SA HEART COMMITTEE AND PROJECT REPORTS

SA Heart Education Committee Report 2016

Members: Dr Martin Mpe (Chairman), Anthony Becker, Mpiko Ntsekhe (SASCI), Ashley Chin (CASSA), Tom Mabin, Johan Brink (surgeons) and Liesl Zühlke (PCSSA).

Subcommittee – All heads of cardiology departments

Co-opted convenor of annual congress: Dr Robbie Kleinloog – 2016

SA Heart Events calendar
The events calendar is reaching maturity when it comes to its use. Only 12 local events were recorded for the 2016 calendar.

There are 4 regular events:
- SunEcho in April held in Tygerberg.
- Cardiology, Diabetes and Nephrology at the Limits in April, held in London for 2016.
- New Horizons in Echocardiography held in Johannesburg in July
- The annual SA Heart Congress, which is for 2016 combined with the World Congress of the World Society of Cardiothoracic Surgeons.

Outside these regular events, there were 8 other events. The academic ones were:
- Johannesburg Branch events: Fellows presentation in April, Celebrating women in Cardiology in August and AGM combined with discussion on Cardiac Issues in Sports Medicine in November.
- Western Cape branch had one meeting, Cardiology Fellows presentations in June in Cape Town.
- The Hatter Institute will have Cardiac Disease in Pregnancy Symposium in Cape Town in September.

The rest of the events, especially those with Academic input are missing from the SA Heart Events Calendar.

SA Heart Lecture Series

Hypertension lecture series (2015/2016)
This lecture series was supported by both the South African Heart (SA Heart) association invited the South African Hypertension Society (SAHS). This series was managed with more success compared to the Atrial Fibrillation lecture series of 2014/2015.

Future Non-Cardiologists meetings (2016 -)
The Education Committee chairperson embarked on an audit of all the SA Heart Special Interest groups (SIGs) to assess the extent of Educational initiatives/programmes targeting Non-cardiologists. This initiative was also intended to assess the feasibility of co-ordinated meetings which could involve several SIGs at a time to make the topic range broad and to have half day
meetings with more CPD points. The next lecture series is target to start either later in the year or the 1st half of 2017. The responses from the SIGs on this enquiry was as follows:

PCSSA: No real programme at the moment although they have had several programmes over the years aimed at general paediatricians for Paediatric refresher week, GP refresher week, South Africa Paediatric association congress. The PCSSA is keen to participate in the SA Heart initiative and a topic has been identified for the next lecture series.

SASCI: Has a STEMI special interest group, and various of their members have done education primarily to GPs, but also to physicians regarding the initial management of STEMI. SASCI has formulated a clear protocol with an intention of countrywide roll out. These programmes will be combined with the future SA heart series so as to provide wider platforms for dissemination of a uniform message.

CISSA: Cardiac surgeons play a small role in the teaching on The diagnosis and management of common cardiac conditions in medical school and also in the CME of GPs. They are keen to participate in SA Heart lecture series should an opportunity be identified.

LASSA: They are keen to be part of the SAHA education according to needs with lectures.

CASSA: There has been excellent participation in the past. CASSA was the main driver of the Atrial Fibrillation lecture series. Commitment to future initiatives is still pending at present.

HEFSSA: The SIG has always organized the Pre-Congress Non-Cardiologists Symposium. The arrangement has always been multi-disciplinary so as to include a wide range of topics. HEFSSA also runs an annual lecture series for non-cardiologists with financial support from industry. This is the largest foot print in terms of reaching out to non-cardiologists.

**PASCAR Pacing Fellowship**

Dr Reuben Mutagaywa, a Physician-Cardiologist working at the National Cardiac Institute, Muhimbili University College of Health and Allied Sciences (MUHAS) in Tanzania, has been accepted to be a PASCAR pacing fellow. His training is scheduled from 1 January 2017 to 30 June 2017 in Groote Schuur Hospital, Cape Town.

*Martin Mpe, Chairman of the Education Committee*

**Ethics and Guidelines Committee Report**

The structure and constitution has remained unchanged over this period

No new guidelines were created or published during this period.

