayed prominently most of our colleagues, more or less the same number that usually attend our annual congress, were entertained by an excellent programme that included a



significant contribution from SASCI and Africa PCR. Thank you to Farrel, his team and everybody else who contributed to the success of this meeting.

I participated in Egypt Cardio 2013 in Cairo and learned that they face the same problems as we do – including the financial challenges. 600 Cardiologists for 60m people in at least 12 medical schools all well staffed with academics. Their less fragmented medical services contribute to better national coherence to guidelines and registries. This was an excellent meeting and well worth attending. Later this year the University of Alexandria will host their meeting which will surely be worthwhile attending, particularly as it is set in such an exciting and ancient university.

Adriaan Snyders (asnyders@mweb.co.za)
President, SA Heart Association

POPULAR CONGRESSES FOR 2013

CONGRESS	DATE	CITY	COUNTRY
CARDIO - ALEX 2013 http://www.cardio-alex.com	11 - 14 June 2013	Alexandria	Egypt
ESH 2013 http://www.eshonline.org	14 - 17 June 2013	Milan	Italy
8TH INTERNATIONAL MEETING IN INTENSIVE CARDIAC CARE http://www.isas.co.il/cardiac-care2013	16 - 18 June 2013	Jerusalem	Israel
EHRA - EUROPACE http://www.escardio.org/congresses/ehra-europace-2013	23 - 26 June 2013	Athens	Greece
JPC CONGRESS (JOHANNESBURG PERI-OPERATIVE CARDIOTHORACIC CONGRESS) Email: leigh@londocor.co.za	28 - 31 July 2013	Johannesburg	South Africa
WFSICCM 2013 (WORLD FEDERATION OF SOCIETIES OF INTENSIVE & CRITICAL CARE MEDICINE) http://www.criticalcare2013.com	28 August - 1 September 2013	Durban	South Africa
ESC 2013 http://www.escardio.org/congresses	31 August - 4 September 2013	Amsterdam	Netherlands
PCR LONDON VALVES 2013 http://www.pcr londonvalves.com	15 - 17 September 2013	London	United Kingdom
NEW HORIZONS IN ECHOCARDIOGRAPHY Email: newhorizons.baraecho@gmail.com	20 September 2013	Sandton	South Africa
SIXTH APHRS & CARDIORHYTHM http://www.aphrs-cardiorhythm2013.hk	3 - 6 October 2013	Hong Kong	China
VENICE ARRHYTHMIA 2013 http://www.venicearrhythmia.org	6 - 9 October 2013	Venice	Italy
ACUTE CARDIAC CARE 2013 http://www.escardio.org	12 - 14 October 2013	Madrid	Spain
CHEST http://www.accmeeting.org/chest.2013	26 - 31 October 2013	Chicago	USA
TCT 2013 http://www.tctconference.com	29 October - 1 November 2013	San Francisco	USA
AHA 2013 http://www.scientificsessions.org	16 - 20 November 2013	Dallas (Texas)	USA
5TH INTERNATIONAL CONFERENCE ON FIXED COMBINATIONS IN THE TREATMENT OF HYPERTENSION, DYSLIPIDEMIA AND DIABETES MELLITUS http://www.fixedcombinations.com	21 - 24 November 2013	Bangkok	Thailand
ICI - INNOVATIONS IN CARDIOVASCULAR INTERVENTIONS - 2013 http://www.icimeeting.com	1 - 3 December 2013	Tel Aviv	Israel
EUROECHO 2013 http://www.escardio.org	11 - 14 December 2013	Istanbul	Turkey

CARDIAC ARRHYTHMIA SOCIETY OF SOUTHERN AFRICA (CASSA)

The Cardiac Arrhythmia Society of Southern Africa concentrates on advancing Electrophysiology in South Africa and Africa and as training and education is a focus area of the organisation, the following educational programmes will be hosted this year:

Atrial Fibrillation Training for General Practitioners

CASSA will be hosting GP workshops on the diagnosis and treatment of Atrial Fibrillation. Diagnostic instrumentation will be provided to the General Practitioners involved and the data gathered will be published at the end of the programme.

‘CASSA is looking at some changes in the way coding is done for different EP procedures.’

ECG Quiz in the South African Heart Association Journal as well as Modern Medicine

The quarterly ECG quiz will appear in the SA Heart Journal and a similar questionnaire, aimed at GPs, will appear in the Modern Medicine Magazine.

CASSA Specialist Symposium – Clinical Arrhythmia Management

The national CASSA specialist symposium has become a popular event on the South African Cardiology calendar.

This year CASSA will host a national road show entitled “Clinical Arrhythmia Management”. The Symposium will consist of 3 meetings in Johannesburg, Durban and Cape Town respectively. The provisional dates for these meetings are Saturday 28 September, Wednesday 2 October and Saturday 5 October.

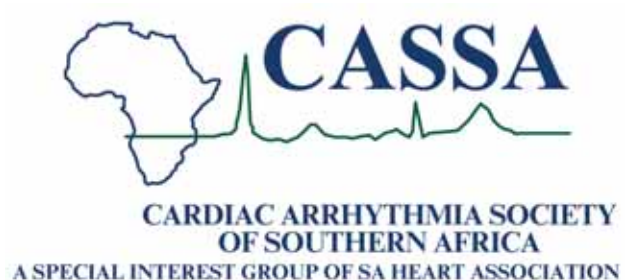
During the weekend of either the Johannesburg or Cape Town meeting, an advanced course aimed at Cardiologists and trainees focusing on pacemakers and ICDs, will be held on the Friday preceding the full day workshop and on the Sunday after the workshop. Electrophysiologists, Cardiologists and registrars will get together with the international expert panel to present and discuss difficult EP cases.

Billing and coding in the field of electrophysiology

Due to the rapid expansion of electrophysiological procedures, fee structures have become complex. CASSA is looking at some changes in the way coding is done for different EP procedures and will discuss this with the South African Medical Association.

CASSA is currently also assisting the Private Practice Committee of The South African Heart Association in this regard, particularly as regards pacing and device follow up.

For more information on any of the topics above, please contact Franciska Rossouw at 082 806 1599, email franciska@cassa.co.za or visit the CASSA website at www.cassa.co.za.



ISCAP NEWS

The ISCAP boat has left the port and is on due course to achieve their goals for 2013. The captain (Chairperson) of the Interventional Society of Cathlab Allied Professionals, Dianne Kerrigan and her crew members (Exco) are dedicated to emphasising quality standards and establishing criteria for credentialing and developing guidelines for training in cardiac/paediatric catheterisation/electrophysiology and endovascular laboratories. These will be done in collaboration with the relevant societies (and SASCI).

The ISCAP Committee is:

Dianne Kerrigan	Chairperson
Gill Longano	Vice Chairperson
Marilyn De Meyer	Johannesburg
Romy Dickson	Johannesburg
Elizabeth Muller	Pretoria
Bev Leahy	Technologist
Marina Meyer	Port Elizabeth
Liezel La Grange	Cape Town
Marisa Fourie	Bloemfontein
Maxine Shanglee	Durban

The industry representatives are:

Amy Wolf
Craig Goodburn
Tracy Du Preez
Carmel Woods
Andrew Sartor

The theme for this year's activities is **"Sharing is the heart of education"**.

Our main aims for 2013 are:

- To consolidate the committees in all regions and Exco to hold monthly meetings.
- To expand Exco Committee members with technologists and radiographers.

- To aim for at least 4 workshops in each region for the year.
- To send staff on the Assessors Course.
- To decide on a name for the "cath lab" course.
- To distribute passports at regional Workshops to paid-up ISCAP members.
- To network, when attending congresses – locally and internationally.
- To establish a course which will have training opportunities for Registered Nurses and Enrolled Nurses, Technologists and Radiographers.
- To continue dialogue with all stakeholders including Netcare and the Foundation for Professional Development to ensure that a credible and sustainable course is developed.
- To have a Comprehensive Cath Lab Manual which can be used as part of this course.
- To encourage hospital groups to continue to offer sponsorship to all their staff – locally and internationally.
- To meet and liaise with all hospital groups to establish a collaborative relationship whereby the staff working in cath labs will be recognised for their work.
- To assist and participate when companies set up workshops, i.e. ISCAP events.

