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Royal Cornwall Hospitals NHS Trust

Maternity Recovery and Post-Operative Care Clinical Guideline

V4.0

December 2022

1. Aim/Purpose of this Guideline

1.1 This guideline is to give guidance to obstetricians, anaesthetist, operating department practitioners, midwives, delivery suite nurses and recovery nurses caring for woman in the delivery suite theatre settings and delivery suite recovery areas.

1.2 This version supersedes any previous versions of this document.

1.3 This guideline makes recommendations for women and people who are pregnant. For simplicity of language the guideline uses the term women throughout, but this should be taken to also include people who do not identify as women but who are pregnant, in labour and in the postnatal period. When discussing with a person who does not identify as a woman please ask them their preferred pronouns and then ensure this is clearly documented in their notes to inform all health care professionals

1.4 This guidance may be altered in special circumstances (such as the Covid 19 pandemic) by alternative temporary guidance.

Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation

The Trust has a duty under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed, and documented. We cannot rely on opt out, it must be opt in.

Data Protection Act 2018 and General Data Protection Regulations 2016/679 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 please see the Information Use Framework Policy or contact the Information Governance Team

Royal Cornwall Hospital Trust rch-tr.infogov@nhs.net

2. The Guidance

Obstetrics accounts for a large proportion of emergency and elective surgery performed in hospitals. Obstetric patients requiring postoperative recovery care should receive the same standard of care and the non-obstetric population. (NEW Royal College Of Anaesthetists Guidelines for the Provision of Anaesthetic Services 2022).

Post-operative care consists of ensuring that the woman is cared for in the greatest possible comfort, is kept free from hazards and complications during the post-operative period and is encouraged to take an increasing responsibility for her care and the care of her baby until complete recovery is affected.

2.1 **After general, epidural or spinal anaesthesia all women should:**

- Be recovered in a designated recovery room which complies with the Association of Anaesthetists recommendations for standards of monitoring during recovery.

- Have the anaesthetist verbally hand over their care to the receiving recovery staff member.

- Have agreed criteria in place for discharge from the recovery room and care of the mother handed back to the midwifery team including any individualised instructions.

- Have an effective emergency call system in place that is easily accessible.

- All staff recovering women should be appropriately trained and competent in post-operative recovery care to the same standard as for all recovery practitioners working in other areas of general surgical work. They should be experienced in the use of the different early warning scoring system for obstetric patients. They should have undergone a supernumerary placement in this environment before taking on unsupervised work (NEW RCOA GPAS 2022).

- No fewer than two staff, of whom at least one must be a registered post-operative recovery care practitioner and one a midwife should be present when there is a patient in the recovery room, who does not fulfil the criteria for discharge from recovery.

2.2 All women must be observed on a one-to-one basis by an anaesthetist, recovery nurse or other appropriately trained member of staff until they have regained airway control and cardiovascular stability and are able to communicate.

2.3 The woman's dignity and privacy should be considered at all times.

2.4 **Transfer from Theatre**

2.4.1 The woman should be physiologically stable on departure from the operating theatre and monitored during transfer. The anaesthetist is responsible for ensuring that this transfer is accomplished safely.

2.4.2 Supplemental oxygen should be administered to all women following a general anaesthetic during transfer to recovery.

2.4.3 Audible monitoring alarm limits should be enabled in recovery. If these have been adjusted to patient specific values by the anaesthetist, this must be handed over to recovery staff. (NEW 2022)

2.4.4 All IV lines should be flushed, and removed if no longer in use.

2.4.5 If an epidural has been used, this should be removed prior to transfer to recovery if no longer required.

2.4.6 If a patient has a known visual or hearing impairment or wears dentures, their corrective lenses/hearing aids/dentures should be readily accessible post operatively (NEW RCOA GPAS 2022).

2.5 Preparation of the Recovery Unit/Room

2.5.1 Everything must be checked, prepared and ready before the patient arrives in the recovery area. A record must be kept ensuring evidence of safe environment.

