Oxford University Hospitals NHS
NHS Foundation Trust

GS67 - Caesarean Birth Guideline

Category:	Guideline
Guideline Number:	GS67
Summary:	This document provides clinical guidance on the care of women and birthing people who are accessing care within the Oxford University Hospitals Foundation Trust (OUH). This information relates specifically to the recommended care provision for people having a caesarean birth.
Equality impact assessed:	01/08/2023
Valid from:	28/01/2026
Date of next review:	21/08/2026
Approval date/ via:	14/01/2026 at Document Review Group (DRG)
Related documents:	• Diagnosis and management of Placenta Praevia and Abnormally Invasive Placenta Guideline • Birth After Caesarean Section (BAC) Guideline • High Dependency Care Guideline • Postpartum Haemorrhage (PPH) Guideline • Reducing the Risk of Venous Thromboembolism (VTE) During and After Pregnancy Guideline • Trust antimicrobial guidelines • Maternity Swabs, Sharps and Instruments Local Safety Standards for Invasive Procedures (LocSSIP)
Author(s):	Consultant Obstetrician
Clinical lead:	Consultant Obstetrician
Further information:	N/A
This document replaces:	Caesarean Section Guideline v3.0

This document is uncontrolled once printed.

It is the responsibility of all users to this document to ensure that the correct and most current version is being used.
This document contains many hyperlinks to other related documents.
All users must check these documents are in date and have been ratified appropriately prior to use.

Document History

Version valid from	Version number	Reason for change/update
28/01/2026	3.1	In response to an MNSI case (ID 357259): Changes to reflect need for obstetric review if risk level changes whilst awaiting an elective caesarean section Appendix 6 - Enhanced Recovery After Caesarean Section (ERAS) exclusion criteria list updated

22/08/2023	3.0	3 yearly review including updates on Maternal Request for Caesarean birth (MRCS) care provision in line with NG192 published in 2021 and updated on 21/06/2023.
21/12/2021	2.6	Addition of Maternity Incentive Scheme (MIS) consultant workforce compliance regarding request for consultant attendance for the following situations: • Caesarean birth for major placenta praevia/abnormally invasive placenta (AIP) • Caesarean birth for women/birthing people with a BMI >50 • Caesarean section birth of premature twins < 30 weeks gestation • Caesarean birth at <28 weeks gestation Addition of Maternity Incentive Scheme (MIS) consultant workforce compliance regarding request for consultant/senior doctor attendance for the following situations: • Caesarean birth for women/birthing people with a BMI >40 • Caesarean birth at <32 weeks gestation • Caesarean birth at full dilatation • Caesarean birth for transverse lie
21/05/2020	2.5	Mainly minor changing to wording. Learning from two Quality Improvement Projects: • guidance on monitoring a mother's temperature during skin-to-skin contact in theatre and keeping the mother-baby dyad warm • guidance on discharge planning and prescribing of take home medications before transfer to the postnatal ward.
08/03/2018	2.4	Due to change in hypoglycaemia monitoring. New line added: Decisions for delivery of a baby where the primary indication is SGA or abnormal Dopplers (risk of placental problems) should only be made by the FMU (FGA) team. Where delivery is expedited these babies are at risk of hypoglycaemia and should be monitored at birth as per guideline.
05/12/2017	2.3	Learning from incident (see SIRI 025): inclusion of requirement for two wristbands for any woman/birthing person attending theatre.
25/10/2017	2.2	Learning from incident ('Never Event'): rectus sheath drain in therapeutically managed thrombosis.

21/08/2017	2.1	Wording change regarding maternal request caesarean section.
24/03/2016	2.0	Reviewed and updated.
30/07/2015	1.4	Added SOP for ELCS.
20/02/2015	1.3	New section on antenatal steroid use prior to 39/40, outlining evidence.
30/06/2014	1.2	Following discussion at Mortality Meeting: A planned CS should not routinely be carried out before 39 weeks. Decision to deliver earlier than this must be made at consultant level. There are a number of circumstances where potential benefits with delivery earlier than 39 weeks outweigh perinatal risks. Where a woman/birthing person has a previous caesarean section with vertical, J-shaped or inverted T uterotomy, delivery at 37-38 weeks would be reasonable. Considerations regarding timing of birth in placenta praevia/accrete are dealt with in a separate guideline.
22/04/2014	1.1	Change in policy with regards to not permitting CS by maternal request. Also following learning from incident: Women/birthing people should leave theatre lying on their side to relieve their pressure areas and facilitate skin-to-skin contact with their baby(ies) and early breast feeding.

Consultation Schedule

Who? Individuals or Committees	Rationale and/or Method of Involvement
Consultant Midwife	Review
Maternity and Neonatal Voices Partnership (MNVP)	Service user review
Document Review Group	MDT review and approval ahead of ratification at MCGC

Contents

Who should read this document?

- All clinical maternity staff working within the OUH should read and familiarise themselves with the guidance in this document.

