

NEWS FROM THE PRESIDENT OF SA HEART®

Dear members, I sincerely hope and pray that you are all well and keeping safe.

The current pandemic and situation is unprecedented with significant challenges for us in healthcare. However, we now have an enormous opportunity to pull together like never before and set an example as to how both the public and private sectors can work cohesively. In my opinion, a sustainable healthcare system will require successful public-private partnerships, which are fortunately now developing. SA Heart® wants to define the acceptable standards of cardiovascular (CV) care that will be provided with NHI; and to have a role in the development of CV governmental guidelines, algorithms and essential drugs. In March we were eagerly looking forward to a long awaited virtual meeting with the health department, which unfortunately was cancelled at the last minute because of the pandemic. We are trying to reschedule in order to introduce SA Heart® and to express our need to be included, as well as our willingness to work cohesively, which is crucial to ensure that there is adequate cardiovascular care for each and every one of our citizens. Dr Sajidah Khan, one of our board members, has rightfully suggested that one area in which we could make a huge and almost immediate difference, is the treatment of acute myocardial infarction (AMI). There are many peripheral state hospitals with no cardiac catheterisation facilities but are in close geographic proximity to private hospitals. We have no doubt that partnerships could be negotiated between the health department and the large private hospital groups and cardiologists. Patients with AMI could be thrombolysed and then transferred the following day to private facilities for angiography and percutaneous intervention. The patients thereafter could be sent back to the state hospital. There are many other areas that we could influence. SA Heart® with all of you, includes the scientific cardiovascular leaders and we therefore want to ensure that we are the go to organisation for heart health in this country. I feel that there is much to strive for in this regard. I assure you that we will not stop until we have our voice heard on these matters.

As you all well know, the SA Heart® board had to take the drastic decision to cancel our annual congress later this year. This step was not taken lightly but was necessary because



Dr David Jankelow, SA Heart® President.

of this enormous impact of the global coronavirus pandemic and circumstances that are beyond our control. I personally never would have envisaged that we would be forced to do this and it was with a heavy heart that I wrote to all concerned in the congress matters. I have always been hugely passionate about our meeting, which starts from nothing and progresses to an amazing scientific event. Thank you all for your support over the past 2 decades, we are sure that we will be able to host a magnificent congress in 2021. I again wish to acknowledge the organising committee that had stepped forward with passion; the programme for "2020: Back to Basics" was well progressing up until recently. We will however remain connected on an ongoing basis and any further developments will be communicated to you all. A crisis will force us to be more innovative and how would you feel about a replacement virtual meeting this year? We are presently in discussions regarding such a possibility. Please urgently email me with your opinions.

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NEWS FROM THE PRESIDENT continued

We have created a portal on our website (saheart.org under the News icon) to disseminate important information regarding cardiac issues related to COVID-19 disease. We invite you to contribute and send us your links to other appropriate articles and multimedia posts.

SA Heart®'s new Memorandum of Incorporation (MOI) has been completed and will soon be presented to you the members, SIG's and regional branches. This will ultimately require a special AGM to be voted on. The MOI will bring us into a more modern and inclusive modus operandi. There will be only one category of membership, and allied cardiac professionals will therefore have voting rights and representation on the board. It will also include independent members with business and fund raising skills. We deem such a change necessary to ensure the bigger picture to achieve our mission, which is to champion sustainable healthcare, to lead and innovate in CV science, to educate and importantly influence policy.

Please get actively involved in SA Heart®: co-opt yourself onto one or more of our committees; we want you involved and to provide for further constructive advice and input, which we look forward to.

‘The MOI will bring us into a more modern and inclusive modus operandi.’

Once again, I am humbled to have served as President. I am most grateful to the entire board, SIGS and regional branches. I again salute Erika Dau, who is the “heart-beat, the engine” behind the running of SA Heart®.

David Jankelow
SA Heart® President
djankelow@icon.co.za

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



BIOGRAPHY - DR ZONGEZILE MASONWABE MAKREXENI

Dr Zongezile Masonwabe Makrexeni was born and bred in Mthatha, Eastern Cape Province. He is the second eldest of 5 children and a born again Christian. He is married to Dr CA Makrexeni, Obstetrician and Gynecologist at Nelson Mandela Academic Hospital. They are blessed with 3 beautiful children.

Dr Makrexeni matriculated at Mpindweni Senior Secondary School in 1999. He obtained his MBChB degree in 2005 at Walter Sisulu University in Mthatha. He was trained at Nelson Mandela Academic Hospital and at Red Cross Children's Hospital for his fellowship in Paediatrics, which he obtained in 2013. He went for further training at Dora Nginza Hospital in Port Elizabeth for his Certificate in Paediatric Cardiology which he completed in 2017.

He concurrently completed his MMed in Paediatrics and Child Health in 2017 from the Walter Sisulu University.

Dr Makrexeni is currently working as the Head of Paediatric Cardiology Unit in Nelson Mandela Academic Hospital in Mthatha and is the current Acting Academic Head of Paediatrics and Child health at Walter Sisulu University in Mthatha.

He enjoys being outdoors, travelling and sightseeing.

For the past 2 years Dr Blanche Cupido ably and enthusiastically fulfilled the role of editor of the SA Heart® Newsletter, a quarterly publication attached to the SA Heart® Journal. The SA Heart® Board, executive committee and production team of the Journal and Newsletter, and no doubt our membership, want to sincerely thank Dr Cupido for the hours spent to source news and information, edit contributions to make for a good read and scrutinize detail.

The portfolio of editor of the SA Heart® Newsletter comes with the post of secretary on the current struc-



Dr Zongezile Masonwabe Makrexeni,
New SA Heart® Newsletter Editor.

ture of the SA Heart® Executive Committee. At the AGM in 2019, Dr Zongezile Masonwabe Makrexeni was announced as the new secretary of SA Heart®. Dr Cupido immediately started to make contact with the new secretary, acquainting him with the task and protocol and introducing him to the role players and groups within SA Heart® that normally contribute to the content of the newsletter. From issue 3 Dr Makrexeni will take over the reins.

Thank you, Blanche, for all your input, insight and contribution over the years as secretary of SA Heart®, editor of our newsletter and other work, continuing with committee work and energy as president-elect as you passed on the baton to Maso.

“Thank you, Blanche, for all your input, insight and contribution.”

KEEPING OUR PULSE ON THE COVID-19 PANDEMIC

At the time of writing, the world is in the grip of the COVID-19 pandemic, with countries at different stages of managing the disease. In some regions, the number of cases is still increasing while in others, the disease is either reaching a plateau or the disease curve is on a downward trajectory. At the same time, the frontlines of research are busy with a race to understand the virus better; to gain insights into possible immunity by those infected, and to develop antibody tests to assess levels of potential immunity within a population. Efforts are underway to assist patients most at risk of dying from the disease, which includes those suffering from hypertension, coronary heart disease and other underlying illnesses. In low-income countries, additional risk factors include, among others, Rheumatic Heart Disease (RHD) and cardiomyopathies. Since the disease outbreak, World Heart Federation (WHF) has been actively playing its part in the dissemination of information and collaboration with all branches and sectors committed to heart health, while maximising the opportunity of collective learning that the current pandemic presents.

In order to update our members from low- and middle-income countries on important facts on COVID-19 prevention, the "World Heart Federation Briefing on Prevention: Coronavirus Disease 2019 (COVID-19) in Low-Income Countries," was published on 9 April in "Global Heart," WHF's official journal with full open access as of January 2020, increasing visibility and accessibility, and widening readership by health practitioners and researchers. The briefing summarises facts on this novel coronavirus, its transmission and infection, signs and symptoms, preventative measures and recommendations.

Densely populated areas where some of the poorest communities live are often beset by other diseases such as HIV, tuberculosis and malaria. This can intensify the threat of spread of highly infectious illnesses. Like earlier viruses such as SARS-CoV and MERS-CoV, COVID-19 presents heightened threat to patients with cardiovascular disease, pre-disposing them to developing severe forms of the infection.

In line with our objectives to advocate heart health for all, connect our members, and communicate key messages, WHF is advancing efforts to understand these linkages as part of its fight against the COVID-19 pandemic. A global prospective cohort study is set to start in May this year, led by the WHF Science Committee. The study aims to better "describe cardiovascular outcomes and identify cardiovascular risk factors associated with poor prognosis in patients with COVID-19."

