CORONERS COURT
OF NEW SOUTH WALES

Inquest:	Inquest into the death of Shaun Bell
Hearing dates:	10 – 14 December 2018; 20 December 2018; 29 March 2019.
Date of findings:	14 May 2019
Place of findings:	NSW Coroner Court – Lidcombe
Findings of:	Magistrate Elizabeth Ryan, Deputy State Coroner
Catchwords:	CORONIAL LAW – death of four year old boy in hospital – non-verbal child with developmental delay - peritoneal sepsis from perforated duodenal ulcer – was tele triage advice from 13 Health adequate and appropriate – was clinical care and treatment at the Tweed Hospital adequate and appropriate – recommendations.
File number:	2016/80943

Representation:	Counsel Assisting the Inquest: H Bennett of Counsel i/b Office of the General Counsel, NSW Department of Justice. Tanya McGlinchey: A Casselden of Senior Counsel i/b Shine Lawyers. Northern NSW Local Health District, and Tweed Heads Hospital: J Downing of Counsel i/b NSW Crown Solicitor. Queensland Dept of Health, Dr J McFarlane, Registered Nurses S Stobbard and B Walker: R O'Keefe of Counsel i/b Minter Ellison. Dr A Thanasingam, Dr K Zawada, Dr J Wood: T Saunders of Counsel i/b Meridian Lawyers. Dr E Egan: L McFee of Counsel i/b MDA National. Dr D McMaster: S Barnes of Counsel i/b Avant Law. Dr F Ring: D Brown, Browns Legal and Consulting. Registered Nurses T Snowden, K Greenway, K Browne: P Robertson, NSW Nurses and Midwives Association.
Findings:	**Identity** The person who died is Shaun Bell **Date of death** Shaun Bell died on 14 March 2016 **Place of death**: Shaun Bell died at Tweed Heads Hospital, Tweed Heads NSW 2485 **Cause of death** Shaun Bell died as a result of peritoneal sepsis caused by a perforated duodenal ulcer. **Manner of death** Shaun Bell died in hospital, from natural causes.

Recommendations:	To the Director General of Queensland Health: **Recommendation 1** That consideration be given to providing an in service session to all tele triage nurses, based on the Coroner's findings and suitably anonymised. **Recommendation 2** That consideration be given to implementing the Health Contact Centre's 'Global Developmental Delay Training Package' and 'Education on identification of developmental delay in children' education program to all current and new 13 Health tele triage nurses. **Recommendation 3** That consideration be given to creating a 13 Health policy that ensures that tele triage nurses consult about their advice with the Nurse Unit Manager where the caller has conveyed to the tele triage nurse that the patient is a child with developmental delay.

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Section 81(1) of the Coroners Act 2009 (NSW) [the Act] requires that when an inquest is held the Coroner must record in writing his or her findings as to various aspects of the death.

These are the findings of an inquest into the death of Shaun Bell.

Introduction

1. Shaun Bell was only four years old when he died on 14 March 2016 at the Tweed Hospital in northern NSW.

2. Shaun was born on 18 December 2011. At the time he died he was living at Boronia Heights, Queensland with his mother Tanya McGlinchey and his older brothers Calvin and Dominic. Shaun's parents had separated and he usually spent the weekends with his father Matthew Bell.

3. Shaun's developmental milestones came late, and when he was aged two years and seven months he was diagnosed with significant global developmental delay. He commenced speech pathology, physiotherapy, and an Early Childhood Development Program. Twelve months later he was found to have a severe

language expressive disorder and severe development coordination disorder. His speech therapy now included learning sign language. At the commencement of 2016 he started kindergarten, combining this with his early childhood program.

4. Shaun's death came as a terrible shock to his family. They loved him dearly and his sudden death has left them devastated and grieving.

5. At the close of the evidence Shaun's father and his mother each shared with the court loving memories of their son. It was heart warming to hear how Shaun's family had begun to learn sign language so they could share a fuller life with him. Shaun was described as fun loving and cheeky, a little boy who '*would never let anything hold him back'*. He was a cherished child who is very deeply missed.

6. Shaun's mother and father attended each day of this inquest. It was very important to them to understand how he died and whether anything could be done to help prevent this tragedy from happening to another family.

The Inquest

7. An inquest is different to other types of hearings. It is neither criminal nor civil in nature. It does not determine whether a person is guilty of an offence and does not make determinations and orders that are binding on parties.

8. A Coroner is required to confirm that a particular death occurred and make findings as to the identity of the person who died , the date and place of death, and the cause and manner of the death. In addition under section 82 of the Act a Coroner may make recommendations that are necessary or desirable in relation to any matter connected with the death, including health and safety.

The time, place and cause of Shaun's death

9. The time and place of Shaun's death are not in issue. Shaun died at 4pm on 14 March 2016, at the Tweed Hospital in northern NSW.

10. The cause of Shaun's death was identified in a post mortem examination as peritoneal sepsis caused by a perforated duodenal ulcer. Forensic pathologist Dr Leah Clifton found extensive erosion and ulceration in many areas of Shaun's duodenum. She also found blood in the small and large bowel. This was in keeping with bleeding from the upper gastrointestinal tract in the days leading up to his death, and was most likely the result of the duodenal ulcers. The underlying cause of Shaun's ulceration was not able to be identified.

11. Duodenal ulcers (also known as peptic ulcers) occur very infrequently in children. The diagnosis is often delayed in non-verbal children like Shaun because they are not able to communicate their symptoms. Nevertheless perforation of a peptic ulcer is a serious complication and requires urgent treatment.

12. Bacterial peritonitis develops quickly, and will lead to overwhelming sepsis unless the patient is treated with antibiotics and surgical repair of the perforation.

13. For reasons which were examined at the inquest, in Shaun's case this treatment did not occur until it was too late to save him.

Issues at the inquest

14. The purpose of the inquest was to gain a better understanding of the circumstances surrounding Shaun's death, and whether anything might reasonably have been done to prevent it. Central to this was the question whether Shaun had received appropriate clinical care at the different stages of his treatment. The inquest thus focused on the care and treatment he received:

    - through the 13 Health telephone triaging service
    - in the Emergency Department of the Tweed Hospital
    - in the Paediatric Department of the Tweed Hospital.

