

Caesarean Section (CS) – Pre, Peri & Post-Op Care

Document Type	Guideline
Function(s)	Clinical Service Delivery
Health Service Group (HSG)	Women's Health
Department(s) affected	Maternity
Patients affected (if applicable)	Maternity patients requiring elective or acute caesarean section
Staff members affected	All ADHB clinicians in Women's Health and all LMC access holders
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Contents

1. [Purpose of guideline](#)
2. [Guideline management principles and goals](#)
3. [Abbreviations](#)
4. [Prioritisation of access to operating room](#)
5. [Medical preparation for acute procedure](#)
6. [Clerical preparation for acute procedure](#)
7. [Midwifery preparation for caesarean section](#)
8. [Midwife responsibility in operating room](#)
9. [Caesarean section category 1: extreme emergency flowchart](#)
10. [Caesarean section category 2 flowchart](#)
11. [Post natal care of the women following caesarean section](#)
12. [Supporting evidence](#)
13. [Associated ADHB documents](#)
14. [Disclaimer](#)
15. [Corrections and amendments](#)

1. Purpose of guideline

This guideline establishes the assistance of obstetric, anaesthetic, midwifery and support staff members in achieving best use of a limited operating room resource for acute and elective caesarean sections within Auckland District Health Board (ADHB).

[Back to Contents](#)

2. Guideline management principles and goals

In this context, “best” includes appropriate prioritisation, efficiency, patient (mother and baby) safety and best interests of those patients balanced against the needs of other patients.

Nothing in this guideline is of itself intended to be a professional standard against which individual performance can be assessed although external standards may be referred to. It may however provide a framework for service audit.

At women’s health, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) categories for urgency of access to OR for caesarean sections should be utilised in determining the degree of expediency required for a given birth and the relative need (one patient versus another) for prioritising access to the OR.

[Back to Contents](#)

3. Abbreviations

CS	caesarean section
CTG	cardiotocography
DDI	decision to delivery time
L&B	Labour and Birthing Suite
OR	operating room
PACU	Post Anaesthetic Care Unit
SMO	senior medical officer

[Back to Contents](#)

4. Prioritisation of access to operating room

Categorisation of caesarean sections

The RANZCOG states that decision to delivery intervals (DDI) of 30 minutes, although decreed as necessary in many legal judgements, seem based more on custom and practice than on objective evidence in relation to condition of the newborn. The categories developed by RANZCOG are:

- Category 1: Immediate threat to the life of a woman or fetus;
- Category 2: Maternal or fetal compromise but not immediately life threatening;
- Category 3: Needing early delivery but no maternal or fetal compromise;
- Category 4: At a time to suit the woman and the caesarean section team.

In line with RANZCOG recommendations, no specific time should be attached to the various types of caesarean section. Each case should be managed according to the clinical evidence of urgency, with every single case being considered on its merits. For example, a category 2 caesarean section can become urgent if recurrent delays for other emergencies in a labour ward repeatedly postpone surgery.

However, these recommendations should not be used to justify inadequate staffing or resourcing of obstetric operating rooms.

For audit or other purposes, judgement on the appropriateness of DDIs should be made on the basis of information available before birth, including available resources at that time and not judged on the condition of the baby at birth.

See Associated ADHB documents section for the level 8 acute version.

[Back to Contents](#)

5. Medical preparation for acute procedure

Follow the steps below to prepare a woman for an acute procedure and to provide safe care in the operating room. Tasks may be performed by any member of the team but specific responsibilities are assigned.

Surgeon

- i. Ensure that appropriate intrauterine resuscitation measures are in place for both the mother and the foetus as required while OR is being organised.
 - Clinical decision made for caesarean section by obstetric team in collaboration with the woman, support person and LMC
 - The woman and partner receive adequate explanation about the operation and procedure from the surgeon and the woman gives verbal informed consent
 - An interpreter may be required for consent, if time allows.
 - Agreement to Treatment form is completed by woman and surgeon unless extreme emergency
 - Surgeon liaises with clinical charge midwife of L&B, and/or Oncall SMO of L&B to allow safe coordination of care in the facility
- ii. Document decision time in clinical record.
 - Notify anaesthetist and inform them of urgency, indication and co-existing medical problems
 - You may require an Obstetric emergency Code in extreme emergencies
 - Complete Acute Surgical Booking form (CR2789) including obstetric urgency category. Leave the acuity section of the form blank (see appendix re College Statement)
 - Send form to OR co-coordinator via a medical member of the team
 - Complete indication as per audit sticker
 - Notify neonatal team
- iii. Check Concerto for haematology and blood bank results:
 - If there are no current results, blood must be taken from the patient and sent to:
 - Blood bank for group and screen phone Blood bank if urgent
 - LabPLUS for FBC; use urgent form or phone blood bank and notify of urgency.
 - If blood is required urgently:
 - Contact blood bank on ext. 24015 or ext. 24017
 - Notify blood bank staff members of the urgency of the request and required products
 - If blood is required immediately and cross-matched or group specific blood is not available request emergency O Rh(D) negative units be sent to the ward/OR

