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Caesarean section and anaesthetic mortality

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Thank you Dr Abraham for your response to our research.

The latest data indicate that South Africa has failed to meet many of its Millennium Development Goals 2015 for child mortality and maternal health.¹ Current data show that for every 1 000 live births there are 3.1 maternal deaths,² 13 neonatal deaths, 28 infantile deaths and 40 deaths under the age of 5 years.³ Of particular relevance to anaesthesia, the case fatality rate for caesarean section in South Africa is 18.9 deaths per 10 000 caesarean sections, and 14.8 deaths per 100 000 caesarean sections due to anaesthesia. Anaesthesia-related mortality contributes 2.4% of the maternal mortality rate.²

Considering the healthcare infrastructure in South Africa when compared with the rest of the continent, these statistics are alarming.

We are aware of a shortage of medical skills at many hospitals across South Africa, especially level one hospitals,^{4,5} but how we correct this remains a challenge. It is clear that community service medical officers (COSMOs — first-year medical officers after completing a two-year internship) and other inexperienced doctors are performing anaesthesia without supervision, or with supervision from relatively inexperienced senior generalist doctors.^{4,5} Although not directly forced to provide an anaesthetic service, the dire need for medical services in remote and isolated areas indirectly compels doctors to provide the best medical care they can, considering that in many instances inevitable morbidity and mortality would occur without any intervention.

Performing any medical intervention without adequate skill, experience, and equipment carries significant risks to the patient and to the doctor (emotionally and professionally). However, the decision not to perform these interventions also carries significant risks, especially if the intervention is delayed by a referral and emergency medical transport system that is under strain. Balancing these risks is arduous for all involved and often calls for actions and interventions beyond their training, capacity, and call of duty.

Solutions to these problems in our developing country are being sought, with many areas that remain under-resourced, under-

serviced, and isolated. We agree that COSMOs are not the ideal solution, and that two months of anaesthetic training is not enough to ensure competence during independent anaesthetic practice. The reality, however, is that while large-scale interventions are designed and implemented, COSMOs will continue to work as they currently do. The deficit of both nurses and doctors in the country remains in the thousands, the majority of which are experienced in more peripheral and remote areas where COSMOs are often placed. The statistics presented above clearly highlight the need for prospective observational research to describe these problems, and then help identify simple interventions to improve outcomes.

It is essential that we maximise the benefits of internship training while the 'big-picture' problems of healthcare structures and increasing the numbers of nurses and doctors are addressed. This can be achieved by maximising our contact and teaching opportunities, using simulation to safely face problems that may not be seen during two- or three-month rotations, and continuing to develop outreach programmes to support peripheral and rural hospitals. If we make every interaction with an intern count, use every teaching opportunity wisely, and guide our colleagues towards realistic targets, it could make a difference. This was the motivation for our study. Every single life counts and life is precious.

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