

REPORT ON THE FIRST EDUCATION SESSION UNDERTAKEN IN PHEBE HOSPITAL BETWEEN 19TH AND 27TH NOVEMBER 2012



Summary

This was the first 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.

Three courses were undertaken by ALSG and MCAI (the implementers of the UK part of the obstetric project). The first 2 courses (EESS-EMNH Essential and Emergency Surgical Skills- Emergency Maternal and Neonatal Healthcare) were each of 3 days duration and involved a total of 44 candidates (2 doctors and 42 midwives: all from Bong County). All candidates had been given the EESS-EMNH manual between 4 and 6 weeks prior to the course.



Eight internationally accredited ALSG instructors all experienced in teaching obstetric and/or neonatal emergencies were engaged in these two first courses providing a ratio of around 3 candidates to each instructor. **Appendix 1** is the programme for the EESS-EMNH courses.

The instructors brought with them the equipment for the courses: neonatal, adult and pelvic manikins as well as the audio-visual aids and emergency supplies (such as bag valve masks) needed to undertake the skill stations, scenarios and workshops. This equipment has been left at Phebe Hospital for future courses and for some items to be used by local staff for training in obstetric and neonatal emergencies.



There were 2 doctors and 42 midwives (all from Bong County) on these first 2 EMNH courses. All 44 passed these courses and received the training with enthusiasm and commitment. The instructors selected 7 candidates (2 doctors and 5 midwives) to go forward to participate in the GIC (Generic Instructor Course) which occurred on the 26th and 27th November and was conducted by 3 instructors including an ALSG Educator (Dr Barbara Phillips). **Appendix 2** is the programme for the GIC course.



Each of the successful 44 candidates on the EESS-EMNH courses received the following items at the end of each course: a bag and 2 masks for lung inflations, 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 of 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 trained on the course that they perform from then onwards. (These data will be used by WHO Liberia who are providing the monitoring and evaluation for this project).

Of the 7 candidates who attended the GIC course, 3 (2 doctors and one midwife) were successful in achieving Instructor Candidate status and will be able to undertake training on future EESS-EMNH courses under the mentoring and support of international ALSG instructors.

Of the remaining GIC candidates, some were identified as having particular skills in aspects of teaching and will contribute to the ongoing reinforcement of the course skills using the MCAI manikins that have been left in their care.



Observations from the instructors on the EESS-EMNH courses

It is clear to all of the instructors that the midwives and doctors were very 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.

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. During the workshop on intimate partner violence it became clear to the instructors that there was a great deal of this problem in the community. The candidates were very generous in providing details but the resulting discussion was emotional and the current lack of available solutions to this highly prevalent problem (no refuges for women affected, major problems for adolescent girls with relatively little effective criminal justice solutions) suggested that it was not appropriate to conduct this during the second or future courses until effective measures had been put in place in Bong County to address some of these serious problems. Intimate partner and child abuse is an aspect of care concerning which the MCAI team have considerable experience and would be privileged to assist the government if requested.
3. In the first course there was a lecture on major trauma. However, it was felt by the 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 was therefore excluded from the second course and it is our intention to hold a one day course on major trauma in the subsequent set of trainings.
4. A new skill station will be prepared for future courses to address the frequent problems encountered with twin pregnancies.
5. The UK instructors were made aware by the Liberian doctors of the value of abdominal paracentesis to provide blood for transfusion in patients with ruptured ectopic pregnancies.
6. The value of a new course to be introduced in the near future on the management of neonatal illnesses was revealed and it is hoped that this will begin in the early part of 2013. The main neonatal illnesses identified for further training include neonatal sepsis, respiratory failure, convulsions and jaundice. However, before this new course starts, it is clear that renovation is 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 will be raising funds for the renovation and equipping of the neonatal units as a matter of urgency.

7. Perhaps the most important factor that will cause 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 requested a cost-breakdown of this work and has started to raise funds for this essential next step.

