Aim
To relieve umbilical cord compression and presence of variable decelerations during labour by infusing a liquid into the uterine cavity.¹

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.⁶ However Normal Saline and Hartman’s solutions are both suitable for use with amnioinfusion.
2. The infusion solution should be:¹⁰
   - 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.²
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.³

Contraindications⁷,⁸
- Chorioamnionitis
- Placental abruption
- Severe fetal heart rate (FHR) abnormalities
- Maternal immunosuppression
- Multiple pregnancy
- Non vertex presentation
- Placenta praevia
- Maternal infection that may be transmitted to the fetus
- Uterine scarring
- Uterine hypertonus
- Known fetal anomaly incompatible with life
### Complications

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<tr>
<th>Uterine</th>
<th>Maternal</th>
<th>Fetal</th>
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<tr>
<td>Hypertonus</td>
<td>Pulmonary embolus&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Chorioamnionitis&lt;sup&gt;4&lt;/sup&gt;</td>
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<tr>
<td>Uterus does not relax between contractions</td>
<td>Amniotic fluid embolism&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Non reassuring FHR&lt;sup&gt;4&lt;/sup&gt;</td>
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<tr>
<td>Intrauterine baseline pressure increases</td>
<td>Maternal death&lt;sup&gt;4,9&lt;/sup&gt;</td>
<td>Umbilical cord prolapse&lt;sup&gt;5&lt;/sup&gt;</td>
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<td>Overdistension&lt;sup&gt;4,5&lt;/sup&gt;</td>
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<td>Polyhydramnios</td>
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<td>Uterine rupture</td>
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<tr>
<td>Placental abruption&lt;sup&gt;4&lt;/sup&gt;</td>
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### Prior to procedure

1. IUPC insertion. See guideline
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.

### Cease the infusion if:

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


Related WNHS policies, procedures and guidelines

O&G: Intrauterine Pressure Transducer: Catheter.
O&G: Fetal Monitoring: Fetal Scalp Electrode

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