Worcestershire Acute Hospitals NHS Trust

Emergency Caesarean Section

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

This evidence based guideline has been developed to help ensure consistency of quality of care experienced by women having emergency caesarean section (CS). It provides evidence based information on various aspects of emergency and urgent caesarean from the time of decision making till discharge from the hospital.
This guideline does not cover the indications for emergency caesarean section. Please check individual guidelines for different maternal and fetal conditions.

This guideline is for use by the following staff groups:

All Maternity Staff

Lead Clinician(s)

Dr Laura Veal	Consultant Obstetrician – Clinical Director
Dr Reham Marie	Obstetrician
Dr Jaime Greenwood	Consultant Anaesthetist
Approved by *Maternity Governance Meeting* on:	18th October 2024
Review Date: This is the most current document and should be used until a revised version is in place	18th October 2027

Key amendments to this guideline

Date	Amendment	Approved by:
Nov 2023	Guideline review and addition of Cat 3 flowcharts	MGM
4th June 2024	Document extended for another 12 months whilst under review	MGM
October 2024	Addition of enhanced recovery flowcharts	MGM

Decision making:

On-call registrar or the consultant should make the decision for delivery by emergency caesarean section (CS) after complete assessment of the clinical condition of the woman and the fetus.

Consultant obstetricians should be involved in the decision making for all emergency CS. Preferably the on-call registrar should call the consultant and discuss the case prior to CS. If due to the urgency of the clinical condition registrar cannot inform the consultant then the shift coordinator / midwife familiar with the case should inform the consultant.

Classification / grading of urgency

The urgency of CS should be documented using the following standardised scheme in order to aid clear communication between healthcare professionals about the urgency of a CS:

> **Category 1.** Immediate threat to the life of the woman or fetus. Perform the caesarean birth as soon as possible, and in most situations within 30 minutes of making the decision.
>
> **Category 2**. Maternal or fetal compromise which is not immediately life-threatening. Perform the caesarean birth as soon as possible, and in most situations within 75 minutes of making the decision.
>
> **Category 3.** No maternal or fetal compromise but needs early delivery
>
> **Category 4.** Delivery timed to suit woman or staff.

It is important to clearly convey the degree of urgency and the indication to theatre staff and the on call anaesthetist. The classification and indication should be clearly documented in the records including time of decision by the person making the decision.

For category 2 and 3 it is important to define a time frame in which delivery should be achieved. This should frequently be reviewed as the clinical situation dictates.

Delay in caesarean section:

Once the decision to deliver by caesarean section is made any delay should be avoided. The reasons for delay should be clearly documented. Fetal heart monitoring by CTG should continue and consultant on call should be informed. The woman should be kept informed.

Who should perform emergency caesarean section?

CS should be performed by the obstetric staff trained in performing CS deliveries. If a trainee who is not fully trained in performing CS is performing part or all of the CS, the more experienced on-call obstetrician should assist in the CS delivery. Names of the surgeon and assistant should be clearly documented in the operation notes.

The consultant on call should be present for the following Caesarean Sections:

- BMI >50
- Caesarean birth for major placenta praevia/abnormally invasive placenta

- Caesarean birth <28/40

Consent for Caesarean Section:

A written consent for CS should be requested after providing pregnant women with evidence based information and in a manner that respects the woman's dignity, privacy, views and culture whilst taking into consideration the clinical situation.
Consent should preferably be taken by the person performing the CS.
In some cases of category 1 section it may be more appropriate to obtain verbal consent and this should be clearly recorded in the case notes with clear documentation of the staff witnesses e.g. in cases of cord prolapse or massive abruption.
When the decision is made to perform a CS, a record should be made of all the factors that influence the decision, and which of these is the most influential.
Its aim is to ensure that all patients undergoing this particular procedure are given consistent and adequate information for valid consent. It is recognised that specific issues will assume different levels of significance from one patient to another, sometimes dependent on the particular clinical circumstances. However, clinicians should be prepared to discuss any or all of the following with the patient and to document in the record that the discussion has taken place.

Refusal of caesarean section: A competent pregnant woman is entitled to refuse the offer of treatment, such as CS, even when the treatment would clearly benefit her or her baby's health. Refusal of treatment needs to be one of the patient's options. In any such situation the on-call consultant should be informed and should personally review the woman. All the discussion should be clearly documented in the woman's notes. In certain circumstances it may be beneficial to involve the psychiatry and/or trust legal team.

Consent should include:

- Explanation of the proposed procedure including the use of urinary catheter, any drains and IV access.

- If any other planned surgery is anticipated this must be discussed and consent must be obtained specifically for that procedure; for example, tubal sterilisation.