ISCAP is currently meeting with all the role players regarding an accredited training course. We are making good progress and should have a 6 month ISCAP Cath Lab course, that will include all hospital groups as well as State hospitals, running in 2013. The Cath Lab Work book/Study guide is also being developed. ISCAP is furthermore establishing task teams to ensure that all material is relevant and kept up to date. ISCAP is currently running a competition to find a name for the Interventional Endovascular Allied Assistance Course. The name should be in line with names of similar international societies. Please help us find a name for our course and win a prize! Send suggestions to sasci@sasci.co.za

The 1st draft of the Cath Lab Manual is being assessed by the Netcare Training Academy – it will form an integral part of the course.

The passport is an ISCAP member's personal identity, proof of attendance and sponsorship opportunity document. It can also be used as a performance evaluation record. The passport is a tool towards enhancing a member's professional standing. All paid-up ISCAP members are currently receiving their personalised ISCAP passports at the workshops that they attend.

ISCAP has been very busy on the educational front. All the areas are currently in the process of organising their regional workshops. Gauteng had their first 2013 meeting for on 9 March. It was sponsored by Sanofi/Winthrop and took place at Isisango conference centre in Midrand. The second meeting will take place on 20 April 2013 at Medtronic Africa, sponsored by Surgical Innovations and Aspen Pharmacare. These workshops are not product specific and are CPD accredited.



this year the Medtronic initiated and supported Rapid Exchange Forum will be an ISCAP driven educational initiative and endorsed by ISCAP (and SASCI). Regional meetings will take place throughout South Africa following this first meeting in Johannesburg which will focus on the needs of unit managers working in the Cath Lab.

Without the contributions of the ISCAP Corporate supporters, we cannot grow and achieve any of our goals. Thank you to Amayeza Abantu, AstraZeneca, Aspen Pharmacare, Axim, Baroque Medical, Biotronik, Boehringer Ingelheim, Boston Scientific, B Braun, Cordis, Edwards, Medtronic, Paragmed, Surgical Innovations, Torque Medical, Viking, Volcano and Winthrop.

“The passport can also be used as a performance evaluation record.”

Dianne Kerrigan presented a talk on the Transradial Approach to Cardiac Catheterisation to staff in Port Elizabeth on 12 and 13 April as part of a Crossroads Workshop. The workshop was well attended and included an Endovascular session. The staff appreciated that Crossroads had come to them, as it was the 1st Regional workshop in Port Elizabeth which allowed more staff to participate in this educational event. The Chapter are planning their 1st ISCAP workshop in September. Bloemfontein and Durban Chapters are in the process of setting dates for their workshops in the next few months.

We are also delighted to announce that the Rapid Exchange Forum for Cath Lab Unit Managers' meeting will take place on 11 May 2013 in Johannesburg. It has been decided that

If you want to learn more about these events or if you want to participate in any of the programmes, please contact Sanette Zietsman (ISCAP Office) at 083 253 5212 or email sanette@medsoc.co.za.

Dianne Kerrigan
Chairperson, ISCAP

REVIEW ON THE ESC GUIDELINES FOR VALVULAR HEART DISEASE

Comments on the ESC guidelines on the management of valvular heart disease (VHD) (version 2012)

These guidelines are the integration of the most recent research in valvular heart disease as compiled by The Joint Task Force on the Management of Valvular Heart Disease of the European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS).

The guidelines consist of a systematic evaluation of the aortic, mitral and tricuspid valve disease. There are clearly laid out tables along with recommendation classes and levels of evidence for interventions. Pregnancy and heart valve disease, infective endocarditis and pulmonary valve disease guidelines have not been included in this document.

Much has changed with new knowledge on risk stratification, diagnostic methods and therapeutic options. Furthermore, surgical valve repair options have evolved as has percutaneous valve replacement.

Management of associated coronary artery disease in VHD is clearly tabulated. Anticoagulation in patients with AF and VHD is recommended and vitamin K antagonists are preferred. Newer anticoagulant agents are not endorsed due to the absence of trials in VHD at this time. Surgical closure of the left atrial appendage at the time of surgery is not recommended but ablation for AF should be considered in symptomatic AF patients.

Aortic regurgitation

Aortic regurgitation is covered in detail. The results of surgery are shown to be excellent in patients who fill the criteria for intervention. Valve sparing operations are frequently performed in expert centres with good results in patients with aortic root disease. In South Africa, no high volume surgical centres exist for this pathology.

Valve replacement is the most widely used option. Indications for surgery are largely unchanged and are determined by symptoms and echocardiographic criteria.

‘I would like to thank our industry partners for their continued and unwavering support.’

The most important development has been the collaborative approach between cardiologists and cardiac surgeons - the so called “heart team” - in the management of VHD. This should allow for more precise implementation of guidelines.

General comments section covers clinical evaluation, echocardiography, other non invasive investigations and finally invasive investigations. Co-morbidity is also included in this section as it is important in assessing risk in these patients.

Aortic stenosis

Aortic stenosis diagnostic guidelines are largely unchanged. The results of conventional surgical aortic valve replacement are excellent. Most patients derive substantial benefit in quality and length of life, even selected octogenarians.

Transcatheter aortic valve implantation (TAVI) has been shown to be beneficial in high surgical risk patients with 90% procedural success rates. Transfemoral access is preferred. There is a 5 - 15% mortality rate at 30 days with

other complications – stroke, new pacemaker requirement and vascular complications. One - 2% of patients require immediate cardiac surgery for life-threatening complications. Long term durability is in the process of evaluation. TAVI offers clear benefit over conservative treatment. The PARTNER trial has shown non-inferiority of TAVI when compared to surgical valve replacement in high risk surgical patients.

Regarding medical therapy for AS, statins should not be used to slow progression of aortic stenosis gradient. Medical therapy in symptomatic AS is only indicated as a temporising measure or in patients unsuitable for intervention.

Mitral regurgitation

Mitral regurgitation guidelines are comprehensively covered. Acute MR is usually a surgical emergency. Chronic MR is assessed echocardiographically. Exercise testing to evaluate functional capacity can be useful in doubtful cases and may predict post-operative dysfunction. BNP levels of >105pg/ml predict the development of HF, LV dysfunction or death in midterm follow up.

Surgery should be mitral valve repair where feasible. The results of repair are better in units where large numbers of repairs are done. Other patients require close clinical follow up. Medical therapy in acute MR is a temporising measure and includes IABP, SNP and inotropic agents. ACE inhibitors are only indicated in chronic MR with HF along with beta blockade and spironolactone. Serial testing in moderate MR annually is advised. However in severe MR, this should be done 6 monthly.

Ischaemic MR has a poor prognosis while non ischaemic MR data is limited. Surgery for ischaemic MR carries a higher mortality than primary MR together with a worse prognosis. The results of mitral valve surgery and CABG compared to CABG alone in patients with ischaemic MR have not demonstrated survival benefit. In cardiomyopathy,

undersized mitral annuloplasty is the approach of choice but it does carry a risk of MR recurrence. There are numerous predictors of poor outcome of potential repair. Myocardial viability should be evaluated prior to surgery. Survival after repair and replacement is similar but meta-analysis suggests that repair may confer a survival benefit. Ventricular remodelling procedures are not recommended.

Percutaneous edge to edge repair is feasible in secondary MR but is not recommended as yet.

Indications for intervention are less evidence based. Medical therapy is the cornerstone in the treatment of secondary MR patients. CRT is to be considered in accordance with existing guidelines.

Mitral stenosis

Natural history is unpredictable and varied. Once symptomatic, the prognosis is poor. The good outcomes of interventions in appropriately selected patients are evident. Percutaneous mitral commissurotomy (PMC) is recommended in suitable patients. Mitral valve replacement remains the procedure of choice in patients not suitable for PMC, with few patients being suitable for repair. Truly asymptomatic patients with MS should not undergo intervention.

Medical therapy can improve symptoms. Anticoagulation with vitamin K antagonists is recommended in MS patients in atrial fibrillation and in patients in sinus rhythm with a history of thromboembolism, spontaneous echo contrast on TOE or LA enlargement. Aspirin and other anti-platelet agents are not recommended.

Asymptomatic patients with MS should undergo serial testing annually. PMC patients likewise require close follow up.

