



The Coroners Act 2009

**IN THE LOCAL COURT OF NEW SOUTH WALES
CORONIAL JURISDICTION**

Name of Deceased: Gabrielle COVENTRY
File Number: 2008/00463027
Hearing Dates: 25 to 28 October 2011
Location of Inquest: Gosford Local Court, Gosford and NSW State Coroner's Court, Glebe
Date of Finding: 21 December 2011
Coroner: Magistrate Barry

Representations:

- instructed by Mr McGorey and Mr Percival of the *Crown Solicitor's Office* appeared to assist the Coroner

Gabrielle Coventry was only 14 years old when she died at Gosford Hospital on 5 December 2007 from Neisseria Meningitides infection.

Gabrielle (Gabi) was born 23 December 1992. She resided with her mother, Sharon Smith, at Killcare and attended Barrenjoey High School. She was in year 9.

Her mother described Gabi as a happy, healthy child, although in more recent time she had been diagnosed with depression and had been receiving medication and counselling. Ms Smith, in a statement read by her Counsel, described her anguish at losing her only child, "her darling girl" as she described her.

The task of a coroner is to make formal findings concerning the identity of the person who has died, when and where the person died and the manner and cause of death. A coroner may also make recommendations concerning public health or safety issues arising out of the death in question.

In relation to Gabi's death, there is no issue in relation to the identity, date, place or direct cause of her death. This inquest is concerned with the circumstances of Gabi's death and the care and treatment Gabi received at Gosford Hospital. The principal issues to be determined are why the gravity of Gabi's illness was not recognised until too late and why was she not treated with antibiotics 10 hours after she presented to hospital.

Chronology.

On 4 December 2007, Gabi attended school at Barrenjoey High. At 9.30, Ms Smith received a call from the school advising that Gabi was unwell and that she would be returning home. Ms Smith made arrangements to collect Gabi from the ferry.

At 12.20 pm Ms Smith met Gabi from the ferry. During the ferry ride Gabi had telephoned her mother and said

"Mummy I'm really really sick and if I still feel like this when you pick me up from the ferry we should go straight to the doctor."

She reported to Ms Smith that she had vomited 3 or 4 times whilst on the ferry. When she got in the car she was really hot and fell asleep. Ms Smith drove her straight to the Woy Woy Medical Centre. Gabi vomited in the car park on arrival.

Dr. Ellenberger.

At the medical centre, Gabi was seen by Dr. Ellenberger. Dr. Ellenberger observed the following in relation to Gabi's history and examination:

- Sudden onset of fever 40.3 from this AM
- No respiratory symptoms
- Headaches and dizziness, no photophobia – “she ached all over”
- No rash, no neck stiffness, chest clear
- BP 110 systolic with a pulse rate of 100

Dr. Ellenberger was so concerned about Gabi's presentation that she arranged for an ambulance to attend the surgery to urgently transport Gabi to Gosford Hospital Emergency Department. Dr. Ellenberger also telephoned Dr. Pallas, an Accident & Emergency specialist at the Emergency Department at Gosford Hospital, conveyed the history and examination findings, and queried whether she should commence antibiotics prior to Gabi being transported to hospital. Dr. Pallas told Dr. Ellenberger to withhold antibiotics as Gabi was to be transferred to hospital by ambulance as quickly as possible.

Dr. Ellenberger prepared a letter, summarising the history and examination, to be sent with Gabi to the hospital. Initially, Dr. Ellenberger queried a viral illness and her referral letter to Gosford Hospital stated “viral illness but cannot exclude meningitis”. However, before Gabi's departure, Dr. Ellenberger obtained a urine sample from Gabi which was blood stained. She also received information from Gabi about unprotected sex 2 weeks earlier. Dr. Ellenberger then amended her referral note by crossing out “viral illness but cannot exclude meningitis” and handwrite further notes, including “?UTI. febrile.”

Gabi was given 2 panamax tablets prior to her departure from the surgery at about 1.40 pm.

At about 2 pm Gabi was admitted to Gosford Hospital Emergency Department and assessed by a triage nurse. She was classified as triage Category 3. This category indicates a patient should be seen within 30 minutes. It was noted by the triage nurse that Gabi was “unwell and fairly dehydrated.” Her vital signs were recorded as:

HR 112
BP 129/59

Temperature – 38 degrees

It is from this point that Gabi's treatment at hospital began to deteriorate until she was administered antibiotics (which included Ceftriaxone) shortly after midnight following an examination performed by Dr. Felicity Park. Tragically, this treatment was too late to save Gabi and she went into cardiac arrest at about 3.30 am and was pronounced dead at 4.50 am on 5 December 2007.