- Any extra procedures that may become necessary during the procedure:

  - blood transfusion
  - other procedures
  - repair of bladder and bowel damage
  - surgery on major blood vessels
  - ovarian cystectomy/oophorectomy in response to unsuspected pathology
  - hysterectomy

- Intended benefits: To secure the safest and/or quickest route of delivery in the circumstances present at the time the decision is made, such that maternal and fetal health are preserved at optimal levels.

Serious or frequently occurring risks:
It is recommended that clinicians make every effort to separate serious from frequently occurring risks. Women who are obese, who have had previous surgery or pre-existing medical conditions must understand that the quoted risks for both serious and frequent complications will be increased. All surgery carries risks of wound infection and thromboembolism.

Serious risks include:

Risk	Frequency of Occurrence (%)
Maternal	
Need for further surgery at a later date, including curettage	0.5
Hysterectomy	0.7-0.8
Admission to Intensive Care Unit (highly dependent on reason for caesarean birth)	0.9
Bladder injury	0.1
Ureteric injury	0.03
Death (rare/dependent on indication)	1/12 000
Fetal Injury	
Lacerations	2.0
Future Pregnancies	
Increased risk of uterine rupture during subsequent pregnancies/deliveries	Up to 0.4
Antepartum stillbirth	0.4
Increased risk of placenta praevia and placenta accreta	0.4-0.8

Frequent risks include:
- persistent wound and abdominal discomfort in the first few months after surgery
- Increased risk of repeat caesarean section for subsequent pregnancies.

It is likely that all serious and frequent risks and complications will be more prevalent when a caesarean section is performed in the emergency situation, despite antibiotic cover and thromboprophylaxis, which are now used routinely to minimise the not infrequent and sometimes serious risks of infection and thromboembolism.

Preoperative blood tests:
Full blood count and group and save serum should be performed. If there is risk of PPH or pre-existing anaemia, blood should be cross matched (see the guideline on PPH WAHT-OBS-030 for risk factors and cross match).
In category 2-4 additional blood tests may be required depending upon clinical condition e.g. latest PET screen in PET, Clotting profile in suspected abruption and thrombocytopenia.

Anaesthesia
The woman must be aware of the form of anaesthesia planned and be given an opportunity to discuss this in detail with the anaesthetist before surgery.

Pre–op medication:

Delivery interval <2hrs:

If no Omeprazole has been given in the last 12 hours – IV Omeprazole 40mg (in 100mls 0.9% saline) administered over 20mins
+ sodium citrate 0.3 molar 30ml orally immediately prior to induction (If GA planned)

Delivery Interval >2hrs to delivery:

Omeprazole 20mg oral
+ sodium citrate 0.3 molar 30ml orally immediately prior to induction (If GA planned)

Prophylactic antibiotics:

To be offered prior to skin incision

Non penicillin allergic	Cefuroxime 1.5g IV Metronidazole 500mg IV
Penicllin allergic or hypersensitivity to Cephalosporins	Clindamycin 600mg IV over 20 mins Gentamicin 120mg IV over 5 mins

Aqueous iodine vaginal preparation should be used prior to birth if time allows to reduce the risk of endometritis. If this is not possible perform it at the end of the procedure – see separate SOP on vaginal cleansing at time of caesarean section.

Thromboprophylaxis:

Women having an emergency CS should have their VTE score calculated and Clexane offered appropriately. They are at increased risk of venous thromboembolism and should be offered graduated stockings, hydration, early mobilisation, low molecular weight heparin. Duration of thromboprophylaxis is decided on individual basis. TTTOs should be completed by the surgical team before patient transfer to postnatal ward.

Sequential pneumatic compression stockings should be used during CS for women with high BMI >40.

Presence of paediatrician at CS

Paediatrician should be present in theatre for all Category 1 and Category 2 caesarean section. Presence of a Paediatrician for a Category 3 Caesarean section should be made on a case by case basis by the Consultant Obstetrician.

If there is unexpected neonatal emergency which require more experienced staff then senior help should be summoned accordingly (using fast bleep 2222 neonatal emergency in theatre call).

Thermal care of babies should be in accordance with good practice for thermal care of newborn babies.

Fetal Monitoring

Category 1 – continuous CTG should be in progress until team ready to prep skin.

Category 2 - continuous CTG should be in progress until team ready to prep skin.

Category 3 – continuous CTG depending on CS indication – **for obstetric opinion**.

