

NEWS FROM THE PRESIDENT OF SA HEART®

Welcome to the first South African Heart® Association community Newsletter of 2018. I wish you all a successful year and encourage you to use this Newsletter as your own, to share news, views and events.

Firstly, I would like to thank Dr Sajidah Kahn, SA Heart® secretary for 2016 - 2017, who did a sterling job in putting together 4 great editions of our Newsletter last year filled with SA Heart® and SIG events. Secondly, a warm welcome to Dr Blanche Cupido, newly elected SA Heart® secretary who has compiled this Newsletter and filled it with contributions from across the country. Thank you, Blanche and Sajidah: we look forward to reading all the new editions as we did previously.

We urge you to contribute to our Journal and Newsletter. In 2004, after completing 2 terms as president of SA Heart®, Prof Anton Doubell launched the SA Heart® Journal and as editor has grown our Journal over the years. It is now a real asset to our Association and also fulfils one of our constitutional duties. The Journal is recognised under the Department of Education as an approved Journal for several years now including 2018, allowing for subsidy from the DoE for authors affiliated to academic institutions. It is recognised further afield as a National Cardiovascular Journal by the European Society of Cardiology. Besides remarkable research from both our members and others, the occasional interesting case studies and the ever popular ECG quiz and imaging feature, the SA Heart® Journal incorporates the SA Heart® Newsletter with important news from and for our community. We urge you to both read the Journal and Newsletter – which is available online on our website (<https://www.saheart.org>). We would also like to encourage you to make contributions, by submitting your original research, commentaries or reviews and imaging challenges for the Journal. We now have a streamlined online submission process for the Journal while newsworthy items and reports from your region, institution, interest group or congress attendance should be submitted to the editor of our Newsletter.

Our 2017 congress in Sandton was a wonderful scientific event, with excellent faculty, sessions and symposia and a



Dr Blanche Cupido, newly elected SA Heart® secretary.

remarkable opening ceremony. We thank David Jankelow and his team for their commitment and dedication to the task as well as Sue McGuiness and her team for the outstanding support. Part of the event last year included a CVD Imbizo, as the South African Heart® Association remains deeply concerned with this situation in terms of CVD mortality and morbidity and are committed to developing a sustainable, systematic response to this crisis. A first step was to publish and widely disseminate a position paper which summarised the current state of cardiology, cardiothoracic surgery and paediatric cardiology training in South Africa. The report demonstrated that there has been minimal change in the number of successfully qualified specialists over the last decade and, therefore, a de facto decline per capita. SA Heart® called for an urgent review of cardiovascular services, new strategies for increased specialist training for cardiovascular disease in South Africa and closer engagement with Departments of Health and Education to increase training posts. In addition to this, there is a need for more epidemiological data on CVD and its medical and surgical management in South Africa.

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NEWS FROM THE PRESIDENT continued



CVD Imbizo congress held in Sandton.

The Cardiovascular Imbizo allowed us to refocus our energies on the overwhelming burden of cardiovascular disease and join as practitioners, trainers, politicians and researchers to map out a systematic response: Meeting the challenges of treating heart disease in Africa & South Africa. Speakers included Ms Lyn Moeng and Sandhya Singh from the Department of Health, Prof Ana Olga Mocumbi from the Lancet commission and academic heads of department of Cardiology, Cardiac Surgery and Paediatric Cardiology as well as Deans of Faculty of Health Sciences and private practitioners discussing training and accreditation. Panellists engaged, debated and discussed options specific to our context. Several media reports were released following the event, focussing on the sugar tax and CVD posts in South Africa. A formal report is being prepared for the following edition of SA Heart®. The next CVD Imbizo will focus on career and capacity building and will feature some of our international faculty and include our scholarships winners.

Another amazing event in December was the 50th anniversary of the first heart transplant. As one of the events that has shaped history and put South Africa on the map, it was celebrated in fine style with a wonderfully touching event on 1 December which focussed on the donors over time. A three-day scientific expose which deliberated not only the transplant but key questions around the accessi-



Word of thanks for the heart transplant team.



Painting of Christiaan Barnard done by Haim Menashehoff.



Organ donor commemorative stone.



An amazing fly-by, in fact the final sequence made a heart in the sky.

bility of cardiac surgery on our continent followed. Congratulations to Profs Peter Zilla, Johan Brink and Tim Pennel and their teams for this outstanding event.

This transplant team also made the news in the following months with a double lung transplant performed at Groote Schuur which made international news headlines. Congratulations to the combined cardiac and pulmonology teams. (<https://www.timeslive.co.za/news/south-africa/2017-12-14-groote-schuur-transplant-programme-breathes-again/>) Prof Peter Zilla was also featured in the local You magazine and Prof Jacques Jansen from Stellenbosch also made news regarding his new valve research. We salute all these amazing efforts within our community and encourage you to let us know what is happening in yours.

A final word regarding our congress 2018! Back in Sun City, we look forward to a feast of science and networking. We

hope to encourage an early morning community walk or run each day and hope that all will join us as we look toward the future! Highlights will focus on imaging of the future, live cases (a first for us) and a closing event focussing on the highlights from a number of prestigious journals including in SA Heart®, European Heart Journal, Heart Asia and JACC-Imaging led by the respective editors. We also have the CVD Imbizo specifically for those building careers. This year for the first time, we have kept registration costs at 2017 prices with special rates for South African and African fellows. Block out your diary now for 4 - 7 October 2018!!!

Best wishes and see you in the next edition of the Newsletter.

Liesl Zühlke
SA Heart® Association President

POPULAR CONGRESSES FOR 2018

CONGRESS	DATE	CITY	COUNTRY
AFRICA STEMI LIVE https://SUPPLY WEB ADDRESS	26 - 28 April 2018	Nairobi	Kenya
86TH EAS CONGRESS http://www.eas2018.com	5 - 8 May 2018	Lisbon	Portugal
SUN ECHO COURSE https://sunecho.co.za	7 - 11 May 2018	Tygerberg	South Africa
WORLD CONGRESS ON INTERVENTIONAL CARDIOLOGY AND CARDIAC SURGERY https://cardiacsurgery.conferenceseries.com	16 - 17 May	Montreal, Quebec	Canada
24TH ANNUAL CARDIOLOGISTS CONFERENCE https://annualmeeting.conferenceseries.com/cardiologists	11 - 13 June 2018	Barcelona	Spain
NEW HORIZONS OF ECHOCARDIOGRAPHY http://www.newhorizonsinechocardiography.co.za	12 - 15 July 2018	Johannesburg	South Africa
FIRST SOUTH AFRICAN NEONATAL HAEMODYNAMICS AND NEONATAL PERFORMED ECHOCARDIOGRAPHY http://neonatal2018.co.za	20 - 22 July 2018	Tygerberg	South Africa
28TH INTERNATIONAL CONFERENCE ON CARDIOLOGY AND HEALTHCARE https://healthcare.cardiologymeeting.com	9 - 11 August 2018	Abu Dhabi	UAE
CARDIOLOGY AND HEALTHCARE http://www.escardio.org	25 - 29 August 2018	München	Germany
TRANSCATHETER CARDIOVASCULAR THERAPEUTICS (TCT) 2018 http://www.crf.org	21 - 25 September 2018	San Diego	United States of America
AFCC - 23RD AESAN FEDERATION OF CARDIOLOGY CONGRESS http://afccbkk2018.com	29 September - 1 October 2018	Bangkok	Thailand
19TH ANNUAL SA HEART® CONGRESS http://www.saheart.org/congress2018	4 - 7 October 2018	Sun City	South Africa
5TH INTERNATIONAL CONFERENCE ON HYPERTENSION & HEALTHCARE https://hypertension.cardiologymeeting.com	18 - 19 October 2018	Abu Dhabi	UAE
34TH WORLD CONGRESS OF INTERNAL MEDICINE http://www.wcim2018.com	18 - 21 October 2018	Cape Town	South Africa

POPULAR CONGRESSES FOR 2018 continued

CONGRESS	DATE	CITY	COUNTRY
27TH EUROPEAN CARDIOLOGY CONFERENCE https://cardiology.conferenceseries.com/europe	22 - 24 October 2018	Rome	Italy
14TH INTERNATIONAL DEAD SEA SYMPOSIUM (IDSS) ON INNOVATIONS AND CONTROVERSIES IN CARDIAC ARRHYTHMIAS http://2018.idss-ep.com	28 - 31 October 2018	Tel Aviv	Israel
AHA SCIENTIFIC SESSIONS http://ahascientificsessions.org	10 - 14 November 2018	Chicago	United States
WORLD CONGRESS OF CARDIOLOGY https://www.world-heart-federation.org/congress	5 - 8 December 2018	Dubai	UAE

Please also consult the SA Heart® website at www.saheart.org for constant updates to this list as well as local training opportunities offered by SA Heart®, SIGs and other role players.

CARDIAC ARRHYTHMIA SOCIETY OF SOUTHERN AFRICA

Several events are planned for CASSA in 2018.

ANNUAL CASSA SYMPOSIA

The 2018 annual CASSA symposia entitled "Clinical Updates in Arrhythmias" was held at the Maslow Hotel in Johannesburg on Saturday 17 February 2018 and at the Vineyard Hotel in Cape Town on 24 February 2018. CASSA was privileged to host 2 high-quality international speakers (Dr Carstens Israel and Dr Riccardo Cappatto) who are both leaders in their field. Like 2017, the attendance fees for cardiology registrars and medical interns have been waived to facilitate teaching and to promote the field to junior doctors. By popular demand, CASSA aims to host these symposia on an annual basis to promote the awareness and treatment of heart rhythm disorders in South Africa.

COLLABORATION WITH EUROPEAN HEART RHYTHM ASSOCIATION (EHRA)

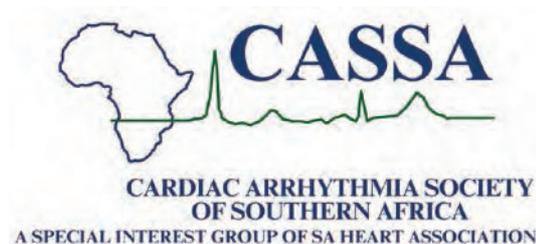
CASSA was invited to chair a joint session with the European Heart Rhythm Association (EHRA) at the annual Europace meeting held in Barcelona in February 2018. We presented a talk on "Electrophysiological manoeuvres in the diagnosis of supraventricular tachycardia". This was a

great honour for CASSA contributing to the international footprint of the society. CASSA has also been invited by EHRA to participate in the writing and review of joint consensus statements and guidelines. CASSA will be endorsing a consensus document entitled the "Management of arrhythmias and cardiac electrical devices in the critically ill and post-surgery patient" in 2018.

ONGOING EDUCATION

The quarterly ECG quiz published in the SA Heart® Journal and the 6-monthly The Andrzej Okreglicki Memorial Advanced ECG and Arrhythmia Interpretation Course continue to promote the teaching of ECG interpretation by cardiologists and cardiology senior registrars.

Associate Professor Ashley Chin
CASSA president



THE WORLD HEART FEDERATION IN INTERACTION WITH SA HEART®

Based in Geneva the World Heart Federation (WHF) consists of more than 200 continental and national cardiac societies and heart foundations globally reporting to the World Health Organisation. It combines the professional cardiological community with civil society and patient voice. The vision of the WHF is to work with its members like SA Heart and the Heart & Stroke Foundation South Africa to hasten the day when cardiovascular health is no longer a privilege. The key role of the WHF is the global fight against cardiovascular disease, including heart disease, stroke and rheumatic heart disease.

This is currently being advanced by Prof David Wood, Garfield Weston Professor of Cardiovascular Medicine at the National Heart and Lung Institute, Imperial College London. Professor Wood became the WHF president in January 2017 serving his term until December 2018. Prof Karen Sliwa, Director of the Hatter Institute for Cardiovascular Research in Africa, Faculty of Health Sciences, University of Cape Town and also currently serving as a deputy dean research, has been elected as the next president starting her term in January 2019. However, the WHF has a very active Board which includes past president (Prof Salim Yusuf, Population Health Research Institute, Canada), the president-elect and the current president, as well as several other board members working very actively on a number of projects supported by the CEO Jean Luc Eisele and his team.

