Obstetric Anaesthesia - Recovery - Full Clinical Guideline

PN/01:19/R5

TRANSFER FROM THEATRE TO RECOVERY

The patient will be accompanied by trained theatre practitioner, dedicated midwife and anaesthetist

Following general anaesthetic

Anaesthetist to give hand over of perioperative care to trained theatre practitioner / recovery nurse and MW (See Section 6)

Patient will require 1:1 care until able to communicate

Following regional anaesthesia

Anaesthetist to give hand over of care to MW and recovery nurse / trained practitioner when fulfils criteria (See Section 6)

2 members of staff to care for the patient until suitable for transfer to the ward / enhanced care bed

Routine Observations in recovery

Every 5 minutes for the first 30 minutes:

- Blood pressure
- Heart rate
- Respiratory rate
- Oxygen saturation (continuous)
- Conscious level (AVPU)
- Oxygen flow rate

Every 15 minutes for the first 30 minutes

- Observation of wound dressing
- Observation of wound drains
- Assessment of uterine tone
- Assessment of lochia

Once only if normal

- Pain score
- Nausea/vomiting score
- Temperature
- Intravenous infusion checked and recorded on the fluid balance chart.
- Urinary catheter drainage.

Transfer from **recovery to postnatal ward** can take place after a minimum of 30 minutes in recovery, the patient is stable and all observations are normal

Transfer from **recovery to Obstetric ECU** (see Section 12) is made when both the anaesthetist, obstetrician and recovery staff are satisfied the patient is stable

Transfer from **recovery to Intensive Care Unit (ICU)** The decision for the need to transfer is made by the Consultant Anaesthetist and Consultant Obstetrician (see Section 13) The Anaesthetist will be in charge of the transfer. The operating department practitioner and the scrub nurse (or other trained person) should accompany the patient

Contents

1. Introduction

The risk of postoperative complications is highest in the immediate postoperative period, so obstetric patients require 1:1 observation in an appropriately equipped area by appropriately trained staff and able to receive immediate effective assistance from the anaesthetist if required.
This will usually take place in the recovery area adjacent to the obstetric theatre (or for elective c-sections within the designated recovery room within the gynae (RDH) / general (QHB) theatre suite).
During this period, it is also important to observe the newborn, initiate skin-to-skin contact and breastfeeding where appropriate.

2. Purpose and Outcomes

To ensure that patients receive safe care following obstetric surgery.

3. Abbreviations

ECU - (Obstetric) Enhanced Care Unit
ICU - Intensive Care Unit
MEWS - Maternity Early Warning Score
NLS - Neonatal Life Support
PCA - Patient Controlled Analgesia
PV - Per Vagina

4. Key Responsibilities / Duties

Anaesthetists will have responsibility for anaesthetic related problems.
Obstetricians will have responsibility for obstetric/operative related problems.
Midwives may recover patients in conjunction with a second registered, trained member of staff following regional anaesthesia.

Theatre practitioners / recovery nurses may recover patients following general anaesthesia if they have been trained in recovery, possess a nationally recognised qualification, are used to working in recovery and have been trained in resuscitation, (in conjunction with a midwife who will assess uterine contraction, PV loss, and attend to the baby).

5. Equipment used in recovery

The following will be used (as per Association of Anaesthetists minimum standards of monitoring):

Pulse oximeter
Electrocardiograph
Non-invasive blood pressure
Respiratory rate
Means of measuring temperature

The following must be available:

Nerve stimulator (in theatre)
Portable oxygen and suction for transfers
Forced air warming device
Means of measuring blood glucose
Invasive cardiovascular monitoring facilities
Defibrillation Trolley
Anaphylaxis box
PPH equipment and drugs, with access to ROTEM
Emergency blood easily accessible - (blood fridge on LW at RDH; blood fridge in Gynae theatres at RDH; blood bank at QHB)

All drugs, equipment, fluids and algorithms for resuscitation and management of an anaesthetic or surgical complication must be immediately available and the fixed location known to everyone.

6. Transfer from theatre to recovery

The patient is transferred from theatre to recovery when they are:

- conscious or easily rousable - following sedation or general anaesthesia
- protecting their own airway - following sedation or general anaesthesia
- breathing adequately
- maintaining satisfactory oxygen saturations
- cardiovascularly stable
- without excessive bleeding PV, from drain or wound site

The patient will be accompanied by a trained theatre practitioner, a dedicated midwife and the anaesthetist. Two trained members of staff will be present in recovery until the patient fulfils the criteria for transfer to the ward. If this is not possible, the anaesthetist will remain with the patient.

7. Recovery following General Anaesthesia.

The anaesthetist will hand over care in recovery to the trained theatre practitioner / recovery nurse and midwife. The patient is observed 1:1 until able to communicate.