Delivery of Deeply Impacted fetal Head at Caesarean Section (CS)

Risk factors for difficulty in delivering fetal head at caesarean section:

- Staff Inexperience (Surgeon and assistant)
- Suspected Obstructed labour in first stage
- CS in Second stage
- Unsuccessful trial of instrumental delivery
- Malposition /malpresentation
- High Uterine incision during CS
- High uterine muscle tone (common in CS following active labour with or without Syntocinon)
- Poor access due to previous scarring
- Morbidly Obese women
- Big baby

Techniques to assist in delivery of deeply Impacted fetal Head at Caesarean section:

It is important that delivery process is smooth and controlled and not unnecessarily rushed. It is crucial that every staff member who performs independent second stage caesarean sections is competent in various techniques of delivering impacted fetal head. If any of the trainees or trust doctors / staff grades are not competent they should inform the on-call consultant and request consultant presence at every second stage CS till competency is achieved.

All staff are reminded that fetal pH drop every minute during delivery be it caesarean or vaginal delivery. Therefore, it is important that if one of the techniques to deliver the fetal head at caesarean is not working you swiftly move on to the next technique (similar to shoulder dystocia rule). Usually no more than 60 seconds rule on one technique apply at CS unless there is definite improvement with that technique.

If it is anticipated that there may be difficulty disengaging the fetal head the fetal pillow should be used and all team members, including the anaesthetist informed prior to commencing the surgery.

The following techniques may prove useful in delivering deeply impacted fetal head during CS:

1. Dislodging Impacted fetal Head vaginally:
It is important that the surgeon performs a VE before every late first and second stage CS. If fetal head feels impacted surgeon should try and dislodge it prior to proceeding with the CS. This is the time to summon help (senior midwife or a consultant). It is the surgeon's responsibility to request experienced help to be present in theatre during such a CS as an inexperienced person pushing the head vaginally can deflex it and make the delivery much more difficult. For dislodging head per vagina constant but firm pressure should be used with palm of the hand in a direction to flex and disimpact the head, so it is important that the surgeon inform the vaginal assistant in which direction to push to avoid deflexion. Fingers/ fists or jerky movements should not be used. There are reported incidents of fetal skull fractures during this technique.
Some right handed surgeons use their **left hand** in this situation as it may provide better leverage and traction during delivery of fetal head.

2. Maternal Head Down Tilt

3. Acute Uterine Relaxation: If CS is done under regional anaesthetic and woman has been in established labour you may need to request the anaesthetist for acute uterine relaxation by using terbutaline 250 microgram subcutaneously or GTN 1 x 400microgram puff sublingually. This should be communicated to the anaesthetist prior to CS if suspected. Beware of uterine atony later with associated PPH.

4. ***Extending uterine incision*** into J or inverted T.

5. ***Delivery by Breech:*** Introduce right hand towards the upper segment of the uterus, find and grasp both feet if possible otherwise grasp one foot and deliver that leg by applying gentle traction until the second leg appears in the incision and then complete breech delivery.

6. ***Lloyd Davis / Lithotomy position*** of patient during CS help improve access from above and assistant from below. This technique can be really helpful, but scrub nurse has to be alerted.

7. ***Use of silastic catheter*** over the fetal head into the lower uterine segment may release the suction and help in delivery of the fetal head.

Paired cord gases should be taken for any caesarean birth performed for suspected fetal compromise, to allow for assessment of fetal wellbeing and guide ongoing care of the baby.

Care of the woman after CS

(See Obstetric Theatre Recovery and High Dependency Care and the Management of Severely Ill Obstetric Patient)
After CS women should be observed on a one-to-one basis by a properly trained member of staff until they have regained airway control and cardio-respiratory stability and are able to communicate.
After recovery from anaesthesia, observations (respiratory rate, heart rate, blood pressure, pain and sedation) should be continued as per protocol in Appendix 1. If these observations are not stable, more frequent observations and medical review are recommended and this should be documented clearly on the reverse of the Anaesthetic chart.

It is the responsibility of the midwife caring for the woman to check for uterine contractility and lochia and to clearly document clinical findings in the notes. This information should be part of handover when the woman is transferred to the ward.

Pain management after CS

Women should be offered diamorphine (300 micrograms intrathecally) for intra and postoperative analgesia because it reduces the need for supplemental analgesia after a CS. Epidural diamorphine (3.0 milligrams) is a suitable alternative.

If diamorphine is unavailable, 100micrograms intrathecal preservative-free morphine used in conjunction with 15micrograms intrathecal fentanyl is an alternative. Note that intrathecal morphine may be associated with increased risk of respiratory depression, for a longer duration, therefore additional monitoring may be needed. There is also increased risk of nausea and itching requiring treatment.

A dose of intravenous dexamethasone 6.6milligrams should be considered for all CS patients (regardless of anaesthetic choice), administered after cord clamping. A dose reduction to 3.3milligrams is recommended for diabetic patients. This has been shown to improve pain control. A 4milligram dose of Ondansetron IV after delivery of baby may help treat any opioid induced nausea or itching.