Building on the first Global Summit on Circulatory Health, held at the 2016 World Congress of Cardiology and

Cardiovascular Health in Mexico City, the second Summit held in Singapore in July 2017 focussed on building a civil society movement for circulatory health.

The World Heart Federation African Summit took place in Khartoum, Sudan on 10 - 11 October 2017. The Summit was held in conjunction with the Sudan Heart Society Annual Congress, The Pan African Cardiac Society of Cardiology (PASCAR) and the African Heart Network. The Summit included more than 100 participants from Africa, Europe, Canada and Asia among other areas, with active involvement from the members of the Pan African Society of Cardiology, SA Heart® and many other African Cardiac Societies, European Society of Cardiology, International Hypertension Society, African Heart Network and other non-governmental groups. The very successful Summit ended with the Khartoum Action Plan (see below: EHJ 2018:39(6);430-433).

Under the umbrella of the WHF are currently many projects relevant for SA Heart®.

The WHF Road Maps initiative focusses on the 25 by 25 target and how it can be achieved at national level through secondary and primary prevention. South Africa is in the middle of an epidemic of non-communicable disease and Road Maps on secondary prevention, hypertension, cholesterol, atrial fibrillation, and tobacco control which address health policy, the organisation of health care systems, the resources required to deliver care as well as the importance of essential medicines and technology will be highly relevant in the South African context.



The WHF African Summit, Sudanese Cardiac Society, PASCAR delegated group.

KHARTOUM ACTION PLAN

The following were clear conclusions for crucial actions that need to be taken to improve CV health and care in Africa:

1. **Data collection** on CVD via simple surveys and scorecards to be able to convince policy makers should be obligatory.
2. Promote legislation for task **sharing/shifting** and knowledge sharing for integrated care. There is a need to work together for improved training and collaboration, remove barriers for non-physicians and to break down silos.
3. Improve access to **essential medicines** and improve the **quality of generic medicines**:
 - Set up standards for generics and create a Federal Drug Administration (FDA)-type organisation for Africa where there would be strict supervision, its ownership could rest with nurses.
 - Polypill approach could be explored further.
4. Empower **patients** and work with/support patient groups, allow them a voice such as the treatment action campaigns for HIV.
5. Form stronger policies and integrate policies, engage better with governments and other high-level organisations and involve them with **advocacy** work:
 - Work with national health programmes, launch new ones, invite governments to open symposiums, connect with Ministry of Health (MoH) officials that understand the importance of health, support WHO with their strategies and by providing evidence.
6. Provide adequate and continued **training** of health care providers at all levels. Medical education should study the problems and priorities of communities and focus education on these; training should include data collection.
7. Improve **primary health care** and create a long-term plan.
8. Focus on **RHD** to eliminate it – enforce surveillance, diagnosis, availability of penicillin and improved access to reproductive health. Learn from the examples of successful countries.
9. Prevention programmes for **hypertension**.
10. Rigid **tobacco** control and educate the population of adverse effects on health.
11. Advocate for **universal health coverage** to the extent that it is possible for governments.

For rheumatic heart disease, which is still highly prevalent in South Africa, there is also a Road Map and Prof Karen Sliwa is leading an international task force of stakeholders with the ambition of eliminating acute rheumatic fever and reduce the suffering of patients living with rheumatic heart disease by improving access to medical and surgical care. Amongst the taskforce group leaders is SA Heart® member Prof Peter Zilla, head of cardiothoracic surgery, Groote Schuur Hospital, University of Cape Town. The taskforce is

also supported by Prof Liesl Zuhlke, SA Heart® president. The WHF, working with governments, secured a World Health Organisation Solution on the prevention of rheumatic heart disease at the World Health Assembly in May 2018 - an example of the political advocacy by the WHF and its partners.

The WHF Emerging Leaders programme, which has been established as an annual activity by Prof Salim Yusuf a

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THE WHF IN INTERACTION WITH SA HEART® continued

number of years ago, is recruiting cohorts of 25 health professionals every year, tasked with addressing specific topics through research projects. The fourth and most recent cohort met in Cape Town, South Africa in 2017 to tackle essential medicine and technology as was hosted by WHF president-elect Prof Karen Sliwa. From South Africa SA Heart® and Hefssa member Dr Sarah Kraus participated at the event.

South Africa, via the Heart and Stroke Foundation under the active leadership of Dr Pamela Naidoo and SA Heart® is taking part every year in the World Heart Day on 29 September. The WHF is hoping to engage as many SA Heart® members as possible in the activities of World Heart Day 2018. For more details see www.world-heart-federation.org.



WHF Emerging Leader meeting in Cape Town, June 2017.

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REMEMBERING PROFESSOR FRANCIS M. FONTAN



Professor Francis M. Fontan, the renowned French paediatric cardiac surgeon, died on 14 January 2018 of natural causes, aged 88.

Professor Fontan is best known for the operative procedure that bears his name, an ingenious palliative solution for children with single ventricle physiology. This "Fontan Procedure" has allowed countless children to live well into adulthood with a reasonable quality of life; today it makes up over 3% of all congenital cardiac operations.

Professor Fontan was born in 1929 in Nay in the east of France, the son of a cyclist who once wore the yellow jersey of the Tour de France. When he was 14 years old he decided he would be a doctor.

He entered Bordeaux University in 1946, aged 17. In 1952 he began training with the famous surgeon Georges Dubourg and was awarded the gold medal at the end of his training. During this time the cardiologists asked him to examine the post-mortem heart of a cyanotic teenager who died. He diagnosed tricuspid atresia and published it in the local medical journal. Dubourg then asked Fontan to study this defect. So began his long interest in univentricular physiology, and as a result he was invited to train in cardiology, a course he also completed.

When Dubourg was appointed to the new chair of cardiac surgery in Bordeaux in 1959 he invited Fontan back from cardiology, and he returned to surgery for the rest of his career. In 1968 he almost accepted a position in a private clinic but a mentor told him: "Everyone I know who has left the university hospital regretted it." Fontan decided to dedicate himself to an academic career. He developed close ties with the Leiden team in the Netherlands, often operating with them on tricuspid atresia. One day during a Glenn procedure the principle of doing a "total cavo-pulmonary bypass" (the basis of the Fontan procedure) came to him, and he firmly believed it was possible.

Disappointingly, the dogs he tried it on only survived hours. In March 1968 he was referred a 12-year-old girl with tricuspid atresia. Fontan told the cardiologist, his old boss, "I would like to do a total cavo-pulmonary bypass, but

nobody has experience with that." The cardiologist replied "I trust you, do it." He did, and she lived another 33 years.

It was almost 3 years before he did another case; he published those 2 successes in French in 1971. After a third case he published them in English and the world began to notice.

Professor Fontan is best known for the operative procedure that bears his name.

Fontan was the initiator and founding president of the European Association for Cardiothoracic Surgery in 1986. He ended his inaugural speech at the first congress in Vienna in 1987 saying, "If this association grows, it will be the work of my life of which I will be the most proud." Their conference delegates soon outnumbered the large American conferences.

Francis Fontan did his first operation in 1952, and retired in 2002 after 50 years. He remained academically active in his retirement. I have met him twice, once having dinner with him in 2012. He struck me as a truly humble man, more interested in me and how he could advise us in Africa than in talking about himself.

He is survived by his wife Maryse, sister Gaby, 3 married children and 6 grandchildren. His name is today synonymous with a life-changing procedure done hundreds of times every day around the world.

Prof John Hewitson

50th ANNIVERSARY OF THE 1ST HEART TRANSPLANT AT GROOTE SCHUUR HOSPITAL

50 years after Christiaan Barnard's ground-breaking first human-to-human heart transplant on 3 December 1967, the world met in Cape Town to commemorate the event under the motto "Courage and Innovation". Almost 500 participants from 41 countries including leading cardiac surgeons, presidents and past presidents of all major cardiothoracic societies as well as CEOs of industry contributed to an unforgettable 3-day programme. The event was housed at the two newly renovated 550-seater UCT lecture rooms at Groote Schuur Hospital with media attention from major national and international TV stations including BBC, Al Jazeera as well as European channels.

On the evening before the official programme commenced, the Chris Barnard Department of Cardiothoracic Surgery had invited surviving team members of the 1967 event as well as colleagues from Anaesthesia and Cardiology who kept the Groote Schuur team strong over the past 5 decades to share anecdotes from a bygone time that wrote world history. They came from all corners of the globe including USA, Europe, Israel, South America and Asia.

On 2 December 2017, Peter Zilla, head of the Chris Barnard Department, invited a "South North Dialogue" focussing on the global burden of rheumatic heart disease and the sobering lack of cardiac surgery in the most



Society Presidents and Editors of the main Cardiothoracic Journals during the "South-North Dialogue" on 2 December 2017. Left-to-right: Charles Yankah (President PASCAT), Robert Higgins (President STS), Jose Pomar (Ex-President EACTS), Joseph Bavaria (Ex-President STS), Alec Patterson (Editor in Chief Annals Thoracic Surgery), Peter Zilla (current Chris Barnard Chair), Sir Magdi Yacoub (President Chain of Hope) and Friedhelm Beyersdorf (Editor in Chief, Europe J Cardiothoracic Surgery).



Sir Magdi Yacoub giving the gala dinner speech at UCT's main auditorium, the Jameson Hall.

affected regions. The day was structured along 6 round-table discussions each preceded by a series of 4-minute "Blitz-presentations" of facts. After a thorough assessment of the cardiac surgical deficits in low- to middle-income countries by key representatives of 12 countries including China, India, Brazil, Russia and Iran, a critical appraisal of contemporary humanitarian missions by all major NGOs followed. The 6 key NGOs active in cardiac surgical "missions" were represented by their founders (e.g. the Alain Carpentier Foundation by Carpentier, the Chain of Hope by Sir Magdi Yacoub). The round-table on "The potential role of Cardiac Surgical Societies" was introduced by Prof J.P. van Niekerk on behalf of the "World Federation for Medical Education". All major societies (World Heart Federation, European Association of Cardiothoracic Surgeons EACTS, American Association of Thoracic Surgeons AATS, Asian Society for Cardiovascular and Thoracic Surgery ASCVTS). The Society for Thoracic Surgery (STS) as well as both African Societies PASCAR and PASCATS were represented by their presidents, president-elects and/or past presidents.

With Marko Turina as the moderator, the editors in chief of all major journals in the field (Annals Thoracic Surgery, J Thoracic Cardiovascular Surgery, Biomaterials, Eur. J Cardiothoracic Surgery, SAMJ, Asian Cardiovascular Thoracic Annals, etc.) assessed the "publication hurdle" that scientists and academic clinicians from developing countries are experiencing. Concrete measures from the



Group photograph after issuing the “Cape Town Declaration”. Left-to-right: Sampath Kumar (All India Institute Delhi), Robert S.D. Higgins (Johns Hopkins, Baltimore), Bruno Podesser (Vienna), Juan Mejia (Fortaleza, Brazil), Carlos Mestre (Dubai), Francis Smit (Bloemfontein), Charles Yankah (Berlin/Accra), Marko Turins (Zurich), Karen Sliwa (Cape Town), Peter Zilla (Cape Town), Ana Olga Mocumbi (Maputo, Mocambique), Robin Kleinloog (Durban), Lee Chuen Neng (front row) (Singapore), Jose Pomar (back row) (Barcelona), Friedhelm Beyersdorf (back row) (Freiburg, Germany), Lenias Hwenda (front row) (Lausanne CH/Harare), Richard Kamwi (Ex Minister of Health Namibia), Sinichi Takamoto (Tokyo), Devagourou Velayodamu (Delhi), Saeid Hosseini (Teheran), Theo Koffidis (Singapore), Alexander Patterson (St. Louis), Sir Magdi Yacoub (London/Aswan, Egypt) and Wang Wei (Beijing).



Sir Magdi Yacoub sharing his memories of building up the world’s biggest heart transplant programme at Harefield Hospital in London in the early 1980s.

Journals’ side as well as policy incentives in the affected countries that could increase the research output were proposed.