15. The Court was assisted with evidence from the following six experts:

    - Associate Professor John Raftos, Senior Specialist in Emergency Medicine at St Vincent's Hospital Darlinghurst and at Sydney Hospital.
    - Dr Elizabeth McLeod, Paediatric Surgeon at the Royal Children's Hospital Melbourne.
    - Dr Mark Lee, Emergency Physician and Paediatrician, and Director of Emergency Medicine Training, John Hunter Hospital Newcastle
    - Dr John Vinen, emergency physician.
    - Toni McCallum-Pardy, Clinical Nurse Specialist
    - Eunice Gribben, Nurse Educator.

16. As will be seen, none of the expert witnesses was critical of the failure to diagnose Shaun's perforated ulcer, given the rarity of this condition in young children. The focus of their criticism was the failure of clinicians to appreciate that he was critically unwell, and to take urgent action to identify and treat the cause of his illness.

The first phone call to 13 Health

17. On 9 March 2016 Shaun's mother Tanya McGlinchey took him to their general practitioner, Dr Cecilio Arenas. Shaun had been lethargic for three days, he had vomited a couple of days previously and he was not eating. Dr Arenas could not find any signs of bacterial infection, and diagnosed a viral illness. Of particular

relevance to this inquest, he recorded that Shaun's abdomen felt soft and was not tender. I note there was no basis for criticism of Dr Arenas' care and treatment of Shaun.

18. Two days later on Friday 11 March Ms McGlinchey made a phone call to 13 Health. 13 Health is a telephone based assessment advice line, operated as part of the State of Queensland Health Contact Centre. The service offers general health information and triage nursing advice.

19. Ms McGlinchey had a fourteen minute conversation with Registered Nurse Sandra Hitchens, who is now known as Sandra Stobbard. RN Stobbard has been a registered nurse since 2007. She commenced work as a tele triage nurse at 13 Health in August 2015. She currently works as an Occupational Health Nurse in the mining industry.

20. Ms McGlinchey told RN Stobbard the following about Shaun:

- he had vomited on Monday but not since then
- since Sunday he had not eaten anything or had a bowel movement
- he was lethargic '*like he's sleeping all day*'
- she had taken him to the doctor on Wednesday but the doctor had said there had been no sign of a viral infection.

21. Ms McGlinchey asked RN Stobbard how long a child could go without eating food.

22. RN Stobbard wanted to know if Shaun had any abdominal pain. Ms McGlinchey explained that Shaun was '*a nonverbal special needs child*'. She said however that he could talk to her with sign language, and that he had said his stomach did not hurt. RN Stobbard asked further questions about Shaun's appetite and suggested ways of offering him drinks. Her concluding advice was to wait until Sunday or Monday and if he had not '*started to turn a corner*', to take him to the doctor then.

The second phone call to 13 Health

23. That weekend Ms McGlinchey took Shaun and his brothers to Kingscliff, a beach area in northern NSW, hoping this would improve Shaun's condition. However he did not get any better, and at 5pm on Sunday 13 March Ms McGlinchey again rang 13 Health. This time she spoke with RN Bethany Walker. RN Walker has been a registered nurse since 2000. For many years she worked in the Emergency Department at the Tweed Hospital, before joining 13 Health as a tele triage nurse.

24. Ms McGlinchey repeated to RN Walker the information she had given RN Stobbard, and added that Shaun still wasn't eating, had lost weight and was so

lethargic it was as though he was '*hibernating'.* She also said that when she'd tried to make him walk '*his little legs wouldn't work properly'*.

25. Like RN Stobbard, RN Walker wanted to know if Shaun had any abdominal pain. Ms McGlinchey again explained that Shaun couldn't actually tell her because he was *'nonverbal, special needs'*, but that he had communicated that he didn't have a sore tummy, and that his tummy was soft to touch. In response to further questions, Ms McGlinchey advised that Shaun had dry lips and was pale.

26. RN Walker commented that it was hard to assess Shaun because he was nonverbal and so he could not '*articulate what's going on if he's in pain or he's got an issue'.* For this reason she advised Ms McGlinchey to take Shaun to the closest hospital that evening so he could be personally examined.

At the Tweed Hospital Emergency Department

27. Shaun's mother acted promptly on RN Walker's advice, bringing Shaun to the Emergency Department of the Tweed Hospital just before 7pm that evening. They were seen almost immediately by triage nurse Tanya Snowden, who recorded the following:

- Shaun had not eaten for 6-7 days
- his last vomit was 6 days ago
- he was pale
- he was tachycardic, meaning that his heart rate was elevated.

28. RN Snowden ensured Shaun was reviewed by the ED Resident Medical Officer, Dr James Wood, within 15 minutes of arrival at the Hospital. At the inquest, nursing and medical experts found RN Snowden's assessment and triaging of Shaun to have been timely, adequate and appropriate.

29. Dr Wood had qualified as a doctor in 2013 and had only commenced working in the hospital's ED a few weeks previously. He took a history from Ms McGlinchey and conducted a physical examination of Shaun, recording that his abdomen and flank felt normal. As he was relatively inexperienced in emergency medicine Dr Wood sought immediate advice from the ED consultant on duty that evening, Dr Edward Egan. At the inquest medical experts were of the view that Dr Wood's treatment of Shaun was appropriate and adequate.

30. Dr Egan has been an Emergency specialist since 2010, and on the evening of 13 March he was the sole ED Consultant on duty. He too physically examined Shaun. He and Dr Wood thought Shaun was very unwell, with tachycardia, lethargy and dehydration. Both doctors were concerned to hear that Shaun had not eaten for seven days.

31. The exact cause of Shaun's illness was unclear so Dr Egan ordered tests of his urine and blood. He also arranged intravenous [IV] hydration and venous blood

gas testing. Although the blood gas testing was incomplete the results showed significant metabolic acidosis. Metabolic acidosis occurs when the chemical balance of acids and bases in the blood becomes disordered.

32. Dr Egan also requested that the paediatric registrar assess Shaun.

The Paediatric review and treatment plan

33. The on call paediatric registrar that evening was Dr Anthony Thanasingam. He had qualified as a doctor in 2012. He was not an advanced trainee and was only six weeks into his specialty training. He had however spent some months previously in paediatrics and emergency rotations.

