

BAD Elective Prize/Project Grant Report

Bella Plumptre

Introduction

During my final year of medical school, I arranged clinical and research electives in the US and UK in Paediatric and Adult Dermatology. In those 3 months, I found a specialty that I loved. Paediatric Dermatology has a spectrum of extremely common and extremely rare conditions that have an enormous impact on the quality of life of children and their families. Furthermore, it is a highly academic area with fascinating research that interplays with immunology, genetics and oncology to directly improve clinical practice. My summer at Harvard in Boston, Great Ormond Street Hospital (GOSH) in London and the Cleveland Clinic in Ohio was a fantastic experience that will shape my career.

Harvard Medical School

The Clinical Experience

My 4-week clerkship in Pediatric Dermatology at Boston Children's Hospital (BCH) consisted of didactics, clinics, and consults. During daily 'didactics', I learned from visiting lecturers and peer teaching, and appreciated how to translate critical appraisal into clinical practice in journal club. Through examining patients and participating in discussions at weekly grand rounds, I learned how to approach diagnosis and management in cases that are rare and not clear-cut. These skills of peer teaching, literature appraisal and managing diagnostic uncertainty will be very useful in future.



Harvard Medical School (the quidditch team were practicing behind this photo)

In clinic, attendings had me 'work as a resident'. This meant taking a history, examining the child, and writing clinical notes including assessment, management and pre-ordering prescriptions. I then presented to the attending who would give feedback on my differential and plan, and approve or edit any prescriptions I had pre-ordered. Although difficult at first, my clinical skills to describe skin lesions and knowledge of diagnosis and management improved immensely. By the end, I could manage common conditions like eczema, molluscum, acne and infantile hemangiomas with confidence. This meant I could focus on more important tasks like giving out stickers.

It was also immensely satisfying to see patients again in follow-up whose eczema flares had completely recovered. This for me cements the incredible impact you can have on patient

quality of life in dermatology. Eczema is so often overlooked as insignificant, but the reality is that affected children are miserable and it puts the family under extreme tension. I learned that an extra 10 minutes to explain the rationale behind the uncomfortable greasy treatments went far in improving compliance, treatment response, and overall patient and family wellbeing.

As well as clinic, I answered consult pages when inpatients at BCH developed concerning rashes. This was incredibly daunting, as these patients were usually extremely complex. However, with the support of my seniors, my confidence grew in dealing with high stakes situations which has helped prepare me for the realities of FY1. Following the clinical course of patients with more serious and rare conditions including Stevens-Johnson syndrome, toxic epidermal necrolysis, staphylococcal scalded skin syndrome and eczema herpeticum will be invaluable when working in paediatric A&E in F1 and beyond.



Entrance to Boston Children's Hospital



The Pediatric Dermatology Team at BCH

Great Ormond Street Hospital

At GOSH I contributed to a research project on the safety of using a drug for skin conditions in children. This work developed my skill set of systematic data entry and statistical analysis. I am looking forward to learning how to transform data into guidelines and improving my scientific writing skills as we prepare a manuscript for publication.

Cleveland Clinic

My 4-week clerkship at the Cleveland Clinic started with hospital consults. This sharpened my diagnostic skills as formulating a differential required integration of clinical context, in-depth knowledge of systemic disease and their dermatological manifestations, and a keen eye for morphology.

In clinic, the severity of some cases reinforced how stigmatized, debilitating and depressing skin conditions can be. One patient had suffered with hidradenitis for decades; this visit was the first time they had discussed this condition with anyone. This reminded me of the courage required for some people to simply make an appointment and to never take for granted how intimate clinic visits can be.

During the rotation, I also developed practical skills and surgical techniques. Through practice and feedback, I became competent at shave and punch biopsies, cryotherapy and suturing. Through assisting in Mohs surgery, I saw the pathogenesis to presentation of skin cancers in real time as we reviewed slides prepared from samples we had taken moments

before. I felt very privileged to be a part of care where patients walked in with cancer and walked out without.



The Glickman Building, where the corridors play soothing whale noise music day and night



Equipment for Mohs surgery



White coats for doctors and medical students

Conferences

During my elective, I presented a poster at the RCPCH conference in Birmingham, and at the World Congress of Pediatric Dermatology in Chicago, USA. Attending national and international conferences during my elective has helped to broaden my horizons and see the impact of quality improvement and primary research on patient care.

Conclusions

In my 3 months of elective, I am grateful to have had the opportunity to learn from and work with experts and leaders at Harvard, GOSH and the Cleveland Clinic. I have taken ownership of patient care and gained a huge amount of clinical knowledge, diagnostic acumen and practical skills. Furthermore, I have presented work at two conferences, made two case presentations at departmental seminars and participated in six projects. I have learned an absolute ton about skin and science that will be invaluable as the foundation for my upcoming AFP post in London, and in my future career as a Dermatologist.

Acknowledgements

I am very grateful to the British Association of Dermatologists for awarding me with an elective/project prize to support this elective. I owe a lot to Dr Kinsler at GOSH and Dr Huang at Boston Children's Hospital, as well as the residents and attendings who taught and guided me day to day at Harvard and Cleveland.