

## Mulanje Mission Hospital Elective report

### Learning Objectives:

- 1) Describe the common diseases treated at MMH
- 2) Discuss healthcare services available at MMH and compare this to UK healthcare systems
- 3) Improve my confidence in clinical decision making and communication skills
- 4) Undertake and present a report for a mini-audit undertaken during the elective on a topic relevant to improvement of services at MMH

### Introduction

During my elective 6 week elective I have ample chance to learn about tropical medicine and start to appreciate the challenges and opportunities of medicine in a resource limited environment. We had ample chance to rotate and experience the different services which are offered by the hospital. I undertook one week in the community (antenatal care, under 5's care and the management of HIV). With one week in Paediatrics I learn to acutely manage very unwell children as well as how to treat malaria, meningitis and pneumonia. During a week of obstetrics and gynaecology I learn to deliver babies via spontaneous vaginal delivery and observed caesarean sections. Finally, I spent three weeks on female ward for general medicine, this I enjoyed the most. This elective report aims to describe the healthcare provision and patient population at Mulanje mission hospital as well as discuss some of the experience and learning points gained from this elective.

### Discussion and Reflection

Life expectancy in Malawi in 2012 was 54.8 years, which is extremely low compared to the UK which is currently 80.7 years (ONS, 2014). The fertility rate is also high at 5.5 children per woman (Unicef, 2012). Therefore the patient population at Mulanje differed greatly from the UK, with many patients presenting with advanced illness earlier in life (20-40 years). Additionally, the departments of maternal health and paediatrics were extremely busy in comparison to the UK. In 2012, adult HIV prevalence in Malawi was estimated to be 10.8% with 46,000 deaths due to AIDS (Unicef, 2012). This was reflected in the number of patients who were HIV sero-positive and the types of diseases which presented to healthcare facilities. For instance palliative care at MMH was centred around patients with Kaposi's sarcoma and cervical cancer which are more common in HIV positive patients. In female ward the most common diseases included Malaria, advanced HIV, Tuberculosis and meningitis. Many patients in female ward also presented with HIV related complications for example cryptococcal meningitis, oesophageal candida and disseminated tuberculosis. This gave me the opportunity to learn about diseases which I had never come across before and be part of treating complex medical cases.

Mulanje mission hospital provides paediatric, maternal health, general adult medicine, palliative care, outpatient clinics and outreach services for the local community. Some services are subsidised for patients in the catchment area and others are paid for by patients. Some treatment was available for free, but this was dependent on donor based government subsidisation and hospital policy such as TB treatment, palliative care drugs and HARRT medication for HIV. Private rooms and clinics were also available for patients who were able afford care. The radiology department and laboratory were able to perform most basic tests necessary for diagnosis. Blood tests available included: full blood

count, basic liver function, urea, creatinine, diagnostic tests for HIV, TB, malaria and other tropical diseases, as well as interpretation of samples such as urine, stool and CSF for bacterial/viral/fungal infection; although some tests were not always available or reliable. A few tests weren't available such as 12 lead ECG and brain imaging; these would have been useful for diagnosing arrhythmias as well as treating patients with unexplained seizures. Although many tests were available to guide management, some treatment had to be given with clinical judgement. Initially I found this a challenge, as this way of practising medicine differed from my training. However the way this challenged my judgment and knowledge I found helpful. Initially, to overcome my worries when seeing patients independently and writing management plans without diagnostic certainty I would check them with a senior colleague. Though as my confidence improved in my clinical ability I quickly was able to be more decisive and treat empirically. I hope to apply these lessons to the future in foundation training and be more sparing of tests which I would have otherwise ordered without considering cost or consequence.

Additionally language was a barrier for me. Majority of patients only spoke Chichewa (the national language of Malawi) which I could not speak on arrival on elective. Over the first weeks I learnt medical Chichewa, but found interpreting patient responses challenging. I learnt from my own experience that assumptions of understanding can be harmful to the doctor patient relationship.