At the end of the day, after a round-table discussion with industry captains from Boston Scientific, Novartis, Philips and Edwards LifeSciences, Bard Getinge and several other key industry players discussed their responsibilities towards the developing world. A consensus debate under the

leadership of the society presidents involving a 14-member “South Panel” and an 11-member “North-Panel” condensed the suggestions and decisions of the day into the Cape Town Declaration. This declaration will be simultaneously published in the Annals of Thoracic Surgery, the SAMJ, the J Thoracic Cardiovascular Surgery, the African J Cardiovascular Med, the European J Cardiothoracic Surgery and the Chinese J of CT Surgery.

The actual celebrations on Sunday 3 December 2017 were opened by Christiaan Barnard Junior with a tribute to his father followed by 38 international speakers honouring the pioneers of heart transplantation as well as of groundbreaking developments of the following decades. A number of “surgical giants” were present like Alain Carpentier (France), Sir Magdi Yacoub (UK), Henning-Rud Anderson (Denmark) the inventor of trans-catheter heart valve insertions, Norberto de Vega (Spain), Manuel Antunes (Portugal) and Sampath Kumar who had started cardiac surgery in India. Amongst today’s participating pioneers were Volkmar Falk and Hermann Reichenspurner (Germany) as early drivers of robotic cardiac surgery, Simon Hoerstrup (Switzerland) epitomising tissue engineered heart valves, Bruno Reichart (Germany) who drove

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50th ANNIVERSARY OF THE 1ST HEART TRANSPLANT continued



After Prof Alain Carpentier's talk on his pioneering work on mitral valve repair (Left-to-right): Beat Walpoth (Geneva), Peter Zilla (Cape Town), Alain Carpentier (Paris), Francis Smit (Bloemfontein) and Justiaan Swanevelder (Cape Town).



Prof Volkmar Falk (Berlin) and Prof Peter Zilla (Cape Town).

genetically engineered xeno-transplantation to near clinical application, Ted Feldman (USA) who was the first to implant a MitraClip and Alec Patterson from St. Louis (USA) who was a father of lung transplantation. The last day, Monday 4 December 2017 was dedicated to cutting-edge heart and lung transplantation as well as assisted circulation.

For the gala dinner, UCT's main auditorium, the Jameson Hall, was turned into an unforgettable venue that lived up to the occasion. Between the welcome words of UCT's

Vice Chancellor Max Price and the gala dinner speech given by Sir Magdi Yacoub, a compilation of original movie clips showing the historical embedding of the first heart transplant and an homage to Christiaan Barnard were shown.

The most tangible outcome of this celebration was the commitment of all major cardiothoracic societies to closely cooperate in their efforts to make cardiac surgery accessible to the millions of patients living in developing countries whose lives could be saved by surgery.

Prof Peter Zilla

WEBSITE LINKS

SA HEART	www.saheart.org
CASSA	www.cassa.co.za
HEFSSA	www.hefssa.org
PASCAR	www.pascar.org
PCSSA	www.saheart.org/pcssa
SASCAR (RESEARCH)	www.sascar.org.za
SASCI	www.sasci.co.za
ACC	www.acc.org
ESC	www.escardio.org
WORLD HEART	www.world-heart-federation.org



SA HEART® 2018 ANNUAL CONGRESS

Dear Colleagues

On behalf of the Scientific Organising Committee for SA Heart® 2018, we would like to welcome you to this year's annual congress.

Our theme of "What does the future hold?" will look at various aspects of future technology and how this will assist us in our goals to deliver care to our patients. We will look at application-based technology, artificial intelligence and robotics, and its benefits for the African continent.

Our pre-congress workshops will address new techniques in cardiac echo, and an update in cardiology for the generalist. Our streams will cater for the adult cardiologist, paediatric cardiologist, cardiac surgeons and generalists. We have also planned sessions for nurses, cardiac technologists and allied professionals. We hope to run live cases as well as lively debates on the contentious issues in cardiology over the 4-day congress.

Dr Iftikhar Osman Ebrahim
Chairman Scientific Committee SA Heart® 2018

Aspects of
future technology
and how this
will assist us in
our goals.

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LUNG TRANSPLANTATION AT GROOTE SCHUUR HOSPITAL

Lung transplantation (LT) is an accepted modality of treatment for advanced stage lung disease, and since the early 1990s, more than 25 000 lung transplants have been performed at centres around the world. However, despite Groote Schuur Hospital's prestigious pedigree in organ transplantation, and despite an active renal, liver and cardiac service (including a pioneering HIV-positive-to-HIV-positive renal transplantation service), LT was only attempted once at Groote Schuur Hospital over 2 decades ago (a unilateral lung transplant in 1993), and never enthusiastically adopted. Early results in LT internationally were suboptimal, which may have contributed to the initial lack of uptake at GSH. Since then, however, there have been significant advances in aspects of patient selection and improvements in peri-operative management and immuno-suppression. This has led to considerable improvements of both short- and long-term outcomes. Moratoriums on solid organ transplantation in the state sector at the turn of the new millennium and the lack of a pulmonologist trained in transplant medicine were further obstacles to the resurrection of this therapy at GSH, and until recently there have been few options for patients with end-stage respiratory disease.

As it stands, there has been no other academic centre in the country (or to our knowledge, in the rest of Africa) offering this therapy to uninsured patients, which comprise the vast majority of our population. It is therefore a regional and national priority. There is a considerable need for a LT service for advanced lung disease in the Western Cape (WC): GSH has the only specialist adult Cystic Fibrosis (CF) clinic, the only Pulmonary Hypertension (PH) clinic, and the largest Interstitial Lung Disease (ILD) clinic in the WC. The WC also has one of the highest prevalence of Chronic Obstructive Lung Disease (COPD) in the world (as measured in a large international study published in the Lancet Journal in 2008). While LT is only a therapy for highly-selected patients, CF, ILD, PH and COPD are the leading indications for LT internationally – so there is clearly an unmet need.

The only centre regularly performing LT is the Netcare Milpark Hospital in Johannesburg, which manages patients on a medical aid. However, the intensive follow-up required in the post-operative period following LT means patients have to relocate to Johannesburg for 6 - 12 months following the operation, which is often unaccept-



able to patients whose family and support structure is in Cape Town.

In order to establish institutional expertise with LT, Dr Greg Calligaro (a specialist pulmonologist) completed a Fellowship in Lung Transplant Medicine at St. Vincent's Hospital in Sydney, Australia, in 2016. Headed by Professor Allan Glanville, past president of the International Society for Heart and Lung Transplantation (ISHLT), the Lung Transplant Programme at St Vincent's Hospital is internationally recognised for its excellence in achieving superior outcomes for patients after lung transplantation, and currently performs between 50 and 80 transplants per year. It is one of the 10 high-volume lung transplant centres in the world. Dr Tim Pennel (cardiothoracic surgeon) also underwent a period of training at AKH Hospital in Vienna, and went for several weeks to St. Vincent's Hospital in Sydney to consolidate the medical and surgical aspects of the programme. Other members of the team such as Professor Johan Brink are experienced veterans of the cardiac transplantation programme at Groote Schuur Hospital, and have been involved in transplantation for decades.

The GSH Unit has established close collaborations with both the Vienna and Sydney groups, and also have been very well supported by the team at the Milpark Hospital in Johannesburg. In particular, St. Vincent's Hospital have considered us a "sister" site and we are in close communication with them.

Another important requirement for a LT programme is an experienced extracorporeal membrane oxygenation (ECMO) service. ECMO is used during the LT procedure, and is also invaluable for management of peri-operative graft dysfunction. We have spent almost 2 years establishing this service and gaining increasing experience and confidence with this technology.

‘There have been significant advances in aspects of patient selection.’

Many thanks to the important role players involved with the Lung Transplant programme at GSH:

- **Pulmonology:** Greg Calligaro, Keertan Dheda, Greg Symons
- **Cardiothoracics:** Tim Pennel, Johan Brink, Karen Seele, Hannelte Church
- **Surgery:** Elmi Muller
- **Critical care:** Ivan Joubert, Dave Thomson, Malcolm Miller
- **Pharmacology:** Marc Blockman, Vani Naicker
- **Anaesthesia:** Justiaan Swanevelder, Frank Schneider, Sylvia Heike
- **Management:** Bhavna Patel, Bernadette Eicke, Belinda Jacobs

We look forward to growing this exciting initiative.

Tim Pennel

SHARE REGISTRY UPDATE



The SHARE registry projects are proving successful in their new format. As SHARE moves into the 4th year of its focussed device- and disease-based prospective registries, 4 exciting new registries are under proposal and development, and the existing 2 registries are maturing and bearing fruit. A manuscript describing the first 100 SHARE Cardiac Disease in Maternity (CDM) registry patients is being prepared by the Dr Feriel Azibani and the team under the helm of the Principal Investigator, Prof Karen Sliwa, and we look forward to seeing it being submitted for publication later this year.

The SHARE TAVI registry, led by Drs Jacques Sherman and Hellmuth Weich, has gained momentum and has gathered clinical data from over 620 patients who were evaluated for TAVI, and procedural data for 440 patients who received implants. Analysis of the data shows TAVI outcomes in SA at 1 year are similar to international registries and trials. Interesting outcomes regarding pacemaker implantation have led to the initiation of a new sub-study, driven by Rudolf du Toit in the Western Cape. Data from the SHARE TAVI registry is being highlighted at various meetings, and in 2017 poster abstracts were presented at EuroPCR, and the ESC Congress, and oral presentations at AfricaPCR and our own SA Heart® Congress in November.

Bring yourself up to speed on the latest results for TAVI outcomes in South Africa, live at the Africa PCR 2018 in Cape Town, 25 - 27 March.

Elizabeth Schaafsma
SHARE Project Manager



NELSON MANDELA CHILDREN'S HOSPITAL

Dr Ntsinjana's career as a cardiologist was without a doubt a calling from a young age.

Having grown up in the rural Eastern Cape, his path to paediatric medicine became clear when he rotated through paediatrics as a medical student. He qualified as a doctor (MBBCh) at Wits University in 2000 and went on to specialise in paediatrics, qualifying as a Fellow of the College of Paediatricians (South Africa) and subsequently obtaining a paediatric cardiology certificate through the same College. Between then and his current position as Head of Cardiology at Nelson Mandela Children's Hospital (NMCH), his resume has grown and reflects his multi-faceted experience. Dr Ntsinjana's additional academic qualifications include a Doctor of Philosophy (PhD), from the Institute of Cardiovascular Science, University College London and Great Ormond Street Hospital for Children NHS Foundation Trust, London (United Kingdom). His Doctoral work was on the application of advanced cardiovascular imaging and Biomedical Engineering techniques including Cardiovascular MRI and Cardiac CT in children and young adults with congenital heart disease. In addition to clinical service, his career spans various research and teaching posts in both South Africa and the United Kingdom.

It was after years at Chris Hani Baragwanath Hospital, while serving there as Paediatric Cardiologist, that he decided to broach the challenge of setting up the Cardiology Centre at Nelson Mandela Children's Hospital. "What attracted me to NMCH was not that I was leaving one hospital for another, but rather the opportunity to establish a state-of-the-art heart centre that would collaborate with and support all paediatric facilities in the region" says Dr Ntsinjana.



Dr Ntsinjana, Head of Paediatric Cardiology, Nelson Mandela Children's Hospital.

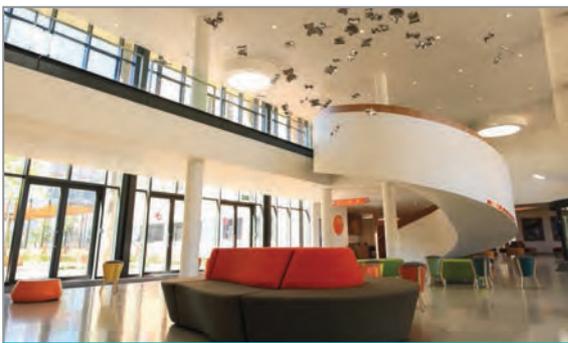
Nelson Mandela Children's Hospital (NMCH) is a tertiary and quaternary referral facility born out of the need for specialist paediatric care for the children of Southern Africa – regardless of socio-economic standing – a principle that remains at the core of all activities. The department boasts state-of-the-art invasive and non-invasive paediatric cardiac technologies with 27 inpatient beds and a vast



Nelson Mandela Children's Hospital, Parktown, Johannesburg.



