1b. Rupture of subcapsular haematoma, due to

1c. Prematurity

Care and service delivery problems

TASK FACTORS: POLICIES & PROCEDURES

- Timing of steroids at 23+2 – policy states 24 weeks but this is at the discretion of the Consultant. Further doses given during antenatal admission at 30+1/40 therefore unlikely to have affected the outcome.
- Medical documentation does not clearly state full medical input following ward round assessment at 09.10 hours and progression to theatre, although appropriate decision to deliver at that time.
- Once on Neonatal Unit, no definitive reason given for commencement of antibiotics, likely given due to respiratory distress in preterm infant requiring CPAP, however cautious approach to starting antibiotics would not have caused harm
- No clinical indication to commence TPN as not <1200g or <32 weeks. Decision to start TPN should have been followed by decision to insert a peripheral long line or UVC
- Presence of slight bilious aspirates not investigated
- Volume support was given to correct high lactate level but no use of vasopressors and no changes made to airway support settings
- No change to ventilator settings despite further deterioration in clinical condition

Contributory factors

TEAM FACTORS: COMMUNICATION WITHIN NEONATAL UNIT

- Members of the paediatric medical team omitted to keep contemporaneous records or indeed in some instances, any form of documentation whatsoever
- No documentation of the request for commencement of antibiotic therapy
- Consultant assistance with intubation not documented
- On call team not present on neonatal unit despite infant requiring intensive care, resulting in delay in commencement of neonatal care at immediate deterioration
- Consultant not present on unit until 39 minutes following crash call for assistance, despite events occurring in daytime hours

Root cause(s)

The Coroners' cause of death in this instance was given as complications associated with prematurity, and in addition, this investigation has identified no one singular root cause, but several that may well have contributed, which include:

1a. Significant suboptimal care that is possibly relevant to the outcome.

1b. Failures in care to recognise problems and

1c. A failure to act appropriately

Lessons Learned & Recommendations

1. The gaps in the record keeping by paediatric medical staff represent repeated missed opportunities to ensure key information is readily available to clinical staff. All staff to ensure they maintain comprehensive and contemporaneous records; this will be an area for improvement within the action plan.
2. Volume support was given to correct the high lactate level but there was no use of vasopressors and no changes made to airway support settings, despite the deterioration in clinical condition: the medical team should have considered further treatment at this point and this will be an area for improvement within the action plan
3. The use of a cold light should have been considered significantly earlier than it was although this is unlikely to have impacted on the outcome. This will be an area for improvement within the action plan.
4. Duct dependant congenital heart disease (DDCHD) was not considered in this case despite the presence of several features associated with this condition and the speciality should consider the possibility in all neonates who have unexpected collapse; this will be an area for improvement within the action plan.
5. Despite the patient receiving a significant step up to intensive care provision, the registrar left the ward to attend to clinical commitments elsewhere in the unit, resulting in a delay in attendance at sudden unexpected collapse. All registrars to remain on neonatal unit when there are any patients who are receiving recent intensive care provision.
6. There was a delay in the arrival of the Consultant on call at a time when there was a critically ill patient on the neonatal unit; when there are infants receiving intensive care provision the Consultant on call should be in attendance within 30 minutes of being requested out of hours and within 5 minutes of being requested to attend in hours; this will be an area for improvement within the action plan.

Involvement and support of patient and relatives (Duty of Candour)

The parents were initially spoken to by their named Neonatal Consultant who:

- apologised for the bereavement
- explained that there would be an investigation into the events leading up to the death of their baby and they would be advised of the outcome
- Advised that the cause of death was unknown at this stage, but a Coroner's post mortem would be