On one occasion I was assessing a palliative care patient on the ward round, with my limited Chichewa and a busy ward round with no staff available for translation I did my best with communication. I assessed her symptoms adequately by asking closed questions i.e. Vomiting? Diarrhoea?. However, during the consultation it became apparent that information written on previous clerking was inadequate and this patient had a complex history. However, without a translator there was little more I could achieve. Therefore, I looked at the health passport and noted that patient had been labelled as "palliative" and had previous care at Queen's hospital for biopsies of gastric cancer and palliative surgery. I assumed the aims of this surgery had been explained to the patient and family and that they were here for symptom management. I put together a management plan which aimed for symptomatic relief which included involving the palliative care team. The next day I returned with the palliative care and begun counselling the patient, through this I realised we had different agendas. The patient (and family) was planning to discharge that afternoon, due a misunderstanding of the situation. They didn't understand that her case was palliative and had been to 4 other hospitals searching for a cure. We then explained the diagnosis and negotiated with the patient (and family) to find some common goals for the admission. After this, the relationship I had with the patient improved dramatically as her trust in me grew and we were all aiming for the same goals. From this I learnt to never assume that patients are simple and never to settle for inadequate translation with closed questions and limited understanding. I corrected my behaviour and persisted in asking for translation when things were unclear and for adequate involvement of patients in care through good explanation of illness. I applied this to later situations at Mulanje Mission found that each patient had their own issue (sometimes relating to cultural beliefs and understanding of illness) which would have impacted hugely of patient confidence in hospital care and ongoing health seeking behaviour if they had not been addressed. I hope to continue to appreciate the importance of this despite time pressure and stress levels which I may experience in the future.

The impact of local cultural beliefs on healthcare in the region of Mulanje was substantial. Patients would often have seen a traditional healer prior to admission to hospital, practically this meant

patients presented with advanced presentations of disease. Moreover, magical beliefs permeated day to day hospital life affected the interactions between staff and patients, as well as the interpretation of information given to patients and the ways patients used treatments. For instance, a patient was diagnosed with psychosis in third trimester pregnancy she was moved to female ward for stabilisation with regular anti-psychotics and privacy. During her admission to female ward I found cultural influences on care were considerable. She often didn't receive regular medication as prescribed and therefore her condition and behaviour was fluctuating. Several staff seemed reluctant to attend to her needs and pushed for her to be discharged to another hospital. The doctors from the UK were keen to stabilise her condition before transfer or discharge because the quality of care available at mental health hospitals in Malawi were deemed unfit for the care of a pregnant woman. It became apparent that some members of staff and family believed magical influences were at play with this patient, some even using the term bewitched. This I had not expected. At one point the family tried to discharge the patient because they wanted to take her to a traditional healer. Therefore, the mainstay of treatment for this patient was staff and family education as well as regular anti-psychotic medication administration to stabilise her condition. From this I learnt to appreciate the impact of staff, patient and family beliefs on the dynamics of relationships within the ward and how this can influence patient care. In the future I hope to show more appreciation of these cultural influences by enquiring about patient ideas regarding illness and observing staff-patient interactions more closely. Overall, working at Mulanje for this limited period has allowed me to gain some confidence in my clinical decision making, improve my clinical skills and communication skills as well as begin to appreciate some of the challenges faced in a rural Malawian hospital.

#### Mini-audit presentation: Blood pressure recording in the Out Patient Department (OPD)

##### Introduction

Untreated hypertension is a major risk factor for cardiovascular disease which accounts for 17 million deaths per year worldwide and has been identified as a major public health issue (WHO, 2013). At MMH a hypertension clinic aims to begin to tackle primary prevention for hypertension within the local population. Additionally using blood pressure measurement within the triage system proposed by College of Medicine students has been proposed and implemented one week prior to this audit. Together these two aspects of blood pressure measurement in the outpatient department led to the introduction of this mini-audit to assess these needs. This mini-audit aims to assess whether the measurement of blood pressure is a realistic option within the outpatient department at MMH for identifying those at risk of either acute illness (for triage) or silent hypertension.

##### Objectives:

- 1) Assess the measurement of blood pressure in the outpatient department at MMH and observe the use of blood pressure measurement for triage.
- 2) Understand whether screening for the hypertension clinic can be done in this setting.
- 3) Propose realistic implementations for improvement in these areas taking into account the challenges which this department faces.

##### Method:

Data collection will take place over one working week at MMH, for one hour (approx 11-12) each day. Every patient seen by clinical officers in OPD1 will be assessed to ascertain if they had their

blood pressure taken. This will be done by reading the health passport for all adult patients (over 16 years). Verbal consent will be obtained with each patient prior to reading the health passport. Data will be recorded anonymously in a table and analysed manually to produce a report to cover the objectives stated above. The age and sex of patients will be kept anonymous to reduce the bias created by my own knowledge and temptation for intervention. Additionally observations will be written down during the data collection period to assess the current triage system and gain some insight into the running of the department. Lost patients who were not involved in data collection will be also noted. Staffs working in OPD were aware of the researcher's presence, but were not informed of the purpose of the investigation in order to reduce potential bias. The definition of hypertension (greater than 140/90) used for this survey will be taken from the World Health Organisation's global brief on hypertension (2013).

