Announcement of the South African Surgical Outcomes Study (SASOS)

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Introduction

The recently published European Surgical Outcomes Study (EuSOS) was a collaborative study designed to assess outcomes following non-cardiac surgery across Europe. It showed that the mortality rate for patients undergoing inpatient non-cardiac surgery was higher than anticipated. This is because clinical outcomes following non-cardiac surgery had previously been poorly described at national level. There was evidence of heterogeneity between hospitals and healthcare systems which suggests that there is potential to improve the outcome for surgical patients.

South African outcome data are particularly sparse following non-cardiac surgery. It is likely that non-cardiac surgery in South Africa is associated with a larger morbidity burden than that seen in Europe. Until such time as the public health morbidity burden associated with non-cardiac surgery in South Africa is understood, it will be impossible to appropriately prioritise interventions to improve patient outcomes.

These points provide the rationale behind conducting a similar study to EuSOS in South Africa. This study will be known as the South African Surgical Outcomes Study (SASOS).

Study objectives

The objectives of SASOS are to determine the incidence and predictors of in-hospital mortality, length of stay and admission to intensive care in a large prospective observational study in South African government hospitals. Finally, SASOS will provide data on the proportional contribution of communicable and noncommunicable diseases, as well as violence, to non-cardiac surgery mortality in South Africa.

Study design

SASOS is a large national collaborative study which will be jointly run by the university departments of Anaesthesiology, Surgery and Critical Care at the Universities of Cape Town, Free State, KwaZulu-Natal, Limpopo, Pretoria, Stellenbosch, Walter Sisulu and Witwatersrand, and their affiliated hospitals. The study is a seven-day prospective, observational cohort study of consecutive patients aged 16 years and older undergoing inpatient non-cardiac surgery. This study will run from 19-26 May 2014. Patients will be followed-up for a maximum of 30 days.

The study will follow the original EuSOS study design. By replicating the EuSOS study, SASOS will produce internationally comparable data.

The primary outcome is in-hospital mortality. Secondary outcomes include length of stay and admission to intensive care. Other outcomes include the development of models for in-hospital mortality and admission to intensive care in South Africa.

Preparatory work

The EuSOS study successfully collected data on nearly 47 000 patients from 128 hospitals across Europe. Through collaboration with the EuSOS steering committee, we have ensured that the expertise, infrastructure and documentation used in the EuSOS study has been shared with the South African group for SASOS. Currently, all of the university departments are in the process of obtaining full ethics approval for the study.

A website has been established with the necessary background information, frequently asked questions and downloadable study documents, including case record...
forms at www.sasos.co.za. The South African Society of Anaesthesiologists has provided financial support for SASOS through a grant from the Jan Pretorius Research Fund.

The importance of the South African Surgical Outcomes Study

Non-cardiac surgery is associated with significant morbidity. Accurate information on the type of procedures, patients and outcomes following non-cardiac surgery in South Africa would allow for appropriate future allocation of resources. It will also help to identify where these resources are most likely to improve the South African patient outcome. Therefore, this study has important public health implications for South Africa.

Furthermore, SASOS will provide the data that are necessary to develop important surgical outcome research questions in South Africa, and appropriately power subsequent interventional trials which address these questions.

Finally, it is hoped that the SASOS collaboration may be the beginning of a South African National Perioperative Research and Clinical Trials group.

References