Tricuspid regurgitation

Tricuspid regurgitation symptoms are usually determined by co-existing valve lesions. CMR is preferred for the

REVIEW ON THE ESC GUIDELINES CONTINUED

assessment of RV size and function. Severe primary TR has a poor prognosis. Secondary TR usually improves with resolution of other left sided valvular lesions. Surgical intervention, in the form of a ring annuloplasty, is preferred. Severe secondary TR should be corrected as well as moderate/severe primary TR. Tricuspid annular dilatation with moderate secondary TR should be considered for surgery. Should the valve be replaced, a large bioprosthesis is preferred. Surgery is usually carried out at the same time as correction of left sided valve lesions. Again repair is preferred over replacement and should be done before irreversible RV dysfunction supervenes.

Tricuspid stenosis

Tricuspid stenosis is usually always rheumatic. Assessed by echocardiography with a gradient of >5mmHg being significant. Valve repair is often not feasible and bioprosthesis replacement is recommended. Percutaneous intervention is not recommended.

Surgery is undertaken at the same time as left sided valve surgery. Isolated TS in symptomatic patients need surgery. Medical therapy helps symptoms only.

Combined valve lesions are discussed and recommendations are made much in line with established clinical practice.

Prosthesis choice is covered and the fact that there is no perfect valve substitute is reiterated. The lack of randomised trials owing to heterogeneity of the valvular heart disease population is emphasised. Lifelong cardiology follow up is

mandatory on all valve surgery patients. Target INRs are determined by prothesis thrombogenicity as shown in table form. Included are management strategies for vitamin K antagonist overdose. Aspirin should not be added to anticoagulants unless the patient has vascular disease as well. Bare metal stents are suggested if patient needs PCI to reduce triple therapy duration which increases the risk of bleeding complications.

Unfractionated heparin is still the only approved heparin treatment for patients with mechanical prostheses.

Management of valve thrombosis is covered with fibrinolysis being useful in the critical patient or where surgery is not available. Medical therapy is briefly discussed. Transcatheter closure of paravalvular leak is not recommended.

Guidelines on bioprosthetic failure are largely unchanged from 2007. Transcatheter valve implantation is feasible in this setting and again should be a "heart team" decision.

The final section is on the management of patients with valvular heart disease undergoing non cardiac surgery. Perioperative monitoring is critical in these patients.

Dr James Fulton

(on behalf of the Ethics and Guidelines Committee)

Reference

Guidelines on the Management of Valvular Heart Disease (Version 2012). Eur Heart J 2012;33:2451-96.

WEBSITE LINKS

SA Heart www.saheart.org | **SASCI** www.sasci.co.za | **HeFSSA** www.hefssa.org | **ACC** www.acc.org

CASSA www.cassa.co.za | **Research (SASCAR)** www.sascar.org.za | **ESC** www.escardio.org

PCSSA www.saheart.org/pcssa

SHARE REGISTRY

In 2006 the South African Heart Association launched the SHARE registry. This much-needed and ambitious project was designed and implemented to fill a huge void relating to a store of very valuable information about surgical and non-surgical invasive cardiac procedures performed across the country. Thanks mainly to the hard work and endeavors of many dedicated individuals, cath lab teams and theaters across the country; to the stewardship of a number of successive SHARE Working Committees; and to generous sponsorship from industry and hospital groups, seven years later, important information on approximately 20 000 procedures has now been captured. The outcome of this effort will soon be analysed, reviewed and disseminated mainly in the form of manuscripts and presentations for all of us in the field to learn and grow from. The South African Heart Associated Executive Committee is very grateful to everyone for their contributions and for the hard work that has gone into achieving this first milestone.

Having achieved most of its initial objectives, The SA Heart executive has spent much of the last year exploring ways in which SHARE can be an even more valuable long-term and sustainable national resource comparable to similar registries across the globe. The outcome of that process has been two-fold.

- A decision has been taken to terminate the first phase of the registry and suspend recruitment as of 1 May 2013 for an anticipated period of approximately 6 months. This is mainly because of the recognition that the additional benefit of collecting more of essentially the same data at current costs is difficult to demonstrate or justify to patients/SA Heart/Hospitals/Industry, etc.
- A new Share Registry Committee will take the baton from the old. This new committee will be chaired by Professor Mpiko Ntsekhe and will include Professors Karen Sliwa, Francis Smit and Anton Doubell and Ms Elizabeth Schaafsma. The SA Heart executive has tasked the committee with designing a new sustainable prospective registry that is more reflective of practice around the country and will help us all get a much better handle on several important issues not captured in the original phase.

Once again, on behalf of the SA Heart executive and the new SHARE Registry Committee, we would like to thank everyone who has been involved up to date for their hard work and tremendous accomplishment. Twenty thousand procedures is some target to reach! We trust that the majority of you will be equally keen to be involved in the next phase of the project and we are thankful that most of you, who have been approached informally up to date, have already indicated that you are looking forward to the next phase.

‘The SA Heart executive has tasked the committee with designing a new sustainable prospective registry.’

Elizabeth Schaafsma, the SHARE Project Manager, will contact you shortly to ensure the full synchronisation of all current data and to discuss developments. She will also address your concerns regarding the SHARE II registry and ensure a smooth transition from old to new.

All communications relating to the registry should be directed to Elizabeth at 083 603 7700 or email elizabeth@vodamail.co.za.

THE HEART FAILURE SOCIETY OF SOUTH AFRICA NEWS

It has barely been two months since our 2013 AGM took place at the World Paediatric Congress in Cape Town. Our plans for 2013 include the following:

Since 2010, the General Practitioner and Physician Programme continues to be of great value to the medical community as well as the pharmaceutical and device industry. The year 2013 will see a greater outreach to peripheral areas that have not been included before as well as the introduction of a patient case-based approach to the topics.

HeFSSA has produced new ways to leave our imprint which include:

- A **HeFSSA Business Card** – This card details “how to contact us” and we hope that it will further encourage traffic to the website for on-going education and CME programmes with the facility to perform CME questionnaires.
- A comprehensive, well designed **HF-REF diagnosis and treatment algorithm**, in the form of a poster, has been developed by Exco. This algorithm is based on the ESC Guidelines published in 2012 and will be distributed widely.
- **“A South African perspective on the 2012 ESC Heart Failure guidelines”** - This document, formalised under the leadership of Martin Mpe, will be submitted for publication in May 2013.

HeFSSA Travel Award

HeFSSA has established the annual “HeFSSA Travel Award”. This award will hopefully help enhance local expertise and stimulate interest in heart failure in South Africa. We hope that knowledge gained will be shared through appropriate channels with colleagues. This award is open to cardiologists and cardiology fellows or physicians with a special interest in heart failure. The applicant’s annual SA Heart and HeFSSA membership fees must be paid-up. The accredited congress/ educational programme must be focused on Heart Failure. The maximum grant value is R50 000 (Fifty Thousand Rand) and can be utilised towards airfare (economy class), congress registration and accommodation. Please contact the HeFSSA office or go to <http://www.hefssa.org/static/education-at->

www.hefssa.org to apply online for this award. It is my pleasure to announce that Dr Kemi Tibazarwa from UCT is our first recipient and will attend the PASCAR 2013 congress in Senegal in May of this year. Well done Kemi, we are looking forward to sharing in your newly gained knowledge. She has been awarded only part of the full amount, so there still remains opportunity for others to apply.

Outreach programmes

HeFSSA is also planning outreach programmes in other African countries and encourages all parties who want to be involved in this initiative to contact the HeFSSA office at info@hefssa.org.

General Cardio Update

HeFSSA is also considering a General Cardio Update for General Practitioners and Physicians in the final quarter of 2013 as a standalone programme, in Cape Town, under the leadership of Tony Lachman who is hoping to organise a day long symposium in Cape Town towards year end, aimed at General Practitioners and Physicians. This programme will be a full day event with topics covering Lipids, Heart Failure, Hypertension and ECG interpretation.

