SAPORG

SOUTH AFRICAN PERIOPERATIVE RESEARCH GROUP

NATIONAL RESEARCH PRIORITY SETTING REPORT

Durban, 29th September 2015

Final Report

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Contents

Introduction

Dear Colleagues

This document is a summary of the National Research Priority Setting process for Perioperative and Critical Care Research in South Africa. It summarises the process which occurred electronically prior to a National Workshop held on 12th September 2015, and the subsequent finalisation of these priorities at the workshop. The National Research Priorities agreed upon are reported here.

The National Workshop was also the beginning of Perioperative and Critical Care Research Interest Working Groups. These groups were determined by the priorities submitted during the research priority setting process. These groups cannot be considered exclusive, and in all likelihood, as the perioperative research community grows in South Africa, there will be further groups added. Similarly, the individuals reflected in each group in this report, currently only reflects those who actively engaged in this process, and it is likely (and would be encouraged) that these groups expand their numbers to be truly representative of potential researchers and collaborators in each field.

The feedback from each interest group in this report is variable. This is because the time at the workshop was limited and the vast majority of individuals who participated, cross many interest groups and priorities. As such these minutes merely reflect the initiation of these Research Interest Groups, and we would expect that they would evolve substantially over the coming months, with subsequent clarification of specific projects, tasks, individuals' responsibilities and time lines. We would encourage others who are not represented in this report, but have a genuine interest in some of the Research Interest Working Groups represented here, to get involved.

A number of researchers across the country have contributed to this process and report. This is reflected by the appendix of 108 individuals who either; i) participated in this research setting process, ii) confirmed interest in the process but could not contribute on this occasion, or iii) were strongly recommended by others to include in the group (even though some these individuals have not necessarily contributed or expressed interest in this process). These 108 colleagues originated from an initial open invitation to approximately 600 individuals across South Africa based predominantly on the South African Surgical Outcomes Study (SASOS) participants and other perioperative research leaders who were identified to the group. The reason for publishing these names is to ensure that we all aware of potential collaborators in perioperative research. Please feel free to grow the group through sharing this report with potentially interested parties. Similarly, if you were recommended to the group, but would rather leave, please let me know.

I trust that this initial National Research Priority Setting project will be the beginning of clinically important, coordinated collaborative research in South Africa. Importantly, a decision was taken at the workshop to formalise the South African Perioperative Research Group (SAPORG).

I thank all of you for your dedication and commitment to national collaborative research in South Africa.

Yours sincerely

Bruce Biccard

29th September 2015

Durban, South Africa

Principles of a National Research Priority Setting Initiative

The following principles were discussed and accepted by the group;

1. We believe in promoting, supporting and co-ordinating research in South Africa
2. We believe it is collaborative research that is needed to address the clinical challenges encountered in perioperative medicine in South Africa and globally
3. We believe we have the capacity to conduct national and international collaborative research in South Africa
4. We believe collaborative research conserves limited research resources in South Africa and globally
5. We believe there are urgent public health issues in perioperative medicine that need to be addressed, to improve the health of the South African and/ or global populations
6. We believe in the National Research Priority Setting process
7. We are going to identify today's leaders who will help develop tomorrow's leaders

Top 10 National Research Priorities

A three stage Delphi technique was conducted prior to the workshop on 12th September. At the workshop, a discussion of the justifications of the suggested research priorities was held. A final Delphi technique based on 8 random small groups was then conducted. The final Top 10 National Research priorities in hierarchical order are the following;