Any patients not receiving intrathecal/epidural opioid, should be offered wound infiltration with 0.25% or 0.5% bupivacaine/levobupivacaine, or TAP blocks.
Patient-controlled analgesia using opioid analgesics. may be considered after CS under GA.

Regular oral paracetamol should be prescribed for all patients undergoing CS. A dose should be offered in recovery providing the patient has not received any paracetamol within the last 4hrs.

Rectal diclofenac (given at the end of the procedure) should be offered to all patients undergoing CS, unless NSAIDs are contraindicated. Consent should be obtained prior, if CS is under GA. Regular oral ibuprofen should be prescribed for ongoing analgesia, ensuring that an adequate period has passed after initial rectal diclofenac dose (12hrs), and ensuring that no more than 2 doses of ibuprofen are prescribed in first 24hrs after rectal diclofenac.

Regular oral dihydrocodeine should be offered to all patients with contraindication to NSAIDs, and patients should be informed that it is safe to breastfeed whilst taking this.

Oral morphine sulphate should be prescribed ‘as required’ on the drug chart for all CS patients, and patients should be informed that it is safe to breastfeed whilst taking this.

Codeine/Co-codamol should NOT be prescribed to any patient who is going to breastfeed.

Post-operative anti-emetics/antihistamine

Women should be prescribed ‘as required’ ondansetron, cyclizine and prochlorperazine, providing there are no contraindications.

Consider prescribing ‘as required’ oral loratadine 10mg (once per day) for all patients who receive neuraxial opioid. A small section of patients experience severe itching, which is typically during the first night and can have a significant impact on their experience.

Assessing motor function after regional anaesthetic
For any patient receiving an epidural or spinal, a yellow bracelet must be applied to wrist at time of insertion. This can then be removed when the patient has demonstrated a straight leg raise (SLR) in bed NO LATER THAN 4 hrs after insertion. If the patient is not able to do this, the team should contact the on-call anaesthetist and low molecular weight heparin should be withheld until the patient is assessed. See separate guidelines: Anaesthetic Management of Postpartum Neurological complications management and Regional Anaesthesia Alert Bracelet.

Early eating and drinking after CS
Provided no complications women who have had a CS under regional anaesthesia can eat and drink as soon as they feel hungry or thirsty.

Urinary catheter removal after CS – see guideline on bladder management ()
Indwelling catheters should be removed as soon as the patient is mobile, but no sooner than 12 hours after the last regional anaesthetic dose. For catheters due to be removed at midnight a reasonable amount of flexibility can be used to suit individual preferences, but it should be between 2300 and 0200 hours. In certain conditions urinary catheter may need to stay in for a longer period and this should be clearly specified in post-operative instructions in yellow labour notes.

Criteria for discharge

All uncomplicated LSCS with an EBL less than 1litre are eligible for midwifery led discharge.

Any complications that arise or additional complexities should be considered by the operating surgeon and a plan for follow up and discharge should be made and clearly documented in the notes and handed over to the postnatal ward.

Full blood count after CS
Surgical team is responsible for deciding regarding the need for postoperative FBC for CS patient and this should be documented on Badgernet CS notes and handed over to the postnatal team (see appendix 5)

We will need to add an appendix with the enhanced recovery charts

De-briefing for women after CS
Women who have had a category 1 CS should be offered the opportunity to discuss with their health care providers the reasons for the CS and implications for the child or future pregnancies.

Length of hospital stay and readmission to hospital
Women who are recovering well, are apyrexial, do not have pre-existing risks or medical conditions and complications following CS should be offered early discharge (after 24 hours) from hospital and follow up at home, because this is not associated with more infant or maternal readmissions.

Pregnancy and childbirth following CS
The decision about mode of birth should consider maternal preferences and priorities, general discussion of the overall risks and benefits of CS (specific risks and benefits uncertain), risk of uterine rupture and perinatal mortality and morbidity.

Women who want VBAC should be supported and:
• Be informed that uterine rupture is very rare but is increased with VBAC (about 1 per 10,000 repeat CS and 50 per 10,000 VBAC)
• Be informed that intrapartum infant death is rare (about 10 per 10,000 – the same as the risk for women in their first pregnancy), but increased compared with planned repeat CS (about 1 per 10,000)
• Be offered continuous electronic fetal monitoring during labour
• Should labour in a unit where there is immediate access to CS and on-site blood transfusion
• If having induction of labour should be aware of the increased risk of uterine rupture (80 per 10,000 if non-prostaglandins are used, 240 per 10,000 if prostaglandins are used)
• Be informed that women with both previous CS and a previous vaginal birth are more likely to give birth vaginally

CS is the end point of several care pathways. This algorithm includes the common reasons for CS, but this list is not exhaustive. CS may be required for complex or rare conditions that are outside the scope of this guideline.

