

**REPORT ON THE SECOND EDUCATION SESSION ON EMERGENCY
OBSTETRIC AND NEONATAL CARE UNDERTAKEN IN PHEBE HOSPITAL
BETWEEN 18TH AND 23RD FEBRUARY 2013**



Summary

This was the second activity conducted as part of the obstetric component of a grant awarded by The Tropical Health Education Trust (THET) and UKAID as a formal partnership between Bong County Health and Social Welfare Team (BCHASW) in Liberia and Aneurin Bevan Health Board (ABHB) in Wales, UK.

Two courses were undertaken by ALSG and MCAI (the implementers of the UK part of the obstetric project) consisting of 2 successive EESS-EMNH Essential and Emergency Surgical Skills-Emergency Maternal and Neonatal Healthcare courses. Each was of 3 days duration and involved a total of 39 candidates (29 midwives or nurses and 5 nurse anaesthetists from Bong County and 5 midwives or nurses from outside Bong County). All candidates had been given the EESS-EMNH manual prior to the course.

Two doctors were invited and given pre-course materials but did not attend.

Five internationally accredited ALSG instructors, all experienced in teaching obstetric and/or neonatal emergencies, were engaged in these two courses. Two were from The Gambia. In addition two Instructor Candidates from Liberia (following their success in the Generic Instructor Course held in November 2012) also taught on the courses. Both succeeded in becoming fully qualified international ALSG instructors on the EESS-EMNH course. There was a ratio of around 3 candidates to each instructor.

Appendix 1 outlines details of the EESS-EMNH course.

The instructors brought with them some equipment additional to that provided for the courses in November 2012: an additional infant/placental unit and two power-point projectors. A new component of the courses involved the latest way of gaining access to a vein in seriously shocked patients (the EZIO intraosseous drill). This equipment has been left at Phebe Hospital for future courses and two sets of this equipment, along with logbooks to assess their use, were given to selected staff from Phebe and CB Dunbar Hospitals to provide care for patients attending with life-threatening emergencies where venous access will not be possible because of severe circulatory impairment.

All 39 candidates passed these courses and received the training with enthusiasm and commitment. The instructors selected 11 candidates (4 nurse anaesthetists, 3 nurses and 4 midwives) to go forward to participate in the GIC (Generic Instructor Course) which will occur in June 2013.

Each of the successful 39 candidates on the EESS-EMNH courses received the following items at the end of each course: a bag and 2 masks for lung inflations in patients (Particularly newborn infants) who are not breathing, a pocketbook of the essential components of emergency care for pregnant women, newborn infants and children, a CD Rom of EMNH including around 120 videos showing examples of emergency care for mothers and babies and finally a logbook in which they have each been asked to enter details of every emergency intervention that they perform from then onwards on patients. (These data will be used by WHO Liberia who are undertaking the monitoring and evaluation for this project).

Both of the two Instructor Candidates who taught on these EESS-EMNH courses (Doctor Obed Dolo (Obstetrician at CB Dunbar Hospital) and Ms Hannah Gibson (midwife)) were successful in achieving Full Internationally (ALSG) accredited Instructor status and will be able to undertake training on future EESS-EMNH courses without the need for special mentoring.



Dr Gabella, Wendy Martin and Sulaymann Triage Jammeh demonstrating shoulder dystocia treatment



Dr Dolo (on right) holding workshop on



Prof Southall and Lamin Darbo teaching neonatal resuscitation skills



Dr Gabella Teaching airway and breathing in pregnancy

Observations from the instructors on the EESS-EMNH courses

The midwives, nurse anaesthetists and nurses attending the two courses were all keen to engage with the training and enthusiastically participated in a way which made teaching straightforward and fulfilling for all involved. We are very grateful to all the candidates for the open way in which they welcomed this practical style of teaching, for their constructive feedback which allows us to amend the course in order to tailor it for the country and thereby to work in partnership with our Liberian colleagues.