As a reminder, based on the communication about the study that was sent to all Members, we invite you to identify and endorse at least 2 hospitals or other medical facilities (recruiting centres) from your respective countries. Each centre should recruit between 50 and 200 COVID-19 patients, with no limit on the number of participating sites. In addition, no special tests are required and baseline data will be gathered from patients' routine medical records, via a secure electronic form that goes to the coordinating centre, with follow-up in 30 days. WHF can provide USD 25 per completed case report and Members and site investigators participating in the study will be actively involved in the ensuing publications. Pulling together a global picture and response draws on our strength as a membership organisation and we look forward to conducting this work together. To register interest, kindly get in touch with Lana Raspail, Programme Officer; lane.raspail@worldheart.org.

Less than a month ago, with the pandemic halting travel, and the number of cases and deaths from COVID-19 growing, we managed to gather a large audience virtually in Chicago for the World Congress of Cardiology (WCC), 28 - 30 March. With the American College of Cardiology (ACC), we were able to use technological platforms for the rich exchange and knowledge-sharing among our more than 200 Members from more than 100 countries. Thanks goes to the agility of ACC, the many societies and foundations that make up our membership, and the work by WHF President-elect, Professor Fausto Pinto.

Reflecting on WCC, the current pandemic underscores the importance of strong health policies and robust care for all, and highlights areas in need of more research and funding.

COVID-19 poses a threat to those with underlying health risks including impaired cardiovascular health. Many people, and a disproportionate number of them in low-income countries, are unaware of underlying health issues or do not have access to the needed care. As you know, RHD affects 33 million people worldwide, mainly the young and in poor countries; and Chagas disease, caused by a parasite, also affects the heart. In fact, just this month, WHF published a new roadmap intended to guide healthcare professionals, health authorities and governments in addressing Chagas disease by including recommendations for screening, diagnosis and treatment, all doable through concerted global action. In addressing the current pandemic, therefore, the direct and indirect causes of cardiac conditions as well as the particular threat posed by SARS-CoV-2 to these conditions, need to be understood, discussed, and widely shared. This is our mission and the mission of every society of cardiologists in the world. We need to work together to ensure a truly healthy global community in which we are all



stakeholders. Only by doing this we will avert further loss and pain from the COVID-19 pandemic. It's a battle we will win together.

Karen Sliwa
President, World Heart Federation
For SA Heart®

KEY RESOURCES & CONTACTS AT A GLANCE

Brief Report in Global Heart journal:

file:///C:/Users/lmhad/Downloads/Thienemann%20COVID-19%20Global%20Heart%202020(1).pdf

Preventing COVID-19 spread in poor areas, 5 March 2020, Geneva/Cape Town:

file:///C:/Users/lmhad/Downloads/WHF-COVID-19-GUIDELINES(1).pdf

Recommendations for the CVD community in the context of the COVID-19 outbreak 13 February 2020:

file:///C:/Users/lmhad/Downloads/Coronavirus-19-guidelines-on-prevention-and-control-(1).pdf

Visit the COVID-19 Resource Hub:

<https://www.world-heart-federation.org/covid-19-outbreak>

To register interest in WHF's global prospective cohort study:

Contact Lana Raspail, Programme Officer, lane.raspail@worldheart.org.

From the virtually held World Congress of Cardiology, co-hosted by the American College of Cardiology:

<https://www.world-heart-federation.org/congress/>

Stay informed:

See updates by the World Health Organization

For related enquiries:

Contact communications@worldheart.org

CARDIAC ARRHYTHMIA SOCIETY OF SOUTHERN AFRICA



CASSA 2020 UPDATE

CASSA SYMPOSIA 2020

The annual CASSA symposia were held over 2 successive weekends in Cape Town on 29 February and in Johannesburg on 7 March. These symposia have become a regular event on the CASSA calendar for the past 5 years with the aim to provide clinical updates in the diagnosis and treatment of cardiac arrhythmias. This year, CASSA hosted 2 dynamic international electrophysiologists from the United Kingdom: Prof Sabine Ernst (from the Royal Brompton Hospital) and Dr Neil Sulke (Eastbourne Hospital). Prof Ernst spoke on the approach to the management of patients with adult congenital heart disease and cardiac arrhythmias. She is an expert in the field of complex arrhythmia ablation in the setting of congenital heart disease and spoke on the role of catheter ablation in the treatment of these complex arrhythmias. Dr Neil Sulke gave an update on the management of patients with syncope and ventricular tachycardia storm and spoke on the role of implantable loop recorders in the follow-up of patients with atrial fibrillation. These talks were supported by an excellent local faculty of electrophysiologists.

AFRICAN HEART RHYTHM ASSOCIATION

The 1st meeting of the African Heart Rhythm Association (AFHRA) was held in Nairobi, Kenya in January 2020. This was the largest arrhythmia conference ever held in Africa. CASSA members (Dr Andrew Thornton, Dr Brian Vezi and myself) were invited faculty. AFHRA was formed in November 2019 by the arrhythmia task force of the Pan African Society of Cardiology (PASCAR). CASSA has

‘These symposia have become a regular event on the CASSA calendar.’

established strong links with the association together with other national arrhythmia societies. Dr Brian Vezi was elected to be a regional representative for South Africa and I will serve as regional representative for the Asia/Pacific region. The aim of this association is to:

- Detect, prevent and treat cardiac arrhythmias in Africa
- Educate and train African healthcare professionals on the management of arrhythmogenic disorders and their outcomes
- Educate the public to recognise and prevent risk factors for cardiac arrhythmia outcomes and
- Facilitate the research of cardiac arrhythmias and conduction disturbances as well as in sport cardiology.

Ashley Chin



Delegates attending the first African Heart Rhythm Association (AFHRA) meeting in Nairobi, Kenya in January 2020.



It is during these unprecedented times that our dedication towards healthcare and our patients are at the forefront. I am mindful of the great sacrifices we make every day, demonstrating professional acumen, personal courage and ethics in our fight against the pandemic. Thank you to each healthcare worker and doctor at the forefront, and each practice limiting patients and appointments to the essential.

HEFSSA EXCO

Martin Mpe (President), Jens Hitzeroth (Vice-President), Eric Klug (Ex-Officio President), Darryl Smith (Treasurer) and Nash Ranjith (Secretary), Karen Sliwa, Tony Lachman, Makoali Makotoko, Nqoba Tsabedze, Ntobeko Ntusi and Mpiko Ntsekhe. I would like to thank Dr Len Steingo for his many years of faithful service to HeFSSA and wish him all the best.

HEFSSA HEART FAILURE GUIDELINE 2019

HeFSSA HF Guideline (based on ESC HF 2016 with substantial Africanisation) has been submitted to SAMJ and SAHJ end January 2020 for publication. Dr Jens Hitzeroth led the review with substantial contributions from the HeFSSA Executive (as clinical and research experts).

HEFSSA GP EDUCATIONAL PROGRAMME

HeFSSA GP Educational Programme remains a cornerstone of annual educational initiative. The 10th edition in 2019 were well attended and received overwhelmingly positive feedback from attendees and industry with regards to the topics, speakers and quality of clinical case presentations. We had 20 meetings for 2019 (vs. 11 in 2018), with a record attendance of almost 1 000 delegates (vs. 426 in 2018). We intend to continue with the HeFSSA GP lecture series for 2020 and will communicate topics and dates as soon as we have a better idea as to the full impact of COVID-19 on the educational year.

HEFSSA OFFICE

HeFSSA Office also now actively engage with Department of Health and the Provincial Non-Communicable coordinators to ensure distribution of HF Workshop invitations

to public sector practitioners and will extend this collaboration further in 2020. Martin Mpe is also involved with processes that will see the Essential Drug List (EDL) updated to include more recently developed molecules (and combinations) such as sacubitril/valsartan.

HEFSSA CARDIOLOGY UPDATE FOR NON-CARDIOLOGIST 2019 PRE-CONGRESS WORKSHOP

The Workshop was well attended by 172 delegates from across Gauteng and surrounding regions. We hope to expand on this in 2020. The 2020 programme conveners are Dr Nqoba Tsabedze and Prof Eric Klug. A survey was distributed to the Gauteng and surrounding GPs to indicate a preferred selection of topics that will be most relevant to their daily practice and clinical needs, these will be catered for in the 2020 programme.