Key Standards/Messages

1. **(New in v3.1)** A Consultant Obstetrician should be involved in the decision to undertake a Caesarean Section (CS); elective (ELCS) or emergency (EMCS) during the hours when they are expected to be on site, unless doing so would result in delay that could be life threatening to the woman/birthing person or fetus. The decision for a Category 1 or 2 CS at night should be taken by the resident Obstetric ST6/7. The decision to call the Consultant Obstetrician at home should be agreed in advance with the Consultant Obstetrician on call.
2. In cases where an ELCS is planned for major placenta praevia/abnormally invasive placenta (AIP) - a Consultant Obstetrician MUST BE IN ATTENDANCE when the operation is performed.
3. A Consultant Obstetrician and a Consultant Anaesthetist MUST ATTEND any caesarean section birth where a woman/birthing person has a BMI > 50.
4. A Consultant Obstetrician MUST ATTEND any caesarean section birth <28 weeks gestation.
5. A Consultant MUST ATTEND any caesarean section birth of premature twins (<30 weeks gestation).
6. Situations in which the Consultant Obstetrician MUST ATTEND unless the most senior doctor present has documented evidence as being signed off as competent. In these situations, the senior doctor and the consultant should decide in advance if the consultant should be INFORMED prior to the senior doctor undertaking the procedure:
    - Caesarean birth at full dilation
    - Caesarean birth for women/birthing people with a BMI >40
    - Caesarean birth for transverse lie
    - Caesarean birth at <32 weeks gestation
7. An elective CS should not routinely be carried out before 39 weeks.
8. Eligible women/birthing people undergoing elective CS should be offered Enhanced Recovery after CS (see Appendix 6).
9. (New in v3.0) When pregnant women and birthing people request a CS because they have anxiety about childbirth, they should be referred to the Birth Choices Clinic (see page 10).
10. OUHFT follows NICE guidance on maternal requests for Caesarean Section (MRCS) in line with NG 192 - see page 10.
11. The reason (s) for performing a Category 1 or Category 2 CS must be documented in the health record of the woman/birthing person by the person who makes the decision or who has discussed this with a consultant obstetrician.
12. The time of decision made to perform CS must be clearly documented in woman/birthing person's health record.

13. Category 1 and 2 CS should be performed as quickly as possible after making the decision:

    - Category 1 within 30 minutes
    - Category 2 within 75 minutes of making the decision.

14. Any reasons for delay in undertaking the CS must be documented in the woman/birthing person's health record.

15. All women/birthing people should be given prophylactic antibiotics at CS before skin incision.

16. All women/birthing people should have a VTE risk assessment and be prescribed appropriate VTE prophylaxis.

17. All women/birthing people who have had a CS should be given the opportunity to discuss with an appropriately qualified healthcare professional, the reasons for the CS and provided with both verbal and ideally also written information about birth options for any future pregnancies. This discussion should be documented clearly in their health records and take place before discharge.

Background/ Scope

18. There has been a steady increase in the CS rate over recent decades. As a result of the rising CS rate there has also been an increase in women/birthing people having a repeat CS. In the UK, 28% of births are undertaken by CS. CS can be classified according to whether it is carried out as planned (elective) or unplanned (emergency) procedure, with around 40% of CS being planned and the remaining 60% unplanned procedures. The indications for the procedure vary. 70% of emergency CS are a result of prolonged labour, suspected fetal compromise, fetal malpresentation and previous CS. This guideline has been developed to help ensure consistency and quality of care experienced by women/birthing people in these groups in accordance with the current national guidelines on this subject and good medical practice.

19. This guideline has been written for obstetricians, midwives and other professionals within the Oxford University Hospitals NHS Foundation Trust who provide care for women/birthing people who have a clinical indication for CS (elective or emergency) or who are planning to have a CS where there is no medical reason.

Key Updates

20. **(New in v3.1)** In response to an MNSI case: Changes to reflect need for obstetric review if risk level changes whilst awaiting an elective caesarean section on page 13:

    Women/birthing people awaiting planned ELCS where circumstances change ***(New in v3.1)***

    Where a woman/birthing person who has been admitted to Level 2 for a planned caesarean section on the elective CS pathway, and there is development of an acute clinical problem (reduced fetal movement, abdominal pain, bleeding etc), the woman/birthing person should be transferred to the Maternity Assessment Unit for a review. The urgency of review should follow BSOTS criteria.

21. **(New in v3.1)** **Appendix 6** – Enhanced Recovery After Caesarean (ERAS) exclusion criteria list updated.

22. (New in v3.0) Updated to include guidance on Maternal Request for Caesarean Section (MRCS) in line with NICE Guidance NG192 (last updated 21/06/23).
23. In the event of a shortage of diamorphine, alternative analgesia will be provided – please see further NICE recommendations.
24. (New in v3.0)) If accidental opening of the urinary bladder occurs a Urologist should be asked to attend to facilitate the closure. The DS/on call consultant obstetrician should also be made aware and asked to attend.
25. (New in v3.0) The obstetrician and midwife should remain in theatre with the woman or birthing person and ensure continued monitoring of the fetal condition. **Fresh eyes should be completed every 30 minutes.**

Aim(s)

26. This document aims to provide information for healthcare professionals regarding:
    - The risks and benefits of planned CS compared with planned vaginal birth
    - Anaesthetic aspects of care
    - Interventions to reduce morbidity from CS
    - Postoperative care of women/birthing people following CS

Full Guideline

Elective /planned CS

Planning mode of birth: elective CS

The decision to perform an elective CS should be made in antenatal clinic with the documented involvement of a consultant obstetrician.

27. A documented discussion should take place in the Antenatal Clinic (ANC) that should include indications for CS, what the procedure involves, risks and benefits of CS compared to vaginal birth specific to the woman or birthing person and their pregnancy. This should take into

account their circumstances, concerns, priorities and plans for future pregnancies including the risks of placental problems with multiple CS (See table 1 and below).

28. Following the shared decision making discussions above, consent should be taken during ANC.

29. The Standard Operating Procedure relating to on-the-day timings of Elective Caesarean Section can be found in Appendix 5.

Table 1: Risks of planned caesarean section compared to planned vaginal birth for women/birthing people with an uncomplicated pregnancy and no previous caesarean section.