Comments on the GIC course

All 7 candidates performed well in terms of their skills in teaching and 3 had the necessary deep understanding of the pathophysiology of the conditions they would be required to teach and pass on to future candidates on the provider (EESS-EMNH) courses. Without such an understanding, the GIC instructors unanimously agreed that those who did not have this necessary knowledge and understanding could not be taken forward to become instructors at this stage as they would not have been able to provide the extremely high standard of teaching required for international accreditation, especially in terms of the requirements of giving effective emergency care.

Nevertheless it was felt that the 4 candidates who were not taken forward at this time could make great use of their new skills in medical education and the instructors requested that the manikins could be made available for them to use in their own teaching sessions. For example, one of the midwives will use the infant manikin to provide teaching throughout the community to enhance the skills of midwives working in the rural areas.

Findings relevant to the appointment of obstetric clinicians (nurse/midwives) to be trained in emergency obstetric surgery

In terms of this component of the project, one midwife was recommended for further assessment by doctors at Phebe and CB Dunbar hospitals. She is currently working in a rural clinic around 2 hours distant from Phebe. She performed exceptionally well on both the EMNH and GIC courses and will go ahead to become an instructor candidate on future courses. She is also keen to become involved in the obstetric surgery training if found suitable after further assessment by Liberian doctors and the LMDC.

Certain skills are identified using the assessments in our 3 day EMNH training courses. However, these assessments alone would never be adequate to allow identification of suitable potential obstetric clinicians. This means that other midwives taught on the EMNH courses, (all of whom passed), could potentially be suitable. Similarly, just because one of the midwives did well on the EMNH and GIC courses, it does not follow that she would definitely be a suitable candidate for training in obstetric surgery.

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

Renovation and equipment for emergency care

Certain developments at both Phebe and CB Dunbar hospitals would enhance emergency care for pregnant women and their babies. These include:

1. Expansion, renovation and provision of equipment in the Emergency Room at Phebe Hospital
2. Renovation and equipment for the neonatal unit at Phebe Hospital and
3. Equipment for the neonatal unit at CB Dunbar Hospital, including an air conditioner.

MCAI/ALSG under their Strengthening Emergency Healthcare programme will now seek funds to try to achieve these developments.

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 or after ruptured membranes. This needs further discussion and funding.

Provision of anti-snake venom

MCAI has taken responsibility to identify a source for anti-venom, appropriate to West Africa, and will also supply an agreed amount as a starter pack.

Condom catheters for the treatment of severe post partum haemorrhage

One of the skill stations as part of the EMNH courses showed how condom catheters (balloon tamponade of the uterus) could be made and used in cases of severe post partum haemorrhage not responding to standard treatment. It has already been used in CB Dunbar Hospital successfully by Dr Dolo after it had been presented on a previous visit by Professor Southall. In discussions with Dr Dolo, it was considered appropriate further to develop this technique. This development would be for use, not only in the hospitals, but in the clinics where, after insertion, the patients could be more safely transferred to the hospitals. Dr Dolo and Professor Southall will work together on this.

Accommodation, food and security for the international visitors

All involved wish to thank Dr Garfee Williams and Mr Jeremiah Akoi for ensuring that all of these 3 areas of support were established. All three were of a high standard and although House 13 definitely needs structural repairs (to come from the UKAID/THET grant) 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 Garfee Williams 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 John and Simon 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 all 3 courses)

Dr Barbara Phillips (Educator for all 3 courses)

Appendix 1

Emergency Maternal and Neonatal Health Course

November 2012

COURSE PROGRAMME DAY-I

Time:	Session Title:	Faculty Allocation:			
0900 – 0930	Arrival/Registration Opening				
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. 				
1045 – 1100	2. Putting emergency care of mothers and newborn infants into context in Liberia				
1100 – 1115	3. Structured approach to emergencies in mother and newborn				
1115 – 1130	4. Airway and breathing management in mother. Lecture				
1130 – 1200	5. Resuscitation at birth. Lecture with demonstration				
1200 – 1330	Skills with hands on practice: -				
Time	1200– 1245	1245 – 1330			
Airway/Breathing Mother 7	A	B			
Airway/Breathing Mother 7	C	D			
Resuscitation at Birth 8	B	A			
Resuscitation at Birth 8	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 • Domestic violence • Infection control and HIV/hepatitis prevention • Minimizing & making Blood transfusion safer 				
Time:	1430 – 1500	1500 - 1530	1530 – 1600	1600 – 1630	

