

SOUTH



AUSTRALIA

FINDING OF INQUEST

An Inquest taken on behalf of our Sovereign Lady the Queen at Adelaide in the State of South Australia, on the 15th, 16th and 17th days of June and the 20th day of July 2004, before Wayne Cromwell Chivell, a Coroner for the said State, concerning the death of Latoya Shelley Quinn.

I, the said Coroner, find that, Latoya Shelley Quinn aged 12 years, late of 34 Hagen Crescent, Hackham West, South Australia died at Hackham West, South Australia on the 24th day of February 2004 as a result of raised intracranial pressure due to ventriculo-peritoneal shunt blockage.

1. Introduction

- 1.1. Latoya Shelley Quinn was taken to Noarlunga Hospital by her mother on 23 February 2002. She was complaining loudly of severe headache which was not relieved by Panadol.
- 1.2. Latoya had been playing at a friend's house, and, after bending over to pick up a ball, she stood up and hit her head on a clay hanging basket.
- 1.3. Latoya had been born with a condition known as congenital hydrocephalus. A ventriculo-peritoneal shunt had been inserted when she was 12 days old.
- 1.4. Latoya was also diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) when she was about 6 years old.
- 1.5. Latoya was examined by Dr Ian McCombe, an inexperienced Resident Medical Officer. Dr McCombe examined her, and then consulted Dr Peter Trnka, a Paediatric

Registrar at Flinders Medical Centre. On Dr Trnka's advice, Dr McCombe did not admit Latoya to hospital. He gave her some pain-relieving medication, and advised her mother to take her home on the basis that if her condition became worse, she should take her by ambulance to the Flinders Medical Centre or the Women's and Children's Hospital.

- 1.6. Latoya's mother took her home. On the way, Latoya was dry retching in the car. Mrs Quinn put her to bed. At about 1:30am Latoya vomited and returned to bed.
- 1.7. At some stage during the night, Latoya died. When Mrs Quinn found her at about 8am the next morning, she was unresponsive and cold to touch. An ambulance was called, but it was clear to the ambulance officers that Latoya was deceased.

2. **Cause of death**

- 2.1. A post-mortem examination of the body of the deceased was performed by Dr J D Gilbert, Forensic Pathologist, on 25 February 2002. Dr Gilbert concluded that the cause of Latoya's death was 'raised intracranial pressure due to ventriculo-peritoneal shunt blockage'. He commented:

'...

Symptoms of raised intracranial pressure include severe headache, vomiting and behavioural alterations.

Neuropathological examination showed brain swelling complicating obstructive hydrocephalus due to congenital aqueduct stenosis. The ventricular end of the ventriculoperitoneal shunt was occluded. Microscopic examination of the tip of the shunt showed that it was occluded by choroid plexus and some haemorrhage was noted around the tip. Multifocal axonal injury was also demonstrated by APP staining consistent with recent head injury resulting from impact with the hanging pot.

2. Review of this case by a paediatric neurosurgeon is suggested. One can sympathise with the examining doctor's difficulty in attempting to conduct a neurological examination on a very uncooperative patient. However, it may have been prudent for the doctor to obtain guidance from a neurosurgeon or neurosurgical registrar rather than a paediatric registrar in which case brain imaging may have been suggested. There is also no evidence in the casenotes that the deceased's mother was warned of the ominous significance of vomiting.
3. Analysis of a specimen of blood obtained at autopsy reportedly showed a blood alcohol concentration of nil. The blood contained a therapeutic concentration of paracetamol. No other common drugs were identified.

4. There were no injuries or other markings on the body to indicate the involvement of another person in the death. The bruises over the legs were consistent with causation by accidental trauma as indicated by the deceased's mother's statement. '

(Exhibit C2a, p5)