34. Dr Thanasingam attended the ED at around 8.45pm that evening and discussed Shaun's case with Dr Egan. After examining Shaun and speaking with his mother, Dr Thanasingam rang the on call paediatric senior doctor, Dr Fergus Ring. This was the first of three phone discussions they had that evening.

35. Dr Ring is a specialist General Practitioner who had been providing paediatric services to the Tweed Hospital for 25 years as a Visiting Medical Officer.

36. In their phone discussion Dr Thanasingam and Dr Ring settled upon a provisional working diagnosis for Shaun's illness, namely viral gastroenteritis with associated dehydration. Dr Ring agreed with continuing the IV hydration.

37. By 9pm that evening a series of blood test results was available. Dr Egan and Dr Thanasingam recognised that some of these contained '*significant abnormalities'*. Shaun's haemoglobin count was low at 75 g/L and his sodium levels were very low at 114 mmol/L. The inquest heard evidence that the normal range for children was 133-144 g/L for sodium, and 115-135mmol/L for haemoglobin. His White Cell Count was elevated at 17 as were his neutrophils at 11.6.

38. Dr Thanasingam and Dr Egan spoke again with Shaun's mother, trying to identify a cause for Shaun's low haemoglobin level. They asked her if she had noticed Shaun losing any blood from vomiting or in his stools or urine. She replied that she had not.

39. Dr Thanasingam then made a second call to Dr Ring in which they discussed Shaun's abnormal blood test results and tachycardia. As no signs of acute blood loss had been identified, Dr Ring considered the low haemoglobin could be explained by chronic anaemia due to dietary inadequacy. He thought Shaun's low sodium levels could be attributed to his vomiting, earlier diarrhoea and fasting.

40. Dr Ring instructed Dr Thanasingam to implement a treatment plan of continuing the IV fluids and conducting some additional blood tests that night. The following morning they would repeat the blood tests and investigate a nutritional cause for Shaun's anaemia.

41. Importantly, Dr Ring determined that Shaun did not need to be transferred to a specialist hospital with higher level paediatric services, such as Gold Coast Hospital. In his view there was a possible cause of gastroenteritis and dehydration for Shaun's signs and symptoms, and no basis to suspect a more sinister cause. For this reason he was satisfied he could be moved to the Paediatrics ward at the Tweed Hospital.

42. At the inquest Dr Thanasingam told the court he had been reassured by Dr Ring's confidence in the above diagnosis and treatment plan. Like Dr Ring, he was further reassured by what he considered to be the absence of objective signs of any abdominal pathology or acute blood loss to explain Shaun's low haemoglobin count. Satisfied that he had relayed all the relevant information to Dr Ring, he did not ask him to come in and personally review Shaun.

43. After this conversation Dr Egan wanted to know if Dr Ring was satisfied that Shaun could be transferred to the Paediatrics ward, given his blood test abnormalities. Dr Thanasingam confirmed that he was, and the transfer proceeded at about 11.40pm.

Events after midnight

44. Around midnight two events of significance occurred. While Shaun was being transferred to the Paediatrics ward he vomited a fluid which tested positive for blood. Dr Thanasingam was informed and he re-examined Shaun, again finding no evidence of abdominal tenderness.

45. Secondly, a repeat set of blood results became available. According to Shaun's treatment plan these were to be performed the following morning, but Dr Egan was sufficiently concerned about Shaun to direct that the second collection be taken while Shaun was still in the ED. These showed a further drop in Shaun's haemoblobin, from 75 to 61 g/L, and an increase in white cell count to 21, and neutrophils to 15.8. His sodium levels had very slightly increased.

46. For the third time that night Dr Thanasingam rang Dr Ring, telling him of the blood vomit and the repeat blood results. This did not result in any significant change to the treatment plan. Regarding the blood vomit, Dr Ring thought this may be due to a small tear in Shaun's oesophagus as a result of prior vomiting.

47. I should note that, contrary to Dr Thanasingam's evidence, Dr Ring asserted he was not informed of the increase in Shaun's white cell count and neutrophils. He claims that had he been told of these he would have immediately attended the hospital to review Shaun. The significance of this evidence is discussed later in these findings.

The SPOC chart

48. On admission to the Paediatrics ward Shaun was recorded as having a heart rate of 169. He was receiving IV fluids via a cannula in his arm. Within half an hour of arrival he had three more vomits which were brownish in colour.

49. Throughout Shaun's admission, observations of his vital signs were recorded on his Standard Paediatric Observation Chart [SPOC]. This chart records details of a child patient's indicators including respiratory rate, blood pressure, heart rate and temperature. It acts as a track and trigger system for clinicians to recognise and respond when a child is clinically deteriorating.

50. The SPOC is colour coded such that measurements are classified within blue, yellow or red zones. If a child's observations are in the blue zone the frequency of observations is increased. If observations move into the yellow zone staff must consult with the senior nurse in charge, increase observations and consider a clinical review. If they reach the red zone an escalation of care by way of Rapid Response should be initiated. This will prompt the attendance of staff with advance life support skills to treat what has caused the deterioration.

51. The SPOC calling criteria are able to be varied, at the direction of a medical registrar in consultation with a consultant. If this happens the mandated response need not be made until the vital sign reaches the new mark.

52. For children, heart rates measuring between 150 and 170 fall within the yellow zone, and greater than that within the red zone. Shaun's SPOC shows that overnight and through to the next morning his heart rate measurements were 169, 168, 179, 161 and 170. These all fall within the yellow or the red zone.

The SPOC variance

53. At 3.20am the senior nurse in charge of the Paediatrics ward RN Karen Greenway rang Dr Thanasingam. She was concerned that Shaun's heart rate remained high at 168 despite him having been on the ward for some hours. Dr Thanasingam directed that Shaun's heart rate calling criterion could be altered such that it would not activate a review unless it exceeded 180.

54. Dr Thanasingam explained that at the time he believed the variation was appropriate. He had questioned RN Greenway and ascertained that Shaun did not appear to be in pain and that none of his other signs had changed. As had been the case all night, Shaun was agitated when physically touched and irritated by the presence of the cannula in his arm. Dr Thanasingam felt confident Shaun's persistent tachycardia was due to his agitation and dehydration. He ordered the variation and directed it be reviewed at the morning ward round.

