CORONERS ACT, 2003

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 1st, 2nd, 3rd, 6th, 7th and 8th days of June 2016, the 4th day of July 2016 and the 1st day of February 2017, by the Coroner's Court of the said State, constituted of Mark Frederick Johns, State Coroner, into the death of Briony Caitlin Klingberg.

The said Court finds that Briony Caitlin Klingberg aged 10 years, late of 833 Warmington Run, Harrogate, South Australia died at the Women's and Children's Hospital, 72 King William Road, North Adelaide, South Australia on the 18th day of January 2015 as a result of multi-organ failure secondary to overwhelming herpes simplex infection. The said Court finds that the circumstances of her death were as follows:

1. Introduction and cause of death

1.1. Briony Caitlin Klingberg aged 10 years died on 18 January 2015 at the Women's and Children's Hospital. An autopsy was conducted by Dr Khong whose final report[1] gave the cause of death as multi-organ failure secondary to overwhelming herpes simplex infection, and I so find.

1.2. Briony had become ill exactly one week before (11 January 2015) which was a Sunday afternoon. Her mother described her as a healthy and strong child who had a tonsillectomy at the age of 5, but was otherwise healthy.

1.3. On the afternoon of 11 January 2015 she became unwell and went to bed early that night without any dinner, which was unusual for her. Her mother assumed that she had

[1] Exhibit C3a

a cold or a sore throat. The following morning Briony stayed in bed and had been vomiting. By the middle of the day she had a very sore throat and a headache. According to her mother she was hot and miserable with a painful throat. She dozed on and off on the couch in the sitting room and her mother gave her pain relief by way of Panadol every four hours.

1.4. The following morning, Tuesday 13 January 2015, Briony's mother took her to the local GP clinic. The general practitioner thought Briony had a viral infection, but prescribed antibiotics if Mrs Klingberg felt they were necessary. She decided to have the prescription for the antibiotics filled and started Briony on them immediately.

1.5. During the course of that Tuesday afternoon Briony continued to remain unwell and did not eat or drink. Mrs Klingberg said that she could not stop the pain in Briony's throat and continued to watch her on the couch in the sitting room. As the evening went on she was sufficiently concerned to decide to take Briony to the Women's and Children's Hospital. The family lived in the Woodside area and it was a reasonably long drive into the city with Briony lying on the back seat. Mrs Klingberg said that at the Emergency Department Briony was seen by a female doctor who took Briony's history from Mrs Klingberg. Mrs Klingberg described the situation, that it had been going for some 48 hours by then and said that Briony's main symptom was that she could not swallow or drink and had a temperature. The doctor looked at Briony's throat and then showed Mrs Klingberg that there were a number of open sores at the back of the throat that were really painful. The female doctor expressed the opinion that it might be appropriate for Briony to remain in the hospital for observations that night, but that she would need to check with a senior doctor. Mrs Klingberg said that the senior doctor was male and he came and examined Briony. He told Mrs Klingberg that Briony was well enough to go home if they wanted to take her, but the hospital would be willing to keep her in for observation if the family wanted that. Mrs Klingberg said that she thought it would be better to take Briony home, but said in evidence that if the doctor had told her that Briony should stay, then she would have agreed to Briony's admission. Mrs Klingberg said that her sense was that the doctor felt that Briony would be alright to go home. She said that she was reassured and that she was given advice to keep up the painkillers and fluids and to come back if the situation became worse, or see their general practitioner. Mrs Klingberg said that the doctor did not elaborate upon what he meant by the expression 'getting worse'. Mrs Klingberg remembered that throat swabs were taken from Briony's throat before they left.

1.6. Mrs Klingberg was asked why, given that Briony did not improve over the next couple of days, she did not return Briony to the Women's and Children's Hospital. She said that she and her husband had the sense that they should not come back unless Briony got worse. She said as events unfolded, they did not have the sense that she was actually getting worse, but that she simply was not getting better. As a result, they would decide not to return to the Women's and Children's Hospital. Instead, they took her to the local hospital at Mount Barker on the assumption that they would advise to take Briony to the Women's and Children's Hospital if that was necessary.

1.7. Mrs Klingberg said that after returning from the Women's and Children's Hospital, Briony slept very poorly with a number of interruptions and was hot. Mrs Klingberg stayed with her during the night and administered the medications regularly, but Briony still had an elevated temperature and was in pain. Mrs Klingberg said that in the morning Briony was not better, but she continued to observe her in the hope that the antibiotics prescribed the previous morning would work. Mrs Klingberg said that as that Wednesday went on Briony became more distressed because she was tired and because they could not stop the pain. It was at this stage that Mrs Klingberg decided to take Briony to the Mount Barker Hospital. Her reasoning was that if they were advised by a doctor at the Mount Barker Hospital to take Briony to the Women's and Children's Hospital they would feel justified in doing so because they had received that advice from a medical practitioner.

1.8. At the Mount Barker Hospital Briony was seen by a Dr Say and Mrs Klingberg provided the history. She said she told him the whole story and she believed that she provided the information about the visit to the Women's and Children's Hospital, although she could not be completely certain about that. She said that Dr Say examined Briony and formed the view that she had a virus or an infection. He recommended that Briony be prescribed prednisolone to help with her breathing and her swollen throat. Mrs Klingberg was familiar with prednisolone having used it before herself. She obtained the prednisolone from a pharmacy nearby and the family went home. Mrs Klingberg said that Dr Say had asked to see Briony the next day for review. Mrs Klingberg's impression of Briony on that Wednesday night was that she was possibly not quite as hot and that this may have been attributable to the prednisolone in combination with the antibiotics and the Panadol (the first dose of prednisolone had

been administered by Mrs Klingberg that afternoon). Mrs Klingberg said that she pressed Briony to have some yoghurt and made her drink water.