2.5.2 At the beginning of each shift check that the following equipment is available and safety checks are completed:

- Adult and paediatric crash trolleys and defibrillators.
- Waters' circuits and face masks of various sizes.
- Monitoring equipment including cardiac monitor, oxygen saturation monitor, capnography, blood pressure monitor and cuffs of various sizes.
- Oxygen flow meters-working.
- Suction fitted with tubing and yankaur, and suction catheters.
- Blood sugar monitor, thermometer, nerve stimulator and ECG machine (NEW RCOA GPAS 2022).
- Disposable items: guedel and nasopharyngeal airways, laryngeal connectors ('T' pieces), vomit bowls, cannula bungs, gauze, cotton wool, syringes and sticky tape.
- Patient observation charts including Maternal Early Observation Warning Score (MEOWS) charts, Bromage score charts and appropriate care plans.
- Sharps and rubbish containers
- Alarm bells are working to call for help
- Drug cupboards restocked including IV and irrigation fluids
- Pillows, blankets and linen available together with warm touch heater and blankets, and supply of incontinence pads
- IV drip pole
- Ensure all ceiling lights are working
- Recovery unit been cleaned, and damp dusted
- Portable oxygen cylinders available with adequate oxygen

- Patient transfer box and portable suction
- PCA, epidural and IV pumps
- General items: hand gel, tissues, plastic aprons, glove

2.5.3 The recovery practitioner must stay until the patient has fully recovered from their anaesthetic. AABGI guidance states that discharge criteria should encompass normal conscious level, normal oxygenation, stable CVS, no nausea or vomiting, normothermia and pain free

2.5.4 NICE and BARNA national standards of practice state that for stable LSCS (lower segment caesarean section) patients who have undergone neuraxial blockade, 30 minutes observation by a recovery practitioner is appropriate. Clinical observation should continue for a minimum of 1 hour, and vital signs be recorded by a registered practitioner

2.5.5 LSCS patients who have undergone **general anaesthesia** should have continuous observations until they have regained airway control, are haemodynamically stable, and able to communicate. Following this they should have observations (HR, BP, RR, Oxygen saturation, temperature, pain and sedation) at least every 30 minutes for 2 hours. (NICE 2021). If observations become unstable, increase frequency of observations, and request medical review

2.5.6 There will be occasions when the table in Appendix 3 will need to be used to extend the discharge times. Handover of care from Recovery Nurse to the midwife will vary dependant on individual requirements within the post-operative period. After this time the midwife can then safely resume the responsibility of care if the patient is stable (See Appendix 3)

2.5.7 The frequency of observations will depend on the stage of recovery, nature of surgery and clinical condition of the patient

2.5.8 Observations should be taken regularly every 10 minutes, and, where the patient's condition deteriorates, more frequently [every 5 minutes]

2.5.9 Patient observations (HR, BP, RR, Oxygen saturations, sedation, pain) must be recorded on the Maternity Early Observation Warning Score (MEOWS) chart

2.5.10 Core Temperature must be documented every 15 minutes in Recovery (NICE 2013 Surgical site infection standards)

2.5.11 The woman should be supported in achieving skin to skin contact with her baby, as soon as the woman's condition is stable. Midwife led

2.5.12 Maintain hydration either through intravenous infusion or orally when appropriate

2.5.13 Only the mother and birth partner should be present in the Recovery room during the first hour post-anaesthetic (discretion can be used in exceptional circumstances)

2.5.14 The following additional information should also be recorded on the recovery documentation throughout the recovery period:

- Fluid balance including urine output
- Medicines administered
- Surgical drainage – depending on circumstance
- Check epidural/spinal site and level of block using the Bromage score found on analgesia assessment charts.
- **If a re-infusion of cell salvage or transfusion of allogeneic blood is in progress, observations should be recorded as per trust policy.**
- All drugs administered to be recorded on EPMA
- Record wound dressing and site (note method of skin closure)
- Document condition of pressure areas (use pressure sore risk calculator)
- Other parameters (depending on circumstances) e.g., presence of Bakri Balloon or vaginal pack

2.5.15 Documentation must include:

- The woman's name, hospital/NHS number
- Time of admission to recovery, time of discharge from recovery and destination
- Post - operative care plan and prescription for post-operative medications

2.5.16 If the woman has received an IV opiate in recovery or a bolus dose through a PCA, she should have a further 15 minutes of observation (for respiratory depression) before discharge is considered (NEW 2022 to comply with IV Analgesia for Adults in Recovery Area Clinical Guideline)

2.6 **In addition**

2.6.1 Pain and emesis should be controlled, and suitable analgesic and anti-emetic regimens prescribed

2.6.2 A venous thromboembolism assessment must be completed, a plan made, and prescription chart completed accordingly

2.6.3 Temperature should be within acceptable limits; women should not be returned to the ward if significant hypothermia is present

2.6.4 Oxygen and intravenous therapy, when appropriate, should be prescribed

2.6.5 Any cell salvage reinfusion should be completed before leaving suite

2.6.6 Discharge from the recovery observation period room is the responsibility of the anaesthetist but the adoption of strict discharge criteria allows this to be delegated to Recovery Staff

