

Ethicon Foundation Fund report

Details

Mr Gregory Scott FINCHAM
Oculoplastic Fellow
Bristol Eye Hospital

Funding body

Ethicon Foundation Fund

Other sources of financial support

Kadoorie International Fellowship

Objective of Fellowship

1. Clinical and surgical exposure to ophthalmology in a resource-limited, developing-world setting
2. Exposure to multidisciplinary rehabilitative surgical care
3. Teaching and training of local Khmer ophthalmology trainees and specialist ophthalmic nursing staff; sharing and developing clinical and surgical skills
4. Introduction of Oculoplastic subspecialty care in Cambodia
5. Gain leadership experience whilst managing an NGO charity hospital ophthalmology service
6. Introduction of clinical governance frameworks to improve and maintain safe, high-quality patient care
7. Lectureship at the University of Puthisastra, Phnom Penh

Nature of Fellowship

Host institution

The Children's Surgical Centre (CSC)
Road 6A, Khan Ruseykeo, Sangkat Chroy Changvar, Phnom Penh, Cambodia
www.csc.org

Description

Cambodia has suffered tremendously after 30 years of war and the following genocidal Pol Pot regime. The Children's Surgical Centre was founded in 1998 by Dr Jim Gollogly CEO to provide support for victims of landmine injury, many of whom were children. The project has developed into a tertiary referral surgical centre, providing free rehabilitative surgery for the poorest people of Cambodia. Integral to this mission is a programme of training local surgeons and health workers, focusing on the development of sustainable surgical services for Cambodians. The centre offers orthopaedic, maxillofacial, plastic, ENT and ophthalmic surgical specialities.

Trainers

Dr Jim Gollogly, Founder/CEO Children's Surgical Centre
Dr Shankar Khanal, Ophthalmologist/SICS surgical trainer

Weekly timetable

	Monday	Tuesday	Wednesday	Thursday	Friday
08:00 - 09:00	Grand round	Grand round	Grand round	Grand round	
09:00 - 12:30	Outpatient clinic	Outpatient clinic	Outpatient clinic	Outpatient clinic	University lecture
12:30 - 13:30	Lunch	Lunch	Lunch	Lunch	Lunch
13:30 - 14:30	Teaching	Teaching	Teaching	Teaching	Teaching
14:30 - 17:00	Theatre	Theatre	Theatre	Theatre	Teaching

Other experience

Where to live

Affordable accommodation within walking distance of the hospital and a 15 minute tuk-tuk/scooter ride to Phnom Penh city centre, is available on request through the Children's Surgical Centre. The city centre has many options for renting accommodation and accessed through the Phnom Penh Facebook housing group.

How to travel

Affordable tuk-tuk and duk-duk taxi services are available throughout Phnom Penh.

Preparation

Rabies vaccination is recommended. The climate is very hot and sunscreen is essential.

Gaining the most from the experience

Cambodian culture, society, custom, religion, and cuisine is very different to western practices and it is important to go with an open-mind to gain the most from the experience.

Outcomes

Clinical experience

As the departmental clinical lead, I was responsible for overseeing the management and care of approximately 100 outpatient visits per day. Due to the extreme poverty and lack of education, we were often faced with late-presentation, end-stage paediatric and adult ocular pathology; this was particularly challenging to manage in a resource-limited setting.

An important role of my Fellowship was to improve departmental clinical effectiveness; a vital aspect in a service that is resource-limited and reliant on voluntary donations. This was achieved through a programme of restructuring patient flow pathways, with the introduction of a paediatric and orthoptic clinic and waiting room, departmental optician and dispensing pharmacy, in addition to a dedicated laser and minor ops room, medical records department, vision lanes, staff rest room and lecture room. Investing in training the nursing staff and hospital cleaners, ensured improved cleanliness and sterility. The results of these initiatives was quantitatively reflected reduced departmental endophthalmitis rates.

Surgical experience

In Cambodia, approximately 50% of cataract cases present with late, severe visual loss and are not amenable phacoemulsification lens removal. To this extent, small incision cataract surgery (SICS) has been adopted as a strategy to extract these advanced cataracts. I undertook a one month surgical training course at the Battambang Ophthalmic Clinic at the beginning of my Fellowship to learn this technique that I was not trained in during my run-through ophthalmic training in the United Kingdom.

As lead surgical trainer in the ophthalmology department, I was responsible for the training four junior ophthalmic trainees and developing and training six surgical nurse practitioners for an extended specialist nurse practitioner programme. The two most common conditions treated in the centre were cataracts and pterygium, but the most challenging cases were the neglected paediatric and adult end-stage pathology that would regularly regularly present to the department. There was much opportunity to develop training in my sub-speciality interest in Oculoplastics, an undeveloped area of Cambodian ophthalmology.

In order to improve theatre patient flow and safety, much effort was invested in staff training and pre-operative surgical protocols, which included pre-operative assessment proformas and surgical ward-rounds.