Lamin, Sulaymann and Brigid (Course director) Group photograph of second EMNH course



1. The majority of midwives at the onset of the course did not have all of the skills needed to resuscitate the newborn infant. By the end of the course all were proficient in this skill.
2. The new skill station on the management of twin delivery was welcomed and found helpful by the candidates.
3. Although there was a lecture on major trauma it continues to be felt by all instructors, following feedback from the candidates, that this subject was too important and prevalent

(mostly from major road traffic accidents) to be covered by only one lecture. It is our intention to hold a one day course on major trauma in subsequent sets of trainings.

4. The value of a new course to be introduced in the near future on the management of neonatal illnesses was strengthened by the experience of the instructors during these two courses, and it is hoped that this will begin in June 2013. The main neonatal illnesses identified for further training include feeding and temperature control, neonatal sepsis, respiratory failure, seizures and jaundice. However, alongside this new course, it is clear that renovation needs to be undertaken and basic essential emergency equipment provided for both Phebe and CB Dunbar Hospital neonatal units.

Candidates for this new course will include nurse anaesthetists who are going to assist the midwives in caring for sick newborn infants. MCAI/ALSG will be raising funds for the renovation and equipping of the neonatal units as a matter of urgency.

5. Perhaps the most important factor that is causing difficulties with emergency care at Phebe Hospital is the current state of the Emergency Room. This requires urgent expansion, renovation and basic equipment. MCAI has already provided \$8000 US to the hospital so that work can be undertaken on renovation. This work has already started and the foundations for the new extended unit are in place.

The appointment of obstetric clinicians (midwives) to be trained in emergency obstetric surgery

In terms of this component of the project, three midwives were recommended for further assessment by the Ministry of Health, Liberian Medical and Dental Council and by the head of obstetrics in Liberia. The names of the potential candidates are Miss Hannah Gibson (currently working in a rural clinic around 2 hours distant from Phebe), Naomi Lewis (currently working in the maternity unit of CB Dunbar Hospital) and Saretta Glee (currently working in the maternity unit at Phebe Hospital).



From left to right: Saretta Glee, Naomi Lewis, Dr Obed Dolo, Hannah Gibson and Jeremiah Akoi

All 3 midwives performed well on the EMNH course. Hannah Gibson also succeeded in the November GIC course and successfully taught on the two latest EMNH courses and has become a full ALSG instructor. Following discussions with Dr Obed Dolo, it was also felt that Naomi Lewis is an exceptionally good midwife and that her skills in obstetric care in CB Dunbar Hospital make her suitable for obstetric surgical training. Saretta Glee, in addition to being recommended for GIC training, is also known by Dr Dolo to have good obstetric skills.

Full details of the selection process for obstetric clinicians (midwife surgeons) are outlined in the MOU on this project.

Other factors relevant to the continuing programme to enhance emergency care at Phebe and CB Dunbar hospitals

Pathways of care concerning some of the life threatening complications of pregnancy and delivery in Liberia

Following work undertaken by Dr Dolo and Professor Southall, two algorithms presented as A2 laminates have been prepared for distribution to all maternity units, emergency rooms and

health facilities in Bong County. These are Figures 1 and 2 and 42 copies of these will be delivered to the clinics and hospitals over the next few months.

Prevention of life-threatening infection

The initial background monitoring and evaluation for Bong County performed by WHO as part of this project has shown that puerperal and neonatal sepsis is a major problem and causing many deaths. During the EMNH courses there was considerable emphasis placed on the prevention of hospital-based infection, including a workshop on this subject.

One possible solution, discussed in the workshop, was the use of obstetric Chlorhexidine cream (Hibitane cream) for all pelvic examinations in labour especially after ruptured membranes. An initial supply of this material has been given to both hospitals to assess its possible value.

Perhaps of much more importance, was information obtained from the infection control workshop indicating how much of the puerperal sepsis probably arises in those poorest families where the mother cannot afford sanitary towels to keep her genital tract clean during the puerperium. As a result of this finding, MCAI will now be raising funds to provide, if possible, every woman or girl who has just given birth with a pack containing essential basic materials to help prevent infection (sanitary towels, soap, hand towels etc.)