Our dedication towards healthcare and our patients are at the forefront.

SA HEART® CONGRESS 2019 SPONSORSHIP

HeFSSA raised funding and could sponsor 6 delegates to attend SA Heart® 2019 and hope to expand on this for the 2020 Congress.

The 1st HeFSSA Device and Treatment Expert Meeting is provisionally planned for end of November 2020 or early 2021. More details to follow.

Dr Martin Mpe

SASCI – SASCI PPC – STEMI SA AND ISCAP 2020 NEWS

At the time of this writing, we are in the early phase of the COVID-19 epidemic and the lockdown seems to have stabilised the situation for now. This has however had a significant impact on our ability to manage our chronic stable patients as well as a financial impact of many members. The next few months will be challenging and apart from our recent activities listed below, we will endeavour to move forward and find innovative ways to add value to our members' practices.

SASCI EXECUTIVE COMMITTEE

A new SASCI Executive Committee was elected early in November 2019 at the SASCI Annual General Meeting 2019. Hellmuth Weich was elected as President (term ending AGM 2021) with Jens Hitzeroth and Farai Dube nominated and accepted as new members of the Exco.

Hellmuth Weich closed the AGM with a special thank you to Dave Kettles for his incredible service the past number of years and expressed his commitment to lead the society with support from the very capable executive committee. Prof Farrel Hellig was also acknowledged for his many years of faithful service to SASCI in various roles. He is formally stepping down from active executive committee duties and we wish him all the best.

During the first Executive Committee meeting to follow the AGM, Dr Sajidah Khan was proposed and elected as Vice-President. We appreciate her continued contribution to SASCI and our interventional community for the foreseeable future. Both Cobus Badenhorst (Treasurer) and Graham Cassel (Secretary) retained their respective areas of responsibility with Ahmed Vachiat taking on the portfolio of STEMI SA that will feature more prominently in SASCI and the Executive.

SASCI EXCO

Hellmuth Weich (President), Sajidah Khan (Vice-President), Cobus Badenhorst (Treasurer), Graham Cassel (Secretary), Mpiko Ntsekhe, Makoali Makotoko, Ahmed Vachiat, Chris Zambakides, Jean Vorster (PPC), Gavin Angel, Shaheen Pandie, JP Theron, Jens Hitzeroth, Farai Dube and Waheeda Howell (ISCAP).

The SASCI Executive Committee is supported by several professionals that actively engage on SASCI matters daily. These are: Dr Tom Mabin, who as the founding President of SASCI in 2003, needs little introduction as one of the pioneers of interventional cardiology in South Africa. Tom recently semi-retired from clinical practice and is making time available to SASCI on various areas pertaining to Private Practice (incl but not exclusively CPT coding, Funder engagement and clinical guidance). SASCI is privileged to align Tom with Karen van der Westhuizen, a coding expert who is currently completing a CPT cardiology crosswalk and preparing the long-awaited next edition of the SASCI Coding Manual. SASCI is grateful to have secure the services of a well-respected Medical Law Firm, Elsabe Klinck and Associates (EKA), who continue to guide SASCI on submissions and legal matter through Ebbie Iheanyi. Few of our activities would be possible without the help of George Nel and his Medsoc team: Wihan Scholtz (Fellows Programmes, Visiting Professors, programme development, faculty engagement and educational grant management), Joh-Ann Nice (ISCAP executive, fund raising for the national educational lecture series, programme development and organising of educational events), Duard Smit (RSVP and issuing of CPD certificates as well as e-communication) and new team member Vuyi Khumalo who comes from the Foundation for Professional Development (FPD) and will be responsible for project support.

EDUCATIONAL INITIATIVES

Educational initiatives continue to be a cornerstone activity for the society. Highlights of the educational initiatives since the last report in October 2019.

SASCI AT SA HEART® CONGRESS & AFRICAPCR 2019

AfricaPCR Course remains our seminal annual educational event receiving substantial Exco time and effort to optimise the learning. Forty two Cardiologists (including 22 Fellows) that applied for a grant were sponsored to attend the SA Heart®/AfricaPCR congress 2019 (please see full list on SASCI website).



SOCIETY FOR CARDIOVASCULAR ANGIOGRAPHY AND INTERVENTIONS FALL FELLOWS COURSE 2019

With support from SCAI and Boston Scientific, SASCI supported 5 South African fellows to attend the SCAI Fall Fellows course in December 2019. The 5 recipients were Ndikondisene Tshiovhe (WITS), Ashandren Naicker (UKZN), Zimasa Jama (CT), James Fortein (UFS) and Jerry Chen (UP). They attended the SCAI Interventional Cardiology Fellows Course in Las Vegas from 6 - 10 December 2019.

SASCI is looking forward to once again support Fellows to attend the SCAI Fall Fellows Course from 4 - 8 December 2020 in Miami, Florida.

SASCI VERTICE EXPERT PROGRAMME

Prof Tony Gershlick, Professor of Interventional Cardiology, University of Leicester visited various cath labs in Johannesburg, Pretoria and Cape Town from 3 - 15 November 2019, spreading his time across public and private hospitals. Prof Gershlick proctored Cardiologists on complex PCI, with specific focus on Bifurcations. During his visit he presented at the SA Heart® Pretoria and Johannesburg Branch meetings with 51 and 31 attendees respectively and a roundtable discussion dinner was also arranged in Cape Town.

This proctorship programme was made possible by an unconditional educational grant from Vertice Healthcare and has been confirmed to continue in 2020, focusing on the Western Cape and KwaZulu-Natal Regions where we hope to welcome Prof Gershlick back for a second visit.

SASCI MEDTRONIC PROCTORSHIP PROGRAMME

Dr William Lombardi, Clinical Professor of Medicine in the Division of Cardiology at the University of Washington Medical Center visited multiple cath labs in Cape Town and Durban from 13 - 17 January 2020. Dr Lombardi proctored Cardiologists on complex PCI and CTO cases and was acclaimed as an exceptional teacher throughout. He also included the allied practitioners in his teaching with a strong focus on maintaining a holistic view of the cath lab. A roundtable discussion dinner was also arranged in

Durban with robust discussions and debate focussing on Complex PCI and CTO. This proctorship programme was made possible by an unconditional educational grant from Medtronic.

SASCI VISITING PROFESSOR PROGRAMME 2020

We welcomed Prof Greg Barsness from the Mayo Clinic, Rochester, USA who travelled to South Africa as the Visiting Professor for 2020. Prof Barsness taught and proctored at the various Medical Schools in SA from 7 February - 22 March 2020. He was well received in Cape Town, Durban and Pretoria but his tenure had to be cut short due to the COVID-19 worldwide pandemic. The SA Heart® Branch and SASCI Evening Lectures that also expose Cardiologists and Allied in private sector to our VP took place in Cape Town and Durban. The evening lecture "State of the Art STEMI Care: Strategies for Success" was video recorded and will be made available via the web with CPD accredited Questionnaire. We hope Prof Barsness can return to continue his sterling work at some stage in the future. Please see Prof Barsness own report back separately.

Prof David Holmes is confirmed to return to South Africa in early 2021 as Visiting Professor. The multiyear support received from Medtronic and Pharma Dynamics makes this programme a reality.

BOSTON RC FRASER INTERNATIONAL FELLOWSHIP

SASCI sends a Fellow to Prof Simon Redwood at Guy's and St Thomas' Hospital, London for up to one month, annually. The incumbents are Dr George Harris (UFS) under the 2019 programme and Dr Karim Hassan (US) for 2020. We hope that both candidates will be able to travel following COVID-19.

MEDTRONIC FELLOWS COURSE AT COLUMBIA UNIVERSITY NEW YORK CITY FEB 2020

Darrin Naidoo (Inkosi Albert Luthuli Central Hospital), Mazwi Mabika (Charlotte Maxeke Johannesburg Academic Hospital) and Bradley Brits (Steve Biko Academic Hospital) had the opportunity to travel to New York to attend this Fellows Course.