55. Dr Thanasingam did not discuss this decision with Dr Ring or with any other consultant. He told the court that at the time he did not know a variance required such consultation.

56. At 7.00 the next morning Dr Thanasingam returned to the Paediatric ward and again examined Shaun. Shaun's abdomen was still soft and non-tender. He had not had any further vomiting.

57. Dr Thanasingam then examined his other patients and prepared to provide a hand over to the morning team. It was by now about 7.55am. RN Kate Browne informed him that Shaun's heart rate had reached 179 and he was resisting

having his blood pressure taken. When Dr Thanasingam provided his hand over to the incoming paediatric registrar Dr Katya Zawada, he told her Shaun was the most unwell patient on the ward and asked her to review him as the first patient on her round.

The morning of 14 March

58. Shaun and his mother had passed a very difficult night. Shaun was too irritated to sleep despite his mother's attempts to keep him calm. He was repeatedly pulling at the cannula in his arm. Such was his agitation that the night nursing staff decided not to attempt to take all of his observations, despite his heart rate being consistently in the yellow zone. This would ordinarily mandate observations at 30 minute intervals. At the inquest the nurses explained they were trying to avoid making Shaun so agitated that he removed his IV cannula.

59. Throughout the morning of 14 March RN Kate Browne monitored Shaun's heart rate, but said she was unable to measure his other vital signs due to his distress. At 11.00am she succeeded in taking some measurements while Shaun was watching TV. His heart rate was 160 and his temperature 36.1 degrees. His respiratory rate was 27 breaths per minute.

60. A medical review of Shaun's condition took place at 9.15am. It was performed by Dr Katya Zawada who was the day shift paediatrics registrar, and the paediatrics resident medical officer Dr Corinne Watson. According to the notes of their review they were aware of Shaun's developmental delay, his anaemia and low sodium levels, and the results of his second blood tests. They recorded a plan to have Shaun reviewed by the paediatrics consultant Dr David McMaster, whose arrival was expected some time before lunch. On the morning of 14 March he was seeing patients at another hospital.

61. At the inquest Dr Zawada told the court she had understood from Dr Thanasingam's hand over and from Shaun's progress notes that he was unwell, but not critically so. This remained her assessment after her review of his blood test results from the previous night. She did not personally examine Shaun as she did not want to agitate him.

62. During the morning Dr Zawada rang Dr David McMaster at least once to report on Shaun's condition. Dr McMaster also received a phone call from Dr Ring providing a hand over. The evidence is unclear what Dr Zawada communicated to Dr McMaster. Both agree she told him of Shaun's low haemoglobin and sodium. Dr McMaster also thought it possible she informed him of his white cell count. Dr Zawada did not think she had told him of Shaun's elevated heart rate or of the variance to his calling criteria. In any event, Dr McMaster was not left with the impression that Shaun was critically ill. He did not consider it necessary to come to the hospital immediately to review him.

The Rapid Response at 12.45pm

63. Dr McMaster arrived at the Tweed Hospital at about 11.00am and was required to review a child with very severe asthma. He then reviewed Shaun at about

midday, as the first patient on his rounds. Shaun appeared to be asleep while Dr McMaster spoke with his mother. However when Dr McMaster commenced an examination of Shaun he found him to be unrousable, with cold hands and feet. His heart rate was between 20-30 beats per minute and his respiratory rate was 20 breaths per minute.

64. Dr McMaster immediately called a Rapid Response. Shaun went into cardiac arrest and CPR efforts commenced. Shaun was intubated and given adrenaline, fluids and blood. Abdominal ultrasounds showed large volumes of blood or pus in his abdomen. This suggested severe intra-abdominal pathology.

65. Shaun was too unstable to be transferred to a specialist hospital for emergency surgery, so it was decided to perform this at the Tweed Hospital and to transfer him immediately afterwards. At 2.40pm Surgeon Dr King-Sang Wong carried out a laparotomy which revealed a perforated duodenal ulcer. Dr Wong closed the perforation and washed out a large quantity of fluid. Throughout the operation Shaun had continual cardiac arrests.

66. By now Shaun was in a critical condition. After discussions with the medical team Shaun's parents made the heartbreaking decision that he was not to be resuscitated if he deteriorated further. He was pronounced deceased just before 4.00pm.

The central issue

67. The central issue of the inquest was the adequacy of care provided to Shaun by the clinicians at the hospital, and by the tele triage nurses at 13 Health. To assist this determination the court was assisted with the evidence of the four medical experts who gave concurrent evidence, and by the two nursing experts who also gave their evidence in conclave. In addition all expert witnesses had provided written reports.

68. In considering the adequacy of Shaun's care I have endeavoured to keep in mind that medical diagnosis and treatment is a human activity, and mistakes do occur. Furthermore all coroners need to be mindful of the risk of hindsight bias, the phenomenon of seeing an event after it has occurred as having been predictable.

69. Nevertheless at the inquest all the medical experts identified features of Shaun's care that were inadequate and inappropriate. They were unanimous that underlying these deficiencies was a shared failure to appreciate how critically ill he was, resulting in a failure to act with urgency to identify the cause. The experts were at pains to emphasise the collective nature of this failure however, with all agreeing it would be inappropriate to single out individual clinicians for blame. As put by Associate Professor Raftos in his evidence on 20 December, all the doctors, who he said seemed to be good doctors, nevertheless failed to recognise from Shaun's whole clinical picture how seriously ill he was, and to treat him accordingly.

70. The consistency of opinion on this point was notable, and persuasive. I have tried to ensure that this understanding of the situation informs my conclusions about the care Shaun received at each stage.

The adequacy of medical treatment in the ED

71. The four medical experts agreed that while in the ED Shaun had received thorough examinations from Dr Wood and Dr Egan. They also concurred that appropriate decisions were made to order blood samples, commence IV therapy, and seek the assistance of the Paediatrics specialists. None was critical of the care provided by Dr Wood.

72. As regards Dr Egan however, there was consensus of opinion that he had not recognised how unwell Shaun was, leading him to make treatment decisions that were not optimal. He needed to have personally discussed Shaun's condition with Dr Ring, and to have been more proactive in urging a transfer of Shaun to a specialist hospital better equipped to investigate his symptoms.