1.9. That Wednesday night she spent with Briony on the sitting room couches again. She said that Briony did not seem to feel better, but was a little bit cooler although still in pain and would not sleep. The following morning she returned to Dr Say with Briony and although Briony did not seem any better to her apart from having a slightly lower temperature, the doctor was of the opinion that Briony was a little bit better. Mrs Klingberg said that she did not believe that Briony was better, but wanted to believe that it was true. She did not argue and accepted the doctor's advice to take Briony home and keep up the fluids and medications, including the prednisolone. For the remainder of that Thursday Briony's temperature was not as high as it had been, but she continued to resist eating or drinking unless forced to do so. She spent the afternoon and evening lying on the couch and was not interested in watching television or talking. Mrs Klingberg was sufficiently concerned by the next morning (Friday) to contact her parents' family doctor (Dr Heinrich). She said that on the trip to that doctor Briony was lying on the back seat of the car and she had to support Briony to walk in. Once again, Mrs Klingberg gave the history of the past few days, including the doctors they had been seeing. Mrs Klingberg said that Dr Heinrich gave Briony an injection of 'strong' antibiotics. He took blood from Briony for testing and said that he thought Briony had an infection and was considering glandular fever. He said that the blood tests would assist a diagnosis. He said that he would ring Mrs Klingberg with the blood results and that they should wait at home. She was to ring him if Briony became worse.

1.10. Mrs Klingberg said that Friday afternoon Briony remained just as sick as she had been, but was cold. Briony continued to resist food and drink and did not sleep overnight, although she had dozed on the Friday afternoon. During that afternoon Mrs Klingberg was contacted by Dr Heinrich with the blood results. He said that the results were 'odd' and did not make sense and that he was going to contact the laboratory - Clinpath, because he did not think the results were straightforward.

1.11. Mrs Klingberg said that the following morning Dr Heinrich rang to see how Briony was and that approximately an hour later she rang him back to advise that Briony had felt the need to urinate, but could not do so and that Mrs Klingberg knew that she was worse. Dr Heinrich advised her to take Briony to the Women's and Children's Hospital immediately. This Mrs Klingberg did straight away.

1.12. The Women's and Children's Hospital notes[2] record that Briony presented at the Emergency Department shortly before 2pm. The notes record that she had collapsed just outside the Emergency Department and a code blue was called. She was noted to have seizure activity and was admitted to the Paediatric Intensive Care Unit with multi-organ failure. Briony was intubated and ventilated and also dialysed. The clinicians initially did not know why Briony was in liver failure and her condition continued to deteriorate over the evening despite receiving maximum therapies. She died in the early hours of the following morning and a biopsy of her liver revealed that she had widespread liver necrosis from herpes simplex virus (HSV) infection.

2. The attendance at the Women's and Children's Hospital on 13 January 2015

2.1. Dr Rogers was a registrar in her first year of paediatric training. She saw Briony initially. She conducted a very thorough examination of Briony. Her notes relevantly recorded as follows:

> 'History: unwell since Sunday with fever up to 39º with associated sore gums, throat (main symptom), anterior neck and headache. Vomiting yesterday 8 times with fever. Just good and liquid. Non-bilious.
>
> Seen by GP today who commenced her on ceclor and advised panadeine forte and nurofen. Minimal oral intake. No rash, cough, runny nose. Flat and listless. No diarrhoea. Bowel open today. No blood or mucus. No dysuria. Mild photophobia. No known sick contacts. No recent travel.' [3]

Dr Rogers recorded a temperature of 37.4º, heart rate of 124 which resolved to 98. Blood pressure was $^{108}/_{84}$ and oxygen saturations of 97% on room air. Dr Rogers examined Briony's heart, abdomen and ears. She detected no abnormalities. However, on examining Briony's throat she noted there to be ulceration of the tonsillar fossae/tonsillar remnants. Her impression was posterior pharyngitis/tonsillitis and her intention was to ask that Briony be reviewed by her paediatric consultant.

2.2. Dr Rogers gave evidence that there can be many causes, both viral and bacterial, for inflammation of the pharynx and usually the treatment is symptomatic.

2.3. She spoke with her consultant, Dr Gill, and presented the case and her proposed management. Her proposal was to admit Briony to the short stay ward to make sure that she tolerated water and to possibly take blood as well. Dr Rogers did not think

[2] Exhibit C11
[3] Exhibit C11

Briony was sick enough for a full medical admission, but that she was mildly dehydrated and that she wanted to know that Briony would tolerate oral intake. If bloods were taken they would be to look for signs of a serious infection. She discussed that potential plan with Dr Gill. She said that she remembered thinking that Briony's throat was unusual and wanted Dr Gill to see it. Dr Rogers said that Dr Gill examined Briony's throat and decided that she did not need to be admitted to the short stay ward, but could go home. Dr Rogers recalled that Dr Gill spoke with Briony's mother and Mrs Klingberg was agreeable to ensuring that Briony's oral intake was kept up at home. Dr Gill agreed that pharyngitis was the most likely diagnosis. Dr Rogers was instructed by Dr Gill to take viral/bacterial swabs from Briony to assist with further management if necessary in the next couple of days. Dr Gill advised that Briony should continue with analgesia. Dr Rogers prepared a discharge letter as follows:

> 'The presenting problem was systemic - febrile illness 3/7 seen today on A/B's for throat infection, still febrile, not drinking. The diagnosis was pharyngo tonsillitis. 10 year old girl, background history tonsillitis aged 5. Otherwise well. Presents with 3 days of febrile illness associated with sore throat and glands. Poor oral intake and vomiting for the past 24-48 hours. On examination afebrile, alert, but flat child, mild intermittent tachycardia, and mildly dehydrated. Exam revealed erythema with ulceration of the tonsillar fossae/remnants. Otherwise NAD. Abdomen SNT. Patient seen by GP today who prescribed ceclor and advised panadeine forte and nurofen for analgesia. Patient reviewed by PED consultant. Advised to continue same management at home, with ongoing encouragement of oral intake. Viral and bacterial throat swabs sent for GP to kindly review.'