SASCI – SASCI PPC – STEMI SA AND ISCAP 2020 NEWS continued

STEMI SA

Dr Ahmed Vachiat has recently been appointed as the new chair of STEMI SA. We wish to thank Dr Adriaan Snyders for his commitment and hard work toward the project from the start and SASCI will rely on his continued input and contribution. If any colleagues wish to be involved in the data capturing side of the project, Dr Kettles, who is leading the data collection of the project, eagerly awaits your declaration of interest. Educational Workshops have and will continue to be arranged to assist those who wish to strengthen STEMI care in their region. The STEMI SA "Acute Coronary Syndrome Educational Slide Set" is available on the SASCI website and will allow self-study with CPD accredited questionnaires available during 2020 <http://www.sasci.co.za/content/page/stemi-sa>

SASCI PPC, LEGAL AND REGULATORY ENVIRONMENT

SASCI PPC under the leadership of Jean Vorster (Chair) with support from Tom Mabin (consultant) and Karen van der Westhuizen (coding expert) has been extremely active during 2019 and the first months of 2020. The committee includes David Jankelow, Andrew Thornton, Dave Kettles, Gavin Angel, Graham Cassel, George Nel, Wihan Scholtz, Ebbie Iheanyi and Elsabe Klinck with an open invitation to others to contribute.

PPC members have been involved in various Funder Engagements. We contributed to revision of the Discovery Health CAD Programme for 2020 – SASCI advised Discovery Health on various aspects of the programme, especially the inclusion criteria and ICD-10 codes to be used. Coding queries can be directed to SASCI (sasci@sasci.co.za). SASCI PPC with Dr David Jankelow secured an "Urgent Errata communication from SAMA that was sent to all healthcare stakeholders with regards to MDCM items 1276 and 1252". All members are encouraged to engage with SASCI and/or seek legal representation (such as Elsabe Klinck Associates), before engaging with the schemes on queries or especially audits.

SASCI CODING HANDBOOK

Karen van der Westhuizen is updating the SASCI Coding Handbook (to be issued mid 2020). SASCI publishes this

Guideline to guide professionals, funders and other stakeholders as to the appropriate coding of professional acts. This Coding Guideline is based on a scientific and professional analysis of the various professional acts, which duly registered professionals are by law entitled to undertake in terms of their registration under the Health Professions Act, 1974, and the Ethical Rules, and which acts are translated into codes that serves as a "short-hand" description of such acts.

NHI BILL

NHI Bill has been tabled in Parliament and SASCI submitted and extensive opinion at the end of November.

COMPETITION COMMISSION HEALTH MARKET INQUIRY REPORT

Competition Commission Health Market Inquiry Report was issued end 2019. The report highlighted that the recommendations from the HMI should be implemented before NHI is implemented. It HMI Report also advises Government that collective bargaining (of fees) which was previously not allowed by the competitions Act, should be allowed. This is however only a recommendation at this stage.

MEDIHELP TAVI CASE

Positive CMS ruling that the scheme should reimburse TAVI up to the cost of open-heart surgery. This ruling contains actual costs analysis which reflect that TAVI is less costly than open-heart surgery but is based on a limited number of cases. Medihelp has lodged an appeal (in December 2019) and we await the appeal date but will prepare our arguments in meantime.

SECTION 21 MEDICINES

Members should ensure the suppliers of the Section 21 medicines are correctly registered before engaging with them. SAPHRA audits are taking place.

NON-COMMUNICABLE DISEASES

NDOH's new draft policy on Non-Communicable Diseases as well as Primary Healthcare Essential Medicine List was published and SASCI, with assistance from Tom Mabin and EKA, has submitted substantial comments.

The next submission due is at the end of June 2020 and focusses on the PUBLIC PROCUREMENT BILL that will govern procurement that underpins NHC.

INTERVENTIONAL SOCIETY OF CATH LAB ALLIED PROFESSIONALS: NEWS APRIL 2020

Unfortunately, the COVID-19 restrictions have curtailed our plans for the mid-year educational lecture series, but we are in discussion with our sponsors to continue with lectures as soon as possible and deemed safe to do so. We are disappointed to lose momentum but protecting the health of our members and that of the public is a responsible recourse and support efforts to stem the spread of the Coronavirus.

In the meantime, ISCAP are planning to host an Educational Webinar, discussing "Cathlab Environment – During and Post COVID-19". The programme launched at the end of April.

The following activities took place since our last report:

SA Heart® & AfricaPCR Grants 2019

AfricaPCR Course and SA Heart® Congress remains an important annual educational event to optimise member learning. ISCAP could provide 24 Allied Professionals with sponsorship to attend the SA Heart®/AfricaPCR congress. The Office is continuously approaching industry for educational grants to support the allied professionals to attend the upcoming joint SA Heart® & AfricaPCR Congress.

ISCAP Catheterisation Manual

Dianne Kerrigan and Gill Longano have worked tirelessly to update the ISCAP Cath Lab Manual online version, as well as the development of additional chapters. The first 4 are currently available and CPD Accredited:

Module 1: The Historical Developments of Coronary Angiography, Cardiac Anatomy and Physiology, Basic ECG Interpretation and Coronary Pathology

Module 2: The Roles and Responsibilities of the Cath Lab Team, Indications and Contraindications for Coronary Angiography, Basic Concepts in Cardiac Catheterisation and Asepsis in the Cardiac Catheterisation Laboratory

Module 3: Radiation and Contrast Agents, Vascular Access, Percutaneous Coronary Intervention (PCI) & Coronary Artery Stents and Right Heart Studies

Module 4: High Risk Patients, Minor and Major Complications, Cardiomyopathies and Pharmacology

The above Modules are available on the Boston Educare Platform and are each linked to a CPD Questionnaire with accreditation of 3 Clinical CPD Points each. To view the Modules and complete the CPD Questionnaires visit sasci.co.za.

Thank you to Boston Scientific for their help in developing the ISCAP Manual which will hopefully reach more allied through an online platform.

“We wish to thank Dr Adriaan Snyders for his commitment and hard work toward the project from the start.”

ISCAP Educational Workshops 2020

ISCAP is focussed on ongoing training for all Cath Lab Allied including nurses, radiographers and technologists

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SASCI – SASCI PPC – STEMI SA AND ISCAP 2020 NEWS continued

across South Africa. We had a roaring start to 2020, with Lecture Series' starting in January! ISCAP would like to thank you for supporting these lecture meetings and thus contributing to the excellence we believe every Cathlab should maintain, as well as conveying knowledge to our fellow colleagues.

ISCAP Riverdene Breakfast Symposium

On 25 January, we hosted a CPD accredited Breakfast Symposium in Durban on the "Practical Application of Contrast in the Cath Lab". The allies had the privilege of listening to Claudia Giger, practice manager and fulltime radiographer at XRad Vision private practice, who was well received by all. We had a wonderful turnout of 57 Attendees at this workshop. A special thank you to the Riverdene team, who made this workshop possible.

ISCAP Biotronik Siemens Takeda Series 2020

The Lecture Series consisted of the following topics:

- Closed Loop Stimulation
- Fabry Disease and the Cardiac Patient
- Radiation Protection

The lectures were CPD Accredited for 3 Standard CEU through the University of Pretoria and well attended.

8 February: Cape Town 95 Allies in attendance

29 February: Midrand 63 Allies in attendance

29 February: Durban 56 Allies in attendance

7 March: Bloemfontein 25 Allies in attendance

21 March: Port Elizabeth 28 Allies in attendance

During this series Drs Moses, Pecoraro, Tsabedze, Govender, Khan, Adamu and Butau presented on Closed Loop and/or Fabry Disease. Radiographers Ernest Horsley, Kerry Moir, Selvan Govindsamy and Sr Kerri Meyer presented on Radiation protection in the cathlab. All speakers were well received, and the topics noted as very informative. The combination and diversity of these three topics was a huge success and a great start to the 2020 programme.

Thank you to Biotronik, Siemens and Takeda for sponsoring this lecture series. Their respective field force made this series possible, ensuring that 267 allied professionals were given the opportunity to engage on these topics, furthering their education.