Research programmes

The Society is also involved in the promotion of research programmes. The World Federation GAPS survey in Heart failure has been concluded and we will focus on the Inter-CHF programme for 2013. Prof Karen Sliwa has been approached by McMaster University to spearhead the Inter-CHF study in South Africa:

- This will be the largest systematic evaluation of heart failure (HF) in lower and middle income countries in Africa, Asia and South America.
- This registry will describe the causes, clinical risk factors and burden of disease, document the prevalent approaches to patient management and identify gaps in the care of HF patients.
- This registry will also examine patient and physician knowledge and perceptions towards HF and identify barriers to prevention and treatment, thereby suggesting possible solutions, which may be evaluated in future studies.

Such information will also be critical to the development of locally "sensitive" guidelines, research programmes and possible policies and interventions. The aim is to capture the information of at least 400 patients in South-Africa.

HeFSSA website

The HeFSSA website (www.hefssa.org) is continually being updated so that it remains relevant. We are currently developing an online learning system. This system will enable doctors to earn CPD points by completing online CPD accredited questionnaires. On successful completion of the questionnaire, a PDF certificate will be issued. The first such questionnaire for 2013 has been developed and

Martin Mpe Vice-President

Darryl Smith Treasurer

Jens Hitzeroth Secretary

The representatives are:

Karen Sliwa

Pro Obel

Cristina Radulescu

Sandrine Lecour

Tony Lachman



‘HeFSSA is also planning outreach programmes in other African countries.’

covers "Ethics with a focus on Prescribed Minimum Benefits and Heart Failure". Our office will inform all concerned as soon as it is available on the website.

2014 SA Heart Congress

HeFSSA will be involved in the 2014 SA Heart Congress which is being organised by SA Heart, Durban branch. Eric Klug will represent HeFSSA on the scientific committee.

Membership certificate

The HeFSSA office is developing an annual HeFSSA membership certificate that will be distributed to all HeFSSA Members.

Our society can only achieve its goals thanks to the dedication of an active Executive Committee.

The Executive Committee is:

Eric Klug President

HeFSSA is supported by our loyal corporate members through generous educational grants. Our sincere appreciation is extended to AstraZeneca, Boston Scientific, Servier, Pharma Dynamics, Merck and Medtronic.

Please contact the HeFSSA office if you want to learn more about mentioned events or if you want to participate in any of the programmes.

Contact details

George Nel

info@hefssa.org or 083 458 5954

Sanette Zietsman

sanette@medsoc.co.za or 083 253 5212

SOUTH AFRICAN SOCIETY OF CARDIOVASCULAR INTERVENTION

I would like to start by thanking all the members who attended the 2nd AfricaPCR programme in Cape Town and also those who made the effort to attend the Annual General Meeting.

Thank you to the Executive Committee Members who were willing to serve another term and were re-elected (with a few portfolio changes). Your active contribution is the key to SASCI's functioning:

Farrel Hellig	President, AfricaPCR, International congresses
Dave Kettles	Vice President, Guidance
Cobus Badenhorst	Treasurer and SHARE
Adie Horak	Secretary
Graham Cassel	Ex Officio President
Sajidah Khan	Educational including ESC eLearning Platform and AfricaPCR
Mpiko Ntsekhe	Academic, AfricaPCR
Chris Zambakides	Academic, CTO
Len Steingo	Coding, Funders and Website
Mark Abelson	Coding and Funders, LAA Closure
Jean Vorster	SA Heart Congress 2014 Scientific Programme

Gill Longano and Liezl Le Grange remain for ISCAP and Industry representatives, continuing to 2014, are Tracey du Preez, Craig Goodburn and Hans Buyl.

Graham Cassel tabled the following at the AGM: "SASCI is supported by a great Exco and support team. The previous year has been a challenging one, the Exco members would like to congratulate Farrel on a sterling job done thus far. It is a privilege to support him on the Exco".

Our Associated Members Group (ISCAP) remains very active and we will continue to support them as best we can. Please see a complete news review within this Newsletter.

Financial Statements

The Interim Financial Statements were presented by George Nel at the AGM and the directors were authorised to sign the financial statements when they become available. SASCI's finances continue to look healthy and funding is available to pursue programmes to achieve our constitutional objectives. I would like to thank our corporate partners for their continued and unwavering support over the past ten years. They are Amayeza, Angio Quip, Aspen, AstraZeneca, Baroque, B Braun, Biotronik, Boehringer-Ingelheim, Boston Scientific, Cipla Medpro, Cordis, Disa Vascular, Edwards, Medtronic, Paragmed, Pharma Dynamics, Surgical Innovations, Torque Medical, Viking, Volcano and Winthrop. We are looking forward to collaborating with you in 2013.

AfricaPCR

AfricaPCR Interactive Case Corner and a full day AfricaPCR programme were embedded in the World Congress of Paediatric Cardiology and Cardiac Surgery 2013 which was held in Cape Town in February. For the Interactive Case Corner 28 case submissions were received from all over the world (Africa including South Africa, Asia, Europe, the Middle-East and South America) and a broad range of interventional material was discussed. The main AfricaPCR Programme (which took place on 22 February) included a "How should I Treat?" session on Pericardial Disease and two "Learning the Technique" sessions on Balloon Mitral Valvuloplasty and TAVI. The Friday programme was well attended by more than a 150 delegates and feedback was extremely positive. I would like to thank everyone who contributed to these meetings. I believe that we have established a firm base for the planned 2 day AfricaPCR Course in 2014.

AfricaPCR 2014 will take place on 21 - 23 March 2014 in Cape Town. In the future SASCI's AGM will be held at AfricaPCR (if the congress is being held in South Africa at that time), otherwise at the SA Heart Congress. SASCI will continue to support SA Heart Congresses and contribute to the scientific programme.

SASCI Breakfast Symposia

Two SASCI Breakfast Symposia were also hosted on 21 and 22 February to bolster adult coronary content during the World Congress. Adie Horak was the SASCI programme convener with able assistance from Dave Kettles and Mark Abelson. The programme had a "PCR - How Should I treat?" format. Both sessions were extremely well attended and the subject matter "Case based Discussions: Complications of coronary intervention" and "Case based Discussions: Interventions in coronary lesion subsets" lead to vigorous discussion with active audience participation.

Other noteworthy activities

TAVI Appeal Hearing

SASCI and Tom Mabin's TAVI Appeal Hearing took place on 15 March 2013 in Pretoria after the Council for Medical Schemes (CMS) initially ruled "in favour" of Medshield not funding TAVI based on the funders own rule exclusion. The ruling of the appeal committee was received in April and it was made in our (patient's) favour. The Medical Aid has been directed to pay for the TAVI procedure in full and it is viewed that the Medical Aid cannot exclude therapy based only on their own rules (even if these have been approved by CMS). This is a landmark ruling but as is the case with legal processes, the next step could involve an appeal by the Medical Aid (to be lodged within the next two months, if at all) to the CMS Appeal Board which could add an additional 12 months to the process. The patient however could enforce the ruling and action the judgement (forcing the Medical Aid to fund the procedure).

This process is extremely important as the CMS is mandated to look after the interests of the medical aid member and protect their rights. SASCI is ensuring that this happens. Please go to www.medicalschemes.com if you need more information on CMS or refer your medical aid patients if needed.

A SASCI delegation consisting of Len Steingo, Graham Cassel, David Jankelow and George Nel (with Farrel Hellig offering his apologies) met with Discovery Health on 25 April to discuss pertinent issues (including TAVI, Coding,

Bioresorbable Scaffold, Cardiac CT Scan) as well as alternative reimbursement models (being developed to better reflect the changing face of interventional cardiology). This meeting has identified definitive areas requiring collaboration and will be reported on as these unfold in the near future.

Educational for members and fellows

French-Reunion-South African 2013

This took place from 17 - 19 April 2013 in Bordeaux, France. Tom Mabin once again represented SASCI on the organising committee and a high quality programme with exceptional faculty was assembled. This was the final FRSA SASCI will officially be involved in.

**SASCI's
finances continue
to look healthy
and funding is
available to pursue
programmes.**

EuroPCR Congress

The EuroPCR Congress will take place from 21 - 24 May in Paris, France. During EuroPCR 2013 SASCI will once again have a high visibility with a joint "How should I treat?" session with Croatia, Cyprus and Serbian Societies as well as a Joint Session with the Polish Society on TAVI. In addition, SASCI will participate in a new learning programme based on the presentation of "complication cases" chaired by Graham Cassel. Live cases to the main PCR auditorium from Farrel Hellig's unit at Sunninghill have also been finalised.