Dr. Martin Pallas – Senior Staff Specialist in Emergency Medicine

Dr. Pallas was working day shift on 4 December 2007 (0800-1800hours.) He recalled receiving a telephone call from a GP concerning Gabrielle. He recalled the issue of antibiotics being discussed but as she was to be immediately transported to hospital he advised her transfer and review in the Emergency Department. He did not at any time attend Gabi.

In his oral evidence Dr. Pallas said his usual practice, on receiving a telephone call from a GP about the transfer of a patient would be to write a note and attach it to the computer screen of the triage nurse. This was to alert the triage nurse to a patient's arrival and an alert to ensure his notification to consult on arrival. Dr. Pallas was not alerted about Gabi's admission and to this day he is not sure why, though he accepts it possibly occurred on account of him failing to leaving a note on the computer screen.

Dr. Pallas was candid in his evidence that he was guilty of not checking on Gabi himself.

"In hindsight I was wrong – in retrospect I should have done an assessment."

He was forthright in his acceptance of the fact that he is responsible for what occurs in the Emergency Department. Although he acknowledged Gabi's case was a difficult case he maintained that in every child with a fever a differential diagnosis of meningococcal disease must be made. Because the suspicion was that Gabi was suffering a bacterial infection he agreed that antibiotics should have been started.

If Ceftriaxone had been administered, which is the preferred antibiotic for PID, then that would also have been effective in the treatment of meningococcal disease.

He accepted that Gabi was "critically ill and we did not pick it."

Regrettably, Dr. Pallas was the only doctor who gave evidence who acknowledged any responsibility for what happened to Gabi.

Dr. Julie MacFadden.

Dr. MacFadden, a Resident Medical Officer, did not attend to Gabi until 4 pm on 4 December 2007. The hospital notes that at 3:05 pm Gabi's vital signs showed:

HR 113
BP 92/40
RP 24
Temperature – 39.6 degrees

At 3:15 pm Ibuprofen was administered.

Dr. MacFadden recorded that Gabi had a variety of vague symptoms including three days of diarrhoea, headache, ongoing cough, bilateral leg pain and lower back pain. She stated that Gabi had complained of mild neck pain but that was not reproducible on examination. Gabi complained of feeling unwell with lower abdominal pain and vomiting. Dr. MacFadden performed a gastrointestinal examination, which showed "++lower abdominal/suprapubic tenderness on palpitation". Dr. MacFadden found no evidence of photophobia or neck stiffness and no rash. She observed Gabi to be oriented in time, person and place. She recorded in her notes that urinalysis was positive for nitrates and a large amount of blood (although Gabi said she was not menstruating.)

Dr. MacFadden recorded her impression that Gabi had a possible urinary tract infection ("UTI").

Her vital signs were recorded as follows:

HR 113
BP 92/40
Temperature 39.6

Dr. MacFadden discussed Gabi's case with the Senior ED Registrar; Dr. Nirooshan Rooban. She spoke about Gabi's "vague presentation." She was told by Dr. Rooban to obtain a urine sample and to "rule out urinary tract infection first." She observed Dr. Rooban attend upon Gabi to take blood for testing.

She also discussed Gabi's case with Dr. Anna Parsch, Paediatrician Registrar over the phone and noted a plan of treatment to include:

- Discussion with Dr. Parsch
- Obtain a midstream urine sample
- Blood to be taken for full blood count, urea and electrolytes and blood culture
- Hold off on antibiotics until the mid stream urine result back
- Commence neurofin and paracetamol
- Administer a bolus dose of intravenous fluids
- Monitor Gabi's vital signs
- Organise paediatric review

Dr. MacFadden states that she was advised to hold off antibiotics pending the results of the urine and blood tests. She says that this advice came from Dr. Rooban or Dr. Parsch. Both Dr. Rooban and Dr. Parsch deny giving this advice.

It does not appear that a urine sample was obtained from Gabi pursuant to Dr. MacFadden's plan of treatment. A urine sample appears to have been collected by the Laboratory for the purpose of analysis at 2:52 pm, with the urine microscopy analysis results being completed and available thereafter at 4:40 pm¹. The next urine sample collected, for which urine microscopy analysis was performed, was at 10:38 pm². However a blood sample, which was later used for a blood count analysis, appears to have been collected at or before 5:30 pm³.

Antibiotic treatment was not commenced when the results from the urine and blood analysis became available to Dr. MacFadden. Again, because of her "confusion" regarding Gabi's vague presentation and non-specific test results (Gabi's urine sample

¹ Urine Microscopy Preliminary Report, p.68 of the statement by Dr. Julie MacFadden.

² Urine Microscopy Report, p.58 of the statement by Dr. Julie MacFadden.