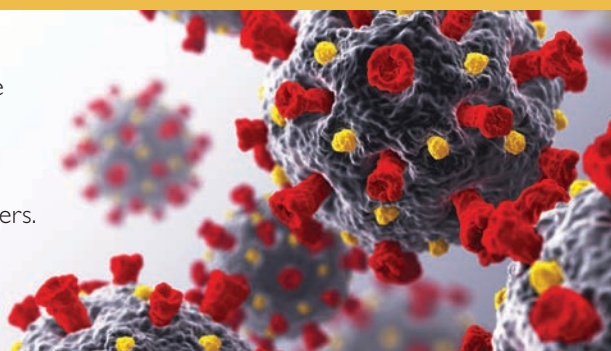
We thank our Corporate Support for their continued and unwavering support of ongoing education in the Cath Lab. If you require more information regarding the topics, etc. for the above workshops, kindly contact the ISCAP Office at joh-ann.nice@medsoc.co.za

Dr Hellmuth Weich

COVID-19 NEWS

Please consult the SA Heart® webpage regularly where we are posting COVID-19, mostly locally relevant, updates. Please also contribute should you have information of importance to other members and CVD health care workers.

You can email info@saheart.org with your contribution.





SASCI VISITING PROFESSOR PROGRAMME 2020

It is with fond memories that I submit this report on my recent experience as the SASCI Visiting Professor. Participating in the 2020 SASCI VPP has truly been one of the highlights of my career. The opportunity to integrate and practice alongside the South African interventional cardiology community was both professionally rewarding and personally fulfilling. I feel that I have made lasting friendships among the many eager and talented faculty while hopefully opening avenues for trainees to grow and challenge themselves into the future. I would without question recommend the programme to my US colleagues, and better yet, would welcome the opportunity to return again myself some day!

Many aspects of the programme worked well and contributed to the overall exceptional experience. In general, I was greeted with a warm reception by faculty and found universal enthusiasm in the trainees with whom I was fortunate to meet and interact. My South African colleagues were warm, welcoming, and eager to share their knowledge and experience. There was a general openness to my presence and willingness to consider novel care opportunities within the constraints of the available resources – which were, in fact, less limiting than I had initially anticipated when planning for the visit. Starting the experience in Cape Town was beneficial in this regard, as human and procedural resources were relatively more plentiful and there was a high level of enthusiasm, providing an early benchmark of the potential limitations

and opportunities for future experiences at the other institutions.

Many centres attempted to fully integrate me into the hospital programme, including daily teaching, rounding and interventional procedural activities, a combination of activities that proved most effective. I enjoyed experiencing the routine while familiarising myself with the overall flow of the various practices. This gave an appreciation of the scope of practice and allowed me to tailor my focus to meet the specific needs of the sites. I was impressed by the complexity and challenge of the patients, who were among the most compliant I have ever cared for anywhere in the world, and witnessing the focus and dedication of the care teams was phenomenal.

Several specific programmatic elements facilitated a good experience. Participation on hospital rounds, including critical care rounds, was very helpful in creating an inclusive atmosphere and permitted greater continuity and familiarity for me to optimise teaching opportunities with the trainees. I found this of particular value given the extraordinary teaching that occurs regularly on rounds at these institutions, and I took away valuable personal lessons that I will be certain to add to my teaching armamentarium when back home. I would suggest that this could be extended to more routine visits with pre-procedural and follow-up of post-procedural patients, which I think would even further enhance the experience, although admittedly, time constraints limit this opportunity to some extent.



Prof Barsness with the Cathlab team at Groote Schuur Hospital, Cape Town.



Prof Barsness with the Cathlab team at Steve Biko Academic Hospital, Pretoria

SASCI VISITING PROFESSOR PROGRAMME 2020 continued



Prof Barsness in the Cathlab at Inkosi Albert Luthuli Central Hospital, Durban.



Prof Barsness with Alfonso Pecoraro and Jane Moses at Tygerberg Hospital, Cape Town

From a procedural perspective, the experience at several centres was helpful in identifying best opportunities for teaching and practice. At centres with higher case volumes, scheduling a combination of pre-selected, complex interventions along with unselected but high-impact procedures seemed to optimise the overall experience with faculty and trainees. The ability to work side-by-side on a spectrum of cases permitted improved collegiality, continuity of teaching, and the ability to build on concepts with the trainees to reinforce training already being done by local colleagues. In addition, exposure to the entirety of cases, from patient selection to access to completion, while requiring ample time and some interruption of the usual care flow, provided the best experience for me and seemed to promote confidence and enhanced learning for the trainees.

Similarly, the experience was enhanced at centres that permitted greater trainee exposure to case selection, procedural planning and didactic conferences during my participation. Going through procedural planning and carrying this forward with focused didactic sessions and patient follow-up proved to be well-received and enhanced interaction and educational opportunities. Tying all of this together; daily lectures, especially when pre-scheduled, provided exceptional opportunity for interaction and engagement with faculty and fellows, especially when there was some flexibility to modify the talks or add additional sessions based on previous daily experience.

Importantly, some centres permitted additional time for faculty interaction, sharing best practices in clinical care, research and education. Case selection discussions, research review and focused small-group meetings of faculty with special interests added to the camaraderie and facilitated the over-all educational atmosphere. I think that these interactions strengthened the experience for all involved, including enhancing the educational atmosphere for trainees. In addition, there is potential for encouraging research collaboration amongst a team of interested faculty and trainees, potentially expanding to ongoing national or even (ideally) international collaboration over time.

Some aspects of the programme prevented an optimal experience for me and the cardiology teams. To some extent, the latter portion of my visit was overshadowed by the mounting COVID crisis, and this limited my participation in the general cardiovascular programme in a substantial way at these centres. In addition, institutional and human resource limitations had some negative effect on the visit, with centres stretched thin by high volumes and limited personnel finding it understandably difficult to deploy necessary time and resources. Unfortunately, limitations beyond local control, such as load shedding, had a negative impact on planned activities. Again, when anticipated, contingency planning for alternate activities at affected centres was necessary and often successful to mitigate the negative effects of these limitations.

Regardless of resource availability, the best experiences were at centres that had done the most pre-visit preparation. Limited preparation for the visit hindered a rapid startup, and given the limited timeframe at each center, even a small delay in the ability to “jump in” had negative repercussions on teaching and engaging trainees. To some extent, this was also reflected in a smaller procedural patient volume and limited the ability to provide educational continuity. This is unfortunate given the large underlying volume of patients amenable and suitable for discussion, intervention and teaching. Greater institutional pre-visit consideration to goals and expectations for the experience is a vitally important aspect of a successful visit.

A fundamental, but perhaps irremediable limitation was the quick transition between sites, including short stays at private labs. A minimum of 7 - 10 days/site seems optimal, with longer stays at larger sites. Shorter stays, especially if limited by less pre-visit preparation, proved quite limiting for my comfort and teaching efficacy, as learning the local system and gaining the familiarity and trust of local providers (and vice versa) is essential for an effective visit. The private lab visits could be improved if there was some way to extend time commitments at these centres or allow a means of introduction and expectation-setting prior to what amounts to a single 6 - 8 hour exposure.

A number of opportunities exist for further programmatic enhancement. These include more dedicated time for unstructured interaction with trainees, which has significant potential to enhance subsequent focused learning opportunities. Indeed, more direct trainee exposure, both during procedures and in an informal educational exchange setting, including wide-ranging discussions related to research, clinical care and career planning would be of particular interest and benefit. Similarly, formalising an international trainee exchange programme would be mutually beneficial if logistics could be managed.

Opportunities for direct faculty interaction and collaboration were spotty but very enjoyable and potentially productive. Enhanced opportunities for focused faculty interaction would be welcome to increase the likelihood of

successful collaboration among a group of busy clinicians. Pre-visit tele-meetings might facilitate such interactions, with pre-arranged post-visit follow-up furthering the cause.

Given the unique disease patterns present in South Africa, there are multiple opportunities for local and international research collaboration. While there were many research-related discussions during my visit, a formal mechanism for research collaboration would increase the likelihood of seeing projects move forward from an initial conceptual phase. This should be an emphasis for future programmes and could be further enhanced by pre-visit consultation and discussion to set a framework for potential high-impact and desirable projects. In this way, baseline data collection or research could precede the visit and allow actual progress during the visit. Involvement of a team of motivated faculty and trainees would be ideal.