2.4. Dr Gill gave evidence. He said that Dr Rogers approached him to discuss the case. She presented her findings and Briony's history over the previous couple of days. He recalled that Dr Rogers mentioned that Briony was mildly dehydrated and she was considering admitting Briony for the administration of fluids. Dr Gill said that was a possibility, but did not strike him as necessary. He said that he would see the patient with Dr Rogers. Dr Gill examined Briony and noted her normal observations and alert interaction. He examined her mouth and noted that there was mildly reduced saliva and pharyngitis which he described as 'subtle small ulcers that were contiguous'. He said there were no other abnormalities.

2.5. Dr Gill said that viral pharyngitis is a benign condition and the plan is generally to treat it with pain relief and time while ensuring adequate hydration. He said that to guard against the possibility that there was a bacterial cause one uses oral antibiotics. He said that the swabs were taken to identify if bacteria was causing the condition. If so, the

antibiotics could continue, but if it was viral then on subsequent management the antibiotics could be withdrawn.

2.6. Dr Gill said that he has seen HSV many times and that it is a common illness, although less so in Briony's age group. He said that it usually presents in the mouth and gums in 99% of patients and that he had never seen it on the pharynx. He said that he thought that the small ulcers that he saw in Briony were slightly unusual, but not outstandingly so and were consistent with pharyngitis. He said that if he had thought that Briony was suffering from herpes simplex virus he would have tested for that to give himself and the family information on the cause of the illness, but that it would not otherwise have changed his treatment. He noted that it would be possible to give an anti-viral treatment, but that this would not often occur unless the patient had been severely dehydrated or had a compromised immune system. He said that Briony did not fit into either of those categories.

2.7. Dr Gill was asked whether he agreed that HSV ought to have been part of the differential diagnosis in this case. Eventually he agreed, but only after a great deal of obfuscation[4].

2.8. Dr Gill said that if Briony had been admitted for fluid replacement she would have been placed on an intravenous drip overnight[5]. He agreed that it would have followed that bloods would have been taken from Briony[6]. Dr Gill was asked whether the HSV may have been detected in Briony's blood overnight. He responded as follows:

> 'It wouldn't have shown on the blood the following day, it would have shown on the blood if blood cultures were performed, and if on the blood cultures the lab did their own added test, not one that was requested by a doctor, and if they specifically screened for HSV PCR as part of their multiplex screen that they can perform.' [7]

2.9. Professor Gordon gave expert evidence. He commented that had bloods been taken at that time and had liver function tests been performed, there is a possibility that they may have been abnormal given that they were severely abnormal three days later on the Friday. However, he conceded that it was impossible to be certain about that[8].

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[4] Transcript, pages 114-115
[5] Transcript, page 116
[6] Transcript, page 116
[7] Transcript, page 116
[8] Transcript, page 393

3. The attendance at Mount Barker Hospital on Wednesday afternoon

3.1. When Briony's mother took her to Mount Barker Hospital on the Wednesday afternoon she was seen by general practitioner, Dr Say. He gave evidence at the Inquest and presented as a caring and conscientious general practitioner. He was clearly very distressed about Briony's tragic death and it has affected him deeply. He commented that the case has had a 'massive impact on my consultations with children'. He said that he felt real regret that he did not identify the cause of Briony's illness or predict the seriousness of the illness.

3.2. He saw Briony at about 4:30pm and the consultation lasted for about 22 minutes. He knew that she had a three day history of sore throat, sore neck and had been seen by a general practitioner in Woodside the day before and started on ceclor. He knew she still had a fluctuating fever and noted her temperature at 38.8º which was slightly raised. Her pulse rate was 115 which was also raised and her oxygen saturations were 94%, slightly lower than normal. She had a mildly dry tongue. He examined her mouth, cheeks, gums and tongue and then the back of the roof of the mouth and the pharyngeal wall. He only recorded those things that were not normal there. In the throat he noted multiple small ulcers on the base of where the tonsils would have been. He did not notice ulcers anywhere else. He noted that the ears were normal and the nodes were also. There was no tenderness in the abdomen with no organ enlargement and no rash on the trunk. His assessment was viral mouth ulcers which needed to be treated symptomatically with gargles and also prednisolone. He suspected glandular fever as the most likely possibility. He noted that the fever had not responded to antibiotics and he therefore suspected that it was viral.

3.3. He acknowledged that there was no thick exudate as would be more commonly expected with glandular fever, but he commented that Briony did not have any tonsils. He did say that it was an appearance that he did not think he had seen before. He said that he had never seen HSV present as ulcers on the tonsil bed before and had only seen it at the front of the mouth. He did not consider that the condition was HSV. It was not like any HSV presentation he had ever seen. He said he had never seen it so far back in the oral space and was not aware that it could present there.

3.4. Dr Say was aware that Briony was being treated with paracetamol for her pain, but was having a low dose for her weight and he therefore recommended an increase and an anti-inflammatory mouth wash to relieve the pain and make it easier for her to drink.

3.5. He prescribed prednisolone because in his experience it had a dramatic effect for improving the symptoms of glandular fever. He said a sore throat creates difficulty in drinking and as he was concerned about Briony's hydration he wanted to alleviate that symptom to encourage her to drink.