Top 10 National Research Priorities
1. Establishment of a national data base of i) Critical care outcomes and ii) critical care resources
2. A RCT of preoperative BNP guided medical therapy to decrease major adverse cardiac events following noncardiac surgery
3. A national prospective observational study of the outcomes associated with paediatric surgical cases
4. A national observational study of maternal and foetal outcomes following operative delivery in South Africa
5. A stepped wedge trial of an enhanced recovery after surgery programme for either i) surgery, ii) obstetrics, iii) emergency surgery or iv) trauma surgery
6. A stepped wedge trial of a surgical safety checklist on patient outcomes in South Africa
7. A prospective observational study of perioperative outcomes following surgery in district general hospitals in South Africa
8. Short course interventions to improve anaesthetic skills in rural doctors
9. Studies of the efficacy of simulation training to improve i) patient outcomes, ii) team dynamics, iii) leadership
10. Development and validation of a risk stratification tool for South Africa surgery based on the SASOS data

Note on 'Stepped wedge' study designs

'Stepped wedge randomised trial designs involve sequential roll-out of an intervention to participants (individuals or clusters) over a number of time periods. By the end of the study, all participants will have received the intervention, although the order in which participants receive the intervention is determined at random. The design is particularly relevant where it is predicted that the intervention will do more good than harm (making a parallel design, in which certain participants do not receive the intervention unethical) and/or where, for logistical, practical or financial reasons, it is impossible to deliver the intervention simultaneously to all participants…'[1]

Notes with respect to the Top 10 National Research Priorities

1. Critical care: Establishment of a national data base of i) critical care outcomes and ii) critical care resources

Considerations

Can incorporate HIV, AKI and obstetrics studies, and also provide the basis for ongoing research.

Proposers

Miller, O. Smith, Turton, Wise

Potential PhD candidates

Gopalan (magnesium), Mrara (coagulation), Skinner (AKI), Wise (intra-abdominal hypertension)

2. Cardiovascular and cardiothoracic outcomes: A RCT of preoperative BNP guided medical therapy to decrease major adverse cardiac events following noncardiac surgery

Considerations

This is the one field where it was felt that we could make a global impact to perioperative patient outcomes, through advancing the cardiac patient for noncardiac surgery risk stratification algorithm. It is a simple intervention, which is readily accessible due to bedside test availability. Bruce Biccard has potential funding for a pilot study, and should we be successful with this, then major funding is possible. Participation requires a preanaesthetic clinic. Bruce Biccard also has also written a preliminary protocol.

Proposers

Biccard, Rodseth

Potential PhD candidate: none as yet

3. Paediatrics: A national prospective observational study of the outcomes associated with paediatric surgical cases

Considerations

There is little data currently available on paediatric outcomes in South Africa.

Proposers

Biccard, Cronje, Gray, Levin, Marwick, Torborg, Vorster

Potential PhD candidate: none as yet

4. Obstetrics: A national observational study of maternal and foetal outcomes following operative delivery in South Africa

Considerations

Maternal mortality is a national priority, with a lack of reliable data from National Committee on Confidential Enquiries into Maternal Deaths (NCCEMD), as it is retrospective, and does not present the denominator. A need to focus on priority morbidity areas is essential e.g. bleeding. It can be used to incorporate some of the other obstetric research priority topics. Adding specific obstetric data to ASOS (obstetric substudy) should be considered.

Proposers

Biccard, Bishop, Businge, Cronje, Green-Thompson, Maswime, Mohr, Mrara

Potential PhD candidates

Bishop (spinal hypotension), Businge, Cronje

5. National pragmatic trial: A stepped wedge trial of an enhanced recovery after surgery programme for either i) surgery, ii) obstetrics, iii) emergency surgery or iv) trauma surgery

Considerations

May have a role in obstetrics, trauma and emergency surgical groups. A stepped wedge approach to implementation was considered appropriate.

Proposers

Adams, Du Toit, Levin, Marwick, Mohr, Navsaria, Oodit, Rodseth

Potential PhD candidate

Du Toit

6. National pragmatic trial: A stepped wedge trial of a surgical safety checklist on patient outcomes in South Africa

Considerations

Ensuring the effective implementation of the Surgical Safety Checklist in South Africa was considered a priority. A stepped wedge approach was deemed an effective strategy to do this,

while at the same time hopefully confirming the impact of the Surgical Safety Checklist on patient outcomes in the developing world. The importance of appropriate training and buy-in prior to implementation was considered extremely important. The control group would be the current standard of care.

