



BSSH – Kiziizi Hospital Hand Trauma Course, Uganda

30 April 2019

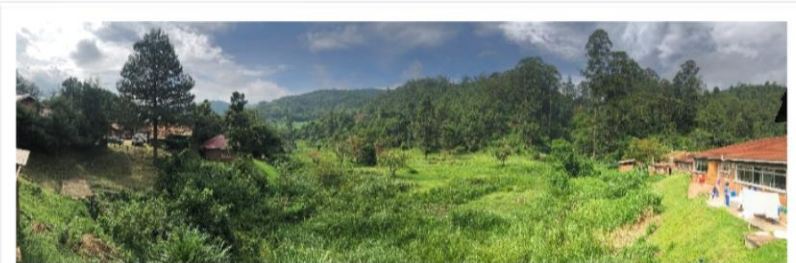
Report of the first BSSH Hand Trauma Course in Uganda, hosted in collaboration with Kiziizi Hospital

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Background to the BSSH Overseas Hand Trauma Course

Over the past decade members of the BSSH Overseas committee have been working towards the goal of improving hand trauma management through delivering training courses to healthcare workers in lower to middle income countries (LMIC) across Africa. Since 2016 similar hand trauma courses have been held in Sierra Leone and Malawi, each tailored to the specific needs of the local health care context. Jonathan Jones and the Peterborough Hospital team have established a link with Kiziizi Hospital, supporting work with the Chilli Children charity, helping the local surgeon & theatre staff to run an orthopaedic surgical camp. The team has also run a primary trauma course (ATLS equivalent) in 2016 and teaching sessions in hand trauma to staff, including some Sudanese clinical officers in 2017. However, the BSSH has not previously run a formal hand trauma course in Uganda.



Delegate Feedback Quotes

“Thank you so much for such an opportunity to impart knowledge and skills” – Victor Nangoli, Kabale.*

“It was an excellent course with good teachers and excellent in delivering of information. Thank you and God bless you!” – Edith Nafuna, Kisoro.*

Uganda & Kiziizi Hospital

Uganda, situated in Eastern sub-Saharan Africa, has a population of 42.9 million, 84% living in rural areas with limited access to primary, secondary or tertiary care. There is 1 surgeon per 100,000 population. In rural Uganda hand trauma is generally managed by the Orthopaedic and Medical Clinical Officers (OCOs & MCOs), rather than trained doctors and surgeons.

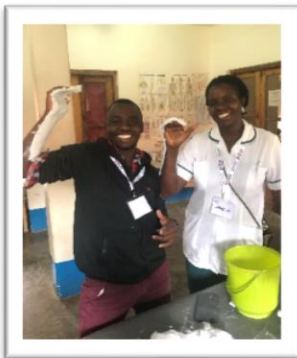


The Church of Uganda Kiziizi Hospital is located in Rukugiri, a rural district in South-West Uganda. Originally a flax seed factory (built by Abyssinian prisoners of war), the hospital was established in 1958. Kiziizi is widely recognised as a centre of excellence within the Ugandan healthcare system, receiving referrals from a wide geographical area. In Uganda a high proportion of trauma is neglected and patients frequently present late, having had no treatment or unsuccessful treatment by the local “traditional healer”. The hospital has successfully pioneered a number of initiatives, including a highly successful micro health insurance (MHI) scheme, a mothers’ waiting ward, a school of nursing, and a new Psychiatric Unit.

Dr Ian Spillman, the current Medical Superintendent, has developed a good training culture for staff as they strive to provide healthcare in this impoverished rural setting. Robert Mugurara is the resident Surgeon in at Kiziizi Hospital and saw the opportunity to offer a BSSH Hand Trauma Course at Kiziizi for OCOs and MOs from the whole district.

