

147. I also asked Dr Emma Lewis, consultant biochemist at the hospital, to send me the insulin/C peptide results from NNU over the last 5 years. The data that she returned showed there were another two cases with similar suspicious results to those of Child F.

148. The British Association of Perinatal Medicine (BAPM) framework for practice (available on the BAPM website) recommends investigations for term babies with persistent or refractory hypoglycaemia (low blood glucose level). There is no such national guidance for hypoglycaemia in preterm infants because this is rarer, particularly after the first day of life. Dr Ravi Jayaram requested investigations for Child F's persistent hypoglycaemia as per the BAPM guidance. If preterm babies are not able to tolerate full milk feeds, they are given intravenous fluids with 10% dextrose, which is almost always enough to maintain a preterm baby's blood glucose level. Sepsis can sometimes cause hypoglycaemia in term babies but rarely causes hypoglycaemia in preterm babies after day one. A more usual response to infection in a preterm baby is hyperglycaemia (high blood glucose level).

149. My reflections today regarding this case are:

- a. Hypoglycaemia in a preterm infant after the first day of life is a rare event.
- b. Understanding of health professionals was, and is, therefore poor for what represents a normal and abnormal insulin and C peptide level in hypoglycaemic preterm infants.
- c. Samples sent from district general hospitals were often reported many days or weeks after the sample was sent.
- d. I cannot think of a scenario in which a hypoglycaemic preterm baby would have an insulin blood test that is reported as having a raised insulin level and very low C peptide level from natural causes and normal care.
- e. My understanding is that the alert about the result for Child F was sent to the laboratory staff at the Countess of Chester, and there is no record of it reaching clinical staff.
- f. Child F's blood glucose levels normalised within a short period of time so there was no urgency in obtaining the result for the clinical team. If they were assuming a natural cause at the time, then whatever might have caused the initial problem was assumed to have resolved.
- g. A junior doctor included the Insulin and C peptide result in the discharge letter.
- h. Insulin was available on the NNU but was not a controlled drug and there was no accountability as to how and where every unit contained in the vial was used (in common with other NNUs).

150. I have listed my thoughts about how this might be avoided in the future below:

- a. There should be better awareness nationally (and in the future when publicity around these cases has declined) of how rare low blood glucose are in preterm infants after the first day of life and expert consensus reached on managing preterm hypoglycaemia.
- b. Insulin should be treated as a controlled drug on every NNU. This may also apply to adult and paediatric intensive care units.

157. The doctors at Arrowe Park hospital felt at the time that Child G had collapsed due to sepsis and I agreed with them at the time for a number of reasons: Child G's blood tests for CRP (a marker for infection) had risen since the collapse from <1 (normal) to 28 and then 106; she had a metabolic acidosis; and she was requiring drug infusions to maintain her blood pressure. These are the facts that I also discussed with Child G's parents later in the clinic (clinical notes 23 August 2016). We also discussed the MRI scan Child G had that month during this meeting. The parents attributed the MRI changes and Child G's evolving symptoms of cerebral palsy to the events on 7 September 2015, which I think is reasonable. However, I was cautious in categorically agreeing with their opinion because Child G had been born in the toilet of the ward at Arrowe Park Hospital at 23 weeks and 6 days gestation and babies born less than 24 weeks gestation who survive that start in life have a high risk of cerebral palsy and disability, whatever the results of early MRI scans. I arranged a clinic appointment with a paediatric neurologist so that the parents were fully informed. Professor Griffiths saw Child G and spoke to her parents in detail in September 2016.

158. I had never heard of air or milk being forced into a baby's stomach before and it didn't cross my mind that this might have caused Child G's collapse. In retrospect and prior to the trial, what struck me as being very abnormal was the amount of gas or fluid that was aspirated from Child G's stomach by Dr Alison Ventress and the staff present. 100ml was recorded after she had already had a large vomit. There was no definite requirement for a debrief for staff after a resuscitation in which the baby survived. It might depend on the staff present, the length and severity of the collapse and the workload of the NNU at the time. I cannot remember a debrief meeting taking place on that night shift but there may have been one later. There was also a preterm birth Dr Alison Ventress attended, which may have prevented any immediate debrief.