3.6. He said that he had previous experience in using prednisolone in a patient suspected of glandular fever and that it was first suggested to him by a visiting ear, nose and throat specialist who recommended it for a glandular fever patient with very painful throat. Dr Say commenced that patient on prednisolone late in the day and when he saw the patient the next morning there was a dramatic improvement. Since then he had used prednisolone for glandular fever, but only short-term use. He said that short-term use is generally not associated with adverse effects and generally leads to an improvement in symptoms of swallowing and oral hydration in two to three days. He acknowledged he would not prescribe prednisolone for someone who was immunodeficient (for example chemotherapy patients, HIV patients or blood related disorders such as leukaemia or myeloma). He noted that it was also contraindicated in corneal HSV.

3.7. Dr Say asked to see Briony again the next day to see if her symptoms had changed, to check her observations and reassess the treatment direction. He continued her on the ceclor antibiotic because it had only been prescribed the day before.

3.8. Dr Say said that he did not order any blood test for glandular fever. His explanation was that it was late in the day and he planned to review Briony the next morning. He did not believe on the assessment that he had made that a blood test would change his management and that taking blood from children was not a pleasant experience for the child. He said that in hindsight it would have been valuable if he had taken a blood test.

3.9. When Dr Say saw Briony the following (Thursday) morning he thought that she was slightly improved. He said that if he had not seen an improvement he would likely have taken a blood test that Thursday morning. However, as it turned out he understood that her pain and her fever had been a little better. He was aware that her last analgesic had been taken at 4:30am, some hours prior to him seeing her and that was significant

because she was still afebrile during the consultation. He noted that she still had a dry tongue, the temperature was 37.6º, the pulse 95 and the oxygen saturations 98%, so clinically he regarded her as having moderate improvement from the previous day, but the ulcers were still present on both tonsil beds. He considered that there was what he described as a cautious improvement. He said he knew that the analgesics were not modifying her temperature because they had last been taken some six hours before. The temperature was close to normal and only marginally up. He thought that her improved symptoms were attributable to the analgesics, the steroids and the hydration being better. He still thought glandular fever was the likely diagnosis. He said he did not do a blood test because he did not think it would have changed his management decision which was to continue the prednisolone for a further two days. She was also to continue with the analgesics and the gargles and he would see her again on the Monday or earlier if there was a setback. Dr Say could not recall what symptoms of deterioration he would have specified, but that his usual practice would have been to mention increased fever, reduced oral intake and increased pain as the factors that should bring her back.

3.10. Dr Say could not recall having been told that Briony had been to the Women's and Children's Hospital, but accepted that he may have been. He said that although he did not remember being told about the visit to the Women's and Children's Hospital the night before he first saw Briony, he would have taken notice of that fact but generally would go on to make his own assessment and his own decisions. He acknowledged that it would have told him about the seriousness of Briony's parents' concerns.

3.11. He was asked to comment on the discharge letter written by Dr Rogers to which I have previously made reference[9]. He said there was nothing in it that would have made a difference to his management if he had been aware of it at the time. He thought the clinical assessment was similar to his own.

3.12. Dr Say agreed with Professor Gordon that HSV should have been on the differential diagnosis list.

4. <u>Visit to family general practitioner, Dr Heinrich, Friday morning</u>

4.1. The family general practitioner who saw Briony on the Friday was the general practitioner who looked after her grandparents. His name was Dr Heinrich. He gave evidence at the Inquest. When seeing Briony that morning, Dr Heinrich did have to

[9] He did not have the letter when he saw Briony. He was shown it during his evidence at Inquest.

hand the discharge letter written by Dr Rogers from the Women's and Children's Hospital together with the results from the swabs which had been taken while Briony was at the Women's and Children's Hospital. He noted that the throat swabs were negative for respiratory viral PCR, general microbiology and Bordetella PCR. These swabs were not tested for HSV. Dr Heinrich said that he suspected that Briony had glandular fever. This was based on his observations of the ulcers in her mouth, and his finding contrary to that of Dr Say the day before, that she had enlarged glands[10]. Dr Heinrich was not aware that Briony had been prescribed prednisolone but he was aware of the antibiotics. He ordered blood tests for Briony which were taken at his surgery. He ordered a range of tests including serology for glandular fever, but investigations for other viral conditions that could have a similar presentation. A Clinpath nurse took the blood and Dr Heinrich requested the results urgently. He sent Briony home with her mother.

4.2. Dr Heinrich said that he appreciated just how unwell Briony was when he saw her on the Friday morning. He thought she was severely unwell and that her throat was so sore she was having difficulty tolerating fluids[11]. Dr Heinrich acknowledged that he did not take observations of Briony's pulse, blood pressure or temperature that Friday morning. He maintained that it would have made no difference had he done so. He said that he did examine her abdomen and noted tenderness around the liver which he took to be consistent with his diagnosis of glandular fever.

4.3. Remarkably, Dr Heinrich contended that observations if taken that Friday morning 'wouldn't have made any difference'[12] notwithstanding his knowledge that the following afternoon, some 30 hours later, Briony was in multi-organ failure due to overwhelming sepsis. He suggested that children can deteriorate in that way very rapidly[13].

4.4. Dr Heinrich agreed that he made no note of the state of Briony's hydration and asserted that if she had been dehydrated he would have noted it. He was asked how he would test for her hydration status and responded by saying that he would look at her skin, that it was something that 'you do', that it was 'second nature'. He said she would either be dehydrated or not and in his opinion she appeared hydrated.

[10] Transcript, page 213
[11] Transcript, page 305
[12] Transcript, page 307
[13] Transcript, page 307

4.5. Dr Heinrich actually suggested that to take observations on the Friday would have been tantamount to rearranging the deck chairs on the Titanic[14].