Nelson Mandela Children's Hospital play area.



Nelson Mandela Children's Hospital, Parktown, Johannesburg – inside area.



Nelson Mandela Children's Hospital, Parktown, Johannesburg – aerial view.

array of outpatient facilities. These include a Cardiopulmonary exercise and stress laboratory equipped with a bicycle ergometer and treadmill, Echocardiography services and a hybrid catheterisation laboratory equipped with high tech video-conferencing and telemedicine capabilities. Cardiac MRI and CT services are provided on a limited basis by one of our supporting units with plans to expand into a dedicated cardiac MRI service for both research and clinical purposes. The Heart Centre also provides surgical and ECMO services supported by critical care (neonatal and paediatric).

In offering both diagnostic and therapeutic interventions, Dr Ntsinjana will work with a highly qualified team of both medical and surgical colleagues as well as registrars/fellows

including technologists and radiographers in ensuring consistent high-quality care to patients who are referred here. He and his team will also continue to assist other facilities helping to extend the paediatric network of care throughout the region and the world. The goal is to establish this centre as a world-class research hub for both clinical and basic sciences where transitional approach from benchtop to bedside will be carried out within the confines of best ethical principles. As Paediatric Cardiology is a relatively small community we wish to encourage collaborations with respect to research and clinical workshops and symposiums that can be run from this facility.

Dr Hopewell Nkosipendule Ntsinjana
Head of Paediatric Cardiology

INTERVENTIONAL SOCIETY FOR CATH LAB ALLIED PROFESSIONALS

FEEDBACK - ISCAP EDUCATIONAL LECTURE SERIES 2017

Firstly, we would like to thank industry sponsors Boston Scientific, Medtronic, Paragmed, Siemens, Torque and Volcano for their generous investment and dedication to the ongoing training of ALL allied professionals in ALL regions.

I would like to highlight a few of ISCAP's successes of 2017:

- Great teamwork between ISCAP Exco and industry representatives in the different regions. We worked together well to get suitable faculty and maximum attendance at all of the workshops.
- Insightful topic choices and having great clinical speakers like Dr Harold Pribut, Dr Danie Buys, Dr Adele Greyling and Dr Lindy Mitchell, Dr Piet Wessels, Dr Butau, Dr Asherson, Dr Visagie, Dr Pandie, Dr Van Wyk, Dr Kyriakakis, Dr Maharaj, Dr Nico Van der Merwe and Dr Zambakides.
- The inclusion of the ethics speaker, Magriet Badenhorst, presenting on Essential communication and conflict handling skills when working with patients and Cath lab colleagues, has been a highlight for 2017 and we look forward to similar talks for 2018.
- Ethics speakers knowledgeable in Labour Law and Patient & Practitioners' rights, contributing to the Allieds wider scope of knowledge.
- CPD accreditation of all the workshops, consisting of Standard, Ethics as well as additional questionnaire points – adding up to a maximum of 13 Standard and 5 Ethics CEUs (excluding BLS Courses).
- Exceptional attendance in most of the regions, with Cape Town at 75 and Gauteng at 47!
- Educational workshops in all 5 regions (Cape Town, Johannesburg, Bloemfontein, Durban and Port Elizabeth), Cathlab staff brought in from outlying areas.

LOOKING FORWARD TO 2018.

AFRICA PCR 2018

With the recent sponsorship rule changes in the European (Eucomed) and South African (SAMED) industry environment, SASCI and ISCAP are strongly advocating to secure

educational grants, including the upcoming AfricaPCR Course in Cape Town.

We strongly believe that ISCAP is the best possible vehicle to channel these grants, as we are, through our association with SASCI, a non-profit organisation. Some companies have indicated that they are supporting Allieds (nurses) directly through the respective hospital groups and we need you to pursue this when communicated. We will also keep you abreast of any developments.

We are also involved in the development and co-ordination of select Allied programmes during the upcoming AfricaPCR Course and hope to see you there as this promises to be an excellent programme.

It is in your best interest to renew/register as an ISCAP member, as this is one of the criteria that could be to your benefit when applying for a sponsorship through ISCAP. We also ensure that our ISCAP Members (paid-up) are informed of sponsorships that become available.

With 2018 well on its way, we are meeting with industry to discuss sponsorships to ensure all the regions are exposed to quality lectures and to ensure maximum education be brought to each region.

If you do not receive communication from ISCAP regarding workshops, please register with joh-ann.nice@medsoc.co.za.

We are already well on our way in preparing for the upcoming SA Heart® Congress of 4 - 7 October 2018, to be held at Sun City. **Please diarise.**

As part of ISCAP's dedication to you as the Allied, we are focussed on your needs and have structured the ISCAP model to ensure you are represented through all possible avenues.

To ensure this, we have the following Allied professionals as our leaders:

Waheeda Howell	Chairperson
Isabel Bender	Vice-Chair Nurses
Human Nieuwenhuis	Vice-Chair Technologists



Sabira Khatieb Vice-Chair Radiographers
 Dianne Kerrigan Ex-officio

In addition to these we have the following regional chairs:

Carmen November Western Cape
 Kerri-Leigh Smith Eastern Cape
 Marisa Fourie Free State
 Isabel Bender Gauteng
 Selvan Govindsamy KwaZulu-Natal
 (interim chair)

Each region has also elected a representative from each subgroup (Nurse, Radiographer and Technologist) to further ensure that we address your needs.

In addition to the above committee, we also have Gill Longano co-opted for education, and Carol Makhanya assisting her in the development of new programmes.

The following individuals from industry also form part of our committee:

Marelize Snyman
 Tina Fairfield
 Karien Meyer
 Amy Wolf (co-opted congresses)

Please feel free to contact Joh-Ann Nice (joh-ann.nice@medsoc.co.za) or your regional chairperson to get more involved or in the event that you do not receive communication regarding workshops of your region.

**Waheeda Howell
 ISCAP Chairperson**



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SASCI VISITING PROFESSOR PROGRAMME 2018 – 1ST REPORT

Over the past few years, the SASCI Visiting Professor Programme has become a highlight on the SASCI academic calendar. This year, with the longstanding support from Medtronic and Pharma Dynamics, SASCI brought world-renowned interventional cardiologist, Professor David R. Holmes Jr from Mayo Clinic, Rochester, USA to South Africa for a two-month tenure.

Below are his comments on his first week in South Africa.

On Monday 5 February, I arrived here in South Africa with the endless possibilities to interact with physicians, catheterisation lab staff and patients. These possibilities made possible by the combination of the very real vision initiated and implemented by SASCI and funded generously by Medtronic and Pharma Dynamics.

The goal is to foster the interchange of ideas and implement new evolving approaches for the treatment of a variety of cardiovascular diseases – from complex interventional procedure to structural heart disease such as left atrial appendage occlusion. In this first week I am struck by several observations:

- The South African cardiologists I have interacted with are superb – they are up to date in the science of the field. They are committed to learn and teach in a two-way interactive process as they continuously face increasingly complex clinical scenarios. Everyone benefits from this process.
- The Chris Hani Baragwanath Hospital medical catheterisation lab staff are extremely attentive, keen to learn and perform very well under pressure. They are uniformly accommodating, friendly and eager to help.
- The patients being treated are increasingly complex, not only clinically but by virtue of their associated co-morbidities as well as anatomically. Discussions about optimal strategies are robust with active participation by all.
- The facilities vary – public or private but in every facility the approach is the same – to focus on the patient, to treat the problem safely and effectively and optimise the patient's outcome.



Prof David R. Holmes Jr in the Chris Hani Baragwanath Hospital Cath lab with Dr Mmuso Mogwera (Middle) and Dr Zaid Moosa (Right) treating a Chronic Total Occlusion patient.



The Chris Hani Baragwanath Cath lab team with Prof David R. Holmes after 2 successful days, dealing with complex CTOs.

One of the highlights of the Visiting Professor Programme is the SASCI and SA Heart® Branch Evening Lecture Series. Prof Holmes presented a lecture on Stroke Prevention in Non-Valvular Atrial Fibrillation at the SASCI/SA Heart® Pretoria Branch Evening Lecture on 7 February at Kream Restaurant, Brooklyn. The lecture was not only presented with excellence and passion but stimulated an interesting discussion session afterwards. Feedback from the audience included comments like "Amazing presenter!" and "Nothing more, nothing less, it was good!"

The SASCI/SA Heart® Johannesburg Branch Evening Lecture on 8 February was no different where Prof Holmes presented his lecture on Antithrombotic and Anticoagulant



Prof David R. Holmes and Dr Chris Zambakides (Right) treating a patient with CTO, assisted by Dr Komape.



From left to right: Mrs Ginger Holmes, Prof David R. Holmes and Dr Iftikhar Ebrahim, chairperson of SA Heart® Pretoria Branch.

Therapy and PCI. At the end of the discussion, the audience had numerous questions regarding the clinical aspects in different cases and the science behind the current therapy practice. Feedback from the audience included comments like "Very informative!" and "Prof Holmes was wonderful, I love how he got the audience involved".

Prof Holmes ends off his summary of the first week in South Africa with:

"This SASCI journey has just now started, much more to come."

We are excited about the impact that Prof Holmes will have on the South African cardiology community during

the next 7 weeks. Next, he will teach and share his knowledge and world-class experience in Durban, Bloemfontein and Cape Town.



Prof David R. Holmes presenting his lecture on Antithrombotic and Anticoagulant Therapy and PCI at the SASCI/SA Heart® Johannesburg Branch Evening Lecture.

‘ This SASCI journey has just now started, much more to come. ’

SASCI would once again like to thank our sponsors, Medtronic and Pharma Dynamics for their support of this programme and their investment in the education and training in South African Cardiology.



SASCI

South African Society of Cardiovascular Intervention

**Prof David R. Holmes Jr
Cardiologist, Mayo Clinic,
Rochester, Minnesota**

SASCI FALL FELLOWS COURSE 2017 – FEEDBACK REPORT

For the past 7 years, SASCI with unconditional support from Boston Scientific and SCAI was able to sponsor four senior South African Fellows in interventional cardiology to attend the annual Society for Cardiovascular Angiography and Interventions (SCAI) Fall Fellows Workshop.

The SCAI Fall Fellows Course 2017 was hosted in Las Vegas, Nevada from 8 - 12 December 2017 with the theme "Preparing the Future of Interventional Cardiology". The programme not only allowed our fellows to attend world-class lectures on topics like "Tools, strategies, and drugs for optimal intervention" and "Step-by-step approach for the challenges of vascular access" but offered them the opportunity to meet the international invited faculty members.

Dr Yuvashnee Govender, senior fellow at the University of KwaZulu-Natal briefly shared her experience with us:

As its historically said that "What happens in Vegas, stays in Vegas". Therefore, I won't divulge much.

Amongst the highlights were meeting international experts in Structural interventions, Coronary disease and Congenital Heart disease. It was very interesting to recognise the difference in prevalence of cardiac diseases and the focus of cardiologists in 1st world countries as compared to 3rd world countries like sub-Saharan Africa.

A lot of focus has been on the aging population, TAVI procedures and their access to innovative procedures performed daily e.g., TAVI, implantation of the various circulatory assist devices and the number of cardiac transplants that are performed annually.

We were offered pig hearts for dissection and to study the anatomy for structural interventions in Congenital Heart disease.

As a female cardiologist there was a session dedicated to female interventional cardiologists and the challenges we face. I was also exposed to a good support system for our female colleagues and registered in an organisation WIN (Women in Interventional Cardiology).

Finally, I would like to thank SCAI, SASCI, Department of Cardiology (UKZN) and the responsible sponsors for making it possible for me to attend this once in a lifetime interventional course in Las Vegas.



Dr Yuvashnee Govender attending a dissection session, studying the anatomy for structural interventions in Congenital Heart disease.

We also received feedback from Dr Mfundo Mathenjwa, senior fellow at the University of the Witwatersrand, Charlotte Maxeke Johannesburg Academic Hospital:

I would like to express my heartfelt gratitude to you and SASCI for this marvellous opportunity granted to me to experience cardiology in a resource-rich setting.