³ Haematology Report, p.50 of the statement by Dr. Julie MacFadden.

had come back negative for growth and bloods were all normal apart from a creatinine of 100), Dr. MacFadden discussed the case with Dr. Charles Wintle, the Senior ED Registrar on evening shift.

She recalls Dr Wintle reviewing Gabi's history and the referral letter from Dr. Ellenberger. She further reveals he said words to the effect "given her recent unprotected sex and that her most pressing complaint is lower abdominal pain, it may well be a case of PID. Please discuss Gabi's recent sexual history with her before you leave the hospital."

This she did and reported back to Dr. Wintle, relaying that sexual history to him.

In her oral evidence, Dr MacFadden stated that it had been in her mind to administer antibiotics but after discussion with the Registrars she was advised to hold off commencing antibiotics.

I accept that Dr. MacFadden was told to hold off antibiotic treatment but I am unable to find who told her. Dr MacFadden spoke of her confusion surrounding Gabi's case. She referred a number of times during her evidence that she sought advice from senior doctors because of her "confusion." It is highly unlikely that Dr. MacFadden would have made a unilateral decision to withhold antibiotics. She knew that a UTI was a bacterial infection but by the end of her shift and after the mid stream urine sample had returned, she was of the view that Gabi's diagnosis was "not as likely as we thought that it was a UTI." She discussed with Dr. Wintle about treatment and a differential diagnosis of pelvic inflammatory disease ("PID") arose. She agreed that this is also a bacterial infection, treatable by antibiotics.

Dr. MacFadden conceded that in hindsight she should have administered antibiotics. She also concedes that in hindsight Gabi satisfied the criteria of a toxic child⁴ at the time of her assessment.

She stated in her evidence that she would always consider meningococcal disease as a differential diagnosis, but she believed Gabi, at the time, "had a lot of symptoms going

⁴ As that term is used in the NSW Health clinical practice guidelines for Acute Management of Infants and Children with Fever.

on” and that is why she discussed the case with the senior Registrar and resolved that the likely diagnosis was a UTI. There is nowhere in her notes a record of a possible differential diagnosis of meningococcal disease.

She had never before dealt with a confirmed case of meningococcal disease but conceded that Gabi's vital signs were suggestive of a serious illness and a serious bacterial illness could not be ruled out. In response to a question from Mr Graham as to why, if she was not sure of a diagnosis, she did not pick the most serious and deal with that, she again stated, “I sought senior advice.”

Dr. Nirooshan Rooban

Dr. Rooban was an Emergency Department Registrar at Gosford Hospital on 4 December 2007. He recalls that in the afternoon Dr. MacFadden came to him about Gabi. He recalled Dr. MacFadden told him she had formed a clinical impression that Gabi was suffering from a possible urinary tract infection.

He examined Gabi but made no note of that examination. He supported Dr. MacFadden's view that Gabi was suffering from a UTI. He agreed it was appropriate for Gabi to be seen by the paediatric registrar and admitted to hospital under the paediatric team.

He denied telling Dr. MacFadden to hold off on antibiotics until the urine sample and blood tests were back.

Dr. Rooban's notes indicate he handed over care to Gabi to Dr. Wintle, Emergency Department Registrar on evening shift, at 6.45 pm.

In his oral evidence, Dr. Rooban stated that he does not recall Dr. MacFadden stating that she was confused. However, he agrees that Dr. MacFadden was seeking advice and affirmation.

He acknowledged that he noticed Gabi was suffering tachycardia and had a high temperature. He has a vague recollection that she had been vomiting.

The diagnosis of UTI was the top of his list, although he agreed that meningococcal disease would reasonably be considered a differential diagnosis, though he stated it would be lower down.

He maintained it was his practice to order antibiotics for suspected UTI once the blood and urine samples had been collected. He cannot recall taking the blood sample nor can he recall why he did not order antibiotics. He certainly did not write this treatment down nor does it appear in Dr. MacFadden's comprehensive notes. She claims she was told to hold off antibiotics. He stated:

"We were so definite it was UTI – it was top of the list- that's why we thought she would be admitted under the paediatric team – PID came to light later on."

If he was so definite the diagnosis was UTI or even "top of the list," the departure from his usual practice of ordering antibiotics once the samples were collected cannot adequately be explained. The failure to do so is unacceptable and inexcusable.

Certainly, Dr. Vinen is clear in his criticism of Dr. Rooben. He stated:

"I would have expected a Registrar to have recognised the seriousness of Gabrielle's condition and to have initiated antibiotic treatment without delay."

In addition he stated Dr. Rooban's failure to document his assessment is also deserving of criticism. This is particularly pertinent in light of Dr. Rooban's own evidence in which he claimed not to have made notes because he believed his task was to advise Dr. MacFadden and affirm her views. At that point there is no evidence that Dr. MacFadden had formed a view in regard to treatment. Dr. Rooban either failed to order treatment, as he claimed was his usual practice, or failed to document the proposed treatment. Either way, the failure was catastrophic.

