

Clinical Guideline for: The Management of women requiring Caesarean Section (CS)

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8	28/05/2021	NICE references updated. Maternal request caesarean section added. Ruptured membranes section added. Guideline amended in line with NICE	Dr Birendra Goonetilleke

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		guidance NG 192.	
9	12/10/2021	Method of anaesthesia section - After regional anaesthesia, the fetal heartbeat should be auscultated for 1 minute with a handheld Doppler if a CTG is not already in place.	Dr Birendra Goonetilleke
10	03/12/2021	Methods of anaesthesia updated – use SBAR, final decision should be made between obstetrician and anaesthetist about need for Low Molecular Weight Heparin (LMWH). Addition of Appendix 3.	Dr Birendra Goonetilleke
11	21/06/2022	Changes to the use of steroids - no longer recommend steroids for planned Caesarean section between 37 and 39 weeks.	Dr Birendra Goonetilleke
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Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

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Consultation

The following were consulted during the development of this document:
Obstetrics Clinical Guidelines Committee.

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a clinical guideline applicable to Norfolk and Norwich University Hospitals; please refer to local Trust's procedural documents for further guidance.

Guidance Note:

This guideline has been approved by the Trust's Clinical Guidelines Assessment Panel as an aid to the diagnosis and management of relevant patients and clinical circumstances. Not every patient or situation fits neatly into a standard guideline scenario and the guideline must be interpreted and applied in practice in the light of prevailing clinical circumstances, the diagnostic and treatment options available and the professional judgement, knowledge and expertise of relevant clinicians. It is

advised that the rationale for any departure from relevant guidance should be documented in the patient's case notes.

The Trust's guidelines are made publicly available as part of the collective endeavour to continuously improve the quality of healthcare through sharing medical experience and knowledge. The Trust accepts no responsibility for any misunderstanding or misapplication of this document.

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1. Introduction

1.1. Rationale

At Norfolk and Norwich University Hospitals NHS Foundation Trust (the Trust) we adhere to the National Institute for Health and Care Excellence guidance on caesarean sections which was published in 2021. Follow [Caesarean section - NICE guideline](#) for further information.

A senior obstetrician should be involved in the decision-making process. A consultant obstetrician should be involved in the decision to perform a CS in all women with significant obstetric or medical complications of pregnancy unless doing so would be detrimental to the life of the woman or the fetus.

A woman has the right to decline interventions, and this includes Caesarean section. If a woman declines intervention, the reasons for this need to be explored fully and documented. If a Caesarean section is felt to be the safest option for mother or baby by the medical team, once declined a senior Obstetrician should be involved in this decision and the reasons for decisions need to be documented.

The guidance and management documented below mainly emphasises on the important steps to be considered in emergency and urgent caesarean sections.

1.2. Objective

To provide evidence based guidance on management of women requiring caesarean section.

1.3. Scope

This guideline has been developed to help ensure consistent quality care for women who:

- Have had a caesarean section (CS) in the past and are now pregnant again.
- Have a clinical indication for a CS such as having an abnormally invasive placenta.
- Are considering a CS when there is no other indication.

1.4. Glossary

CS	Caesarean section
NICU	Neonatal Intensive Care Unit
HCA	Health care assistant
CTG	Cardiotocography
SBAR	Situation, background, assessment, recommendation
FBC	Full blood count
WHO	World Health Organisation
LMWH	Low molecular weight heparin
VTE	Venous thromboembolism
RCOG	Royal College of Obstetricians and Gynaecologists
PCA	Patient-controlled analgesia

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PRN	Pro re nata – ‘when required’
TTO	To take out
NSAIDs	Non-steroidal anti-inflammatory drugs
VBAC	Vaginal birth after caesarean
CNST	Clinical Negligence Scheme for Trusts

2. Processes to be followed

2.1. Documenting the indication for CS

The reason(s) for performing CS should be clearly documented in the health records by the medical staff who make the decision. The time the decision is made and the classification of the CS should be documented at the same time.

2.2. Obtaining consent

Ensure informed consent and document this clearly in the notes. The procedure specific consent form should be used but in extreme emergencies verbal consent is acceptable and must be documented.