Key activities during this period:

- Incorporation of ESC guidelines confirmed by national Executive (where South African perspective is required, this is addressed by the committee on request)
- Endorsement contract was completed
• Query from Discovery Health regarding Transmyocardial Laser Revascularization was received and referred to Society of Cardiothoracic Surgeons for opinion and resolution. Completed and concluded satisfactorily
• A non-medical request was received to adjust the guidelines regarding the testing of Troponin-T levels, including 1 hour cut off insufficient data is available at this time and this well remain a project of the incumbent members of the committee.
• Request for assessment of Zio cardiac Arrhythmia Patch was received from the industry and this was managed and answered at arm’s length. Position of SA Heart in relation to marketing advice was discussed and confirmed.

*Les Osrin, Chairman, Ethics and Guidelines Committee*

**Fulltime Salaried Practice Committee Report**

**Members**
Prof Andrew Sarkin (chair), Dr Paul Adams, Dr Ashley Chin, Dr Blanche Cupido, Dr Riaz Dawood, Dr Johan Jordaan, Dr Sajidah Kahn, Dr Elias Zigiriadis.

Thanks to all of the committee members for their input and assistance.

**Challenges facing the full-time academic departments**
This remains a priority from all aspects including the number of posts, stock, training of cardiologists, service delivery and research. The committee has looked at ways to assist particularly in relation to equipment and disposables and that common ground between the departments may be found. Disparities in funding of staff, procedures and devices between departments for no apparent reason.

**Training cardiologists/cardiothoracic surgeons in South Africa**
The committee contributed to the article written by SA Heart on this issue. Real concerns have been raised regarding the pass rate in the most recent exams. Posts are way too few and a significant increase in funding and posts is imperative to maintain a viable and strong cardiac/cardiothoracic discipline.

**Health Review Commission**
The committee was represented before the Health Review Commission. The submission covered the problems faced by the full timers in relation to work conditions, support from hospital management and staff shortages were raised, as well as the need for industry and the private health sector to support academic departments.

**Essential Drug List**
The committee considered and provided input on the essential drug list and suggested more dialogue was necessary going forward.

**SA Heart Journal**
The committee is pleased that it supported the continuation of this journal in the past as the journal is gaining strength.
Private Practice Committee report

SUMMARY OF PRIVATE PRACTICE NEGOTIATIONS 2016.

Most private practice negotiations with medical funders are taking place between the SASCI private practice committee consisting of myself, David Jankelow, Gavin Angel, Andrew Thornton and Jean Vorster who represent interventional cardiology (adult) and electrophysiology. At the present time there is no representation for paediatric cardiology. George Nel and Joe Botha have provided exemplarily technical and business support. Dave Kettles, who is also the president of SASCI, has provided untold support and advice for all of those involved. Without the determination and resolve of those mentioned there would be no negotiations on behalf of cardiology private practice in South Africa. Everyone has contributed their free time, consulting time and family time on a monthly basis to drive the projects listed below.

We are currently engaged with the major private practice organisations in South Africa and have a seat on the SAMA Specialist Private Practice Committee which mainly deals with coding issues for specialists. Dr. Chris Archer - representing the South African Private Practitioners Forum – has recently contacted us. We will soon begin negotiations with the SAPPF with regard to coordinating our efforts while remaining independent.

The main issues we are dealing with at the moment are the Healthcare Enquiry and the future of professional fees and mechanisms of remuneration. We all know that medical costs are sky rocketing and that this is due to:

1. an aging population
2. increased expectations from the general public
3. the weak Rand
4. high cost of medical devices
5. high cost of hospitalisation

Medical professional fees play a minimal role in this inflation despite what the media and government is attempting to portray.

Regarding the Healthcare enquiry Dave Kettles, David Jankelow, J-P Theron, George Nel, and Joe Botha conducted a presentation to the Healthcare Enquiry mainly focussing on frustrations with funder’s controlling stake in healthcare. Dave Kettles headed the presentation and feedback was excellent. This was followed by an extensive question and answer session.

