Document Title:	**ASSIST MEDICAL AND MIDWIFERY STAFF IN THE PROVISION OF HIGH DEPENDENCY CARE AND ARRANGEMENTS FOR SAFE AND TIMELY TRANSFER TO ITU**		
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Document type: (Policy/ Guideline/ SOP)	Guideline	**To be followed by:** (Target Staff)	Midwives, Obstetricians, Paediatricians
Ratification Issue Date:	14th January 2019	**Review Date:**	13th January 2022
Developed in response to:	CEMACH Report Saving Mothers Lives Standards for Maternity Care		
Contributes to HSC Act 2008 (Regulated Activities) Regulations 2014(Part 3); and CQC Regulations 2009 (Part 4) **CQC Fundamental Standards of Quality and Safety:**			10,11
Issuing Division/Directorate:	Women's & Children's		
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Hospital Sites:	✓ MEHT □ BTUH □ SUH		
Consultation:	(Refer to page 2)		
Approval Group / Committee(s):	n/a	**Date:**	n/a
Professionally Approved by: (Asset Owner)	Miss Rao (Lead Consultant for Obstetrics and Gynaecology)	**Date:**	14th December 2018
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Executive and Clinical Directors (Communication of minutes from Document Ratification Group	**Date:** January 2019	**Distribution Method:**	Trust Intranet/ Internet

Consulted With:	**Post/ Approval Committee/ Group:**	**Date:**
Anita Rao/ Alison Cuthbertson	Clinical Director for Women's and Children's Directorate	14th December 2018
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Related Trust Policies (to be read in conjunction with)	04071 Standard Infection Prevention 04072 Hand Hygiene 07024 Emergency transport of blood and specimens in the event of major obstetric haemorrhage 09002 Guideline for management of preterm labour to incorporate the administration of intravenous atosiban 05110 Guideline for the management of eclampsia and severe pre-eclampsia 04252 Maternal collapse 04234 Management of postpartum haemorrhage

Document Review History:			
Version No:	**Authored/Reviewer:**	**Summary of amendments/ Record documents superseded by:**	**Issue Date:**
1.0	Dr G Philpott and Julie Bishop		November 2006
2.0	Anne Smith		November 2008
3.1		Equality & diversity update. Amendment to 9.0	September 2009
3.2	Sarah Moon	Post PFI move	June 2011
4.0	Paula Hollis		5th November 2012
5.0	Sarah Moon	Full Review	16 November 2015
6.0	Sam Brayshaw & Lauren Bannister	Full Review	14th January 2019

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1.0 Introduction

1.1 The UK Intensive Care National Audit and Research Centre (ICNARC) 3 has been collecting data on admissions of pregnant women to critical care units since 2006. In 2013, 83 % of such admissions were described as 'recently pregnant' (up to 42 days post-delivery). Only 17 per cent were 'currently pregnant'. In the 'recently pregnant' group, the main reason for admission was massive obstetric haemorrhage, whereas respiratory failure was the major reason in the 'currently pregnant' group.

1.2 Overall, there were 2.4 critical care admissions per 1,000 maternities. However, these figures significantly underestimate the actual numbers of sick women, as many critically ill women are not admitted to designated critical care units, but are instead managed on maternity units. The existing evidence suggests that 5 per cent of births require extra nursing care in maternity units.

1.3 The maternal critical care chapter in the recent MBRACE report highlights the need for teamwork and multidisciplinary training in the early recognition of critical illness (UK. Saving Lives, Improving Mothers' Care – Lessons learnt to inform future maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2009–2012. National Perinatal Epidemiology Unit, University of Oxford 2014.)

2.0 Equality Impact Assessment

2.1 Mid Essex Hospital Services NHS Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals.
(Refer to Appendix 1)

3. Enhanced Midwifery Care (EMC)

3.1 A much larger number of women will require enhanced midwifery care (EMC). Many women will require close support and monitoring but will not require admission to a critical care unit. This will allow women to be cared for on the maternity unit with their baby. Decisions about where, how, and by whom the sick woman will be managed will depend on the obstetric and anaesthetic team in liaison with critical care outreach. These women should be cared for by an experienced band 6 midwife competent in EMC. They should have hourly observations recorded on a MEOWS and should be reviewed regularly by anaesthetic and obstetric staff. SBR tool to be used and a flow chart available for escalation of help depending on MEOWS score, including taking an arterial blood gas when the score is 5.