73. Underpinning this criticism was the opinion, emphatically expressed by all the medical experts, that Shaun required critical care and was entirely unsuitable for admission to a general Paediatrics ward. He had unexplained tachycardia, low haemoglobin and very low sodium levels. In their view, the results from the first blood collection were sufficiently alarming to prompt urgent enquiry as to the cause. Further, as put by Dr Lee in his first statement:

'Managing acutely unwell children is difficult and takes years of training to become experienced; in Shaun's case it was made even more difficult by the fact that he couldn't verbalise'.

74. The appropriate response was an early transfer to a tertiary hospital, or the conduct of urgent investigations to find the cause of his condition.

75. Dr Lee also voiced criticism that Dr Egan had not sufficiently conveyed the need for concern to the more junior Dr Wood and Dr Thanasingam. He noted that within Australian hospitals clinicians work within teams, with a hierarchy of clinical ability and experience. In this context trainee doctors rely on senior doctors for guidance.

76. Some other criticisms were made of Dr Egan's treatment decisions. It was suggested that he ought to have persisted in performing blood gas testing, and provided more fluid therapy. As to the first however, Dr Egan explained that with the aid of the first series of blood tests he was able to see that Shaun had metabolic acidosis, and treated him accordingly. Professor Raftos agreed this was a reasonable approach. As to the IV fluid therapy, the experts were not unanimously of the view that this ought to have been provided at higher levels.

77. In the circumstances it would not be appropriate to conclude that Dr Egan's decisions regarding the above two matters were below standard. The primary concern was his failure, in common with other clinicians, to recognise that Shaun

was critically ill. I accept the expert opinion that Dr Egan as ED consultant needed to have appreciated this and acted accordingly.

78. In making this comment however, I am mindful of the context within which Dr Egan was working. He was the only ED consultant on duty that night. The court heard that since Shaun's death the Hospital has rostered a second ED consultant to the evening shift.

79. Secondly, I keep in mind the urgings of all four medical experts that it would not be appropriate to apportion blame to individual doctors, given that the failure was collective. In her evidence Dr McLeod described this process as a *'group think phenomenon'* to which in her opinion all clinicians were susceptible. This she said is the process whereby clinicians in discussing a patient become *'blinded to the really relevant abnormalities that should have been ringing alarm bells for everybody …and put to the periphery things that are actually really important.'*

80. She commented further that Shaun's clinicians appeared to have entered '*a mindset where everybody's somehow managed push to the edges of concern the tachycardia, the brownstain vomit, the low haemoglobin.'* This led to a failure to formulate differential diagnoses and treatment plans, resulting in the existing ones being endorsed by successive teams.

81. Like all the clinicians who cared for Shaun that night and the next morning, Dr Egan was deeply affected by his death. It is much to his credit that at the inquest he expressed sincere regret that he had not spoken to Dr Ring that night, or taken steps to override the decision to admit Shaun to the Paediatics ward. He agreed further, that even on the basis of what he knew that night there were '*concerning elements that were sufficient to speak to the retrieval services in Queensland'*.

The adequacy of medical treatment in the Paediatrics ward

82. I turn now to consider the adequacy of the treatment Shaun received in the Paediatrics ward.

83. In their conclave evidence the four experts commended Dr Thanasingam for conducting a thorough history and examination of Shaun. However the problem, identified by Associate Professor Raftos and Dr McLeod, was that his assessment lacked synthesis causing him to give insufficient regard to an overall picture of extreme unwellness. Abnormalities were noted but, as Dr McLeod described it, '*there's no attempt to explain the findings and formulate some differential diagnoses.'*

84. It was made clear that Dr Thanasingam did not bear sole responsibility for this shortcoming. There was unanimous criticism of the relatively benign explanations which both Dr Ring and Dr Thanasingam assigned to Shaun's signs and symptoms. This led to response rates and treatment plans which did not reflect how critically ill he was.

85. Dr Lee described the diagnosis of viral gastroenteritis as '*plausible but questionable',* and *'barely adequate'* to explain Shaun's symptoms and abnormal pathology. There was an insufficient evidential foundation to attribute his sodium levels, for example, to depletion due to vomiting, as Shaun had not vomited for several days. For similar reasons the blood vomits should not have been attributed to a tear in the stomach lining resulting from persistent vomiting. Nor was there justification to attribute Shaun's low haemoglobin to nutritional deficit.

86. At the inquest Dr Thanasingam accepted he ought to have given more thought to differential diagnoses, and that he should have asked Dr Ring to attend and personally review Shaun. It was evident he had placed a high degree of reliance on Dr Ring. This was acknowledged by the medical experts, who agreed with Dr Lee that criticism of Dr Thanasingam ought to be tempered by appreciation of his lack of experience and the degree to which he needed the guidance of senior doctors.

87. There was however unequivocal criticism of Dr Thanasingam's decision to vary the calling criteria for Shaun's heart rates. Shaun's persistent tachycardia ought not to have been ascribed to dehydration and agitation, and certainly not without consulting the on call consultant. At the inquest Dr Thanasingam accepted this criticism, stating he had changed his practices to ensure this did not happen again. The court also heard that Clinical Procedure protocols at the hospital had since been amended, to mandate that alterations to a child's SPOC calling criteria could not be made without documented discussion with the paediatrician on call.

88. I have mentioned Dr Ring's assertion that on their second phone call Dr Thanasingam did not inform him of the increase in Shaun's white cell and neutrophil levels. He said this information would have caused him to come in to hospital immediately to review Shaun. For his part Dr Thanasingam believed he had given Dr Ring this information.

89. It is not possible to resolve this factual discrepancy and on reflection there is no need to. The unanimous expert opinion was that even without these isolated results Shaun's clinical picture ought to have been sufficiently alarming to prompt Dr Ring to review his diagnosis and treatment plan. I accept their opinion that Dr Ring's and Dr Thanasingam's lack of appreciation of Shaun's critical condition led to inappropriate decisions about his medical treatment. The plan, endorsed by Dr Ring, to observe Shaun overnight and defer further investigations until the morning was not reasonable or adequate.

90. I accept the submissions made on behalf of Dr Ring that he regrets the decision he made to defer until the following morning any further review of Shaun. I accept also that his decision did not in any way reflect a lack of care or concern for Shaun.