We also made an anonymous application to the Healthcare Enquiry mainly regarding negotiations with medical funders and are awaiting EK Consulting’s opinion regarding the response.
Regarding professional fees there is a worldwide trend away from fee-for-service systems towards global and event based fee systems. There is increasing amount of research in this regard. In the US there are pilot trials underway which are compulsory and Discovery Health has already attempted to introduce their own pilots including the TAVI global fee and the Coronary Care Programme. Both have caused much consternation among cardiologists.

We feel that it is imperative that we are proactive and make a move towards event based billing utilizing a managed care network which will be owned and run by private cardiologists. This will also encompass a business unit which will be managed by a third party. The business unit will be responsible for the day to day operations as well as negotiations with funders. Details of the structure can be provided on request. ISIMO has been identified as a possible company to run operations as they have a proven track record running a similar programme with a large private oncology group.

It is my opinion that event fee billing will allow us to take more control of the overall costs of procedures and therefore be able to improve the professional fee component significantly. In addition, we will be able to remain fully independent from funders. Unfortunately, this will not be a simple process and we will be picking procedures suited to the system on a trial basis. Procedures which are suitable and relatively easy to implement include: TAVI, LAAC, pacing, diagnostic angiography and possibly consultation visits. Unfortunately, PCI remains complex and difficult to implement as the Discovery Health Coronary Care Programme has proven.

Due to all this activity the coding guideline has been neglected and not updated in sometime. The reality is that this type of coding may very well become a thing of the past in the near future, but we will attempt to keep the project alive into 2017.

Going forward into the next year we will continue to focus on:

1. Establishment of a private managed care network owned by cardiologists.
2. Implementation of pilot event based fees for suitable procedures focusing on TAVI as a priority.
3. Follow up with developments regarding the Healthcare Enquiry and National Health Insurance.
4. Establishment and maintenance of ties with other professional bodies such as SAMA and SAPPF.
5. Inclusion of paediatric cardiology representation.
SHARE is now into year two of its focused device and disease based prospective registry format based on the Euro-observational programme of the ESC.

The main objectives for SHARE in 2016 as outlined in the 2015 AGM were:

1. To have 3 prospective registries up and running on the new SHARE database platform as proof of concept, these registries would serve as a blueprint for all future SHARE-related registries.
2. Limit SA Heart’s financial commitment to the registry project to funding of the staffing component of the SHARE committee, and have each registry project financially independent through industry, grants and other funding vehicles.
3. Begin to disseminate the data and information generated from the projects through publication and presentation of abstracts and papers

Two registries were established in late 2014. Drs Jacques Sherman and Hellmuth Weich lead the SHARE-TAVI registry. After a slow start, all 13 TAVI sites in the country are now active participants with the overall case capture rate sitting pleasingly above 80%. Part of the success of the TAVI project is due to some very productive positive interaction with major Funders, who have embraced the registry and who are happy to use a report printed directly from the registry database as part of their motivation/evaluation for decisions relating to funding. This has helped to speed up the process of decision making, which previously required considerable back and forth communications between operators and the funders, delaying procedures unacceptably and leading to unnecessary morbidity and mortality in these very sick high-risk patients.

More than 160 procedural data entries have been captured in just over 15 months. Just over 25% of patient have already completed their 1 year follow up, and at the end of two full years of data capture SHARE will be able to offer more substantive data for publication. Abstracts have been submitted to international meetings including the ESC, EACTS, TCT and WSCTS, as well as to the local SA Heart Congresses. In the interim TAVI participants have been invited to 2-3 feedback meetings annually, utilising other organised meetings such as AfricaPCR and SA Heart Congresses as a forum to gather participants together conveniently for dissemination of information.