2.6.7 Discharge criteria:

- Patient conscious and maintaining own airway. If the patient has undergone a GA, protective airway reflexes must be present
- Respirations and oxygen saturations within normal/appropriate parameters as per MEOWS chart
- Cardiovascularly stable with no signs of post-operative haemorrhage
- Pain and nausea treated adequately
- IV cannulae patent and flushed
- Surgical drains and catheters (including Bakri device) checked and satisfactory
- Documentation completed
- Bed available to be received into (NEW 2022 Post anaesthetic practice standard clinical guideline Feb 2021)

2.6.8 The risk categories on the MEOWS chart should be followed to ensure the woman gets an appropriate review when required

2.7 **Transfer to the Postnatal Ward**

2.7.1 All monitoring equipment is disconnected and removed from the woman

2.7.2 Discharge the woman's details from the monitoring equipment

2.7.3 Patients should be discharged out of the delivery suite accompanied by an appropriately trained member of staff and porter/HCA

2.7.4 All appropriate documentation and post-operative care plan completed

2.7.5 The anaesthetic record, recovery record, prescription charts, and handheld medical notes must be completed and accompany the woman at transfer

2.7.6 The woman is to be admitted to a 4-bed postnatal area, with oxygen and suction available

2.7.7 A full SBARD handover must be relayed to the ward midwife with particular emphasis on problems and specific post-operative care plan

2.8 **Following Transfer**

- Clean, tidy and restock the Recovery Room
- Prepare for the next woman

2.9 **Postnatal Care**

- Continue all 4 hourly observations on the MEOWS chart and respond to any changes in the vital signs
- Alleviate post-operative discomfort, pain or nausea by administering regular analgesics to women post-surgery
- Check regional anaesthetic block has worn off within the expected timeframe if applicable. After a spinal anaesthetic or epidural top-up for a procedure, straight-leg raising should be used as a screening method to assess motor block. If the woman is unable to straight-leg raise at 4 h from the last dose of epidural/spinal local anaesthetic, the anaesthetist should be called to assess whether the woman's care should be escalated to investigate the possibility of reversible causes of neurological injury. (NEW 2022)
- Complete a Waterlow Score and individual pressure care plan, if applicable
- Encourage mobilisation as soon as the woman's condition allows
- Administer prescribed thrombo-prophylactic treatment e.g., TED stockings, anticoagulants
- Follow post-operative care plan and liaise with multi-disciplinary team members as appropriate
- Provide appropriate assistance with dressing and hygiene needs
- Introduce diet acceptable to the woman
- Ensure all documentation is completed
- Assist the woman with care of her baby

3. Monitoring compliance and effectiveness

Information Category	Detail of process and methodology for monitoring compliance
Element to be monitored	• The audit will take into account record keeping by obstetric, anaesthetic and paediatric doctors, midwives, nurse, students and maternity support workers. • The audit will be registered with the Trust's audit department
Lead	Audit Midwife
Tool	• Were observations recorded every 10 minutes for a minimum of 30 minutes, then if stable quarter hourly, for 1 hour then half hourly until fit for discharge from recovery practitioners care or if the Mothers clinical condition changes. • Were the observations documented on a MEOWS chart and scored • On discharge from recovery was the MEOWS score < 5. • If MEOWS not < 5 was the MEOWS chart risk category grid followed appropriately. • If opiate bolus was given, did the patient remain in recovery for a further 15 minutes
Frequency	1% or 10 sets, whichever is the greater, of all health records of women who have delivered and who required recovery care, will be audited over the 3 year lifetime of the Guideline or sooner if indicated.
Reporting arrangements	Maternity Forum and Clinical Audit Forum. During the process of the audit if compliance is below 75% or other deficiencies identified, this will be highlighted at the next maternity patient safety and clinical audit forum and an action plan agreed
Acting on recommendations and Lead(s)	Any deficiencies identified on the annual report will be discussed at the Maternity forum or Clinical Audit Forum and an action plan developed Action leads will be identified and a time frame for the action to be completed by The action plan will be monitored by the Audit Midwife and clinical audit forum until all actions complete

Information Category	Detail of process and methodology for monitoring compliance
Change in practice and lessons to be shared	Required changes to practice will be identified and actioned within a time frame agreed on the action plan A lead member of the forum will be identified to take each change forward where appropriate. The results of the audits will be distributed to all staff through the Patient Safety newsletter/audit forum as per the action plan.

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Inclusion and Human Rights Policy' or the Equality and Diversity website.

4.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.