3.2 The criteria for patients who require EMC is as follows:

- Major haemorrhage
  ` (Refer to guideline entitled 'Management of postpartum haemorrhage'; register number 04234)
- Severe pre-eclampsia and eclampsia where a patient requires infusions of any of the following medications: magnesium sulphate, labetalol and hydrallazine
  (Refer to the 'Guideline for the management of eclampsia and severe pre-eclampsia'. Register number 05110)
- Premature labour where a patient requires infusions of autosiban or salbutamol
  (Refer to the 'Guideline for management of preterm labour to incorporate the administration of intravenous atosiban'. Register number 09002)

- Maternal collapse
  (Refer to the guideline entitled 'Maternal Collapse'; register number 04252)
- Maternal sepsis

3.3 Equipment - the following should be available:

- Oxygen and suction
- Dynamap
- Pulse oximetry
- Electronic cardiograph (ECG)
- IVAC syringe pump
- Blood warmer (kept in obstetric theatre)
- Resuscitation/ventilation anaesthetic equipment

3.4 Additional equipment may be necessary and can be obtained from general theatre:

- Haemacue
- Patient warmer
- Rapid infusion device
- Central venous pressure monitor (only to be used if the midwife caring for the patient is trained in it
-
- s use).
- Arterial pressure monitoring (only to be used if the midwife caring for the patient is trained in its use).

3.5 **O Negative Blood** ('flying squad blood') - 2 units of emergency rhesus O negative blood is stored in the blood fridge on Labour Ward and will be used if the patient's crossed matched blood is not immediately available.

3.6 A pressure relieving mattresses or a Pegasus bed can be obtained from the equipment library at Broomfield Hospital.

4.0 Staff Management

4.1 These patients will require collaborative care and management. The following personnel will need to be involved in any decision making:

Obstetric staff:	Obstetric registrar (SPR) and consultant on call
Anaesthetic staff:	Resident anaesthetist, consultant anaesthetist and operating department practitioner (ODP)
Midwifery staff:	Labour Ward Co-coordinator/manager/on call Supervisor of Midwives

4.2 Other specialities that may need to be involved:

- Obstetric Theatre Team
- Neonatal nursing staff and paediatric senior house officer (SHO) and registrar
- ITU Nursing Staff
- Haematologist in cases of severe haemorrhage/ disseminated intravascular coagulation (DIC)/clotting disorders
- Physician/surgeon if appropriate
- Radiographer

4.3 Support staff include:

- Porters
- Maternity Care Assistants
- Ward Clerk

5.0 Care Planning

5.1 Regular assessment and updated action/care plan, must be made (4 hourly or as appropriate) by the medical team, who are of adequate seniority to ensure appropriate decisions about onward care.

5.2 The decisions regarding future plans of care should be made by the obstetric registrar with referral to the obstetric consultant and anaesthetist. The patient's condition should be closely observed for any deterioration. In such circumstances careful consideration should be made to transfer the woman to ITU.

5.3 Clear instructions for junior staff, should be documented in the patient's handheld records by the most senior person responsible for providing high dependency care.

6.0 Criteria for Patients who require Transfer to Intensive Care

6.1 Refer to the list as follows:

- Massive haemorrhage with DIC (Disseminated intravascular coagulation)
- Haemolysis Elevated Liver Enzymes and Low Platelets syndrome (HELLP syndrome)
- Eclampsia
- Major organ failure
- Unexplained maternal collapse
- Pulmonary embolism
- Amniotic fluid embolism
- Status epilepticus

7.0 Laboratory Services

7.1 Blood samples should be sent via the pneumatic tube system and the haematologist /biochemist should be notified and asked to phone the results to the Labour Ward. In the event of a Code Yellow, a portering system is in place.
Refer to the guideline entitled 'Emergency transport of blood and specimens in the event of major obstetric haemorrhage'; register number 07024)

7.2 The haematologist should be informed immediately if O negative blood has been used.

8.0 Nursing / Midwifery Care

8.1 One to one care must be provided by staff competent and experienced in caring and monitoring for these patients. All observations should be documented on the MEOWS (Maternity Early Obstetric Warning System) chart and in addition, the MEOWS score and midwifery/nurse care should be documented in the patient's health care records. These must all be maintained and contemporaneous records kept throughout transfer. These will include:

- Blood pressure, pulse, respiration rate & temperature
- Fluid intake and output including measurement of drains and vaginal/wound loss
- Drug administrations
- Blood results
- CVP measurements
- Oxygen saturation
- Pressure area care
- Continuous Electronic fetal monitoring

9.0 Arrangements for Transferring a Patient to ITU

9.1 The decision to transfer must be made by the obstetric consultant and anaesthetic consultant.

9.2 The transfer team will consist of an anaesthetist - consultant or resident anaesthetist, ODP and midwife.

9.3 Once on intensive care the patient must be visited every 24 hours by the maternity team (obstetric and anaesthetic consultant and midwife). Consideration must be given to the possibility of having the baby on ITU with the mother (in a side room), breastfeeding or expressing milk must be considered and addressed, including consideration of the drugs the woman is receiving and their compatibility with breast feeding.

