EXPERT REPORTS COMMISSIONED BY THE CORONER

The Kent coroner commissioned three expert reports from:

- Julia Parva Senior Midwife, dated 11 December 2019

- Dr Giles S Kendall, Consultant and Clinical Lead for Neonatal Medicine, University College London Hospital NHS Foundation Trust, report dated 23 June 2019

- Mr Myles Taylor Consultant Obstetrician & Gynaecologist, Royal Devon & Exeter Hospital NHS Foundation Trust, dated 4 August 2019

I am not sharing the full reports for reasons of Sarah Richford's privacy.

All the experts identified failings in Harry's care. Collectively, they considered there were issues which spanned the early management of labour, the failure to identify and act upon uterine hyperstimulation due to Syntocinon, delay in acting on signs of foetal distress, delay in delivery, inappropriate management of a difficult instrumental delivery, inappropriate management of a difficult emergency caesarean section and failures to resuscitate Harry effectively when he suffered hypoxia due to the problems with delivery.

Sadly, some of the failings they identified mapped onto past failings and risks identified by the Royal College of Obstetricians and Gynaecologists invited review of East Kent Hospitals University NHS Foundation Trust.

A central issue criticised by the independent Obstetrician Mr Taylor was the failure to vet and supervise a locum junior doctor, leading to Harry's birth injury and death.

"*Was the attempt to deliver vaginally performed competently?*

93. In the event Dr Spyroulis assessed Sarah and confirmed the findings of an OP position and then attempted to deliver using non-rotational forceps. This was unacceptable and substandard. Even if the CTG had been normal, with an OP presentation in a primip [first labour] at station of 1+ to spines, it was mandatory to either manually rotate the fetal, use a Ventouse, or, if the Obstetrician had the necessary expertise, to use rotational forceps. It was inappropriate to first consider using non-rotational forceps. Had delivery been expedited with non- rotational forceps, this would have risked traumatising both mother and baby. When a baby is in OP position, a wider than usual diameter is presented to the birth canal. Thus, any Obstetrician attempting to deliver an OP baby with forceps is likely to encounter considerable resistance and delivery becomes very difficult. Hence the aim should always to reduce the resistance encountered by rotating the baby to OA (baby facing downwards) – a position in which in a lesser diameter presents. Fortunately, the forceps blades did not lock and no attempt to deliver by forceps made. Therefore, the decision to use the wrong instrument in this case was not compounded by actually trying to deliver baby. However, the actions of the Registrar in putting the wrong instrument on at this point suggest to me that the Registrar was inexperienced."

"Should Dr Spyroulis have attempted the trial of assisted vaginal delivery alone?

98 Given that this was likely to be a difficult procedure, and that the Registrar was relatively inexperienced, it was mandatory, that he requested the Consultant attend the operating theatre. It was only acceptable to proceed without the Consultant's presence if the Registrar had the necessary competence. It will be for the Court to decide whether this was the case. To my mind, the Registrar's own CV demonstrates in advance that he was unsuited to dealing with this clinical situation alone. Even if it is argued that on paper, at least, he was sufficiently experienced, it is clear he did not demonstrate the necessary competence that Sarah Richford deserved from the person delivering her baby."

Was the Caesarean section performed competently?

95.My suspicions that the registrar was inexperienced are increased further by the actions that he displayed during the Caesarean section. Having just examined Sarah and knowing that this baby was deflexed OP it was clear that this was going to be a difficult Caesarean section. He should have briefed the midwife on how to push the baby's head up [not just pushing up but also aiming to de-flex the baby's head. By de-flexing the head, the baby has a lesser diameter within the birth canal and is delivered more easily]. He should also have requested the Anaesthetist to have tocolysis, [agents which relax the uterus are called tocolytics] usually in the form of Glyceryl Trinitrate (GTN), ready to relax the uterus if required. Furthermore, under these circumstances it would have been wise to fashion a larger than usual uterine incision to allow for easier delivery.