Faculty & Local Partnership

Teaching faculty consisted of Jonathan Jones, Consultant Orthopaedic Surgeon, Rebecca Nicholas, Plastics Surgery Registrar, Robert Mugurara, General Surgeon (COUHK), Mark Latimer, Consultant Orthopaedic Surgeon and Evas Nahabwe, local Occupational Therapist. Dickens Turyamusima, a medical student from



Kampala, who is also a former OCO at Kiziizi, helped run the practicals. Nursing staff from the Chilli Children surgical camp were of immeasurable help in facilitating the practicalities of the day,



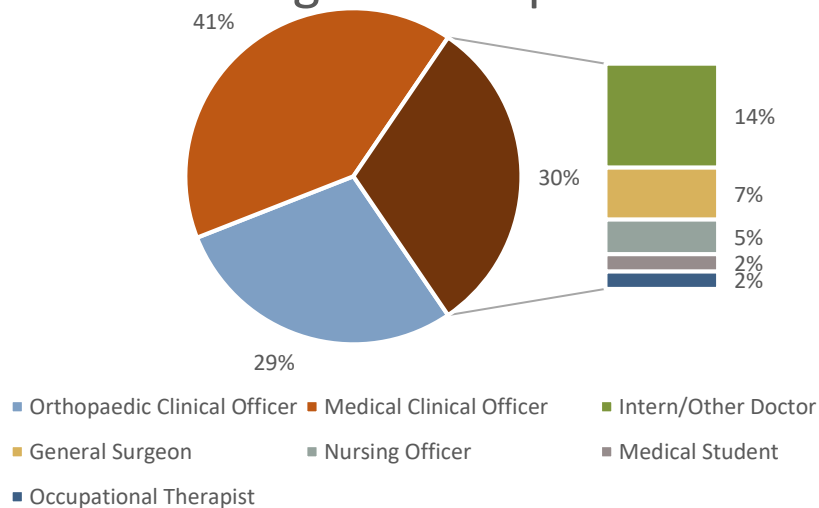
including setting up for practicals and marking tests. The team included senior nurses Mark Robertshaw, Francisco Raposo, and Vicky Kouroupi, as well as administrator Emily Braybrook from the Chilli Children Charity.

Delegates

A total of 42 delegates attended the training day, representing 22 centres including Kisoro (~100 km) and Kampala (~400 km). 42% were Medical Clinical Officers and 29% were Orthopaedic Clinical Officers. The remainder consisted of non-specialist doctors or interns (14%), surgeons (7%), and Nursing Officers (5%), plus one Therapist and one medical student.



Delegate Occupations



Course Structure



As in the Sierra Leone and Malawi courses, the course format included a pre- and post-course test, a morning of interactive lectures, an afternoon of practical sessions, and a case-based discussion session to conclude the teaching.

Lecture Topics included:

- Functional Anatomy of the Hand
- Assessment of the Injured Hand
- Principles of Hand Fracture Management
- Hand Infections
- Principles of Wrist Injury Management
- Flexor Tendon Injuries
- Extensor Tendon Injuries
- Hand Examination
- Hand Therapy
- Clinical Cases in Hand Trauma



Practical Sessions included:

- Digital Nerve Block
- Splinting of the Hand
- X-ray Interpretation
- Tendon Repair Practical

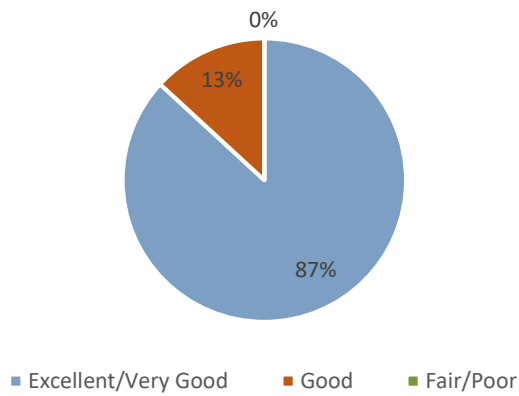
Prizes were awarded and gratefully received for the best tendon repair (and runners up), the best post-course test score, and the delegate who demonstrated the greatest improvement between pre- and post-test test scores.