Risks that may be reduced after a planned CS	**Risks that may be increased after a planned CS**	**No difference**	**Conflicting studies on:**
Perineal & abdominal pain during birth & 3 days postpartum Injury to vagina Early postpartum haemorrhage Obstetric shock	Longer hospital stay Hysterectomy due to PPH Cardiac arrest NICU admission for baby ***Future pregnancies***: Increased risk of antepartum stillbirth (0.4% compared to 0.2% after previous vaginal birth), Increased risk of placenta praevia and accreta	Perineal & abdominal pain 4 months postpartum Injury to bladder/ureter Injury to cervix Iatrogenic surgical injury Pulmonary embolism Wound infection Intraoperative trauma Uterine rupture Assisted ventilation or intubation Acute renal failure Hypoxic-Ischemic Encephalopathy Intracranial haemorrhage Neonatal respiratory morbidity	Maternal death Deep vein thrombosis Blood transfusion Infection – wound Hysterectomy Anaesthetic complications Neonatal mortality 5 min Apgar score of less than 7

Adapted from NICE guideline "Caesarean section" (Nov 2011)

30. Communication and information should be provided in a form that is accessible to pregnant women/birthing people, taking into account the information and cultural needs of minority communities and women/birthing people whose first language is not English or who cannot read, together with the needs of women/birthing people with disabilities or learning difficulties.

Obtaining consent

31. Consent should be obtained after providing pregnant women/birthing people with appropriate evidence-based information. A competent woman/birthing person may refuse CS, even if this would be detrimental to them or the fetus. Ethical guidance for obtaining consent, points of law and model documentation are available (see references 1-3). If a clinician is concerned regarding a patient's capacity for consent, additional legal advice may be sought from the Trust's Legal Services team (contact number 01865 (2)22693).

Procedural-related risks of CS

- Haemorrhage (5 in 100)
- Infection (5 in 100)
- Accidental fetal laceration (1-2 in 100)
- Transient Tachypnoea of Newborn (3-4 in 100)

Serious (but uncommon risks)

- Injury to urinary system (1 in1000)
- Venous thromboembolic event (4-16 in 10,000)
- Admission to intensive care (9 in 1000)
- Emergency hysterectomy (7-9 per 1000)

Future pregnancy risks after CS

- Uterine rupture (2-7 per 1000)
- Stillbirth (4 per 1000 compared with 1 in 1000 if vaginal delivery)
- Placenta praevia (4-8 per 1000)

For offspring

- Increased risk of developing asthma/allergies
- Increased risk of obesity
- Increased risk of diabetes

Possible indications for elective CS

32. Mode of delivery in following situations are dealt with in the related topic-specific OUHFT guidelines:

- Breech presentation
- Multiple pregnancy
- Preterm birth
- Small-for-gestational age baby or abnormal Dopplers (risk of placental problems) – decision for delivery should only be made by the FMU (FGA) team.
- Placenta praevia/abnormally invasive placenta (AIP)
- Mother-to-child-transmission of maternal infections including HIV

Maternal request for elective CS (MRCS)

33. Due to its inherent risks, ELCS is only recommended when those risks are greater than the risks of planning a vaginal birth. However, the potential psychological risks of vaginal birth for women/birthing people with severe anxiety about childbirth should not be underestimated. Therefore, when a woman or birthing person requests a CS because they are anxious about childbirth, they should be referred to the 'Birth Choices Clinic' clinic as early as possible in their pregnancy.

34. Birth Choices Clinical referrals should be made via EPR using the EPR proforma: Select 'communicate' tab - then select
the Birth Choices Clinic pool as below:

35. Appendix 3 outlines the pathway for women/birthing people requesting primary elective CS.

Timing of planned CS

36. The risk of respiratory morbidity is increased in babies born by CS before labour, but this risk decreases significantly after 39 weeks.

A planned CS should not routinely be carried out before 39 weeks. Decision to deliver earlier than this must be made at consultant level.

37. There are a number of circumstances where potential benefits with delivery earlier than 39 weeks outweigh perinatal risks. Where a woman/birthing person has had a previous CS with vertical, J-shaped or inverted T uterotomy; or a previous uterine rupture; delivery at 37-38 weeks would be reasonable. For considerations regarding timing of birth in placenta praevia/AIP see Diagnosis and management of Placenta Praevia or Abnormally Invasive Placenta.

Antenatal steroids to prevent neonatal respiratory morbidity prior to 39 weeks

38. Evidence addressing whether antenatal steroids before planned CS prior to 39 weeks reduce neonatal respiratory morbidity is derived from a single randomised non-blinded controlled trial of 942 women/birthing people who underwent planned CS after 37 weeks gestation.

Key considerations in relation to this study and extrapolation to clinical practice can be found in the reference section (page 23).

39. In summary, evidence from a single randomised non-blinded trial suggests that a course of antenatal steroids before CS at term **may** significantly reduce *admission* to newborn care for respiratory complications but such a reduction is not seen for objective measures of actual respiratory morbidity. The decision as to whether antenatal steroids should be given in

planned CS after 37 weeks should be made following appropriate counselling of the pregnant woman/birthing person and discussion with their consultant.

Tubal ligation at CS

~~40.~~ Because of CCG funding restriction, tubal ligation at caesarean section is no longer offered as routine practice.

~~41.~~ In exceptional circumstances, permission may be sought from the CCG.

Preparations for elective CS

42. Prior to elective CS:

- The date and time must have been arranged with the Elective Caesarean Booking Team via 'communicate' on EPR. Select 'Pool ' > Type 'Mat' in search box > select Elective caesarean Bookings Team' .
- Referral for anaesthetic preoperative assessment should be made via Badgernotes using 'referral' and selection of the 'Maternity Anaesthetics Referral'.
- The anaesthetist should be informed in advance: If a CS is booked after 4pm for the following day, special arrangements should be made with the anaesthetist – contact the duty obstetric anaesthetist.
- Pre-medication will be written up by the anaesthetist.
- Women/birthing people are usually admitted in a fasted state on the day of the operation.
- Catheterisation should not take place until the woman/birthing person is adequately anaesthetised.

Pre-operative testing for elective CS

43. Pregnant women/birthing people should have a full blood count (FBC) to identify anaemia, antibody screening, and blood grouping with saving of serum prior to CS.