The lectures were to the point and abreast with current literature and innovative interventional strategies. From interacting with other fellows who were from the USA, I got a true impression of how lagging behind Africa is. Virtually every hospital in the USA performs interventional percutaneous procedures (e.g., TAVI, MitraClip, Left atrial appendage closure, percutaneous closure of ASDs and PFOs, LVADs, Impella). These procedures are predominantly a preserve of the affluent who attend private hospitals in South Africa.

This just informs me that we have massive strides to take in the socio-economic front to allow our community to acquire maximum benefit from the enterprises of interventional cardiology.



Dr Arthur Mutyaba (Left) and Dr H.W. Snyman (Right) from Stellenbosch University, Tygerberg Academic Hospital attending the SCAI Fall Fellows Course 2017.



The SCAI congress ignited and consolidated my fascination with coronary and cardiac structural interventions. I desire that SASCI maintain this programme to benefit more upcoming aspiring interventional cardiologists. ”

Dr Arthur Mutyaba, senior fellow from the University of Cape Town reported on the course as follows:

“ I recently had the privilege of attending the SCAI Fellows’ Interventional Cardiology course in Las Vegas, Nevada (USA) under the auspices of SASCI. The trip was a wonderful educational opportunity and is highly recommended for all fellows towards the end of their training. Besides residence at a luxury hotel and the opportunity to experience the Las Vegas buzz, the educational value of the trip was immense.

The course material covered was specifically aimed at fellows in training and was delivered by a world-class faculty. The opportunity to interact with fellows from other nations and learn about their practice of cardiology was enlightening.

A highlight for me was the opportunity to listen to Dr Richard Schatz speak about the journey of developing the first balloon expandable stent, the Palmaz-Schatz stent in 1985.

I am grateful to SASCI for this wonderful opportunity and would encourage all fellows to apply for the course when the opportunity arises. ”



The Cosmopolitan, Las Vegas, Nevada where the annual SCAI Fall Fellows Course is hosted.

The SCAI Fall Fellows Course 2018 will once again take place at The Cosmopolitan, Las Vegas, Nevada from 7 - 11 December 2018.

SASCI is looking forward to offering the opportunity to 4 senior fellows to attend again in 2018.

We would like to thank our loyal sponsor, Boston Scientific for their ongoing support towards this initiative.

SASCI VISITING PROFESSOR PROGRAMME 2018 – 2ND REPORT

Johannesburg has had the privilege to host Prof David R. Holmes Jr for 2 weeks that was filled with complex cases, lectures and a lot of learning opportunities.

From Prof Holmes' pen, feedback on the journey thus far:

Week number 2. The experience here continues to amaze me. Wonderfully interesting and challenging cases working along with Dr Chris Zambakides on CTOs with his incredible skill and experience and learning from and with him. Working with Dr Farouk Mamdoo on left atrial appendage cases and complex anatomy with rotational atherectomy at the Netcare Union Hospital.

Working with Dr Zaid Moosa, and Drs Thomas Kalk and Nachie Levin (at Chris Hani Baragwanath- and Charlotte Maxeke Johannesburg Hospitals) on complex cases, discussing approaches and then implementing them. Wonderfully interesting cases came my way, some of which started off as straightforward and then bringing along unexpected challenges to be overcome.

And then the great staff, eager and willing to help in any way. The planning for plan, the introduction of Michael Jackson as an adjunctive to PCI and its incorporation in the lexicon. The interchange has been fantastic. Also, the now ubiquitous term "things are really coming along". It has also been very humbling as I have learned about more things than intervention.

During ward rounds with Dr Levin, we explored the art and science of history taking and physical examination. What we think of the old fashioned British system of medical practice was in full view that day as the medical resident presented a new patient admitted with shortness of breath.

There, for us, lost art of physical examination was on full display, how do you grade pallor or hair loss on the legs of a patient with potential peripheral vascular disease? What about tracheal deviation on physical examination and Schamroths grading of clubbing. Really an extraordinary look back into what we could do without the technology that we rely on so heavily today. A magical experience and return to the foundations of art and science which led us in medicine in the first place, but which we are losing or sometimes have lost in this



Prof David R. Holmes doing ward rounds with the Chris Hani Baragwanath cardiac team.

modern world of rushing our examinations, relying on technology rather than the "hands-on approach" for patient care.

A day where I had the privilege of delivering a lecture under the portrait of Professor Barlow with his stethoscope.

It has been an amazing experience exploring new technology, remembering older art, all focussed on the patient at hand.

Today is Prof Holmes' first day in Durban, visiting the University of KwaZulu-Natal Department of Cardiology who has prepared a wonderful and diverse programme for the week to come.

Week 3. An amazing weekend must pass, spent at the Cradle of Humankind with Mrs Ples, exploring where we came from, how we got here to where we are now in 2018, 2.1 million years later. We explored the issues that our ancestors face – things like the changing environment and the need to band together for safety and protection. We imagine relationship building, resource utilisation, disparities in access to what was needed to sustain their groups and society, and what was needed going forward – like the need to develop new technology such as cutting stone flakes to make implements and new applications of the same.

This morning we are at Inkosi Albert Luthuli Central Hospital with Dr Lesley Ponnusamy for the next stage of this adventure. A talk on "The Future of Interventional



Prof David R. Holmes presenting a lecture on “An approach to cath Lab Haemodynamic” at Charlotte Maxeke Johannesburg Hospital.

Cardiology” – where we came from, not 2.1 million years ago like Mrs Ples but early 1963 with Dr Charles T. Dotter with the inadvertent passage of a catheter through a previously unknown suspected occluded iliac artery as he worked to perform diagnostic angiography in a patient with renal artery disease. That inadvertent adventure was then summarised by Dr Dotter writing “Although it’s chief accomplishment in the patient was diagnostic, the procedure led to the thought that one patient’s problem might be the route to another’s gain.”

This inadvertent finding brought us into our future with Gruntzig and Hartzler, and the branching out of the field of Interventional Cardiology techniques to EP, GI, GU,

Neurology and now to Structural Heart disease and then beyond that to the continued unmet clinical needs in CAD, Stroke treatment, Hypertension, and Stroke prevention in patients with Atrial Fibrillation.

The parallels with the issues in the Cradle of Humankind with Mrs Ples, and Interventional Cardiology are striking. We of today face environmental issues with increasing numbers of patients with increasing co-morbidities and problems. We face issues of resource utilisation, changes in the environment of reimbursement and regulation, disparities in access to what is needed to sustain our science and our art, issues on the cost to society and the personal cost to the hard-working resource-limited healthcare teams, and the introduction of new technology. How to use these technologies, when to use it and in whom, not tools like those made of chipped stone flakes, but instead less invasive, high tech tools to treat our patients. In addition, we also face the need to coordinate and work together to move all of us forward as we evolve and move into the future. ”

SASCI would once again like to thank our sponsors, Medtronic and Pharma Dynamics for their support with this programme and their investment in the education and training in South African Cardiology.

Prof David R. Holmes Jr
Cardiologist, Mayo Clinic, Rochester, Minnesota



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SASCI RC FRASER INTERNATIONAL FELLOWSHIP FEEDBACK

I have just returned from 4 fantastic weeks at St. Thomas' Hospital in London with Professor Simon Redwood. I was made to feel very welcome by Simon and his team, and have been involved in fantastic cases in the cathlab.

Tuesdays and Wednesdays are TAVI days in the lab at St. Thomas'. Simon and Professor Bernard Prendergast are the primary TAVI operators, and they currently have an international TAVI fellow placed with them. They are able to perform 6 TAVIs per week, and during my time there they implanted the Sapien 3, Evolut R and Acurate Neo valves, mostly via transfemoral, but also via transapical routes. To my knowledge Acurate Neo is not yet available in South Africa. It is a self-expanding valve made by Symetis and is currently being trialled against the Sapien 3 valve in the SCOPE I trial. They have TAVI implantation down to a fine art and I have learned the benefit of having an experienced TAVI Team to make sure everything runs smoothly. I attended the TAVI multi-disciplinary team (MDT) meetings where all prospective TAVI cases were discussed in detail and plans made for the procedure. It was interesting to see the prominent role of the clinical nurse specialists who are an integral part of the programme, including seeing patients in the clinic, ordering specialised investigations and communicating results and plans to patients telephonically.

I was also involved in the daily coronary work in the labs. It was reassuring from my side to see that their approach to coronary intervention is very similar to how we practice back home, with a largely symptoms-based approach and liberal use of FFR. I was privileged to sit in on the coronary MDT meetings, where there is a relaxed, non-confrontational atmosphere with good banter between the surgeons and interventional cardiologists, which no doubt contributes positively to patient care.

In addition to TAVI and coronary intervention, which was the bulk of my exposure there, I was also involved in the PFO closure list, performed by Dr Brian Clapp, and a Coronary Sinus Reducer list, performed by Professor Redwood. These are interventions with an increasing evidence base that are no doubt going to gain traction in South Africa, and it was fantastic to be exposed to the processes of patient selection, planning and implantation for these procedures.



Prof Simon Redwood and Brad Griffiths in the lab.

Just as valuable as the procedural work being done, but more difficult to quantify, has been the experience of being side-by-side with experienced interventional cardiologists discussing day-in and day-out all manner of topics related to interventional cardiology, from recent trials (particularly ORBITA, CULPRIT-SHOCK and the PFO closure trials) to device selection, to lesion preparation, to circulatory support. This really has been an invaluable experience, and will no doubt improve my future practice.

Special thanks must go to the following people who made me feel very welcome at St. Thomas' Hospital cathlab: Professor Simon Redwood, Professor Bernard Prendergast, Dr Jane Hancock, Dr Brian Clapp, Dr Maciej Marciniak, Dr Antonis Pavlidis, Dr Divaka Perera, Dr Rupert Williams, Dr Stefano Cannata and Dr Kalpa De Silva. In addition to this all of the cathlab allied health and support staff contributed positively to my experience.

Of course, in addition to lab work I also used my free time to take in some of the famous London sights, and travelled to Cardiff in Wales to watch the Springbok game, which, despite the result not going our way, was a fantastic experience.

Thanks again must go to SASCI and Boston Scientific for making this experience possible.

Brad Griffiths
SASCI RC Fraser Fellow 2017

TRAVEL SCHOLARSHIPS OF THE SOUTH AFRICAN HEART ASSOCIATION

Applications for the SA Heart® Travel Scholarship for the second term in 2018 are invited to reach the SA Heart® Office by 30 June 2018.

The scholarship is for the value of up to R20 000.00 for international meetings and R7 500.00 for local meetings.

This scholarship is available to all members and associate members residing in South Africa. It is primarily intended to assist junior colleagues to ensure continued participation in local or international scientific meetings or workshops.

REQUIREMENTS

- Applicants must be fully paid-up members/associate members for at least 1 year.

RECOMMENDATIONS

- Early and mid-career applicants (<5 years post-qualification as specialist and/or <5 years post-PhD qualification).
- Acceptance of an abstract/poster presentation at the scientific meeting to be attended.

CONDITIONS

- Awards will not be made for conferences or workshops retrospective to the application submission deadline. If the conference is taking place within six (6) weeks following the submission deadline, please indicate this in the appropriate place on the application form.
- It is not a requirement for the abstract to be accepted by the conference travel application closing date. Should the acceptance of the paper, including proof of registration not be available at the time of submission of the application, then a provisional award may be made pending the receipt of the acceptance of paper.
- Please ensure that applications are made as well in advance as possible (**preferably at least 6 months prior to the conference date**).
- Applicants may only submit 1 application every second year. The scholarship is for the value of up to R20 000.00 for international meetings and R7 500.00 for local meetings.
- Awards are only made in the event that a paper or a poster is being presented or in the event of a workshop attendance, that the reviewers deem the workshop attendance to be of high impact and benefit to the SA Heart® community.
- The applicant must ensure that the application is fully completed including the requirements as detailed in the checklist section. Applicants are asked to be concise and to only include applicable and relevant information.
- Awards are granted for 1 specific conference. Should that specific conference be cancelled or the full amount allocated not utilised for any reason, then the funds must revert to the SA Heart®; and
- A written report on the relevant congress attended will need to be submitted by the successful applicant within 6 weeks of attending the congress. The congress report will be published in the South African Heart Association Newsletter.