Continued on page 494

SASCI CONTINUED

Visiting Professor Programme

SASCI approached the renowned Prof Tony Gershlick of the University of Leicester in the UK to visit South Africa early in 2014 as our Visiting Professor. He is positively considering this invitation. Prof David Holmes is a possibility, either in late 2014 or early 2015. Medtronic is thanked for their continued support of this programme.

RC Fraser

Dr Aine Mugabi, the 2012 recipient of the RC Fraser International Fellowship in Cardiovascular Intervention award, will travel to Dr Martyn Thomas' (Consultant Cardiologist and Clinical Director for Cardiovascular Services) unit at Guy's and St Thomas' Hospital, London for a period of one month in 2013 where he will have the opportunity to expand his knowledge and further develop his abilities. The 2013 award recipient was announced at the recent SASCI Fellows Programme. Ahmed Vachiat from Wits University (Johannesburg Hospital) is the 2013 Fellowship award recipient. This award is annually sponsored by Boston Scientific.

The programme was based on case reviews and canned cases which lead to active and lively educational discussions. The opportunity was also given to Santosh Reebye and Udhay Ramjutun from Mauritius to present cases as well as to fellows. Thank you to our corporate supporters who made this meeting possible: Aspen, AstraZeneca, Angio Quip, Baroque, B Braun, Boston, Disa Vascular, Edwards, Medtronic, Paragmed, Pharma Dynamic, Torque Medical and Volcano.

ESC eLearning Platform

Sajidah Khan will be the South African national coordinator for the new ESC eLearning Platform. This programme will focus on web based Fellows training offering training in 6 sub-specialties with the first module (interventional cardiology) launched early in 2013. Participants need to become members of the EAPCI association and a fee of EUR120 per calendar year applies. The duration of the EAPCI Learning Programme is 2 years.

‘A dedicate CTO portfolio within the SASCI Exco has been produced with the aim of creating awareness.’

SASCI Fellows programme

The 8th Annual SASCI Fellows programme took place on the weekend of 26 - 28 April 2013 in Cape Town at the Lagoon Beach Hotel with Dr Mark Abelson as Programme Director and faculty Jean Vorster, Dave Kettles, Tom Mabin, Chris Zambakides and Farrel Hellig. We had 32 South African Fellows attending as well as a delegation of nine from Mauritius and two from Kenya. In total more than 70 delegates attended this truly African learning initiative and our biggest Fellows Programme yet!

SAMA CPT Coding

Mark Abelson and Len Steingo have done a sterling job of submitting new codes to SAMA this year. As a result of their hard work and excellent preparation (and on the day representation by Len) most submissions were accepted. These are the first cardiovascular codes in many years to be included in the SAMA Doctor Billing Manual (2014).

The following has transpired:

- Interpretation items 1286 and 1287: SASCI requested

that the code interpretation should be changed from “per vessel” to “per lesion” and this has been approved.

- **Renal Denervation (RDN):** A new dedicated code will be added to the 2014 DBM. The description will indicate that the item is applicable for each renal artery.
- **Fractional Flow Reserve (FFR):** Two dedicated add-on codes have been granted. These will be codes to be added, per vessel, to the primary procedure code. This will be charged equivalent to IVUS.
- **Transcatheter closure of the left atrial appendage (LLA):** A new dedicated code will be added.
- **Trans-aortic Valve Implantation (TAVI):** A dedicated code will be added. However, as there are few TAVI codes in the CPT® structure, further attention will be given to include a range of TAVI codes and not only one.
- **Vascular Closure Device:** A dedicated code was **not** granted as closure is seen as inherent part of the procedure.
- **Percutaneous coronary angioplasty using a drug eluting balloon (DEB):** A dedicated code was **not** granted but the description of items 5058 - 5068 will be revised to include the use of a drug eluting balloon. This will be charged at a cost equivalent to a stent.
- **Z-codes:** Are problematic as some medical aids use this to justify non-payment. SASCI approached SAMA in an effort to understand the reasons for Z-codes and the process to be followed to get Z-codes removed. SAMA confirmed that the Z coding should **not** be used to motivate non-payment as the code only indicates that a code is new within the coding structure. The Z-code is removed when utilisation data is received by SAMA. SASCI will secure utilisation data for the following codes 1272 (coronary sinus lead implantation) and 1274 (aspiration of thrombus from coronary artery or saphenous vein bypass graft). These codes are therefore already accepted but need to be removed from the Z coding status.



SASCI will engage the funders in 2013 to secure the use of these codes and possible funding for these new codes in 2014.

CTO portfolio

A dedicate CTO portfolio within the SASCI Exco has been produced with the aim of creating awareness and to improve CTO procedure outcomes through education and training. CTO is a lengthy procedure which calls for patience and precision. If members are interested in learning these procedures they can contact Chris Zambakides and Farrel Hellig. Crossroads is hosting a theoretical workshop in mid 2013 on CTOs. A CTO workshop is being considered for 2014 (which will be planned and run through the SASCI office after Exco approval).

Please contact SASCI through
George Nel, our Executive Officer
at 083 458 5954, sasci@sasci.co.za
or george@medsoc.co.za.

Farrel Hellig
President, SASCI



SASCI

**South African
Society of
Cardiovascular
Intervention**

THE PAEDIATRIC CARDIAC SOCIETY OF SOUTH AFRICA

The Paediatric Cardiac Society of South Africa's main objectives are to improve the quality of care for children with congenital and acquired heart disease by promoting research and supporting education and training of heart specialists. The PCSSA is also the primary advocacy group for children with heart disease in South Africa. Membership is open and we actively encourage participation from colleagues in Africa as well as interaction with special interest groups. The start of 2013 was a remarkable one for the PCSSA as we hosted the 6th World Congress of Paediatric Cardiology and Cardiac Surgery.

Report back on the 6th World Congress of Paediatric Cardiology and Cardiac Surgery, Cape Town



We, the executive of the PCCSSA, and co-hosts along with SA Heart were thrilled to welcome faculty, delegates and exhibitors from all over the world to the premier event on our calendar. Over 3 000 attendees and over 2 500 scientific delegates enjoyed five days of outstanding lectures, thrilling live cases and social and musical encounters. It was a remarkable opportunity to showcase the progress which has been made in congenital heart disease over the past decades, meet the absolute experts in the field and welcome international faculty and returning friends to our country. Of importance was the opportunity for adult cardiology colleagues to enjoy relevant scientific sessions common to all those caring for people affected by cardiovascular disease. The interaction between colleagues practising in a multitude of relevant fields was tangible throughout the conference and the multidimensional and integrated care for children and adults with congenital heart disease was evident in lectures, additional symposia and abstract presentations.

Over a thousand abstracts were submitted and outstanding abstracts were presented in printed form in the SA Heart journal as well as online in the Cardiovascular Journal of Africa and on the congress website. At the congress itself, the abstract café was a tremendous success with delegates viewing abstracts throughout each day. The scientific input was of an extraordinary standard with experts presenting in joint plenaries, parallel sessions and lectures of your life sessions ending each day. Besides the daily programmes,

there was also an amazing range of breakfast and evening symposia which both challenged and enthralled visitors, often with standing room only.

The social events were enthusiastically received with the iconic Jonny Clegg at the Kirstenbosch picnic gala evening providing his unique brand of entertainment. The opening night saw the Deputy Minister of Health not only delivering a message on behalf of her department endorsing the conference strongly, but eventually sharing the stage and dancing with LoyisoBala and the Cape Town Youth choir.

The overwhelming response from faculty and delegates was that of congratulations and admiration at a fantastic congress: "Congratulations on a superbly run and highly informative conference" was one of a multitude of congratulations received. The Local Organising committee and in particular the co-chairs, Dr Hugo-Hamman and Dr Susan Vosloo and the scientific co-chairs Prof John Hewitson and Dr John Lawrenson prepared an immensely exciting and comprehensive programme while the organising committee ably assisted the team in order to host this remarkable event. A tremendous amount of work was completed with great enthusiasm and dedication and we owe them a huge debt of gratitude.

