Uterine Rupture Guideline

Guideline Number:	642	Supersedes:		Classification	Clinical

Version No:	Date of EqIA:	Approved by:	Date Approved:	Date made active:	Review Date:
2	11/2021	Obstetric Written Documentation Review Group	18/06/2021	22/12/2021	18./6/2024

Brief Summary of Document:	A guideline for healthcare professionals to help identify and manage the care of women who present with a uterine rupture.
Scope	This guideline is relevant to all clinicians working in maternity care and the guideline is applicable to all pregnant individuals who access maternity services.

To be read in conjunction with:	• NICE guideline (NG121) Intrapartum care for women with existing medical conditions or obstetric complications and their babies (2019). • Guideline No 618: Placenta Praevia and Placenta Accreta Guideline. • Guideline No.755: All Wales Guideline Prevention and Management of Postpartum Haemorrhage. • Guideline No. 627: Management of Antepartum Haemorrhage Guideline

Owning group	Obstetric Written Documentation Review Group

Reviews and updates		
Version no:	Summary of Amendments:	Date Approved:
1	New Guideline	14.9.2017
2	Guideline Update	18/06/2021

Glossary of terms

Term	Definition
CTG	Cardiotocography
IV	Intravenous

Keywords	Uterine rupture

1. INTRODUCTION

Uterine rupture is an uncommon but serious and sometimes tragic occurrence. It can result in serious complications for both mother and baby, such as haemorrhagic shock, the need for peripartum hysterectomy, hypoxic ischaemic encephalopathy, permanent brain injury and even death. It mostly happens in a scarred uterus. A uterine rupture typically occurs during early labour but may already develop during late pregnancy. Complete uterine rupture is defined as separation of the entire thickness of the uterine wall with extrusion of fetal parts to the peritoneal cavity. Uterine dehiscence is defined as a disruption of the uterine muscle with intact serosa. Rupture of an unscarred uterus is unexpected, and diagnosis may therefore be delayed

2. RISK FACTORS AND CAUSES

Uterine rupture occurs at a frequency of 0.5% or 1 in 200 births following a previous caesarean birth (RCOG, 2015). However, there is evidence that the incidence of uterine rupture for all maternities in the UK is 2 in 10,000 maternities (UKOSS, 2012)

A uterine scar from a previous caesarean section is the most common risk factor. (In one review, 52% of women who experienced a uterine rupture had previous caesarean scars.)

- Previous Uterine scar/uterine surgery with cavity breached
- Obstructed labour
- Difficult forceps delivery (Kiellands)
- Undiagnosed cephalo-pelvic disproportion (CPD) or malpresentation (brow or face)
- Grand multiparity
- Injudicious use of oxytocics in women with high parity
- Use of oxytocin and uterine scar
- External trauma e.g., RTC
- Placenta percreta or increta

3. PRESENTATION

Symptoms of a rupture may be initially quite subtle. An old caesarean scar may undergo dehiscence, but with further labour, the woman may experience abdominal pain and vaginal bleeding. Often a deterioration of the fetal heart rate is a leading sign. Intra-abdominal bleeding can lead to hypovolemic shock and death.

4. LABOUR AND DELIVERY

In women with recognised risk factors, labour should not be prolonged.
Bloods should be sent for FBC and G&S at the onset of active labour. Assessment for IV access should be made and if no concerns about IV access it may be delayed till such time where fetal or maternal concerns are raised. Continuous Electronic Fetal Monitoring (CEFM) of the fetal heart should be recommended. Augmentation of labour with Oxytocin should be discussed with the consultant and be in adherence with the Health board guideline.

5. SIGNS AND SYMPTOMS

Premonitory signs

- maternal tachycardia

- persistent scar pain between contractions. In the presence of an epidural and the woman is complaining of breakthrough pain then this would warrant a senior obstetric review.

Signs of rupture

- Suspicious or abnormal CTG
- Vaginal bleeding
- Shock (rising pulse/falling BP /sweating/poor peripheral perfusion)
- Sudden, severe, abdominal pain or referred pain
- Decrease/cessation uterine contractions
- Haematuria
- Peritoneal irritation (shoulder tip pain or chest pain, resulting from blood irritating the diaphragm)
- Abnormal fetal lie
- Retraction of presenting part

It is important that the clinicians involved have a situational awareness, considering the whole clinical picture along with the Mother's appearance and behaviour.

6. TREATMENT

- Summon immediate help
- IV access (use 2 size 14-16 G) and X match 4-6 units of blood
- Stop Oxytocin infusion if in use
- Airway + oxygenation
- Volume replacement.
- Correct any blood loss.
- Inform Consultant Obstetrician & Anaesthetist on call to attend
- Catheterise and apply hourly urometer
- Immediate laparotomy and Caesarean section with uterine repair or hysterectomy
- Patient and relatives must be made aware pre-operatively of the possibility of PPH and hysterectomy and this should be reflected in the consent form.

The Clinician responsible for carrying out the repair should complete full and accurate documentation including the identification of rupture, consent, procedure, and the repair.

7. POST-OPERATIVE CARE

- Thromboprophylaxis and IV antibiotics
- Complete a clinical incident form (Datix)
- Following recovery ensure that the woman and her partner are debriefed
- Advice regarding contraception should include subsequent sterilization, which in extensive tears to the uterus, would be recommended.

An 8-week postnatal appointment will be made for the woman to attend the named consultant clinic. It is imperative to ensure that the woman has understood the circumstances surrounding birth, future pregnancies and appropriate contraception.

8. REFERENCES

RCOG (2015) Birth after previous Caesarean section. Green-top Guideline No45

NICE (2021) Caesarean Birth. Clinical Guideline NG 192 . London: NICE

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UKOSS: Rupture uterus March 13 2012