SUBMISSION REQUIREMENTS

- Completed applications may be emailed to erika@saheart.org on or before the deadline date.
- Please request a fillable MS Word version of the application form from erika@saheart.org

STEMI SA: S-T ELEVATION MYOCARDIAL INFARCTION

STEMI is an important disease, potentially fatal, not difficult to diagnose and be treated effectively, thus saving lives and improving morbidity. Being the core of acute coronary syndrome (ACS) and coronary artery disease, it ranks number one under non-communicable diseases in South Africa. Despite the presence of HIV and other infections, this will soon be the case in the rest of Africa.

Until recently, we were not doing well in managing STEMI. In public health, 60% of patients do not receive appropriate therapy in time, and 30% of those who die of STEMI could have been saved if treated according to the international guidelines. Our STEMI management systems fail to provide the necessary care. Vital to improving STEMI management is at the point of first medical contact (FMC), where the diagnosis needs to be made immediately. Timely medication and transfer to a central capable hospital is vital. In STEMI management, the clinic doctor, professional

nurse and healthcare workers, porters, administrators and emergency services play a pivotal and important role.

The South African Heart Association (SA Heart®) and South African Society of Cardiovascular Intervention (SASCI) run a project called “STEMI SA – Time is Muscle”, working with the international project “Stent Save a Life” to improve systems of care and particularly assist those at the FMC. Should there be a need for more information about educational opportunities or you wish to participate/contribute to this programme, you are invited to locate the STEMI SA activities’ link and contact details on the www.sasci.co.za website.

Central to the diagnosis of STEMI is recognising typical chest pain: a central retrosternal, pressing, burning, discomfort spreading to the shoulder, neck, jaw and left arm that may be associated with sweating nausea and dizziness

S A H E A R T S A S C I E A R L Y R E P E R F U S I O N

Time to reperfusion is critical

every minute counts

Atypical ECG presentations requiring prompt management

- LBBB
- Ventricular paced rhythm
- Patients without diagnostic ST-segments elevation but with persistent ischaemic symptoms
- Isolated posterior myocardial infarction
- ST-segment elevation in lead aVR

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graph TD
    A[Patient has chest pain] --> B[Diagnose with 12 lead ECG immediately < 10 min]
    B --> C[STEMI diagnosis]
    B --> D[Monitor every 10 min if chest pain persists]
    C --> E[Primary-PCI capable centre]
    C --> F[EMS or non-primary-PCI capable centre]
    E --> G[Primary-PCI]
    F --> H{PCI possible in < 120 min?}
    H -- YES --> G
    H -- NO --> I[Immediate Fibrinolysis "Drip & Ship"]
    G --> J[Rescue PCI]
    J --> K{ }
    K -- NO --> I
    K -- YES --> L[Coronary angiography]
    I --> M[Successful Fibrinolysis]
    M --> K
    