5. The blood test results on the Friday afternoon

5.1. On the Friday afternoon the results of the blood tests that he had ordered were received by Dr Heinrich. The blood results were described by Professor Gordon in his report[15] as grossly abnormal and indicative of a serious condition. In his evidence Professor Gordon summarised them as follows:

> 'I think the degree of abnormality of - shall we call it liver function tests, particularly what's called the transaminases mentioned previously, and that's about three-quarters of the way down, the AST and the ALT. So they are very, very markedly abnormal. You can see that the AST is roughly 5300 and the upper limit of normal in a child is 35. So that's up getting close to 200 times the upper limit of normal. The ALT is also markedly elevated, around about 4000 and that's more than 100 times the normal limit. So, to me that indicates very - that's severe liver damage and potentially it's pending liver failure. The other thing is that there's evidence of a multi-system involvement. There's also impairment of the renal function, illustrated by the urea and the creatinine so they are at least moderately elevated. That suggests that there's significant dehydration and what's called prerenal failure, so there's reduced effusion to the kidneys and so less ability the kidneys to do - clear urea and creatinine, if you like.' [16]

Professor Gordon agreed with the comments appearing on the blood test results that read:

> 'Significantly abnormal LFTs & urea, creatinine … Urea/creatinine suggests inadequate hydration.' [17]

There was also a comment in the results that the blood results were 'consistent with striking glandular fever' and Professor Gordon did not agree with that conclusion, but it is irrelevant for present purposes and I will return to it in due course.

5.2. It was Professor Gordon's evidence that given the blood results on the Friday afternoon it was inconceivable that Briony was not immediately referred to the Women's and Children's Hospital. He said that was because of the degree of abnormality in the liver function test which was a very, very unusual finding[18]. However, it was Professor Gordon's opinion that if Briony had been referred to the Women's and Children's

[14] Transcript, page 234
[15] Exhibit C24a
[16] Transcript, page 415
[17] Exhibit C23a, page 6
[18] Transcript, page 424

Hospital at that time, namely mid Friday afternoon, it would have been too late to avoid her death[19].

6. Dr Heinrich's response to the blood tests

6.1. Dr Heinrich's evidence was that having received the blood tests on the Friday afternoon by telephone (he was not at his surgery, but at home), he made contact with Clinpath and spoke to Dr Metz who is a consultant chemical pathologist who works at Clinpath. According to Dr Heinrich he had spoken with Dr Metz on many occasions in the past and his conversation with Dr Metz followed the pattern of previous phone calls he had made over the years[20], Dr Heinrich's recollection of the conversation was as follows:

> 'Yeah, basically, the gist was 'Is this glandular fever or something else?' and the gist of his comments as I understand them was that it is.
>
> …
>
> Even though her liver function tests were grossly abnormal, it was decided that her management should be to maintain proper fluid intake and if that could not be achieved, she would need to be admitted to hospital for intravenous therapy.' [21]

6.2. Dr Heinrich then repeated that his impression of Briony when he had seen her that morning was that she 'appeared to be reasonably well hydrated'[22].

6.3. Dr Heinrich was asked about Dr Metz's version of events that he said words to the effect that Briony's condition required hospitalisation. Dr Heinrich said that he was quite astounded to see that assertion and that he had no recollection whatsoever of Dr Metz having said anything 'along those lines'[23].

6.4. It will appear in due course that Dr Metz in his evidence did not definitively assert that he used the word hospital or hospitalisation. However, his evidence was to the effect that he made it plain that Briony needed to have intravenous therapy for hydration and as that could only be done in hospital, hospitalisation was the necessary import of what he conveyed. The precise nature of the conversation will be further explored in this finding, however for present purposes it is my opinion that regardless of what conversation Dr Heinrich had with Dr Metz, a competent medical practitioner, including a general practitioner, faced with the scale of abnormality of Briony's blood

[19] Transcript, page 424
[20] Transcript, page 221
[21] Transcript, page 404
[22] Transcript, page 221
[23] Transcript, page 222

results, clearly ought to have erred on the side of caution and ensured that she immediately attended at the Women's and Children's Hospital. Even if Dr Metz had not positively pressed a recommendation to attend the Women's and Children's Hospital, but had been equivocal, Dr Heinrich ought to have proceeded with that plan. There was no suggestion on the evidence at any point that Dr Metz discouraged hospitalisation or advised against that course. Indeed it is quite clear that he did not do either of those things. His precise language may have been ambiguous and difficult to understand as will be presently seen. Nevertheless, as the treating practitioner with many years of experience it was incumbent upon Dr Heinrich to act independently in the face of compelling blood results such as those that had been reported and take steps to immediately arrange for Briony's hospitalisation[24].

6.5. Dr Heinrich made a note at approximately 8am on the Saturday morning of his attendances in relation to Briony the previous day in the following terms[25]:

> 'She has been unwell over the last few days with swollen neck glands sore throat and she has been vomiting, she was seen at the Women's and Children's Hospital and a letter has been enclosed, viral throat swabs were all negative. Ceftriaxone 1g IM.
>
> Discussed her case later in the day with Dr Metz and even though her serology indicates previous glandular fever the current blood picture is very suggestive of a recurrence especially given the atypical lymphocytes.
>
> At this stage she will be managed as glandular fever in particular attention will be made to her hydration.
>
> She should have a repeat blood screen in a few days to check especially on her liver function which is quite abnormal.'