91. In Dr Thanasingam's case these adverse comments are moderated to some extent by his lack of experience. For both doctors too I accept the expert assessment that a collective lack of appreciation for his critical condition contributed to Shaun's tragic death. This does not make his death any less sad.

It does however make it problematic and to some extent unfair to single out individual clinicians for blame.

The adequacy of medical treatment provided on 14 March

92. It is evident that when Dr Ring and Dr Thanasingam provided hand over reports to their day shift successors they did not communicate any particular urgency about his situation. At about 8am on 14 March Dr Ring phoned Dr McMaster, but although he told him that Shaun was the most unwell child on the ward he did not convey an urgent need for further investigations.

93. Similarly the day shift paediatics registrar Dr Zawada was not left with any sense of urgency following Dr Thanasingam's verbal hand over that morning. Nor did her review of Shaun's blood test results from the previous night cause her undue concern. She told the inquest: *'I knew he was unwell, but not critically unwell'*. Dr Zawada saw no need to expedite Dr McMaster's personal review of Shaun, or to consider whether the medical evidence about his condition supported the working diagnosis and treatment plan.

94. At the inquest Associate Professor Raftos expressed qualified criticism of this approach, with which Dr McLeod, Dr Lee and Dr Vinen agreed. Associate Professor Raftos stated:

'… she had the ability to look at the results herself and .. to draw inferences from those things. So she could have made the inference that Shaun was critically ill and altered his treatment at that stage but she was affected by the advice that she got from her boss and by the advice she got from those who came before her'.

95. Dr Zawada's approach appears to exemplify the '*group think phenomenon'* described by Dr McLeod. Having been given an impression about the extent of Shaun's unwellness by the preceding paediatric shift, it does not appear she undertook a fresh assessment of the medical evidence. This represented a missed opportunity to identify how unwell he was, and to review the adequacy of the existing treatment plan.

96. It was put in submissions on behalf of Dr Zawada that the court ought to consider the false sense of security she no doubt received from Dr McMaster and Dr Thanasingam. This was acknowledged by the medical experts, who nevertheless considered she had a responsibility to make her own assessment of his condition. I accept their evidence on this point.

97. Similar criticism was made of the approach taken by Dr McMaster. The consensus of expert opinion was that he too failed to appreciate the extent of Shaun's unwellness and ought to have escalated his care that morning. Those representing Dr McMaster strongly urged the court not to accept this assessment. Their submissions were based on the following grounds.

98. The first was that of the four experts only two, Dr McLeod and Dr Lee, hold specialties in paediatrics. Accordingly Dr Vinen and Associate Professor Raftos

were not qualified to give opinion evidence about the reasonableness of Shaun's treatment in the Paediatrics ward. I do not accept this submission. Both Associate Professor Raftos and Dr Vinen have extensive experience in Emergency Department medicine, an area which as pointed out by Associate Professor Raftos at the inquest, features a large proportion of child admissions. Both were in my view qualified to express opinions about what constituted appropriate care of a child who had presented to the ED only hours before he died.

99. The second submission was that in their written reports provided prior to the inquest, none of the four witnesses made any criticism of Dr McMaster's treatment of Shaun, and indeed in his second report Associate Professor Raftos described it as adequate and appropriate. It was submitted that Dr McMaster was denied procedural fairness because he was not able to be properly heard on the substance of the adverse comment expressed at inquest. I acknowledge this was the case and that it is a not infrequent feature of proceedings like inquests which are inquisitorial and not adversarial in nature.

100. Thirdly it was put that the adverse opinion expressed by the experts, in particular Dr Lee, was based on assumptions that were not established as facts. Dr Lee's opinion that Dr McMaster ought to have escalated Shaun's care was based on the false assumption that Dr McMaster had been made aware of Shaun's blood results and tachycardia. It was submitted accordingly that Dr Lee's response should not be given any weight.

101. It is not known precisely what information Dr Zawada conveyed to Dr McMaster that morning. It is likely it did not include the fact of Shaun's persistent tachycardia, or the entirety of his blood test results. When this was put to Dr Lee at the inquest he acknowledged that in those circumstances he may not have thought it imperative to attend immediately. But as is plain from Dr Lee's response (quoted at paragraph 39 of Mr Barnes' submissions), that even on the basis of this limited information Dr Lee thought an escalation of care was called for:

'…if a registrar rang me up and I was at another hospital and I took that call …I'd be very concerned about it. I'd certainly be probing a lot of questions about why and what's going on. I'd want to do more blood tests straight away.'

102. The evidence indicates that Dr McMaster did not respond in this manner. This seems to be consistent with Dr Lee's overall criticism of the senior consultants involved in Shaun's care, that they did not provide sufficient guidance to the junior doctors within their teams as to the need to consider whether a more urgent response was called for.

103. I note further Associate Professor Raftos' evidence that on the strength alone of Shaun's haemoglobin and sodium levels (which were disclosed to Dr McMaster) the appropriate response would have been to provide an immediate assessment.

104. I acknowledge that the manner in which the evidence emerged at inquest denied Dr McMaster the opportunity to place potentially dissenting expert opinion before

the court on this point. The evidence as it stands however makes a case that his decision not to escalate Shaun's care was not optimal.

105. No issues were raised as to the appropriateness of the medical action taken when Dr McMaster activated the Rapid Response, or the efforts made thereafter to save Shaun's life.

The adequacy of nursing care at the hospital

106. I turn now to consider the adequacy of nursing care which Shaun received.

107. During the night of 13 March the nurse in charge of the Paediatrics ward was RN Kate Greenway. She had been a registered nurse for 24 years, 12 of them in the Paediatrics ward. According to the closing submissions of Counsel Assisting, it is open to the court to find on the evidence that in two respects the care which she provided to Shaun was not appropriate.

108. The first of these was her decision not to make observations of Shaun's vital signs at the intervals that were required. I have mentioned that for the entirety of the night Shaun's heart rate placed him in the SPOC yellow zone, mandating observations at 30 minute intervals. RN Greenway acknowledged she had not complied with this requirement. She explained it was because of Shaun's hypersensitivity to touch, which made him extremely agitated by the handling involved in taking observations. RN Greenway wanted him to settle and sleep.