2.3. Discussion mode of delivery early in the pregnancy

Mode of delivery should be discussed early in pregnancy to allow time for consideration of birth options. At the 16 week midwife appointment (as per [Trust Guideline for Antenatal booking and subsequent appointments Trust ID 295](#)) the community midwife should cover information such as:

- around 25% to 30% of women have a caesarean birth
- factors that mean women may need a caesarean birth (for example, increased maternal age and body mass index [BMI])
- common indications for emergency caesarean birth include slow progression of labour or concern about fetal condition
- planned place of birth may affect the mode of birth
- what the caesarean birth procedure involves
- how a caesarean birth may impact on the postnatal period (for example, need for pain relief, recovery time, driving)
- implications for future pregnancies and birth after caesarean birth or vaginal birth (for example, after a caesarean birth the chances of caesarean birth in a future pregnancy may be increased).

2.4. Maternal request caesarean section

If a woman requests a caesarean birth without medical indication, the obstetrician should offer to discuss and explore the reasons for the request. They should ensure they have accurate and balanced information including the overall benefits and risks of caesarean compared with vaginal birth, record that this discussion has taken place and record the specific reasons for the request.

The NICE guideline on Caesarean Section gives a summary of the risks and benefits of vaginal and Caesarean births which can be used to guide this discussion ([Tools](#)

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[and resources | Caesarean birth | Guidance | NICE](#)) and the tables from this guidance is included as Appendix 3 of this guideline.

The obstetrician should offer to discuss alternative birth options (for example place of birth, continuity of midwifery carer where available and pain relief choices) which may help address concerns they have about the birth.

The Obstetrician should offer for the woman to meet with a Senior Midwife (Band 6 and above) from the Antenatal clinic team to discuss her birth choices further if she wishes, where possible at the same hospital attendance. Other relevant members of the team should be involved as necessary or if the patient requests, for example meeting with a Senior Obstetrician or Anaesthetist.

Such discussions and decisions should be recorded clearly in the patient record.

2.5. Classification of urgent and emergency CS

It is important to recognise that the urgency with which an emergency CS should be performed will vary according to the clinical circumstances. There is no evidence that 30 minutes is a critical threshold for preventing or minimising the consequences of intrapartum hypoxia. The need to ensure maternal safety should be balanced against concerns about the baby.

The classification of emergency CS recognises that the urgency of CS represents a continuum of risk. Three categories of risk are identified for women requiring emergency CS (Category 1-3). Staff should be aware that within each category, the degree of risk in individual cases can vary. This variance in degree of risk requires an individualised, case by case, approach in deciding the specific decision-to-delivery interval. Appropriate communication between midwifery, obstetric, anaesthetic, theatre and NICU staff is therefore essential.

Classification of emergency CS

URGENCY	DEFINITION	CATEGORY
Maternal or fetal compromise	Immediate threat to life of woman or fetus	1
	No immediate threat of life of woman or fetus	2
No maternal or fetal compromise	Requires early delivery	3
	At a time to suit the woman and Maternity Services	4

2.5.1. Category 1/2 emergency CS

Our target is to achieve a decision-delivery interval (DDI) of 30 minutes for all category 1 emergency CS. While for category 2 to this should be 75 minutes. Certain clinical situations will require a much quicker DDI than those stated.

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2.6. Delay in performing an emergency CS

Once a decision to perform an emergency CS has been made, any reason(s) for delay should be clearly documented in the health record

2.7. Method of anaesthesia

Regional anaesthesia is generally considered to be safer than general anaesthesia. The method of anaesthesia will depend on urgency of delivery but also other factors such as patient choice, sepsis, coagulopathy and co-morbidity, and should be informed by discussion between the anaesthetist and the obstetric team.

In the case of urgent (Category 1) delivery, the obstetric and anaesthetic teams should discuss the suitability of regional anaesthesia. Even in very urgent cases there may be overriding patient factors (e.g. predicted difficult airway) which would favour proceeding with regional anaesthesia.

A senior obstetric registrar or consultant must be involved in all cases where general anaesthesia is required for immediate delivery unless doing so would seriously compromise the life of mother or fetus.