Triage in Pregnancy	A	B	C	D
Domestic violence	B	C	D	A
Infection control and HIV/hepatitis prevention	C	D	A	B
Blood transfusions	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			
0930 – 1000	Recognising and managing neonatal emergencies & video			
1000 – 1030	Break			
1030 – 1100	Shock in pregnancy			
1100 – 1115	Demo scenario on massive PPH		Introduction Demo: Instructor= Candidate= Comment=	
1115 – 1145	Major trauma in pregnancy			
1145 – 1345	Scenarios:			
Time	1145-1215	1215-1245	1245-1315	1315-1345
<i>Scenarios Stn 1</i> Neonatal illness	A	B	C	D
<i>Scenarios Stn 2</i> Massive haemorrhage	B	C	D	A
<i>Scenarios Stn 3</i> Neonatal illness	C	D	A	B
<i>Scenarios Stn 4</i> Shock due to puerperal sepsis	D	A	B	C
1345 – 1445	LUNCH			
1445 – 1515	Eclampsia			
1515 – 1530	Demo scenario on ruptured ectopic pregnancy		Instructor = Candidate = Comment =	
1530 – 1545	Videos of external jugular cannulation, IO needle and UVC catheter		DS	
1545 – 1645	Skills: Circulation <ul style="list-style-type: none"> • Difficult venous access in pregnancy: include external jugular and long saphenous vein cutdown 24 • Eclampsia workshop 		Cut down trainer, instructor ext jugular	
TIME	1545 – 1615		1615 – 1645	

Difficult venous access in pregnancy: include external jugular and long saphenous vein cutdown	A	B
Eclampsia workshop	B	A
Difficult venous access in pregnancy: include external jugular and long saphenous vein cutdown	C	D
Eclampsia workshop	D	C
1645 – 1715	Massive obstetric haemorrhage	
1715 – 1745	Faculty Meeting	

COURSE PROGRAMME DAY-III

Time	Session Title		Faculty Allocation		
0830 - 0900	Obstructed labour: Lecture 27				
0900 – 0930	Complications of labour and delivery: Lecture 28				
0930– 0945	Demo scenario: shoulder dystocia 29		Instructor = Candidate = Critiquer =		
0945 – 1000	Demo scenario: obstructed vaginal breech 30		Instructor = Candidate = Critiquer =		
1000 – 1030	BREAK				
1030 – 1230	Delivery related skills				
Time	1030 – 1100	1100 – 1130	1130 – 1200	1200 – 1230	
Vaginal breech 31	A	B	C	D	
Cord prolapse and uterine inversion 32	B	C	D	A	
Shoulder dystocia33	C	D	A	B	
PPH Procedures	D	A	B	C	
1230 – 1430	Obstetric scenarios:				
TIME	1230 - 1300	1300 – 1330	Lunch 1330-1415	1415 – 1445	1445 - 1515
Obstetric					

scenarios Eclampsia and severe pre- eclampsia	A	B		C	D
Obstetric scenarios Breech	B	C		D	A
Obstetric scenarios APH, miscarriage and ruptured ectopic	C	D		A	B
Obstetric scenarios Shoulder dystocia	D	A		B	C
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)			FACULTY (retakes)	
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, log books, pocket books and attendance certificates			