159. Throughout 2015 and early 2016, my aim as neonatal lead was to understand the increased mortality rate better and to work to improve clinical practices when this was needed. This was a challenging task in an already busy clinical job and with minimal support. The majority of evidence for our concerns that we presented to the police and Trust Executives was for babies who had died. So much focus on mortality throughout 2015 and 2016 did mean that we had very little time to consider and review morbidity (babies who did not die). Much of this morbidity evidence, if time allowed us to review it thoroughly, might have led to earlier action being taken. Better support from the Trust, particularly the Risk and Patient Safety Department, and more time allocated to my risk role away from my clinic duties might have given me or my colleagues more time and space to consider important morbidity cases.

## **Child H**

160. I can remember Dr Ravi Jayaram talking to me about Child H in late September 2015. This was regarding the unusual nature of her pneumothoraces and need for more than one chest drain. I don't recall anyone at the time raising any concerns regarding the conduct of LL during Child H's care.

168. I was aware of Child I before she died, as she had been transferred back from LWH on 18 August 2015 and I was responsible for her care on 6 September 2015, after she had deteriorated overnight. Child I was transferred back to LWH that day for suspected NEC. The impression of the team at the time was that her deterioration was typical of NEC.

169. I cannot remember the exact time I was informed of Child I's death but I am sure that I either spoke to Eirian Powell or emailed her on the day Child I died (Friday, 23 October 2015) and discussed the association with LL. I was concerned regarding the repeated nature of Child I's collapses and the apparent rapid improvement after short admissions to LWH and Arrowe Park NNUs.

170. I was emailed by Eirian Powell on 23 October 2015 (INQ0005609). In this email she gave her views about Child I's care, her views about the association with LL, and attached a staffing analysis (INQ0003189) of the deaths in 2015 including Child I. I was keen to talk about LL with Eirian Powell because I felt we both needed to acknowledge the association between LL's presence on the NNU when these deaths occurred. I did not feel completely reassured by her assertions that all the cases were different, that some had NEC, gastric bleeding or congenital abnormalities and that some were ill on arrival.

171. Dr John Gibbs held a debrief for staff on the NNU on 3 November 2015. I recorded the mortality review (INQ0003286) that was undertaken on 31 October which summarises Child I's care and multiple transfers between hospitals. The impression of the clinicians looking after her at the Countess of Chester (and presumably Arrowe Park Hospital and LWH), was that she had some abdominal pathology causing her sudden deteriorations. Nursing staff and some medical staff involved were also concerned regarding a number of operational issues: delays in the transfers with the neonatal transport service, delays in discussions between medical and surgical staff in different centres, decisions made regarding where Child I was transferred to (surgical patients would normally be transferred to Liverpool) and concerns regarding their opinion that Child I was transferred back from Arrowe Park Hospital before she was sufficiently clinically stable. There was concern that important abdominal pathology had somehow been missed. The actions taken after Child I's death should be viewed in the context of these concerns and that there was no postmortem result available, which most staff assumed would show pathology, probably abdominal, that caused her death.

172. I discussed Child I with the surgical team at Alder Hey (Professor Simon Kenny). My follow up email dated 10 December 2015 appears at **Exhibit SB15** and I also emailed the neonatal network team on 26 November 2015 (**Exhibit SB16**). It was agreed to undertake a cross hospital tabletop meeting to review Child I's care. Although my concerns regarding LL had grown, I felt it was important to wait for the results of this review of Child I's care and the postmortem result. If the postmortem result had shown evidence of NEC, then there would have been an explicable reason for Child I's collapse.

173. Debbie Peacock was reporting every death on an "SBAR" form to the SI panel and Eirian Powell had mentioned discussion with Alison Kelly in her email, so I was quite confident Executives were aware of all the deaths, although I received no communication from them at

recall whether I suggested a review meeting at this time or just updated him regarding our continuing mortality.

