Clinical Practice Guidelines:
Obstetrics/Cord prolapse

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<th>Date</th>
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<tr>
<td>Purpose</td>
<td>To ensure consistent management of a Cord prolapse.</td>
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<td>Scope</td>
<td>Applies to all QAS clinical staff.</td>
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**Cord prolapse** is an obstetric emergency occurring in 1 in 200 pregnancies and is associated with a high perinatal mortality rate.\(^1\) It occurs after the membranes have ruptured, when the umbilical cord slips down in front of the presenting part of the foetus and protrudes into the vagina. Diagnosis is made by visualising the cord at the vaginal opening which should appear as a bluish white, shiny, pulsating structure.

This condition becomes an issue as labour progresses and the presenting part descends, compressing the cord and cutting off the foetal blood supply, leading to hypoxia and eventual foetal demise.\(^2\)

The principle of pre-hospital management is to monitor the cord for pulsations and use maternal positioning to prevent compression. If the cord stops pulsating, the pressure from the presenting part will need to be alleviated, either indirectly using gravity (maternal knee-chest position) or directly, by gently pushing the foetus off the cord.\(^2\)

**Risk factors for cord prolapse include:**\(^2\)

- multiparity
- low birth weight (< 2.5 kg)
- pre-term labour (< 37 + 0 weeks)
- foetal congenital anomalies
- breech presentation
- transverse, oblique and unstable lie*
- second twin
- polyhydramnios
- unengaged presenting part
- low-lying placenta

*Unstable lie is when the longitudinal axis of the foetus (lie) is changing repeatedly after 37 + 0 weeks.\(^{3,4}\)

**Clinical features**

- Umbilical cord visible at, or external to, the vaginal opening.
- Evidence of membranes having ruptured.
- Change in foetal movement pattern.
- Meconium in the amniotic fluid (vaginal discharge may be stained green).

**Risk assessment**

- Caesarean section is the recommended mode of delivery in cases of cord prolapse when vaginal birth is not imminent in order to prevent foetal hypoxic acidosis.\(^3,5\)
- Cord presentation or prolapse should be excluded by visual vaginal examination in labour after spontaneous rupture of membranes (ask mother to feel for the cord).\(^4,6,7\)
- Caution is required if manoeuvring the umbilical cord as pinching can cause vasospasm, use a DRY pad to replace the cord within the opening of the vulva and prevent further prolapse (underwear may be used to hold pad in place).\(^6,7\)
Additional information

- Early notification of obstetrics unit is essential to minimise time to caesarean section.\(^3\)

Risk assessment

- during emergency ambulance transfer, the knee-chest position is potentially unsafe and the exaggerated Sims position (left lateral with pillow under hip) should be used
- use a stretcher or walk patient to stretcher, avoid use of a stair chair if possible

Exaggerated Sims position

The exaggerated Sims position is the preferred position for transport

The knee-chest position Sims position

Difficult to appropriately restrain patient for transport

CPG: Paramedic Safety
CPG: Standard Cares

Pulsative cord evident?

- umbilical cord presenting at vaginal opening
- loop of cord hanging down

N

- assist mother to assume the knee-chest position
- carefully attempt to push the presenting part off the cord
- transport in exaggerated SIMS position

Y

- assist the mother into the exaggerated Sims position
- ask mother to gently push the cord back into the vagina (this must be done carefully to avoid vasospasm) use dry pad

Transport to hospital

Pre-notify as appropriate

Note: Officers are only to perform procedures for which they have received specific training and authorisation by the QAS.