Prof. Karen Sliwa of the Hatter Institute at UCT, and Dr Priya Soma-Pillay lead the SHARE Cardiac Disease and Maternity Registry (CDM), and recruitment into the second SHARE registry has increased steadily also after a relatively slow start. Now that the database logic has been tested and approved the number of active sites is growing steadily. Although it was intended that both Private and State institutions would be represented in the CDM registry, the low incidence of disease seen at Private institutions has been a limiter to participation by these centres, and we would like to encourage clinicians in private practice who see maternal cardiac disease somewhat more frequently, to please contact Prof. Sliwa or Elizabeth Schaafsma should you wish to join this growing registry. Abstracts describing the patient demographics and early trends have been submitted to 2 meetings in the interim, and Prof Sliwa has presented the CDM registry to colleagues at the PASCAR and WHF meetings earlier this year.
The continental nature and burden of the clinical problem has been highlighted by sites from Kenya, Tanzania and Cameroon asking to participate in the CDM registry, and we are sure that the increased spotlight being afforded to maternal cardiac disease by our own government, as well as the increased prominence of Africa in the eyes of the WHF, will all serve to help expand the number of participants in the CDM registry. We would like to congratulate Prof Sliwa on her election as the President-Elect of the WHF, we look forward to her shining a light on the African situation during her time in office.

SHARE’s original objective of having 3 registries tested and well established within 2 years has not yet been met but several contenders are being considered, evaluated and developed currently, amongst them a paediatric registry on congenital disease, as well as registries on PHT, ACS, and Devices in HF. Fund-raising remains a priority for the continued development and running of all the registry programs. We are tremendously grateful for the very generous grants received to date from Astra Zeneca, Medtronic and Edwards Life Sciences. This has enabled the initial development and then the setup and maintenance of the registries to occur smoothly, and will still be used to support the analysis and publication of the outcomes.

We look forward to continued growth in 2017 as we generate the type of local data and information that will influence and improve clinical practice, patient care, and public policy in the future. The committee remains thankful to individual members of SA Heart, the SA Heart Exco, Industry partners, Funders and hospital groups for their continued support for SHARE, and of course most importantly to the participants at all our sites.

Mpiko Ntsekhe on behalf of the SHARE Committee

STEMI SA 2016

WORKING TOWARDS A SYSTEMI OF CARE FOR STEMI MANAGEMENT IN SOUTH AFRICA

A National Project for STEMI Early Reperfusion

Under the auspices of SA Heart and SASCI

During this year our project continued to pursue the three pillars of Education, Networking and Data Collection. We expanded our educational drive at First Medical Contact (FMC) facilities throughout the country, wherever we could mobilize our colleagues or where we received more and more request from FMC facilities of assistance to improve the diagnosis, understanding and management of STEMI patients. We will continue to do that with the much appreciated industry report. These CME meetings are organized by Medsoc with the local cardiologists as educators. We are working towards developing more practical hand outs to support the message to the audience that consists of all health care workers from both private and public sector.
Educational meetings with presentations on the appropriate management of STEMI were held in Pretoria, Morningside, Middelburg, Rustenburg, Eastern Cape, Western Cape and Bloemfontein and were well attended. More than 700 delegates attended 14 meetings (average of 50 delegates per meeting and attendance more than 100%). This reflects the dire need and desire for STEMI education in especially catchment areas. The feedback from attendees and faculty, was positive with regards to quality and educational value. These initiatives will continue in 2016 and 2017 and will be extended to other regions. Thank you to AstraZeneca, Boston Scientific, Medtronic, Angio Quip, Biotronik and Boehringer-Ingelheim.

We made progress with engaging with Emergency Medical Services, professionals in public health and government to promote understanding and networking towards improved referrals and management of STEMI patients. We are now affiliated to Stent for Life of the European Society of Cardiology (ESC). We met with and participated in meetings in India and Kenya as well as the SFL meetings in Prague, Paris and Rome together with meetings during Africa PCR; MnM Meeting and others locally.

Data is the live blood of this program – Without it clinicians cannot manage the patient effectively AND we cannot expect investment in appropriate resources! We certainly need more colleagues to participate on our registry. This is now possible both with paper questionnaire as well as in an electronic format and thirdly also by using the adapted STEMI India software. We have a research assistant in Pretoria making this much easier for all colleagues to participate and more such help will be made available where needed. Many pockets of data are available in South Africa – more than what most realize. We hope to collect these and strengthen our message by putting all of these results together. Under the leadership of our project manager professor Rhena Delport, a number of secondary research project are underway and reported on.