3. Background

- 3.1. As I have already mentioned, Latoya Shelley Quinn was born on 11 November 1989. At the time she died she was only 12 years and 3 months old.
- 3.2. Before she was born, Latoya was diagnosed with a condition known as congenital hydrocephalus. This is a condition in which there is defective absorption and/or drainage of cerebro-spinal fluid which, if left untreated, can result in severe brain damage.
- 3.3. At the age of 12 days, an operation was performed by Mr Ahmad Hanieh, Neurosurgeon, at the Women's and Children's Hospital in Adelaide, in which a ventriculo-peritoneal shunt was inserted. In this operation, a one-way valve is inserted into the ventricle of the brain and the fluid is drained through a tube into the peritoneal cavity where it is absorbed.
- 3.4. This shunt was revised twice within the first six months of Latoya's life.
- 3.5. Latoya had no further trouble with the shunt until November 1999, when she was 10 years old. She had undergone regular checkups by Mr Hanieh in the meantime.
- 3.6. In November 1999, Latoya suffered a headache which could not be relieved with Panadol. She also appeared tired. She was not vomiting. Her mother took her to the Noarlunga Hospital where she was seen by a Dr Clohesy. He referred her to the Women's and Children's Hospital, where it was determined that the shunt had become blocked.
- 3.7. An operation to replace the shunt was performed the following day.
- 3.8. In 1995-1996, Latoya's behaviour became a problem. Her mother told me that she would often scream, and be disruptive and disobedient at school, and was often argumentative and would 'lash out' (T42). Eventually, Dr Michael Harboard, who is a Paediatric Neurologist at the Flinders Medical Centre, diagnosed ADHD for which she was prescribed dexamphetamine.

- 3.9. On 23 February 2002, Latoya was playing at the house of a friend, Alysia Becker. Alysia's mother, Ms Dianna Becker, states that she saw Latoya reached down to pick up a ball, and as she stood up she hit her head on a clay hanging basket. She said this happened at about 12:30pm to 1:00pm. Latoya did not complain of a headache until about 5:00pm when Ms Becker gave her a Panadol (see Exhibit C5a). Latoya continued to complain of headache.
- 3.10. Mrs Quinn arrived at about 8:45pm. By this time Latoya was agitated, crying, holding her forehead and complaining of a headache.
- 3.11. Mrs Quinn took Latoya to Noarlunga Hospital and the clinical record shows that she arrived at 9:10pm. She was seen by the Triage Nurse, and taken to an examination cubicle at 9:21pm. There is evidence from the nurses that she was seen more quickly than usual because she was upset, noisy and disturbing the other patients.
- 3.12. Latoya was seen by Dr Ian McCombe at 9:54pm. Dr McCombe said that he noted the history that she had hit her head on a pot plant, and that the headache had started around 4:30pm. She was now 'crying out loudly demanding Panadol' and was uncooperative with his examination. He noted:
- 'Screaming and kicking all limbs, temper tantrum style performance.'
(see Exhibit C9a)
- 3.13. Dr McCombe noted Latoya's medical history, in particular the ventriculo-peritoneal shunt, the fact that it had last been replaced when she was 10 years old, as well as a history of ADHD. He told me that Mrs Quinn gave him most of the history (T133). He said he did not read Dr Clohesy's notes in the clinical record in relation to the 1999 admission (T158).
- 3.14. On examination, Dr McCombe found no neurological abnormalities although his examination was difficult because Latoya was uncooperative. He found no sign of a head injury but again commented that examination was difficult.
- 3.15. Dr McCombe found this a 'difficult case' so he decided to seek expert advice. He thought that Latoya's behaviour was consistent with a headache but seemed exaggerated (T139). However, being concerned about the shunt he telephoned the Paediatric Registrar at the Flinders Medical Centre in accordance with usual practice at Noarlunga Hospital.

- 3.16. Dr McCombe spoke to Dr Peter Trnka, Paediatric Registrar. There are significant discrepancies between the two doctors as to what transpired during the conversation. Dr Trnka said that it was unclear whether Latoya had suffered a head injury (T165), although Dr McCombe was in no doubt that she had hit her head on the pot plant. Dr Trnka said that Dr McCombe told him he had conducted an extensive neurological examination (ie. that he had checked all twelve of the cranial nerves, T181) whereas Dr McCombe said he merely examined her pupils, and that the rest of his neurological examinations were incidental to his general examination (T137). Dr Trnka said that Dr McCombe told him that Mr Hanieh had operated on Latoya (T82), whereas Dr McCombe said that he did not know that, so he could not have passed this information to Dr Trnka (T140). Dr Trnka said that he understood that Latoya had been observed at the Noarlunga Hospital for several hours (T171) whereas in fact she had only been at the hospital for a total of one hour and had been seen by Dr McCombe only once.
- 3.17. In any event, Dr Trnka said that in view of the fact that Latoya's neurological signs were normal, and that several hours had elapsed since her headache had started, it was unlikely that she had suffered a blocked shunt. He advised Dr McCombe as follows:

'I advised to give different pain relief, nonsteroidal medication, observe for a while, if she does not change she can be discharged home, but if Dr McCombe can give parents or mum a pamphlet that says about head injuries which explains how to observe these head injuries and if this girl develops other symptoms such as vomiting or her consciousness is decreased or if the headache continues, they should take the ambulance and come either to Flinders or Women's and Children's where her main doctor, Dr Hanieh was based.' (T165-166)

- 3.18. In contrast, Dr McCombe's note of this conversation reads:

'Difficult case. (Discussed with) Paediatric Registrar at Flinders (Dr Peter Trnka) suggested trying naproxen and home to bed; if worse mother should go to FMC or W&C.

Mother agreed with this idea and is happy to take her home and go to W&C/Flinders in ambulance if needed.

A (assessment) ? headache + temper tantrum+++

??? problem with shunt

P (plan) ibuprofen and then home

Running around asking for an operation as she left.'

(Exhibit C9a)

- 3.19. As Naproxen was not available at Noarlunga Hospital, Dr McCombe instructed the nurses to administer Ibuprofen instead. Registered Nurse Peta Bowen administered the medication in liquid form via a syringe. She said that Latoya spat half of it out (T78).
- 3.20. Dr McCombe said that he spoke to Mrs Quinn and advised her as follows:
- '... at some stage I certainly talked to the mother and said I've spoken to the paediatric registrar and that you know, it's okay to go home but you need to be able to get - you know, need to call an ambulance and go to either the Women's and Children's or to the Flinders Hospital if she doesn't settle.' (T143)
- 3.21. Dr McCombe did not note anything about providing Mrs Quinn with a pamphlet. Mrs Quinn told me that she did not receive a pamphlet as she left the hospital. She said that Dr McCombe told her that if she was not happy (or satisfied - she was unable to remember the exact word) she should call an ambulance, and take Latoya to Flinders Medical Centre or Women's and Children's Hospital (T31).
- 3.22. Latoya was clearly unhappy about leaving the hospital while her head continued to hurt. RN Bowen heard her say that she needed an operation and that she had a shunt (T78). As Latoya was led outside by Enrolled Nurse Linda Allen, RN Bowen saw Latoya throw herself to the floor.
- 3.23. EN Allen said that Latoya was saying that she had a headache, that her shunt was blocked, that she wanted Panadol, and that she wanted an operation. She said that Latoya was alternately hysterical, then calm (T91). She said that at one stage Mrs Quinn smacked Latoya on the bottom in an attempt to calm her down (T93).
- 3.24. EN Allen said that she thought Latoya sat down on the floor as she left the Emergency Department, and that once they were outside the hospital on the way to the car she threw herself into a garden bed, again saying:
- 'My shunt's blocked, I want an operation'
- (Exhibit C10, p4)
- She said that Latoya was kicking her legs and 'having a tantrum', refusing to get into the car (T94).
- 3.25. EN Allen was upset by these events and said that she felt as if Latoya should stay at the hospital. She said that she reported these events to Dr McCombe who seemed

surprised (T96). Dr McCombe said he had no memory of receiving this information (T147).

- 3.26. Mrs Quinn said she did not see Latoya throw herself on the floor, or on the ground outside the hospital, nor did she hear Latoya say that at any stage she was having problems with the shunt. Indeed in her statement given to Constable Hirst the next day, she said that she did not think that Latoya's symptoms were 'shunt related' (see Exhibit C1b, p2).
- 3.27. Mrs Quinn said that as she was driving home, Latoya vomited in the car (Exhibit C1b, p2), although in evidence she said that she was 'dry retching' (T32). She said that she was dry retching again after she went to bed. In her statement she said:

'I last saw her at about 1:30am on Sunday the 24th February 2002. She was trying to be sick in the toilet. She had been sick in a bucket, or ice cream container that I had given her, and she was still trying to be sick. I emptied the bucket for her and replaced it in her room. After this Latoya went back to her bed and I heard her made some noises but that was it.'