After regional anaesthesia, the fetal heart beat should be auscultated for 1 minute with a handheld Doppler if a CTG is not already in place.

2.8. Procedural aspects of CS

- Beware of your limitations and if in doubt call for assistance.
- Obtain consent.
- Consider measures for intrauterine resuscitation of the fetus where appropriate.
- Ensure IV access and obtain a blood sample for FBC + group and save.
- Use the dedicated SBAR tool for handover from midwife to theatre team.
- Complete the pre-operative check list prior to transfer to theatre (unless cat 1).
- Complete WHO checklist (shortened version for cat 1).
- Site an indwelling bladder catheter before commencing procedure.
- **In women with ruptured membranes**, clean the vagina with aqueous iodine vaginal preparation before caesarean birth. If aqueous iodine vaginal preparation is not available or is contraindicated, **aqueous** chlorhexidine vaginal preparation can be used.
- Use alcohol-based chlorhexidine skin preparation before caesarean.
- All women should be offered a prophylactic dose of antibiotic prior to skin incision. **Where blood loss is >1.5L, consider an additional dose of prophylactic antibiotic after fluid replacement. Refer to guideline Major Obstetric Haemorrhage [Trustdocs Id: 852](#).**
- At the end of the case a final decision should be made between the obstetrician and anaesthetist about the need for LMWH. This should be prompted by the venous thromboembolism (VTE) prompt on the World Health

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Organisation (WHO) sign out. The responsibility for prescribing LMWH generally lies with the anaesthetist to ensure there are no errors with timings related to regional anaesthesia. In the event that the surgeon wants to delay administer, the responsibility for prescribing falls back to the surgical team.

- Obtain paired cord blood gases in all cases of presumed fetal compromise.
- A practitioner skilled in the resuscitation of the newborn should be present at CS with a general anaesthetic or with presumed fetal compromise.
- Ensure that adequate notes are made.
- An incident form should be completed for all cases performed under general anaesthesia, where fetal umbilical artery pH is ≤ 7.0 and when there is delay in undertaking the caesarean section.

2.9. Fully dilated caesarean sections

The decision between an instrumental delivery and a second stage C/S is complex. Both options carry risk, and the decision should be made by an experienced clinician, preferably with adequate notice of progress in labour, fetal condition and maternal wishes.

If a decision is made to proceed with caesarean section, the following good practice points are recommended:

- Perform vaginal examination, between contractions, assess if the fetal head can be gently moved out of the pelvis or is it deeply impacted and exclude the possibility of further head descent such that vaginal delivery would be more easily accomplished.
- The problem of disengaging the fetus from the pelvis can be confounded by ongoing uterine contractions. Oxytocin infusions should be stopped as soon as the decision to proceed with CS is made.
- An experienced obstetrician and paediatrician should be in attendance or readily available where a technically difficult delivery is anticipated.

2.10. Steroids and Planned Caesarean Sections between 37 and 39 weeks

Ideally planned Caesarean sections should be performed between 39 and 39+6 week of pregnancy. However, when there are maternal or fetal reason to perform a Caesarean section before this, the RCOG Guideline on steroids in pregnancy⁶ recommends “For women undergoing planned caesarean birth between 37+0 and 38+6 weeks an informed discussion should take place with the woman about the potential risks and benefits of a course of antenatal corticosteroids”. The infographic Appendix 4 has been approved for use with this discussion. Current evidence suggests steroids in this group “may reduce admission to the neonatal unit for respiratory morbidity, it is uncertain if there is any reduction in respiratory distress syndrome, transient tachypnoea of the newborn or neonatal unit admission overall, and antenatal corticosteroids may result in harm to the neonate which includes hypoglycaemia and potential developmental delay”⁶. Therefore, it is the Trust’s default practice to not routinely give steroids to this group unless the woman chooses to have them after discussion about risks and benefits.

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If a Caesarean section is indicated prior to 37+0 weeks, steroids would still be recommended if there was time for administration.