*This responsibility may be delegated to another team member

Anaesthetist and surgeon

- Ensure appropriate intrauterine resuscitation measures in place for both the mother and the foetus if required while the section is being organised.

Anaesthetist

- Discuss appropriate anaesthetic with surgeon, woman and support person
- Complete Agreement to Treatment form, anaesthesia section with woman
- Ensure that appropriate resource for OR is available including blood products

[Back to Contents](#)

6. Clerical preparation for acute procedure

Ward clerk

- Print new labels for operating room
- Notify the duty manager
- Obtain a post natal bed

[Back to Contents](#)

7. Midwifery preparation for caesarean section

Midwife

i. Ensure clinical record is complete with:

- Front sheet
- Patient labels
- Registration form (CR0100)
- Anaesthesia Record (CC4019)
- Pre-Operative Assessment Record (CR4048)
- Agreement to Treatment (CR111)
- Epidural/Spinal Insertion Record (CR4039)
- Labour and Birth Summary (CR3732)
- Fluid Balance Record (CC4052)
- Medication Chart (CR0452)
- Newborn Record (CR3731)
- Placenta Release form (CR2025)

ii. Prepare woman for the operating room:

- ID bracelet correct
- Nil by mouth
- IV infusion commenced or continued and fluids administered as prescribed
- Pre-operative medications are administered as prescribed

- Insert in-dwelling urinary catheter (IDC) as time allows. For elective CS catheter insertion in OR
 - Dress in operating room gown
 - Finger nail polish and hair clips removed
 - Rings and jewellery removed or taped, tongue studs removed
 - Check birth-care plan to ascertain whether woman wants placenta returned
 - Complete Placental Release form
 - Luggage to be locked in appropriate cupboard in L&B
 - For elective CS store safely in ward room, valuables in drug room
- iii. In Emergency cases woman remains in labour room until operating room is available:
- Continue to monitor maternal vital signs
 - Continue to monitor fetal heart rate with continuous CTG
 - Cease Syntocinon infusion (unless for trial of instrumental birth)
 - Position the woman in left-lateral
 - Administer O₂ via mask if clinically appropriate
- iv. For elective CS:
- Monitor maternal vital signs as necessary
 - Monitor fetal heart with CTG if required
- v. On transfer to operating room via handover room, if appropriate midwife may:
- Discontinue abdominal CTG monitoring (minimise unmonitored time)
 - Leave fetal scalp electrode in situ until in OR,
 - Bring CTG machine into OR
 - Pre-operative checklist completed and signed midwife and OR staff
 - Hand over to operating room nurse is completed
 - Surgical Safety Checklist sign in completed
- vi. The OR Health Care assistant will assist the support person and show them where to change into OR scrubs or if the woman is having a general Anaesthetic where to sit and wait.
- vii. Change into operating room attire;

[Back to Contents](#)

8. Midwifery responsibility in operating room

- Support and assist in positioning the patient during insertion of spinal/epidural anaesthetic.
- For elective sections where appropriate fetal heart checked prior to and following insertion of epidural/spinal anaesthesia. Document in clinical record
- For emergency sections monitoring of the fetal heart is directed by the most senior obstetric doctor present
- If fetal scalp electrode is in situ continue CTG monitoring, otherwise monitor with ultrasound or sonicaid as appropriate especially during insertion of epidural/spinal anaesthesia. Document as appropriate in clinical records.
- Remove fetal scalp electrode immediately prior to catheterising or prepping of the skin
- Assist with positioning of patient for catheterisation and surgery
- Check resuscitaire
- Support woman until time of birth
- Assist neonatal staff members with the resuscitation and examination of the baby as required
- Ensure name bracelets (2) are checked with mother and are attached one on each ankle
- Initiate interaction and skin to skin contact between the parents and the baby as soon as practicable and after agreement with the anaesthetist, surgeon, neonatal staff members and the mother
- Weigh baby at an appropriate time
- The baby remains with the mother in the operating room under the care of a midwife who is responsible for the baby's safety
- Discuss with operating room staff members appropriateness of the baby remaining with the mother, if this is not possible the midwife should transfer the baby to the postnatal ward
- Complete documentation of the clinical record