From an administrative standpoint, the overall quality of the programme was excellent. Accommodations were very comfortable and there was very generous local support for transportation, activities, social programming and clinical support, which was instrumental in creating a successful and memorable visit. I was impressed by the uniform availability of subspecialised equipment at most sites, an element of the programme that was well-conceived. Greater programmatic influence over assuring visit preparation at each site and assisting with local logistics such as internet access would be helpful.

Although my stay was unfortunately cut short due to the COVID outbreak, I found the experience to be extremely valuable and I am grateful for the opportunity to have participated as a SASCI VP. I can only hope that my contribution to the programme provided even a fraction of the tremendous benefit that I received by being a member of the South African interventional cardiology community.

Wishing you all good health and hope to see you again soon.

Prof Gregory W. Barsness

THE LIPID AND ATHEROSCLEROSIS SOCIETY OF SOUTHERN AFRICA (LASSA) REPORT BACK

The Lipid and Atherosclerosis Society of Southern Africa (LASSA) remains a small group that focuses on metabolic errors in lipid and lipoprotein metabolism which impart a high risk of severe illness. However, the common dyslipidaemias which are a significant contributor to atherosclerosis risk at a population level are not ignored. Atherosclerotic cardiovascular disease remains the main cause of morbidity and mortality in developed countries and is becoming increasingly relevant in developing countries.

The LASSA committee, as well as the LASSA membership, is concerned about the difficulties in developing the emerging discipline of lipidology in South Africa. The waning support at teaching hospitals for dedicated clinics and a special laboratory, which could serve both public and private sector patients with severe disorders, has resulted in less research and has failed to attract younger colleagues into the discipline. There is serious concern about our ability to translate all of the improvements in diagnosis and management of severe dyslipidaemias in South Africa as well as in the whole continent of Africa.

It is increasingly difficult for LASSA to attract attendance at meetings in general and opportunities for a career in lipidology are, for practical purposes, non-existent. Joining sessions with the SA Heart® as well as the Society for Endocrinology and Metabolism and Diabetes of South Africa (SEMDSA) remain important ways to enhance the insight into and the management of dyslipidaemias.

The increasing pressure on administration and documentation in all organisations meant that LASSA revised its constitution recently to allow function under the current circumstances. The updated constitution was circulated to the membership in December but there was a poor response in comments from the members.

The LASSA committee recently received several documents for comment. The documents were reviewed during the less busy holiday period at the end of last year and the beginning of 2020. It seemed that the South African Dyslipidaemia Guidelines, developed in collaboration with SA Heart®, had not influenced the planning much. In addition to supplying the newest version of the Guidelines, LASSA also commented on the Department of Health

strategic plan for non-communicable diseases and the Council for Medical Schemes revision of management guidelines for primary health care. LASSA also commented on the South African Medical Association document on primary health care. It is not certain how well these revisions are being coordinated.

An analysis of the need for lipidologists in South Africa was included with the replies. Conservatively, we should aim to train about 150 such individuals who should be deployed across the country in 75 centres to cater for dyslipidaemia management broadly. The chief need is for expertise in the diagnosis and management of familial hypercholesterolaemia (FH), as the estimate is of 250 000 heterozygous FH individuals in the country. There are, however, many other lipid disorders which need attention from the neonatal age to adults. The diagnosis of these disorders is also a dilemma as neither private nor public domain laboratories provide diagnostic services beyond automated assays of the lipid profile.

“The chief need is for expertise in the diagnosis and management.”

FH is receiving much attention overseas to ensure that there is optimal translation of basic, epidemiologic and pharmacologic research to clinical patient care. LASSA was represented by Prof Marais at the FH Foundation meeting that culminated in a publication for a “global call to action”. (Katherine A. Wilemon, Jasmine Patel, Carlos Aguilar-Salinas, et al. Reducing the Clinical and Public Health Burden of Familial Hypercholesterolemia. A Global Call to Action. JAMA Cardiology 2020 January 2nd). Personal approaches about this development to journalists managing health matters at The Sunday Times, The Argus, The Cape Times and Die Burger did not succeed in the newspapers



mentioning this international venture. The difficulties of managing severe dyslipidaemia were discussed in an editorial article (Marais AD, Cardiovasc J Afr 2019;30:247-248) in the Cardiovascular Journal of Africa last year, along with the proceedings of a meeting on FH co-hosted by LASSA (Marais AD, et al. Cardiovasc J Afr 2019;30:261-268) and the successful experience with monoclonal antibody treatment of FH in South Africa (Dirk J Blom, Johannes Breedts, Lesley J Burgess, et al. Cardiovasc J Afr 2019;30:279-284).

LASSA, recognising the need for education in lipidology, successfully arranged a course at the request of Dutch colleagues in 2018. Good support from some of the pharmaceutical companies made it possible to hold a similar course in Cape Town in 2019. Such a course was planned in May 2020 but is now postponed to October 2020 owing to the impact of the coronavirus epidemic and local restrictions of travel and meetings. While this course is

important for all medical practitioners, it is especially important for physicians and paediatricians. It is also hoped that the members of panels making decisions about drug prescription will make use of the opportunity for updating themselves on the diagnosis and management of FH. Similarly, a course was to be presented at the University of the Free State but had to be cancelled owing to the lockdown around the COVID-19 epidemic.

LASSA anticipates playing a role in education and diagnostic support as well as recommendations for management in all spheres of dyslipidaemia. The most important aspect remains the diagnosis and management of FH as monoclonal antibodies to PCSK9 have added another powerful step in improving control of dyslipidaemia after statins and ezetimibe.

Professor Emeritus A.D. Marais

Where expertise becomes a community

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SHARE REGISTRY UPDATE

The SHARE-TAVI project continues to expand, and the annual number of implants in South Africa is increasing steadily. We are excited to be able to announce that the TAVI registry has reached the milestone of over 1 000 implants captured since inception! 231 TAVI were captured across South Africa in 2018, and 2019 saw 278 TAVIs captured. Together with the cases captured, the registry tracks patients in the funding approval process, and 200 patients are awaiting decisions from the Funders. A further 200 patients are followed up to 1-year; as they exited the TAVI programme after they were evaluated, the majority exiting due to declined funding or affordability issues where low value partial funding is offered by some Funders.

There remain several barriers to access to this technology for appropriately selected patients due to the prevailing funding landscape in South Africa. Geographically equitable access is being addressed with the establishment of new sites in less serviced provinces, however several Funders are resisting the establishment of additional TAVI centres, and patients are forced by the Funders to travel to Johannesburg, Durban or Cape Town for their treatment. Data from the SHARE-TAVI registry presented in a poster at the SA Heart® Congress 2019 showed that procedural success in the existing TAVI sites was both comparable with the favourable outcomes seen overseas in large registries and trials, and importantly in our low volume setting in South Africa, was independent of site volumes. This evidence from the locally obtained data from the SHARE-TAVI registry has been shared with Funders in an attempt to provide relevant information for their decisions in a South African setting, and it is hoped that by providing insight into the favourable outcomes seen in South Africa to date, that Funders will expand their support for the TAVI procedure. This type of liaison with Funders is considered an important part of the mission of the SHARE projects, which primarily aim to improve patient care, and facilitating access to appropriate care is regarded to be part of that mission. SHARE is also directed to publish the results from the registries, and has had several abstracts accepted at local and international meetings to this effect. This year abstracts have been submitted to EuroPCR 2020 and the ESC Congress 2020, and acceptance has been received for an abstract at EuroPCR. While the capture rate of 92% for database entries of TAVI in South Africa is very high and is impressive for a voluntarily subscribed registry, the importance of entry of follow-up data can not be over-emphasised. The SHARE office will be sending out reminders to all sites regarding outstanding capture of follow up data, as this data needs to be entered before June, when the data will be extracted and analysed for the first of the manuscripts which will issue from this project.



SHARE-SAFFR – AFIB/FLUTTER REGISTRY

Atrial fibrillation, with the accompanying high prevalence of stroke, has a distressing impact on all South African communities. Besides increasing costs of care to individuals, Funders and the State, strokes have a knock-on effect to the local economy as bread-winners may have to leave employment to care for family members who have experienced the disabling effects of stroke, or bread-winners may have experienced stroke themselves. Literature shows that stroke in South Africa occurs in a younger demographic than the average worldwide.