```

SYMPTOMS OF A HEART ATTACK

The symptoms usually start in the middle of the chest and spread out to 1-2 hrs.

Symptoms in women are often different to those experienced by men. Women are more likely to experience nausea, dizziness, and anxiety.

most typical discomfort / pain zones

- Heavy pressure, tightness, crushing pain or unusual discomfort in the centre of the chest
- This may feel like indigestion, spread to shoulders, arms, neck or jaw and/or last for more than 15 minutes. It may stop or weaken and then return.
- Sweating, sickness, faintness or shortness of breath may be experienced

other possible discomfort / pain zones

- There may be a rapid, weak pulse
- Sharp stabbing pain in the left side of the chest is usually NOT heart pain

Important Telephone Numbers

082 911 / 1011

Ambulance

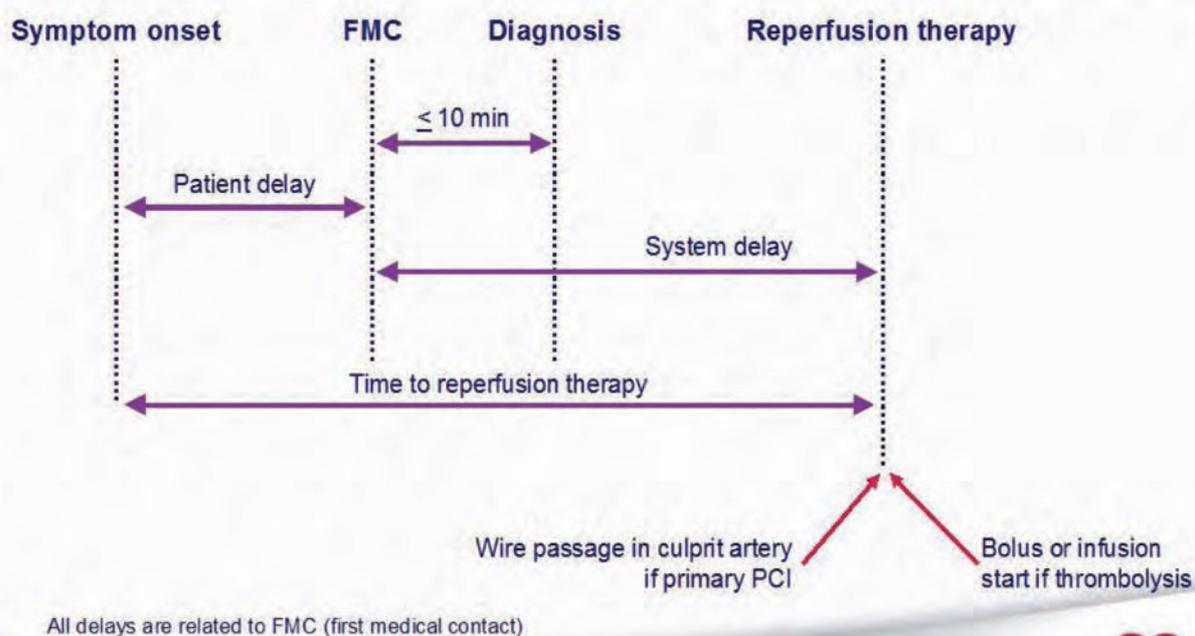
EMS = Emergency Medical System; FMC = First Medical Contact; PCI = Percutaneous Coronary Intervention; STEMI = ST Segment Elevation Myocardial Infarction

Reference: 1. ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation, European Heart Journal (2012) 33, 2599-2610 doi:10.1093/eurheartj/ehs347

This project was made possible by an educational grant from the following companies

SA Heart®/SASCI early reperfusion project poster.

Components of delay in STEMI and ideal time intervals for intervention



All delays are related to FMC (first medical contact)

European Heart Journal (2012) 33, 2569–2619
doi:10.1093/eurheartj/ehs215

www.escardio.org/guidelines



Components of delay in STEMI and ideal time intervals for intervention poster.

is pathognomonic of myocardial infarction. Atypical chest pain may occur in females, elderly patients and diabetics, so be careful not to miss an infarct when they present with symptoms one cannot explain! Any person experiencing similar symptoms should immediately seek medical assessment.

Management most frequently goes astray at the FMC. All patients with chest pain should have an ECG done immediately. Clear ST elevation, particularly with a typical history, is all that is needed to make the diagnosis. There is no need to wait for blood results or chest X-rays. Apart from routine resuscitation therapy, a decision as to how to reperfuse the blocked coronary artery must be taken. Any reperfusion beyond 120 minutes of artery blockage will save very little heart muscle from undergoing necrosis.

‘Timely medication and transfer to a central capable hospital is vital.’

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STEMI SA continued

THE GUIDELINES ARE CLEAR:

- If the symptoms started within less than 60 minutes and the patient can be at a cathlab for primary intervention, this strategy should be followed. Direct communication with the treating cardiologist and emergency healthcare workers would be needed. If the transfer time to the cathlab is more than 30 minutes, alternative therapy is indicated.
- If this is not possible or the pain persists for more than 6 - 12 hours or comes and goes, thrombolysis needs to be administered if no contraindications are present. Administering thrombolysis requires knowing the indications and contraindications. Thrombolysis should be available, and confidence in administering exist at FMC. Assistance is only a phone call away, and you should know who to phone.

STEMI SA can provide a wall poster guiding you through the algorithm and is finalising a one-day training course that will be presented at centres participating in our drive. To make a difference, healthcare workers at FMC need to be competent in taking and interpreting an ECG. The STEMI SA training course will assist in doing just that. To treat STEMI efficiently, having thrombolytics available should not be an option but obligation.

What if you do not have thrombolysis and cannot have your patient at a cathlab in less than 30 minutes? In such a case do what you can, i.e. administer the adjunctive medication and transfer to a centre capable of managing STEMI – preferably a cathlab as soon as possible. Know where to find a cathlab and who to contact.

What if thrombolysis was administered? After haemodynamically stabilising the patient, transfer him/her to a cathlab hospital as soon as possible. Thrombolysis is not the end of therapy. Follow-up angiography is advised within 24 hours (pharmaco-invasive strategy) even if reperfusion occurred, as reperfusion may not be optimal with adequate free coronary flow (TIMI III). If angiography is not done within 24 hours of the event, only ischaemia-driven interventions would be of any benefit.

Post-coronary intervention management includes optimised medication, good lifestyle counselling, physical activity and regular evaluation. With effective management, the patient can be home and return to everyday life within a short time.

TO SUMMARISE THE KEY RULES:

- Educate patients to recognise STEMI symptoms and understand the urgency of immediate treatment.
- Patients should preferably contact EMS and/or go to the nearest PCI-capable hospital or emergency room.
- Immediately perform an ECG on all patients presenting with chest pain unless a very clear alternative cause is obvious.
- Healthcare professionals should be able to diagnose STEMI, based on clinical observations and supported by ECG findings.
- Healthcare professionals should be familiar with the treatment options for STEMI and immediately commence appropriate therapy, depending on the time of onset of pain and the PCI-capability of the hospital. Transfer of the patient to a PCI-capability hospital for rescue PCI should be considered.
- Tenecteplase, actilyse or streptokinase should be available at all secondary healthcare facilities for primary thrombolysis.
- Healthcare professionals should have access to a cardiologist or other trained professionals to assist with decision-making and appropriate transfer.
- All specialist facilities should contribute to the SA Heart®/SASCI STEMI Early Reperfusion Registry to monitor treatment and outcome of STEMI cases for the optimisation of STEMI care nationally.

Dr Adriaan Snyders
Cardiologist at Wilgers Hospital
STEMI SA National Coordinator and Regional coordinator for Stent Save a Life Africa



CARDIAC HEART HEALTH TIPS



- Everyone needs to spend time to ensure that he/she obtains a good cardiovascular health prognosis.
- Exercise at least 3 - 5 hours per week.
- If smoking, you are wasting your time.
- Spend time to monitor your blood pressure, glucose and cholesterol levels.
- Early morning blood pressure readings should not be more than 135/85mmHg before taking medication.
- LDL cholesterol above 4mmol/L carries a high risk. With cardiovascular risk factors like hypertension this should be less than 3mmol/L; having diabetes, this should be less than 3.5mmol/L. If you already have had a cardiovascular event, the LDL should be less than 1.8mmol/L.
- Get enough hours of sleep, but rise early.
- Take time to finish your meals, do not rush!
- Recognise danger signs in time.
- Any symptoms, even if benign but progressive or associated with others or affecting your quality of life, are serious and should be reported to your doctor.
- Any symptom that improves or does not worsen with activity is unlikely to be significant.
- An occluded coronary artery should be opened within 120 minutes or less to limit damage to the heart.
- Do not delay seeking help if you wake up with a burning pressing discomfort in the chest, feeling as if someone is sitting on your chest and associated with nausea, sweating, dizziness, weakness or discomfort in the arms, particularly without improving within minutes. Report and have an ECG done within 10 minutes.
- Most overweight persons have insulin resistance (no testing is necessary), rather start losing weight and exercise regularly.
- Everybody has heart arrhythmias at times, which is unlikely to be significant if this improves with activity, (only robots never have heart palpitations/arrhythmias).
- Tiredness is rarely of cardiac origin, but the inappropriate shortness of breath during activity should always be investigated.
- Do not ignore early morning headaches not associated with the previous night's activities as these may indicate uncontrolled hypertension.
- The most important risk factor for vascular events is a family history of vascular disease before age 50 or 60 years.
- Smoking and hormone replacement medication carries a high risk for cerebral infarction, particularly in women.
- Smoking 20 cigarettes/day costs as much as a week's holiday in Seychelles.
- Having a home blood-pressure monitor costs less than spending one night in hospital.
- You are not paying your doctor for the minutes or hours spent with you, but for the years of training and experience.
- The effect of years of bad lifestyle habits cannot be reversed within hours or days.



SASCI POSITIONING STATEMENT – VASCULAR INTERVENTION

In our country there is a widely accepted shortage of interventional skilled vascular specialists, including interventional radiologists, vascular surgeons and interventional cardiologists.

It is indisputable that interventional trained cardiologists possess a skillset which is transferable to interventions in other vascular territories, although appropriate vascular region and disease-specific clinical training may be lacking.

There are many parts of South Africa, where various vascular interventional skills are needed, but either no dedicated specialist exists, or access to such skills is inadequate. A contemporary example would be the need for neuro-interventionists to treat stroke in many South African cities, with even our major cities being inadequately served.

There are useful established “scope of practice” precedents in our country, for example, in the interventional treatment of peripheral arterial disease. In this field, a number of cardiologists are extremely skilled, experienced, and active – some are working in areas where no interventional vascular surgeons are available. We have experienced good cooperation between our vascular surgical colleagues and SASCI members, especially in industry-driven training for carotid stenting. This procedure has been widely and successfully practiced by colleagues from both disciplines, and of course also by interventional radiologists.

SASCI notes that even in better resourced European contexts, vascular interventional specialists may originate from within multiple vascular interventional specialties, including cardiology, interventional radiology and vascular surgery. The 2016 European vascular interventional guidelines note that in the management of acute limb ischaemia, patients should be rapidly evaluated by a vascular specialist. “Depending on local clinical expertise, the vascular specialist may be a vascular surgeon, interventional radiologist, cardiologist, or a general surgeon with specialised training and experience in treating PAD”. There is thus widespread international professional acceptance that vascular specialists may originate from within multiple parent disciplines.

Of further interest and relevance is the indication in the vascular literature that the catheter skills of experienced

cardiologists compare well with those of other specialists for the safety and quality of non-coronary angiography.

SASCI is thus of the opinion that interventional cardiologists may be ideally suited to perform extracardiac vascular interventions and that such expertise is likely to be required frequently in our local context.

Ideally, such expertise will, as in the past, be gained particularly from cooperation with other appropriate specialists. Cardiologists may, for example, treat peripheral arterial disease in collaboration with a vascular surgeon. We would anticipate further that colleagues involved in such non-cardiac interventions would acquire the appropriate disease-specific knowledge pertaining to their particular field of practice. Operators should be able to show adequate training in the pathophysiology and anatomy of the disease as well as indications for the intervention. Proctoring as needed must ensure a high standard of practice. Collegial cooperation with colleagues involved in managing other aspects of an interventional patient’s particular disease in question would ensure a high standard of comprehensive care for our patients.

SASCI thus supports interventional cardiology colleagues involved in non-cardiac vascular interventional work for which they can demonstrate adequate training, and we recognise this as part of international best practice. We urge our colleagues who do intervene in non-cardiac vascular procedures to hold themselves to the same rigorous standards of contemporary knowledge, appropriate training, and proctored experience as they would apply whilst building their knowledge and experience base in the coronary tree.

We are hopeful that our support and endorsement of the training of colleagues for the performance of non-cardiac vascular interventions may contribute to improving access for a number of South African patients in dire need of various interventional procedures, and increase the uptake of contemporary vascular interventional practice into routine care for the exploding clinical manifestations of many non-communicable diseases in our population.

Dr Dave Kettles
SASCI Executive Committee

SUBMISSION BY THE SOUTH AFRICAN SOCIETY OF CARDIOVASCULAR INTERVENTION (SASCI) ON THE PROPOSED PRESCRIBED MINIMUM BENEFITS (PMBS) CODE OF CONDUCT BY THE COUNCIL FOR MEDICAL SCHEMES

SUBMISSION: 31 January 2018

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1. INTRODUCTION

The South African Society for Cardiovascular Intervention (SASCI) hereby welcomes this opportunity of participation in this very important review. In this submission, SASCI wishes to raise the relevant issues pertaining to this process that are currently being experienced as problematic areas and not in the best interest of the patients, or cardiologists.

2. SASCI AND ITS INTEREST IN THIS MATTER

SASCI is an organisation of physicians, scientists and allied professionals with the purpose to advance the development of coronary revascularisation and to provide minimally invasive, image-guided diagnosis and treatment of cardiac medical conditions. It also acts in an advisory capacity to funders, industry, members and the government on matters relating to interventional cardiology. The latter is a branch of cardiology that deals specifically with catheter-based treatment of structural heart diseases and includes

procedures such as angioplasty and Trans Aortic Valve Implantation (TAVI).

SASCI feels that our submission is important to act in the best interest of our patients as many of the PMBs are of cardiovascular nature.

3. SCOPE AND PURPOSE OF THE CODE OF CONDUCT

In paragraph 2.2 it is stated that the purpose of the Code is the protection of the interests of beneficiaries by ensuring that legislative requirements are "practically achieved, as well as to protect the long-term sustainability of medical schemes."

The principle of sustainable health care is supported by SASCI as we do understand that medical schemes must maintain their sustainability by spending available funds on the more necessary health care expenses, but access to quality health care must not be compromised in order to achieve this.

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SUBMISSION BY SASCI continued

We also do express the concern that this above mentioned principle of sustainability might be used by medical schemes to impose a limitation on their PMB payment obligation and raise their sustainability as a defence for not funding certain medications or procedures pertaining to PMB conditions.

The Council for Medical Schemes (CMS) made it clear that provision must be made in the review of the PMBs for the alignment of PMBs with the National Health Insurance (NHI) policy proposals and the offering of primary level care. Also, PMB service benefits must be aligned with the NHI benefits. As the NHI benefit framework will include a “basket of care” based on primary health care, hospital-based services and emergency services, SASCI is concerned that there will be a move away from diagnosed-based care (list of conditions) to basket care. This could lead to the situation that medical schemes would only have to pay for the service of costs and not for the complete care of any condition. This would be an infringement on the constitutional right of universal access to health care, as found in section 27 of the Constitution of South Africa 108 of 1996 (“the Constitution”).

SASCI proposes that medical schemes must at all times use the Medical Schemes Act No. 131 of 1998 (“MSA”) and/or its Regulations and then its rules (which must align with the law) to justify its actions – not any other document. The Code of Conduct cannot be used to override or limit the rights, entitlements and provisions found in the Medical Schemes Act or the Regulations.

4. THE CODE OF CONDUCT

4.1 Drafting of the Code of Conduct

The CMS states in paragraph 5.1 that the drafted Code contains the rights and responsibilities of members, providers and medical schemes. This can already be found in medical schemes’ legislation and amendments cannot be made to it.

In current legislation, PMBs are included to ensure that all beneficiaries, irrespective of the scheme option they chose, are entitled to the same PMBs. The importance of equal benefits and protection thereof by law, is recognised and supported by SASCI.

SASCI proposes that the abovementioned rights and responsibilities should not be included in the Code of Conduct. It would be of more value if the Code rather provides guidance as to how effect can be given to these rights and responsibilities as found in legislation.

4.2 Amendments to the Code of Conduct

In paragraph 5.2(a) it is stated that the Code of Conduct is a “living document” and that it may need to be updated from time to time. It is agreed by SASCI that this updating is essential to the changing health care environment of South Africa and that it must be updated on a regular basis. Annexure A of the Regulations⁽¹⁾ (“the Regulations”) to the Medical Schemes Act (“MSA”) provides that the PMBs should be revised by the Department of Health every 2 years. This is also provided for the Code.

The Code must however be updated and amended in a manner such as to give effect to the contents of Regulation 8 of the MSA and be in line with the intention for which PMBs were created. This intention is:

- (i) To avoid incidents where individuals lose their medical scheme cover in the event of serious illness and the consequent risk of unfunded utilisation of public hospitals.
- (ii) To encourage improved efficiency in the allocation of Private and Public health care resources.”

The Code must not be updated in a manner that it could be interpreted as imposing a limit on beneficiaries’ access to health care with regard to PMB conditions. This would be unlawful. An interpretation that, for example, leads to more patients being channelled into public sector facilities that are already over-burdened, would not be in line with part (ii) of the objectives of the PMBs.

SASCI proposes that the word “may” should be replaced with “must” and that a specific period be given instead of the wording of “from time to time.” In Annexure A of the Regulations to the MSA, it is stated that “ a review shall be conducted at least every 2 years by the Department that will involve the Council for Medical Schemes, stakeholders, provincial health departments and consumer representatives.” It is also proposed that a process for reviewing of the PMBs and Code of Conduct should be

included, should there not be complied with the provisions of Annexure A.

4.3 Communication

The National Health Act No. 61 of 2003 ("NHA") puts an obligation in section 6⁽²⁾ on Health Care Providers to discuss all relevant information with the user/patient, to which he/she must consent. In paragraph 2 it is stated that it is recognised that it is not "possible, practical or helpful to provide members with all information relating to the coverage of every possible diagnosis at point of entry onto the scheme." SASCI does not agree with this statement. The Health Market Inquiry identified this as undermining patient rights. The Code cannot undermine the various laws as outlined in this comment.

