Safer Anaesthesia From Education

SAFE Paeds
Cotonou, Benin
November 2016

Association of Anaesthetists of Great Britain and Ireland
In partnership with Mercy Ships

Report compiled by
Dr Savini Wijesingha
Executive Summary

The SAFE (Safer Anaesthesia From Education) Paediatrics Course aims to improve the delivery of paediatric anaesthesia in low-resource countries. The provision of paediatric surgical services in low-resource countries is often the remit of a general surgeon and a nurse anaesthetist. It is estimated that 85% of children in low-resource countries will require surgery before the age of fifteen, and the responsibility of an anaesthetist covers the need to provide anaesthesia for emergency procedures, elective operations, resuscitation and pain management.

The SAFE Paeds course was devised by Dr Isabeau Walker and Dr Michelle White, for the Association of Anaesthetists of Great Britain and Ireland (AAGBI) and the World Federation of Societies of Anaesthesiologists (WFSA). Since its inception in 2014, it has been run in a number of countries in sub-Saharan Africa.

This SAFE Paeds course was run in Benin and conducted in partnership between Mercy Ships and the AAGBI and the course was run in French. Previous French-language SAFE Paeds courses have been undertaken in Madagascar by Mercy Ships. The Africa Mercy is currently docked in Cotonou, Benin; and it was the first time SAFE Paeds had run in Benin (SAFE Obs had occurred Sept 2016).

The SAFE Paeds Course Director was Dr Savini Wijesingha, a UK anaesthetic trainee. She was supported by Professor Eugene Zoumonou, professor of anaesthesia in Cotonou, as the lead local contact, and Dr Michelle White, Deputy Chief Medical Officer, Mercy Ships.

The faculty comprised of one four consultant anaesthetists, two anaesthetic registrars and one paediatric registrar. All the facilitators came from the UK, bar one Swiss consultant who has taught on previous SAFE paeds courses with Mercy Ships. Four local interpreters provided excellent assistance throughout, however the two fluent French-speaking faculty taught without translation.

This course differed slightly to previous courses. The information was taught over two days rather than three, followed by a day of ‘Training of Trainers’ and then a second two day course. The timetable and topics were chosen in consultation between Dr Michelle White (Mercy Ships) and Professor Eugene Zoumonou (Professor of Anesthesia, Benin).

A total of 19 anaesthetists attended the first two-day course and 30 attended the second. There were nine candidates for the Train the Trainers. Most of the delegates came from Benin, however three travelled from Burkina Faso.

Clinical skills and knowledge were tested via MCQs and skills stations before and after the course. The course itself was a mixture of short lectures, workshops and scenario tutorials. There was excellent feedback from the delegates and good improvement in their MCQ and skills tests.
Acknowledgements

Our sincere thanks goes to Mercy Ships, without whom, the course could not have run. Recruitment of delegates, logistics and organisation were handled by medical capacity building project managers Krissy Close and Abby Watrous. They were supported by Joan Kotze, medical capacity programmes assistant, and Kirstie Randall, Medical Capacity Building Director.

We are very grateful to Dr Michelle White, Mercy Ships Deputy Chief Medical Officer, for her involvement and guidance of this course, as well her ongoing support for the SAFE initiative.

Many thanks to the Association of Anaesthetist of Great Britain and Ireland (AAGBI) for their support and financial contribution to the cost of our flights.

Our thanks to Professor Eugene Zoumonou for his involvement in the course.

The faculty and interpreters worked extremely hard over the week and functioned very well as a team. For the second course, this included facilitators from Benin and Burkina Faso who worked alongside the European team.

Finally, our grateful thanks to the delegates for their attendance and enthusiasm.
Background

Benin is a Francophone country in West Africa and shares borders with Togo and Nigeria, Burkina Faso and Niger. The population is 10 million. The under-five mortality rate is 85.3 per 1,000 live births. 43% of the population are under 15 years of age and the median age in the country is 18. Malaria accounts for the most deaths in children under five years.

As of 2015, there were 35 members of the Benin Society of Physician Anaesthetists, with a further 34 doctors enrolled on the four-year training course. This comprises of doctors from around the region, not just Benin. There are approximately 250 anaesthetic officers, who deliver most of the anaesthetics in the country. There was an anaesthetic officer training school, but funding for this was unfortunately suspended a few years ago.

Mercy Ships arrived in Cotonou in October 2016. The charity provides healthcare, surgical intervention and follow-up from the hospital ship. In addition, there is a significant education programme, with the aim of improving healthcare delivery in the host country and ensuring sustainability.
The November 2016 SAFE Paeds Course

This course was held at the Hotel du Port, Cotonou. A large air-conditioned conference room was used for lectures and two concurrent workshops, and a further two workshops were held outside. The hotel provided food and refreshments during breaks. The faculty also stayed here.