Making the decision for CS
✓ Communication and information should be provided in a form that is accessible
✓ Consent for CS should be requested after providing pregnant women with evidence-based information
✓ A competent pregnant woman is entitled to refuse the offer of treatment such as CS, even when the treatment would clearly benefit her or her baby's health

Emergency CS: In cases of suspected or confirmed acute fetal compromise, delivery should be accomplished as soon as possible.

Document the urgency of CS
1) Immediate threat to the life of the woman or fetus
2) Maternal or fetal compromise which is not immediately life-threatening
3) No maternal or fetal compromise but needs early delivery
4) Delivery timed to suit woman or staff

Procedural aspects of CS
Preoperative assessment
✓ Check haemoglobin
✓ Prescribe antibiotics (as detailed in main guideline)
✓ Assess risk for thromboembolic disease (offer graduated stockings, hydration, early mobilisation and low molecular weight heparin) – see Thromboprophylaxis guideline.
✓ Site an indwelling bladder catheter
✓ Discuss post-CS analgesia options
✓ Offer antacids (PPI)
✓ Offer anti-emetics

Anaesthetic care
✓ Offer regional anaesthesia
✓ Reduce risk of hypotension using:
–phenylephrine infusion (+/- ephedrine bolus doses)
– volume co-loading with Hartmanns solution
– lateral tilt of 15°

✓ General anaesthesia for emergency CS should include preoxygenation and rapid sequence induction to reduce the risk of aspiration
Maternity units should have a drill for failed intubation.

For healthy women with an uncomplicated pregnancy, don't offer:

✗ Grouping and saving of serum
✗ Cross-matching of blood
✗ Clotting screen
✗ Preoperative ultrasound to localise the placenta

Surgical techniques

(For pregnancies at term where there is a lower uterine segment. These techniques may need modification in situations such as repeat CS or placenta praevia.

Do

✔ Wear double gloves for CS for women who are HIV-positive
✔ Use a transverse lower abdominal incision (Joel Cohen incision)
✔ Use blunt extension of the uterine incision
✔ Give oxytocin (5 IU) by slow intravenous injection
✔ Use controlled cord traction for removal of the placenta
✔ Close the uterine incision with two suture layers
✔ Check umbilical artery pH if CS performed for fetal compromise
✔ Consider women's preferences for birth (such as music playing in theatre)
✔ Facilitate early skin-to-skin contact for mother and baby

Don't

✗ Close subcutaneous space (unless > 2 cm fat)
✗ Use superficial wound drains
✗ Use separate surgical knives for skin and deeper tissues
✗ Use forceps routinely to deliver baby's head
✗ Suture either the visceral or the parietal peritoneum
✗ Exteriorise the uterus
✗ Manually remove the placenta

The effects of different suture materials or methods of skin closure are uncertain.

A practitioner skilled in the resuscitation of the newborn should be present at CS with a general anaesthetic or with presumed fetal compromise

Postoperative monitoring

✓ See document Obstetric Theatre recovery and Appendix 1 below for specific care requirements post Caesarean section.

Care of the woman and her baby after CS

✓ Provide additional support to help women to start breastfeeding as soon as possible **(consider thermoregulation of the newborn – is the woman warm enough to facilitate skin to skin contact? Ensure there is adequate cover for the baby (at least 2x towels) whilst in skin to skin contact with mother)**
✓ Offer diamorphine (300mcg intrathecally) or epidural diamorphine (3mg) to reduce the need for supplemental analgesia
✓ Offer regular oral paracetamol (with a dose in recovery if no paracetamol in last 4 hrs)
✓ Offer regular non-steroidal anti-inflammatories to reduce the need for opioid analgesics

✓ Offer regular oral dihydrocodeine if NSAIDs contraindicated

✓ Offer PRN antiemetics and antihistamines

✓ Women who are feeling well and have no complications can eat or drink when they feel hungry or thirsty

✓After regional anaesthesia remove catheter when woman is mobile – check when safe to remove catheter in relation to anti-coagulant dosing.

✓ Remove wound dressing after 24 hours, keep wound clean and dry

✓ Discuss the reasons for the CS and implications before discharge from hospital

✓Offer earlier discharge (after 24 hours) to women who are recovering, apyrexial and have no complications.

Recovery following CS

- Offer postnatal care, plus specific post-CS care, and management of pregnancy complications.
- Prescribe regular analgesia.
- Monitor wound healing.
- Inform women they can resume activities (such as driving, exercise) when pain not distracting or restricting.

Consider CS complications:

- Endometritis if excessive vaginal bleeding
- Thromboembolism if cough or swollen calf
- Urinary tract infection if urinary symptoms
- Urinary tract trauma (fistula) if leaking urine.

