

Elective Report and Reflection

Elective Report

1. Describe the pattern of orthopaedic conditions in New Zealand. How do they differ from the United Kingdom?

The pattern of orthopaedic conditions in New Zealand is similar to that in the United Kingdom, with cases being divided in terms of whether they are acute or elective. Since there is an ageing population in New Zealand (as is the case in the United Kingdom), there is an increasing burden for joint replacements (particularly hips and knees) due to degenerative bone disease, with estimation in 2010 that 16% of the population were suffering with osteoarthritis. There is also an increasing incidence of neck of femur fractures secondary to osteoporosis within the population, which are managed medically post-operation, as is often the case in the United Kingdom. It has been suggested (*The Crippling Burden*, Bossley and Miles, 2009) that the annual costs of musculoskeletal disorders in New Zealand currently exceeds NZ\$5.6 billion (£2.8 billion) which accounts for arthritis, osteoporosis, injuries, sickness benefits, physiotherapy, chronic pain, joint replacements, pharmaceuticals, General Practice visits, pathology and imaging. No comparative data could be found for the United Kingdom as a whole, but in 2008, £373 million was spent on orthopaedics in Scotland, which had shown a 68 per cent increase in real terms over ten years.

A range of occupational hazards were also prevalent. According to *The Burden of Occupational Disease and Injury in New Zealand: Technical Report*, there are 20,000 new cases of work-related disease in New Zealand every year, 5000 of which are classed as severe, and 1000 resulting in death. Mining, fishing, agriculture, manufacturing and construction have the highest injury rates, many of which result in orthopaedic cases. During my placement I saw a number of occupational injuries ranging from a chainsaw incident injuring the forearm of a tree surgeon, to a sporting injury resulting in a torn biceps tendon in a rugby player for both the Highlanders and the All Blacks. In the United Kingdom, it is estimated that 148 workers killed at work and 78,000 injuries in 2012. Therefore, relative to population size, it appears that there is a much higher risk of injury and death as a result of occupational hazards in New Zealand.

2. Describe the pattern of health provision in New Zealand and contrast this with the United Kingdom.

The pattern of health provision in New Zealand is also similar to that in the United Kingdom. Hospital-based care is all free to access and specialist treatment is subsidised; however, some prefer to opt for private medical insurance in order to bypass waiting lists. Private medical insurance policies vary in price, but in June 2013 a single non-smoker in their mid-30s would pay from NZ\$600 (£300) per annum for a basic plan. Accident and emergency treatment is free; however, not all ambulances are free, and they can cost up to NZ\$80 (£40) per callout. Injuries from accidents are covered by the governmental injury insurer ACC (Accident Compensation Company), providing no-fault insurance cover to everyone in New Zealand (including temporary visitors) for injuries resulting from accidents. Over-65s may get financial and practical assistance with medical help at home or if they need to move to a rest home or hospital. There are charges for visiting General Practice, usually around NZ\$20-65 (£10-33), with subsidies for under-18s and over-45s. Many prescription medicines are subsidised, but pharmacy dispensation typically costs NZ\$5 (£2.50). Such provisions follow a comparable pattern in the United Kingdom, except there are no charges for visiting a General Practitioner or calling an ambulance. The costs of private medical insurance are equivalent. Prescriptions in the United Kingdom cost around three times as much, at approximately £7.50 (NZ\$15).

3. Compare the education and training pathways in New Zealand with that in the United Kingdom.

Medicine in New Zealand is both competitive and selective, with an admissions test required to be completed. Medical school consists of five years of study followed by a sixth year as a trainee intern. Their curriculum has much emphasis on clinical-based learning whilst maintaining the learning of scientific principles. School leavers must complete the Health Sciences First Year before they can apply to year two of Medicine. The second and third years in Medicine are centered around an introduction to the scientific, clinical, and societal aspects of medicine. The fourth and fifth years in Medicine focuses on advanced learning and supervised clinical activities in hospitals, community-based clinics, and regional and rural general practices. The sixth year is a trainee internship, which is a transition to practice year that has a strong focus on clinical activities and responsibility in the working health environment. Students graduate with the Bachelor of Medicine and Bachelor of Surgery (MB ChB) qualification. Students also have the opportunity to complete a Bachelor of Medical Sciences with Honours (BMedSci Hons), typically at the end of the third or the fifth year. Comparatively, students in the United Kingdom complete a five year course of which the first two years are primarily devoted to the study of clinical science, with the latter three years providing the clinical exposure (the final year being similar to the trainee internship stage), and intercalated degrees (BMedSci or BSc) usually occurring after the third or fourth year.

The structure of training pathways for doctors is also similar to those in the United Kingdom, with a few variations. Doctors in New Zealand typically spend two years as a House Officer, before applying for training posts in a chosen specialty and becoming a Registrar. Training programmes as a Registrar require four to six years of training, usually with two exams to pass before achieving advanced qualification and becoming a Specialist in a chosen field. House Officers in New Zealand undertake four three-month rotations in a given year, compared with three four-month rotations that are present in the United Kingdom. Comparatively, doctors in the United Kingdom spend two years as a House Officer, followed by applications to a number of differing pathways dependent upon the specialty, which may require up to a further eight years of training (plus examinations along the way) before being able to apply for Consultant posts. During my time at Dunedin Hospital, I met a number of British expats who had emigrated to New Zealand because they said they preferred the training pathways and job prospects over those available in the United Kingdom.

4. Describe how the placement has helped my personal and professional development.

This placement has helped me to consolidate and build upon my existing knowledge of orthopaedic conditions, which I hope will be useful in the future as a Junior Doctor, particularly because I have a four-month rotation in Geriatrics during Foundation Year 1 and a four-month rotation in Orthopaedics and Orthogeriatrics during Foundation Year 2. I feel more accustomed with the types of fractures, interpreting X-rays, and the principles of orthopaedic investigations and management. The early morning 7:30am starts have also helped me to return to such a routine after getting out of this schedule since the end of my final-year placements back home. Being able to shadow the House Surgeon in the absence of other students has helped to further orientate myself with the duties expected of a junior doctor, in preparation for when I begin work in August. I also have become more aware of the need to adapt to alternative practical equipment, as was the case with cannulae, for example.

On a couple of occasions, I also noticed how operations can become complicated during the procedure, which is something that I did not really receive exposure to during my orthopaedics rotation in the United Kingdom. For instance, during the insertion of an intramedullary femoral nail, a patient suffered a distal femoral fracture from the impact of the nail insertion, and also the drill bit snapped off whilst drilling holes (albeit the shrapnel was fortunately removed in the end).