

James Logan. 2017

Title of project:

Fellowship in upper limb surgery Princess Alexandra Hospital and Brisbane Hand and Upper Limb Unit, Brisbane Australia

Institutions visited:

Princess Alexandra Hospital, Ipswich Road, Brisbane, Queensland, Australia
Brisbane Hand and Upperlimb Unit, Level 9, Brisbane Private Hospital, 259 Wickham Terrace, Brisbane, Queensland, Australia.

Supervisors and teachers:

Fellowship directors: Professor Mark Ross, Dr Greg Couzens, Dr Phil Duke
Clinical supervisors: Dr Mark Robinson, Dr Ben Hope, Dr Alok Jhamb, Dr Steve Frederiksen.

Summary of clinical activity:

The post is as one of four clinical fellows in upper-limb surgery based predominantly at the Princess Alexandra Hospital (PAH). The PA is the major metropolitan hospital serving the south of Queensland. The upper-limb department includes 5 visiting medical officers who will do between one and two clinical sessions in the trust per week. The clinical work involves elective and trauma operating and outpatient clinics but with a preponderance of trauma. There is regular private assisting with the fellowship directors. The on call commitment sees the fellow at an intermediate level between the registrars and the consultants with the fellows performing the vast majority of the trauma operating. Consultant support is available when required.

The make up of the four fellows can vary from year to year with three starting in August and one in February. The first cohort during my time included three orthopaedic surgeons who had an interest in both hand and shoulder, plus one plastic surgeon who covered hands only. The second cohort had two upper limb fellows covering hand and shoulder with one shoulder fellow and one hand fellow who would cover each other for the on call duties. The make up of the team did influence the profile of the work and the cases I was exposed to.

One of the most beneficial activities for me was been operating with my fellow colleagues, their experience and skill combined with the lack of hierarchy that comes from operating with one's peers enables a different level of discussion and frees you up to ask all the questions you want to without the fear of embarrassment or of looking ignorant in front of your trainers.

Private assisting allowed me to see the scope of the consultants practice. Dr Robinson and Professor Ross have a mixture of hand, elbow and shoulder while Dr Couzens is exclusive hand and wrist and Dr Duke predominantly shoulder.

Regular educational activities included formal departmental trauma meeting with registrar presentations at the Princess Alexandra every Monday, weekly radiology review meetings and journal clubs at the Brisbane Private Hospital and the "Fountain" tutorials provided by Dr Couzens every Wednesday before work.

Dr Couzens is now a registered tutor for the BSSH diploma and we were able to complete a module of the diploma during my time here.

The scope of clinical practice in this fellowship is very broad indeed and encompasses the entire breadth of upper-limb surgery. Within the fellowship I was exposed to micro vascular surgery including digital replant, toe to thumb transfer and regional flaps for soft tissue coverage both as lead surgeon and as an assistant. At the other extreme I performed and assisted in multiple shoulder arthroplasty procedures including anatomic total shoulder replacement (TSR), reverse TSR and pyrocarbon hemiarthroplasty. Professor Ross and Dr Duke are leading the development of a pyrocarbon resurfacing hemiarthroplasty implant, which has some extremely exciting results. I also assisted in complex revision shoulder arthroplasty including navigated and patient specific implants. I think this variety is a double-edged sword, whilst the breadth of experience is superb it does not perhaps allow one to become suitably expert in any particular field in the twelve-month placement.

The Princess Alexandra Hospital is the regional trauma centre for south Queensland and consequently the fellowship involves huge exposure to high-energy trauma. Open humerus and both bone forearm fractures were almost a weekly occurrence and were frequently associated with neurovascular injury. My technical skills in treating high-energy trauma as well as my ability to make decisions and prioritise, have been enhanced beyond recognition. I have also developed my skills coordinating multiple teams in the management of polytraumatised patients.

I have had exceptional exposure to the use of pyrocarbon in the treatment of osteoarthritis in large and small joints, both as primary surgeon and assistant. I have also been involved in a research project looking at the clinical results of pyrocarbon arthroplasty in trapeziometacarpal arthritis. I have presented this work at the Queensland Hand Society and it has been submitted to the British society for surgery of the hand (BSSH). The first draft of the paper has been written. This material has very exciting prospects to revolutionise the surgical treatment of arthritis.

In terms of non-technical skills it has been enlightening to work within a differently funded healthcare system and with colleagues from a variety of countries. The first thing I noted is that the publicly funded health care in Australia faces exactly the same challenges that we see in the NHS and that in certain metrics, especially time from referral to treatment and time to review with a consultant then the NHS is simply streets ahead. What is notable is how the increased contribution of the private sector leads to a two-tier health service.

In essence the clinical advances in my practice that I will bring home can be grouped under three headings.

1. Experience in dealing with high-energy upper-limb trauma

2. Experience in micro-vascular surgery and skin flaps for local coverage reducing the frequency that my department will need to refer to plastics and reconstructive services
3. Experience with pyrocarbon arthroplasty.

I plan to use the knowledge to improve my own clinical practice and by presenting and publishing the research work I undertook during my time in Brisbane.

Summary of non-clinical experience:

Away from the clinical aspects Brisbane is a fantastic city especially for families. The climate lends itself perfectly to outdoor life with the temperature rarely dropping below twenty degrees Celsius. There is an abundance of parks not least the Southbank "Streets Beach" which consists of a splash park and two separate pools with overlooking the city centre and the Brisbane River, all free to use all year round. Whilst there are no beaches in Brisbane itself the sunshine coast and Gold coast are less than an hour by car and have miles of un-spoilt white sand and turquoise seas.

Due to the lack of daylight saving Queenslanders get up early, the streets and parks are full of joggers, cyclists and exercise classes from 0500 and it is perfectly acceptable for adults to go to bed at 2100.

Conclusion:

In essence the experience has been fantastic, it has been a perfect opportunity to see a huge range of upper limb pathology, be involved in cutting edge surgical practice and research while enjoying a subtropical climate and meeting some fantastic people.