96. In the event the midwife did not know how to push the baby's head up. It was only until a second midwife assisted that this manoeuvre was successful. Secondly, the uterine incision was not cut large enough. In this situation it was completely inappropriate for the Registrar to ask a GP trainee to cut the uterine incision. Whilst he should have cut a larger incision in the first place, once he recognised that this was too small an incision, he should have extended it himself."

"102.Assessing the competence of locum Registrar is challenging because, by definition, the registrar is only a short-term appointment – often "here today, gone tomorrow". Nevertheless, the Trust concerned has a duty of care to ensure that the care of labouring mothers is not compromised by employing insufficiently experienced practitioners. In practice, there are no established guidelines – something that this case perhaps may serve to highlight and prompt changes for the better. Instead, Trusts, usually make informal efforts to ensure adequate experience by having registrar Obstetricians perform their duties under observation in daylight hours. Failure to have put Dr Spyroulis through this informal process was clearly substandard care in this case."

"Was it appropriate for the Trust concerned to allow the Registrar to be on call at night in this case?

103.I note that in Dr Spyroulis Curriculum Vitae that he described his technical skills as follows: "able to do Caesarean sections, up to an intermediate level, basic instrumental deliveries, like lift out, Kiwi and forceps, able to control obstetric and gynaecological emergencies, like EGPT, able to control bleeding via Bakri balloon. In addition, I am capable to do manual removal of placenta and also FVS."

104.It is clear to me that as stated in his CV Dr Spyroulis was self-evidently insufficiently qualified to perform full dilatation Caesarean sections - particularly after failed instrumental delivery. It will be for the Court to confirm my suspicion that Dr Spyroulis Should Dr Spyroulis have requested the on-call Consultant's attendance?

105.As noted above, it is clear from Dr Spryoulis's CV that he was insufficiently experienced to perform a trial of assisted vaginal delivery/full dilatation Caesarean section on his own. He should have recognised his own limitations and asked the Consultant to attend. Should the Consultant on-call have performed/supervised the trial of assisted vaginal delivery herself?

106.I am also critical of the individual Consultant in this case. The Consultant has a duty of care to ensure, as far as possible, that the Registrar under his supervision on call has the necessary expertise. It is insufficient simply to ask the Registrar whether he or she is happy to proceed with a particular operation.

It is well recognised that Registrar's are often reluctant to call Consultants into hospital the middle of the night. As a result, a Registrar – as in this case - can end up attempting procedures beyond their expertise. The Consultant in question should have recognised from Dr Spyroulis's description that the Caesarean was likely to be difficult and come in and performed/supervised it herself."

"24.12. Please consider, describe and comment on the actual experience levels of all the doctors involved in the delivery. Which were subject to the APS scheme at the time? Please comment on this

I am critical that Dr Spyroulis's clinical experience level in this case. He should not have been allowed to be on call at night on his own. Both the Trust and the Consultant on call showed failures in this regard. The Trust should have ensured, albeit with informal measures, that Dr Spyroulis was sufficiently competent in performing trials of assisted vaginal delivery and also to perform complex Caesareans sections – especially at full dilatation - on his own. Failing this, the Consultant on call should have recognised that this delivery was likely to be difficult and come in and performed/supervised the delivery herself.

"In many hospitals a locum Registrar is not allowed to operate on his own at night until he or she has satisfied permanent members of staff of his or her competence. This is usually obtained by direct observation during a labour ward session. This is clearly a rather informal assessment. I believe, however, that the risks of obstetrics are too high for such an informal

policy to be considered adequate. However, at present any formal assessment remains an aspiration. I know that this unsatisfactory system is present in many units in the UK. Nevertheless, I believe that a more robust system of assessing locum's competence should be in place as the current situation is difficult to justify."

"I am not aware of any guidelines for the recruitment, induction and assessment of locum obstetric doctors. I have significant concerns about this issue in the UK."

Crucially, Mr Taylor believed that Harry would have survived as a healthy baby if the care provided had been competent:

"109. But for the failure to decide to deliver at 02:00hrs and expedite delivery in competent hands, I believe Harry would have been born in good condition and would have survived. However, I defer to the relevant experts in causation on this matter. Of note, Harry's genetic condition will need to be taken into account in assessing what would have happened in any event."