109. At the inquest RN Greenway accepted the opinion of the nurse experts Ms McCallum-Pardy and Ms Gribben that she ought to have taken and recorded Shaun's observations more frequently that night, notwithstanding the stressful circumstances. RN Greenway told the court she had since received further training designed to reinforce this.

110. The second criticism was that although over the course of the night RN Greenway was concerned about aspects of Shaun's medical treatment, she had not escalated these concerns to a senior doctor or nurse.

111. At the inquest RN Greenway told the court she had held concerns that Shaun was not being transferred to a specialist hospital. According to their statements she and a colleague RN Gallo had voiced this concern to Dr Thanasingam, but he had assured them that Dr Ring considered it appropriate for Shaun to remain on the ward. Both nurses stated they expressed the same concerns to their nursing supervisor when she came onto the ward. Neither Dr Thanasingam nor the nursing supervisor denied that these conversations took place, but could not recall them.

112. On behalf of RN Greenway the court was urged not to conclude that on these two points the care provided by RN Greenway was inadequate. Throughout the night she had informed Dr Thanasingam of important changes in Shaun's condition including his blood vomits, the drop in his haemoglobin to 68 and at 3am, that his heart rate continued to be elevated. It was submitted that she was entitled to expect that Dr Thanasingam was keeping Dr Ring advised of Shaun's

concerning features. In these circumstances it was asked what benefit there would have been in RN Greenway speaking directly to him herself.

113. It was further submitted that it would be unfair to find RN Greenway's care of Shaun inadequate in circumstances where numerous doctors had not recognised the serious nature of his condition.

114. It is fair to acknowledge that RN Greenway voiced concerns to Dr Thanasingam and to the nursing supervisor, and was aware that Dr Thanasingam was in consultation with Dr Ring. It is therefore likely she felt some reassurance that a senior doctor was aware of Shaun's condition. In these circumstances it may not be appropriate to criticise her for not further escalating her concerns. Nevertheless the hospital has since taken steps to better equip nurses and junior doctors to take such action when it is required. I will return to these reforms later in the findings.

The adequacy of advice provided by the 13 Health service

115. The other aspect of nursing care examined at the inquest was the adequacy of the advice given to Ms McGlinchey by the two tele triage nurses, RN Sobbard and RN Walker.

116. It was conceded by both nurse experts that Shaun's case was a difficult one to diagnose. Further, neither Ms McCallum-Pardy nor Ms Gribben was critical of the advice given by RN Walker on 13 March. However certain aspects of the advice provided by RN Stobbart were strongly criticised.

117. From their review of the recording of RN Stobbard's phone conversation, both nurse experts concluded that RN Stobbart lacked sufficient assessment skills to obtain an adequate clinical picture of Shaun's physical condition. Furthermore they considered she lacked the skills and training to assess a child with non-verbal developmental delay. It is this latter criticism which I consider to be most relevant to the issues of this inquest. This is because in my view it indicates a systemic deficiency in the training provided to 13 Health tele triage nurses.

118. Both nurse experts cited research that children who are developmentally delayed appear to react in a different manner to pain events than non-delayed children, displaying lower distress responses and fewer help-seeking behaviours. This poses specific challenges when clinicians attempt to assess their pain. The challenges are exacerbated when the assessment is not conducted on a face to face basis. The four medical expert witnesses concurred with this evidence.

119. As at March 2016 RN Stobbard had no particular training in assessing people with disabilities, either at 13 Health or elsewhere. She also had limited experience in paediatric nursing. Unlike RN Walker, in her telephone discussion with Ms McGlinchey she evinced no awareness of the risks associated with conducting a telephone assessment of a child who was non-verbal and developmentally delayed. It was this very characteristic of Shaun's which prompted RN Walker to advise that he be taken straight to hospital so that he could be assessed in person.

120. RN Stobbard's Counsel Mr O'Keefe strongly submitted that the court ought not to find any deficiencies in her tele triage advice. His submissions rested substantially on a challenge to the expertise and objectivity of the two nurse experts.

121. Mr O'Keefe submitted that the opinions of Ms McCallum-Pardy and Ms Gribben should be given little weight because they lacked specific knowledge of the clinical algorithms utilised in the tele triage environment. In my view however, whether or not they possessed such knowledge does not bear on their expertise to judge the specific matter with which I am most concerned: the need to appreciate that Shaun may have required direct physical examination due to his status as a non-verbal developmentally delayed child.

122. Secondly Mr O'Keefe asserted that the nurse experts had based their criticisms of RN Stobbard's advice on a false assumption: namely that Ms McGlinchey had told RN Stobbard that Shaun was not drinking fluids. It does appear that both Ms McCallum-Pardy and Ms Gribben overlooked that Ms McGlinchey reassured RN Stobbard he had been drinking water. Again however this error did not relate to the area of deficiency on RN Stobbard's part which I have identified as of particular relevance.

123. As a final matter Mr O'Keefe asserted that the nurse experts ought to have moderated their criticism of RN Stobbard having regard to her lack of experience and training in the areas of developmental delay and paediatrics. In my view the quality of RN Stobbard's advice was indeed compromised by her lack of experience and training in these areas. It is for this reason that Counsel Assisting declined to propose that any recommendations arising out of the inquest be personal to RN Stobbard. Instead Ms Bennett submitted that the better and fairer approach would be to consider the shortcomings in RN Stobbard's advice as the product of deficiencies in 13 Health's training programs.

124. I have carefully considered the evidence and submissions regarding RN Stobbard's phone assessment of Shaun. I acknowledge that in her interactions with Ms McGlinchey she built rapport and demonstrated care and concern for Shaun. Her advice was well intentioned. However the evidence compels that conclusion that it fell short in the way that has been discussed above. I accept the submission of Counsel Assisting that this is properly seen as an issue which needs to be addressed by 13 Health in a review of their training program.

Question of recommendations regarding 13 Health

125. Until the final days of submissions it did not appear that those who manage 13 Health accepted the need for any improvement to the clinical skills of its nurses when assessing a patient with developmental delay. At the inquest the court heard evidence from Dr Jonathan McFarlane, who has responsibility for the clinical safety and quality of 13 Health's telephone advice. He rejected any suggestion of a deficiency in RN Stobbard's advice, or in the training which 13 Health provided to its nurses. Further, at the close of evidence those representing 13 Health provided written submissions. Although these adverted to

training changes planned in 2019, the submissions opposed the making of any recommendations, claiming that those proposed by Counsel Assisting were not based on considered and credible expert opinion.