Documentation

Ensure completion of forms:

- Newborn Record (page one Prior to Birth)
- Labour and Birthing Summary
- Clinical records
- Ensure Placenta disposal form is correct and completed
- Completed Registration form handed to OR receptionist Monday – Friday 0700 – 1500 hours. After hours labour and birthing unit ward clerk

Healthware data entry:

- Electives entered by OR receptionist 0700hrs - 1500hrs Mon – Friday. After hours to be completed by L&B ward clerk or appropriate ward clerk

If printed, this document is only valid for the day of printing.

- Acute caesarean sections entered by L&B ward clerk for LMC's otherwise completed by core midwifery staff members

PACU

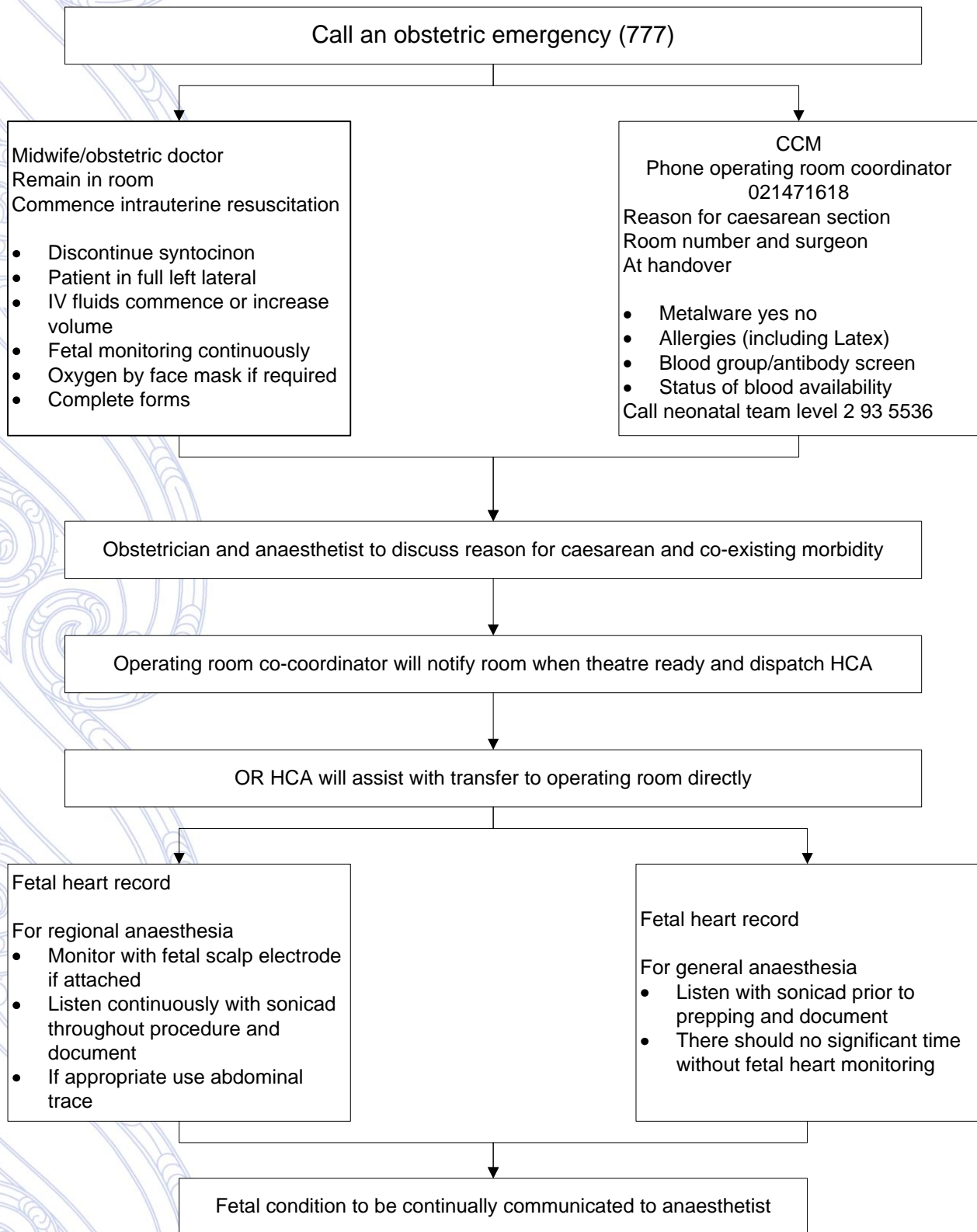
- Midwifery handover of baby to PACU staff members
- As appropriate midwife or PACU staff members to initiate breastfeeding with mothers consent
- If not on level 9, the midwife must remain with the woman for breastfeeding and for postnatal observations and care (Fundus& blood loss)