Mr Taylor was critical of the use of Syntocinon in Harry's case, which he considered excessive.

Julia Parva the expert midwife came to the same conclusion, and both she (and Mr Taylor) concluded that staff made errors in interpreting the CTG readings of foetal heart rate:

"8. "8.6.11 It is my opinion that the Syntocinon was not managed appropriately at this time as hyper- stimulation is whereby the uterus is contracting five times in 10 minutes, or five in 10. During uterine contractions, the baby is stressed to some extent as blood supply to the uterus, and to the placenta, is temporarily reduced. This does not normally become an issue if the uterus is contracting less than this as there is time for recovery. If the uterus is hyper-stimulated over a prolonged length of time, it can cause the baby to be compromised. As soon as Hyper-stimulation occurs, the Syntocinon should be decreased immediately, this was not done. It is, therefore, my opinion that the care given fell below the standard expected of any reasonable and responsible body of registered midwives."

"8.6.24 However, on reviewing the CTG at 01:30 and 02:00 recurrent variable/late decelerations were present, more than 50% of contractions. The CTG was interpreted as being pathological. This was not recognised until 01:56 when it was documented by the midwife that a late deceleration had occurred and a registrar review was requested. A pathological CTG should be acted upon immediately. So, in this case, within 10 minutes following 01:30, as it was identifiable.

8.6.25 It is in my opinion that the care given fell below the standard expected of any reasonable and responsible body of registered midwives."

"8.6.27 It is my opinion that the CTG was not interpreted correctly by the registrar or the midwife. Had it been interpreted correctly, as being pathological with reduced variability, it would have been routine practice to transfer to theatre immediately with a view to deliver the baby within 30 minutes of the decision.

8.6.29 Therefore, it is my opinion that the care fell well below the standard expected of any reasonable and responsible body of registered midwives"
Julia Parva was also critical of the care provided when Harry's mother was taken to theatre for the emergency caesarean section:

"8.6.32 The midwife should have recognised that she was not confident to carry out what was being asked of her and should always immediately escalate these concerns to a senior midwife so that a more experienced or more confident midwife could have assisted the registrar.

8.6.33 It is also my opinion that had the registrar been confident in his actions he would have firstly debriefed the midwife to ensure she was fully aware of what he was asking her to do.

8.6.34 If a midwife, at any time, feels a registrar is not confident in his/her actions that is then fundamental that these concerns are escalated and an advocate throughout the birth process and should be equipped to recognise if something is outside of her capabilities and also that of others.

8.6.35 It is my opinion that the care given fell well below the standard expected of any reasonable and responsible body of registered midwives."

"8.7.4 On reading the notes further, it does appear that the senior sister came into theatre to take over from the Band 6 midwife, assisting the registrar in pushing the baby up vaginally. I am critical of her actions, as a senior midwife it is your responsibility to quickly assess the situation and make decisions based on the safety of mother and baby. The senior midwife should have made it a priority to recognise that the delivery was posing difficulties and therefore a consultant was needed immediately "

Dr Kendall was critical of several aspects of the attempt to resuscitate Harry:

"4. "The documentation of the resuscitation afforded to Harry Richford was poor. However, taken alongside the statements and subsequent Harry's subsequent clinical progress it can be concluded that:

a. *There was an unacceptable delay in requesting consultant support.*
b. *An unsecured airway was handed over from the only trained member of the neonatal resuscitation team to an inexperienced and untrained junior doctor without the skills required to support the airway and maintain ventilation.*
c. *Due to the failure to secure an airway and achieve effective ventilation there was a prolonged period of postnatal hypoxia. This continued up to the point that Harry was successfully intubated by the anaesthetist at around 28 minutes of life.*
d. *The prolonged period of postnatal hypoxia compounded Harry's condition at birth and directly resulted in hypoxic ischaemic encephalopathy, irreversible brain injury and Harry's subsequent death."*

Dr Kendall was concerned that the paediatric registrar, the most senior doctor during initial resuscitation, lost situational awareness. He was focused on trying to insert a line and therefore became distracted from the need to protect Harry's airway and ensure oxygenation:

53. *"Neonatal resuscitation is also unusual in that the team leader is often also responsible for airway management. In most other resuscitation algorithms, the team leader is observing and directing without having a direct hands-on role in the resuscitation. It follows that to lead a successful resuscitation, the team leader needs to be able to perform various practical clinical skills whilst observing all elements of the resuscitation and maintain situational awareness."*

".....It is also of note that Dr Ratnanathan's account of this period is very brief (page 79). He does not make any reference to Harry's condition, the presence or absence of chest expansion, or the presence or absence of a heart rate. I believe that once Dr Ratnanathan was attempting to place the umbilical catheter, he lost overview of the resuscitation, which meant that the resuscitation was no longer being effectively led. Dr Ratnanathan in his statement states that he noted there was no chest movement and that Dr Nielson also made him aware, so he gave up catheterisation and went back to the airway (statement bundle page 40). This is not recorded in his contemporaneous note (page 79) and is not consistent with the account of Dr Price (page 82) who states that SpR was "attempting UVC" at the same time as the anaesthetist was intubating."

"*87.In the situation Dr Ratnanathan found himself as the only member of the resuscitation team with airway skills, the only safe course of action was to secure the airway by intubation. Had this occurred the secured airway could then be safely handed to the junior SHO, allowing Dr Ratnanathan to proceed to umbilical catheterisation."*

Dr Kendall also advised the coroner that resuscitation guidelines were not adhered to through a failure to ask for help:

"*56."It is clear in the NLS algorithm1 that at every stage of the resuscitation the team should consider whether additional help should be requested. In the situation of a bradycardic infant not responding to resuscitation, and with untrained, inexperienced help, Dr Ratnanathan should have requested the attendance of his consultant as soon as Harry deteriorated after making some response to the initial inflation breaths."*

Dr Kendall was critical of delays in locating the on call consultant, because of a failure to inform switchboard of a change in the rota:

"Failure to ensure that the hospital switchboard had an up to date copy of the consultant on call rota (if this is how consultants were to be contacted) is not an acceptable standard of practice.

Dr Kendal noted the MRI scan findings which revealed that Harry suffered catastrophic brain injury due to prolonged lack of oxygen:

"*89. Overall these failings resulted in an unacceptable delay of approximately 28 minutes in securing an airway and a prolonged period of postnatal hypoxia which. This is evidenced by the deterioration in blood gases between those taken from the cord and those taken from Harry following admission to the neonatal unit."*

43."Harry Richford had an MRI brain scan performed on the 6th November 2017. Although I have not been provided with a copy of the MRI brain scan this was reported contemporaneously by Professor Mary Rutherford, a world-renowned expert in neonatal brain MRI. Her report (page 43) describes:

"*This appears to have been a normally formed brain. There are bilateral abnormal signal intensities within the basal ganglia, thalami, posterior limb of the internal capsule and upper brainstem. There are additional focal changes within the superior cortex. These image findings are in keeping with the clinical findings in Harry and with the clinical history. They would usually be associated with a poor outcome in the form of a spastic quadriplegia with associated cognitive impairment. There will likely be prolonged feeding difficulties and subsequent poor head growth. He will have a lower threshold for later seizures. I cannot say from these images whether he will be able to maintain independent ventilation but there are no focal lesions within the lower brainstem."*

Dr Kendall also concluded that had care been of an appropriate standard, Harry would have survived without brain damage:

"5. Had the resuscitation afforded to Harry Richford been of an appropriate standard he would have almost certainly survived, and on the balance of probabilities had a normal neurological outcome."

Dr Kendall was critical of the trust's claim that Harry's death was "expected":

"6. As both the obstetric and neonatal management of this case potentially contributed to and were possibly causally related to the death of Harry Richford, the case should have been discussed with HM Coroner. It was not acceptable for the treating team at William Harvey Hospital to conclude that the death was 'expected'. The death was explained by the presence of severe hypoxic ischaemic brain injury, however the aetiology of the hypoxia ischemia required appropriate consideration and investigation."