Appendix 1. Governance Information

Information Category	Detailed Information
Document Title:	Maternity Recovery and Post-Operative Care Clinical Guideline V4.0
This document replaces (exact title of previous version):	Maternity Recovery and Post-Operative Care Clinical Guideline V3.2
Date Issued/Approved:	November 2022
Date Valid From:	December 2022
Date Valid To:	December 2025
Directorate / Department responsible (author/owner):	Katharine Sprigge Consultant Anaethetist
Contact details:	01872 252374
Brief summary of contents:	To promote well-being of post-operative women while preventing potential complications resulting from the surgery and/or anaesthesia.
Suggested Keywords:	Recovery, operative, operation, MEOWS, anaesthetic, anaesthesia, maternity, observations,
Target Audience:	RCHT: Yes CFT: No CIOS ICB: No
Executive Director responsible for Policy:	Chief Medical Officer
Approval route for consultation and ratification:	Maternity Guidelines Meeting
General Manager confirming approval processes:	Caroline Chappell
Name of Governance Lead confirming approval by specialty and care group management meetings:	Caroline Amukusana
Links to key external standards:	None required
Related Documents:	• Association of Anaesthetists of Great Britain and Ireland (2007) Recommendations for

Information Category	Detailed Information
	Standards of Monitoring during Anaesthesia and Recovery. • Association of Anaesthetists of Great Britain and Ireland (2002) Immediate Post Anaesthetic Recovery. • Association or Anaesthetists of Great Britain and Ireland (2013) Immediate Post-anaesthesia Recovery. London. Anaesthesia (2013) 68:288-97 • Drain CB, Christoph SS (latest Ed) The Recovery Room. A Critical Approach to Post-anaesthesia Nursing. Philadelphia, Saunders. • British Anaesthetic and Recovery Nurse Association (BARNA) Standards of Practice (January 2005) Revised 2012 • Hatfield A, Tronson M (1996) The Complete Recovery Room Book. Oxford Press. • NICE Caesarean section. Clinical Guideline www.nice.org.uk/guideance/cg132 23rd November 2011 • NICE Surgical Site Infection, Quality Standard 31st October 2013 www.nice.org.uk/guidance/qs49 • Obstetric Anaesthetist Association (1995) Recommended Standards of Obstetric Anaesthetic Services, OAA, Wottingham. • Recommendations for standards of monitoring during anaesthesia and recovery 2021. Association of Anaesthetists Guideline • Yentis et al 2020. Safety guideline: neurological monitoring associated with obstetric neuraxial block. Association of Anaesthetists • RCOA": Guidelines for the Provision of Anaesthesia Services for an Obstetric Population 2022

Information Category	Detailed Information
Training Need Identified?	Mandatory training sessions on Recovery Care for all Nurses and midwives every 2 years. All delivery suite coordinators will attend an in house training module on post-operative recovery and high dependency care.
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet and Intranet
Document Library Folder/Sub Folder:	Clinical / Midwifery and Obstetrics.

Version Control Table

Date	Version Number	Summary of Changes	Changes Made by
2004	V1.0	Initial version	Dr William Harvey Consultant Anaesthetist
December 2009	V1.1	Updated in line with national guidance	Dr Catherine Ralph Consultant Anaesthetist
July 2012	V1.2	Updated and compliance monitoring added	Dr Catherine Ralph Consultant Anaesthetist
17th July 2015	V1.3	No significant changes, invasive patient monitoring equipment added to essential equipment list	Dr Sam Banks Consultant Anaesthetist
7th June 2018	V2.0	Full Review	Dr Sam Banks Consultant Anaesthetist
July 2019	V3.0	Full review with changes to monitoring frequency and recovery discharge criteria Visitor numbers in Recovery during first hour post theatre. Minor changes to recovery equipment and safety checks	Helen Nicholls SR Deputy Recovery Services Manager
January 2020	V.3.1	Recovery guidance updated at points 2.5.1, 2.5.2, 2.5.3.	Helen Nicholls SR Deputy Recovery Services Manager

Date	Version Number	Summary of Changes	Changes Made by
June 2022	V3.2	Updated in line with national guidance	Dr Katharine Sprigge Consultant Anaesthetist
December 2022	V4.0	Full version update. All additions are labelled as “NEW 2022” Addition of new Trust Template	Katharine Sprigge Consultant Anaesthetist

All or part of this document can be released under the Freedom of Information Act 2000

This document is to be retained for 10 years from the date of expiry.
This document is only valid on the day of printing

Controlled Document

This document has been created following the Royal Cornwall Hospitals NHS Trust Policy for the Development and Management of Knowledge, Procedural and Web Documents (The Policy on Policies). It should not be altered in any way without the express permission of the author or their Line Manager.