Delegate Feedback

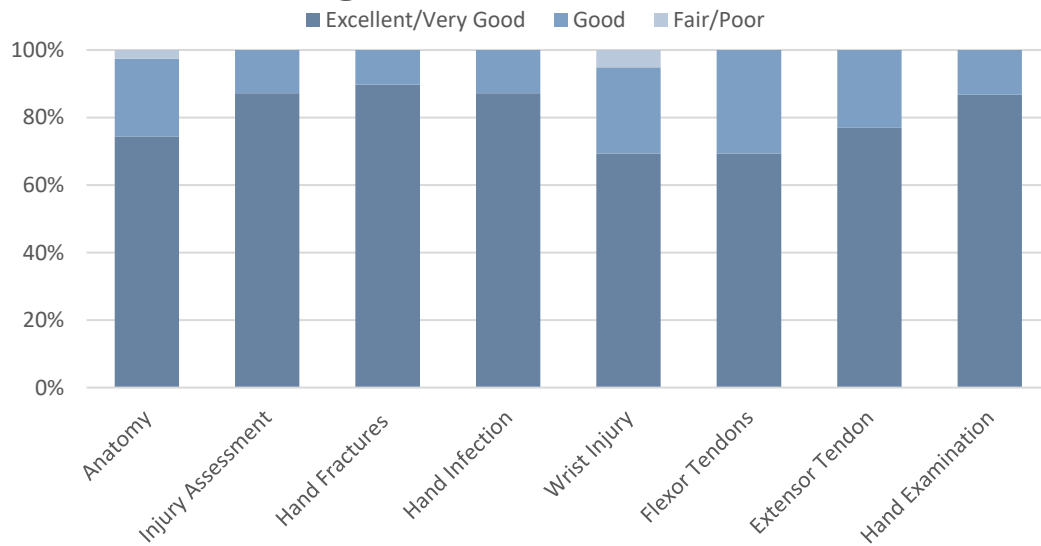
Delegate feedback was overwhelmingly positive. Overall, 87% rated the course "Very good" or "Excellent", 13% rated it "Good", and 0% rated it "Fair" or "Poor". The sessions with the greatest proportion of delegates rating them "Very good" or "Excellent" were the Tendon Repair Practical and the Splinting Practical (95% of delegates), followed by the lectures on Hand Fracture Management (88%), Assessment of the Injured Hand (87%) and Hand Infections (87%).