2.11. Care of the mother in the first 24 hours postnatally

- One-to-one observations should be provided in the recovery area until the woman has airway control, cardiorespiratory stability and can communicate. Women should only be discharged from the recovery area once their condition has satisfied the standard obstetric discharge criteria (see Appendix 1).
- On the ward, observations of respiratory rate, blood pressure, pain and sedation, wound, lochia and urine output should be made half-hourly for 2 hours, then hourly for 2 hours, then 2 hourly for 2 hours and then 4 hourly if stable or as required by the epidural or PCA care plan.
- Post operative analgesia: The anaesthetist should ensure that adequate postoperative analgesia is prescribed in a timely manner
 - Routinely this would be paracetamol and ibuprofen regularly with oramorph 10-20mg 4 hourly PRN
 - If non-steroidal anti-inflammatory drugs cannot be taken (e.g, allergy or severe pre-eclampsia), consider adding dihydrocodeine to paracetamol, or changing to paracetamol to co-dydramol
 - Dihydrocodeine 30mg four times per day for three days along with regular paracetamol or co-dydramol 10/500 four times a day
 - Anti-emetics and laxatives should be prescribed PRN with all opioids.
 - **Do not offer codeine or co-codamol to women who are currently breastfeeding**
 - Women should understand that there is a risk of neonatal effects (respiratory depression, sedation, constipation) with all opioid analgesia but that this is not commonly seen with the doses and drugs recommended by the trust.
 - If prescribed opiates while breastfeeding, inform the woman to stop and contact a healthcare professional if her baby becomes drowsy, has feeding problems or becomes constipated.
- The obstetric team should ensure that TTOs are completed in a timely manner. If NSAIDs remain contraindicated or if paracetamol and ibuprofen are not adequately controlling pain, up to 3 days of PRN dihydrocodeine should be considered as a TTO.
- Provide adequate support to help women to start skin-to-skin contact with their baby as soon as possible to support breast feeding.
- Women who are feeling well and have no complications can eat or drink when they feel hungry or thirsty.
- All post-operative women should have a fluid balance chart completed. Bladder care and timing of removing of urinary catheter should be in accordance with **Bladder Care and Fluid Balance, Antenatal, Intrapartum and Postnatal Guideline**. [Trust Docs 12617](#).

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- The wound dressing should be routinely removed 6-24 hours after C/S. If the surgeon wants it kept on longer, this needs to be documented on the E3 operation note.
- When a pressure dressing is applied, a plan for its removal should be documented in the Caesarean Section E3 record, with the recommendation to be 4 hours post operatively to avoid damage to underlying skin. (NICE, 2021)

2.12. Recovery After Caesarean Birth – specific symptoms

- **Vaginal bleeding** – when caring for women who have had a caesarean birth who have heavy and/or irregular vaginal bleeding, consider whether this is more likely to be due to endometritis than retained products of conception and plan investigations and management accordingly based on individual circumstances
- **Cough and Shortness of breath** – Pay particular attention to women who have respiratory symptoms such as cough or shortness of breath or leg symptoms such as a painful swollen calf as women who have had a caesarean birth may be at increased risk of thromboembolic disease (both deep vein thrombosis and pulmonary embolism)
- Further information can be found in **Cardiac and Respiratory symptoms in pregnancy** - [Trust Docs ID 18540](#)

2.13. Further investigations post discharge

If due to specific patient circumstances follow up investigations are required to be performed by the Community midwife these should be included in the Maternity discharge paperwork with clear instructions regarding the course of action should they be abnormal. If the General Practitioner (GP) if required to perform and follow up investigations postnatally then this should be communicated to them via letter with details of the plan and course of action should the results be abnormal.

2.14. Implications for future pregnancy

The reasons for the CS, implications for her health and for future pregnancies should be discussed with the woman prior to discharge and she should be offered the opportunity to ask any questions. Give VBAC information leaflet and contraceptive advice.

3. Auditing and Monitoring Compliance

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
Bladder care post operatively	Bladder Care Audit	Clinical Effectiveness midwife or nominated deputy	Maternity Clinical Risk and Governance Team	Annual

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Delay in Caesarean birth for Cat 1 and 2 CS	Datix Reporting	Maternity Clinical Risk and Governance Team	Maternity Clinical Risk and Governance Team	Case by Case
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The audit results are to be discussed at Maternity Clinical Governance meetings to review the results and recommendations for further action and will ensure that the actions and recommendations are suitable and sufficient.