Provision of anti-snake venom

MCAI has found obtaining this drug extremely difficult and costly. A supply of one polyvalent kit suitable for any possible snakebite presenting to Phebe Hospital has been undertaken, but MCAI is pursuing other outlets to ensure that this can be sustainable.

Condom catheters for the treatment of severe post partum haemorrhage

Skill stations in the latest 2 EMNH courses confirmed our initial opinion that condom catheters (balloon tamponade of the uterus) should be made available (with additional training) for cases of severe post partum haemorrhage not responding to standard treatment in all hospitals and clinics in Bong County. A manual on this procedure is currently being prepared.

Accommodation, food and security for the international visitors

All involved wish to thank Mr Jeremiah Akoi for ensuring that all of these 3 areas of support were established. All three were of a high standard and the quality of accommodation, although basic, was perfectly adequate and comfortable. The food was nutritious and there were no problems with food-borne-diseases. The security provided was of a high standard.

Acknowledgments

We must thank Dr Jefferson Sibley and his regional health team, especially Jeremiah Akoi, for making all the arrangements to ensure that this first activity of our collaboration went ahead so well. The preparation of the candidates, the food accommodation and security were particularly important and every effort was made to ensure this. We are also grateful for the invaluable assistance of Raphael and the drivers from WHO, as well as the drivers from Phebe, who all ensured that the international visitors were kept safe during their journeys.

Professor David Southall (project leader)
Dr Brigid Hayden (director of both EESS-EMNH courses)



Instructors from The Gambia Lamin Darbo, David Southall and Sulayman Jammeh (from left to right) on arrival

Appendix 1

Emergency Maternal and Neonatal Health Course

February 2013 Bong County Liberia

Instructors		
Brigid Hayden: director	BH	Hannah Gibson HG
Obed Dolo	OD	Wendy Martin WM
Zaki Gabella	ZG	Cath Cope coordinator
Sulayman Jammeh	SJ	Akoi Jeremiah coordinator
Lamin Darboe	LD	
David Southall	DS	

COURSE PROGRAMME DAY-I

Time:	Session Title:	Faculty Allocation:
0900 – 0930	Arrival/Registration	
0930 – 1000	MCQ	
1000 - 1030	Break	
1030 – 1045	1>Welcome, introduction and objectives of the course. <ul style="list-style-type: none"> • Sensitize the participants about life saving skills essential for health workers caring for pregnant mothers and newborn babies • Make the participants competent on most commonly used life saving procedures. • Provide practice for imparting hands on skills. 	BH
1045 – 1100	2.Putting emergency care of mothers and newborn infants into context in Liberia	OD
1100 – 1115	3.Structured approach to emergencies in mother and newborn	SJ
1115 – 1130	4. Airway and breathing management in mother. Lecture	ZG
1130 – 1200	5. Resuscitation at birth. Lecture with demonstration	DS
1200 – 1330	Skills with hands on practice: -	
Time	1200– 1245	1245 – 1330
Airway/Breathing Mother 7 ZG OD	A	B
Airway/Breathing Mother 7 BH SJ	C	D
Resuscitation at Birth 8 WM HG	B	A
Resuscitation at Birth 8 DS LD	D	C
1330 – 1430	LUNCH	

1430 – 1630	BASELINE SKILLS/WORKSHOPS Including the use of directed cases: (4 x 30 minutes) – <ul style="list-style-type: none"> • Triage in pregnancy • Twin delivery • Infection control and HIV/hepatitis prevention • Minimizing & making Blood transfusion safer 			
Time:	1430 – 1500	1500 – 1530	1530 – 1600	1600 – 1630
Triage in Pregnancy LD H	A	B	C	D
Twin delivery BH OD	B	C	D	A
Infection control and HIV/hepatitis prevention DS ZG	C	D	A	B
Blood transfusions SJ WM	D	A	B	C
1630 -1700	Faculty meeting			

