

DHAKA, Bangladesh

Barbara Jemec, Julie Jones and Rob Staruch

11-17 January 2019



Improvement in the Acute Treatment and Rehabilitation of Electrical Hand Burns

In January 2019, BFIRST returned to Dhaka Medical College Hospital to undertake specialist training in tendon reconstruction, further work on implementation of hand therapy and to further the data analysis of electrical burns especially in the upper limb, supported by the International Project Grant, from the Royal College of Surgeons of England. Barbara Jemec was joined by Julie Jones, Senior Hand Therapist from Edinburgh, and Rob Staruch, Plastic Surgery Trainee.

At the time of their visit, the unit, which officially had 100 beds, had over 600 inpatients, of which the vast majority were burns patients. The surgical day would commence at 8am with a departmental meeting, where Residents would present the previous days' operating and new patients. The surgical Chiefs would then discuss the patients' management as well as teach the residents on potential surgical reconstruction. BFIRST was given this time slot to deliver specific teaching and case-based discussions, which was previously highlighted as the most effective method for teaching. The lectures were followed by practical sessions, and a tendon reconstruction workshop was organised using rope to demonstrate the Pulvertaft weave tendon repair.

Julie Jones led hand therapy and splinting sessions for doctors and physiotherapists. There were only four therapists attached to the department, who were grossly overworked and none had any formal training in hand therapy.

Using local equipment and supplies brought from the UK, Julie was able to demonstrate the principals of hand mobilisation after surgery and simple splints that can be made on demand to help support hand rehabilitation.



Julie Jones teaching local delegates in a hand therapy session



Significant cases of electrical hand burns requiring tendon reconstruction were identified and prepared for surgery, so that Barbara Jemec could supervise the local trainees undertaking the procedures. These included swan neck and boutonniere deformities, sural nerve grafting, tendon transfers, tenolysis, and perforator flaps for soft tissue defects. The patients would then undergo the required hand therapy under the supervision of Julie Jones and the local doctors, to highlight the power of correct splinting and early effective mobilization. Julie would apply splints and discussed rehabilitation regimens with the local therapists and doctors, on a daily basis. She also prepared templates for splints and gave written instructions to the local physiotherapists.

Robert Staruch and Julie Jones attended ward rounds with the local surgeons to get a greater understanding of the challenges faced with their patients. It also allowed an opportunity for the local trainees to talk about the differences in patient care, new techniques in plastic surgery and exchange their own specific surgical cultural experience.

With the grant from the Royal College of England, BFIRST were able to gift the Dhaka Medical College Hospital £1000 worth of durable splinting material and £1000 worth of Dermatome blades.



From left to right
Ass Prof Nurunnahar Lata, Prof Noazesh, Miss Barbara Jemec, Dr Sen, Prof Kalam.