Dr Keith Thomas Travel Grant
Recipient Report – Addis Ababa, Ethiopia

I was fortunate enough to receive funding from the Dr Keith Thomas Travel Grant in order to support my Global Health Educational Fellow role in Addis Ababa, Ethiopia, from August 2023 to January 2024. This role is a joint venture between the Canadian Society of Anaesthesiologist's international branch, CASIEF, and the Global Anaesthesia Project. In essence, the role is to support the local training and educational needs of anaesthesiology residents at the Tikur Anbesa Hospital, one of the largest tertiary public hospitals in Ethiopia.

There has been a massive increase in the number of anaesthesiology residents in recent years, possibly in an attempt to increase the number of physician-anaesthesiologists. Currently there are around 30 residents in each year, with training lasting three years in total. Residents are almost wholly responsible for service provision in the Operating Department, with Attending's supervising up to three ORs at a time, and not always on site. I was sharing this role with another UK anaesthetics trainee, which was fortunate given the near 90 resident's training we were responsible for.

We continued with the delivery of the VAST Foundation Year programme for the Year 1 group. This is a 48 week programme from Canada, designed to be delivered in resource-limited setting and aimed at complimenting the 1st year residents' local curriculum. It is focused on simulation-based teaching and covers introductory topics to anaesthesia, basic clinical principles of anaesthetic care, obstetrics, paediatrics and resuscitation topics, to name but a few. Most Ethiopian residents have little exposure to simulation-based teaching during their training, yet they have embraced this new style. Whilst the Tikur Anbessa has an impressive simulation space, we had at times had to get creative with how to deliver the content, making mock-defibrillators out of cereal boxes and using bananas to teach epidurals techniques.

The R2 and R3 teaching programme was a more fluid affair, with us delivering teaching on topics they requested as well as topics we thought they may benefit from and which would not typically appear in their usual teaching programme, including Audit and QI and with a focus again on simulation-based training. There was an appetite for simulation based training, despite this not being a format they were completely comfortable nor familiar with. We were able to undertake teaching on more advanced topics for the more senior residents, with a focus on safe decision making and management plans, within the resources available to them.

The residents have always enjoyed the more practical elements of training and there was a huge appetite for regional anaesthesia teaching. Given the department had one, barely functioning ultrasound machine, we again had to get creative with how to approach this. We made a mock 'phantom-limb' using agar powder, food colouring and party balloons. The result was a fantastic phantom limb which we used to practice needling techniques with the residents, and which was very positively received. However, we realised that the decay in skill acquisition would be exponential if we did not devise ways that we could enable the residents to continually practice their regional skills. And so was born 'Block and Buna' (buna being the Ethiopian word for coffee). This was a regular sono-club style session which we

delivered in the theatre-suit where the residents could break-away from their lists to practice ultrasound scanning blocks. Again, this was very positively received across all year groups and highlighted the need for novel ways to introduce training into their busy work commitments.

The life of residents at the Tikur Anbessa is challenging and complex – they have to juggle their significant clinical commitments with exams, competition for training opportunities and limited resources. However, their thirst for learning, dedication to the specialty and unwavering desire to deliver the best anaesthetic care that they can shone through.

At times, we had to advocate for residents to be released from clinical work in order that they could attend teaching, which was not always well received by senior management. However, we argued that it was essential that some protected teaching be allocated each week for residents, and we hope that by advocating for them and the importance of medical education, that this might become the norm rather than the exception.

Whilst the residents had a desire for training and learning on more advanced topics, we did try to focus on some of the non-anaesthetic skills that we felt made anaesthetic care safer. As mentioned, residents seldom undertook simulation-based training, yet their textbook knowledge was exemplary. With this in mind, we used simulation-based training to reinforce and highlight the importance of non-technical and communication skills in improving patient safety and again, we hope that introducing these ideas will help contribute to safer anaesthetic care. We also tried to challenge notions around hierarchy and would regularly discuss the interpersonal relationships that govern the multi-disciplinary team within the OR environment, in a culture where hierarchy still predominates and not all members of the theatre team are seen as equal.

A final element of our role was to provide educational supervision in the OR. This was perhaps the most challenging element of the Fellowship, since we did not have a license to practice medicine in Ethiopia and the methods used to deliver anaesthetic care were often at odds with practices that we were used to. This was often as a result of limitation in access to drugs and limited equipment. I saw practices that, whilst I would not undertake myself, were safe in my Ethiopian colleagues' hands. And wherever possible, we would use these opportunities to continue to reinforce safe theatre practices, such as the importance of the WHO surgical checklists, highlight issues around non-technical skills and discuss alternative ways the residents might think about approaching certain clinical situations.

This was a very challenging but rewarding few months. Beyond the day-to-day teaching, which was hugely enjoyable, the most significant challenges were ensuring protected teaching for the residents and trying to deliver an educational programme that was sensitive to the local training needs of residents, and reflected the resources available. Our approaches to medical education were at times very different. However, I hope that by reinforcing key messages and introducing new approaches to teaching that we have been able to improve the educational experience of our Ethiopian colleagues and introduce to them new ways of thinking about anaesthetic care and the safety of surgical care within their setting.

Moving forward, this experience has cemented my desire to work in lower-resource settings and I have recently undertaken a Diploma in Tropical Medicine and Hygiene. I have 18 months left of anaesthetic training in the UK, after which I hope to apply to Medicine San Frontier. I will likely continue to have contact with the Ethiopian project and indeed, have been asked to return to Ethiopia at some point for a shorter period of teaching.

Alexander Ware