Appendix 1

Monitoring post delivery at Worcestershire Royal Hospital

- All observations and assessments MUST be recorded in Badgernet.
- For all deliveries in theatre, please see anaesthetic chart for guidance on specific obs required.
- Caveats and adjustments to these schedules can be made on an individual basis by Doctor or Midwife. They should be seen as a safe minimum schedule.
- **All patients having a spinal or epidural MUST be able to lift their feet off the bed with straight legs at or before 4 hours after spinal insertion or removal of Epidural catheter. If unable to SLR (straight leg raise) at or before 4 hours then they need an URGENT Obstetric anaesthetic review.**

1. **STANDARD OBSERVATIONS**: every 5 mins in recovery. Then on PNW:
- **SLR at or before 4 hours**;
- **Obs at 30, 60, 90 mins after arrival. Then +4 hrs, +8hrs and +12 hrs. Provided the observations are stable and satisfactory, then twice daily until discharge.**

This schedule accounts for:

All cases delivering in theatre under spinal or epidural **WITH** spinal or epidural Morphine/Diamorphine General anaesthetic cases.

All complicated vaginal deliveries, especially those requiring suturing.

All Instrumental deliveries occurring in the delivery room.

2. **LIMITED OBSERVATIONS**: every 5 mins in recovery. Then on PNW:
- **SLR at or before 4 hours**.
- **MEOWS every 30 mins for 2hrs and provided the observations are stable and satisfactory, then twice daily until discharge.**

This schedule accounts for:

All women who have delivered vaginally with a labour epidural but without theatre intervention (clock begins when epidural catheter removed)

Minor procedures in theatre WITHOUT spinal or epidural Morphine/Diamorphine

3. **HIGH DEPENDENCY CARE**

These cases would be managed on Delivery suite with a bespoke post-delivery plan documented on the Anaesthetic chart by the operative anaesthetist after discussion with wider team.

NB. All women with a BMI of 50 or over need continuous pulse oximeter monitoring for first 24hrs post-delivery, with Sp02 documented every 4-6 hours. These women should be safely cared for on the PNW but any change to this should be documented by Anaesthetist after discussion with team.

MEOWS: NIBP, HR, Respiratory rate, temp, AVPU score for sedation + any additional as felt appropriate by Doctor or Midwife (e.g. VE, reflexes, urine output etc).

Appendix 2

Cat 3 C/S Booking Form

Patient sticker				
Indication for C/S				
Date C/S to be performed				
NBM from	Date		Time	
Patient Location (please circle)	Antenatal Ward	Delivery Suite	Other (please specify)	
Booked by	Name		Contact number/bleep	
Date and time of booking	Date		Time	
Relevant people informed (please circle to demonstrate that you have notified them)	Theatre co-ordinator	Labour ward co-ordinator + 223 bleep holder	On call Consultant obstetrician	Anaesthetist