4. References

1. National Institute for Clinical Excellence. (2021). Caesarean Section
2. CNST Maternity Clinical Risk Management Standards. March 2011
3. The National Sentinel Caesarean Section Audit Report. October 2001
4. Royal college of Obstetricians and Gynaecologists. Classification of urgency of caesarean section – a continuum of risk. Good Practice No. 11, April 2010
5. Royal college of Obstetricians and Gynaecologists. Thrombosis and embolism during pregnancy and the puerperium, reducing the risk (Green-top Guideline 37a), November 2009
6. Royal college of Obstetricians and Gynaecologists. Antenatal corticosteroids to reduce neonatal morbidity and mortality (Green-top Guideline No. 74), February 2022

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Appendix 1: Obstetric Recovery Discharge Criteria

All guidelines need to be met before discharge to ward

Assessment	Guideline	Triggers	Comments/Instructions
A – Airway	Maintains own airway	Airway support required	
B – Breathing	SaO ₂ ≥ 95% on air RR ≥ 9	If O ₂ required seek anaesthetic review	
C – Circulation	- HR 50-100 - Systolic 101 – 139 mmHg Diastolic < 90 mmHg Blood loss < 500mL since leaving theatre	- Systolic < 101 or ≥ 140 mmHg - Diastolic > 90 mmHg Blood loss > 500mL since leaving theatre Central/arterial line	
D – Conscious level	Awake / orientated Sedation score ≥ voice > 30 minutes post GA	Reduced conscious level	
E – Temperature	>36	Scoring on MEOW for temperature	
F – Fluid management	Fluid balance maintained Further regime prescribed Yes [] No [] Clear urine ≥ 30 mL/hr (0.5mLs/hr/kg)	Drain Infusion Blood stained urine Reduced urine output	
G – Wound	Minimal wound healing	Moderate bleeding Dressing blood stained	
H– Pain	Pain score ≤ 1 Acceptable to patient Analgesia prescribed as per guideline	Epidural in situ Patient controlled analgesia Needs anaesthetic review	
I – Nausea & vomiting	Nausea controlled Anti-emetic prescribed		
J – Limb circulation	Normal sensation & power in upper limbs	Epidural Increased capillary refill	
K – Pressure Areas	Skin intact		
L – Patient property	Returned to patient		
M – Documentation	All documentation complete		

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<u>Pain Score</u>	
0	None
1	Mild
2	Moderate
3	Severe

Before discharge:

1. All patients must remain in recovery for ≥ 20 minutes.
2. Record name of anaesthetist the patient was received from.
3. Recovery practitioner **must** complete the transfer from recovery section on the last page of the theatre care plan.
4. Transfer last set of observations on to the maternity observation chart and calculate MEOWS.
5. Ensure staffing levels on receiving ward are adequate.

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Appendix 2: Benefits and Risks of Vaginal and Caesarean Birth, NICE Guidance

Please see: [Tools and resources](#) | [Caesarean birth](#) | [Guidance](#) | [NICE](#)

