THE 1ST ANAESTHETIC CONFERENCE – BANJUL, THE GAMBIA 2012

Report compiled by Dr Zoë Smith

INTRODUCTION

The Gambia is situated in West Africa comprising a strip 400km long surrounded on either side by Senegal. There are six tertiary hospitals in The Gambia, five of which perform surgery. The largest of these is the Royal Victoria Hospital Teaching Hospital (RVTH). Anaesthetic services are limited, with only three physician anaesthetists in the whole country, none of whom are Gambian (Table 1). The most common causes of adult morbidity are malaria, respiratory conditions, skin disorders, cardiovascular diseases, diabetes and cancers.

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<thead>
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<th>The Gambia</th>
<th>UK</th>
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<tbody>
<tr>
<td>Population (million people)</td>
<td>1.7</td>
<td>61.6</td>
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<td>Life expectancy (years)</td>
<td>56</td>
<td>80</td>
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<tr>
<td>People living below poverty line (&lt;$1.25 per day)</td>
<td>34%</td>
<td>&lt;2%</td>
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<td>Under 5 mortality rate (per 1000)</td>
<td>103</td>
<td>6</td>
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<td>Maternal mortality rate (per 100,000)</td>
<td>556</td>
<td>12</td>
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<td>Doctors (per 100,000 population)</td>
<td>11</td>
<td>230</td>
</tr>
<tr>
<td>Number of doctor anaesthetists</td>
<td>3</td>
<td>12,000</td>
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<tr>
<td>Number of anaesthetic nurses</td>
<td>10</td>
<td>0</td>
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</tbody>
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Table 1. Comparison of population demographics for The Gambia and the UK (Source: UNICEF 2009)

BACKGROUND

Dr Anuraag Guleria was part of a cleft lip and palate team that worked at the RVTH in Gambia in 2011. She believed that Gambian nurse anaesthetists and students would benefit from holding a conference similar to those that Dr. Keith Thomson had previously run very successfully in other West African countries including Sierra Leone, Liberia, Benin and Togo. These have comprised a series of presentations and workshops providing continuing medical education for those delivering anaesthetic and midwifery care in the destination country. We used this interdisciplinary model to develop a programme for the 1st Gambian Anaesthetic conference.

PRE-CONFERENCE PLANNING

We were extremely fortunate to benefit from the combined wealth of experience of Dr Thomson and Dr Guleria. The UK team comprised three anaesthesia consultants, seven anaesthesia trainees from the North Western and Wessex Deaneries, a paramedic, a midwife, an ODP and two technicians. Together, we planned a series of lectures and workshops to be delivered over three days at The Royal Victoria Hospital in Banjul, Gambia’s capital. Additional planning included arranging study leave and securing vital funding from the AAGBI International Relations Committee. Trainees were also assisted financially by their respective schools of anaesthesia since the project was deemed to support their educational needs. A number of anaesthetic textbooks were very kindly donated by the AAGBI for each nurse anaesthetist attending the conference. Resuscitation materials, airway models
and other workshop equipment were kindly loaned from our respective hospital’s resuscitation departments. A conference booklet was also designed by one of the North Western Deanery trainees. This contained a summary of presentation and workshop topics, useful resources and a feedback form, which we hoped would facilitate planning for future conferences.

Logistic arrangements were facilitated by Dr Guleria who was able to liaise at a local level with the Chief Matron at RVTH and Mr MM Baro, Head Nurse Anaesthetist at the RVTH and lecturer for the Nurse Anaesthesia Training Programme at the American International University. He was one of the first trained Gambian nurse anaesthetists and is now involved in training current students. On arrival in Gambia we undertook a hospital tour at the RVTH and some of the team visited one other hospital in the region. This provided an insight into the resources available and we were able to see how theatres and other departments were run. This allowed us to gauge the level at which to pitch teaching more appropriately and thus provide a better learning experience for the delegates. As a result of this pre-conference tour, many of the lectures and workshops were adapted to be more specific to the environment in which our delegates would find themselves working.

