Post-operative recovery of obstetric patients

University Hospitals of Leicester NHS Trust

Trust ref: B53/2011

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1. Introduction and Who Guideline applies to

These guidelines are intended for the use of all UHL staff caring for women in recovery who have undergone operative procedures in the obstetric theatres and theatres outside of maternity. Within the UHL Maternity Unit, recovery is the term used to describe any area where the patient is cared for immediately post-operatively, and is not limited to a specific recovery room.

Specific guidance is available for women undergoing Enhanced Recovery after elective caesarean section in the **Caesarean section & enhanced recovery obstetric guideline**.

Note: When an operative delivery is performed in a theatre outside the delivery suite environment (such as Central Operating Department or Glenfield Hospital) then the patient may be recovered in adjacent areas or may transferred directly to HDU / ITU facilities. Under such circumstances this guideline will be used in conjunction with the specific guidance already in use in that alternative area.

Background:
These guidelines are based on the recommendations from the Association of Obstetric Anaesthetists and the National Institute for Clinical Excellence (NICE).[1, 2]

Related documents:

- Caesarean section & enhanced recovery obstetric guideline UHL ref: C15/2017
- Maternity Early Obstetric Warning Scoring System UHL Obstetric Guideline UHL ref:C16/2018
- Unexplained Intra or Postpartum Collapse UHL Obstetric Guideline UHL ref:C44/2011
- Pyrexia and Sepsis in Labour UHL Obstetric Guideline UHL ref:C21/2017
- Postpartum Haemorrhage UHL Obstetric Guideline UHL ref:C38/2011
- Retained Placenta UHL Obstetric Guideline UHL ref:C42/2011
- Uterine Rupture UHL Obstetric Guideline UHL ref:C45/2011
- Cord Prolapse UHL Obstetric Guideline UHL ref:C226/2016
- Delivery Suite Medical Equipment UHL Obstetric Guideline UHL ref:C25/2011

- Patient Controlled Analgesia (IV PCA) to Adults and Children over 16 in an Adult Environment UHL Policy UHL ref:B17/2003

2. Guideline Standards and Procedures

2.1 Observations and monitoring

- Observations should be carried out every 5 -10 minutes for the first 30 minutes as directed on the recovery observation chart.

- Obstetric patients should be admitted to recovery following a procedure in theatres under a regional block or general anaesthesia. Transfer from theatre to recovery would occur when the anaesthetist has established that
    - The patient is self-ventilating with no respiratory concerns
    - The patient is haemodynamically stable
    - Has woken sufficiently from a general anaesthetic
    - There are no surgical concerns (e.g. excessive bleeding etc.)

- Care during the immediate 30 minute post-operative period may be carried out by the anaesthetist, recovery nurse, midwife or other appropriately trained member of staff and should be on a one-to-one basis. **Patients must not be left unattended during this time.**

- The following practical aspects of recovery care should be followed:
    - The patient's birth partner (when appropriate) may accompany her from theatre into recovery following regional anaesthesia

    - No other friends or relatives should be admitted to recovery regardless of the mode of anaesthesia

    - Recovery is a critical area, and as such, videos and mobile phones must not be used by patients or visitors

- Clinical observation must be supplemented by the following monitoring devices:
    - Pulse oximeter
    - Non-invasive blood pressure monitor
    - Electrocardiograph, nerve stimulator, means of measuring temperature and capnograph must also be immediately available

  (Refer to the **Delivery Suite Medical Equipment UHL Obstetric Guideline** ref: C25/2011)

- The following information should be recorded and documented on specially designed recovery charts:
    - Level of consciousness (sedation score)
    - Oxygen administration (facial oxygen)
    - Pulse oximetry (SpO2)

- Temperature
    - Blood pressure
    - Respiratory rate
    - Heart rate
    - Pain score
    - Intravenous cannula site
    - Urinary catheter volume
    - Wound drain volume (if applicable)
    - Vaginal loss
    - State of wound
    - Patient colour
    - Leg power score

- Where patients have received a general anaesthetic the following specific points should be considered:

    - The anaesthetist should not leave the patient if there are any concerns regarding her airway, or conscious state

    - The patient should receive oxygen until fully rousable

    - The person caring for a woman during recovery from a general anaesthetic should not be responsible for the care of the baby(ies). A separate member of staff should be responsible for the baby(ies).

    - The patient's partner may come to see her in recovery after 20 minutes if she has regained airway control and is cardiovascularly stable

    - Bed rails should be present

    - The baby(ies) should not be in the same bed as the mother during the first 30 minutes postoperatively

- Prompt referral to anaesthetic and / or obstetric staff must be made where observations are abnormal, bleeding is excessive, urinary output is reduced, pain and nausea are not controlled, or where there are **any** other concerns.

- In maternity settings, no patient should be discharged from delivery suite until control of postoperative nausea and vomiting (PONV) and postoperative pain is satisfactory.

- Transfer of care from recovery is the responsibility of the anaesthetist, who will give instructions for discharge in the Maternity Unit Anaesthetic Discharge Summary.

- Trained recovery nurses or midwives will complete this discharge summary to identify if the minimum discharge criteria are met and may discharge a patient from recovery where all observations have been carried out for a minimum of 4 hours at the LRI delivery suite and 2 hours at the LGH delivery suite and are within normal limits.

- The layout of the Maternity Unit at the Leicester Royal Infirmary and the Leicester General Hospital is different. Due to the close proximity of the postnatal ward to the delivery suite at the Leicester General hospital it is reasonable to transfer care after 2 hours providing the observations are continued (and documented) in the relevant area on the postnatal ward. At the Leicester Royal Infirmary the delivery suite is on a different floor to the postnatal ward and therefore the recovery observations need to be completed in recovery prior to transfer to the postnatal ward.