Proposers

Biccard, Navsaria, Turton

Potential PhD candidate: none as yet

7. Perioperative outcomes: A prospective observational study of perioperative outcomes following surgery in district hospitals in South Africa

Considerations

It was considered to build off SASOS, yet was not covered in SASOS. The concern is that there is a potentially higher mortality in these hospitals, and that there are approximately 400 of these hospitals across South Africa.

Proposers

Biccard, Dyer, Hardcastle, Mohr, Turton

Potential PhD candidate: none as yet

8. Education and training: Short course interventions to improve anaesthetic skills in rural doctors

Considerations

Certainly possible and addresses an important public health issue, especially with the training deficit in the rural areas.

Cons

1. Follow up on intervention, and assessing efficacy of the intervention
2. Well established that these interventions improve outcome

Proposer

Farina

Potential PhD candidate

Farina

9. Education and training: Studies of the efficacy of simulation training to improve i) patient outcomes, ii) team dynamics, iii) leadership

Pros

1. Improving adequacy of anaesthesia intern training

Cons

1. Limited number of simulation laboratories/ centres in South Africa and problem of access to these centres
2. Hence should this be a regional priority as opposed to a national priority

Proposers

Duys, Hardcastle, Rodseth, Turton

Potential PhD candidate: none as yet

10. Perioperative outcomes: Development and validation of a risk stratification tool for South Africa surgery based on the SASOS data

Pros

1. Quality improvement basis
2. Could use this project to develop the biostatistics capacity of the group
3. Role of African Surgical Outcomes Study (ASOS) in validation

Cons

1. Do not need a large collaborative group for this. Essentially a post hoc analysis
2. Scoring systems should not be considered a priority, rather interventions based on the SASOS data

Proposers

Allorto, Bishop, Kluyts, Mohr

Potential PhD candidate: none as yet

Research Interest Working Groups

Burns

Leader: Allorto

Other potential contributors:

PhD Candidate:

Top 5 priorities:

1. An observational study of current protocols and practice for analgesia in burns
2. Define the burden of disease, mortality rate and complications of burns
3. An observational study of the adequacy of the current feeding strategies for burns patients
4. An observational study of the long term outcomes of burns including scars, itching, rehabilitation and reconstructive surgery

Summary: There is currently no established working group. This will be addressed by Nikki Allorto, before taking the ides proposed above further. There is a national burn registry that has been developed by Nikki Allorto and will be launched in January 2016. Once this is done, then other priorities can be addressed.

Cardiovascular and cardiothoracic outcomes

Leaders: Biccard, Rodseth, Levin, Johan Coetzee, de Vasconcellos

Group contributors: Allorto, Alphonsus, Biccard, Businge, Coetzee, Drummond, Gray, Hardcastle, Kisten, Kluyts, Levin, Marwick, Mohr, Mrara, Myburgh, Navsaria, Rodseth, Roodt, Pam Scheepers, Marli Smit, Swanevelder, Turton, Vorster

Cardiologists? Bongani Mayosi

Other potential contributors: Keene

PhD candidates: Alphonsus, Drummond, Hadebe

Top 5 priorities:

Discussion considered which topics should be addressed, study collaborators, study leaders, MMed or subsidiary projects attached to the main projects, ethical issues, feasibility, study design, appropriateness. These discussions are summarized below.

1. A RCT of preoperative BNP guided medical therapy to decrease major adverse cardiac events following noncardiac surgery

A concern about the ethics of performing this study were raised. This should not be a concern, as the process of integrating BNP into perioperative algorithms would now demand a RCT.[2]

The methodology of performing this study were raised. Bruce Biccard has written a protocol which could be used in a pilot. A pilot would be an appropriate method to test both the protocol and the feasibility of the protocol.

