



**OBSTETRICS AND GYNAECOLOGY
CLINICAL PRACTICE GUIDELINE**

Amnioinfusion

Scope (Staff): WNHS Obstetrics and Gynaecology Directorate staff

Scope (Area): Labour and Birth Suite KEMH and OPH

This document should be read in conjunction with this [Disclaimer](#)

Aim

To relieve umbilical cord compression and presence of variable decelerations during labour by infusing a liquid into the uterine cavity.

Key points

1. Hartman's solution approximates amniotic fluid the closest in electrolyte and pH composition and may be the most suitable solution to use. However Normal Saline and Hartman's solutions are both suitable for use with amnioinfusion.
2. The infusion solution should be:
 - room temperature for term pregnancies
 - preferably warmed (via a blood warmer) for preterm pregnancies
3. Amnioinfusion for suspected umbilical cord compression may be of benefit to mother and baby by reducing the occurrence of variable decelerations, improving short-term measures of neonatal outcome, reducing maternal postpartum endometritis and lowering the use of caesarean section.
4. Amnioinfusion in the presence of meconium-stained liquor in labour is associated with substantive improvements in perinatal outcome only in settings where facilities for perinatal surveillance are limited.

Contraindications

- Chorioamnionitis
- Placental abruption
- Severe fetal heart rate (FHR) abnormalities
- Maternal immunosuppression
- Multiple pregnancy
- Non vertex presentation¹



- Placenta praevia
- Maternal infection that may be transmitted to the fetus
- Uterine scarring
- Uterine hypertonus
- Known fetal anomaly incompatible with life

Complications

Uterine	Maternal	Fetal
<ul style="list-style-type: none"> • Hypertonus • Uterus does not relax between contractions • Intrauterine baseline pressure increases • Overdistension^{2, 3} • Polyhydramnios • Uterine rupture • Placental abruption² 	<ul style="list-style-type: none"> • Pulmonary embolus² • Amniotic fluid embolism • Maternal death 	<ul style="list-style-type: none"> • Chorioamnionitis² • Abnormal FHR² • Umbilical cord prolapse³

Prior to procedure

1. Intrauterine Pressure Catheter (IUPC) insertion. See [Labour and Birth guideline](#): 'IUPC'
2. Confirm there are no contraindications amnioinfusion.

Procedure

1. Connect the primed intravenous tubing with the amnioinfusion solution to the infusion port on the IUPC.
2. Infuse the initial bolus rate of chosen solution at 480mL / hour until 500mL is infused
 - **Note:** a staff member **must be present at all times** during the bolus infusion.
3. Continue the infusion at a rate of 180mL/hour up to a total of another 500mL of solutions if tolerated.
 - **Note:** a decision for a second infusion to be commenced can only be made by an **Obstetric Consultant** following clinical review of the woman and FHR patterns.
4. Perform 15 minutely observations of:
 - intrauterine pressure
 - uterine contractions
5. Observe for uterine overdistension or hypertonic contractions.
6. Document time of commencing the infusion in the Progress Notes and observations on the Partogram.

Cease the infusion if:

- complications occur
- intrauterine baseline pressure is increased by more than 15mm Hg.
- maternal intolerance to the procedure occurs

References

1. Puertas A, Tirado P, Perez I, et al. Trancervical intrapartum amnioinfusion for preterm premature rupture of membranes. **European Journal of Obstetrics & Gynecology and Reproductive Biology**. 2007;131(40-4).
2. The American College of Obstetricians and Gynecologists. ACOG Committee Opinion Number 346. Amnioinfusion Does Not Prevent Meconium Aspiration Syndrome. **Obstetrics & Gynecology**. 2006;108(4):1053-55.
3. Xu H, Hofmeyr J, Fraser WD. Intrapartum amnioinfusion for meconium-stained amniotic fluid: A systematic review of randomised controlled trials. **British Journal of Obstetrics and Gynaecology**. 2007;114:383-90.

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Related WNHS policies, guidelines and procedures

[Obstetrics and Gynaecology:](#)

- Labour and Birth: Intra Uterine Pressure Catheter (IUPC)
- Fetal Monitoring: Fetal Scalp Electrode

Forms and digital medical record:

- Progress Notes
- Partogram

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Version history

Date	Summary
April 2002	First version. Original titled as B.5.7.1: 'Amnioinfusion'
Prior to Feb 2018	Archived- contact OGD Guideline Coordinator for previous versions.
Feb 2018	Condensed procedure content
Apr 2023	Minor amendments to wording- aligns with other guideline language for 'abnormal' FHR, and MR numbers removed

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