COURSE PROGRAMME DAY-II

Time:	Session Title:			Faculty Allocation:
0900 – 0930	Lecture Early pregnancy complications. Lecture Serious medical illness during pregnancy			BH
0930 – 1000	Recognising and managing neonatal emergencies & video			DS
1000 – 1030	Break			
1030 – 1100	Shock in pregnancy			OD
1100 – 1115	Demo scenario on massive PPH			Introduction Demo: Instructor= OD Candidate= WM Critique= LD
1115 – 1145	Major trauma in pregnancy			DS
1145 – 1345	Scenarios:			
Time	1145-1215	1215-1245	1245-1315	1315-1345
<i>Scenarios Stn 1</i> Neonatal illness DS HG	A	B	C	D
<i>Scenarios Stn 2</i> Massive haemorrhage BH OD	B	C	D	A
<i>Scenarios Stn 3</i> Neonatal illness LD WM	C	D	A	B
<i>Scenarios Stn 4</i> Shock due to puerperal sepsis SJ ZG	D	A	B	C

1345 – 1445	LUNCH	
1445 – 1515	Eclampsia	HG
1515 – 1530	Demo scenario on ruptured ectopic pregnancy	Instructor = OD Candidate = BH Critiquer = ZG
1530 – 1545	Videos of IO needle and UVC catheter	DS
1545 – 1645	Skills: Circulation <ul style="list-style-type: none"> Difficult venous access in pregnancy: include external jugular vein, intraosseous needle using EZIO and long saphenous vein cutdown with venous cannula type insertion Eclampsia workshop 	Cut down trainer, instructor ext jugular, EZIO equipment
TIME	1545 – 1615	1615 – 1645
Difficult venous access in pregnancy: include external jugular and long saphenous vein cutdown and EZIO DS HG	A	B
Eclampsia workshop LD OD	B	A
Difficult venous access in pregnancy: include external jugular and long saphenous vein cutdown SJ ZG	C	D
Eclampsia workshop WM BH	D	C
1645 – 1715	Massive obstetric haemorrhage	LD
1715 – 1745	Faculty Meeting	

COURSE PROGRAMME DAY-III

Time	Session Title	Faculty Allocation			
0830 – 0900	Obstructed labour: Lecture 27	HG			
0900 – 0930	Complications of labour and delivery: Lecture 28	WM			
0930– 0945	Demo scenario: shoulder dystocia 29	Instructor = HG Candidate = SJ Critiquer = DS			
0945 – 1000	Demo scenario: obstructed vaginal breech 30	Instructor = LD Candidate = BH Critiquer = OD			
1000 – 1030	BREAK				
1030 – 1230	Delivery related skills				
Time	1030 – 1100	1100 – 1130	1130 – 1200	1200 – 1230	
Vaginal breech 31 BH HG	A	B	C	D	

Cord prolapse and uterine inversion 32 DS LD	B	C	D	A
Shoulder dystocia 33 SJ WM	C	D	A	B
PPH Procedures ZG OD	D	A	B	C
1230 – 1430	Obstetric scenarios:			
TIME	1230 - 1300	1300 – 1330	Lunch 1330-1415	1415 – 1445
Obstetric scenarios Eclampsia and severe pre-eclampsia ZG OD	A	B		C
Obstetric scenarios Twin/Breech BH SJ	B	C		D
Obstetric scenarios APH, miscarriage and ruptured ectopic DS LD	C	D		A
Obstetric scenarios Shoulder dystocia WM HG	D	A		B
1515 – 1545		TEA		
1545 – 1615		MCQ testing		
1615 – 1710	TESTING scenarios Station I (mother = PPH) 38 Station II (mother = eclampsia) 39 Station III (baby= resuscitation at birth) 40 (10mins for each candidate)		BH LO ZG HG LD WM	FACULTY (retakes) DS SJ
1710 – 1730		Faculty meeting		
1730 -1740		Record keeping and transfer notes		
1740 – 1750	ALL	Candidate log book distribution and training		
1750 - 1800	ALL	Closing ceremony, distribution of bag valve masks and certificates		