The resources needed across different centres for the trial was raised. The proposed protocol would require a preanaesthetic clinic. Bruce Biccard has a potential sponsor for bedside BNP testing for the trial.

MMed studies that could be attached to this study included;

i) Measurement of diastolic dysfunction and how/if this relates to the pathophysiology of the raised BNP? Hypothesis: Diastolic rather than systolic dysfunction is associated with increases in BNP in valvular patients.

ii) 6MWT (and outcomes, or BNP levels?)

iii) CPEX (and outcomes, or BNP levels?)

2. A RCT of medical therapy optimisation following myocardial injury after noncardiac surgery to improve intermediate term major adverse cardiac events following surgery

3. Studies of blood conservation strategies in cardiac surgery

4. Goal directed intraoperative fluid therapy to improve patient outcomes

5. A RCT of perioperative statin therapy to decrease atrial fibrillation following valvular heart surgery for rheumatic heart disease.

This was felt to be feasible, without major ethical or logistic issues. The provisional power analysis indicated approximately 750 patients would need to be enrolled. Both mitral and aortic valve surgery should be included. It was felt that there would be sufficient patients across the country to get the numbers required within two years.

MMed studies that could be attached to this study included;

i) The influence of LA size of POAF. It is not clear if this has been done yet, and hence a literature review would be required.

ii) Inflammatory biomarkers, statins and POAF. It is not clear if this has been done yet, and hence a literature review would be required.

Additional study suggestions;

1. A discussion of FATE protocol accuracy in measuring LA size and in measuring diastolic dysfunction was held as addition to this topic. It was felt that FATE was not appropriate to measure these, as it is designed as a rapid testing modality. However, a study on the consequences of FATE introduction into a hospital where it had not previously been used was interesting. Furthermore, a protocol of TOE in resuscitation (not CPR, but trauma) would be interesting.
2. 'CASOS'; an audit or database of cardiac surgery performed and outcomes in South African private and public healthcare.

Critical care

Leader: Wise

Group contributors: Allorto, Businge, Hardcastle, Flint, Kisten, Levin, Marwick, Miller, Mohr, Mrara, Navsaria, Skinner, Smith, Turton, Wise

Other potential contributors:

PhD candidates: Gopalan (magnesium), Mrara (coagulation), Skinner (AKI), Wise (intra-abdominal hypertension)

Top 5 priorities:

1. Establishment of a national data base of i) critical care outcomes and ii) critical care resources

This was the only priority discussed in the meeting.

The following strategy was developed;

i) Circulate an email covering the following points;

a) Engage with everyone regarding a minimum dataset that we can decide on as a group,

b) Arrange a meeting in about 2 months' time (probably in Jo'burg) to discuss;

The minimum dataset and plan a way to integrate various databases that people may be using around the country.

The system by which different databases that contain the minimum dataset are combined via a "levelling" system. Thus people won't have to necessarily change their database or use something that doesn't work for their system. In addition, people can offer their database systems as alternatives for those that would like to try something different or for those that don't have one yet. It is hoped that by this meeting there would be a web-based system ready to trial for those that would like to use one – the objective is to make this available to whoever would like to use it. Others may like to do the same with their databases.

It would also be used to discuss the approach to DOH approval and ethics approval, as well as management of the data via a coordinating committee.

Irma Mare is going to try and invite someone from Vanderbilt University to come and address the group to help with the database set up. She is going to the USA later this year and will approach them.

There was general consensus to get involved with ANSA regarding servers etc. if required, as opposed to trying to run a completely different setup and incur greater costs. There was agreement that there was no point in duplicating such systems.

ii) Finally, a proposal will be drawn up for the Critical Care Society that will propose the Society's potential involvement in this project as this is something that is going to benefit Critical Care in South Africa.

Target: Functional database by the end of next year at the latest.