9.4 Following discharge from hospital the patient and her family must have access to a debriefing appointment and psychological support: ICUsteps – The intensive care patient support charity Healthtalk – Intensive care: Patients' experiences

9.5 Any woman requiring Level 3 care for more than 48 hours should be considered for transfer to a nominated regional or supra-regional critical care unit with appropriate facilities, support and experience.

9.6 **Responsibilities of the Consultant Anaesthetist**

- To liaise with the ITU consultant to arrange a bed and if necessary provide ventilation while waiting for transfer to ITU
- Arrange anaesthetic escort
- Provide ongoing care to the patient and baby if still pregnant
- Ensure all care, conversations and decisions have been clearly documented in the health care records

9.6.2 **Responsibilities of the resident anaesthetist**

- Provide ventilatory and/or circulatory support
- Escort the patient for transfer
- Ensure all care, conversations and decisions have been clearly documented in the health care records

9.6.3 **Responsibilities of the obstetric consultant**

- Notify the patient's named consultant (if applicable)
- Notify the clinical risk management lead consultant
- Support junior medical staff
- Provide expert obstetric care
- Ensure all care, conversations and decisions have been clearly documented in the healthcare records

9.6.4 **Responsibilities of the ODP**

- To collect and prepare for use, portable ventilation and monitoring equipment
- To accompany and assist the anaesthetist during patient transfer to ITU
- Ensure all anaesthetic equipment is returned and checked, topped-up and re-stocked.

9.6.5 **Responsibilities of the obstetric registrar**

- Provide a clinical hand over to the ITU medical staff (written and verbal)
- Keep the patient and her next of kin fully informed
- Ensure all care, conversations and decisions have been clearly documented in the health care records

9.6.6 **Responsibilities of the Labour Ward Co-ordinator**

- Provide verbal hand-over to the ITU nursing staff
- Arrange a midwife escort
- Inform the Supervisor of Midwives
- Arrange operating department practitioner/ anaesthetist escort
- Inform the on call manager or Labour Ward Manager
- Arrange transfer of the patient's baby to the neonatal department (NNU) (if applicable)

- Arrange to have the patient's handheld/maternity records photocopied (if out of area transfer and so that they can be reviewed by the risk management team)
- Ensure risk event form has been completed
- Arrange community midwife visit for the next day at ITU
- Support junior nursing and midwifery staff
- Support the patient and her family, informing next of kin time of transfer to ITU
- Inform ITU of time of transfer/departure

9.6.7 **Responsibility of the Midwife providing Care for the Patient**

- SBAR should be completed on handover from/to ITU
- The midwife providing care for the patient should document all care, conversations and decisions in the healthcare records

9.6.8 **The Manager on-call or a Supervisor of Midwives** should be available to offer emotional support to staff involved if required.

10.0 Postnatal Consultant Follow-up

10.1 The patient's consultant or senior registrar should visit the mother at least once following transfer back to the Maternity Unit and a 6 week postnatal appointment with the patient's consultant should be arranged.

10.2. The patient and her family will need support from organisations such as ICUsteps – The intensive care patient support charity Healthtalk – Intensive care: Patients' experiences.

11.0 Equipment and Medicines Required for Transfer

- Emergency grab bag
- Portable ventilator
- Portable cardiac monitor
- Isotropes if appropriate

12.0 Staffing and Training

12.1 All midwifery and obstetric staff must attend yearly mandatory training which includes skills and drills training, involving the management of meconium stained liquor.

12.2 All midwifery and obstetric staff are to ensure that their knowledge and skills are up-to-date in order to complete their portfolio for appraisal.

13.0 Professional Midwifery Advocates

13.1 Professional Midwifery Advocates provide a mechanism of support and guidance to women and midwives. Professional Midwifery Advocates are experienced practising midwives who have undertaken further education in order to supervise midwifery services and to advise and support midwives and women in their care choices.

14.0 Infection Prevention

14.1 All staff should follow Trust guidelines on infection prevention by ensuring that they effectively 'decontaminate their hands' before and after each procedure.

14.2 All staff should ensure that they follow Trust guidelines on infection prevention, using Aseptic Non-Touch Technique (ANTT) when carrying out procedures i.e. when obtaining blood samples.