7.1 The trained theatre practitioner / qualified recovery nurse will be responsible for

- airway assessment and management
- haemodynamic monitoring
- fluid balance
- pain and nausea control - IV opiates (if trained to do so)
- anaesthetic-related post operative care and its documentation on the recovery chart. (See appendix A)

7.2 The Midwife is responsible for

- postnatal management of the patient e.g., assessment of lochia and uterine contraction
- care of the baby

The theatre practitioner / recovery nurse will usually be involved in the immediate postoperative care of the patient for approximately 30 minutes - longer if there are problems or where extended recovery is needed which has been discussed at WHO sign out.

Care by the theatre practitioner / recovery nurse will be handed over to the midwife when the patient is fulfilling the above transfer criteria, ***and*** she is;

- responding to commands
- able to lift her head from the pillow
- comfortable and pain management is satisfactory
- any nausea and vomiting have been treated

7.3 Safety of the baby in immediate recovery period

- It is not safe practice for the baby to travel in the bed with the patient when transferring them to recovery after a general anaesthetic.
- When the patient is capable of maintaining their own airway, the vital signs are stable and they are clean, dry, orientated and comfortable, then baby may be placed securely in bed with the patient.
- If the patient has received a general anaesthetic, the birth partner may be invited to join the patient in recovery once they are conscious and comfortable. This is at the discretion of the recovery practitioner and midwife.

7.4 Morphine PCA

If the patient is requiring a morphine PCA for post-operative pain management, there will need to be a discussion between the anaesthetist and labour ward co-ordinator as to where they are discharged to:

- If the patient is requiring oxygen therapy alongside the PCA, then they will need to be cared for on labour ward as enhanced maternity care.
- If however, the patient is not requiring oxygen with the PCA, and is otherwise stable, it ***may*** be appropriate to discharge them to the postnatal ward.

8. <u>Recovery following Regional Anaesthesia</u>

Care by the anaesthetist will be handed over to the midwife and a second trained practitioner when the patient is fulfilling the above transfer criteria, and they are:

- comfortable and pain management is satisfactory, and
- any nausea and vomiting have been treated.

The recovery practitioners, including the midwife will be responsible for:

- routine postoperative monitoring including fluid balance (See Appendix A)
- documentation on the recovery chart
- checking the epidural catheter has been removed (if appropriate)
- assessment of pressure areas
- postnatal management of the patient, e.g., assessment of lochia and uterine contraction
- care of the baby.

If the patient is receiving ongoing blood pressure support with a phenylephrine infusion in the immediate post-operative period, it remains the responsibility of the anaesthetist to manage the infusion, and to not leave the theatre complex until the infusion is stopped and the patient's blood pressure is stable.

Patients who have had intrathecal or epidural opioids and who have identified risk factors for respiratory depression may require hourly observations of respiratory rate, oxygen saturations and sedation levels for the first 12 hours post-operatively (as per NICE guidelines). This will need discussion between the anaesthetist and labour ward co-ordinator.

9. Post Partum Haemorrhage

- Be aware of the danger of sudden blood loss.
- Check vaginal blood loss at regular intervals (at least every 15 minutes) and document in the notes section of the care plan
- If there is a postpartum haemorrhage, inform the midwife, anaesthetist and obstetrician immediately. The emergency alarm or a 2222 call may need to be initiated.
- Ensure PPH proforma completed

10. Before leaving the Midwife in sole charge

Following either regional or general anaesthetic the midwife must be in receipt of:

- the fluid chart and know the fluid balance status
- comprehensive handover of what medications have been given perioperatively and what is prescribed on Lorenzo (RDH) / Meditech (QHB), including analgesia, thromboprophylaxis and antibiotics
- other relevant charts e.g., sliding scale for a diabetic patient, PCA chart etc
- any special instructions by anaesthetist or obstetrician. The anaesthetist or recovery person should not leave until the midwife accepts care of the patient.

11. Transfer from recovery to Postnatal Ward

After a minimum stay of 30 minutes in recovery, if the patient is stable, and all observations are normal, they may be transferred to the postnatal ward. The final set of observations are recorded on the MEWS chart. There must be a minimum of one qualified member of maternity staff (who is competent in NLS) to accompany the patient and baby to the ward and hand over care to the ward staff. If the patient fulfils the criteria for transfer to the postnatal ward but there is a delay before the porter arrives, observations will be done as per the postnatal ward schedule on the MEWS chart, not as per the recovery schedule on the anaesthetic chart.

12. Transfer from recovery to Enhanced Maternity Care

General anaesthesia, by itself, is not an indication for admission for enhanced maternity care in the absence of other risk factors. The anaesthetist and obstetrician should be consulted if the recovery staff and/or midwife feel that the clinical condition of the patient is such that she should not go directly to the postnatal ward from the Recovery Room.
(See separate guideline on Enhanced Maternity Care on Labour Ward).

The decision to transfer to Labour Ward for enhanced care from theatre recovery is made when both the anaesthetist and obstetrician are satisfied that the patient is stable. During transfer minimum monitoring standards should be observed (as per recovery protocol), with consideration of oxygen administration via face mask if indicated, and airway equipment and portable suction available.

13. Transfer to Intensive Care Unit (ICU) from obstetric theatres or recovery

A patient may need to be transferred to the Intensive Care Unit from Obstetric Theatre.