2. The impact of HIV on critical care resources and outcomes

3. An evaluation of early management changes for sepsis to improve outcomes

4. Studies on antibiotic stewardship: an audit cycle study

5. Studies of transfusion triggers and blood product usage in ICU and trauma

Addressing the other priorities, will happen once the core group is established and the database working.

Education and training

Leader: Belinda Kusel

Group contributors: Alphonsus, Cronje, Duys, Farina, Hardcastle, Maswime, Rodseth, Rout, Turton, Vorster

Other potential contributors:

PhD candidates: Farina, Spijkerman

Participants:

Chris Rout

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Participants not at meeting:

Larissa Cronje, Timothy Hardcastle, Salome Maswime, Reitze Rodseth, Edwin Turton, Adri Vorster, Sandra Spijkerman, Christiaan Kampik, Naren Bhimsan, Robert Wise

Top 5 priorities:

1. Short course interventions to improve anaesthetic skills in rural doctors

2. Studies of the efficacy of simulation training to improve i) patient outcomes, ii) team dynamics, iii) leadership

3. Education on how to identify the critically ill patient

4. Does obstetric anaesthetic training improve outcome?

5. Contextualization of training for South Africa demands

The meeting discussion was around entertaining new models of training on all levels (nurses, students, rural doctors etc.) and methods of skills transfer. We were also considering getting people from an educational background/psychology background involved in the group e.g. Prof Ted Sommerville and Lionel Green-Thompson.

Priority target groups identified at this stage were nurses and rural doctors.

A needs analysis, identifying current failures of anaesthesia teaching and training was discussed. The role of protocolized, algorithm based-training was discussed.

Possible study: Does simulation training improve skills and knowledge retention.

Potential MMED: A literature review of adult learning theory and how that can be applied to medical education.

Obstetrics

Leaders: Maswime, Bishop

Group contributors: Biccard, Bishop, Businge, Cronje, Dyer, Flint, Green-Thompson, J Hofmeyr, Levin, Marwick, Maswime, Mohr, Mrara, Rodseth, Strachan, van Niekerk

Completing PhD: Maswime

PhD candidates: Bishop, Businge

With PhD: Robert Dyer

Present at the discussion: Salome Maswime: 0764701169 smaswime@gmail.com, Elizabeth Semenya: 0824417574 semenyaem@yahoo.co.uk, Dominic Richards: 0836708112 dominicgdrichards@gmail.com, Tracey Adams: 0848113986 tracey.adams@uct.ac.za, Charles Businge: 0727243520 cbusingae@gmail.com, David Bishop: 0827897767 david.bishop@kznhealth.gov.za, Robert Dyer: 0836002095 robert.dyer@uct.ac.za

Top 5 priorities:

1. A national observational study of maternal and foetal outcomes following obstetric delivery in South Africa

It was suggested by Dr Bishop and agreed by the group that this study should be part of the ASOS Outcome Study. Obstetric and Anaesthesia outcomes should be studied. Dr Bishop said that he had a CRF for his PhD work which could be modified to facilitate data collection beyond what would be collected for non-obstetric ASOS patients. This could then be published as a sub-study.

2. Determination of the predictors and appropriate management of maternal haemorrhage to improve maternal outcomes

Dr Salome Maswime reported that she was in the process of completing her PhD in the field of Obstetric Haemorrhage.

3. The development of early warning systems or prediction scores for obstetric patients

Dr Bishop expressed the view that one would need observational data from studies such as ASOS, before a prospective study on early warning systems would be justified.

4. Pre-eclampsia and maternal health

Prof Dyer reported that several studies were either complete or ongoing at UCT (fluid responsiveness, vasopressor effects, the non-reassuring foetal heart trace, echocardiography, lung ultrasound, the strong ion approach to blood gases in preeclampsia). In future the possibility of multicentre collaboration could be considered in the field of perioperative outcomes in preeclampsia.

5. An observational cohort study of the neurodevelopmental outcomes of early unlaboured elective Caesarean sections

Prof Dyer expressed the view that it could be of more value to do a multivariate analysis of foetal outcomes in caesarean section for foetal distress.