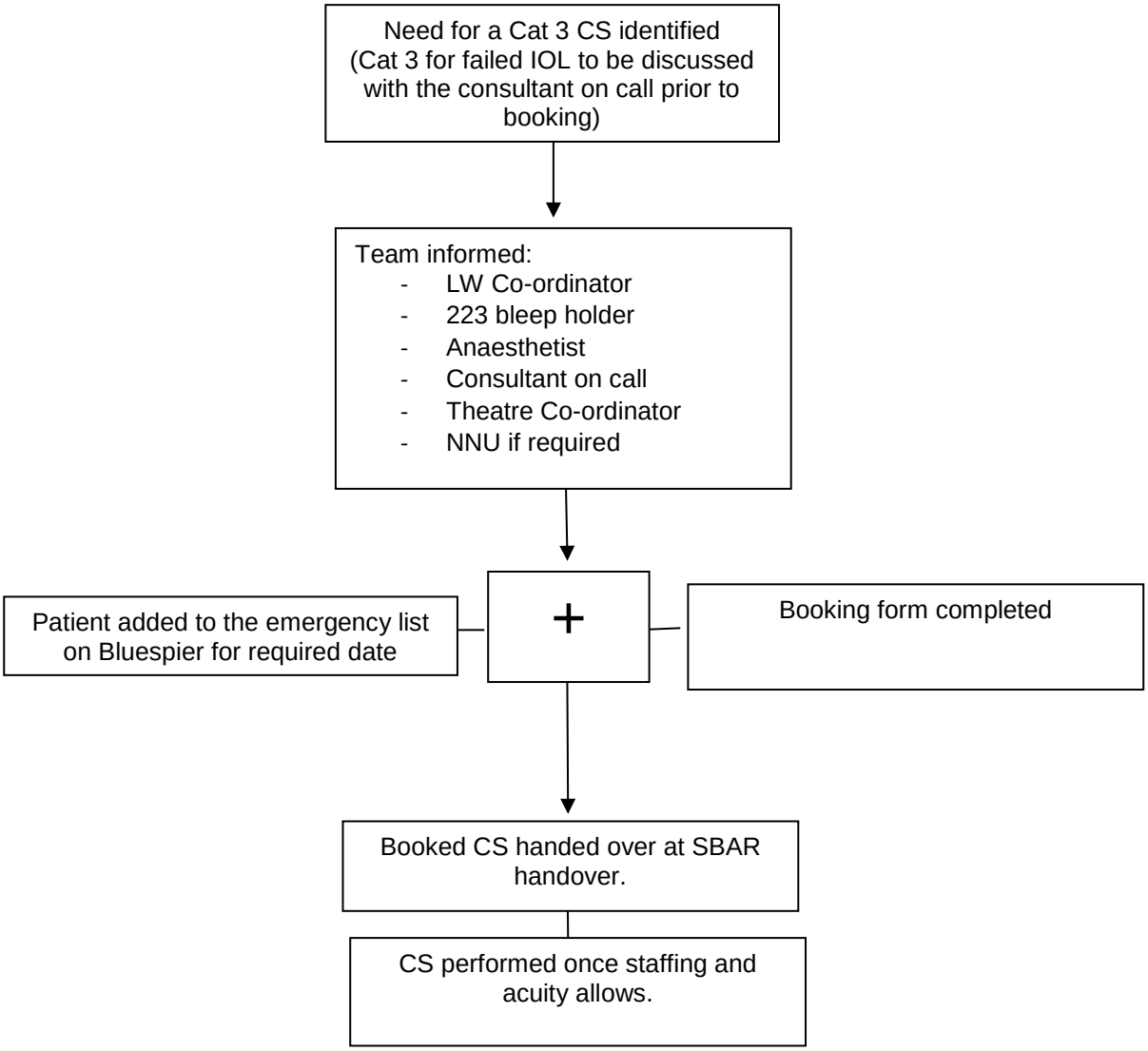
Please put this form in the Cat 3 folder in the obstetric anaesthetic room behind the day in which you would like the C/S to be performed.

Appendix 3

Process of Booking Cat 3 CS

- Once it has been identified that a woman requires a Cat 3 Caesarean section the 223-bleep holder, consultant on call, anaesthetist and the theatre and labour ward co-ordinators should be informed.
- All Cat 3 CS booked for 'unsuccessful IOL' should be discussed with the consultant on call prior to booking.
- The 223-bleep holder can liaise with the NNU, if required, and assess midwifery staffing levels to see when it is safe to perform the procedure.
- The lady should be added on to the Bluespier emergency list for the date required and a booking form completed (See Appendix). This booking form should be kept in the blue folder in the anaesthetic room on delivery suite.
- The booked Caesarean section should be handed over at the morning or evening SBAR and the procedure completed once staffing and acuity allows it to be performed safely.

Cat 3 Booking Process



Appendix 4: Enhanced Recovery Flowchart

Decision for elective CS should be taken before 36 weeks and add to list as early as possible:

- Add to Bluespier (document indication, gestation, BMI, medical comorbidities, parity, continuity status, placental site and complexity of surgery if required)
- Consent (to be scanned on Badgernet in clinic and original to be given back to patient) if ward clerk not available, a non signed copy of the consent form should be handed to the patient.
- Complete TTTO for omeprazole (20 mg OD for 2 days)
- Book preoperative assessment
- MRSA swab
- Sign post patient to CS enhanced recovery PIL on Badgernet (including QR codes for maternity) and provide them with PIL for anaesthesia.

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Preoperative assessment on DAU

- Preoperative FBC, G&S.
- Prepare caesarean section pack including (blood forms, TTO, drug chart, fluid chart, fluid balance, neonatal record, pink and yellow anaesthetic charts, peri-operative checklist and OBS UK proforma)
- Print scanned signed consent form on Badgernet.
- Measure the patient for antiembolic stockings
- Give patient omeprazole with clear instructions how to use it.
- Guide patients about process on LSCS day, time and place to attend. (1st case of DS, all others on PNW)
- Check investigation results and inform obstetric on call team if any abnormality.