(Exhibit C1b, p2)

- 3.28. Clearly, nobody told Mrs Quinn that vomiting was an important sign which should prompt her to take Latoya to hospital urgently. Dr McCombe admitted that he did not tell Mrs Quinn that, although he said that vomiting was mentioned earlier, in that he had asked Mrs Quinn whether Latoya had vomited (T144).
- 3.29. Mrs Quinn said that when she went to Latoya's room at 8:00am on 24 February 2002, she was unresponsive and cold to touch. It was apparent to Mrs Quinn that Latoya had died during the night.

4. Issues arising at inquest

4.1. Quality of treatment

When Latoya presented at Noarlunga Hospital on 23 February 2002, Dr McCombe was aware that she had a history of congenital hydrocephalus, and that she had a ventriculo-peritoneal shunt inserted in her brain as an infant. He knew that the shunt had been revised several times, most recently in November 1999, just over two years earlier.

- 4.2. Latoya presented with a severe headache, which could not be relieved with Panadol. She was highly agitated. She also had a history of ADHD.
- 4.3. On the evidence of Mr Hanieh, supported by the evidence of Dr Lynton Stacey, the Director of Emergency Management Services and Medical Director at Noarlunga Hospital, Dr McCombe should have referred Latoya to the Women's and Children's Hospital, as Dr Clohesy had done in 1999. This is the standard diagnostic measure for any patient, particularly a paediatric patient, fitted with a shunt suffering from an unremitting headache (T195).
- 4.4. Mr Hanieh said that if Latoya had been referred to the Women's and Children's Hospital, the following would have occurred, at the discretion of the clinicians:
- If her headache was not severe, she would be admitted for 24 to 48 hours and her neurological state would be monitored closely (T219);
 - If a blocked shunt was suspected, a CT scan would be ordered. If a blocked shunt was demonstrated by the CT scan, urgent surgery would be undertaken. Although deterioration is usually gradual, patients have been known to succumb within 30 to 60 minutes (T218).
- 4.5. Mr Hanieh told me that the classic symptoms of a blocked shunt are severe headache, vomiting, and drowsiness leading to coma and death if the condition is not treated (T205).
- 4.6. Dr McCombe was concerned that Latoya may have had a blocked shunt. He wrote in the clinical record:
- '??? problem with shunt'
(Exhibit C9a)
- He explained that the three question marks indicated that, in his mind, this was only a remote possibility (T150).
- 4.7. Mr Hanieh said that where a ventriculo-peritoneal shunt is involved, clinicians should have a high index of suspicion that the shunt is blocked if the patient presents with a headache (T210).
- 4.8. In view of his inexperience, Dr McCombe very sensibly sought advice from a more experienced clinician. He telephoned Dr Trnka at the Flinders Medical Centre.

- 4.9. Putting the dispute between Dr Trnka and Dr McCombe about who said what to whom aside, Dr Trnka was given the critical information as follows:
- Latoya had a ventriculo-peritoneal shunt;
 - She presented with a severe headache that was not relieved with Panadol;
 - There was history of head trauma, even if it was vague;
 - She was displaying no neurological abnormalities (although examination was difficult);
 - She had not vomited.
- 4.10. On the basis of that information, Dr Trnka gave Dr McCombe advice. He said that he told Dr McCombe to observe her for a further period, without being more specific. I reject this evidence. Dr Trnka admitted that he did not know how long Latoya had been at the Noarlunga Hospital when he spoke to Dr McCombe, let alone what further period of observation was required.
- 4.11. Dr Trnka advised Dr McCombe that it was appropriate to discharge Latoya. He said that he told Dr McCombe that if Latoya's condition deteriorated, her mother should take an ambulance to the Flinders Medical Centre or the Women's and Children's Hospital. Dr McCombe advised Mrs Quinn that if Latoya did not 'settle', she should call an ambulance.
- 4.12. On either version, the advice given was fundamentally flawed. By allowing Latoya to be discharged, the clinicians lost the opportunity to monitor her neurological status. It was 11:00pm on a Saturday evening when Mrs Quinn left Noarlunga Hospital. Mrs Quinn was not told of the significance of vomiting, a very dangerous sign. When they arrived home she put Latoya to bed. Latoya went to sleep, although at one stage she got out of bed and vomited again. While asleep, her neurological status obviously deteriorated until she died. Mrs Quinn had no way of monitoring that situation.
- 4.13. Mrs Quinn was not told to wake Latoya and check her neurological status. If she had been told that, I have no doubt that she would have done so.
- 4.14. In my opinion, the decision to discharge Latoya was influenced by the fact that she was being noisy and disruptive in her agitated state. This behaviour also led Dr McCombe and the nursing staff to the conclusion that Latoya was 'acting up' rather

than genuinely ill. In reaching this conclusion, they made a fundamental error. The fact that Latoya had a shunt and was complaining of headache should have given rise to at least a suspicion that her shunt may be blocked, and she should not have been discharged until that possibility was excluded.