Note by Bruce Biccard. *This priority was suggested by Dr Strachan and Prof van Niekerk. It was a particular concern in the practice of obstetrics in the private community with the high proportion of unlaboured Caesarean sections. This could be an observational study in private health care.*

Paediatrics

Leader: Cronje and Torborg

Group contributors: Biccard, Coetzee, Cronje, Gray, Harrichandparsad, Levin, Marwick, Strachan, Torborg, van Niekerk, Vorster

Other potential contributors: Clover-Ann Lee, Johan Diedericks, Kotie Bester

PhD candidates: Heidi Meyer, Clover-Ann Lee

Top 5 priorities:

1. A national prospective observational study of the outcomes associated with paediatric surgical cases (SAPSOS)

Study characteristics discussed;

i) Organisational
   a. There should be a provincial representative
   b. District hospitals representation; may be possible in KZN, Western Cape and possibly Gauteng
   c. Surgeons participate
   d. Possible private participation

ii) Recruitment window
   a. Should not overlap with school holidays

iii) Data capture
   a. All patients <16 years (SASOS was >/= 16 years)
   b. Additional CRF for neonates and/or patients less than one year old

iv) Potential MMed projects:
   a. Preferably one MMed per province
   b. Audit of Paediatric caseloads and equipment available in the district hospitals.

2. Establishment of national ventriculoperitoneal shunt registry

3. An audit of all paediatric sedation cases nationally, including remote sites and sedation administered by non-anaesthetists

It was felt that a good starting point would be to get data from Discovery about their patients. Potential MMed project. This could be followed by a full national audit, which could be a potential PhD project.

4. A study of the incidence and risk factors for neonatal post-operative apnoea

A decision was taken to remove this from the priority list, as it is well covered in the literature.

5. An audit of morbidity and mortality following cardiac catheterization/ non-invasive cardiac procedures

It is believed that this is a project which could be done relatively quickly. It would need to include others who are doing these cases e.g. Gauteng and Eastern Cape. Could be a potential MMed project.

Other issues raised;

Email to all the HoDs to find out what MMeds and PhDs are being done that are about Paediatric anaesthesia.

Establishing PACSA's participation and role in the Paediatric Interest Working Group

Perioperative airway management

Leader: R. Hofmeyr

Group: Cronje, Hardcastle, Hofmeyr, Turton

PhD Candidate: R. Hofmeyr

Top 5 priorities:

1. A national airway equipment audit (OR and ED)

2. A national perioperative airway management and outcomes audit (similar to NAP 4)

3. Longitudinal audit of the change in practice (or lack thereof) with between video laryngoscope and awake fibreoptic intubation

4. A national audit of aspiration events and subsequent outcomes

5. The role of ultrasound evaluation of airways

No small group meeting held.

Perioperative outcomes

Leader: Ravi Oodit has agreed to lead the group, until such time as an election process is established.

Group contributors: Adams, Allorto, Alphonsus, Biccard, Bishop, Coetzee, Du Toit, Duys, Dyer, Hardcastle, Hofmeyr, James, Kisten, Kluyts, Koto, Kyriacos, Levin, Madiba, Marwick, Mohr, Navsaria, Rodseth, Turton, Wise

Other potential contributors:

PhD candidates: Adams (Gynae oncology), Du Toit, Kluyts (preoperative risk stratification), Moolla (colorectal ca), Nel, Oodit? (ERAS)

Top 5 priorities:

1. A stepped wedge trial of an enhanced recovery after surgery programme for either i) surgery, ii) obstetrics, iii) emergency surgery or iv) trauma surgery

Leader: Ravi Oodit

Strategy:

i) Suggest that we start with colorectal surgery, trauma and gynaecology. Once we have sufficient traction, established baseline data and developed a locally relevant program we can roll it out to other centres.