7. <u>Dr Metz's version about the conversation with Dr Heinrich</u>

7.1. As I have said Dr Metz was involved in Briony's case briefly on the Friday afternoon. He is a chemical pathologist employed at Clinpath and he spoke with Dr Heinrich about Briony's blood results. He became aware of Briony's death shortly after it happened and this prompted him to make a note the following Monday in the following terms:

> 'Briony Klingberg
> Discussed Friday with Dr Heinrich. Very abnormal. Pattern on glandular fever. I stated I didn't know what the cause was. Did not discuss toxicities (10 year old girl reckon paracetamol, mushrooms unlikely). He said she was ill. I said with the urea creatinine and very abnormal LFTs - send to WCH. Uncertain aetiology. CVP did not suggest fulminant haemolytic process while enzymes supported glandular fever. 'People do die

[24] See the evidence of Professor Gordon at Transcript, pages 473-474
[25] Exhibit C23a

from glandular fever'. No bruises or bleeding described. Things which would support liver failure and coagulopathy.' [26]

Dr Metz stated that his memory of his conversation with Dr Heinrich was that it occupied little more than one minute[27]. Dr Metz said that he attempted to recall the words he used in his conversation. He said that usually when a call is put through to him he is able to access the results that are the subject of the conversation on the electronic records in front of his desk. He believed that he would have checked that he had the right patient name so that he could discuss the matter with Dr Heinrich. In paragraph 21 of his statement[28] he stated:

'My recollection of the conversation with Dr Heinrich is set out below:

CH: What about those chemistries

MPM: What is the setting?

CH: A girl with sore throat and some tonsillitis. Query glandular fever.

MPM: These are really very abnormal results. People with results like these are usually very ill.

She has really very abnormal liver function tests. One can see abnormalities like this from haematological disorders as well as liver disorders. She has an abnormal blood picture as well.

CH: Could it be glandular fever?

MPM: One can see this sort of pattern in glandular fever. One can see odd patterns. She is negative for CMV antibodies. She is negative for toxo. She is positive for EBV IgG, negative for EBV IgM, EBV can be reactivated. She is negative for hep A. A number of things can cause glandular fever. The serology isn't really all that helpful.

CH: She is unwell. Could it be glandular fever?

MPM: I really don't know how to explain these enzyme results. They are very abnormal. They could be due to glandular fever. Glandular fever can be very severe. People do die from glandular fever.

It would be good to send her to hospital. These are just numbers. It is important to treat the patient.

Looking at her renal function, I really can't explain her enzymes but that urea and creatinine are significantly increased. That is pretty clear. She is significantly dehydrated. It would be good to give her some IV fluid'.

[26] Exhibit C15
[27] Exhibit C15
[28] Exhibit C15

Dr Metz also said in his statement[29] that he could not be certain that he used the word 'hospital' or 'hospitalisation' when speaking with Dr Heinrich. However, he knew IV fluids would usually be administered in a hospital setting and he assumed Dr Heinrich would understand this. Even though he could not recall actually using the words hospital or hospitalisation, he knew that was what he thought should happen to Briony.

7.2. When he gave evidence Dr Heinrich conceded that the first thing he wanted to know when speaking with Dr Metz was whether Briony's condition could be glandular fever, although he said that he was also asking for Dr Metz's advice as to how she should be managed[30]. However, he was challenged in relation to the proposition that he was seeking more general advice on the basis that he did not provide in the very brief telephone conversation a detailed clinical picture of what had occurred with Briony, nor her attendances at the Women's and Children's Hospital and with other general practitioners earlier in the week. The tenor of his responses was that Dr Heinrich could not satisfactorily respond to that line of questioning[31]. I accept the proposition that Dr Heinrich did not make it clear to Dr Metz that he was seeking general advice, nor did he provide sufficient information about the clinical picture for Dr Metz to have properly been in the position to provide general advice.

7.3. What Dr Metz did know - or at least assumed - was that Dr Heinrich had sent Briony home after seeing her that morning. Dr Metz knew from the data that he was looking at on his computer screen that the bloods that had been collected that morning. The conversation he was engaging in with Dr Heinrich was taking place several hours later. He reasoned that if Briony had been sent to hospital they would not be having the conversation at all. He also reasoned that if Briony had been kept in at the surgery for four of five hours that would have been mentioned in the course of the conversation. On the basis of these considerations he made an assumption that Dr Heinrich had sent Briony home[32].

7.4. Contrary to Dr Metz's strong recollection that he conveyed at the very least that Briony needed IV fluids or - going further that she needed hospitalisation - Dr Heinrich was

[29] Exhibit C15
[30] Transcript, page 237
[31] Transcript, page 263
[32] Transcript, page 371

adamant in his evidence that Dr Metz said nothing to him about the need for IV fluids nor the need for admission to hospital or hospitalisation[33].

7.5. Dr Heinrich's preoccupation about whether Briony had glandular fever is shown in the following passage of evidence:

> 'Q. I suggest the purpose of the phone call was could these results be glandular fever. You weren't phoning up for advice about managing this young child, you wanted to know were the results consistent with your provisional diagnosis of glandular fever.
>
> A. One of the questions was did she have glandular fever. Secondly, is it possible, given the fact that one of the – that she had suffered glandular fever in the past, could she have another episode and was there another diagnosis that we should be looking at.' [34]

7.6. By way of explanation of that passage of evidence the blood results showed that Briony had previously been exposed to the Epstein-Barr virus and thus had previously had an episode of glandular fever. Dr Heinrich, as can be seen from the above passage, was confounded by the proposition that one could have a repeat episode of glandular fever.

7.7. That matter was, in the course of the Inquest, the subject of disagreement between Professor Gordon and Dr Metz. There is little purpose to be served in exploring the true answer to that question for a number of reasons. By the Friday afternoon it was too late to save Briony in any event. Secondly, whether Briony had glandular fever or some other illness, the real issue at least by the time the blood results were available on Friday afternoon was that they clearly indicated that she needed to be in hospital. Thus the significance of glandular fever in this context arises out of Dr Heinrich's preoccupation with glandular fever. In focusing on glandular fever, and being distracted about whether it was possible to 'reactivate' a previous episode of glandular fever, Dr Heinrich appeared not to see the bigger picture namely the implications of the blood results for Briony's general health and wellbeing.