4.15. Inexperience of medical staff

In 2002, Dr McCombe was employed at the Flinders Medical Centre as a Resident Medical Officer. He had received his medical degrees in 2000. In February 2002 he was on his first rotation to a community hospital. He had been there six weeks.

4.16. Dr McCombe had very little experience with treating children (he had seen two), he had no experience with neurosurgical issues, and had never seen a patient with a ventriculo-peritoneal shunt (T124).

4.17. Dr Stacey told me that on the evening of 23 February 2002, the available medical staff at the Noarlunga Hospital were:

- Dr McCombe;
- One locum Medical Practitioner, whose level of experience is unknown although quite junior;
- One casual Medical Officer with slightly more experience than Dr McCombe.

Another more senior General Practitioner who should have been rostered on that evening was put on day shift to cover the illness of another senior clinician (T187).

4.18. In summary, the only medical staff available at Noarlunga Hospital were three inexperienced medical practitioners. They saw a total of 33 patients between 6:00pm and 11:00pm, five of whom left before receiving treatment, no doubt because of delays in being seen.

4.19. Dr Stacey conceded that this complement of experienced medical officers was insufficient. He told me that the following measures had been adopted to address this in future:

- An emergency physician has been appointed as Director of Emergency Management Services at the hospital;
- An experienced practitioner must be rostered on all shifts;

- All patients in the Emergency Department must have their observations taken hourly;
- Where patients with a ventriculo-peritoneal shunt present with a headache, neurosurgical opinion, rather than a paediatric opinion, is sought in the first instance, with a view to transfer to the Women's and Children's Hospital if indicated.

4.20. Telephone consultations

The communication (and accountability) difficulties arising out of Dr McCombe's telephone consultation with Dr Trnka are obvious. Neither made a contemporaneous note of what was said. Both have an imperfect memory of what was said, although I gained the impression that Dr Trnka's version was a more self-serving reconstruction than Dr McCombe's was.

4.21. Similar difficulties arose during the inquest with the death of Anne Elizabeth Hawke, inquest number 19/2003), when there was evidence that a Neurological Registrar failed to communicate important information over the telephone to a consultant. In this case, by contrast, the necessary information was communicated, but not acted upon by the more experienced practitioner.

4.22. It is difficult to know how such lapses can be avoided. They are always possible when clinicians rely on hearsay rather than examining the patient in person. The employment of more experienced staff at Noarlunga Hospital should go some way towards avoiding the necessity for telephone consultations, but will not avoid them altogether.

5. Recommendations

5.1. I make the following recommendations pursuant to Section 25(2) of the Coroners Act, 1975:

- (1) That the Department of Human Services take all reasonable steps to ensure that Emergency Department staff at Noarlunga Hospital have adequate training and experience at all times that the Department is open;

- (2) That whenever clinicians consult each other in a professional capacity over the telephone they should ensure that:
- a comprehensive contemporaneous note of the information imparted and the outcome of the consultation should be placed in the clinical record;
 - both clinicians are aware of the potential for communication lapses in telephone consultations and so they should exercise a high degree of caution before reaching important conclusions on the basis of information imparted thereby.
- (3) Whenever a clinician is dealing with a patient who has a ventriculo-peritoneal shunt, and the patient is complaining of headache unrelieved by mild analgesia, there should be a high index of suspicion that the shunt may be blocked, and this diagnosis should be excluded on the basis of expert neurological opinion and appropriate imaging before more benign diagnoses are entertained.

Key Words: Hospital Treatment; Ventriculo-peritoneal Shunt; Emergency Departments

In witness whereof the said Coroner has hereunto set and subscribed his hand and

Seal the 20th day of July, 2004.

Coroner