Incident Review

Child E

DOB PD July 2015; DOD 4th Aug 2015

Antenatal history

Mother is Mother E&F PD year old I&S Twin MCDA pregnancy and high risk of Downs syndrome on blood test (1:65). Pregnancy complicated by oligohydramnios, IUGR, dilated small bowel loops and reversed end diastolic flow prior to delivery. There were no risk factors for infection prior to delivery. Antenatal steroids were given on 22nd July and 23rd July. Magnesium sulphate was given in the morning prior to delivery. Mum booked in I&S

Delivery and initial stabilisation

Child E (Twin 1) was born at 1753, PD July 2015 by caesarean section, birth weight 1327g and gestation 29^{+5} weeks.

6 neonatal staff present: Consultant (RJ), middle grade (SO), ST1(KL and CW) and 2 nurses.

Delayed cord clamping for 1 min before baby brought to resuscitaire. Neowrap applied. Initial assessment: pulse >100 but no respiratory effort. 3 sets of 5 inflation breaths given with little chest movement see but HR maintained >100. Inflation breaths repeated with 2 handed jaw thrust – baby breathing spontaneously by 4 min of age.

Care on NNU

Maintaining sats 95% in air without support. Iv access, antibiotics, nystatin, caffeine, 10% dextrose.

2230 – Dests and apnoeas, therefore commenced on CPAP. UVC inserted but did not aspirate – removed. Blood tests show no suspicion of infection. NBM as reversed EDF

30/7/15

0930 WR plan for long line, PN, remain NBM, monitor BM/lactates, repeat CRP in evening and Cranial USS. Satisfactory gases and UO.

1110 – Long line inserted left great saphenous. Xray and documented action. PN started. Weaned off CPAP.

1821 – Normal blood gas, lactate and glu. Bili 84 (4 blow treatment line) – Phototherapy commenced.

31/7/15

0200 and 0600 BM 13.3 – insulin started; 1000 BM 3.6 – insulin stopped.

0101 – HR 60-100/min, IPPV continued. Gas: pH 6.7, pCO2 20.5 BE 18.8, glu 19.9, lactate 13.5, Hb 156. HR drifted down 30-40. CPR recommenced. Parents updated.

0123 – CPR stopped and transferred to Parents for cuddles.

0140 – no signs of life death confirmed.

Summary

Child E was a 29 week gestation infant at high risk of NEC. His initial condition was good but he showed signs of stress and maladaptation to extrauterine life (persistent high blood sugars). He is likely to have died from a perforated bowel secondary to NEC. Neonatal care was appropriate and record keeping of a high standard. Possible learning points from the case are described below but it is unlikely any changes in management would have prevented this sad outcome.

Lessons learned

Delayed cord clamping 1min was not appropriate and might have been contributory to temp 36.4 on admission.

Teicoplanin not started with Cefotaxime on 2/8/15 (long line in-situ) as current policy advises, despite prompt from pharmacist.

Although Vit K was given after delivery, a further dose might have been given for GI bleed. FFP might also have been indicated but is unlikely to have made a significant difference to the outcome. GI bleed guideline/protocol might have been helpful.

Hyperglycaemia/insulin guideline might have been helpful to staff.

Introduction of feeds was more cautious than current CoCH policy.

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Oct 2015