Brighton and Sussex University Hospitals NHS Trust

Obstetric High Dependency Care

Maternity Protocol: MP056

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Contents

Key Principles

A protocol is a set of measurable, objective standards to determine a course of action. Professional judgement may be use in the application of a protocol.

Scope

This protocol applies to: Any woman requiring high dependency care or intensive care associated with obstetric event/care.

Responsibilities

Midwives & Obstetricians:

- To access, read, understand and follow this guidance
- To use their professional judgement in application of this protocol

Management:

- To ensure the protocol is reviewed as required in line with Trust and National recommendations
- To ensure the protocol is accessible to all relevant staff

1 Introduction

The majority of women during their pregnancy, labour and postnatal periods require care and support that can be met through the provision of normal midwifery services. A small but significant number however, have related conditions to their pregnancy that will be life threatening to them and their baby and require **High Dependency Care.**

2 Categories of HDU Care

Where mothers are nursed is influenced by various factors including the level of care that they will require. The table below has been derived from The Department of Health document, Comprehensive Critical Care[1].

Level	Care
Level 0	Patients whose needs can be met through normal ward care in an acute hospital.
Level 1	Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the critical care team.
Level 2	Patients requiring more detailed observation or intervention including support for a single failing organ system or post-operative care and those stepping down from higher levels of care
Level 3	Patients requiring advanced respiratory support alone or basic respiratory support together with support of at least two organ systems. This level includes all complex patients requiring support or multi-organ failure

3 Maternity High Dependency Care

3.1 Criteria for transfer of a women to the HDU area within maternity service: Those women requiring High Dependency Care, that are usually cared for within the maternity unit setting fall into the **LEVEL 1** category (see above)

3.2 If a women requires transfer to HDU/ITU inside maternity services this should be clearly documented in the maternal notes along with description of the reason for transfer by the senior clinician provision care

3.3 The provision of high dependency care within the Trust for obstetric patients is carried out in a variety of hospital and ward settings, these include:

A designated high dependency room on Labour Ward	level 1
Theatre recovery area on Labour Ward	level 0,1
Main theatre recovery area	level 0,1,2
General High Dependency Ward	level 1, 2,
General Intensive Care Ward	level 2, 3

4 Requirements of staff when transferring women to HDU/ITU within maternity services.

Staff should document their actions as stated below when transferring women

Staff	Action/requirements
Anaesthetists	• Stabilise woman • Accompany and manage care and safety of woman during transfer to HDU room • Verbal and written handover of care to HDU/ITU staff using CHAPS (**C**linical picture, **H**istory, **A**ssessment and **P**lan)
Obstetricians	• Assist in stabilisation of woman • Agree plan of care in relation to the woman's obstetric requirements, including plan for future reviews and involvement (see above). Document plan in maternal notes and handover information to colleagues
Midwives	• Assist in stabilisation of woman • Escalate to Labour ward coordinator as required • Agree plan of care in relation to the woman's midwifery requirements, including plan for future reviews and involvement • Accompany woman to HDU room during transfer • Ensure all documentation is completed • Complete DATIX form

5 General Guidelines for High Dependency Care

5.1 All women admitted to HDU must have their level of care stated and clearly documented on the MEOWS sheets

5.2 Women's level of care requirement may change during their HDU stay

5.3 All women should be cared for in a designated area (Recovery or room 34 at RSCH, recovery room at PRH)

5.4 One to one nursing/midwifery care must be available

5.5 All women in requiring HDU care should be reviewed by the obstetric and anaesthetic team at least twice (morning and evening) each day. This review should be documented in the maternal notes along with an agreed individualised plan of care.

5.6 Carers should be proficient in cardiopulmonary resuscitation and be able to administer IV drugs

5.7 Consultation with the Critical Care Outreach Teams should be considered for support

6 Contacting the Critical Care Outreach team

Contact the department

- Via hospital switchboards on both hospital sites
- Via Bleep system

6.1 The majority of mothers who require high dependency care on the labour ward will generally come from the categories below and already have guidelines for their management and care.

6.2 For all women there should be clear, regularly updated, management plans of care documented in the mother's notes by the obstetrician responsible for the patients care; this is particularly relevant if there is no specific maternity protocol.

