



**BAD Elective Prize Report
May – July 2020
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The efficacy of methotrexate for atopic dermatitis – a retrospective cohort study at Royal Free Hospital

A virtual elective in medical education – Medics Academy

Acknowledgement

I am very grateful to the British Association of Dermatologists (BAD) for awarding me with an elective prize. I would also like to thank Dr Mahreen Ameen for supervising the research project I was a part of as well as the Medics Academy for providing a unique experience.

Introduction

My interest in dermatology began during my penultimate year of medical school which was when I was first introduced to the speciality. I enjoyed spending time in various dermatology clinics and had the opportunity to observe dermatological surgery at both the Royal Free Hospital and University College Hospital's dermatology department. In my final year of medical school, I was fortunate to be able to attend the BAD's DermSoc day which was held in London in October 2019. I was subsequently inspired to chair the UCL MedSoc dermatology society, a newly formed Dermsoc. As part of a team we organised several well attended events including 'A career in dermatology' by dermatology registrar Dr Ashley Spencer and 'Artificial intelligence in dermatology' by Neil Daly, CEO of Skin Analytics. We also fundraised for the British Skin Foundation as part of the 'Battle of the DermSocs competition'. These experiences brought my attention to the huge variety of exciting opportunities offered by a career in dermatology and I looked forward to my elective in the speciality. Unfortunately, due to the Covid-19 outbreak it was not possible for my original elective plan to take place. I was, however, still able to undertake a meaningful elective and make the most of the opportunities I had.

Original plan

My original plan was to spend 4 weeks in dermatology at the All India Institute of Medical Sciences, Delhi experience the speciality in a new setting. I had also planned to undertake a 4-week clinical placement at the dermatology department of Royal Free Hospital alongside carrying out a prospective study investigating the effect of isotretinoin on the mental health and quality of life of patients with severe acne. Conflicting evidence exists regarding the effects of oral isotretinoin on mental health, particularly depression and anxiety and there is limited data on the effect on obsessive-compulsive symptoms; hence this is an important area of research.

Actual elective

As elective placements were cancelled across UK medical schools from mid-March 2020, I was not able to make it to AIMS, India. It was also not feasible to undertake the prospective study that I had planned. I was fortunate however to spend 3 weeks in May contributing to a retrospective cohort study investigating the use of methotrexate for the treatment of atopic dermatitis and in June, I undertook a virtual elective in medical education hosted by the Medics Academy.

The efficacy of methotrexate for atopic dermatitis – a retrospective cohort study at Royal Free Hospital

Severe atopic dermatitis, a condition which affects both the adult and paediatric population, is characterised by skin barrier disturbance and immune dysregulation. Targeted immunomodulators are novel therapies which have been shown to have a high efficacy and relatively few adverse effects. They are therefore prescribed in UK for severe cases of atopic dermatitis that have not responded to conventional therapy. However, given their high cost and the fact that some monoclonal antibody drugs may be associated with declining efficacy when used long term, it may be important to re-consider the use of older immunosuppressants. With few existing studies investigating the efficacy of methotrexate for atopic dermatitis, it was hoped that a retrospective study would provide new insight on this topic. My time at the Royal Free Hospital (figure 1) was predominantly spent obtaining and analysing data for this project and we have subsequently submitted an abstract to an international conference.

Figure 1: Royal Free Hospital, London, UK



A virtual elective in medical education

In June, I enrolled onto the virtual elective programme run by the Medics Academy. In addition to receiving online webinars delivered by experts in medical education, I undertook a range of tasks individually and as a part of a group. The focus of the elective was the role of technology and social media in medical education. The main group project was to design, organise and promote a virtual clinical placement for medical students who were not receiving as much clinical teaching due to the Covid-19 pandemic (Figure 2). I chose to present on the topic of skin infections given my interest in dermatology and the fact that our placement was based on infectious diseases. Teaching online was a novel experience and it was great to receive positive feedback from the students who attended. Overall, I learnt much about how medical education is continuously changing and has needed to adapt in the current environment.

In terms of dermatology covered in my presentation, I included infectious paediatric skin conditions, lesions associated with HIV and distinguishing between cellulitis and erysipelas.

Figure 2: Virtual clinic timetable

The image shows a timetable for a virtual clinic. At the top, it says 'SDOCS Powered by Medics Academy'. Below that, the title is 'Virtual Clinical Placement- Saturday 4th July Infectious Diseases'. The timetable lists six items with their start times and topics:

2.00pm	Introduction to Infectious Disease Placement <i>Keynote speech</i>
2.15pm	Virtual Sim 1 and Case Based Discussion <i>Respiratory infection</i>
3.00pm	Virtual Sim 2 and Case Based Discussion <i>Gastrointestinal infection</i>
3.45pm	Break
4.00pm	Virtual Sim 3 and Case Based Discussion <i>Neurological infection</i>
4.45pm	Virtual Clinic <i>Skin infections</i>

Future outlook

I am currently working as an interim foundation year 1 doctor at the Queen Elizabeth Hospital, King's Lynn. This is a new role that was created for our cohort of final year medical students due to the Covid-19 pandemic. I will shortly be commencing an academic foundation programme in medical education at the same trust. Having completed this elective, I can honestly say I am still very much hoping to pursue a career in dermatology in the future and would potentially like to combine this with my interest in medical education.

(Written on 27th July 2020)