44. Women/birthing people who are healthy and have otherwise uncomplicated pregnancies should not routinely be offered the following tests before CS:

- cross-matching of blood
- a clotting screen

45. Placental site should be known preoperatively, particularly in the presence of a previous uterine scar.

Women/birthing people awaiting planned ELCS where circumstances change (New in v3.1)

46. Where a woman/birthing person who has been admitted to Level 2 for a planned caesarean section on the elective CS pathway, and there is development of an acute clinical problem (reduced fetal movement, abdominal pain, bleeding etc), the woman/birthing person should be transferred to the Maternity Assessment Unit for a review. The urgency of review should follow BSOTS criteria.

Emergency CS

Classification of urgency

The decision to undertake an emergency CS must be discussed with the duty obstetric consultant unless the delay in doing so would be life-threatening to the woman/birthing person or fetus.
Where a consultant obstetrician has not been involved, the decision to proceed with CS must be reviewed by the senior registrar (ST6/7) on duty.

47. Prioritisation is vital. When deciding on the need for CS it is imperative that careful thought be given to the urgency of the situation. The urgency has implications for the type of anaesthesia that will be used, as well as legal implications as to the timing of delivery.

48. The following must be documented in the woman/birthing person's health records by the person who makes the decision:

- Time the decision was made
- Indication for delivery: all factors should be recorded that influence the decision, and which of these is the most influential
- Urgency of the situation (as classified below see box 1)
- Targeted time for delivery

Box 1: Caesarean Section Classification
Determine the urgency of CS using the following standardised scheme:

Category 1	Immediate threat to the life of the woman/birthing person or fetus
Category 2	Maternal or fetal compromise which is not immediately life - threatening
Category 3	No maternal or fetal compromise but needs early delivery
Category 4	Delivery timed to suit woman or birthing person and/or staff.

Decision-to-delivery interval for emergency CS

49. A target "Decision to Delivery Interval" (DDI) for Category 1 caesarean section of 30 minutes has become accepted practice. However:

- Certain clinical situations will require a much quicker DDI than 30 minutes
- Undue haste to achieve a short DDI can introduce its own risk, both surgical and anaesthetic, with the potential for maternal and neonatal harm. A longer time to delivery may be acceptable if maternal resuscitation and stabilisation is required or in utero fetal resuscitation would be beneficial.

Category 1 and 2 CS should be performed as quickly as safely possible after making the decision; Category 1 within 30 minutes and Category 2 within 75 minutes of making the decision

50. It is important to recognise that these categories are providing guidance as to urgency but that in reality, a "continuum of urgency" exists. For example, CS may be designated as Category 2 but given potential to further deteriorate, one should aim that delivery occurs

within 30 minutes. It may be useful when communicating with the multi-disciplinary team about the required category of caesarean, to also state the ideal timeframe for the DDI based on the particular clinical situation.

51. Remember: rapid and clear communication reduces unnecessary delay in delivery.
52. The following DDIs are used to measure the overall performance of Delivery Suite.

- 30 minutes for Category 1 CS
- Both 30 and 75 minutes for Category 2 CS.

53. These are audit standards only and are not intended to judge multidisciplinary team performance for any individual CS.

Preparing for emergency CS

54. Once the decision has been made, the obstetrician is responsible for ensuring the following are informed immediately:

- Midwife Co-ordinator in Delivery suite
- Duty Anaesthetist

It is the responsibility of the obstetric registrar to maintain an overview of the fetal condition and review the urgency for delivery. If there is any delay, the reasons for this should be documented in the intrapartum record.

55. It is the responsibility of the anaesthetist requiring the anaesthetic nurse to call them if required; occasionally this may be delegated by the anaesthetist.
56. (New in v3.0) The obstetrician and midwife should remain in theatre with the woman or birthing person and ensure continued monitoring of the fetal condition. **Fresh eyes should be completed every 30 minutes.**

If required, the neonatologist will be called from the theatre.

Transfer to theatre (as soon as safely possible):

- Catheterisation and shaving can be performed in theatre
- Continuous EFM- it is the midwives' responsibility to monitor the fetal heart rate pattern until birth. Concerns need to be conveyed immediately to the Midwife Co-ordinator, Obstetrician and Anaesthetist.
- Uterine displacement should be routine (lateral tilt or manual displacement of uterus to left)
- Discontinue oxytocin infusion if on-going
- The midwife should ensure the woman/birthing person has two wristbands on, ensuring they are on different limbs.

57. The roles and responsibilities of the obstetrician, anaesthetist and midwife in theatre are further explored in Appendix 6.

Downgrading of Classification

58. In the event of downgrading the urgency of the CS all staff called must remain present until a plan of care is established. It is the responsibility of the Obstetrician to ensure clear communication of the new plan to all team members and the patient.

Consent

59. For urgent (Category 1) CS, consent may be obtained in theatre. Where possible, written consent should be obtained. In truly life-threatening circumstances, it is recognised that obtaining written consent may not be possible.

Procedural aspects of CS

WHO Safe Surgery checklist

The WHO Safe Surgery Checklist must be completed for all elective and emergency caesarean sections.

60. It is the responsibility of the Anaesthetist to ensure the Sign In is completed and the responsibility of the operating surgeon to ensure the Time Out and Sign Out are completed (although other members of staff may physically annotate the checklist).
    - To reduce the risk of aspiration pneumonitis women/birthing people should receive antacids and drugs (such as proton pump inhibitors) to reduce gastric volumes and acidity before CS.

Anaesthesia for CS

- Women/birthing people having a CS should be given information on different types of post-CS analgesia.
- Women/birthing people who are having a CS should be offered regional anaesthesia if appropriate.
- To reduce the risk of aspiration pneumonitis women/birthing people should receive antacids and drugs (such as omeprazole) to reduce gastric volumes and acidity before CS.

Staffing for CS

61. The surgical procedure should not start unless all the following are present in theatre:

- Anaesthetist + anaesthetic nurse
- Surgeon + assistant
- Scrub practitioner
- Midwife
- Runner

Women/birthing people's preferences during CS

62. Women/birthing people's preferences for the birth, such as music playing in theatre, lowering the screen to see the baby born, or silence so that the parent's voice is the first the baby hears, should be accommodated where possible.