Appendix 2. Equality Impact Assessment

Section 1: Equality Impact Assessment (EIA) Form

The EIA process allows the Trust to identify where a policy or service may have a negative impact on an individual or particular group of people.

For guidance please refer to the Equality Impact Assessment Policy (available from the document library) or contact the Equality, Diversity and Inclusion Team rcht.inclusion@nhs.net

Information Category	Detailed Information
Name of the strategy / policy / proposal / service function to be assessed:	Maternity Recovery and Post-Operative Care Clinical Guideline V4.0
Directorate and service area:	Obstetrics and Gynaecology
Is this a new or existing Policy?	Existing
Name of individual completing EIA (Should be completed by an individual with a good understanding of the Service/Policy):	Leann Morris Practice Development Midwife
Contact details:	01872 25 5019

Information Category	Detailed Information
1. Policy Aim - Who is the Policy aimed at? (The Policy is the Strategy, Policy, Proposal or Service Change to be assessed)	This guideline is to give guidance to obstetricians, anaesthetist, operating department practitioners, midwives and delivery suite nurses caring for woman in the delivery suite theatre settings and delivery suite recovery areas.
2. Policy Objectives	To ensure post-operative woman in maternity receive current, evidence based care whilst in recovery and post-operative period.
3. Policy Intended Outcomes	Safe recovery and post-operative care.
4. How will you measure each outcome?	Compliance Monitoring Tool.
5. Who is intended to benefit from the policy?	All post-operative women and women recovering within the Maternity setting.

Information Category	Detailed Information
6a. Who did you consult with? (Please select Yes or No for each category)	• Workforce: Yes • Patients/ visitors: No • Local groups/ system partners: No • External organisations: No • Other: No
6b. Please list the individuals/groups who have been consulted about this policy.	**Please record specific names of individuals/ groups:** Maternity Guidelines Group
6c. What was the outcome of the consultation?	Guideline agreed
6d. Have you used any of the following to assist your assessment?	**National or local statistics, audits, activity reports, process maps, complaints, staff or patient surveys:** No

7. The Impact

Following consultation with key groups, has a negative impact been identified for any protected characteristic? Please note that a rationale is required for each one.

Where a negative impact is identified without rationale, the key groups will need to be consulted again.

Protected Characteristic	(Yes or No)	Rationale
Age	No	
Sex (male or female)	No	
Gender reassignment (Transgender, non-binary, gender fluid etc.)	No	
Race	No	
Disability (e.g. physical or cognitive impairment, mental health, long term conditions etc.)	No	
Religion or belief	No	

Protected Characteristic	(Yes or No)	Rationale
Marriage and civil partnership	No	
Pregnancy and maternity	No	
Sexual orientation (e.g. gay, straight, bisexual, lesbian etc.)	No	

A robust rationale must be in place for all protected characteristics. If a negative impact has been identified, please complete section 2. If no negative impact has been identified and if this is not a major service change, you can end the assessment here.

I am confident that section 2 of this EIA does not need completing as there are no highlighted risks of negative impact occurring because of this policy.

Name of person confirming result of initial impact assessment: Leann Morris

If a negative impact has been identified above OR this is a major service change, you will need to complete section 2 of the EIA form available here:
Section 2. Full Equality Analysis

Appendix 3. Guidance for duration of stay in the Recovery Unit (Adult Patients)

All patients must fulfil criteria for discharge

Local anaesthetic (may return to the ward from theatre)	**1 set of observations and return to ward.**
Simple short operations under sedation.	**Once the patient is fully conscious; a minimum stay of 15 minutes.**
Simple short operations under general anaesthesia (20 minutes or less)	**Once the patient is fully conscious and maintaining their own airway; a minimum stay of 15 minutes.**
Medium duration operations (20 minutes to 2 hours)	**Once the patient is fully conscious and maintaining their own airway; a minimum stay of 30 minutes.**
Operations exceeding 2 hours This must be confirmed by the individual anaesthetist as this may vary.	**Once the patient is fully conscious and maintaining their own airway; a minimum stay of 60 minutes**
Should the patient: • **Receive a first dose of antibiotics** • **Commence a transfusion of a blood product**	**Discharge should be delayed for at least 15 minutes**
Should the patient: • **Receive a dose of IV pain relief, other than a self-administered PCA** • **Receive a bolus dose via an epidural catheter**	**Discharge should be delayed for at least 30 minutes**

Theatre Practice Standards - Post Anaesthetic Care