The decision for the need to transfer is made by the Consultant Anaesthetist and Consultant Obstetrician - one of whom should discuss the need with the Intensive Care Consultant.

The anaesthetist will oversee the transfer.

The operating department practitioner and the scrub nurse (or another trained person) should accompany the patient.

The obstetrician should speak directly to the Intensive Care doctor (by phone if unable to attend immediately in person) to ensure clear communication of postoperative plans. This is followed up by a visit as soon as practicable.

The midwife is responsible for the baby and for the immediate care of the partner or of informing relatives. The midwife must follow to the ICU to liaise with the nursing staff about the postpartum care and management of the patient as regards maternity issues.

13.1 Prior to transfer to Intensive Care the anaesthetist must ensure that:

- emergency equipment / transfer bag will be sent from ICU or brought by the ODP from gynae / main theatres
- the patient is as cardiovascularly stable as possible, and haemorrhage is controlled
- oxygen, suction and emergency drugs are available and in adequate supply
- transfer is with continuous portable monitoring as per Association of Anaesthetists minimum standards, including capnography if the patient is intubated
- a self-inflating bag is available, even if the patient is ventilated on a portable ventilator
- all relevant notes and documentation accompany the patient to ITU

14. Monitoring Compliance and Effectiveness

Monitoring requirement	• Observations in recovery completed as per guideline • Minimum stay of 30 minutes in recovery observed • Final observations recorded on MEWS chart • Discharge criteria met when transferring to postnatal ward • Postoperative problems will be audited by an anaesthetist
Monitoring method	Retrospective case note review
Report prepared by	Named individual undertaking audit
Monitoring report sent to:	Labour Ward Forum
Frequency of report	3 yearly

15. Training

Midwifery training will be in line with the TNA.
Theatre practitioners may recover patients (in conjunction with a midwife) if they have been previously trained in recovery and possess a nationally recognised qualification, are used to working in recovery and have been trained in resuscitation.

16. References

Immediate Post-anaesthesia Recovery 2013 Safety Guideline. Association of Anaesthetists of Great Britain and Northern Ireland. March 2013

Recommendations for standards of monitoring during anaesthesia and recovery. Association of Anaesthetists of Great Britain and Northern Ireland, London. 2015; updated 2021

Providing equity of critical and maternity care for the critically ill pregnant or recently pregnant woman RCOG and RCOA July 2011

Caesarean Birth NICE (NG192) March 2021; updated September 2023

Minimum requirements for observations whilst in recovery:

The following minimum observations are to be recorded on the anaesthetic chart. An unstable patient may require more frequent observations.

Every 5 minutes for the first 30 minutes:

- Blood pressure
- Heart rate
- Respiratory rate
- Oxygen saturation (continuous)
- Conscious level (AVPU)
- Oxygen flow rate

Every 15 minutes for the first 30 minutes:

- Observation of wound dressing
- Observation of wound drains
- Assessment of uterine tone
- Assessment of lochia

Once only if normal:

- Pain score
- Nausea/vomiting score
- Temperature
- Intravenous infusion checked and recorded on the fluid balance chart.
- Urinary catheter drainage.

Patients at risk of complications, or with abnormal readings will need more frequent observations. Other observations may be required, e.g., blood sugar in diabetic patients.

The last set of observations prior to fulfilling the discharge criteria are to be recorded on the MEWS chart.

If after 30 minutes all observations are stable and within normal parameters commence observations as below.

Routine observations post recovery

All routine post operative observation must be documented on the MEWS chart

½ hourly for the first 2 hours then hourly for 4 hours.

- Respiratory rate
- Blood pressure
- Pulse
- Pain Score
- Conscious level (AVPU)
- Observation of lochia
- Assessment of uterine tone
- Assessment of drains
- Nausea & Vomiting score

Fluid balance charts from theatre should be continued in the immediate postoperative period, as a minimum until the patient is eating and drinking.

4 hourly for the following 8 hrs;

- Respiratory rate
- Blood pressure
- Pulse
- Temperature
- Pain Score
- Conscious level (AVPU)
- Observation of lochia
- Assessment of uterine tone
- Assessment of drains
- Nausea/vomiting score

12 hourly for the following 48 hours

- Blood pressure
- Pulse
- Temperature

If observations triggers a score of 2 or more on MEWS chart then increase observations / escalate concerns as per MEWS guideline

Documentation Control

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Version / Amendment	Version	Date	Author	Reason
	1	May 2004	Dr W Scott Consultant Anaesthetist	New Guideline
	2	Nov 2009	Dr R Broadbent Consultant Anaesthetist Mrs D Watson Theatre Manager	Review
	3	Jan 2012	Dr R Broadbent Consultant Anaesthetist	Review in line with new guidance
	4	Nov 2015	Dr R Caranza Consultant Obstetric Anaesthetist	Review
	5	Sept 2018	Dr Z Sadiq – Consultant Anaesthetist	Review
	6	Sept 2023	Dr G Sankhe, Dr S Chughwani Associate specialists Anaesthetists	Review
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