7.8. Dr Heinrich admitted that as he was taking the telephone calls reporting the blood results he was at his home doing some gardening. He admitted that he did not write down what he was being told nor did he elect to go to his rooms to obtain a hard copy of them despite the fact that they were being faxed there[35].

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[33] Transcript, page 240
[34] Transcript, page 262
[35] Transcript, page 270

7.9. Dr Heinrich essentially agreed with the record of the conversation as recalled and set out by Dr Metz in his statement[36] with the exception that Dr Heinrich did not recall Dr Metz saying that people can die from glandular fever and denied that there was any mention of IV fluids or hospital[37].

7.10. In his evidence Dr Metz said that the principal reason he suggested (on his version) hospitalisation was Briony's dehydration. He said that it was his opinion that Briony needed IV fluid and that would necessitate hospitalisation. He said that he was surprised that Dr Heinrich had sent Briony home given the blood results that he was seeing from samples taken that morning. It was his position that he could not reconcile the results with what he believed her clinical picture must have been like when she saw Dr Heinrich that morning. He was perplexed that Dr Heinrich had decided to send her home. His evidence was that he became more confident as he looked at the results, particularly the urea and creatinine, that Briony should go to hospital for IV fluids[38]. He was asked by counsel for Dr Heinrich whether general practitioners rely on him to interpret such results. He acknowledged that they do, but pointed out that the creatinine ureas are 'bread and butter, routine day to day chemistry results and doctors of all varieties look at these results and interpret them and frankly their opinions often will differ from mine'[39]. He emphasized that blood results of this nature are not 'extraordinarily specialist tests, these are very, very, very readily available, very routinely requested tests'[40]. I accept that evidence. The interpretation of such results is indeed the bread and butter of general practice. It is for that reason that I believe that Dr Heinrich should have independently reached the conclusion that Briony needed to be hospitalised immediately regardless of what he heard, or thought he heard, from Dr Metz.

7.11. Dr Metz did not recall how Dr Heinrich responded to his advice that Briony should be hospitalised or have IV treatment[41]. He explained that discussions such as the one he had with Dr Heinrich are virtually always very brief and very patchy but that his recollection was that he was very clear about her hydration and he assumed that he had

[36] Exhibit C15
[37] Transcript, pages 286-289
[38] Transcript, page 363
[39] Transcript, page 364
[40] Transcript, page 364
[41] Transcript, page 367

made it clear to Dr Heinrich. He said that he did not necessarily expect to get a particular response from Dr Heinrich indicating acceptance[42].

7.12. Dr Metz had a clear recollection of telling Dr Heinrich words to effect 'people do die from glandular fever'[43]. He said that he could still 'hear' himself saying that. He said that he made that comment because he had an impression in talking to Dr Heinrich that Dr Heinrich was thinking that glandular fever was a benign disorder and that if that was the cause of Briony's illness she would be alright. Dr Metz said that he was trying to make a point of emphasizing that it was important to physically look at Briony and assess her clinically to see if she was as unwell as the results appeared to suggest because people with glandular fever can die[44]. I accept Dr Metz's evidence that he did make this remark. Dr Heinrich did not deny it. He could not recall whether it was said or not. Dr Metz went on to say in his evidence that Dr Heinrich seemed to be focusing 'more on the diagnosis of glandular fever rather than her general being, and that's the point about, you know these are numbers you have to treat the patient'[45] and he added 'the importance is how ill is this child?'[46]. That remark ties in with his recalled words in his statement 'These are just numbers. It is important to treat the patient'[47]. I find that Dr Metz certainly did make those remarks.

7.13. Dr Metz did concede that it was possible that his strong conviction that Briony needed immediate hospitalisation may not have been 'communicated' in his brief conversation with Dr Heinrich[48]. In making that concession, I do not believe that Dr Metz was conceding that he did not say the things that he thinks he said. In that respect, I note that Dr Metz's recollection of the conversation as set out in his statement[49] contains two expressions which I found rather incongruous. Both of them employ the phrase 'it would be good' to do something. He employed that phrase in relation to the need to send her to hospital and later in relation to the need to give her some IV fluids. The expression 'it would be good' to do something does not convey a sense of immediacy and emergency. In listening to Dr Metz's evidence it became apparent that he may have a tendency in his general communications to understate or underemphasize his message. I gained the impression that he would be likely to quietly convey a message

[42] Transcript, page 367-368
[43] Transcript, page 370
[44] Transcript, page 370
[45] Transcript, page 371
[46] Transcript, page 371
[47] Exhibit C15
[48] Transcript, page 372
[49] Exhibit C15

with the expectation that the listener would attribute the appropriate degree of importance to the message that was objectively appropriate, without seeing the need for colour and emphasis. This was the tenor of his presentation in the witness box too. It is possible that the manner of his delivery did not assist in appropriately conveying the urgency of the message. Nevertheless, I do believe that the message about hydration via IV fluid was indeed conveyed by Dr Metz and do not accept Dr Heinrich's evidence denying that was so. Dr Metz is clearly an expert in the interpretation of blood results such as those in question. He has an expert scientific appreciation of them, and would hardly fail to recognise when delivering the message to Dr Heinrich what he appreciated when giving his evidence before me, namely that the results objectively required the child's immediate hospitalisation. It is inconceivable that he would not have delivered that message in those terms or similar terms when speaking with Dr Heinrich.