ii) Current protocols:
   a. Protocol written for colorectal cancer at GSH/UCT (Private arm has started)
   b. Trauma pilot programme completed and Oodit is writing an implementation protocol for trauma
   c. Tracy Adams is keen to start the gynaecology programme, and Oodit will facilitate this

iii) The joint task between SASES (South African Society of Endoscopic Society), SAPORG and the ERAS Society then would be to develop a national rollout plan. ERAS has been under the umbrella of SASES for the last year and Ravi Oodit has been elected by the international ERAS society to develop a programme for a LMIC (low and middle income countries) such as South Africa. A lot of the ground work has been done. It is felt that there is a lot of synergy, scope for incredible mutual benefit and as a team we will be able to achieve a lot more in a shorter time period, based on these collaborations. However, it is likely that a formal MOU (memorandum of understanding) may be necessary between the groups.

2. A stepped wedge trial of a surgical safety checklist on patient outcomes in South Africa

3. A prospective observational study of perioperative outcomes following surgery in district hospitals in South Africa

4. Development and validation of a risk stratification tool for South Africa surgery based on the SASOS data

Leader: Hyla Kluyts

5. An evaluation of perioperative optimisation on patient outcomes

Suggestion that this should be incorporated into the ERAS programme, as there is significant overlap.

The following general approach was suggested to be adopted by each team for each priority;

i) They need to develop protocols for both the public and private arm (it is possible that different protocols may be necessary),

ii) Overview and a summary of their portfolio with the following headlines;
   a. Background
   b. Literature review
   c. Situation analysis
   d. Aims
   e. Objectives
   f. Methods
   g. Results
   h. Conclusions
   i. Time lines
   j. Budget
   k. List of possible; publications, presentations at meetings, MMeds and PhDs

iii) Each team leader will need to;
   a. Identify suitable team members,
   b. Identify a team member to provide secretarial support,
   c. Arrange meetings, agenda, venue, etc.,
   d. Coordinate the writing of the protocol and programme,
   e. Source funding for the project/s
   f. Provide feedback to SAPORG (time line unsure, but possibly every 12 weeks)

Note by Bruce Biccard: *I personally feel this is too much to expect of the team leader, and would suggest that the team leader through delegation and consensus, ensures that all these tasks are covered by individuals in the project team.*

iv) Support expected from SAPORG for the team leader;

a. Admin and secretarial support,
b. Funding to attend meetings,
c. Defined line of communication with SAPORG

Note by Bruce Biccard: *This is a very important point, but has not been dealt with at all, as SAPORG has not been formalised yet. As such, currently SAPORG can provide data capture and repository support, but not admin or secretarial support. The funding of SAPORG has not been addressed at all, and it is key that this is addressed soon. The model for funding SAPORG needs input from all role players. Currently, it has been funded entirely by the South African Society of Anaesthesiologists (SASA), but the expected contribution from all interested societies e.g. ASSA, CCSSA etc. needs to be clarified, and the possible contribution of SAPORG members. These contributions will remain relevant until such time as we have unrestricted educational grants to support the entire group.*

Perioperative cardiovascular echocardiography

Leader: Swanevelder

Group contributors: Biccard, Hardcastle, Levin, Marwick, Turton

Other potential contributors: Coetzee, Drummond, Fischer, Hauser, Keane, Mohr, Myburgh, Roodt, Torborg, Vorster

PhD candidates: Myburgh, Roodt

Top 5 priorities:

1. A prospective observational study of the perioperative use of ultrasound (FATE, POCUS, lung, vascular access)

2. A prospective observational study of the utility of FATE in the preoperative assessment

3. Medical student training (Point of care)

4. FATE during research

Trauma and resuscitation

Leader: Navsaria

Group contributors: Hardcastle, Hofmeyr, James, Koto, Mohr, Navsaria, Rodseth, Wise

Other potential contributors: Nicol, Edu, Clarke, Oosthuizen, Moeng, Degiannis, Steyn