Umbilical artery pH measurement

63. Umbilical artery pH should be performed after all CS for suspected fetal compromise, to allow review of fetal wellbeing and guide on-going care of the baby.

Antibiotic prophylaxis

64. Women/birthing people should be given prophylactic antibiotics at CS *before* skin incision to reduce postoperative endometritis, urinary tract and wound infections. This reduces the risk of maternal infection more than prophylactic antibiotics given *after* skin incision, and no effect on the baby has been demonstrated. The Trust antimicrobial guidelines should be followed.

Thromboprophylaxis for CS

65. All women/birthing people having a CS should be offered thromboprophylaxis because they are at increased risk of venous thromboembolism.

A VTE risk assessment should be completed and appropriate VTE prophylaxis prescribed for all women/birthing people immediately postoperative and prior to transfer to the Observation area/recovery ward.

66. The choice of method of prophylaxis (for example, graduated stockings, hydration, early mobilisation, low molecular weight heparin) should take into account risk of thromboembolic disease and follow the Maternity VTE guideline.

67. The placing of a pelvic and/or rectus sheath drain should be considered at Caesarean Section for all women/birthing people in whom there is a plan to commence therapeutic anti-coagulation in the immediate postnatal period. The decision should be made in discussion with the consultant directly involved with the caesarean section.

Complications occurring at Caesarean Section

Failed intubation

- This is an anaesthetic emergency. The decision about what to do in this situation should be discussed with the obstetrician prior to induction of anaesthesia. Failure to deal with this scenario appropriately could result in maternal death. The safest option, particularly for the junior anaesthetist, is to wake the mother even if there is fetal distress.

Accidental opening of the bladder

68. This should be a rare occurrence. If it occurs, continue with the delivery of the baby and suturing of the uterus. (New in v3.0) A Urologist should also be asked to attend in this instance to facilitate the closure. The on call consultant obstetrician should also be made aware and asked to attend. A Foley catheter should be left in situ for 7 to 10 days on free drainage – discuss with the consultant obstetrician.

Difficulty dis-impacting the head

69. When CS is performed at full dilatation it may be difficult to deliver the head from the pelvis; if this occurs an assistant can usually dis-impact the head from below. If this cannot be achieved, senior help should be summoned with the utmost urgency.

Uncontrollable bleeding

70. When serious difficulties are encountered achieving haemostasis, the Consultant should be called early. See related Trust Postpartum Haemorrhage Guideline.

EPR Considerations

71. The operation note should be completed using Badgernet. All requests for ELCS should be requested via EPR communicate/mat/ELCS pool.

Care of the baby born by CS

Presence of neonatal team member at CS

72. An appropriately trained practitioner skilled in the resuscitation of the newborn should be present at CS performed under general anaesthesia or where there is evidence of fetal compromise.

Delayed cord clamping

73. Ideally this should be for a minimum of 1 minute in a term baby and 3 minutes in a preterm baby.

Thermal care for babies born by CS

74. Babies born by CS are more likely to have a lower temperature, and thermal care should be in accordance with good practice for thermal care of the newborn baby.

Maternal contact (skin-to-skin)

75. Early skin-to-skin contact between the woman/birthing person and their baby should be encouraged and facilitated because it initiates bonding, regulates the baby's breathing and

heart rate, and helps initiate breastfeeding. The mother's temperature should be monitored and if they are cold, then steps should be taken to warm both mother and baby without interrupting skin-to-skin contact wherever possible.

Breastfeeding

76. Women and birthing people who have had a CS should be offered additional support to assist them to commence breastfeeding as soon as possible after the birth of their baby. This is because women/birthing people who have had a CS are less likely to start breastfeeding in the first few hours after the birth, but, when breastfeeding is established, they are as likely to continue as women/birthing people who have a vaginal birth.

Neonatal Observations

77. Babies born by CS where the primary indication is SGA or abnormal Dopplers (risk of placental problems) are at risk of hypoglycaemia and should be monitored at birth as per guideline, even if they are found to be of normal weight after birth.

Care of the woman/birthing person after CS

78. Women/birthing people should leave theatre lying on their side to relieve their pressure areas and facilitate skin-to-skin contact with their baby(ies) and early breast feeding.

Obstetric review and transfer to ward

79. All women/birthing people should be reviewed by an obstetrician within 12 hours of CS. In addition to bedside clinical assessment of the patient, the obstetric team should consider:

- Discussing reason(s) for CS, implications for future pregnancies. If the woman/birthing person prefers, this can be provided at a later date, ideally prior to discharge home.
- As a minimum, a plan for VTE prophylaxis, analgesia and IV access/line removal should be documented.
- Ideally a discharge plan should be discussed with the woman or birthing person, including predicted discharge date and whether they will need further medical review prior to discharge if there are no new concerns. This discussion should be documented in the woman/birthing person's notes.
- The discharge process will run more smoothly if the take home medications are also prescribed at this point.

80. Transfer to the ward may take place once the woman/birthing person is stable and when they are considered fit for discharge to the ward by an obstetrician. Complex cases should be reviewed by obstetric staff to ensure that an appropriate plan is in place for care on the postnatal ward.