Fronto-meningoencephalocele (fMEC) is endemic in south-east Asia. With the support of foreign visiting plastics, maxillofacial and neuro-surgeons, CSC has developed an inexpensive surgical approach to correcting these congenital deformities, and trained local Khmer surgeons to carry out the surgery. As ophthalmic associations are common in fMEC, the surgical approach is multi-disciplinary; I was fortunate enough to be involved in the surgical team that are for these patients. Furthermore, fMEC ophthalmic protocols were instituted for improved pre-operative assessment and post-operative monitoring and rehabilitation; the data from these pathways is now being collective for prospective study.

Surgical logbook

- Involved in 1050 surgical cases (417 cases completed independently, 17 supervised cases, 7 assisted cases, 609 supervised junior teaching cases)
- Small incision cataract surgery (111 cases, 44 supervised junior)
- Phacoemulsification (135 cases, 168 supervised junior)
- Oculoplastics (11 cases, 42 supervised junior)
- Anterior segment laser (12 cases, 67 supervised junior)
- Glaucoma laser (7 cases, 36 supervised junior)
- Strabismus (2 cases, 1 supervised junior)

Institutional Review Board

As Ophthalmic lead at CSC, I was invited to sit on the hospital's Institution Review Board to quarterly review and discuss potential research projects to be undertaken by CSC Khmer staff, visiting consultants and medical students. The purpose of the board was to promote patient care and ensure good clinical practice, whilst fostering an ethos of research in CSC.

Audit and research

- Departmental endophthalmitis rates. I undertook an historic audit of endophthalmitis rates for the preceding 16 months and compared these to prospectively collected endophthalmitis rates following a theatre refurbishment service improvement project, which included sterility and cleaning services review. The outcomes demonstrated a reduction in endophthalmitis rates from 0.56 (10/1170) to 0.21 (1/471), which is lower than European recommended standards.b (January 2016 - July 2017).
- The ophthalmic associations of fMEC. A retrospective review of the ophthalmic association in the largest global cohort of patients undergoing fMEC repair (January 2005 - April 2017). Results presented to the annual European Society of Plastic and Reconstructive Surgeons, Copenhagen 2017. Awaiting submission for publication.
- The incidence of refractive error in Cambodia. A prospective screening project to assess the incidence of visual impairment and refractive in a Khmer population. (April 2017 - December 2017). Awaiting submission for publication.
- Stickler syndrome genotype-phenotype case report. A collaborative project with Addenbrookes Stickler National Diagnostic Service, in which we identified the first case of reported Stickler

syndrome in a Khmer population. Phenotype clinical data was collected and genetic testing undertaken for COL2A1 analysis. Awaiting mutational analysis.

Education and training

- As departmental education lead, I initiated a programme of daily departmental teaching, grand round presentations and a dedicated post-graduate teaching afternoon. Departmental clinical staff and doctors were encouraged to participate. A series of surgical wet-laboratory sessions and suturing skills workshops was designed for trainee doctors and nurse practitioners. Furthermore, I was responsible for the ophthalmic training of four junior ophthalmologists. We undertook regular educational supervisor appraisals to set learning objectives to develop their clinical portfolios. Formal educational assessments were undertaken to prepare them to ultimately attempt the ICO examinations.
- I was invited to lecture a series of Ophthalmology lectures to seventy final year dental students at the University of Puthisastra, Phnom Penh. Responsibilities of the Lectureship included: developing a cross-disciplinary course curriculum to teach orbital anatomy and pathology that is associated with oral and ocular disease presentations, assessment and grading of individual and group assignments and final year examination question setting.
- I was invited to present two lectures at the annual Cambodian Ophthalmology Congress (December 2017)

Information Technology

- In order to attain senior clinical opinion and advice, I introduced an Ophthalmic telemedicine platform for online discussion to assist in the management of challenging and complicated cases. This platform links the CSC Ophthalmic department to a discussion forum of consultant Ophthalmic surgeons from America, Europe, Australia and Asia, who have had previous experience working at CSC.
- I designed a departmental Electronic Surgical LogBook, an online platform where all surgical cases undertaken by the CSC ophthalmology department are prospectively collected to record live, real-time demographic details, including patient numbers, home provinces, age, diagnosis and undertaken surgical procedure. Furthermore, pre- and post-operative visual and refractive data, lens choice and predictive outcomes, in addition to surgical complications, are collected for all cataract surgery undertaken in the department (in accordance with the the Royal College of Ophthalmologists surgical guidelines). This has facilitated live, real-time audit output metrics that are used to monitor departmental surgical outcomes to improve and maintain patient care, provide precise surgical stock levels and support applications for international funding. Furthermore, the data is available to local surgeons to record their individual logbooks and outcomes, which are used in educational training review meetings.

Acknowledgement

I would like to thank the Ethicon Foundation Fund for their sponsorship, which helped me experience such an incredible opportunity in my surgical career. I feel privileged to have been able to learn and share so much in my year working in Cambodia. I have made many friends and look forward to many return visits (next visit arranged for November 2018).

Current status

I am currently undertaking a Fellowship in Oculoplastics at the Bristol Eye Hospital, Bristol, United Kingdom.