*Royal Victoria Teaching Hospital (RVTH)*

This is a 550-bed government hospital conducting approximately 4000 surgeries and 6000 deliveries per year. It is the only tertiary care government hospital in The Gambia and comprises an outpatient clinic (including HIV clinic); male and female wards; A+E divided into medical and surgical following triage; rudimentary ICU (no continuous monitoring); surgical, orthopaedic, maternity and paediatric theatres; labour and post-natal wards; paediatric and neonatal units; and radiology with a CT scanner funded by a partnership with Taiwan.

![Figure 1. Main operating theatre at RVTH](image)

*Anaesthetic challenges*

Anaesthesia has a low profile among medical undergraduates in The Gambia. Doctors tend to be more attracted to surgical specialties due to better pay and the perception that Anaesthesia is a “nurse” specialty. As a result, anaesthesia is primarily delivered by anaesthetic nurses. Retention of nurse anesthetists following training is a major problem with a large majority leaving The Gambia
and some also leaving anaesthesia during training. The main reason for this is poor pay and poor working conditions due to staff shortages. Nurse anaesthetists work long hours in a resource-poor setting and are often faced with extremely difficult cases with little or no senior support. In addition they are often posted to outlying peripheral health care centres by government directives with little notice.

In terms of pharmaceuticals and equipment, anaesthetic machines were available in main and maternity theatres (Fig.1). Halothane is the only available volatile agent, and endotracheal tubes and laryngoscopes are re-used until they are no longer functional. Anaesthetic drugs are limited with an intermittent supply of local anaesthetics and opiates. Routine induction of general anaesthesia for caesarian section comprised thiopentone and suxamethonium, with ketamine following delivery. Government maternity services are free of charge in Gambia. As in many African countries, equipment maintenance is an ongoing problem and much of the equipment that we saw was no longer working or awaiting repair. This included a defibrillator, several monitors and ICU ventilators.

THE 1ST Gambian anaesthetic nurse conference

The conference was held between 21-23rd February and was well attended by 43 delegates from Gambia’s hospitals. The opening ceremony included addresses by the RVTH Medical Director, Chief Medical Officer, Public relations Officer and Dr Keith Thomson who then introduced the lectures with an overview of anaesthesia in Africa. The first day was primarily trauma orientated whilst the second day focused on obstetrics and neonatal anaesthesia. Day Two was organised to include nine midwives in combined lectures and workshops. The final day was aimed at service improvement and patient safety.

![Figure 2. Major obstetric haemorrhage moulage](image)

The following topics were covered in presentations and workshops over the course of the conference:

- Recognition and management of sick patients
- Obstetric emergencies and cardiac arrest
• Trauma management and teamwork
• Adult and neonatal life support
• Paediatric anaesthesia
• Difficult airway management
• Pain management and recovery issues
• WHO surgical checklist
• Audit and critical incident reporting

In addition there were trauma and major obstetric haemorrhage moulages (Fig.2), which were well received and helped greatly with group interaction. We found that delegates were initially reluctant to contribute but over the course of the conference they became much more willing to share their experiences which helped both parties. The second day of the conference with midwifery participation also led to some interesting discussions between the two specialities (anaesthesia and obstetrics) which seemed to generate a positive dialogue about team approach and the common problems faced by each.

There was a daily quiz reinforcing the learning from lectures, an extremely realistic blood loss estimating competition, and an essay-writing competition for delegates. There was a choice of essay topics – (a) “A patient who should have lived but died”; and (b) “The role of the anesthetist in your hospital”. Prizes were awarded for trainee and practicing nurse anaesthetists as well as midwives. At the end of the conference Dr. Thomson made a vote of thanks, prize winners were announced and all delegates received certificates and the textbooks donated by the AAGBI (Fig.3).