Enhanced Recovery after CS

81. Women and birthing people undergoing elective CS should be offered the option of Enhanced Recovery care after CS (ERAS). This care pathway includes prompt safe mobilisation, 6-hour removal of bladder catheter, early dispensation of TTO medications and discharge home as early as 24 hours following surgery.
82. Eligible women/birthing people should have the initial discussion about ERAS at the time of the CS booking. If the woman/birthing person expresses their preference for this care pathway, a completed and signed checklist (Appendix 1) should be filed in their notes.
83. The CS electronic booking should be updated to state 'Enhanced Recovery' on Cerner theatre scheduling.
84. During the WHO **sign out** procedure, the operating surgeon and anaesthetist should confirm that there have been no intraoperative contraindications to ERAS.
85. The team should decide at WHO sign out which person will be responsible for prescribing post-surgery medication.
86. The operating surgeon is responsible for completing the Operation note on Badgernotes.
87. Midwifery staff will encourage safe early mobilisation and removal of catheter 6 hours after surgery as late as midnight of the same day (see Bladder Care guideline).
88. Midwifery care for mother and baby on the levels will otherwise follow established practice and protocols. Particular emphasis on prompt and adequate breastfeeding support for women/birthing people who intend to breastfeed; prompt completion of baby checks; and patient training on self-administration of Dalteparin.
89. The woman/birthing person can be discharged as early as 24 hours after surgery following satisfactory medical review on the levels.
90. Arrange Community midwife home visit on day 2 i.e. 24 hours following hospital discharge.

Resuming normal activities

91. Women/birthing people and birthing people who have had a CS can resume activities such as driving a vehicle (subject to their motor vehicle insurance rules), carrying heavy items, formal exercise and sexual intercourse once they have fully recovered from the CS. Healthcare professionals caring for women/birthing people who have had a CS should inform women/birthing people that after a CS they are not at increased risk of difficulties with breastfeeding, depression, post-traumatic stress symptoms, dyspareunia and faecal incontinence.

Future pregnancy considerations after CS

After having a CS, prior to discharge home the opportunity to discuss the reasons for the CS with an obstetrician should be provided. Both verbal and ideally written information about birth options for any future pregnancies should also be offered.

92. Such discussion should be clearly documented in the health records. If preferred, this dialogue may take place at a later date. Full guidance on pregnancy and childbirth after CS is provided in the Birth after Caesarean Guideline.

Review

93. This guideline will be reviewed every 3 years, as set out in the *Policy for the Development and Implementation of Procedural Documents.*

94. *N.B.Policies may need to be revised before this date, particularly if national guidance or local arrangements change, where implementation is unsuccessful or where audits necessitate a policy review.*

95. If the approving committee of the policy has delegated the authority to approve supporting documents to another group, this should be documented here. E.g. The Trust Management Executive has delegated authority to the Health & Safety Committee for the approval of any further supporting or associated documents.

Implementation Plan

No.	Recommendation for Implementation	Action to be taken	Evidence of Action	Responsible Person	Date Action to be completed by	R.A.G. Action completion status[2]
1	Raise awareness of updates to existing guideline	Include updates in the Maternity News Bulletin 'And Breathe'	Publication/circulation of Maternity News Bulletin	Quality Team	Within 1 month of guideline being uploaded	
2	Raise awareness of updates to existing guideline	Include in Monthly Guidelines Updates Table	Upload of Monthly Guidelines Updates Table to Maternity Intranet	Quality Team	Within 1 month of guideline live date	

References

National Institute for Health and Care Excellence (NICE) Caesarean Birth (NG192) Published in 2021
(updated 21/06/23) accessed 31/07/2023.

Appendix 1: Responsibilities

This appendix outlines roles and responsibilities with regard to **Electronic Fetal Heart Rate Monitoring (EFM)** during transfer to theatre and in theatre during regional anaesthetic block for operative delivery in cases of fetal distress; this applies to both category 1 and 2 CS and trial of forceps.

KEY PRINCIPLE: The fetal heart rate must be continuously monitored by the midwife and any significant changes notified to both the obstetrician and anaesthetist and category of CS reviewed. The clear presence of a fetal heart must be recorded prior to commencing an operative delivery.

Obstetrician

- It is the responsibility of the obstetrician to make the decision with regard to the need for CS.
- The obstetrician should define the category of CS or urgency of the need for delivery, set time limits and clearly inform the anaesthetist of these time limits.
- For Category 1 CS, the obstetrician should be present in theatre to allow for immediate situation and CTG review. If Category 2, the CTG should be reviewed by the obstetrician at least every 10 minutes during regional anaesthesia placement, to ensure that there has been no deterioration in the fetal condition and that the need for delivery has not become more urgent.
- The obstetrician should be satisfied that the fetal heart is present before proceeding with any operative delivery.

Midwife

- The midwife must ensure there is continuous EFM from the time of decision to skin prep for CS. Documentation of the fetal heart rate should be written in the woman/birthing person's health records.
- Although these cases have become 'medical cases'; responsibility is not devolved to medical staff and the midwife must inform the anaesthetist, midwifery co-ordinator and obstetric staff of any changes in the CTG.
- The midwife must inform the anaesthetist if there is difficulty monitoring the fetal heart. Although it is recognised that a short period of suboptimal CEFM may be difficult to avoid in order to allow good positioning and safe and effective regional blockade, continued difficulties necessitate that the attending midwife ask for assistance from the midwifery co-ordinator and summon the obstetrician immediately for medical review.

Anaesthetist

- The anaesthetist must be satisfied that they have received clear instruction with regard to the category of CS or a time limit for establishing satisfactory regional anaesthesia where there is suspected maternal or fetal compromise.
- Where difficulties are being encountered establishing an effective block the anaesthetist should inform the obstetric team and review together the urgency of delivery.
- Where the midwife is having trouble monitoring the fetal heart, the anaesthetist should consider repositioning patient.

- The decision to perform a general anaesthetic is the decision of the anaesthetist alone. It must be remembered that in some patients a general anaesthetic may be difficult or indeed relatively or completely contraindicated. General anaesthesia is often swift and predictable, but if a problem occurs that may not be so.

