TRAUMA

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1) The pattern of presentations to the Muhimbilli National Hospital resuscitation department in many ways is similar to that of the UK, in that the majority is either trauma related or acute presentations of chronic disease, however within this there are stark contrasts.

The trauma presentations are generally those of road traffic accidents and assaults. This is very similar to presentation patterns within UK hospitals, however there is a great difference in the timings of these presentations. If there is a motor vehicle accident in the centre of busy Dar es Salaam then it is likely that these patients will be transferred to the emergency department fairly swiftly, although they may visit another hospital first if their injuries do not initially appear to be severe. However, if the patient is injured in a rural village and it is deemed necessary for that patient to be seen in the tertiary hospital then this may take a prolonged period of time. This time is taken up with finding resources in the village in order to transport the patient as well as the time it takes for the patient to travel. This means that the trauma assessment is often days after the incident and as such the symptoms and complications are very different. As such the doctors are generally starting to care for the patient once complications have arisen, whereas in the UK the availability of emergency medical care is such that it would be a critical incident if these situations were able to arise.

The presentations of acute on chronic diseases are also similar to that of the UK with common resuscitation scenarios including acute asthma attack and diabetic ketoacidosis. As with the trauma patients though unfortunately these patients present a lot later and thus a lot sicker than is often found in the UK, which makes them more difficult to treat. In addition the reduced availability of medications, mostly due to cost related factors means that the patients are often less compliant with their chronic medications and as such present more frequently.

2) As mentioned in the above objective and in objective 4, the system of this emergency department is very different to the UK. Patients are generally received here by referral from another hospital and there is less of a turn up and be seen pattern. As such it is more of a secondary or sometimes tertiary center in Tanzania compared to primary/secondary center in the UK.

3)Malaria is an endemic disease in Tanzania and residents of the country will usually have this disease at several points in their lives. There are a broad range of presentations and severity within this which need to be recognised and treated accordingly.

The least severe is the uncomplicated Malaria. This is very common and is similar to a flu like illness with fever, sweating, headaches, nausea and vomiting as well as joint pains. Residents become very knowledgeable about malaria and recognition of its symptoms as it is very common that they will have uncomplicated malaria many times in their life time. As such this form is generally self diagnosed and treated presumptively without a formal diagnosis.

Malaria requiring a hospital admission is generally more severe or affecting young children. A large proportion of the children presenting to Muhimbilli National Hospital generally unwell are diagnosed with malaria and require inpatient treatment on the wards. In adults it is generally severe uncomplicated malaria or the complicated malaria that leads to presentation.

Patients presenting to the department with malaria generally present with fever. This may be alone with no obvious focus, it may be associated with the symptoms listed above in an uncomplicated or it may be associated with symptoms of organ involvement in a complicated malaria. The variety of presentations is vast, but include decreased level of consciousness in cerebral malaria, severe anaemia, metabolic acidosis and acute kidney and respiratory failures.

If a diagnosis of malaria is suspected then there is a good availability of rapid diagnosis test kits

in Muhimbilli National Hospital Emergency department. These are very fast and effective kits which are simple to use and allow the physician the opportunity to begin treatment as soon as possible. In order to use the kits a few drops of blood are required and the reagent which contains a haemolysing agent as well as labeling antibodys. In a negative test once the blood has moved across the filter paper there is just a control line, whilst in a positive test a test line is also present. In addition to the rapid tests a blood smear is also taken such that the lab can identify the strain as well as the parasite load.

Once malaria is diagnosed the treatment is determined based on the severity of the disease. As well as supportive measures the definitive treatment for uncomplicated malaria is artimether combination with lumefantrie whilst more severe malaria may require Quinine injections. This is generally started empirically based upon the rapid diagnosis and then reviewed once the strain of malaria is known as these medications are most effective against malaria falciparum and less so on the other strains.

4) The emergency department is funded by an American drug company, and as such is much better equipped than I was expecting. The building itself is very modern and there is a good availability of equipment including bedside ultrasound scans and portable chest x-rays. However there is a lack of monitoring equipment with only one set per room, which may hold several people at a time which can be very frustrating. In addition at various times certain drugs have not been available e.g. vasopressors and improvisations have had to be made with risky side effects.

The area that I have found most difficult though has been what happens outside of the emergency department. Before the patients get here they are often cared for inappropriately by a peripheral hospital, for example they may use a cardboard glove box to try and splint a fracture, which is very difficult to see as you know that once they are here a lot of the time you have missed the opportunity in to intervene for maximum benefit. In addition to this the wards at Muhimbilli are not as well equipped as the emergency department. There are far too many patients for the number of doctors to be able to adequately care for them. This means that when there are discussions about patient cases that started in the emergency department, despite best efforts to resuscitate and stabilise the patient, too many times the story ends with a description of the patient going to the ward, not receiving the treatment according to the plan and as a result deteriorating or dying. This is really frustrating as it feels like such a waste and leads to a sense of hopelessness for any good work done in the emergency department.

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