The vision of the congress was to raise awareness of children with heart disease, and highlight the inequalities which prevent children in the majority of the world to access health care needed to prevent and treat these conditions. Throughout the congress, the issue of lack of access to paediatric cardiac services around the world was emphasised and reiterated. It was a great honour to host the Ministers of Health of Rwanda (via videolink) and our own Minister of Health Aaron Motsoaledi. These esteemed guests joined the faculty and imparted their vision for united paediatric services and school health as a means to improve health in children, at the congress. Currently there are plans underway to meet with the Department of Health to continue the important dialogue on improving the paediatric cardiology services in our countries and thus the health of children with heart disease in this country.



Deputy Minister of Health



Opening ceremony



Jonny Clegg at the Kirstenbosch picnic gala



Plenaries session

Our hope is that this congress will have served as a platform to build and strengthen partnerships and collaborations in order to serve our patients more effectively. The congress website <http://wcpccs2013.co.za> will host copies of all the talks for the next 12 months as well as all the abstracts. Our daily newsletter from the congress <http://wcpccs2013.wordpress.com> is a fascinating read of all the congress' major highlights.

Some feedback received

"Congratulations on a successful and memorable congress and many thanks for sharing your magnificent city with us."

"The Congress was outstanding, a big hit for all of our attendees, and everyone loved Cape Town. The idea to have the gala dinner as an outdoor concert with a picnic dinner was brilliant. Congratulations to all of you in South Africa."

"I would like to congratulate you and the rest of the organising committee of the 6th World congress of Paediatric Cardiology and Cardiac Surgery for a fantastic meeting. It was a resounding success on all levels: a very comprehensive coverage of important subjects with a high calibre of Faculty members, great scientific content, interesting and well-run live cases and a wonderful opening ceremony show-casing the best of South African music talent."

THE PAEDIATRIC CARDIAC SOCIETY OF SOUTH AFRICA CONTINUED

‘Pedheart Resource - the most comprehensive congenital heart disease educational website available.’

A special thanks from the committee to all our South African colleagues who supported the meeting in so many ways. We endeavored to showcase the incredible talents of the entire South African cardiovascular community and your encouragement, assistance and intellectual input was deeply appreciated.

New website in preparation

We previously announced the extremely exciting development and addition to our web resources: access to Pedheart Resource - the most comprehensive congenital heart disease educational website available. This website has detailed defect and treatment descriptions, in-depth tutorials, a searchable image library, collections of patients' hand-outs and over 1 200 PowerPoint slides in several different languages (<http://www.heartpassport.com>). In addition, PCSSA also has free access to a site providing information on congenital heart disease for parents (<http://www.africa.congenital.org>). It also provides information on congenital heart disease to medical practitioners.

Links to both these sites can be found on the home page of the PCSSA (<http://www.saheart.org/pcssa>). Access to the parent information site is available to everyone. Access to the medical practitioner site is limited to paid-up members of the PCSSA. This is one of the legacies from the congress and the access is being sponsored by the World Congress. In the next few months we will be integrating these and other new developments into our website with the aim of making it a platform for practitioners, parents and patients alike to use whilst also increasing and growing links to other groups and networks in light of the world congress.

We will be holding an AGM later this year as we were unable to do so during the world congress. Information regarding the date and venue will be circulated to members in due course.

To all the regular members of the PCSSA, we encourage you to be active in our society; we look forward to receiving your suggestions and new ideas. We have had a remarkable start to our year, for both our Society and SA Heart. We, as the executive, look forward to seeing you at upcoming events and wish you all the best for the second quarter of the year.

PCSSA membership

We would like to increase our membership of cardiologists, surgeons and any practitioner interested in cardiovascular disease, congenital and acquired, in children. We urge you to contact us if you need any information and access our website for membership details at <http://www.saheart.org/pcssa>.

Contact details

President: Liesl Zühlke - liesl.zuhlke@uct.ac.za

Secretary: Belinda Mitchell - lindy.mitchell@up.ac.za

Liesl Zühlke
President

THE SOUTH AFRICAN HEART ASSOCIATION RESEARCH SCHOLARSHIP

The research scholarship is available to all full and associate members of SA Heart Association living in South Africa. It is primarily intended to assist colleagues involved in much-needed research to enhance their research programmes.

REQUIREMENTS

- Applicants need to be fully paid-up members/associate members in good standing for at least 1 year.
- Applications must include
 - The applicant's abbreviated CV;
 - A breakdown of the anticipated expenses; and
 - Full details of the research.

RECOMMENDATIONS

- Publications of related work in a peer-reviewed journal in the preceding year;
- Applicants from a previously disadvantaged community; and
- Applicants younger than 35 years of age.

ADDRESS APPLICATIONS TO:

Education Standing Committee
South African Heart Association
PO Box 19062
Tygerberg
7505

THE SELECTION PANEL WILL REVIEW APPLICATIONS ANNUALLY AND THE CLOSING DATE IS 30 SEPTEMBER.

One scholarship to a maximum amount of R50 000 will be awarded annually.

APPLICATIONS WILL BE ASSESSED ACCORDING TO THE ACCOMPANYING RESEARCH PROTOCOL WHICH SHOULD INCLUDE:

- An abstract (maximum 200 words);
- A brief review of the literature (maximum 200 words);
- A brief description of the hypothesis to be investigated (maximum 100 words);
- A detailed methodology (maximum 500 words); and
- References.

THE TRUE COST OF DELIVERING SUSTAINABLE PRIVATE HEALTHCARE

The Practice Cost Calculator

The effect of the 2004 Competition Commission ruling is that collective negotiation on healthcare tariffs has been outlawed. Healthcare professionals must negotiate tariffs with medical schemes individually and trade unions and representative associations are not permitted to negotiate tariffs on behalf of their members. This ruling has forced healthcare professionals in the private sector to increase their awareness of the financial reporting function of their practice.

The role of medical schemes in the setting of tariffs

The medical scheme tariff model represents an application of the RBRVS model, where medical schemes assess their claims risk profile based on the number of claims processed during prior periods, the risk of the re-occurrence of the number of claims during current periods as well as the available funds. This resulted in Medical schemes offering healthcare professionals tariffs which schemes could afford, without healthcare professionals being able to assess whether they could deliver sustainable healthcare services at the offered prices.

This does not mean that schemes have been offering tariffs that would necessarily result in a low profit margin or even a loss for the healthcare professional. The healthcare professional enters into a legal contract with the patient and may choose to accept payment from a third party (the scheme) with the scheme offering direct payment to the healthcare professional through a separate legal contract which has been agreed upon between the healthcare professional and the medical scheme.

The only guidelines that currently exist are those as set out in the Health Professions Act 56 of 1974, which states: "the patient may, within three months after receipt of the account from the healthcare professional, apply in writing to the professional board to determine the amount which in the opinion of the professional board should have been charged in respect of the services to which the account relates, and the professional board shall, as soon as possible after receipt of the application, determine the said amount

and notify the practitioner and the patient in writing of the amount so determined: Provided that before the professional board determines the said amount, it shall afford the practitioner concerned an opportunity to submit to it in writing his or her case in support of the amount charged."

What the Health Professions Act is alluding to, is that the tariff charged should represent a fair value, which is why the practitioner is awarded the opportunity to submit support for the amount charged.

What represents a fair value?

We can conclude that a fair value is not one which is below the cost of delivering the service and in cases where tariffs are offered to healthcare professionals that result in a loss, additional fees should be recovered from the patient to support a sustainable business. We also know that a fair value does not sanction the charging of exorbitant mark-ups that do not represent a true reflection of the level of skill and risk of the procedure. As with most professional occupations, discretion should be applied when billing for services rendered.

Regardless of the pattern of thought it becomes evident that one constant remains – the healthcare professional requires valid and accurate information to base his/her decisions on: whether it is to accept tariffs under a contract or not; whether to receive direct payment from the medical scheme and if not, whether his/her assessment of the value of their services is fair, as required by the Health Professions Act.

Current financial tariff models

Significant focus is placed on practice cost studies throughout South Africa, in an attempt to develop reasonable tariff guidelines for the delivery of healthcare services in the private sector. The fact of the matter is that where practice cost studies are used to calculate tariff guidelines, these tariff guidelines are more often than not based on the stratification of averages across different professions and specialities. The averages also include extrapolated costs to deliver healthcare services over different geographical locations where the average income of patients varies greatly.