PhD candidates: No one identified yet, although trauma, general surgery and critical care fellows are potential candidates

Top 5 priorities:

1. Studies of massive transfusion and tranexamic acid in trauma

i) Potential MMeds;
   a. Develop a national massive transfusion protocol
   b. Roll out a national massive transfusion protocol
   c. Compare outcomes before start of MTP and after commencement of MTP

ii) Potential PhD (Tranexamic acid);
   a. Audit major trauma centres regarding feasibility of tranexamic acid administration within 3hour time since trauma occurrence (see Navsaria SAJS, May 2005)
   b. Feasibility of TA administration by EMS / district hospital personnel
      i. Ideally RCT, blinded, multicentre, prehospital administration (EMS) [blunt vs penetrating]

2. Echo guided life support

3. Airway management in trauma

Overlap with Airway Interest Group

4. Damage control surgery in Africa

It was felt that this is no different from rest of the world, and an audit of the indications and outcome would be interesting (MMed)

5. A RCT of restrictive/hypotensive resuscitation in penetrating and blunt trauma

Potential PhD; A RCT of haemorrhage shocked patients, obvious/occult bleeding, strict restriction of clear fluids (colloid or crystalloid), not more than 1500mL, maintain MAP/SBP at 65/90 mmHg, exclude head injuries, and probably best done only in penetrating trauma

Resolutions on the way forward for National Research in South Africa

The following resolutions were agreed upon;

1. The Top 10 National Research Priorities;
    a. Should be published in SAMJ, with parallel publications in SAJAA, SAJCC, SAJS.

2. The Anaesthesia Network for South Africa (ANSA);
    a. Would adopt the accepted National Priority Registries identified by the group
    b. Each centre that contributes to the National Priority Registries, would need to ensure their own ethics and regulatory requirements
    c. Data security, gatekeepers and relevance of data captured needs to be considered

Background to ANSA: Access to information on how perioperative care is provided in SA, as well as the individual clinician's access to patient information (preoperatively and postoperatively) is hampered by a fragmented healthcare system. Most of the resources spent in healthcare are used in the private sector, which caters for only about a quarter to a fifth of the total population. Furthermore, clinicians such as anaesthetists may not work in a hospital based fashion, which makes it difficult to coordinate efforts in improving patient care. There exist a real need for data integration and collaborative effort in the public sector. Furthermore, the majority of public sector resources are spent on combating HIV-related illness and maternal- and child morbidity and mortality, and the promotion of perioperative quality of care will receive less attention, unless it is aligned with addressing these health problems.

ANSA (www.ansa.org.za) was conceptualized by the SA Society of Anaesthesiologists (SASA) during 2012 – 2014. At the time the Society had very little information on how, where and by whom perioperative care was performed in SA, and there was a real need for this information in order for SASA to fulfil its mission of promoting the safe practice of anaesthesia in this country.

ANSA was registered as a non-profit company in March 2014. Since its inception, the objectives of ANSA have crystallized into the following;

1. Creating a platform for perioperative collaborative research in SA. This has realized with ANSA performing the administration of the SA Perioperative Research Group. www.saporg.co.za. Research results may be used to inform the other objectives.
2. Creating and maintaining a database on facilities where anaesthesia and perioperative care are performed in SA.
3. Initiating perioperative registries and adverse event reporting platforms. Some of the information obtained here will inform other objectives.
4. Creating a 'patient portal' with the primary aim of answering the question: "How safe is anaesthesia and perioperative care in SA?" This will entail public reporting of results

from research, the facility database and registries, but will also make provision for information exchange between patients and caregivers.

3. The South African Perioperative Research Group (SAPORG) should be;
    a. Formalised as an independent non-profit organisation, so that it can be used for group funding, through unrestricted educational grants which remove investigator conflicts of interest
    b. Endorsed by the relevant societies in South Africa e.g. ASSA, SASA, SASOG

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