**Figure 3. Delegates during closing ceremony with textbooks donated by the AAGBI**

**MEDICAL OUTREACH CLINIC**

On the second day in The Gambia, some of the team had an opportunity to become involved in a medical outreach clinic which had been arranged at short notice at a local church; the idea being that churchgoers could simultaneously seek medical care (Fig.4). We were able to prescribe some medicines (e.g. paracetamol, diclofenac, amoxicillin, mebendazole, vitamins, and bendrofluazide) that were sponsored by International Health Partnership,a UK based charity. This experience provided an interesting insight into some of the more common medical issues at the community level, and gave us an idea of issues surrounding limited resources and inequitable access to
healthcare. In total we saw approximately 150 patients over the course of the morning, some of which were referred to hospital, although there was no formal system in place for this. Common complaints included low back pain, headaches, worms, psychiatric disorders, haemorrhoids, chest infections, and Dr Thomson saw one lady with a large fungating breast tumour. Although this clinic was a novel experience for us, we believe it would be beneficial to run this again in the future with a little more prior preparation including names of doctors to refer patients to in Banjul.

![Figure 4. Dr Keith Thomson seeing patients in the outreach clinic](image)

Some of us also had a chance to visit a missionary Gambian secondary school and witnessed the problems of limited resources in another public sector. The children were aged 7-15 years and often travelled several hours to reach the school each day.

**Achievements**

This was the first Anaesthesia conference to be run in the Gambia. From the delegate feedback we received, the conference was well received. There was a request for teaching on spinal anaesthesia and delivering safe anaesthesia for patients with co-morbid conditions prevalent in Gambia. Workshops were generally received better than lectures and in future we would try to intersperse the two and keep lectures to 10-15 minutes. From a small insight into UK practice, nurse anaesthetists, trainees and midwives were able to gain an idea of standards to be striving for in spite of their resource-poor setting and we were able to highlight some areas in which this is achievable despite this drawback. The conference also allowed for team building and there was a strong inter-disciplinary training focus. Hopefully, delegates will be able carry this teamwork forward into their practice. The books donated by the AAGBI, which included “Safe Anaesthesia” and “The Oxford Handbook of Anaesthesia”, will be an invaluable reference source for delegates in their respective hospitals.

For those involved in organising the conference, this has provided a fantastic learning opportunity. Organisational skills, leadership, teamwork, and adaptability are all key qualities that have been put to the test in planning and running an African conference. It has been a privilege to be involved with the project and in imparting some of our own knowledge with those so willing to learn in The Gambia.
**FUTURE DIRECTIONS**

Ideally we would like to run an annual conference of this nature in Banjul. We are aiming to establish a website to help support Gambian nurse anaesthetists and to gain ideas for future conferences. It is hoped that the website may eventually support a forum for discussions and a medium for evaluating audits and morbidity and mortality reports. In addition, Dr Thomson has been liaising with the RVTH Medical Director to try to establish links for UK anaesthetic trainees to spend a few months working in The Gambia as part of the “Developing World Anaesthesia” training module.

![Figure 5. The team and delegates outside the Royal Victoria Teaching Hospital](image)

**ACKNOWLEDGMENTS**

Finally, we would like to thank the AAGBI, The North Western and Wessex Deaneries, our respective hospitals and the Portsmouth Education Group, for their invaluable support for this project.

Dr Anuraag Guleria (Consultant Anaesthetist)  
Dr Emma Halliwell (Consultant Anaesthetist)  
Dr Inese Kutovasa (ST5 Anaesthetic Trainee)  
Dr Matthew Jackson (ST4 Anaesthetic Trainee)  
Dr Clare Khagani (ST3 Anaesthetic Trainee)  
Jainy Chackorcham (ODP)  
Rebecca Thomson (Paramedic)  
Dr Keith Thomson (Consultant Anaesthetist)  
Dr Liz Shewry (SpR 5 Anaesthetic Trainee)  
Dr Richard Ramsaran (ST4 Anaesthetic Trainee)  
Dr Lorna Howie (ST4 Anaesthetic Trainee)  
Dr Zoë Smith (CT2 Anaesthetic Trainee)  
Louise Emmett (Midwife)  
Jonathon Rimmer & Duncan Thomson (Technicians)