Appendix 2: Definitions

Term	Definition
CTG	Cardiotocograph
CS	Caesarean section
DDI	Decision-to-delivery interval
cEFM	continuous Electronic Fetal Monitoring
Elective CS	Planned
Emergency CS	Unplanned
ERAS	Enhanced Recovery after CS
MEOWS chart	Modified Early Obstetric Warning System chart
MRCS	A request for Caesarean birth in the absence of medical or obstetric indications
VTE	Venous Thromboembolism

Appendix 3 (New in v3.0): Pathway: fear of Childbirth and Maternal Request Caesarean Birth

3 Caesarean births are increasing internationally, representing a multifactorial phenomenon. Women and birthing people request caesarean birth for a wide range of reasons. NICE guidance recommends that a pathway exists for women/birthing people to have a fully informed discussion about the risks and benefits of vaginal birth and caesarean birth, and that if after discussion and the offer of appropriate support, a caesarean birth is chosen, this should be arranged.

4 At the routine 16-week midwifery appointment, the community midwife should discuss preferences for birth, including birth setting. In the absence of medical or obstetric complications, the usual recommendation is for vaginal birth. H*owever, if the woman/birthing person is considering a caesarean birth as an alternative, the initial conversation about the benefits and risks of vaginal and caesarean birth should be discussed and the OUH patient information leaflet on* Caesarean birth *should be provided.*

5 Women and birthing people who request a caesarean birth should be screened for fear of childbirth or previous trauma (including birth trauma) using the Fear of Birth Scale and be offered referral to the Maternal Mental Health Service (MMHS) if indicated – please see the OUH Perinatal Mental Health Guideline.

6 At 20 weeks, women and birthing people requesting planned caesarean birth without medical indication will be offered an appointment in the BCC. During the Birth Choices Clinic appointment, women/birthing people who request a caesarean birth with no medical indication will have an opportunity to explore, discuss and outline their specific reasons for the request. The overall benefits and risks of caesarean birth and vaginal birth will be discussed and alternative options (such as induction of labour or choice of place of birth) will also be explored. This will be with a consultant midwife or member of the Birth Choices team.

7 By 30 weeks, women and birthing people will be offered a follow-up appointment with an obstetrician to make a decision regarding mode of birth. This will include a discussion of plans for what happens if labour starts spontaneously prior to the planned caesarean birth date, including differing risks and benefits depending on stage in labour and unplanned vs planned Caesarean birth. Women/birthing people under midwifery-led care will be seen by referred to a consultant obstetrician. Women/birthing people under obstetric-led care will be seen by their named obstetric consultant.

8 By 34 weeks, women and birthing people who have chosen a planned caesarean birth, will have a CS requested and consent taken (and documented on the consent forms) by their named Obstetric Consultant.

9 Women and birthing people who request a planned caesarean birth after 34 weeks should be referred to the next available obstetric antenatal clinic to ensure timely counselling. There may be some circumstances when a birth choices appointment

would be beneficial at a late stage of pregnancy. If so, the consultant midwives can be contacted for advice.

10 In the interests of wider patient safety, if a woman or birthing person that has chosen to have an MRCS presents in spontaneous labour, the decision regarding clinical prioritisation for performing an emergency caesarean section (in the absence of evidence of maternal/fetal compromise) will need to be made by a Consultant Obstetrician. This eventuality should be discussed with any women or birthing people choosing to have a MRCS birth during the Birth Choices Clinic and Consultant Clinic appointments.

Appendix 4: Education and Training

There is no mandatory training associated with this guideline. Individual training needs will be identified through annual appraisal and supervision.

Appendix 5: Monitoring Compliance

Compliance Standard	Monitoring method	Frequency of monitoring	Review Group/Committee
Document the reason for performing a Grade 1 and who has made this decision	25 sets of health records of women/birthing people who have had a category 1 CS	6 Months after launch of updated guideline then every three years	MCGC

Appendix 6 - Enhanced Recovery After Caesarean Section (ERAS) Exclusion Criteria (New in v4.1)

Medical History including:

☐ Therapeutic anticoagulation
☐ Bleeding disorder/coagulopathy
☐ some cardiac disease (see birth plan)
☐ Seizure within last 24 hrs
☐ Renal disease requiring dialysis
☐ Severe Pre-eclampsia
☐ respiratory disease requiring O2

If any box in the list above is ticked, then the woman/birthing person is **NOT eligible for Enhanced Recovery*

Appendix 7: Preparation for Elective Caesarean Section - Standard Operating Procedure (SOP)

Pre-List

Identification of patients admitted to the levels and transfers to Observation Area (OA)

- The DS ward clerk will receive a copy of the TIMs list the night before and will note on this whether any of the patients are admitted and contact the levels to remind patients should be downstairs by 07.30.

Pre-operative blood tests

- Where patients admitted PET bloods should be sent at 6am. If platelets are low on an previous blood test a clotting study should also be sent
- Patients admitted with obstetric cholestasis should have a clotting study on the day of caesarean.
- In general, where patients are not admitted with either of these conditions PET bloods +/- clotting studies should not be required on the day of delivery.
- **All women and birthing people should have a G&S taken.**

On The Day - Timings

07:30 ALL patients (regardless of their place on the list) to report directly to Delivery Suite and be directed to their bed space where they will be attended by the designated MSW.

07:45 Senior Obstetrician and Consultant/SAS Anaesthetist present in ELCS bay reviewing mothers

08:15 WHO pre-list meeting in Maternity Theatre 3 Anaesthetic Room with all team members present

08:30 First case in theatre

- The first case ('Golden Patient') should be decided and identified by the senior Anaesthetist and Obstetrician at the end of the pre-op ward round.

On The Day - Staffing

Obstetric Staffing

The Consultant responsible for the list should be discussed at the start of the DS handover and marked on the board.
If they are not already in attendance then a consultant should be identified at the start of the handover and released from handover to attend the WHO meeting.

On The Day – Case Progression

Availability of Surgeon

- Senior surgeon should be immediately available (**directly outside theatre**) whilst a regional block is sited
- Surgical scrubbing should be at the anaesthetist's discretion and on a case-by-case basis – where appropriate this should be commenced as the catheter is being inserted.