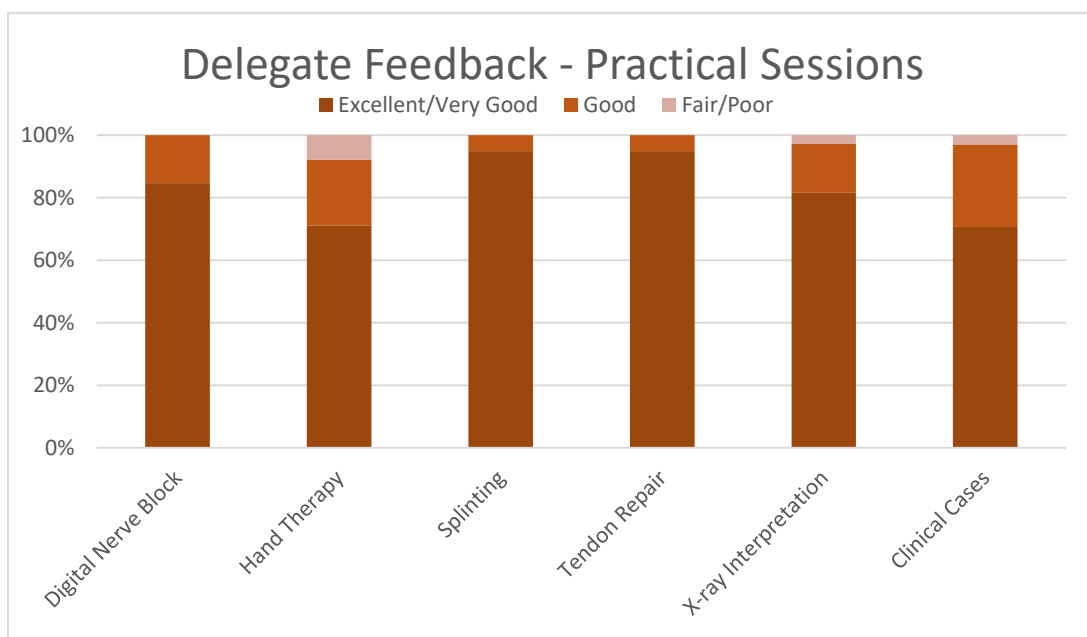


Overall Course Rating



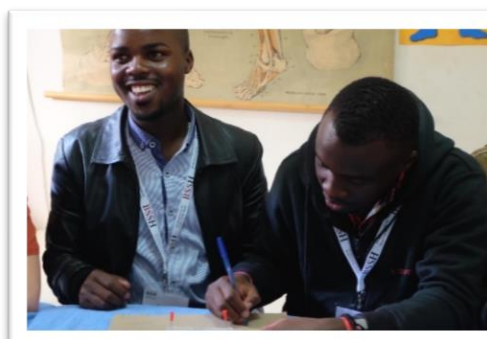
Delegate Feedback - Lectures





Overview & Lessons Learnt

Overall the course was deemed a great success by all. The numbers attending and geographical reach far exceeded expectations. It was both a privilege and a pleasure to deliver the training. Buy-in from local faculty was an important step in forging ongoing partnerships, seeking to equip local healthcare workers in Uganda to deliver high quality care to the population. We anticipate that the impact of the training has been significant. Healthcare workers travelled to receive the training from a large number of regional units across southern Uganda. On their return to these units they have the scope to improve the acute management of hand trauma provided to vast numbers of patients.



As anticipated when delivering training in remote and lower socioeconomic contexts, significant challenges presented on the day including a significant mismatch between registered (25) and



actual (42) delegate numbers, logistics / cultural expectations of delegate travel arrangements, timekeeping, and printed resources. Great flexibility, positive attitudes and teamwork enabled the course to run despite these and other challenges. We received extensive unexpected and voluntary administrative support from Chilli Children staff who were working at Kiziizi hospital at the time of the course, for which we are hugely grateful. This proved invaluable, and in

future it would be prudent to plan for a similar degree of administrative support, enabling the course to run smoothly despite the somewhat unpredictable nature of delivering training in lower socioeconomic contexts.

Based upon delegate feedback and overall experience of running the course, some clear recommendations include:

- A consistently case-based, applied approach to the lecture-programme content;
- A new standardized course design, an **Advanced Hand Trauma Course (AHTC)** such as this course, or a **Basic Hand Trauma Course (BHTC)**, more suitable for the less experienced delegates;
- Proportionally greater time allotted for practical sessions;
- Provision of BSSH USB sticks with important information for reference, revision, and ongoing sharing of knowledge and skills within delegates' sending units;
- Local administrative support or the inclusion of an administrator member of the team;
- Local host responsibility for clarity of communication regarding maximum delegate numbers and transport arrangements.



Future Plans & Requests

This has been the first of what we hope will be many hand trauma training days delivered by the BSSH in Uganda. The success of the visit has galvanized links with Kiziizi hospital and the invitation to run further training days in collaboration with local healthcare workers there stands open. There were requests for the training to be extended to other regions of Uganda in addition to the south-west. There was also a consistent request for more time: *"There is a lot to share in limited time so the course should take two days not one day"*.





The following comment demonstrates delegate's appetite for online resources: *"Can time be set for a fellowship online with a centre in Kisiizi Hospital?"*. We have acted on this in the first instance by receiving the contact details of interested delegates with a view to linking them up with the Global Surgery BFIRST BSSH Hand Surgery Webinar programme via the zoom platform. Finally, we believe there is a real possibility of Kisiizi Hospital becoming a venue for a higher specification Hand Surgery course for COSECSA Trainees in the future. By combining such training courses (including teaching on surgical safety and care pathways in trauma), alongside MDT Orthoplastic Surgical visits, there is significant opportunity for ongoing long-term surgical training and mentorship for local surgeons and theatre staff. This has the potential not only to provide ongoing support to Kisiizi Hospital itself, but also to improve hand trauma management and surgical care across the districts of Uganda.