#### Neonatal Mortality Meeting 26 November 2015

183. As described above, this was a mortality meeting in the format of a PMM meeting, but without our obstetric and midwifery colleagues. It was organised at short notice because I was keen for these cases to be discussed in timely fashion. Attendance is recorded in the minutes (INQ0003288). Paediatric doctors and neonatal nurses were invited. My intention had been to discuss four babies at the meeting: Child E, Child I and 2 other babies (see **Exhibit SB17**). It appears from the minutes that only two babies were discussed: Child I and one other baby. I cannot remember why all four babies were not discussed at the meeting. It may have been due to a lack of time and clinical commitments that day.

INQ0103122

184. I cannot recall anyone raising concerns about the number of deaths on the NNU at the meeting. The focus of the meeting was on learning and quality improvement in the specific cases discussed. Nobody raised the issue of a connection between the deaths and LL. It was not an appropriate forum for that kind of discussion.

185. The meeting note "SB to take case to neonatal network and surgical case review" refers to my request to the network (see **Exhibit SB16**) described above which resulted in the "tabletop" meeting at Alder Hey on 26 February 2016.

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#### Child J

186. I was the daytime consultant covering the paediatric ward and NNU on 27 November 2015. Dr John Gibbs had been called in the early hours to assist with the care of Child J. I was not aware that LL had been on duty that night and Dr John Gibbs did not mention it in the morning. Dr Rachel Chang reviewed Child J in the morning of 27 November 2015. There were a number of possible reasons for Child J's deterioration. Child J had had bowel surgery and two stomas before transfer to the Countess of Chester. Electrolyte disturbance can be a consequence of this which might have caused a seizure. Other possible causes included sepsis or a collection of infection (pus) in the bowel. Child J also might have had a brain bleed. Therefore, the focus that day was in talking to the surgical team at Alder Hey, arranging the investigations that might explain her deterioration overnight and treating appropriately. At no time during 27 November 2015 did I consider that Child J might have been harmed intentionally. I am not aware of any debriefs that took place afterwards.

#### Review of neonatal deaths and stillbirths at Countess of Chester Hospital – January 2015 to November 2015

187. I was not aware that this review was taking place in November 2015. Debbie Peacock sent me a copy of the report (INQ0003589), after I asked for it, on 21 December 2015 (see **Exhibit SB22**, email from Debbie Peacock to me enclosing the report). Dr Jo Davies approached me in a corridor sometime in late 2015, referring to this review, to say that they had

INQ0103137



## The triplets – Child O, Child P & Child R

238. I was aware of the triplets' birth on [redacted] June 2016 and that they were all in a stable condition up to the afternoon of 23 June 2016. Dr V was the consultant of the week. I was on NNU for another reason and was asked by Dr U to assist with Child O's intubation. The intubation was uneventful, but we did note what appeared to be a purpuric rash on the right side of his chest but with otherwise normal perfusion. When I returned to assist Dr U and Dr V after Child O had further deteriorated, it was noticeable that the previous rash was no longer present, but Child O's condition was much worse. Dr John Gibbs was also present. My focus was on resuscitating Child O with my colleagues until he sadly passed away. I can remember LL being involved with the resuscitation, but I did not notice any outwardly suspicious actions. On recording my actions in the medical notes at 1800, I thought it important to record the rash that came and went because this was unusual and I could vaguely remember colleagues describing rashes in other babies who died in 2015. I didn't know the significance of the rash at this stage and the rashes described from other babies who died had not been widely discussed. I was worried that another baby had died inexplicably after being previously stable, whilst under the care of LL. I have recorded that a debrief took place but I cannot remember who attended and what was discussed. I do not think LL was present and she might have been with the family. The main purpose of the "hot" debrief was for staff support after a traumatic event, rather than a detailed examination of the events.

239. I was very worried at this stage. My intention was to discuss with Eirian Powell as soon as possible, with the intention to agree to escalate to the Executives and request action to make the NNU safe. Dr John Gibbs had already reviewed the two surviving triplets, who examined normally but were started on iv antibiotics anyway. I had no idea at this point that LL was returning to work the following day. I could not conceive that senior nursing staff would allocate LL to care for the surviving triplets. I would have expected senior nursing staff to have given LL lower acuity babies to care for after the stressful events of Child O's death and I knew at least two senior nurses on the unit (Eirian Powell and Laura Eagles) were aware of the consultants' concerns. I could also not conceive that, if LL was responsible, she would choose to act again within 24 hours. I deeply regret not escalating my concerns urgently on the evening of 23 July 2016.