7 Roles and Responsibilities of Staff Groups

7.1 **Midwives**

7.1.1 Will provide one to one care and document observations

7.1.2 Observations and documentation are charted on:

- MEOWS Chart
- Maternity notes

7.1.3 Basic observations of the mother should be recorded regularly according to the care plan and include:

- Oxygen saturation level
- Pulse and respiratory rate
- Temperature – frequency according to clinical condition
- Blood pressure
- Hourly urine output measurement
- Level of consciousness
- Evaluation of pain and sensory levels
- Blood loss per vagina/wound or drain

7.1.4 **Referral to the Obstetric Registrar** should be made if:

- MEOWS observations trigger one red score
- MEOWS observations trigger two simultaneous yellow scores

7.1.5 **Urgent Referral to the Obstetric Registrar** by using fast bleep system via switchboard should be made if:

- there is an obvious clinical deterioration or loss of consciousness of the woman
- two or more of the MEOWS cardio-respiratory parameters are recorded in the red zones

7.2 **Obstetricians**

7.2.1 Multidisciplinary plans of care should be documented and regularly updated within the maternity notes

7.2.2 There should be regular Consultant level involvement in care of HDU patients

7.3 **Anaesthetists**

7.3.1 All HDU patients should be flagged up in the multidisciplinary ward round or on admission by the midwife in charge to allow anaesthetic team involvement and review. All reviews and plans should be documented in the maternal notes

7.3.2 The Consultant Obstetric Anaesthetist/most senior anaesthetist on site will liaise with the ITU Consultant if admission to ITU is deemed necessary. Any decisions should be documented in the maternal notes

8 Guidance for staff on when to involve clinicians from outside the maternity service

8.1 Where women have complications other than common obstetric issues, specialist clinicians should be considered as a source of information and support. The Obstetrician leading the care should consider involving the following specialities if the clinical situation warrants it after discussion with the maternity team and Consultant on call (unless life threatening when direct referral can be made).

8.2 Specialist clinicians (usually the on call middle grade or consultant level) should be contacted via the hospital switchboard.

8.3 All discussions, referrals and consultations by specialist staff outside maternity services should be clearly documented in the maternal notes by the clinician providing care.

Specialist clinicians	Consider involvement when:
Physicians	respiratory and/or cardiovascular problems
Gastroenterologists	gastrointestinal and liver problems
Nephrologists	renal function is deteriorating

Neurologists	unexplainable CNS problems
General surgeons	surgical complication is suspected
Interventional radiologists	Haemorrhage NB only available 9-5
Haematologist	Blood related disorders
Microbiologists	Sepsis / infection / antibiotic issues
Critical Care Outreach team	Any women requiring HDU care

9 Equipment and Resources

9.1 **HDU Equipment**

Each designated HDU bed space must have the following in line with national guidance:

Within bed space
• Oxygen outlet and breathing system for 100% oxygen (ambu/Mapleson c circuit) • Pulse oximetry • Blood pressure measurement • Electrical sockets • Suction unit
In close proximity for use as required
• IV cannula , blood bottles/syringes/needles/sharps bin • IV fluids, fluid warmer and infusion pumps • Continuous ECG monitoring • 12 lead ECG • Facility for Invasive monitoring including all equipment needed for insertion and continuous monitoring • Forced air warming device • Defibrillator • Resuscitation equipment, emergency drug box and emergency airway box • Transfer equipment • Emergency Alarm, emergency massive haemorrhage trolley and emergency eclampsia box • Telephone and computer terminal for checking blood results, PACS and accessing guidelines • Haemacue / co-ox HB (in main theatres/ITU/NNU) • Point of care coagulation testing (ROTEM) available in lab, with real time reporting available via software on theatre computer. • High flow nasal oxygen (Optiflow™) is available from main theatres

10 Considerations for Transfer to HDU/ITU Outside Maternity Services

Occasionally women that may not be suitable for high dependency care within the Maternity Unit setting will need to be transferred to a General High Dependency Unit or Intensive Care Unit or to main recovery.

10.1 Factors that would influence this management decision are:

10.1.1 Inadequate staffing levels and skill mix of the midwives and medical staff on duty

10.1.2 High current workload of the obstetric clinical area

10.1.3 A clinical judgment or preference of the obstetric/anaesthetic team managing the mother's care.

10.1.4 This type of transfer decision will be made by the multidisciplinary team consisting of duty Consultant Obstetrician, Consultant Obstetric Anaesthetist and Labour ward Co-ordinator.