Link to Caesarean section post anaesthesia care unit

Link to Newborn care in post anaesthesia care unit

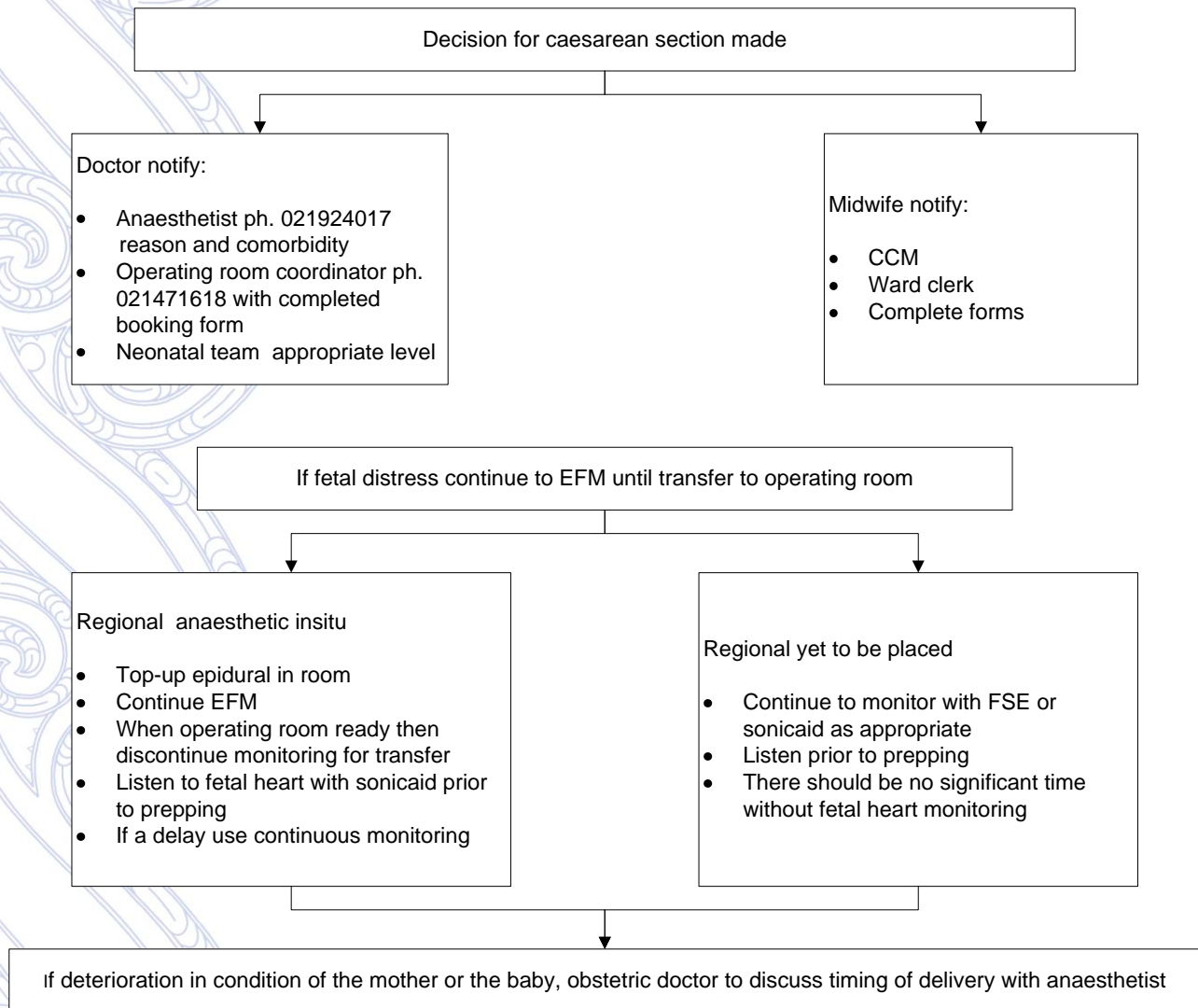
[Back to Contents](#)

9. Caesarean section category 1: extreme emergency flowchart



[Back to Contents](#)

10. Caesarean section category 2 flowchart



[Back to Contents](#)

11. Post natal care of the women following caesarean section

Midwife

The women's condition is assessed in the immediate post-operative period.

