

## **ELECTIVE (SSC5c) REPORT (1200 words)**

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

### **Report**

I completed my elective at Furness General Hospital, University Hospitals of Morecambe Bay NHS Foundation Trust, in Cumbria, the most rural County in North West England. Cumbria serves a population of circa half a million people and is predominantly characterised by its mountainous and rural nature. Rural residents are perceived to have some common characteristics (Department of Health, 2013). Namely,

- They tend to be more dispersed and further from main economic centres and consequently further away from acute care settings;
- Have less access to public services such as transport, which when available costs 20-30% more than urban areas;
- Have a higher proportion of older people (median age is six years higher than urban areas) who are high users of primary and secondary care;
- And have a lower household income; contrary to popular belief living costs are often higher (running a car costs approximately 20% higher than urban areas).

On my elective I have been directly involved in the care of over 190 patients attending with traumatic, medical, surgical, mental health, gynaecological and paediatric presentations. Appendix 1 provides my case log. The range of patients I have seen is an immediate contrast to my experience in London, where the resources for specialisation in those departments meant I have seen far less breadth of presentations elsewhere.

Geography and environment necessitate the majority of patients are triaged and stabilised at Furness, with most also receiving all necessary care locally. Most traumas from the mountains will be treated at Furness, with patients travelling either by helicopter or road. In contrast to London (where the helicopter role is to get a team to the patient as closely as possible providing hospital care and facilities at the road side); in Cumbria the helicopters critical role is in evacuation and transport of patients, many have fractures or minor head injuries and the environment determines the need for helicopter involvement rather than the nature of the incident or the seriousness of the casualty's condition.

My literature review suggests evidence of perceived inequalities and differences for health and healthcare access between urban and rural populations. I found six areas indicating particular challenges for rural emergency care and comment on each with respect to my learning from Furness.

1. The trend towards centralisation of trauma and acute care settings can cause extensive delays in rural patients reaching definitive care (Rousseau , et al., 1994). Pre hospital care teams are structured to triage patients directly to Preston hospital for major trauma or neurological injuries to minimise capacity for delay in reaching definitive care. I witnessed one case where geography and

service rationalisation had potential for delaying definitive patient care, on this occasion an ED Consultant intervened to ensure the surgical team came to the patient rather than wait for the patient to be stable enough for transport.

2. Rural residents use of healthcare services decreases with increasing distance from the service - known as distance delay (Department of Health, 2013). Anecdotally, there seemed to be a higher number of patients with minor traumatic injuries presenting sometime after their injury occurred, this seemed to be due to self-employed work practices or a perception the injury would resolve, rather than distance to the hospital. However several patients refused referral to specialist care e.g. to the plastics or vascular team because they did not wish to travel to Preston. There was also one paediatric patient whose parents refused to take the child to the specialist centre at Manchester because of the distance and costs involved.

3. Rural communities are more dependent on air transport for trauma and seriously ill patients because of long distance ground travel, yet in the UK these services are predominantly charitably funded (Ber, et al., 2012). This was inherent in many of the trauma cases from the mountains but was also true of patients with severe injuries in small towns or village locations where transportation by road would either have been lengthy or create unnecessary pain and discomfort for the patient. These services unlike some other countries still remain mainly reliant on charitable funding.

4. Rural patients are often unable to receive primary percutaneous intervention (PCI) due to delays in access, assessment and transfer (Jenkins, et al., 2011). Much has been done to minimise this risk with pre hospital teams taking patients with clear acute coronary syndrome (ACS) direct to the cardiac centre at Blackpool. I also learnt about the different protocols in the ED for patients with ACS for whom thrombolisation may be indicated because of the delays in getting to PCI.

5. Providing optimum care for stroke patients faces additional barriers in rural settings (Curry, et al., 2011). Whilst this can clearly be more of a challenge at Furness, in practice due to the close working of the ED team with a Consultant in Stroke medicine and the pre alert system, patients I saw during working hours were quickly assessed, with care managed by the local medical team and head CT's expeditiously organised. At night and weekends care is led by the ED.

6. Injury rates and their mortality are generally higher in rural and remote communities compared to urban areas (Simons, et al., 2010). Farming and its environment is inherently dangerous causing significant life changing injuries. Anecdotally there seemed to be a higher proportion of minor fracture and lacerations, but equally it may just have been that I had the opportunity to be actively involved with a higher number of these patients than I have before.

In 2014 Langdale and Ambleside Mountain Rescue Team (LAMRT) attended 108 calls for help in the fells, they are one of the busiest teams in the UK with 75% of calls involving one or more casualties. Table 1 highlights the primary focus of the calls, casualties may have suffered multiple injuries and are listed by the most serious injury known at the time. Whilst a small number of casualties require evacuation for a serious head injury (Preston) or hypothermia (Newcastle), the majority involve lower limb lacerations, fractures and soft tissue injuries that are stabilised and taken to Furness. LAMRT team members are trained in “casualty care” a term recognising the difficulties of the environment, nature of the casualties’ injuries and the intertwined and inseparable nature of treatment and evacuation. Timescales both to the casualty and then for evacuation to definitive care are inevitably long and decisions have to be taken which would not be faced in less remote or hostile environments. All LAMRT patient records transfer with the patient and detail an accurate mechanism of injury, on scene assessment and management and are usually pre alerted to the ED. In practice it seemed the greatest effect for the ED was the increase in case load, particularly for lower limb injuries which often seem to involve open, multiple or complicated fractures. As well as effecting ED care, these patients were more likely to require surgery and a longer inpatient stay. The inherent time delay from the injury to patient arrival in ED, despite optimum casualty care also makes patients more vulnerable to complications from their injuries or co morbidities.

During my elective I have had the opportunity to be exposed to a broader range of trauma and patient presentations to the ED, my first shift of seven nights and training with LAMRT. I have benefitted enormously from the opportunity and have identified gaps in my pre hospital skills that I aim to rectify through the pre hospital trauma course at the end of June. I am extremely grateful to the ED team at Furness for allowing me to share their experiences and for all the teaching I have received.

**Word Count excluding reference 1234**

## **References**

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