7.14. By contrast, Dr Heinrich was not an impressive witness. He failed to take proper notes, he failed to take observations of Briony during the consultation. He took delivery of verbal messages via telephone about extremely important and significant blood results without seeing the need to write them down or even attend at his rooms which were not very far away. His evidence in the witness box to the effect that taking and recording observations for a child that was as obviously sick as Briony would be tantamount to shifting the chairs on the Titanic is not consistent with his decision to send her home with her mother immediately after the consultation on the Friday morning. Certainly it is not consistent with his later failure to tell the mother immediately on receiving the blood results that Briony should be conveyed to the Women's and Children's Hospital immediately. In saying these things I acknowledge the evidence that by then it would in all likelihood have been too late to save Briony's life. Nevertheless, it is a matter of serious concern that he did not act appropriately as he should have done. There may have been circumstances in which the conveying of proper advice such as that would have had the potential to save a child's life and for all he knew this may have been one of them.

8. <u>The importance of continuity of care</u>

8.1. To summarise, the points of contact with medical practitioners in the week from Sunday 11 January to Sunday 18 January 2015 were as follows:

1) Visit to general practitioner at Woodside on the morning of 13 January 2015;

2) Visit to Women's and Children's Hospital late evening on 13 January 2015;

3) Visit to Dr Say/Mount Barker Hospital in the afternoon of 14 January 2015;

4) Visit to Dr Say on the morning of 15 January 2015;

5) Visit to Dr Heinrich on the morning of 16 January 2015;

6) Attendance at Women's and Children's Hospital 17 January 2015.

The above summary demonstrates that no single medical professional had an opportunity to observe the progress of Briony's illness. It is easy to say in retrospect that, particularly on the Tuesday and Wednesday, continuity of care would have been highly desirable. Had Briony returned to the Women's and Children's Hospital on the afternoon of Wednesday 14 January 2015 rather than to the Mount Barker Hospital, it is probable that some further action may have been taken in the Emergency Department given the likelihood that a comparison could have been made between her condition the previous night and her presenting condition. Such a comparison would likely have raised concerns and prompted further investigations with the benefit of the information that was available in the notes from the previous night. A second presentation within 24 hours at the Women's and Children's Hospital would also likely have precipitated a level of caution of itself in those seeing her on the second occasion.

8.2. It is tempting to pass over this aspect of the case because it will inevitably be distressing for Briony's parents. In making these observations I stress that I am not being critical of Briony's mother and father in any way whatsoever. However, it would be remiss of me not to deal with the matter with a view to considering how best to encourage parents of sick children and medical professionals treating them to do their utmost to maintain continuity of care.

8.3. Briony's mother was asked why she did not return to the Women's and Children's Hospital after the Tuesday night. She responded as follows:

> 'I guess we had the sense that not to bring back unless she got worse and for us she wasn't necessarily getting worse, she just wasn't getting better.
>
> …
>
> I didn't want to re-present down there with the same things that they sent us home for, so I kind of felt like well, I can't really go back because they said to come back if she was worse. So we tried the next best, the local hospital we figured would send us if she was worse[50].'

[50] Transcript, page 25

Briony's mother added that she also thought that if the staff at the Mount Barker Hospital:

> '.. thought it was bad they would send her to the Women's and Children's and we thought then it would look like yes, she was worse, the doctor had sent her.' [51]

In that passage Mrs Klingberg was saying that she would have felt justified in returning even though she did not think that Briony was worse if that decision to re-present at the Women's and Children's Hospital had the additional authority of a doctor from Mount Barker Hospital recommending it. The difficulty with that line of thinking is that Dr Say, quite appropriately, made his own assessment of Briony and treated her accordingly. He did not see it as his task to provide some form of 'justification' for a re-presentation to the Women's and Children's Hospital. Indeed it is unlikely that in his discussions with Mrs Klingberg and Briony the matter was ever discussed in that way. Rather Mrs Klingberg operated under the assumption that Dr Say was part of a continuous seamless process of care and management flowing from the presentation at the Women's and Children's Hospital. In hindsight it is plain that was not so.

8.4. Mrs Klingberg was very deferential in her attitude to re-presentation to the Women's and Children's Hospital. She was of the view that Briony was to come back only if she was getting worse. Mrs Klingberg thought that Briony was simply not getting better and therefore it would be somehow inappropriate to return her to the Women's and Children's Hospital. That diffidence was unfortunate and it is important that the Women's and Children's Hospital, and all other practitioners dealing with children, try to encourage parents and carers to have the confidence to return in order to avoid discontinuity of care.

8.5. The evidence showed that the Women's and Children's Hospital has taken some steps towards achieving that outcome with the discharge checklist now used. The fact however was that Dr Gill was not enthusiastic about that checklist and had doubts about its effectiveness.

8.6. I believe that it would be very beneficial if there were a campaign to explain to parents and carers the benefits of continuity of care, particularly after a presentation at the Women's and Children's Hospital. Perhaps it would be a part of such a program to emphasise to parents that if they are not satisfied with the outcome of a visit to a general

[51] Transcript, page 26

practitioner for the same issue following a presentation at the Women's and Children's Hospital, they should immediately contact the Women's and Children's Hospital or re-present.

9. Recommendations

9.1. Pursuant to Section 25(2) of the Coroners Act 2003 I am empowered to make recommendations that in the opinion of the Court might prevent, or reduce the likelihood of, a recurrence of an event similar to the event that was the subject of the Inquest.

9.2. The Court recommends that the Women's and Children's Hospital consider the implementation of a campaign to inform parents of the importance of continuity of care and the risks involved in breaking that continuity with a view to encouraging them to return to the Women's and Children's Hospital if they have any doubts about subsequent care, regardless of whether they believe the child is getting worse, or merely not getting better. I direct this recommendation to the Chief Executive of SA Health and the Chief Executive Officer of the Women's and Children's Hospital.

Key Words: Herpes Simplex Virus; Continuity of Care

In witness whereof the said Coroner has hereunto set and subscribed his hand and Seal the 1st day of February, 2017.

State Coroner