Appendix 5

ESS-EMNH/ECTH Instructor Course - Programme Nov 2012

Instructor	
Director	
Educator	
Coordinator	



Day One

Time		Learning Outcomes
08.45 - 09.00	Registration	
09.00 - 09.15	Introduction and Welcome	
09.15 - 10.15	Adult Learning ~ Educator ☞	By the end of this session you should be able to: <ul style="list-style-type: none"> ▪ Describe your own personal learning style ▪ Identify some factors that might facilitate your own learning ▪ Recognise that other individuals are likely to have different learning preferences ▪ Think of ways of planning teaching and learning to suit a variety of learning styles
10.15 - 10.45	Breakfast	
10.45 - 11.45	Equipment familiarisation (3 x 20 minute rotations)	By the end of this session you should be able to assemble and safely use: <ul style="list-style-type: none"> ▪ Manikins By the end of this session you should be able to set up and effectively use: <ul style="list-style-type: none"> ▪ An overhead projector ▪ A PowerPoint projector
	All faculty	
11.45 -12.15	Lecturing <u>Demonstration Lecture & Critique</u> Lecture critique and discussion ~ Educator ☞	By the end of this session you should be able to: <ul style="list-style-type: none"> ▪ Critically observe a 5 minute lecture and identify its principal features and the 3 phases of set, dialogue and closure ▪ Comment on these features in providing positive feedback ▪ Discuss the lecture as a teaching method, identifying its strengths and weaknesses
12.15 - 12.45	Skills Teaching <u>Demonstration Skill Station & Critique</u> Critique and discussion ~ Educator ☞	By the end of this session you should be able to: <ul style="list-style-type: none"> ▪ Observe, describe and apply the four stage approach to skills teaching ▪ Discuss the main educational features of the four stage approach to skills teaching
12.45 - 13.15	Practice: lectures, skills, with mentors	
13.15 - 14.15	Lunch	


14.15 - 16.45	Practice Stations: lectures and skills teaching		
Station/Time	14.15 - 15.30	15.30 - 16.45	Faculty
Lecture	A	A	
Skill Teaching	B	B	

16.45 - 17.00	Faculty Meeting		

Day Two

Time		Learning Outcomes
08.30 - 08.45	Mentor Meetings	
08.45 - 09.45	Closed and Open Discussions <u>Demonstration Closed Discussion and Critique</u> <u>Demonstration Open Discussion and Critique</u> Critique and discussion - Educator 	By the end of these sessions you should be able to: <ul style="list-style-type: none"> Recognise the two different types of approaches to group discussion Compare and contrast the relative merits and application of closed and open discussion Plan group discussions, based on a universal structure for teaching Recognise and apply appropriate techniques for facilitating and controlling the group
09.45 - 10.15	Teaching scenarios and role playing <u>Demonstration Teaching Scenario and Critique</u> Critique and discussion - Educator 	By the end of this session you should be able to: <ul style="list-style-type: none"> Discuss the application of role play and scenario teaching Recognise the important features of role play and scenario in resuscitation teaching Both organise and take part in role plays and scenarios
10.15 - 10.45	Breakfast	

10.45 - 13.15	Practice Stations: closed discussions and scenario teaching		
Station/Time	10.45 - 12.00	12.00 - 13.15	Faculty
Scenario Teach	A	B	
Closed discussion	B	A	

13.15 - 14.15	Lunch and Faculty meeting regarding decision on candidates suitability for becoming instructor candidates		
14.15 - 15.00	Assessment: skills and scenarios <u>Demonstration Skill Testing and Critique</u> <u>Demonstration Scenario Testing and Critique</u> Critique and discussion - Educator 	By the end of this session you should be able to: <ul style="list-style-type: none"> Describe the basic principles of assessment Critically discuss the key issues surrounding assessment, especially with regard to making pass/fail decisions and informing candidates of these decisions Begin to apply these principles to the skills and competencies covered on provider courses 	

15.00 - 17.00	Practice Stations: assessment of skills and scenarios		
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Station/Time	15.00 - 16.00		16.00 - 17.00	Faculty
Skills Assess	A		B	
Scenario Assess	B		A	

17.00 - 17.30	For candidates: "Role of the Instructor" <u>Discussion led by Course Director and Course Co-ordinator</u>	By the end of this session you should have: <ul style="list-style-type: none"> Discussed the role of the instructor (through open discussion), facilitated by the Course Director
17.30 - 17.45	Faculty Meeting	
17.45 -18.00	Feedback in main lecture room	
18.00	Course closure	