↓

Preoperative on day of surgery

- Patient should attend for admission and LSCS pack kept with them (DS or PNW)
- The midwife should check fetal heart, VTE risk and confirm investigations (FBC, G&S, Blood group)
- Patient to be reviewed by anaesthesia and surgeon, consent to be confirmed.
- Ultrasound if CS for malpresentation
- WHO Team debrief to be done by 08:30 (any delay in starting should be Datixed by theatre staff and documented on Bluespier)

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Postoperative surgical team should decide regarding:

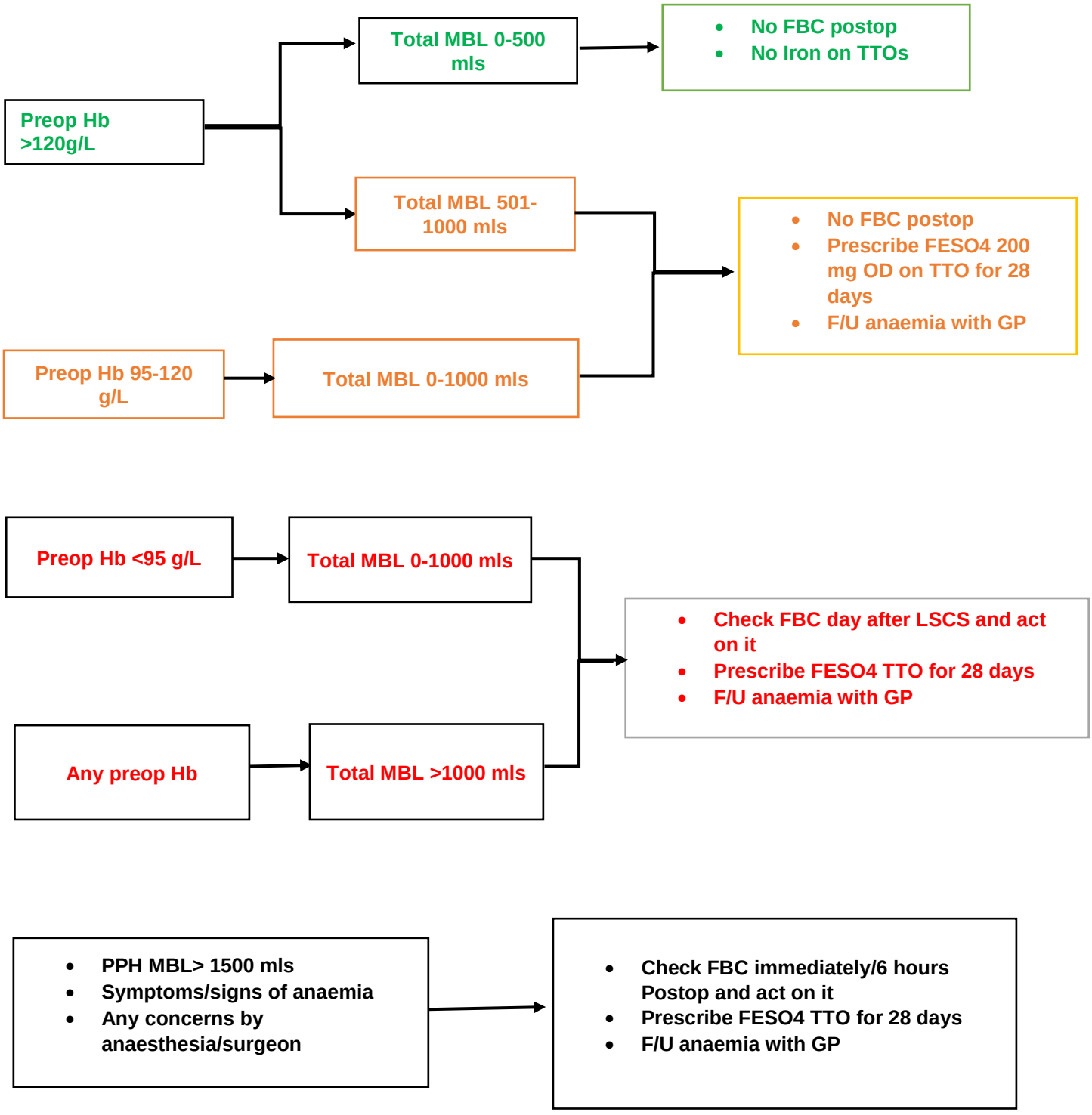
- Suitability for VBAC (Explain to patient point of surgery).
- Prescribe thromboprophylaxis and complete TTO if required.
- Criteria for discharge (midwifery led/ Doctor led) *.
- Need for FBC/Iron and complete TTO if required.

All this information should be handed over by the theatre midwife to the postnatal team.

* All uncomplicated LSCS with an EBL less than 1litre are eligible for midwifery led discharge.

Any complications that arise or additional complexities should be considered by the operating surgeon and a plan for follow up and discharge should be made and clearly documented in the notes and handed over to the postnatal ward.

Appendix 5: Post LSCS assessment for FBC/ FESO4 need



This key document has been circulated to the chair(s) of the following committee's / groups for comments;

Committee
Maternity Quality Governance Meeting