240. Regarding the comment in my police statement, "on the morning that Child O died I was just passing through the unit and I walked past Nurse Letby. She was very upbeat, happy and more confident than normal. She said, "Hello Doctor Brearey" and looked me in the eye very confidently" (INQ0001390). I made this comment after direct questioning from the police investigator asking if I had any interactions with LL that day. It was not intended to indicate anything significant. In retrospect, it was striking how normal LL's behaviour and mood was. Many other nurses, less involved than LL with the deaths, were extremely upset and anxious following these events.

## Child P

241. I was in clinic, adjacent to the NNU, on the morning of 24 June 2016. I can remember being asked to undertake an echocardiogram for Child P as soon as possible. The echocardiogram was requested to exclude a cardiac cause for Child P's collapse, and it was essentially normal. There were already a large number of doctors present including Dr Oliver Rackham, a consultant from Arrowe Park Hospital and transport consultant. I therefore left the unit after the echocardiogram. When I returned Child P had died and Dr Oliver Rackham was leading a debrief in a side room on the NNU. I sat down to join the team, sitting next to LL. Dr Oliver Rackham praised LL for her exceptional efforts during the resuscitation. I said to LL that I hoped she was going to have a good rest over the weekend and she informed me that she was back on shift the following day.

242. I cannot remember talking to Eirian Powell on 24 June 2016. I don't think many of my consultant colleagues were still at work after Child P died, other than Dr V who was on call. Whilst still on NNU, I phoned the switchboard in the evening of 24 June 2016 and asked to speak to the duty Executive, who happened to be Karen Rees. The conversation was as I described in court (INQ0010316\_0014). Karen Rees refused to stop LL from working on NNU the following day, was prepared to take full responsibility for this and told me, "there was no evidence".

243. LL returned to work the following day (Saturday 25 June 2016) during which Child Q deteriorated whilst under her care.

#### **Child Q**

244. LL returned to work the following day (Saturday 25 June 2016) and worked a full day shift. Child Q deteriorated whilst under her care during this shift. I am aware that LL worked further shifts the following week after Ian Harvey agreed to remove her from clinical duties on Monday 27 June 2016.

245. I was aware during the week commencing 27 June 2016 of Child Q's deterioration and transfer to Alder Hey paediatric intensive care unit (PICU) for suspected abdominal pathology. By the time I was informed I was already escalating our concerns to Ian Harvey and requested that LL be removed from clinical duties. I did not feel any additional escalation was needed in light of Child Q's deterioration.

246. A follow on email from Karen Rees (INQ0003267) was sent to me on Monday 27 June 2016. Karen Rees said in the email that she had requested the site coordinators to visit the unit hourly over the weekend and no concerns were escalated to them. It was surprising that she seemed to be unaware of events around Child Q. She also informed me that she had spoken to Eirian Powell and Alison Kelly. I did not reply to the email because I was already planning on escalating concerns to Ian Harvey after the senior paediatric and neonatal nurses and paediatricians' lunchtime meeting on 27 June 2016.

#### **Senior Paediatricians' Meeting Monday 27 June 2016**

#### **Emails with Sue Eardley 31 January 2017**

353. Before we had access to the reports, Dr Sean Tighe, who had read the RCPCH report, spoke to Dr Ravi Jayaram to tell him there was no record of us raising concerns to the reviewers in the report. This was very surprising. Dr Ravi Jayaram therefore emailed Sue Eardley on 30 January 2016 to request transcripts of our interviews and suggested to colleagues that we do the same (see **Exhibit SB53**). I also requested transcripts in an email on 31 January 2017 (INQ0003396).

INQ0103184

#### **Release of RCPCH Review to Consultants on 3 February 2017**

354. Stephen Cross phoned me to inform me I could pick up a copy of the RCPCH report from his office on 3 February 2017. I believe all paediatric consultants were contacted on this day with the same instructions. My first response after reading the report was recorded on WhatsApp message to my paediatric consultant colleagues on 4 February 2017 (see **Exhibit SB42**): “Really doesn’t reassure me. Let’s wait for the case note review.” There followed a discussion regarding how the consultants would feel if LL returned to work.