126. Despite this on 26 March the court was provided with a statement from Victoria Chalmers, who is Executive Director of 13 Health's Contact Centre. This provided details of a new education package which had been developed for tele triage staff, in response to the evidence heard at this inquest. The program is designed to help build nurses' clinical skills in identifying patients with developmental delay and providing advice in relation to them. The statement also outlined proposed updates to 13 Health's software, such that when there are any developmental delay concerns the nurse is prompted to recommend that the patient receive a face to face assessment within a minimum of 12 hours.

127. It was very encouraging to hear that as a result of the evidence heard at this inquest, those who manage 13 Health have committed to improving the expertise of their staff when they are providing advice about children in Shaun's position.

128. In her statement Ms Chalmers advised of plans that the education program would be delivered to all tele triage staff by 7 July 2019. On this basis Counsel for 13 Health submitted that a recommendation regarding training was not necessary. The changes advised by Ms Chalmers are very welcome, but the court would wish to ensure that the implementation of the new program is achieved as a matter of priority. With this in mind I will adopt, with some modifications, the recommendation about training proposed by Counsel Assisting.

129. Counsel Assisting made two further proposals for recommendations: that 13 Health consider providing an in-service educational session based on these findings; and that consideration be given to developing a policy that tele triage nurses consult in cases where the caller has conveyed that the patient is a child with developmental delay.

130. Both proposals were opposed in the submissions on behalf of 13 Health. As to the first, Mr O'Keefe expressed concern about the possible detrimental effect on RN Stobbard. This concern is easily overcome with suitable anonymisation of the people involved. A similar model of presentation is routinely used in teaching hospitals, to keep staff updated on clinical matters of importance. There would be benefit in making this recommendation.

131. The second further proposal was opposed, on the basis that it was unworkable. It was submitted that a supervisor or nurse unit manager would not always be available to be consulted. The court did not receive any relevant details about this. The recommendation is restricted to those patients who are developmentally delayed children. I am of the view that it would provide an important overlay of supervision in relation to their care.

132. The recommendations will be made for the consideration of the Queensland Department of Health, the department within which 13 Health operates. In my view this is consistent with the objects of the Act, which include the making of

recommendations concerning public health and safety. As it is a telephone advice service 13 Health receives calls from areas outside Queensland, exemplified in Shaun's case.

Are any other recommendations necessary and desirable?

133. I accept the force of the expert opinion which was critical of aspects of the clinical care provided by Drs Egan, Thanasingam, Ring, Zawada and McMaster. Notably however it was not submitted by any interested party that these practitioners should be the subject of personal recommendations. In my view this is the right and fair approach. All are considered to be conscientious doctors who were concerned about Shaun while he was in their care and were affected by his very sad death. Some, in particular Drs Egan, Thanasingam and Ring, have reflected earnestly on their decisions and have supported changes since made by the hospital to improve its care of children.

134. In addition I accept the unanimous opinion of the medical experts that apportioning blame to individual doctors would not be an appropriate response in this case. There was a failure throughout Shaun's entire admission to appreciate his critical condition and the urgent need to act upon it, a failure which was shared by all the main clinicians. It would be both problematical and unfair to single out individual practitioners.

135. Those managing the Tweed Hospital have acknowledged that systemic shortcomings contributed to Shaun's death, and have taken steps to address them. The court heard evidence from Mr Wayne Jones, CEO of the Northern NSW Local Health District, about the way in which the hospital has reflected on the issues which arose that night and morning. Mr Jones told the court of changes that have been made, as follows:

- a second ED consultant has been added to the evening shift roster to help with patient load and to monitor and oversee the work of the more junior ED doctors

- hospital protocols have been changed, such that if a child presents to the ED with significant electrolyte or other haematological abnormality, a disability, or undifferentiated diagnosis, the consultant paediatrician on call must review the child in the ED prior to transfer or discharge.

- variations to the SPOC calling criteria cannot occur without documented discussion with the paediatrician on call

- assertiveness training has been introduced to training programs to assist nurses and junior medical staff in escalating issues of concern

- in anonymous format, Shaun's case and the issues it exposed has been presented in a 'grand rounds' presentation at the hospital, to improve clinicians' ability to recognise and manage deteriorating child patients.

136. These changes are a positive step to improve the hospital's care of children, and I hope it was a source of some comfort to Shaun's family and friends to hear they have been made. The changes obviate the need for specific recommendations.

Conclusion

On behalf of us all at the Coroner's Court, I offer our sincere sympathy to Shaun's family for the loss of their much loved little boy.

I acknowledge the outstanding assistance provided to this inquest by Counsel Assisting and the Office of the General Counsel. I also thank all those representing the interested parties to this inquest, whose assistance and submissions were most helpful.

Findings required by s81(1)

As a result of considering all of the documentary evidence and the oral evidence heard at the inquest, I am able to confirm that the death occurred and make the following findings in relation to it.

Identity
The person who died is Shaun Bell

Date of death:
Shaun Bell died on 14 March 2016

Place of death:
Shaun Bell died at the Tweed Hospital, Tweed Heads NSW 2485

Cause of death:
Shaun Bell died as a result of peritoneal sepsis caused by a perforated duodenal ulcer.

Manner of death:
Shaun Bell died in hospital, of natural causes.

Recommendations

To the Director General of Queensland Health:

Recommendation 1
That consideration be given to providing an in service session to all tele triage nurses, based on the Coroner's findings and suitably anonymised.

Recommendation 2
That consideration be given to implementing the Health Contact Centre's 'Global Developmental Delay Training Package' and 'Education on identification of

developmental delay in children' education program to all current and new 13 Health tele triage nurses.

Recommendation 3
That consideration be given to creating a 13 Health policy that ensures that tele triage nurses consult about their advice with the Nurse Unit Manager where the caller has conveyed to the tele triage nurse that the patient is a child with developmental delay.

I close this inquest.

E Ryan
NSW Deputy State Coroner
Lidcombe

Date
14 May 2019