- Continuation of the clinical observations will then be at the discretion of the obstetric and anaesthetic teams. For routine caesarean sections see the **Caesarean section & enhanced recovery obstetric guideline** (ref: C15/2017)

- On both delivery suites at the LGH and LRI, discharge is to a designated bay on the postnatal ward or to a designated clinical area.

- All relevant documents both electronic and paper must be completed, and accompany the patient.

- Handover of care must be in person.

2.2 Discharge to the ward after 2 hours in recovery

- Following the initial 30 minutes of recovery time, observations should be continued every half hour for the first two hours and hourly for a further two hours where the patient remains in recovery or as per MEOWS policy where the patient was discharged to the ward after two hours.

- Observations must include:
    - Respiratory rate
    - Oxygen saturation
    - Heart rate
    - Blood pressure
    - Facial oxygen requirement in litres
    - Sedation score
    - Temperature
    - Pain score
    - State of wound
    - Vaginal loss
    - IV site
    - Drain volume
    - Urinary catheter volume
    - Patient colour
    - Leg power score

- If these observations are not stable, frequency of observations should be increased and the anaesthetist and / or obstetrician should be asked to review the patient.

2.3 Additional risk factors for respiratory depression

- Women who have received intrathecal or epidural morphine or diamorphine and have additional risk factors for respiratory depression should have continuous pulse oximetry monitoring for 12 hours, and observations including their pain score, sedation score and respiration rate performed hourly for 12 hours.

- Women who have additional risk factors for respiratory depression (for example BMI >50 or diagnosed obstructive sleep apnoea) should have continuous pulse oximetry

monitoring for at least 12 hours, until they are stable enough to be discharged from anaesthetic care.

- Sedation score, respiratory rate, heart rate, blood pressure, temperature and pain score should be performed hourly for at least 12 hours. These observations should be recorded on the MEOWs chart or enhanced maternity care chart.

- Women who have received intrathecal or epidural morphine or diamorphine but have no additional risk factors for respiratory depression should have observations as per section 2.1& 2.2.

2.4 Patient controlled analgesia

- Women who are receiving patient controlled analgesia with opioids should have regular monitoring during this time that should continue for at least 2 hours after discontinuation of treatment.

- Please refer to the UHL Trust **Patient Controlled Analgesia (IV PCA) to Adults and Children over 16 in an Adult Environment UHL Policy** (ref:B17/2003) for management of PCA and frequency of observations.

- In addition a MEOWS chart should be completed every four hours.

- All observations should be documented as per the specific carbonated observation charts called the "PCA Observation chart". A copy should be sent to the pain office and a copy placed in the health records. There is also a patient satisfaction survey which should be completed when possible.

3. Education and Training

All staff involved in the recovery of post-operative patients should attend training as per the training needs analysis.
Staff employed in a recovery role are not expected to access training provided by maternity services.

4. Monitoring Compliance

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
Adherence to observations	Intermittent audit	Cons Anaesthetist	2 yearly	CMG Q&S board
Adequacy of staffing to allow for observations of mother and baby(ies)	Review of DATIX	Cons Anaesthetist	Yearly	CMG Q&S board

5. Supporting References:

1. Association of Anaesthetists of Great Britain and Ireland. Immediate Post-anaesthesia Recovery 2013. Anaesthesia. 2013; 68 p 288-97

2. The Association of Anaesthetists of Great Britain and Ireland Obstetric Anaesthetists' Association (2000). *OAA/AAGBI Guidelines for Obstetric Anaesthetic Services 2013.* London: The Association of Anaesthetists of Great Britain and Ireland Obstetric Anaesthetists' Association. Available: https://www.aagbi.org/sites/default/files/obstetric_anaesthetic_services_2013.pdf
3. National Collaborating Centre for Women's and Children's Health *Caesarean section*. London: National Institute for Clinical Excellence, March 2021. NICE guideline [NG192]
4. Providing equity of critical and maternity care for the critically ill pregnant or recently pregnant women. RCOG July 2011
5. UHL 2021. Caesarean section & enhanced recovery obstetric guideline
6. UHL 2021. Maternity Early Obstetric Warning Scoring System UHL Obstetric Guideline
7. UHL 2021. Delivery Suite Medical Equipment UHL Obstetric Guideline
8. UHL 2021. Patient Controlled Analgesia (IV PCA) to Adults and Children over 16 in an Adult Environment UHL Policy

6. Keywords

MEOWS, Monitoring, Observations, Caesarean section, Patient controlled analgesia

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The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.
As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

Contact and review details			
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Details of Changes made during review:			
Date	**Version**	**Reviewed By**	**Description Of Changes (If Any)**
May 2005	**1**	C Elton, Consultant Anaesthetist H Brooks, Consultant Anaesthetist H Jarvis, Clinical Guidelines Facilitator	Original guideline
August 2008	**2**		Review
March 2010	**3**	P Sharpe, Consultant Anaesthetist H Brooks, Consultant Anaesthetist J Raval, Midwife	Review
September 2011	**4**	S Anderson, S Coley, F Siddiqui L Matthews, E St Johns	Review
Nov 2015	**5**	F Siddiqui, O Navti, E Hart, K Kondov	Additional info on process at LRI and step-down. Observation of fundal height added
2019	**6**	A Ling	References updated. Terminology and grammar corrected
Nov 2022	**7**	A Kelkar – Consultant Anaesthetist E Hart – Consultant Anaesthetist	Re-formatted Removed instruction of PCA observation timings and directly linked with UHL Trust PCA policy Adapted wording and changed scope to clarify that the guidance should be used for all obstetric patients across UHL sites. Adding monitoring compliance indicators.