SA Heart Association and The South African Society of Cardiovascular Intervention (SASCI) launched a study to identify factors that may contribute to ineffective management of STEMI patients. Referral pathways of patients admitted to PCI-capable hospitals and adherence to STEMI treatment guidelines in patient management are investigated, with patient outcome at one year as study outcome. The study design is cross-sectional and observational and employs paper-based questionnaires to capture patient data and time intervals along the treatment pathway.

A sub-study explores the advantage of using information technology (IT)-supported data capturing and communication in the management of STEMI cases from first medical contact (FMC) in a referral hospital or ambulance up to recording and evaluating 12 month treatment outcome of the patient. The implementation of a referral model where hub (PCI-capable hospitals) and spokes (referral hospitals) – with or without involvement of EMS service at any stage – is regarded as an intervention, as is the employment of IT along the patient treatment pathway. The same data is captured as in the main study and comparisons will be performed between the intervention and non-intervention groups to establish improvement in treatment metrics and adherence to treatment guidelines and patient outcome. In addition, the societal cost of an undertreated STEMI population will be estimated to determine the potential financial impact of the intervention as well the cost
benefits of the treatment modalities (PCI and fibrinolysis). Data is the live blood of this program – Without it clinicians cannot manage the patient effectively AND we cannot expect investment in appropriate resources!

Research Leader - Prof Rhena Delport (Univ of Pretoria)

Our 6 major project presently includes:

1. Expanding our educational CME meetings with additional tools, meetings and information.
2. Editing and adapting the STEMI India Workbook for our needs. To start 500 of these will be printed with assistance from STEMI India for handout to all emergency centers and at our EMC meetings.
3. We are finalizing proposals for a Hub and Spoke model along the lines of STEMI India to include a private, public as well as a public-private hub and poke. Boehringer Ingelheim and Medtronic already put more than 60% of the needed finances on the table making this now a reality. In the device based system ECG’s capable of communicating to the referral center and capturing data together with monitoring the patient and taking ECG’s that can also be printed, is a very useful tool to glue the network together. More importantly it leaves a system of care that goes beyond only education and data collection, in place.
4. We are expanding our project to work with the specialist physician and participate in their meetings including the national congress in 2017
5. Patient education and awareness program will follow in 2017
6. We plan a STEMI Forum Meeting in January 2017 to get all stakeholders such as clinicians, administrators, funders – legislators together to discuss and improve systems of care for STEMI Management. A National consensus document should follow this meeting.

At the SFL Meeting during ESC in Rome we presented our phased action plan and reported on our activities as follows:

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<tr>
<th>Background Information</th>
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<td><strong>Country</strong></td>
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<td><strong>Country Champion</strong></td>
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<td><strong>Project Manager</strong></td>
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<td><strong>Key Partner Organisations</strong></td>
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<td><strong>Country Objectives</strong></td>
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- Organize education meetings for HCP on the management of STEMI, ACS and other chest pain syndromes across all provinces;
- Drive the educational project,
- Develop regional networks, identify barriers and develop solutions; and
- Contribute towards registries for measurement and monitoring of the impact of education initiatives and other strategic interventions.

Establish collaboration with countries with similar needs to learn from them and share our experiences with them.

Establish a network amongst STEMI care providers (public and private), central and local government, medical insurance companies and private sector funders;

Deploy central and regional public awareness programs; and

Commence institutional / other patient education interventions with the aid of other existing organizations (Heart and Stroke Foundation).

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<th>Country key plans</th>
<th>Improve partnerships with other bodies that educate at-risk patients and run public awareness campaigns at national and regional level, using all possible media</th>
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<td>Provide training in STEMI management across all provinces for physicians, GPs, nurses, ER personnel, EMS ...</td>
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<td></td>
<td>Improve primary and secondary transport of cases through training of EMS</td>
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<td></td>
<td>Implement secondary prevention through patient education and rehabilitation</td>
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<td>Improve registry data capturing</td>
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**Key Project Updates**