Patient Transfers and Manual Handling

- The Operating Team should not leave theatre until the woman or birthing person has been transferred.

Prevention of Cold Babies

- The heater on the resuscitaire should be switched on in preparation for the birth.
- Midwives should scrub for all cases and their responsibility is to keep the baby warm and dry during delayed cord clamping and then place a plastic clamp closest to the baby at the time of cord clamping.

Balancing training vs. list efficiency

- An appropriate balance of training of both anaesthetic and obstetrics and gynaecology (O&G) juniors and list efficiency should be struck. This should be at the discretion of the most senior surgeon/anaesthetist present.
- It should be recognised that training is not appropriate where there are time constraints.

Appendix 8: Equality Impact Assessment

1. Information about the policy, service or function

What is being assessed?			
New Policy/Procedure	[ ]	New Service/Function	[ ]
Existing guideline	[x]	Existing Service/Function	[ ]
Staff member completing assessment: Marie Barnard			
Name of guideline: **Caesarean Birth Guideline**			
Details about this guideline: This document provides clinical guidance on the care of women and birthing people who are accessing care within the Oxford University Hospitals Foundation Trust (OUH). This information relates specifically to the recommended care provision for people having a caesarean birth.			
Review Date: 01/08/2023		**Date assessment completed:**	
Signature of staff member completing assessment: Marie Barnard		**Signature of staff member approving assessment:**	

2. Screening Stage

Who benefits from this policy, service or function? Who is the target audience? (*tick all that apply*)					
Patients	[x]	Family/Carers	[ ]	Not applicable	[ ]
Staff	[x]	Other (*specify*):			
Does the policy, service or function involve direct engagement with the target audience?					
Yes	[x]	Continue with full equality impact assessment			
No	[ ]	Full equality impact assessment not required			

3. Research Stage

Notes:

If there is no impact for a particular group or characteristic, mention this in the Reasoning column and refer to evidence where applicable.

[1]Race categories follow those used in the National Census by the Office for National Statistics. Consideration should be given to the specific communities within broad categories such as Bangladeshi people.

[2]Please select age groups which may be impacted by the policy, service or function and complete as appropriate.

[3]Religion or Belief covers a wide range of groupings, the most common of which are Muslims, Buddhists, Jews, Christians, Sikhs and Hindus; it also covers people who do not have a faith. Consider these individually and collectively when determining impacts.

Characteristic		Positive Impact	Negative Impact	Neutral Impact	Not Enough Information	Reasoning
Sex and Gender Reassignment	Men (incl. trans men)			x		All genders of pregnant people will have equal access to the care detailed in this guideline
	Women/birthing people (incl. trans women/birthing people)			x		
	Non-binary people			x		
Race[1]	Asian or Asian British			x		Consideration should be taken if the pregnant person is not able to read written English. Pictorial explanations may need to be used. If the pregnant person is not able to communicate using English then language line should be used for consultations.
	Black or Black British			x		
	Mixed Race			x		
	White British			x		
	White Other			x		
	Other:			x		

Disability	Disabled people			**x**		If the pregnant person has a learning disability an advocate should be in attendance. If the pregnant person has a hearing loss they should be asked if she wishes to have a British Sign Language interpreter in attendance
	Carers			**x**		
Age[2]				**x**		This guideline is relevant to pregnant people of all ages
				x		
				x		
Sexual Orientation				**x**		This guideline does not discriminate with regards to sexual orientation, as all people will have equal access to the care described in this guideline.
Religion or Belief[3]				**x**		This guideline does not discriminate with regards to belief or religion, as all people will have equal access to the care described in this guideline.
Pregnancy and Maternity		**x**				The advice in this guideline is for pregnant people so will have a positive impact on this group.
Marriage or Civil Partnership				**x**		This guideline does not discriminate with regards to marriage or civil partnership, as all people will have equal access to the care described in this guideline.

Other Groups /Characteristics	For example: homeless people, sex workers, rural isolation.			**x**		This guideline does not discriminate with regards to social situations, as all people will have equal access to the care described in this guideline.

List the sources of information used in the table below
OUH trust Equality impact assessment procedure guideline – available via trust intranet **Annual Equality and Diversity Report, Workforce Race Equality Standard Data or the Equality Delivery System 2 report**
Using the table below, list any protected groups you will target during the consultation process, and give a summary of those consultations.

Group	Summary of consultation

List any other individuals/groups that have been or will be consulted on this policy, service or function.
This guideline will be reviewed prior to publication by relevant Service Users, Midwives, Obstetricians, Consultant Obstetricians and Pharmacy if medications are involved.

4. Summary Stage

Outcome Measures List the key benefits that are intended to be achieved through implementation of this policy, service or function and state whether or not you are assured that these will be equitably and fairly achieved for all protected groups. If not, state actions that will be taken to ensure this.
The benefit of this guideline is that it will help clinical maternity staff provide care which is evidence based, personalised, needs based and safe. Consideration should be taken in those pregnant people who may not be able to read written English. Pictorial explanations may need to be used. If the pregnant person is not able to communicate using English, then language line should be used for consultations. If the pregnant person has any learning difficulties an advocate should be in attendance. If they have a hearing loss – a British Sign Language Interpreter should be offered which can be done via language line.
Positive Impact List any positive impacts that this policy, service or function may have on protected groups as well as any actions to be taken that would increase positive impact.
Unjustifiable Adverse Effects List any identified unjustifiable adverse effects on protected groups along with actions that will be taken to rectify or mitigate them.

There are no unjustifiable adverse effects predicted.
Justifiable Adverse Effects List any identified unjustifiable adverse effects on protected groups along with justifications and any actions that will be taken to mitigate them.
There are no justifiable adverse effects predicted.

Equality Impact Assessment Action Plan

Complete this action plan template with actions identified during the Research and Summary Stages

Identified Risk	Recommended Actions	Lead	Resource Implications	Review Date	Completion Date