Table 1 Outcomes for women that may be more likely with caesarean birth

Outcomes	Estimated risk with vaginal birth	Calculated risk with caesarean birth	Risk difference	Category of evidence
Peripartum hysterectomy	About 80 women per 100,000 would be expected to have a peripartum hysterectomy (so 99,920 would not)	About 150 women per 100,000 would be expected to have a peripartum hysterectomy (so 99,850 would not)	About 70 more women per 100,000 who had a caesarean birth would be expected to have a peripartum hysterectomy; so for about 99,930 women per 100,000 the outcome was the same irrespective of the method of birth.	A - Planned mode of birth
Maternal death	About 4 women per 100,000 would be expected to die (so 99,996 would not)	About 24 women per 100,000 would be expected to die (so 99,976 would not)	About 20 more women per 100,000 who had a caesarean birth would be expected to die; so for about 99,980 women per 100,000 the outcome was the same irrespective of the method of birth.	A - Planned mode of birth
Length of hospital stay	About 2 and a half days on average	About 4 days on average	About 1 to 2 days longer on average with caesarean birth. [2011]	A - Planned mode of birth
Placenta accreta in future pregnancy	About 40 women per 100,000 would be expected to have a placenta accreta in a future pregnancy (so 99,960 would not)	About 100 women per 100,000 would be expected to have a placenta accrete in a future pregnancy (so 99,900 would not)	About 60 more women per 100,000 who had a caesarean birth would be expected to have a placenta accreta in a future pregnancy; so for about 99,940 women per 100,000 the outcome was the same irrespective of the method of birth.	C - Actual mode of birth (including planned and unplanned caesarean)
Uterine rupture in future pregnancy or birth	About 40 women per 100,000 would be expected to have a uterine rupture in a future pregnancy (so 99,960 would not)	About 1,020 women per 100,000 would be expected to have a uterine rupture in a future pregnancy (so 98,980 would not)	About 980 more women per 100,000 who had a caesarean birth would be expected to have a uterine rupture in a future pregnancy; so for about 99,020 women per 100,000 the outcome was the same irrespective of the method of birth.	C - Actual mode of birth (including planned and unplanned caesarean)

Table 2 Outcomes for babies that may be more likely with caesarean birth

Outcomes	Estimated risk with vaginal birth	Calculated risk with caesarean birth	Risk difference	Category of evidence
Neonatal mortality	About 30 babies per 100,000 would be expected to die (so 99,970 would not)	About 50 babies per 100,000 would be expected to die (so 99,950 would not)	About 20 more babies per 100,000 whose mothers had a caesarean birth would be expected to die; so for about 99,980 babies per 100,000 the outcome was the same irrespective of the method of birth.	A - Planned mode of birth
Asthma	About 1,500 per 100,000 children would be expected to have asthma (so 98,500 would not)	About 1,810 per 100,000 children would be expected to have asthma (so 98,190 would not)	About 310 more children per 100,000 whose mothers had a caesarean birth would be expected to have asthma; so for about 99,690 babies or children per 100,000 the outcome was the same irrespective of the method of birth.	B - Actual mode of birth (excluding unplanned caesarean)
Childhood obesity	About 4,050 per 100,000 children would be expected to be obese (so 95,950 would not)	About 4,560 per 100,000 children would be expected to be obese (so 95,440 would not)	About 510 more children per 100,000 whose mothers had a caesarean birth would be expected to be obese; so for about 99,490 children per 100,000 the outcome was the same irrespective of the method of birth.	B - Actual mode of birth (excluding unplanned caesarean)

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Table 3 Outcomes for women that may be less likely with caesarean birth

Outcomes	Estimated risk with vaginal birth	Calculated risk with caesarean birth	Risk difference	Category of evidence
Urinary incontinence occurring more than 1 year after birth	About 48,700 per 100,000 women would be expected to have urinary incontinence (so 51,300 would not)	About 27,520 per 100,000 women would be expected to have urinary incontinence (so 72,480 would not)	About 21,180 fewer women per 100,000 who had a caesarean birth would be expected to have urinary incontinence, so for about 78,820 women per 100,000 the outcome was the same irrespective of the method of birth.	B - Actual mode of birth (excluding unplanned caesarean)
Faecal incontinence occurring more than 1 year after birth; compared to assisted vaginal birth	About 15,100 per 100,000 women would be expected to have faecal incontinence after assisted vaginal birth	About 7,410 per 100,000 women would be expected to have faecal incontinence (so 92,590 would not)	About 7,690 fewer women per 100,000 who had a caesarean birth would be expected to have faecal incontinence; so for about 92,310 women per 100,000 the outcome was the same irrespective of the method of birth.	B - Actual mode of birth (excluding unplanned caesarean)
Vaginal tear	About 560 per 100,000 women would be expected to have a vaginal tear (so 99,440 would not)	About 0 per 100,000 women would be expected to have a vaginal tear (so 100,000 would not)	About 560 fewer women per 100,000 who had a caesarean birth would be expected to have vaginal tear; so for about 99,440 women per 100,000 the outcome was the same irrespective of the method of birth. [2011]	A - Planned mode of birth
Perineal/abdominal pain during birth and 3 days after birth	Median pain scores of 7.3 (during birth) and 5.2 (3 days after birth) (1 is no pain, 10 is most severe pain)	Median pain scores of 1.0 (during birth) and 4.5 (3 days after birth)	Reduction in pain score with caesarean birth compared to vaginal birth of 6.3 (during birth) and 0.7 (3 days after birth) (1 is no pain, 10 is most severe pain) [2011]	A - Planned mode of birth