Treating atrial fibrillation effectively in both high- and low-resource South African communities can therefore have an economic and social influence that will be extensive. The incidence and treatment variations in different settings for atrial fibrillation in South Africa is not well known, and the SHARE-SAFFR registry has been developed to investigate this. The registry was initiated in November 2019 at the SA Heart® Congress, and sites have been chosen to give a representation of both State and Private settings, across provincial boundaries, in an attempt to get a birds-eye view of the variations relating to incidence and treatment of atrial fibrillation throughout South Africa. The project has Ethics approval and applications have been submitted for additional sites to join the registry.

CDM REGISTRY

The CDM registry has been closed for enrolment, and no further patient enrolment is planned. Ferial Azibani from the Hatter Institute was tasked with producing a manuscript on the existing data, but as she has now taken extended leave, SHARE staff, with the support of Prof Sliwa will start with preparation of the first manuscript from this registry this quarter.

The SHARE projects are bearing fruit and we are planning to expand the number of projects in the latter half of the year. Four projects have been proposed but will only be able to proceed when the technology or pharmaceutical has approval from SAHPRA. The SHARE projects will continue to strive to improve patient care through the gathering of locally relevant data that can inform decision making for South African conditions. Applications and proposals for new registries are welcomed and any queries can be addressed through the SHARE Project office with Elizabeth Schaafsma on 083 603 7700 or elizabeth@saheart.org.

Reporting by Elizabeth Schaafsma on behalf of Prof Mpiko Ntsekhe, Chair of SHARE Committee

PREDICTING IN-HOSPITAL MORTALITY IN HEART FAILURE USING MACHINE LEARNING

Heart failure is a growing problem in sub Saharan Africa, frequently manifesting as a sequel of hypertension. Despite improvements in the therapy used in heart failure, up to 50% of patients with heart failure demise within 4 years from the time of diagnosis. Risk predictive models have been proposed as tools used in the risk stratification of patients with heart failure. None of the available risk models predicting mortality or rehospitalisation in patients with heart failure were created using data originating from Africa. Also, models created from data originating in the developed countries may not be generalisable to our population considering that the aetiology of heart failure

in sub Saharan Africa is predominantly non-ischaemic. The aim of the study is to predict all-cause in-hospital mortality in patients with heart failure using supervised machine learning algorithms.

Models predicting mortality and rehospitalisation will be created with data from patients admitted in the cardiology wards at Charlotte Maxeke Johannesburg Academic Hospital between January 2009 and December 2018. Variables that will be used as predictors are shown in Table 1. Both traditional statistical methods and machine learning algorithms such as support vector machines, decision trees and random forests will be used to create

TABLE 1: Demographic and clinical data that will be extracted from the database and used to build heart failure predictive models.

	Categorical variables	Continuous variables
Demographic data	Gender, ethnicity	Age
Co-morbidities	Hypertension, diabetes mellitus, smoking, dyslipidemia, family history of coronary artery disease, human immunodeficiency virus (HIV) and chronic kidney disease	
Clinical examination findings	Lung crepitations, ascites, elevated jugular venous pressure, pedal oedema, displaced apex beat, New York Heart Association (NYHA) functional class	Systolic and diastolic blood pressure
Electrocardiography	Rhythm, P wave, Q wave, bundle branch block, ST segment	Heart rate, PR interval, QT interval
Echocardiography		Left ventricular internal diameter at diastole (LVIDd), Left ventricular internal diameter at systole (LVIDs), Left ventricular ejection fraction (LVEF) and Left atrial size
Diseased vessel on coronary angiography	Left main artery, left anterior descending artery, right coronary artery, circumflex artery and diagonal artery	
Laboratory results		Troponin I, haemoglobin, sodium, potassium, urea, creatinine, International Normalised Ratio (INR), total cholesterol, low-density lipoprotein (LDL), high-density lipoprotein (HDL), glucose, glycated haemoglobin (HbA1c) and pro-brain natriuretic peptide (proBNP)
Oral medication	Aspirin, beta-blockers, furosemide, angiotensin converting enzyme (ACE) inhibitors, calcium antagonists and statins	
Outcome	Mortality Hospitalisation	Date of mortality Date of hospitalisation Length of hospital stay

Continued on page 242

PREDICTING IN-HOSPITAL MORTALITY *continued*

predictive models (Figure 1). The model with the best accuracy scores will then be used to estimate risk scores.

PROGRESS UPDATE

In 2017, I completed my masters' degree and passed with distinction. The paper arising from my masters was subsequently published in the Cardiovascular Journal of Africa. I am now in the phase of merging patient data in the Microsoft Structured Query Language (SQL) database. The project is supervised by Professor Hopewell Ntsinjana, the head of paediatric surgery at Nelson Mandela Children's Hospital and Professor Turgay Celik, a professor in the school of Computer Science and Applied Mathematics at the University of the Witwatersrand.

HIGHLIGHTS

As a full-time PhD student, I have the privilege of:

- Learning clinical cardiovascular medicine: I have had an opportunity to attend weekly academic meetings, ECG tutorials as well as journal club meetings in the Division of Cardiology. This has exposed me to cardiovascular

clinical medicine as well as cutting edge research in the field. I also had an opportunity to attend symposiums and conferences dedicated to the management of cardiovascular diseases.

- Being an activist for cardiovascular diseases: I managed to organise and implement the World Heart Day Event, where we organised a 5km and 8km run as well as offered free screening services for cardiovascular diseases in collaboration with the Heart and Stroke Foundation SA.
- Receiving wards - I am a recipient of:
 - The South African Heart Association Research award
 - The Professor Bongani Mayosi Netcare Scholarship award
 - The Carnegie Corporation of New York Research award
 - The Discovery Academic Foundation award