15.0 Audit and Monitoring

15.1 Audit of compliance with this guideline will be considered on an annual audit basis in accordance with the Clinical Audit Strategy and Policy and the Maternity annual audit work plan. The Women's and Children's Clinical Audit Group will identify a lead for the audit.

15.2 As a minimum the following specific requirements will be monitored:

- Responsibilities of relevant staff groups
- Process for ensuring the availability of medical equipment in line with national guidance
- Guidance for staff on when to involve clinicians from outside of the maternity service
- Agreed criteria for transfer to a high dependency unit/intensive care unit, within or outside of the maternity service
- Requirements of each staff group when transferring women to a high dependency unit/intensive care unit
- Documentation of bullet points 3, 4, 5
- Process for audit, multidisciplinary review of audit results and subsequent monitoring of action plans

15.3 A review of a suitable sample of health records of patients to include the minimum requirements as highlighted in point 15.2 will be audited. A minimum compliance 75% is required for each requirement. Where concerns are identified more frequent audit will be undertaken.

15.4 Quarterly memos are sent to line managers to disseminate to their staff the most currently approved guidelines available via the intranet and clinical guideline folders, located in each designated clinical area.

15.5 Guideline monitors have been nominated to each clinical area to ensure a system whereby obsolete guidelines are archived and newly approved guidelines are now downloaded from the intranet and filed appropriately in the guideline folders. 'Spot checks' are performed on all clinical guidelines quarterly.

15.6 Quarterly Clinical Practices group meetings are held to discuss 'guidelines'. During this meeting the practice development midwife can highlight any areas for future training needs that will be met using methods such as 'workshops' or to be included in future 'skills and drills' mandatory training sessions.

16.0 Guideline Management

16.1 As an integral part of the knowledge, skills framework, staff are appraised annually to ensure competency in computer skills and the ability to access the current approved guidelines via the Trust's intranet site.

16.2 Quarterly memos are sent to line managers to disseminate to their staff the most currently approved guidelines available via the intranet and clinical guideline folders, located in each designated clinical area.

16.3 Guideline monitors have been nominated to each clinical area to ensure a system whereby obsolete guidelines are archived and newly approved guidelines are now downloaded from the intranet and filed appropriately in the guideline folders. 'Spot checks' are performed on all clinical guidelines quarterly.

16.4 Quarterly Clinical Practices group meetings are held to discuss 'guidelines'. During this meeting the practice development midwife can highlight any areas for further training; possibly involving 'workshops' or to be included in future 'skills and drills' mandatory training sessions.

17.0 Communication

17.1 A quarterly 'maternity newsletter' is issued and available to all staff including an update on the latest 'guidelines' information such as a list of newly approved guidelines for staff to acknowledge and familiarise themselves with and practice accordingly.

17.2 Approved guidelines are published monthly in the Trust's Focus Magazine that is sent via email to all staff.

17.3 Approved guidelines will be disseminated to appropriate staff quarterly via email.

17.4 Regular memos are posted on the guideline notice boards in each clinical area to notify staff of the latest revised guidelines and how to access guidelines via the intranet or clinical guideline folders.

18.0 References

Care of the critically ill woman in childbirth; enhanced maternal care 2018

Royal College of Obstetricians and Gynaecologists and Royal College of Midwives (2008) Standards for Maternity Care.

The Confidential Enquiries into Maternal and Child Health (2007) 'Saving Mothers Lives 2003-2005'. CEMACH.

Nursing & Midwifery Council (2008) The Code: Standards for conduct, performance and ethics for nurses and midwives; May. NMC.

NHS Litigation Authority CNST (2008) Clinical Risk Management Pilot Standards for Maternity Services; April.

Appendix 1: Preliminary Equality Analysis

This assessment relates to: Assist Medical & Midwifery Staff in the Provision of High Dependency Care & Arrangements for Safe & Timely Transfer to ITU / 04232

A change in a service to patients		A change to an existing policy	**X**	A change to the way staff work	
A new policy		Something else (please give details)			

Questions	Answers
1. What are you proposing to change?	Full Review
2. Why are you making this change? (What will the change achieve?)	3 year review
3. Who benefits from this change and how?	Patients and clinicians
4. **Is anyone likely to suffer any negative impact as a result of this change?** If **no**, please record reasons here and sign and date this assessment. If **yes**, please complete a full EIA.	No
5. a) Will you be undertaking any consultation as part of this change? **b) If so, with whom?**	Refer to pages 1 and 2

Preliminary analysis completed by:

Name	Sam Brayshaw	**Job Title**	Consultant Anaesthetist	**Date**	December 2018