

Uterine Inversion: Recognition and Management

Originator: Labour Ward Forum, Maternity Services

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Uterine Inversion

Background:

Acute uterine inversion is a rare complication of childbirth where the uterine fundus collapses into the endometrial cavity. The incidence varies widely, with reported rates from 1 in 1500 births to as few as 1 in 20,000 births. Early recognition of uterine inversion is vital to enable prompt treatment.

Definition:

When the uterus inverts, the fundus of the uterus descends through the genital tract, turning itself inside out. There are four grades of uterine inversion:-

Grade 1: – fundus reaches cervix, but not beyond cervical ring.

Grade 2: – protrusion of inverted fundus through the cervical ring into the vagina.

Grade 3: - fundus is visable at the introitus

Grade 4: – fundus below the level of the introitus

Risk Factors:

- Excessive traction on the umbilical cord
- Inappropriate fundal pressure
- Short umbilical cord
- Multiparity
- Abnormally adherent placenta
- Vaginal birth after caesarean (VBAC)
- Abnormalities of the uterus
- Previous uterine inversion
- Fetal macrosomia
- Precipitate labour
- Connective tissue disorders (e.g Marfan syndrome, Ehlers-Danlos syndrome)

Diagnosis:

- 1) Sudden maternal shock or collapse—out of proportion to blood loss
- 2) Uterine fundus not palpable on abdominal examination, even where there is nothing visable at the introitus
- 3) Associated with vasovagal (neurogenic) shock, characterised by bradycardia and hypotension
- 4) However, hypovolaemic shock with tachycardia and hypotension may also occur if a post partum haemorrhage follows the uterine inversion.
- 5) A grade 4 uterine inversion is characterised by a mass (uterus) protruding through the introitus

Management:

P.R.O.M.P.T. – (Practical Obstetric Multi-Professional Training) algorithm page 4 (appendix 1)

P.R.O.M.P.T. - Acute Uterine Inversion Scenario: Clinical Checklist page 5 (appendix 2)

References

P.R.O.M.P.T. Course Manual Third Edition Prompt editorial team 2018

Management of Inverted Uterus (Appendix 1)

CALL FOR HELP (2222)

Senior midwife, experienced obstetricians and anaesthetist

State the problem

Immediate actions

- Lie flat
- Give facial oxygen 10 L/minute
- Inform woman/partner clearly and calmly
- Alert theatre team
- Respiratory rate, heart rate, BP and O₂ saturations

Resuscitation

- Site 2 large IV cannulae (14- or 16-gauge)
- Send bloods for FBC/clotting/crossmatch 4 units of blood
- Commence 2 L crystalloid IV

Successful replacement

- Uterine inversion is associated with atonic uterus in more than 90% of cases
- DO NOT REMOVE PLACENTA until in theatre
- Prevent or treat postpartum haemorrhage e.g.
 - Give oxytocic bolus (IM Syntometrine or Syntocinon)
 - Commence oxytocin infusion
 - (40 units Syntocinon in 500 ml sodium chloride as per regimen)
- For PPH administer tranexamic acid (TXA) alongside uterotonics
- Consider further oxytocics as required

Replacement of uterus

- Attempt immediate manual replacement of uterus
 - Consider transfer to theatre for analgesia if woman stable and no pain relief
- Inform consultant obstetrician
- Alert anaesthetist, operating department practitioner (ODP), theatre staff

Unsuccessful replacement

- Transfer to theatre (if not already there) for examination under anaesthetic (EUA)
- Consider uterine relaxants: glyceryl trinitrate (GTN), SC terbutaline, general anaesthetic
- Attempt replacement manually or hydrostatic method

If replacement still unsuccessful

Prepare for laparotomy – with consultant obstetrician/gynaecologist

Acute Uterine Inversion Scenario: Clinical Checklist (Appendix 2)

		Time	✓
Call for help	Emergency call bell – request experienced help		
	State the problem		
Airway	Maintain airway		
Breathing	Check breathing		
	Administer full-flow oxygen		
Circulation	Lie flat or head down		
	Insert 2 large-gauge cannulae		
	Take bloods for FBC, clotting and cross-match 4 units		
Fluids	Commence IV fluids		
Treatment	Treatment for uterine inversion Inform consultant obstetrician Immediate manual replacement of uterus if possible. Consider transfer to theatre for anaesthetic Consider tocolytic Consider hydrostatic replacement Transfer to theatre for manual removal of placenta		
	Treatment for haemorrhage Uterine massage/bimanual compression Oxytocic bolus, e.g. Syntometrine/Syntocinon Oxytocin infusion Tranexamic acid (alongside uterotonics) Intramuscular carboprost Misoprostol per rectum (if refrigerated tocolytics unavailable) Empty bladder Keep woman warm		
Monitoring	Measure pulse, respiration, O ₂ saturations and blood pressure		
	Use MOEWS chart or maternal critical care chart (adapted MOEWS)		
	Urinary catheter and hourly measurements		
Inspection	Measure blood loss		
	Uterine tone		
	Placenta and membranes		
Documentation	Timings of events		
	Observations and fluid balance		
	Medication administered		
	Persons present		

Maternity Services

Checklist for Clinical Guidelines being Submitted for Approval

Title of Guideline:	Uterine Inversion : recognition and management
Name(s) of Author:	Intrapartum lead Midwife
Chair of Group or Committee approving submission:	Labour Ward Forum
Brief outline giving reasons for document being submitted for ratification	Update to existing guideline
Details of persons included in consultation process:	Labour Ward Forum members
Name of Pharmacist (mandatory if drugs involved):	
Issue / Version No:	2
Please list any policies/guidelines this document will supercede:	Uterine Inversion : Recognition and Management November 2014
Date approved by Group:	March 2020
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Please indicate key words you wish to be linked to document	Uterus, uterine, inversion, inverted, haemorrhage
File Name: Used to locate where file is stores on hard drive	Maternity/policies and guidelines/ratified-obs