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Elective Report 06/05/14 – 30/05/14

Objective: Discuss the unique features and challenges of providing secondary heathcare services in a remote rural location

I spent 2 weeks of my elective at the Mackinnon Memorial Hospital (MMH) in Broadford on the Isle of Skye, Scotland. The hospital has 20 inpatient beds, 1 A+E/ resus bed, X-ray and ultrasound facilities. There is a chemotherapy unit, occupational therapy and physiotherapy services and midwife services. Maternity facilities are used only for planned low-risk deliveries (and any unplanned deliveries!). There is an operating theatre where endoscopy and minor surgeries are performed. In addition there is a clinic room, and the hospital hosts outpatient clinics for visiting specialties, as well as its own fracture clinic and pre-operative assessments.

The population served by the hospital is a small, close-knit rural community of around 13 000 permanent residents. More often than in larger hospitals, staff often patients socially or are related to them. This applies to patients too- at one time during my placement, a father and daughter were both inpatients (for unconnected reasons). Many of the staff have been patients at the hospital, before, during or after being employed there. This could present issues with patient confidentiality, although I did not observe any particular problems during my placement. Hospital staff often have a good knowledge of patients' medical and surgical histories because they have cared for them many times before, especially if the patient is elderly or frequently in and out of hospital. This is advantageous when providing medical care, and can mean that staff have a better understanding of what is 'normal' for a particular patient, or what indicates a decline in function. It is also very useful in emergency situations, where staff do not need to consult the notes to know the patient's history. This is not possible in larger hospitals where patients are not well known individually.

The hospital also serves a high proportion of transitory residents (mainly tourists) especially in the summer, when the population of Skye triples to around 30 000. Mostly this population utilises the A+E service at MMH, and common presentations are tick bites and minor injuries following falls in the hills and mountains. Managing these non-local patients presents extra challenges. For example, there can be language barriers, and no access to medical notes or ability to contact GPs means patients may have to be treated without knowing their past medical history or their current drug regimen. Foreign patients who have had different experiences of healthcare in their own countries might have expectations for their healthcare that do not match what happens in the UK and at MMH. Arranging follow-up, such as in fracture clinics, for patients who are only in the area for a few days is not possible, so the patient has to be informed and relied upon to arrange their own follow-up once back home. Patients can be given print-outs of their consultation documents and any x-rays or other test results.

As with any A+E department, the unpredictability of the specialty means that workloads are very varied. Generally there are one or two doctors in the hospital during the day and they divide their time between ward work, clinics, A+E and theatres. If it is a busy day on the wards, and just one very sick patient comes into A+E, the workload can quickly become very heavy.

Although all of the doctors at MMH have had anaesthetics training, there are no consultant anaesthetists and so the hospital does not perform procedures that require a general anaesthetic. Whenever a patient is sedated, it is policy to have two doctors present- if something goes wrong, there is no crash team to call. So, an additional doctor must be present to supervise sedation during the endoscopy lists in theatre. This also means that if a patient comes into A+E at night, when there

is only one doctor in the hospital, and requires sedation (e.g. for reduction of a fracture or dislocation), a second doctor must be called in to assist.

Doctors who work at the hospital- called Rural Practitioners- need a wide range of general and more specialist skills, in a combination that is unique to practising medicine in a remote location. They have had training in general medicine and general practice, as well as in anaesthetics and emergency medicine. Airway management, intubation and ventilation skills are essential for initial management of emergencies, and stabilising seriously unwell patients to allow them to be transferred to the mainland. To maintain their skills and competencies, doctors at MMH spend 4 weeks of the year at larger centres in anaesthetics or A+E. The hospital has this year hosted its first doctor as part of the 'Rural Fellowship' training programme, where doctors spend time working in rural hospital medicine, rural general practice and anaesthetics.

There are no specialty services available at MMH, and there is a 2 hour journey by road to the next largest hospital (either Raigmore at Inverness or the Belford at Fort William). This adds an extra level of complexity to planning patient care- doctors at MMH must decide whether a patient can be treated in the hospital, or needs transferring urgently to a larger centre. If it is not initially clear whether the patient needs transferring, the team review the patient regularly so that if they do need transferring, it is done as soon as necessary. These decisions are difficult because the receiving clinicians are 2 hours drive away, so the cases have to be discussed over the phone- you can't just ask the surgeons to 'come and have a look' at someone. This makes good communication skills essential, and these are supported by an integrated IT system that allows x-rays and other reports to be shared across hospitals. The doctors at MMH need to have a good working relationship with those at Inverness or Fort William, especially in specialties that commonly have referrals from A+E- such as orthopaedic surgery.

There is also a limit to what investigations can be done at MMH, so often doctors need to make management decisions without information that would nowadays be assumed to be essential in a less remote setting. For example, there are no facilities for CT, so a patient presenting with symptoms of a stroke cannot be scanned to look for a bleed before thrombolysis is initiated. Even in less urgent cases, the decision to do a CT scan is not taken as lightly as if it just meant a trip up the corridor- here it means a 4-hour journey in the back of an ambulance. Troponin, D-dimer and basic bloods (on an i-stat machine) can be done at MMH, but most blood tests have to go to the lab in Inverness. The delivery van leaves daily at 12pm, so the results of any bloods done after midday are not available until the next evening.

Although I have highlighted ways in which practising rural medicine is unique, the medical conditions, pathology and relevant social issues that I saw during my placement were universal. On the first ward round I attended, the cases illustrated a wide spectrum of medical and surgical problems that might be seen anywhere in the world: ACS, pancreatic cancer, fall, chest infection, fast AF, unexplained nausea, fractured neck of femur, dementia, neutropaenic sepsis, UTI/ urinary retention and alcohol detox. In my opinion, one of the big attractions of working at MMH or a similar hospital is the wide variety of conditions that the doctors are involved in managing, and the added excitement of dealing with whatever comes through the door of A+E. In such a small team and such a remote place, this all carries a higher level of responsibility- but also much more independence- than elsewhere.