11 Agreed criteria for transfer to HDU/ITU outside maternity services:

If a women requires transfer to HDU/ITU outside maternity services this should be clearly documented in the maternal notes along with description of the reason for transfer by the senior clinician provision care

Clinical situations that require **Mandatory** transfer to ITU
• *deterioration of any clinical condition necessitating LEVEL 3 care*
Possible clinical conditions which **may necessitate** transfer to HDU/ITU
• Massive peri-partum haemorrhage • Haemodynamic instability • Requirement for cardiac monitoring • Need for inotropes or invasive monitoring • Respiratory problems • Any major medical disorder • Severe PIH, PET or essential hypertension • Severe HELLP syndrome • Unstable diabetes

11.1 **Requirements of staff when transferring women to HDU/ITU**

Staff should document their actions as stated below when transferring women

Staff	Action/requirements
Anaesthetists	• Stabilise woman • Escalate to Consultant Anaesthetist as required • Agree transfer plan with obstetric and midwifery team. Document discussions and time decision made • Contact HDU/ITU and agree transfer plan with senior clinician. Document named clinician who agrees to transfer and time decision is made • Document transfer plan in maternal notes • Accompany and manage care and safety of woman during transfer to HDU/ITU • Verbal and written handover of care to HDU/ITU
Obstetricians	• Assist in stabilisation of woman • Escalate to Consultant Obstetrician as required • Agree transfer plan with anaesthetic and midwifery team. Document discussions and time decision made • Agree plan of care in relation to the woman's obstetric requirements, including plan for future reviews and involvement (see above). Document plan in maternal notes and handover information to colleagues

Staff	Action/requirements
Midwives	• Assist in stabilisation of woman • Escalate to Labour ward coordinator and Supervisor or Midwives as required • Agree transfer plan with anaesthetic and obstetric team. Document discussions and time decision made • Agree plan of care in relation to the woman's midwifery requirements, including plan for future reviews and involvement • Accompany woman to HDU/ITU during transfer • With anaesthetist provide a verbal and written handover of care to HDU/ITU staff using CHAPS • Ensure all documentation is completed as required prior to transfer • Document woman's location and condition in the communication book on labour ward. This information needs to be updated daily by the LW coordinator and included in the daily handovers. • Send datix
HDU/ITU clinicians	• Discuss and agree transfer plan with anaesthetist • Prepare bed space for transfer • Receive woman and verbal and written handover from anaesthetist and midwife accompanying woman • Ensure woman has continued obstetric, anaesthetic and

	midwifery input during her HDU/ITU stay (see above)
Porters	• Women will be transferred on beds and will require porters for transferring • Transfer woman on bed to HDU/ITU with anaesthetist and midwife accompanying
Ward clerks	• Ensure woman is transferred on the OASIS system from Maternity to HDU/ITU

12 Discharge from HDU/ITU

Decision for discharge from HDU (to either a low risk labour ward room or to post/antenatal wards) must be made by senior staff (Registrar / Consultant in Obstetrics or Anaesthesia in conjunction with senior midwife) out of hours this may be over the telephone.

12.1 Criteria

12.1.1 Women who are considered not to be high-risk anymore and/or no longer fill the admission criteria to HDU.

12.1.2 Women who deteriorate such that a safe level of care can no longer be provided on HDU and require admission to ITU or other specialist area. (see above).

13 Monitoring Compliance

Please refer to the Monitoring and Auditing document for details on monitoring compliance for this protocol.

14 References

1. Comprehensive Critical Care A review of adult critical care services Department of Health London (2000)

2. Immediate Post Anaesthetic Recovery The Association of Anaesthetists of Great Britain and Ireland London(2002)

3. Guidelines for the Provision of Anaesthetic Services: Royal College of Anaesthetists London (2004)

4. Peri Operative recovery in The Marsden Manual (2001) The Royal Marsden Manual and Blackwell Science London

5. Advanced Life Support Group and the Royal College of Obstetricians and Gynaecologists (2007) Managing Obstetric Emergencies and Trauma London RCOG Press.

6. Saving Mothers Lives: Reviewing maternal deaths to make motherhood safer 2003-2005. Confidential Enquiry into Maternal and Child Health (2007) London: CEMACH. www.cemach.org.uk

7. Why Mothers Die Report on Confidential Enquires into Maternal Deaths in the UK 1994-1996 London Department of Health

8. Royal College of Anaesthetists, Royal College of Midwives, Royal college of Obstetricians and Gynaecologists, Royal College of Paediatrics and Child Health (2007) Safer Childbirth: minimum standards for the organisation and delivery of care in labour. London: RCOG Press.

9. Association of Anaesthetists and the Obstetric Anaesthetists Association (2005) OAA/AAGBI Guidelines for obstetric anaesthetic services. London.