Dr Dineo Mpanya
University of the Witwatersrand



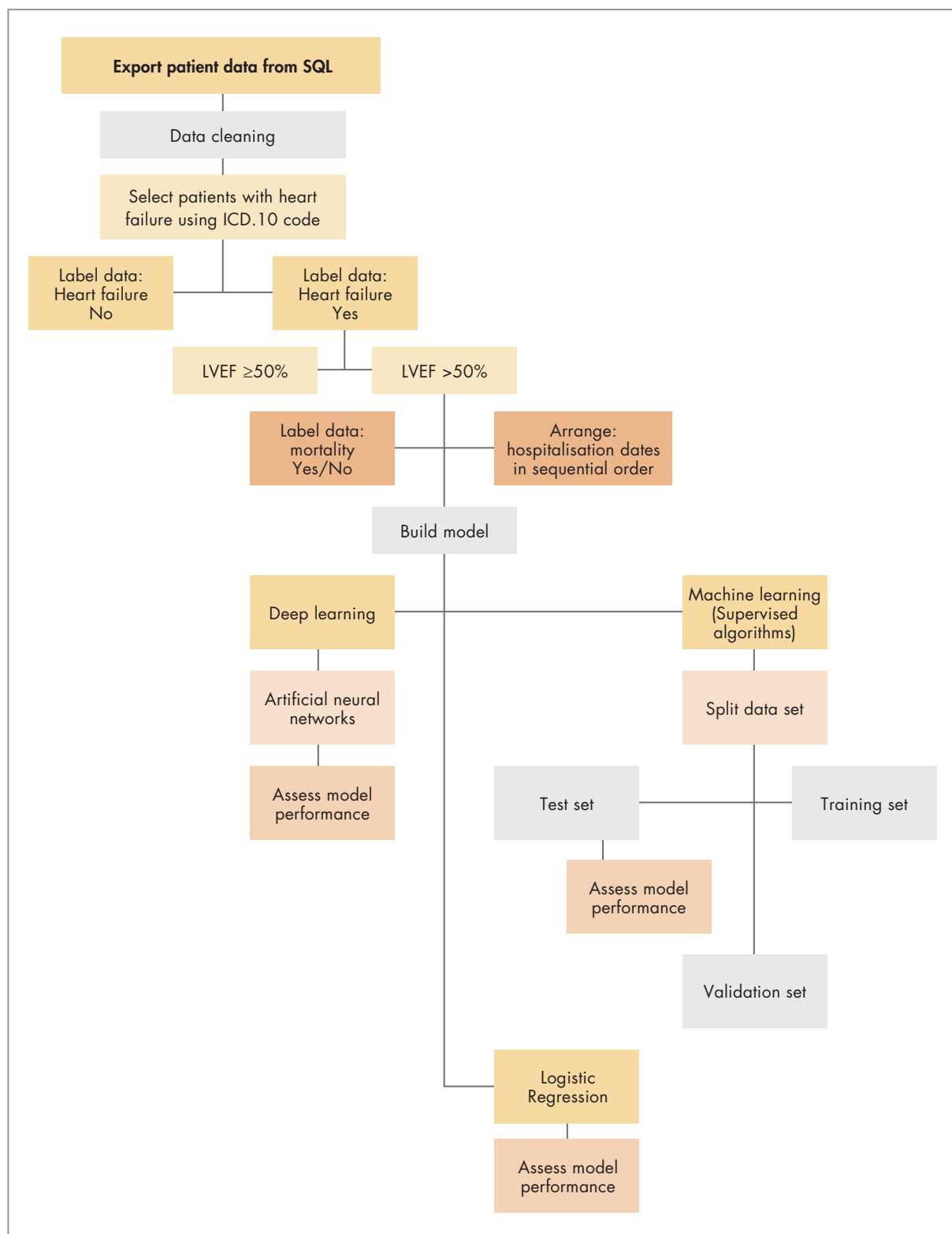


FIGURE 1: Algorithm for creating predictive models using data from patients with heart failure.

TRAVEL SCHOLARSHIPS OF THE SOUTH AFRICAN HEART ASSOCIATION

Applications for the SA Heart® Travel Scholarship for the third term in 2020 are invited to reach the SA Heart® Office by 30 September 2020.

The scholarship is for the value of up to R25 000.00 for international meetings and R10 000.00 for local meetings.

This scholarship is available to all 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 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 receipt of the acceptance of the 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 R25 000.00 for international meetings and R10 000.00 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, if the reviewers deem the workshop attendance to be of high impact and consequently of 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 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

- For more information and application forms, please visit <https://www.saheart.org/cms-home/category/39>.

LOUIS VOGELPOEL TRAVELLING SCHOLARSHIP

Applications are invited for the annual Louis Vogelpoel Travelling Scholarship for 2020. An amount of up to R20 000 towards the travel and accommodation costs of a local or international congress will be offered annually by the Western Cape branch of the South African Heart Association in memory of one of South Africa's outstanding cardiologists, Dr Louis Vogelpoel.

Louis Vogelpoel was a pioneer of cardiology in South Africa who died in April 2005. He was one of the founding members of the Cardiac Clinic at Groote Schuur Hospital and the University of Cape Town. He had an exceptional career of more than 5 decades as a distinguished general physician, cardiologist and horticultural scientist. Dr Vogelpoel's commitment to patient-care, teaching and personal education is remembered by his many students, colleagues and patients. Medical students, house officers, registrars and consultants benefited from exposure to his unique blend of clinical expertise, extensive knowledge, enthusiasm and gracious style.

A gifted and enthusiastic teacher, he was instrumental in the training of generations of undergraduates by regular bedside tutorials. He served as an outstanding role model for postgraduates and many who have achieved prominence nationally and internationally acknowledged his contribution to the development of their careers.

All applications for the scholarship will be reviewed by the executive committee of the Western Cape branch of the South African Heart Association. Preference will be given to practitioners or researchers in the field of cardiovascular medicine who are members of the South African Heart Association and are resident in the Western Cape.

Applications should include: (1) A brief synopsis of the work the applicant wishes to present at the congress; and (2) A brief letter of what the applicant hopes to gain by attending the relevant congress. The applicant should submit an abstract for presentation at the relevant national or international meeting. Should such an abstract not be

accepted by the relevant congress organising committee, the applicant will forfeit his or her sponsorship towards the congress. (Application can however be made well in advance of the relevant congress but will only be awarded on acceptance of the abstract.) 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.

‘A gifted and enthusiastic teacher, he was instrumental in the training of generations of undergraduates.’

Applications should be sent to Dr Alfonso Pecoraro, President of the Western Cape branch of the South African Heart Association, Division of Cardiology, Tygerberg Hospital, Francie van Zijl Drive, Tygerberg 7505; or alternatively email: pecoraro@sun.ac.za.

Previous recipients of this prestigious award include Sandrine Lecour, Roisin Kelle, Liesl Zühlke and Prof Hans Strijdom.

Applications close on 31 January 2021.

HEFSSA TRAVEL SCHOLARSHIP

“ENHANCING HEART FAILURE MANAGEMENT IN SOUTH AFRICA”

INTRODUCTION

The Executive Committee of the Heart Failure Society of South Africa (HeFSSA) has established the HeFSSA Travel Scholarship. As part of its contribution towards optimising patient care and to enhance and promote local heart failure expertise, HeFSSA supports such an award in South Africa. We hope that the information gained during this event and the possibility of sharing your experience and opening a dialogue with other specialists, will broaden your knowledge regarding new products and therapies in your field of expertise. We also hope that this experience will help you to develop educational programmes at your medical institution and to share the acquired knowledge with your colleagues actively.

VALUE

Two travel grants are available annually. Each grant is valued at a maximum of R35 000 which may be used towards economy airfare, registration and accommodation.

ELIGIBILITY

Candidates may be a medical practitioner in the public or private sector (i.e. a cardiologist, physician, internal medicine practitioner, Cardiology Fellow or similar) or researcher (basic scientist in heart failure). Applicants must be paid-up members of the SA Heart® Association and HeFSSA. The programme/course/conference needs to be internationally or locally accredited and focussed on promoting your knowledge of heart failure.

APPLICATION

Applications can be submitted to HeFSSA at info@hefssa.org. Please include your contact details and hospital affiliation, qualification, private and or public practice, and if you are an RSA citizen (or permanent resident). Provide a motivation as to why the specific programme or course has been selected and include the programme of the conference (or URL). The HeFSSA office will confirm receipt by return email. Application for this award does not guarantee that the applicant will receive the award. No correspondence will be entertained after a decision is made. The applicant will be notified of the outcome of the applications within 4 weeks of receipt.

PROCESS AND TERMS

The grant recipient needs to book, pay and then claim back (with proof documentation) from HeFSSA. Refund will be actioned within 24 hours. Twenty percent of the grant amount will be retained by HeFSSA (R7 000) and will be paid to the recipient as soon as CPD certificate and a meeting report is received.

Within one month of returning from the conference, the recipient must submit a substantial evaluation/review of the course content. This should reflect on key lectures and late-breaking trials as well as other sessions attended, which will impact on the practice going forward. Include some photographs. The purpose of this report is to share knowledge gained that could impact on colleagues' practices. The report should be included in the SA Heart® newsletter and/or the HeFSSA newsletter.

HeFSSA strongly recommends that the recipient create the opportunity to give feedback through a lecture delivered at appropriate educational forums (please confirm with HeFSSA when these take place).

Should the recipient not attend the conference, HeFSSA reserves the right to request repayment of any monies paid.



THE SOUTH AFRICAN HEART ASSOCIATION RESEARCH SCHOLARSHIP

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

REQUIREMENTS

- Applicants need to be fully paid up members/associate members in good standing for at least one year.
- Applications must include:
 - The applicant's abbreviated CV
 - A breakdown of the anticipated expenses
 - Ethics approval
 - Full details of the research
 - The completed application form - please request a fillable MS Word document from erika@saheart.org
 - Contact details of Head of Department or supervisor/mentor

RECOMMENDATIONS

- Preference will be given to early and mid-career applicants (<5 years post-qualification as specialist and/or <5 years post-PhD qualification).

CONDITIONS

- Applicants may only submit 1 application every second year. Preference is given to those who have not had previous scholarships awarded.
- Awards are granted for one specific research project. Should that specific project be cancelled or the full amount allocated not be utilised for any reason, then the funds must revert to SA Heart®.

APPLICATIONS MUST BE EMAILED TO:

erika@saheart.org

THE SELECTION PANEL WILL REVIEW APPLICATIONS ANNUALLY AND THE CLOSING DATE IS 30 SEPTEMBER 2020.

One scholarship to a maximum amount of R65 000 will be awarded annually.

SA Heart® commits to inclusive excellence by advancing equity and diversity.

We particularly encourage applications from members of historically under represented racial/ethnic groups, women and individuals with disabilities.

NOTES