Countess of Chester Hospital NHS Foundation Trust

CASE REVIEW 37/40 admission to NNU

STEIS Child D Datix Child D

Incident date: 20/06/2015 Incident type: Clinical Specialty: Obstetrics and Neonatal NHS No: Mother: PD Baby PD Healthcare specialty: Planned and Urgent Care English / Welsh: 185 Effect on patient: Baby died Severity level: Severe

The investigation team:

Obstetric Secondary Review team:

- Dr J Davies Consultant (Obstetrics & Gynaecology)
- J Fogarty Head of Midwifery
- D Peacock Risk & Patient Safety Lead

Neonatal Review Team:

- Dr S Brearey Consultant (Paediatrics)
- E Powell Neonatal Unit Manager
- Y Griffiths Deputy Neonatal Unit Manager
- D Peacock Risk & Patient Safety Lead

This report is made following review of the clinical notes by each speciality in relation to care provided to the mother and the baby.

Actual effect on patient and/or service:

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administered via the ETT.

The baby appeared to be stable on the ventilator.

The ventilatory support was gradually weaned down and the baby was extubated **Personal Data PD** June 2015) and was saturating well in air via CPAP.

The CRP was 1 at 19.00 hours on 21st June 2015. The baby was noted to be responsive on handling with no abnormal movements and reasonable tone.

An attempt was made to wean the baby off CPAP but was unsuccessful; the baby's breathing became irregular and she desaturated a few times, therefore CPAP was recommenced.

At 21.10 hours, the baby was reviewed by the Registrar who advised nursing staff to commence enteral feeds at a rate of 1 ml/ hour, and to increase the amount as tolerated by the baby.

On 22nd June 2015 at 01.40 hours nursing staff noted that the baby had become extremely mottled, and had tracking lesions which were dark brown/black across her trunk. They requested an urgent medical review. The Registrar reviewed the baby and noted the markings as described. He planned to repeat the blood gas, give an intravenous bolus of fluid, and discussed the situation with the Consultant. The Consultant advised that she would come to review the baby.

The Consultant reviewed the baby at 02.00 hours and noted that the baby was saturating well on CPAP in air. Two "bruised" areas were noted on the baby's abdomen which the Consultant felt looked like evolving purpura and believed this was most likely secondary to sepsis. The decision was made to increase the Benzylpenicillen (antibiotic) from two to three times a day, and to add Cefotaxime. An urgent abdominal x ray was ordered.

The abdominal x ray was reviewed by the Registrar. The umbilical venous catheter (UVC) was noted to be low lying but nil else of note was seen on review of the x ray. Repeat blood gas results were noted to have improved following intervention with fluids, and the Registrar noted that the baby was clinically much improved and that the areas of discolouration had completely disappeared. The management plan was discussed with the Consultant.

At 03.15 hours the Registrar was called to review the baby who had become upset and was crying; the SaO_2 was 80% in 100% oxygen. It was noted that the discolouration had reappeared although it was not as obvious as it had been earlier. It was felt that the baby was distressed on CPAP and, as she appeared to be clinically well and was then in air, the decision was made to remove the CPAP and repeat the blood gas in one hour.

At 03.55 hours the nursing staff again requested a review by the Registrar as the baby had had an apnoea (temporary cessation of breathing) and the SaO_2 was low. As the Registrar was walking to the NNU, he received a "crash" bleep to attend the NNU. Nursing staff had begun resuscitation as the baby's condition had suddenly deteriorated. The Consultant was also called to attend. The baby was intubated and a capnograph confimed the ETT was in the correct position. Resuscitation drugs were administered. At 04.18 hours the Consultant discussed the situation with the parents and explained that resuscitative measures were having no effect. Resuscitation had been in progress for 28 minutes. The decision was made to discontinue resuscitation at 04.21 hours and death was confirmed at 04.25 hours.