A private healthcare practice is a business, just like any other company registered to make a profit. The practice has direct and indirect costs to deliver services and the healthcare professional has to be aware of the income potential of the patients in his/her area which includes the type of healthcare services delivered, whether they be essential or luxury healthcare services. What makes the costing of healthcare services delicate is that a healthcare professional's services should be offered at a cost that makes it possible for patients in their area to have financial access to the services.

- The demographics of a country and the household income of patients do not have a significant impact on the setting of tariffs and
- The vast majority of the population earns comparable salaries (South Africa has a 24.9% unemployment rate).

What could however not be quantified is what effect the geographic location of healthcare professionals in a developing country would have on the setting of tariffs. Tariffs and costs within the South African healthcare industry

‘The healthcare professional requires valid and accurate information to base his/her decisions on.’

A model based on the application of averages to calculate tariffs could be used effectively in an active market within a developed country but poses significant challenges when applied within a developing country. The following conditions within the South African healthcare industry represent significant challenges for the implementation of an average-based-tariff-model:

- The forces of supply and demand costing are not active in the South African healthcare industry, as healthcare professionals are not truly awarded the opportunity to set the prices of supply when entering into supplier contracts with medical schemes.
- These principles were designed for a developed country
 - not a developing country and are based on the assumptions that:
 - The costs to deliver procedures throughout a country are purely based on speciality and can be quantified and averaged to deliver a pure Rand Conversion Factor;

are not only governed by private sector conditions but also by public sector conditions and demographic distribution that sees significant differences in the household income of South Africans in different areas and ethnic groups:

- The cost of managing a practice within South Africa fluctuates significantly even within the same province (compare for instance areas such as Sandton and Diepsloot, which are both within Gauteng);
- The fluctuations in the procurement of goods and services are much lower in developed countries than those in developing countries and
- The average household income also fluctuates significantly within developing countries, when compared to developed countries.

It can also be said that the use of extrapolated data does not take into consideration the conditions under which doctors in township and rural areas practice medicine, including the qualitative factors such as stress and the lack

THE TRUE COST OF DELIVERING CONTINUED

‘You need to be able to calculate your costs to deliver a procedure.’



of infrastructure and support services associated with their environment. These qualitative conditions, including the sheer number of patients that the doctor is required to consult while consciously trying to manage their clinical risk, have a severe impact on the quality of life of the doctor.

**All this information leads us to one question:
“How do we solve the problem?”**

The only sustainable solution for private healthcare in South Africa to introduce a true supply force to the equation, is for private healthcare professionals to start running their practices as a business. This means that you need to be able to calculate your costs to deliver a procedure – including the allocation of direct costs and reasonable allocation of indirect costs, just like any other business with the aim of generating a profit would do. When tariffs are negotiated with medical schemes for the delivery of a procedure, you need to be able to calculate a profit on the delivery of the procedure, taking into consideration all relevant costs, and you should be in a position to say “no” to tariffs where the delivery of the procedure is not financially viable for your practice.

You should create and manage dynamic budgets and forecasts that reflect a budgeted profit of your practice, based on actual financial data that has been taken from your practice, which reflects the true cost of delivering procedures in your geographical area. The budget should take into consideration qualitative factors inherent to your geographical area that is not reflected in tariffs offered by medical schemes, including the percentage of household income of patients that can be spent on healthcare services in your area.

Medical Practice Consulting will be assisting private healthcare professionals in calculating the cost to deliver services in their practice through the launch of the online MPC Practice Cost Calculator. Register a free profile on www.mpconsulting.co.za to ensure that you are notified when the service launches.

SAMA’s Private Practice Department
Dr Jacques Botha
Acting Head of Department

TRAVEL SCHOLARSHIPS OF THE SOUTH AFRICAN HEART ASSOCIATION

The travel scholarship is available to all members and associate members living in South Africa and primarily aims to assist junior colleagues. In doing so, continued future participation in local or international scientific meetings/workshops is encouraged.

REQUIREMENTS

- Applicants must be fully paid-up members/associate members in good standing for at least 1 year.
- Applications need to include:
 - Full details of the meeting/workshop;
 - The applicant's abbreviated CV; and
 - A breakdown of the anticipated expenses.
- Applications must reach the Association a minimum of 3 months before the event.

RECOMMENDATIONS

- Acceptance of an abstract submitted by the applicant at the scientific meeting/workshop. (Should acceptance be pending, the application still needs to be submitted 3 months prior with a note stating expected time of approval. In such a case the scholarship might be granted conditionally and that proof of the abstract having been accepted is to be submitted afterwards);
- An invitation to participate as an invited speaker at the meeting;
- Publications in a peer-reviewed journal/s in the preceding year;
- An applicant from a member of a previously disadvantaged community; and
- An application from a member younger than 35 years of age.

ADDRESS APPLICATIONS TO:

The President
South African Heart Association
PO Box 19062
Tygerberg
7505

**A maximum of 4 scholarships will be awarded annually.
Grants for international meetings will be a maximum of R20 000
and local meetings a maximum of R7 500.**

5TH INTERNATIONAL CONGRESS ON PREDIABETES

Report on the 5th International Congress on Prediabetes and the Metabolic Syndrome held in Vienna, Austria - April 2013

In the past this conference comprised of ~50% clinical studies, including epidemiological studies on the incidence of obesity and type 2 diabetes and the related co-morbidities, with the remainder 50% basic science studies. The conference was supposed to be held in Athens with a central focus on the novel therapies for type 2 diabetes (T2D), especially GLP-1 analogues, long acting derivatives of GLP-1 and the DPP4 inhibitors, a field in which I have actively performed research and also presented research at the previous conference.

The 2012 financial crisis in Greece resulted in the conference venue being moved to Vienna as well as a last minute change of conference focus to Early interventions for Diabetes and Dysglycaemia and Surgery in the treatment of Obesity and Diabetes. In addition, it was evident that the state of the European economy had also impacted on the conference with only 6 scientific exhibitions and 1 200 delegates in total. The previous conference (held in 2011) had nearly 4 000 attendees! The absence of students was especially noticeable.

However, I learned a lot about the potential of bariatric surgery as an early intervention in the development of T2D, and not a late and last resort. One of the first sessions, chaired by Paul Zimmet of Australia, included a talk by Prof Pierre Lefebvre of Belgium. He made the statement that we are living with a young XXXL generation with children, younger than 15 years, presenting with a BMI >35 - 40. He advocated that bariatric surgery should be performed earlier rather than later as the success of this intervention is less if you wait too long. The interesting fact is that the blood glucose levels of patients normalise within days after surgical intervention, even before there is any weight loss. There are therefore biochemical pathways involved in this intervention that are currently not understood at all.

The question was posed whether bariatric surgery will result in a cure for T2D or just remission (S. Del Prato, Italy). The argument was made that the cure for a disease leads to a situation where the person has no higher risk of developing an illness than the general population – and that of course

without treatment. The importance of beta-cell function in this scenario was stressed and also that T2D is essentially a chronic disease driven by the steady decline of beta-cell function. It was also noted that there is a residual cardiovascular risk, even after the “remission” from T2D after bariatric surgery as intervention. This is ascribed to the so-called metabolic memory, driven by the production of ROS and AGE's. The conclusion therefore was that surgical intervention resulted only in remission from diabetes and not its cure. The results of the LookAHEAD Research Group also concluded that non-surgical interventions were not effective in “curing” T2D but that prevention is still the preferable and viable option.

Incretin hormones, as treatment option, was discussed and an argument was put forward that in a pre-clinical study, administration of a GIP agonist improved insulin sensitivity in obesity via immune cell regulation in the adipose tissue and should therefore be kept in mind as a treatment option. However, GIP secretion does not differ between control and T2D patients while GLP-1 secretion is lower. GIP alone, or in combination with GLP-1, also interferes with the suppression of glucagon secretion normally seen with GLP-1. It is furthermore stated that while T2D is accompanied by changes in incretin secretion, it is also accompanied by incretin resistance. Despite this resistance, T2D patients respond sufficiently to GLP-1 treatment to normalise blood glucose levels. This is the first mention of resistance against incretin hormone action and, in my mind, the incretin levels are lower in T2D and not higher.