#### Anticipated challenges:

- To remain impartial and not influence referrals or interventions in patient care
- Communication with and integration into the OPD staff team
- To fully understanding to challenges the OPD department face in order to suggest relevant and reasonable recommendations which could improve patient care

#### Results:

##### Data collection statistics:

Hours of data collection: 4 hours

Number of researchers: 1

##### How many patients in OPD1 had their blood pressure taken within the data collection period?

Total number of patients: 49

Lost patients: 1

Number of patients who had their blood pressure taken: 7

% of patients in OPD who had BP taken: 14.2%

##### How were patients with hypertension treated and referred for follow up care?

Patient number	Presenting complaint recorded in health passport	Blood pressure recorded	Action taken
13	Elderly, Weakness	90/60	Admitted
18	Productive cough	160/100	Chest X-ray only
22	Hypertension review	160/100	Nifedipine 10mg OD 7 days started
30	Chronic diarrhoea	120/80	None
32	Vomiting and diarrhoea	170/90	Malaria treatment commenced
36	Cough	130/80	None
41	Arthritis	130/80	None

I was unable to ascertain the incidence of Hypertension in the OPD population due to lack of blood pressure measurement. Of the 7 patients who had their blood pressure recorded, only 3 had a blood pressure which may be consistent with hypertension. Of these hypertensive patients only one had intervention which would reduce risk of adverse events and none were referred to hypertension

clinic. Therefore, currently OPD cannot be used to pick up patients for Hypertension clinic adequately because there aren't an adequate number of blood pressures being recorded in OPD.

#### How is the triage system in OPD working following its implementation prior to data collection?

- There was a lack of implementation of the triage system, proposed the previous week, observed during data collection because patients were not being seen or having observations taken prior to seeing a clinical officer.
- During data collection there were 2 clinical officers, 1 nurse and 1 nursing assistant working in the department. Staff saw a huge volume of patients in a short period of time; therefore it appears the department is already stretched and were unable to do these observations for triage.
- If BP was taken, it was measured by the clinical officer on clinical suspicion therefore BP (and I suspect other observations e.g. Temperature).
- Patients in the OPD were not seen as a priority to clinical staff colleagues or families. These staff members and friends wait outside rooms and are seen before patients irrelevant to patient's illness or waiting time. This appears to be a cultural attitude which pervades the hospital staffing network, meaning change would be difficult to implement unless all staff understood the reasons and wanted to change this system.

#### Recommendations:

##### Hypertension identification:

- There were missed opportunities to screen for essential hypertension and implement lifestyle advice or referral to the hypertension clinic for primary prevention. This may be due to the vast volume of patients seen by limited clinical staff in OPD. But more could be done.
- If it was decided that identifying hypertension patients was a priority all patients over 35 years who come through OPD could have their BP taken by the clinical officer and a recommended healthcare pathway could be created for referral to the hypertension clinic. However, this would take commitment and compromise for clinical officers as it would mean longer consultations.

##### Triage system:

- Additionally, it is unrealistic to currently triage on the basis of blood pressure as enough patients did not have their blood pressure taken before seeing a clinical officer.
- Symptom based triage system with proper training of all staff in OPD to recognise symptoms and understand the importance of implementing a triage system.
- Above all other recommendations which have been suggested and may be considered by the department and management. I recommend that a meeting takes place with OPD staff, senior management and clinical review team to discuss the implementation and need for efficient implementation of the triage system suggested by the college of medicine students. If this triage system was agreed to be necessary by staff and management staff training would need to take place to educate and train those who would triage on symptom recognition and the importance of not allowing staff/friends to be seen before priority patients.

### Limitations:

- Unable to record data for one day due to personal illness, therefore there was a limited data collection period. Additionally there was limited time to gain insight into the workings of the department; therefore recommendations should be adapted to the needs of staff within the department to ensure they are appropriate.
- Staff may have been aware of data collection, which may have influenced the recording of patient blood pressures; however this was reduced by limiting information giving regarding the project.
- Small project with only one week's data collection and one person assessing the data, therefore results from this survey could provide evidence for the need for a larger audit to take place.

### Conclusion

The importance of identification and treatment of silent hypertension in the community as a public health issue is well known. Within MMH the hypertension clinic has made steps to tackle this issue, however the OPD cannot be used currently to identify at risk patients due to a lack of blood pressure measurement. Additionally, blood pressure cannot be used over symptomatic triage due to this lack of recording observations. The triage can still be implemented effectively based on symptoms alone providing staff are trained and committed to work to improve this system. Further audits need to take place as the limitations of this small project only begin to understand the dynamics and workings of the outpatient department. Above if agreements are made to improve both triage and screening within the OPD by staff and management, a plan should be devised to train staff and implement these systems but this will understandably take substantial commitment, resources and time.

### References

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