The SAFE Paediatrics course has previously been run over three days. This course was shortened to two days, at the request of the local anaesthesia school. The permitted concise delivery of information relevant to the local population and also allowed us to teach two courses in the same week, thereby increasing the number of candidates able to attend.

There were nineteen candidates on the first course and thirty on the second course.

The course followed the same format as previous SAFE courses, with a mixture of lectures, skills sessions, group discussions and scenarios. Since neonatal resuscitation was not taught the skills test – neonatal resuscitation was replaced by one on management of a fit, which was written by Dr Michelle White. The Benin anesthetists will be given neonatal teaching at another time by Mercy Ships.

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<thead>
<tr>
<th>Monday 20th Nov</th>
<th>Tuesday 21st Nov</th>
<th>Wednesday 23rd Nov</th>
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<td>Recognition and assessment of the sick child</td>
<td>Giving a lecture</td>
<td>Pre-course assessments</td>
<td>Recognition and assessment of the sick child</td>
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<td>Resuscitation</td>
<td>Teaching a skills station</td>
<td>Basic principles</td>
<td>Resuscitation</td>
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<td>Airway</td>
<td>The sick laparotomy</td>
<td>Leading a discussion</td>
<td>Airway</td>
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<td>Trauma in children</td>
<td>Leading a scenario</td>
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<td>Trauma in children</td>
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<td>Logistical considerations and obstacles</td>
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A Train The Trainers course was held on the third of the five days. There were nine candidates on this course, including three from Burkina Faso. These delegates then helped the visiting faculty to teach on the second SAFE Paeds course.

All participants received a certificate, a USB stick with course materials and a copy of the SAFE Paediatric and Obstetric Anaesthesia Pocket Handbook (French translation).
The SAFE Team

Teaching faculty:

Dr Colm Lanigan  Consultant Anaesthetist
London

Dr Alana Kirkwood  Consultant Paediatric Anaesthetist
Leeds

Dr Kate Holmes  Consultant Anaesthetist
Plymouth

Dr Alex Polet  Consultant Anaesthetist
Geneva (retired)

Dr Andrew Mullett  Specialist Trainee 7 in Paediatrics
Bristol

Dr Lesley Milne  Specialist Trainee 3 in Anaesthetics
Bristol

Dr Savini Wijesingha  Specialist Trainee 6 in Anaesthetics
Edinburgh

Interpreters:

Dr Quenum Seidjolo
Zouliha Salami
Kegnonhou Barnet Sergie
Pierre Djossa
Monitoring, Evaluation and Results

The course was warmly and enthusiastically received by the delegates. Pre- and post-course testing demonstrated very encouraging results.

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<tr>
<td>first course</td>
<td>22.5</td>
<td>27.8</td>
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<td>64.4%</td>
<td>79.9%</td>
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<td>2nd course</td>
<td>21.5</td>
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<td>61.4%</td>
<td>78.7%</td>
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<th>pre</th>
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<th>Intubation</th>
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<td>3.6</td>
<td>8.6</td>
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<th></th>
<th>Seizure</th>
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<td>2nd course</td>
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All delegates ranked the course very highly in their evaluations, giving mainly scores of 10/10 for the quantitative part of the evaluations.

When asked what were the three most important things they learned, the main focus was on learning about management of children with trauma, the ABCDE approach, dealing with burns in children, estimating children’s weight and calculating correct medication doses for children.
Summary

The SAFE Paediatrics course held in Cotonou, Benin, in November 2016 resulted in the training of forty-nine delegates.

The course received excellent feedback from the participants. There was marked improvement in four key areas of anaesthetic management, as demonstrated by the pre- and post- skills course testing, and the MCQ results demonstrated an increased level of knowledge.

Nine candidates attended Train The Trainers and helped teach the second of the two courses. The training of local instructors, along with Mercy Ships' ongoing work in Benin and subsequent host countries, will hopefully permit a sustainable and long-term system of paediatric anaesthetic education in West Africa, thereby reducing child mortality in the region.
References:

WHO Benin Statistical Profile:  
http://www.who.int/maternal_child_adolescent/epidemiology/profiles/neonatal_child/ben.pdf?ua=1

Benin: Neonatal and Child Health Profile  
http://www.who.int/maternal_child_adolescent/epidemiology/profiles/neonatal_child/ben.pdf?ua=1