

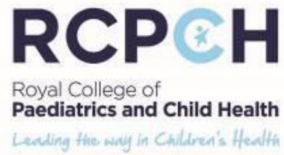
RCPCH Invited Reviews Programme

## Service Review

Countess of Chester Hospital NHS Foundation Trust

September 2016

CONFIDENTIAL DRAFT



3.4 The unit is a part of the Cheshire and Mersey Neonatal Network, one of three within the North West Neonatal Operational Delivery Network (ODN). Infants less than 27 weeks' gestation are transferred, ideally in utero, to the neonatal intensive care unit at either Liverpool Women's Hospital (LWH) or Arrowe Park hospital (APH), with neonates requiring surgery being cared for at Alder Hey Children's Hospital (AH).

3.5 The Cheshire and Mersey transport team is combined with the cot bureau and is run as a separate service out of LWH. It uses Tier 2 doctors and Advanced Neonatal Nurse Practitioners (ANNPs) rostered from the Liverpool rotation with consultant advice and support. There are xx neonatal nurses within the team. The ODN developed in 2014 a business case to combine the three transport services into one centralised, dedicated team based at Liverpool or Manchester, and a decision is awaited from NHS England Specialist Commissioners.

#### Concerns-raised Context

3.6 Since June 2015 the paediatric consultants have become concerned about a higher than expected number of neonatal deaths on the unit, several of them being apparently 'unexplained' and 'unexpected'. These are set out in Appendix 3. Some of these infants had been examined by post mortem; all cases had been reviewed by the mortality and morbidity meeting, with some also being examined by an 'obstetric secondary review'. In January 2015 a short (half day) 'high level' thematic review of nine cases took place with the involvement of the Neonatal Network clinical lead. A summary review of the nursing observations, staffing and junior doctors rotas for 12 hours before the deaths was then conducted, with still no correlation found, but a number of recommendations (such as new UVC guidance) resulted from the high level review.

3.7 Further analysis by the neonatal lead had examined activity and acuity between June and December 2015 (admissions per month, time between deaths, total care days per month, IT care days per month, ITU&HD, birthweight, prematurity). This was not a systematic review but concluded that there was higher activity and lower admission birthweight than average during the period corresponding to the increase in mortality but this did not necessarily explain definitively the significant increase in mortality.

#### Acuity as a contributory factor

Two measures supported the theory that increased acuity may have contributed to mortality levels in the second half of 2015. High acuity care days (ITU and HDU) showed a sustained run of above average monthly figures over the period. Low birth weight admissions (<2000g) also corresponded with the increase in mortality levels. Finally, there were no notable trends in prematurity over the Jun - Dec 15 period, except a small increase in the rate of admissions at 31-36 weeks.

3.8 There were no significant factors identified which predicated the deaths that were not present in equivalent units within the network and beyond. However in June

**Commented [CMc3]:** I think we should mention here that some of these were actually congenital abnormalities which were counted as 'unexplained' or 'unexpected'?

**Commented [CMc4]:** I think we should also mention that they were also routinely reported to CDOP.

**Commented [dm5]:** I noted XYZ

**Commented [dm6]:** I am not convinced this was anything other than a random fluctuation which has almost certainly occurred in previous years

**Commented [CMc7R6]:** I think we would be better leaving out the quote and just leaving paras 3.7 and 3.8 as a summary.

**Commented [NU8]:** This is steve's basic analysis - is it credible?