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Appendix 3: Use of antenatal corticosteroids at term, before planned caesarean birth infographic

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USE OF ANTENATAL CORTICOSTEROIDS AT TERM, BEFORE PLANNED CAESAREAN BIRTH

Infographic supported by the Royal College of Obstetricians and Gynaecologists

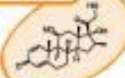
WHO?

Steroids are sometimes offered to pregnant women due to have a planned Caesarean birth between 37 to 39 weeks' pregnant.



WHAT?

Steroids are naturally occurring chemical messengers (hormones) which are essential for life. We offer a man-made version of steroids to some pregnant women before birth to benefit the baby.



We know that steroids help premature babies (born before 37 weeks) with their breathing.

WHEN?

Steroids are given within the week leading up to the birth.



HOW?

Steroids pass into the mother's blood, then cross the placenta, to reach the baby.



WHY?

Babies born by planned Caesarean are more likely to have difficulties clearing the fluid in their lungs at birth, and are more likely to need to be admitted to the Neonatal Unit. This is an area which specialises in the care of unwell or premature newborn babies.

These risks are higher for babies born before 39 weeks.

Steroids probably reduce the chance that a baby born by Caesarean will need admission to the Neonatal Unit for breathing problems.



SIDE EFFECTS FOR MOTHER

- Nausea
- Pain at injection site
- Flushing
- Rise in blood sugar if diabetes

UNCERTAINTIES

Steroids are thought to be generally safe and have been used in Maternity settings for over thirty years, especially before premature birth. There is good evidence to show that steroids have benefits for babies born before 35 weeks.

However, there is less evidence on the benefits of steroids for babies born by Caesarean section after 37 weeks.



For babies born near their due date, by Caesarean section, it is still not clear if steroids can help to reduce breathing problems, or if steroids reduce the overall possibility a baby is admitted to a Neonatal Unit.



There is also some evidence that steroids given later in pregnancy might cause low blood sugars in baby after birth.

There is less information available on longer-term effects of steroids in babies, particularly those born near their due date.

Steroids given later in pregnancy might also affect a baby's brain development, leading to delay in reaching milestones or affecting educational achievement, however, the evidence for this is limited.



For more information scan here



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GOPT

This infographic is based on RCOG Green-top Guideline No. 74: Stock SJ, Thomson AJ, Papworth S; The Royal College of Obstetricians, Gynaecologists. Antenatal corticosteroids to reduce neonatal morbidity and mortality. BJOG 2022; <https://doi.org/10.1111/1471-0528.17027>

Clinical Guideline for: The Management of women requiring Caesarean Section (CS)

5. Equality Impact Assessment (EIA)

Type of function or policy	Existing
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Division	Women and Childrens	Department	Maternity/Obstetrics
Name of person completing form	V Maxey	Date	1/6//24

Equality Area	Potential Negative Impact	Impact Positive Impact	Which groups are affected	Full Impact Assessment Required YES/NO
Race	Nil	Nil	n/a	No
Pregnancy & Maternity	Nil	Standardises care for all pregnant people	n/a	No
Disability	Nil	Nil	n/a	No
Religion and beliefs	Nil	Nil	n/a	No
Sex	Nil	Nil	n/a	No
Gender reassignment	Nil	Nil	n/a	No
Sexual Orientation	Nil	Nil	n/a	No
Age	Nil	Nil	n/a	No
Marriage & Civil Partnership	Nil	Nil	n/a	No
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?		No impact		

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.