Figure 1

PATHWAY OF CARE FOR PATIENTS WITH ECLAMPSIA

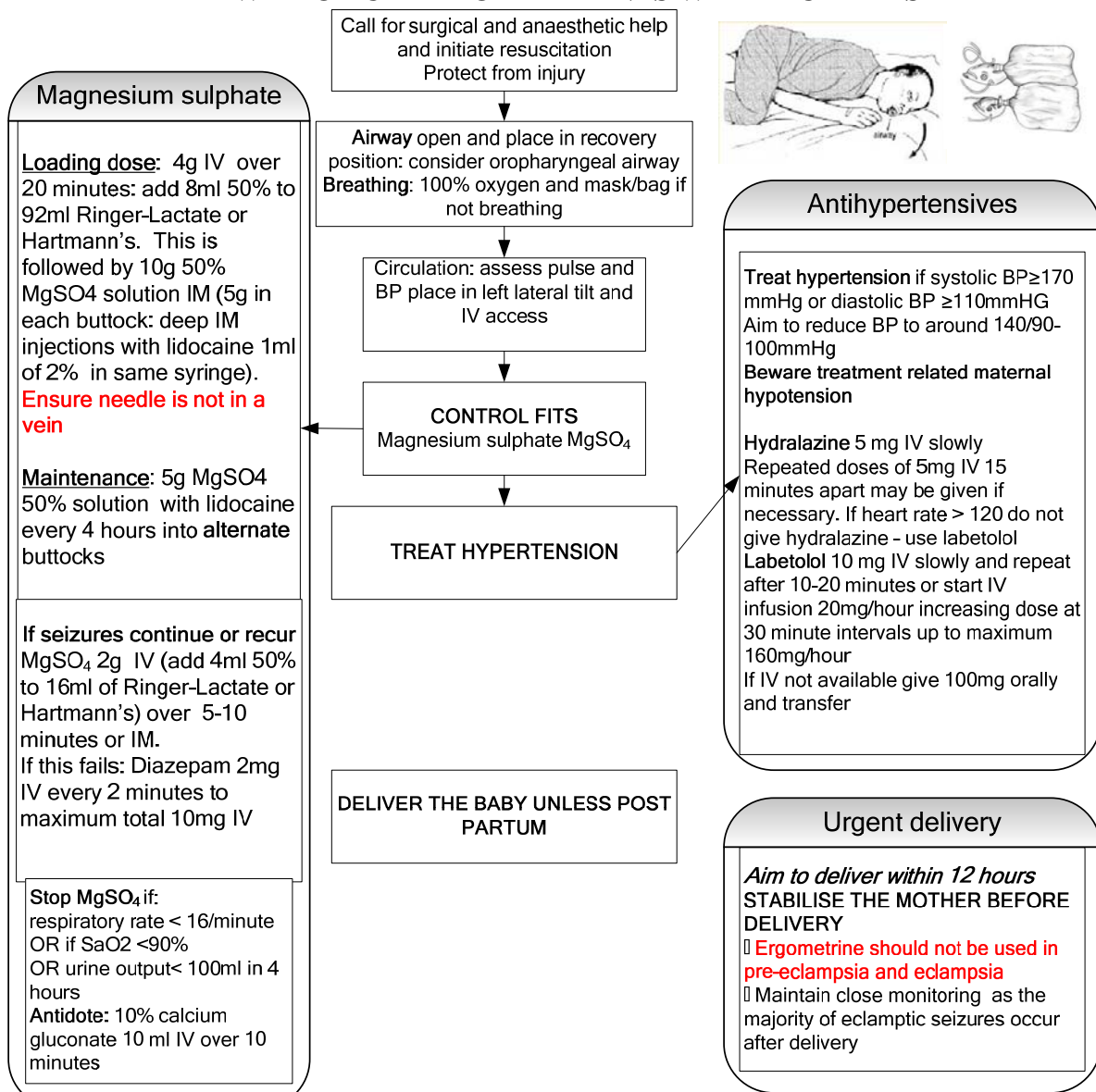


Figure 2
PATHWAY OF CARE FOR PATIENTS WITH POST PARTUM HAEMORRHAGE