On collecting and returning to the post-natal area with the woman from the recovery room:

- Assess level of consciousness
- Record BP, temperature and pulse

Check:

- Redivac/s and record the amount and type of drainage
- Intravenous infusion and site and checks the IV fluid prescription
- PCA/PCEA prescription on pump
- Dose of previous analgesia administered, level of pain and prescription for further analgesia
- Epidural site
- Appropriate Venous Thromboprophylaxis prevention in place e.g. Flowtron, TEDs Clexane
- Oxygen administration and prescription if necessary
- Patency of urinary catheter, colour and amount of urine
- Wounds for ooze
- Amount of lochia
- Ecbolic prescription
- If breastfeeding has been initiated

This initial assessment is documented in the clinical record, and the Postnatal Observation Chart (CR420).

Optimum ventilation and haemodynamic status is maintained

- Position the woman in the semi-recumbent position in the initial post-operative period
- Administer oxygen as per guideline
- Record blood pressure, temperature and pulse half hourly for 4 hours or until stable
- Encourage deep breathing, coughing and leg exercises
- Begin ambulation within 6 – 12 hours

Bonding between mother and baby

- Assist with breastfeeding
- Give mother-craft education as appropriate

If baby is in NICU or PIN:

- Assist with establishing lactation
- Ensure that the mother has a photograph of her baby
- Reassure the mother and assist and encourage her to visit her baby regularly
- Arrange adequate progress reports on the baby

Fluid and electrolyte balance is maintained

- Administer the IV regime as prescribed and document on the Fluid Balance Record (CC2384)
- Ensure regular anti-emetics and sips of iced water are given for nausea
- Record initial micturition following removal of indwelling catheter (normally 12 hours post delivery)
- Catheterise the woman if she is unable to pass urine after 6 hours or bladder palpable following removal of catheter
- While indwelling catheter in situ measures urinary output on Fluid Balance Record. The midwife notifies the obstetrician of any concerns re fluid balance

Comfort is maintained

- Introduce ice and sips of water as tolerated by the woman
- Introduce diet as desired
- Evaluate location/type pain and administer analgesia as charted and assess effectiveness
- Assist with baby cares and feeding
- Assist the woman to position herself whilst breastfeeding to maximise comfort

Patient anxiety is minimised

- Obstetric team member to debrief with the women and talk about possibilities for birth options with next pregnancy prior to discharge
- Provide full explanations of all cares and procedures
- Allow time for the woman and family to express fears/problems and to answer any questions

[Back to Contents](#)

12. Supporting evidence

Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) - [categories for urgency of access to OR for caesarean sections](#)

[Back to Contents](#)

13. Associated ADHB documents

- [Bladder Care Postpartum & Urinary Retention Management](#)
- [Caesarean Section \(CS\) - Acute - Management in Level 8 Operating Rooms](#)
- [Caesarean Section \(CS\) - Post Anaesthesia Care Unit \(PACU\)](#)
- [Count Policy for Surgical Procedures – Perioperative](#)
- [Identification of Patients \(includes newborns\)](#)
- [Group & Screen Requirements in Maternity](#)
- [Infant Feeding - Breastfeeding](#)
- [Newborn Care in Post Anaesthesia Care Unit \(PACU\)](#)
- [Oxygen Prescribing, Administration & Equipment - Adult](#)
- [Postpartum Haemorrhage](#)
- [Support Person in Operating Rooms & Procedure Rooms](#) - Perioperative
- [Surgical Safety Checklist](#) – Perioperative

Clinical forms

- Acute Surgical Booking Form CR2789
- Anaesthesia Record CC0100
- Pre-operative Assessment Record CR4049

[Back to Contents](#)

14. Disclaimer

No guideline can cover all variations required for specific circumstances. It is the responsibility of the health care practitioners using this ADHB guideline to adapt it for safe use within their own institution, recognise the need for specialist help, and call for it without delay, when an individual patient falls outside of the boundaries of this guideline.

[Back to Contents](#)

15. Corrections and amendments

The next scheduled review of this document is as per the document classification table (page 1). However, if the reader notices any errors or believes that the document should be reviewed **before** the scheduled date, they should contact the owner or the [Clinical Policy Advisor](#) without delay.

[Back to Contents](#)