ELECTIVE (SSC5c) REPORT (1200 words)

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

Every year 287 000 women die in pregnancy and childbirth; 162 000 (56%) of these occur in sub-Saharan Africa. Pre-eclampsia and Eclampsia are major causes of maternal mortality and can also result in the death of fetuses and babies with an estimated fatality of 7-25% in African countries.1

Zomba district, where we were working, is one of the poorest districts in Malawi with 70% of the population falling below the national poverty line.2

When we arrived on labour ward at Zomba Central hospital we immediately noticed that one bed, directly in front of the nurses station, was lower than the rest. The midwife explained to us that it was reserved for patients with Eclampsia, in case they had a seizure and fell to the floor. In England none of us had encountered a patient with Eclampsia.

The walls in labour ward and ante-natal clinic were covered with posters about recognizing the signs of pre-eclampsia and how to treat it. Although it was difficult to get accurate figures for rates of Pre-Eclampsia and Eclampsia from the enormous labour ward ledger books it was clear that both are common in Zomba.

Part of our role was to talk to the Obstetric clinicians in the hospital about the possibility of introducing the CRADLE project across Zomba District. CRADLE is a research study to assess the impact of introducing cheap, automated blood pressure monitors into rural antenatal clinics and amongst community health workers alongside basic training. During initial research in Tanzania, Zambia, Zimbabwe and Ethiopia, where the blood pressure monitors were used, more women were identified with dangerously high blood pressure in rural antenatal clinics and increased numbers of referrals were made to central hospitals for the treatment of hypertension.1

Introducing similar devices at clinics and hospitals in Zomba district could help to identify pre-eclampsia so that effective interventions, like induction of labour or providing anti-hypertensive drugs, can be offered.

Women are offered 4 antenatal appointments. We went to several clinics at the tertiary referral hospital in Zomba and at a community hospital called Pirimiti and there was a similar protocol for both. Each woman had her weight and blood pressure measured. Symphysis-fundal height was taken to help calculate gestational age and the midwife listened to the fetal heart if the gestational age was greater than 20 weeks'. Women were offered iron tablets, mosquito nets and malaria prophylaxis. All the information from the session was recorded in a yellow 'health passport' which the woman kept and brought to each appointment. We were told that women with abnormal blood pressure readings were referred to more senior care for a urine dip and further monitoring.

Mothers in the UK have more frequent contact with midwives and Doctors, and are offered much more information to help them prepare for the birth and postpartum period. Given that there was one Obstetrician to cover all Zomba District, it wasn't surprising that women were seen less often. The clinics were often staffed by junior midwives or students. As a result quite a few women had abnormally high blood pressure readings noted down in their yellow books but were not referred. Sadly, during our placement, a 29 -year-old woman died of a stroke secondary to pre-eclampsia. She

was hypertensive at her two previous antenatal visits but nothing was done until it was too late. The new blood pressure monitoring devices could help to avoid these situations. They have a 'traffic-light' monitoring system. The device tells the user if the blood pressure and pulse measurements are normal (green), worrying (amber), or severely abnormal (red) so that women can be appropriately referred to higher level care even if the referring clinician doesn't have much experience.

Other barriers to women accessing antenatal care were cultural. Often women are reluctant to travel long distances to the hospital because of cost, lack of transport. And many have existing children at home who need to be fed and looked after and other family members may not consider it acceptable for a woman to 'neglect' her duties in order to attend her appointments. It is difficult to know how these problems might be addressed because there is no practical solution.

It seems that communities often encourage women to give birth at home. For reasons mentioned above it is often logistically difficult for a woman to reach hospital and it is also considered unacceptable for her to leave her family for any period of time. As a result, although antenatal attendance is quite good, far fewer women come to the hospital to give birth. It seems as though childbirth is regarded as a very natural process and labouring women are encouraged to stay in the community to be looked after by an older, wiser lady. We learnt that this causes many problems. We saw a lady with a vesicovaginal fistula secondary to obstructed labour. The clinician performing the procedure explained that this is a common problem when women don't come to hospital to give birth. The consequences are that she becomes an outcast and is seen as dirty. Her husband will leave her and she will have no money to feed her children who will also suffer. He explained that after a repair a woman are transformed and that many camps are being set up to repair the fistulas and to educate women about the benefits of giving birth in hospital.

Maternity Worldwide, the charity we were working with, were training village representatives to go into the community and give talks about maternal health, but also finance and farming. At one hospital we visited women were allowed to skip the queue if they brought their partners to their antenatal appointment. The partners were also offered talks on antenatal care. Whilst the antenatal clinics we saw were well attended, it is important to remember that over half of women don't go to antenatal clinic. Therefore health education in the rural communities is potentially a very powerful tool to reach these women.

When I first got to Zomba I found that I compared everything that happened to the UK. We saw a baby delivered at 32 weeks' because of a mistake with the gestational age made during the initial clerking. It died because there was no surfactant and no respiratory support. But you can't get upset because it's not like England. You have to focus on what you are presented with. I was struck by the way that innovative solutions were thought up to so many problems. In the UK we can often rely on diagnostic tests to tell us what is wrong and algorithms to show us the right treatment. We encountered very few systems. It relied more on the ability of the individual clinician to think on their feet and to do the best they could with the resources that were available. This was difficult as students because we often felt unsure about decisions that were being made but at the same time lacked the experience and knowledge to suggest something better. I hope that I can work in a similar setting when I am more experienced and have more to offer. In the mean time, I hope that the experiences I have had will encourage me to address what is in front me and to 'think outside the box'.

References

1. Maternity Worldwide. Saving Lives in Childbirth: CRADLE Community Blood Pressure Monitoring in Rural Africa: Detection of Underlying Pre-Eclampsia [Internet] [cited 5th June 2015]. Available from: http://www.maternityworldwide.org/what-we-do/malawi/

2. Maternity Worldwide. Saving Lives in Childbirth: Malawi [Internet] [cited 5th June 2015]. Available from: http://www.maternityworldwide.org/what-we-do/malawi/