Further evidence of the actions of gut hormones was presented by T. Vilsboll in her research on the actions of glucagon. Glucagon induces hepatic glucose production and acts by binding to a specific receptor. In T2D there is basal as well as fasting hyperglucagonaemia. When T2D patients are given glucose, glucagon secretion is increased which further leads to increased hepatic glucose output. This is only present when the glucose load is given orally, not when administered by IV, leading to the conclusion that the gastric tract must also play a role in the response. Glucagon receptor antagonists result in a decrease in fasting insulin levels, a decrease in fasting plasma glucose levels and an increase in fasting GLP-1. The sum of these changes carries

the risk of hypoglycaemia. However, there is also an increase in liver enzyme expression with these receptor antagonists. She proposed that 50% of the actions of GLP-1 are because of the suppression of glucagon secretion.

K. Murphy discussed other gut peptides of current interest, namely oxyntomodulin, ghrelin and peptide YY. There is evidence that ghrelin, oxyntomodulin (OXM) and peptide YY (PYY) affect glucose homeostasis. These hormones may play a role in the development of diabetes and may have utility in its treatment. Ghrelin is an orexigenic hormone released from the stomach which inhibits the release of insulin. Ghrelin levels are reduced in obesity and diabetes and evidence from rodent models of diabetes and perturbed ghrelin signalling, suggests that ghrelin can regulate glucose homeostasis. OXM, a 37-amino acid peptide secreted from L-cells, is another preproglucagon product. OXM has been investigated as an anti-obesity agent and appears to reduce body weight by dual effects on the GLP-1 receptor and the glucagon receptor. It also decreases food intake and increases resting energy expenditure. OXM has a lesser effect on glucose homeostasis than GLP-1, which may reflect its lower affinity for the GLP-1 receptor, and/or inimical effects via the glucagon receptor. Thus, the development of potent and long-acting analogues of oxyntomodulin is an exciting new therapeutic avenue for addressing the global obesity epidemic. PYY is a 36-amino acid peptide also secreted from L-cells. PYY1-36 has been reported to inhibit insulin release, but the major circulating form, PYY3-36, has been reported to stimulate insulin release and to influence insulin sensitivity. There is also evidence to suggest that PYY regulates beta cell function and survival.

O. Schnell from Munich discussed the unmet needs in diabetes, accentuating the failing of current treatment. He also stressed that the development of hypoglycaemia, as side effect of treatment which increases the occurrence of myocardial arrhythmias and thrombotic events, is associated with increases in QT length as well as increases in the development of dementia.

Furthermore, treatments lead to weight gain which exacerbates insulin resistance and negatively influences compliance. None of the current treatments can stop beta-cell deterioration.

L. Gnudi, from London, discussed the kidney as a new target in the treatment of T2D. The SGLT2 glucose transporter is responsible for the reabsorption of ~90% of the glucose in the plasma while SGLT1 is responsible for the 10% glucose being excreted in the urine. SGLT2 has a low K_m for glucose and is a sodium co-transporter transporting glucose into the cells from the tubular lumen. Gluts then transport the glucose back into the blood. Inhibition of SGLT2 lowers the renal threshold for glucose with resultant excretion of glucose, energy loss and weight loss. In T2D there is up regulation of the expression of SGLT2 in the kidney medulla. In addition, the kidneys also produce glucose by the process of gluconeogenesis. A new generation of drugs, analogues of the well-known phlorizin, was developed to inhibit the SGLT2 transporter, thus leading to increased excretion of glucose. The efficacy of the drug stops when glucose levels are lowered to normal. The lack of significant effect of SGLT2 inhibition on the fasting plasma glucose concentration in normal animals for example, despite significant glucosuria, indicates that inhibition of renal glucose reabsorption activates counter regulatory mechanisms that increase endogenous (hepatic) glucose production to compensate for the increased urinary glucose loss. The first of these drugs, Canagliflozin (Janssen laboratories), has just been approved by the FDA while the equivalent from Astra Zeneca, Dapagliflozin, is in the pipeline. Treatment with these drugs in T2D resulted in a decrease in postprandial glucose and HbA1C levels as well as weight loss because of fat mass loss. In addition, a decrease in blood pressure was reported as well as enhanced secretion of the incretin hormones. In a phase IIb placebo-controlled clinical trial with empagliflozin in T2D patients, both LDL and triglyceride levels decreased significantly while HDL levels increased. This was in conjunction with improvements in glucose handling, weight loss and blood pressure lowering effects. In addition, T2D patients taking canagliflozin were reported to show marked improvements in markers of beta cell function. Amongst others, the mean insulin secretion rate increased to significantly greater rates and mean beta cell glucose sensitivity rose by about 20% from baseline values.

On the topic of the oxidative stress in diabetes, S. Gray from Melbourne discussed the role of Nox isoforms in accelerated atherosclerosis associated with diabetes, the

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mechanisms of which are poorly understood. NADPH oxidase (Nox)-derived ROS has been suggested to play a critical role. They made use of Nox isoform specific-ApoE double knockout (dKO) mice, Nox1/ApoE and Nox4/ApoE, as well as pharmacological Nox inhibition in ApoE/mice. Mice were rendered diabetic by streptozotocin (55mg/kg/day for 5 days), with non-diabetic wild type (WT) mice as controls. The Nox1/Nox4 inhibitor, GKT137831 (GKT, GenkyotexInc), was administered at a dose of 60mg/kg/day by gavage for 10 weeks. Aortas were removed for quantification of atherosclerotic plaque area, measurement of ROS and analysis of inflammation. Diabetic Nox1/ApoEdKO mice had a 55% reduction in plaque area in comparison to Nox1WT/ApoE diabetic mice with no changes in Nox4/ApoEdKO mice compared to Nox4WT/ApoE diabetic mice. Diabetic ApoE/animals treated with the NOX inhibitor GKT 137831 resulted in a 64% reduction in plaque area in comparison to untreated ApoE/mice. These protective effects were associated with reduced oxidative stress and attenuation of inflammation and pro-fibrotic markers (VCAM1, CTGF and collagen IV). Nox1-derived ROS therefore promotes an apro-inflammatory environment and may contribute to the enhanced development of atherosclerosis seen in diabetes. She proposed that inhibition of Nox1 may provide a new therapeutic strategy in the treatment of diabetes accelerated atherosclerosis.

Coronary artery disease as a risk factor for developing T2D was discussed by C. Saely from Austria.

He stated that diabetes mellitus is a major risk factor for coronary artery disease and asked the question whether CAD, conversely, confers an increased risk for diabetes. They prospectively recorded incident diabetes over 7.5 years in 506 consecutive non-diabetic Caucasian patients undergoing coronary angiography for the evaluation of stable CAD, covering 3 795 patient years in all. Their study showed that during follow-up, diabetes was newly diagnosed in 107 patients, i.e. in 21.1% of the study population or in 2.8% per year. Patients with significant CAD (n = 293) when compared to subjects who did not have significant CAD at the baseline angiography were at a 33% (P=0.027) increased diabetes risk. However, the relationship between CAD and incident diabetes was attenuated and no longer statistically

‘ Blood glucose levels of patients normalise within days after surgical intervention. ’

significant after adjustment for potential confounders, including metabolic syndrome status. The metabolic syndrome, as diagnosed according to the current consensus definition, in turn was strongly predictive of diabetes, in particular when the more selective NCEPATP-III waist cut-off values were applied for its diagnosis. They concluded that although apparently not causally related to diabetes incidence, the presence of CAD indicates a strongly increased risk for incident diabetes. Repeated diabetes screening of coronary patients and targeted programmes to prevent diabetes in these high-risk patients are warranted.

From all of the above, I will conclude that current therapies are still not really able to fully address the problem of T2D and nothing has yet been reported to really stop the deterioration in beta-cell mass. My own study on the new generation of GSK-3 inhibitors, unfortunately also showed the possibility of accompanying cardiovascular complications. There are promising newcomers in the range of available therapies, especially the SGLT2 inhibitors. However, the cardiovascular risk of e.g. the GLP-1 based therapies or bariatric surgery has not been reported yet and the SGLT2 inhibitors are just being started. The problem of the cardiovascular consequences of hypoglycaemic incidents was also repeatedly mentioned.

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