To give effect to the above, a member must be supplied with all information regarding benefits, contributions, limitations and exclusions from their selected scheme at the point of entry so that he/she can make an informed choice about the scheme that is best suited to his/her actual and anticipated needs. Patients do not understand how PMBs work, or formularies or protocols. There is the misconception that all accounts must be paid in full by a medical scheme. This information cannot be given at a later stage when the member has already joined a medical scheme and then have to find out that certain services or goods are not being covered. This is not in line with the provisions of the Consumer Protection Act No. 68 of 2008 ("CPA") which contains the right of a consumer to the disclosure of information regarding all options available in terms of products, prices, services, etc., and the right to fair and responsible marketing with regard to the nature and advantages/uses of goods and services being offered.

Paragraph 8 makes provision for the process of the lodging of a "clinical appeal" to the dispute committee of the medical scheme. Who this committee will consist of, must be defined very clearly because they will be the persons who will determine the clinical needs of the beneficiary. The clinical needs of a beneficiary cannot be determined by a Health Care Professional that is not duly qualified and registered and who does not have the necessary knowledge and expertise regarding a specific field/category.

Cardiologists are, in terms of the Health Professions Act No. 56 of 1974 ("HPA") trained, qualified and experienced to make clinical assessments of their patients. The categorisation of patients regarding the appropriate treatment of their PMB condition is critical. It cannot be decided by persons not qualified to do this.

SASCI found in a survey done in 2016 under cardiologists, that when contact is made with a medical scheme, it rarely or never involves access to qualified medical practitioners and other Health Care Professionals. Contact with a clinical peer (cardiologist) appeared to be very rare. When difficult or complex cases need to get approval for reimbursement, it takes a long time and this sometimes leads to practitioners giving up trying. This then has a negative impact on the patient if funding cannot be obtained. SASCI makes the request that this matter be addressed in the Code and that it must be ensured that there is adherence to Regulation 15D of the MSA, which states as follows:

"15D. Standards for managed health care. - If any managed health care is undertaken by the medical scheme itself or by a managed health care organisation, **the medical scheme must ensure that -**

- (b) the managed health care programmes use documented clinical review criteria that are **based upon evidence-based medicine**, taking into account considerations of cost-effectiveness and affordability, and are evaluated periodically to ensure relevance for funding decisions;
- (d) **qualified health care professionals administer** the managed health care programmes and oversee funding decisions, and that the appropriateness of such decisions are evaluated periodically by clinical peers;"

SASCI requests that medical schemes do attend to this matter very specifically. It is very important to have a person/health care professional with the necessary experience, knowledge and insight into the complex field of cardiology to make decisions pertaining to obtaining reimbursement for treatment of the patient. This is also necessary to have consistency in decisions.

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SUBMISSION BY SASCI continued

4.4 Application of Managed Care Interventions

Designated Service Providers (DSPs)

In paragraph (i) of this section of the Code, the matter of DSPs is made provision for. Regulation 8 of the MSA deals with DSPs. How medical schemes, and on what criteria this selection is being made, is not always very clear. SASCI would like to specifically request that the Code clearly defines or prescribes certain criteria, procedures and/or limits for schemes selecting a Designated Service Provider (DSP) or Preferred Providers. This criteria, procedures and limits must be transparent and able to be obtained from the Medical Scheme upon request. These should include the provision contained in the HPCSA Policy Document on Business Practices (29 September 2015), which states in paragraph 3.6. that:

“Providers should have the right to participate in any preferred provider network if it meets the criteria of professional qualifications, competence and quality of care. Council policy states that these networks should not be exclusive – that all providers must have the option of being included unless compelling reasons for exclusion exists.”

The Department of Health's Human Resource 2102/3-2016/7 document stated that there was a shortage of 70 cardiologists in South Africa. This affects the availability of cardiological services where, as mentioned earlier in this document, many of the PMBs are of cardiovascular nature. Where there is a shortage of professionals, it makes no sense to have exclusive agreements. There could not be limited access to a field where skills are scarce as in cardiology. If DSPs are included, it will limit access to health care.

In the Independent Community Pharmacy Association (ICPA)-case⁽³⁾ the ICPA challenged the CMS to do away with closed DSPs and penalty co-payments. The current structure does not have the interest of the patients at heart, thus denying them freedom of choice. SASCI supports the clinical independence of its members and all HCPs and therefore feels that the selection of DSPs by medical schemes cannot be based on billing patterns or the willingness of a provider to bill at a specific rate or only under specific conditions.

SASCI requests that the Code clearly prescribes how DSPs should be selected and what the criteria would be, being used in this selection process. These processes must also be communicated to HCPs.

Determination of a “reasonable” co-payment

In paragraph (iv) it is stated that the CMS is to provide feedback regarding the quantum of a co-payment, following the submission on the undesirable business practice on punitive co-payments (Notice 435, published on 9 June 2017 in Government Gazette 40898 - Draft Declaration on Punitive co-payments as an Undesirable Business Practice for Medical Schemes).

SASCI proposes that this matter be finalised and incorporated in the Code to ensure that no beneficiaries are prejudiced on an unfair basis by a co-payment that should not be levied.

Implementation of Regulations 15H(c) and 15I(c)

Paragraph (v) refers to the Managed Care Regulations. It is accepted by SASCI that medical schemes are entitled to use managed care interventions when deciding to fund or not to fund treatments. However, all treatment protocols/formularies must be based on the basis of evidence-based medicine – in other words what is appropriate for a specific patient in a particular setting. Evidence-based medicine means “the conscientious, explicit and judicious use of current best evidence in making decisions about the care of beneficiaries whereby individual clinical experience is integrated with the best available external clinical evidence from systematic research.”

When weighing up treatment alternatives, the managed care principles of clinical necessity, appropriateness, efficacy, cost-effectiveness and efficiency should be taken into consideration.

It is accepted by SASCI for medical schemes to have formularies and protocols as treatment guidelines, however it is stated in Regulations 15H and 15I of the MSA, that where a protocol or formulary causes harm or would cause harm to a member, then the medical scheme must depart from their protocol or formulary “without penalty to the beneficiary. This is very strongly emphasised by SASCI as a matter of concern because this provision is

routinely ignored by medical schemes. As an example of this, the following situation could be mentioned: You as a cardiologist have a patient that is utterly intolerant of statins due to severe myalgia and arthralgia and you then prescribe Ezetimibe (a drug used to lower plasma cholesterol levels). A medical scheme refuses this, saying that the only side-effect that they will recognise is rhabdomyolysis (Serious syndrome that results from death of muscle fibres and which could lead to kidney failure). SASCI feel this is outrageous and abusive. The question to be asked here is why does a medical scheme have to get to decide what is a real side-effect, and ignore the side-effects that affect about 2 - 3% of the population (of course recognising the side-effect that affects 1 in around 1 million individuals).

Another example is of Ivabradine, which is on the guidelines for heart failure, with clear indications. But medical schemes just choose to ignore this. They simply do not want to pay, even when current evidence-based guidelines insist that the drug is clearly indicated.

SASCI strongly feels that the above are, as mentioned earlier, deliberate fraudulent activities by medical schemes. Such practices continue only because patients are poorly informed of their rights as in terms of the MSA.

Cardiologists quite regularly find themselves in the situation where medicines deemed appropriate by them in the care of the patient, are declined and a motivation then required (e.g. when doubling the dosage of a medicine in response to inadequate therapeutic response). The need for a motivation is used as a means to not only defer, but even to stop paying what is currently being paid for. Routinely then, patients return for follow-up visits inadequately dosed. Lots of requirements on patients in terms of special applications, forms to be completed by specialists, added visits/consultations, etc. (which must all be done at their own expense), seriously detract from the possibility that a patient, unless ruthless and determined, as well as unusually well informed, will never access their prescribed PMB benefit package.

Failure by a medical scheme to fund for a PMB-condition where it was required (as applicable in cardiology), was addressed by the CMS in the Mabin-case.⁽⁴⁾ This ruling pertained to the funding of aortic valve stenosis, which is a

PMB condition and treated by means of a Trans Aortic Valve Implantation (TAVI). This Ruling stated as follows:

“For the present purposes and for the reasons advanced, the scheme is directed to reimburse the member to the level not exceeding the (average) cost the scheme currently funds for its members with the diagnosis of aortic stenosis who undergo open heart surgery for aortic valve replacement.”

The same matter was addressed in the Ruling⁽⁵⁾ against Pro Sano by the CMS Appeal Committee, where it was stated that TAVI cannot be a scheme exclusion, and the scheme has to fund at least what it would have funded in the case of open heart surgery.

It has been noted with concern by SASCI, that notwithstanding the abovementioned Rulings, there is still a problem with this. Medihelp medical scheme still imposes a prosthesis limit on TAVI for all patients on all options of the scheme – despite the fact that the condition is a PMB condition and treatment, where available, should be funded by all medical schemes on all options in full.

SASCI strongly feels that when a medical scheme makes a decision regarding funding of a PMB condition, the first question must be whether it constitutes evidence-based medicine. Cost-effectiveness and affordability can be used to delineate options available to patients, but never to such an extent that it erodes evidence-based medicine. For a medical scheme to levy a co-payment on a member for obtaining a clinically indicated and appropriate treatment for a PMB-condition, is unreasonable. If 2 or more treatment options are available to a patient and a patient would be fine on a conventional option and that option is proven to be cost-effective and more affordable than e.g. TAVI, the scheme can reimburse for TAVI only to the level and extent to which it would have reimbursed the costs associated with the conventional procedure/care/option. But if only one treatment option is available, the scheme must pay in full.

SASCI urges medical schemes to apply the provisions of the MSA and its Regulations when making a decision whether to fund a PMB condition, and that a prosthesis limit not be applied in such cases. Regulation 8 of the MSA states specifically that a scheme must fund in full for

SUBMISSION BY SASCI continued

the treatment; diagnosis and care of a PMB condition. Where there are treatment options available to a patient for treating a PMB condition, medical schemes must be able to prove how they evaluated treatment options/interventions.

4.5 Identification of PMBs and Defining PMB Level of Care

Pre-registration, application, and authorisation for PMBs

In this paragraph it is stated that "Registration of PMBs must be a one-off process and should not require annual renewal." This is supported by SASCI. What happens pertaining to this, is that when a patient comes for an annual cardiac check-up for a disease that is coded as a PMB (e.g. hypertension, diabetes), funding for this is routinely being deducted from their savings account (even if it was paid from their PMB benefits the previous year). The Regulations specifically provides as follows:

"10. Personal medical savings accounts. -

- (6) The funds in a member's medical savings account shall not be used to pay for the costs of a prescribed minimum benefit."

We as cardiologists then have to apply again for approval of a PMB, which had already been done and approved, with all the necessary information already with the medical scheme. This results in long periods of waiting for approval and reimbursement, to the detriment of the patient. Most patients will not be aware of this benefit – the vast majority of such routine care visits will indeed be taken from the savings of the patient.

SASCI sees the above as constituting fraudulent business practices. Medical schemes must attend to this matter urgently in order to make sure that this does not happen. It could be that the persons working with applications and authorisations are not fully qualified and do not have the necessary background and knowledge to make decisions regarding these matters. SASCI proposes sufficient training, workshops, etc., be done to ensure that competent decisions are being made.

PMB level of care

Section 29(1)(o) of the MSA states that: "The rules of a medical scheme shall provide for the scope and level of

minimum benefits that are to be available to beneficiaries as may be prescribed." Also important is section 29(p), which recognises that the state level of care may not be at the level to be provided by medical schemes:

"(p) No limitation shall apply to the re-imburement of any relevant health service obtained by a member from a public hospital where this service complies with the general scope and level as contemplated in paragraph (o) and may not be different from the entitlement in terms of a service available to a public hospital patient."

In the "Explanatory Notes" to the PMBs, Note 2A states that where the treatment component of a category in Annexure A is stated in general terms (i.e. "medical management" or "surgical management"), it should be interpreted as referring to prevailing hospital-based medical or surgical diagnostic and treatment practice for the specified condition. It continues to make clear that this does not prescribe the setting within which the treatment is to be provided, and that what is "clinically most appropriate", should be the guiding principle.

With regard to "prevailing hospital-based medical or surgical diagnostic and treatment practice", Note 2 provides clarification by stating: "Where significant differences exist between Public and Private sector practices, the interpretation of the Prescribed Minimum Benefits should follow the predominant Public Hospital practice, as outlined in the relevant provincial or national public hospital clinical protocols, where these exist. Where clinical protocols do not exist, disputes should be settled by consultation with provincial health authorities to ascertain prevailing practice."

The Code refers in paragraph (ii) of this section to the availability of services at public hospitals in at least 3 provinces. The reality in this case is that there are certain services/procedures which can be provided at some hospitals which cannot be provided at other hospitals. Further to this there are some public hospitals that are accredited to provide certain care that other public facilities are not, for instance there is no public facility in Gauteng that is accredited to perform a heart transplant.

SASCI is of the opinion that in such a case where a service is not available at a certain hospital(s), that this could lead to the non-reimbursement of a PMB condition. The result of this would be the limiting of access to health care of a beneficiary as he/she would have to go to a hospital where a certain service (that is needed by the beneficiary) cannot be provided by that hospital. With regard to this, it was found in *DHMS v Registrar and A obo D* (Appeals Committee of the CMS, March 2011) that the fact that something is not available in the state sector, cannot be used as a substitute for a deduction of cost-ineffectiveness or unaffordability.

Medical schemes cannot merely indicate that they will not fund a specific treatment for a PMB condition on the basis that it is not available in the state or is not deemed to be "state level of care". Funding decisions should be reviewed on an individual basis taking into account clinical appropriateness and evidence-based medicine.

It is stated by SASCI that it cannot be appropriate or just, that private paying patients must have the appropriateness of their paid-for health care benefits evaluated by comparison to a crumbling public health care system of hugely varying competence in different geographies. A level of appropriate care should be measured against a more reliable standard.

5. CONCLUSION

SASCI makes this submission in the interest of the patient and will be happy to further engage with the CMS on any matter raised herein.

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REFERENCES

1. GNR 1262. 20 October 1999.
2. User to have full knowledge 6.
 - (1) Every health care provider must inform a user of-
 - (a) the user's health status except in circumstances where there is substantial evidence that the disclosure of the user's health status would be contrary to the best interests of the user;
 - (b) the range of diagnostic procedures and treatment options generally available to the user;
 - (c) the benefits, risks, cost and consequences generally associated with each option; and
 - (d) the user's right to refuse health services and explain the implications, risks, obligations of such refusal.
 - (2) The health care provider concerned must, where possible, inform the user as contemplated in subsection (1) in a language that the user understands and in a manner which takes into account the user's level of literacy."
3. *ICPA v Registrar of Medical Schemes*. 15 April 2016.
4. Final Appeal Board: *Medshield v Mabin*. CMS Ruling of 11 November 2013.
5. Ruling of 19 September 2011.

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 - The completed application form - please request a fillable MS Word document from the erika@saheart.org
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RECOMMENDATIONS

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CONDITIONS

- Applicants may only submit 1 application every second year. Preference is given to those who have not had previous scholarships awarded.
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