INQ0103168

355. On reading the report it was obvious to me that parts of the report had been edited or removed. There were double full stops in places (page4 and page24); inappropriate large gaps between paragraphs (page7); reference to “in response to this allegation” (page8) without any previous mention of it; no appendix 4 referenced in page7; a large gap mid-sentence (page 11); and no recommendation j) on page25. I was most concerned about the absence of an accurate record of the discussions we had with reviewers.

356. The Terms of Reference seemed to be for a standard service review with an additional question added: “Are there any identifiable common factors or failings that might in part, or in whole, explain the apparent increase in mortality in 2015 and 2016?” I do not think this question was adequately investigated and was only briefly covered in the report (page24 para 4.6). It referenced staffing levels, when compared to national standards, being inadequate whilst omitting the fact the unit’s staffing levels were similar to many other LNUs. It discussed lowering the threshold for escalation to tertiary units and the transport service. Neither of these observations were common factors or failings that could explain the increase in mortality in 2015 and 2016. The RCPCH invited reviews team gave cursory attention to this question, acting in the capacity of service reviewers, and the Trust executives gave the false impression to others that the report was an investigation of mortality.

357. There were other misleading comments as follows:

- a. The thematic review revealed “no definite causal correlation” identified. The report did not clarify there was a definite correlation with a staff member. Investigation into causation is what we had been asking for.
- b. “Further in-depth analysis by the neonatal lead in July 2016” – this was actually undertaken by Ian Harvey.

- c. "The review team agreed that there were no obvious factors which linked the deaths". I find this comment hard to believe.
- d. The Trust did not reduce the designation of the service to a SCU. We continued to provide high dependency care. As described by the NW ODN director, the unit was an LNU with a temporary change in capacity and admission criteria.
- e. I cannot recall "the investigation reports from the infant deaths showed a pattern of insufficient senior cover and reluctance to seek advice". I disagree with the comment but because the report was produced predominantly from discussions with staff members, I don't know how the reviewers obtained this information or how they cross-checked it for accuracy.
- f. I did not agree with the comment, "Other areas in the hospital report well but the neonatal unit have for some time apparently been less systematic in reporting." I do not know how the reviewers reached this conclusion.
- g. Page 18 includes a box summarising recommendations from a BAPM 2011 guidance for investigation of newborn infants who suffer a sudden and unexpected postnatal collapse in the first week of life. The report did not specify that the definition of a 'Sudden Unexpected Postnatal Collapse' in this guidance was for babies from 37 weeks gestation and deemed well enough at birth to have routine post-natal care (see a research paper written on this subject at **Exhibit SB55**). Updated guidance in 2022 (Exhibit SB54) revised the guidance to babies from 35 weeks gestation. Using either definition, the reviewers should have realised the recommendations quoted in the report were not applicable to the babies in the indictment. It is guidance regarding the rare event of a term baby collapsing on a post-natal ward after being born in apparently good condition and should not have been quoted in the report.

INQ0103186

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358. I was concerned at the discrepancy between what I read and the negative way it had been portrayed by executives in the meeting on 26 January 2017. There had been no mention by Ian Harvey on 26 January 2016 of the "cohesive and enthusiastic group of paediatricians and a nursing complement that is well led and supportive", good engagement with network colleagues, trainees positive about their experiences or that morale had remained robust with generally good communication between teams. MBBRACE historical reports showed we were not an outlier and NNAP reports indicated "the unit performing well against those of a similar size" and "circumstances in the unit were not materially different from those which might be found in many other neonatal units within the UK".

359. Paragraph 4.3.1 of the report describes "extremely positive relationships" in the neonatal unit team with problems between senior nurses and consultants seeming to arise only since the deaths occurred. Trainees reported the unit "as being an excellent place to work with a positive team culture and smooth functioning compared with other locations" (paragraph 4.3.9). Ian Harvey did not tell us on 26 January 2016 that the report described "leadership at senior Trust level appeared to be somewhat remote".

360. Staffing problems were acknowledged but were no different to most other LNUs at the time (27% below target in the network and 21 % below target in the Countess of Chester). The reviewers noted "overprovision of neonatal and high dependency cots" compared to the