**Promotion of STEMI awareness Nationally and in Sub-Saharan Africa**

**Presentations:**

5th annual SFL Forum 2016 conference. 26 -27 February 2016, Lindner Hotel Prague Castle, Prague, Czech Republic.
| Evaluation of software solutions for data collection and IT supported patient management | Electronic data collection software pilot has commenced and paper-based tool adjusted in accordance – dual capturing modes for data collection, depending on cardiologist preference. |
| Industry (Device and Pharma) to support the implementation of the STEMI India ‘Hub-and-Spoke’ model, where networks are established between 16 non-PCI-capable referring hospitals (spokes) and four PCI-capable hospitals (hubs) distributed across South Africa. |

- Delport R. Can patient education influence patients’ outcome, risk profile and CVD mortality?
- Delport R. STEMI South Africa - current situation and future plans inspired by SFL

**Africa STEMI LIVE 2016, 26-28 March 2016:**
- A Snyders. STEMI SA - Achievements and Challenges
- A Snyders. Epidemiology of Coronary Artery Disease In Africa

**STEMI India, end June 2016,**
- Snyder A. Challenges in STEMI Management in South Africa Private Practice Perspective
- Delport R. STEMI South Africa – Preliminary findings

**Attendance of meetings during which information on the project was shared, information leaflets were distributed and discussion on STEMI management were held:**
- AfricaPCR Johannesburg, 26-28 March 2016,
- 5th Annual Congress of The Faculty Of Consulting Physicians of South Africa. Cape Town 27 - 29 May 2016
- M&M meeting (Merging Medical and Mechanical Management) 29-31 July
Innovative technology will be used to fast track the diagnosis and the management of the STEMI patient, thereby shortening time to reperfusion.

SASCI to investigate the success of the implementation in a research project, coordinated by Prof Delport. This prospective multi-centre comparative community study evaluates the impact of employing a Hub-and-Spokes model on patient management (p-PCI and Pharmaco-invasive intervention) that is facilitates by advanced technology. In addition we aim to determine the potential financial impact of the intervention as well the cost benefits of the treatment modalities (PCI and fibrinolysis)

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<th>Education workshops</th>
<th>Educational interventions are ongoing and are distributed across regions. Increasing interest and also willingness of cardiologists to participate</th>
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### STEMI Early Reperfusion Project

- **New Partners**: Collaboration established with the North West University in relation to aspects of the STEMI early reperfusion project. PhD student from this institution to develop and investigate impact of public awareness programmes
- Publication of regular updates on the STEMI reperfusion project in the South African Heart Association newsletter.

### Issues faced

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<th>Recruitment of key cardiologists in regions across South-Africa</th>
<th>Cardiologists in the private sector show little interest in collaboration with regards to the paper-based registry, implementation of the electronic (STEMI India) data collection tool, and piloting of the electronic communication and patient management tool within the hub-and-spokes model. Public institutions have however</th>
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| Establishment of a network amongst STEMI care providers | Strategic meeting held with the Director of Emergency Medical Services and Disaster Medicine on:  
- The deployment of public awareness programs  
- Optimization of EMS involvement in STEMI diagnosis and care |

**Next Steps**

| Establishment of a network amongst STEMI care providers | STEMI INDABA to be organized later in 2016 (or early 2017), to improve patient access to appropriate therapy and improve networking between private and public health care. |

**Hospital Classification**

- **HUB A/B**: PCI-capable
- **SPOKE C**: ECG capable < 30 mins from HUB
- **SPOKE D**: ECG & Thrombolysis capable, > 30 mins from HUB
Proposed Hub and Poke Diagram

I would like to thank me core committee for their continued and unwavering support.

The STEMI SA team consists of Adriaan Snyders (National Champion), Prof Rhena Delport (Project Manager & Research and SFL), and Prof Naresh Ranjith (Academic), George Nel (SASCI and Project Office), Mark Savary (Industry) with Dave Kettles (SASCI President).

A number of key cardiologist swell our ranks and contribute through especially educational initiates to FMC incl. Len Steingo, A. J. Barnard, Nico van der Merwe, Martin Mpe, Michael Mwangi, Adriaan Snyders, Dave Kettles, Wayne Lubbe, Jean Vorster, Cobus Badenhorst, Alfonso Pecoraro, David Gilmer and Sajidah Khan.

Adriaan Snyders, National Champion, STEMI SA