Dr. Rooban is deserving of criticism.

Dr. Anna Parsch (Le Fevre.)

At the time of Gabi's admission to hospital, Dr. Parsch was a Paediatric Registrar. She recalls receiving a telephone call at about 5 or 5.30 pm on 4 December 2007 from a female doctor in the Emergency Department. She recalls being advised that Gabi's blood pressure had dropped from her initial presentation. She asked that the Emergency Department Registrar review Gabi immediately as she was unable to attend, and to give Gabi a fluid bolus if necessary.

Dr. Parsch attended Gabi at about 7.30 pm. She spoke with Dr. Rooban and Dr. Wintle. She maintained that she asked both doctors to keep Gabi under Emergency Department care, as she was likely to be called away. On examining Gabi, her initial impression was that she was not acutely unwell. She obtained a history from Gabi and noted her fever involved her suffering rigors that morning and a temperature of 40C which had reduced to 36.9 in the Emergency Department.

Gabi's main symptomatic complaint was lower central abdominal pain, which had been constant since the morning. There was also mild pain in the lower back. Gabi had vomited 6 or 7 times during the day. She had mild pain in her joints, which had been relieved by paracetamol. She noted a history of Gabi's headache, which Gabi reported as mild with no photophobia.

Dr. Parsch also obtained a sexual history from Gabi, which included unprotected sex in the previous month. She noted no discharge, no itching, and no burning. She observed no rash.

Her vitals signs were as follows:

HR 95
RR 20
SaO2 98%
Temperature 36.9

She further noted no lymphadenopathy, no neck stiffness and that the Kernig's sign was negative. This is a diagnostic sign for meningitis. She recorded Gabi was tender across both sides of the lower abdomen.

At 19.45, Dr Parsch was paged away and asked the attending nurses and doctors, including Dr. Wintle, for Gabi to remain under Emergency Department care. She also referred to Gabi's sexual history and the risk of pelvic infection.

At 8.10 pm she handed over Gabi's case to Dr Bindu Baburaj, the night Paediatric Registrar in the paediatric ward. Dr. Parsch stated she made it clear to Dr. Baburaj that she had not been able to complete her assessment of Gabi, nor had she come to any diagnostic conclusions or management formulation. She stressed that Gabi required a full paediatric assessment in the Emergency Department.

Dr. Parsch stated that she had not considered meningitis or meningococcal disease as a likely diagnosis. She thought that Gabi might have been suffering a pelvic or other infection, but stressed she did not get the opportunity to complete the assessment. Nor was she thinking that Gabi had a severe case of sepsis.

All of these assessments must be viewed in the knowledge that Dr. Parsch had not viewed Gabi's notes nor had she access to any medical records. She recalls a discussion with Dr. MacFadden but does not recall telling her to withhold antibiotics. She does not believe she would have given this advice. She had not completed her assessment, nor had she reached a diagnosis. If she had instructed the withholding of antibiotics she stated she would have recorded it in her notes.

Dr. Charles Wintle

Dr. Wintle was the Emergency Department Registrar at Gosford Hospital on December 4, 2007, on the evening shift. He never attended Gabi but became aware of her on the ward round at about 4 pm and later during a discussion between Dr. MacFadden and Dr. Rooban. He states he was not requested to review Gabi by the medical staff as she had been referred to the paediatric team. He made no therapeutic decisions concerning her care.

Dr. Wintle's written statement is poorly drafted. Paragraph 4 of that statement reads:

4. *Based wholly or substantially on the above knowledge, I am of the opinion that the examination findings and outcome described in the previous section of this statement are consistent with*

The paragraph clearly does not make sense. Dr. Wintle agrees but explains this *lack of sense* on the basis that the document was a “pro- forma document – I was not in a position to draw a conclusion – I chose not to fill in anything further. I completed the statement to the best part of my ability.”

This may be an explanation but in my view it is symptomatic of the evidence given by Dr Wintle and his attention to Gabi’s case.

He denied any conversation with Dr. MacFadden about her confusion regarding Gabi’s vague presentation of symptoms and non-specific test results. He denied Dr. MacFadden telling him that she thought a UTI less likely.

He denied suggesting to Dr. MacFadden that a likely diagnosis might be PID but accepts he may have asked for Gabi’s sexual history to be obtained.

He denied he took over the care of Gabi from Dr. MacFadden when she finished her shift, insisting that the Paediatric Registrar was about to attend.

He did not recall being told by Dr. Parsch that she wanted Gabi “to remain” under Emergency Department care because she was being called away.

He did not agree with the contents of the note made by Dr. Rooben at 18.45 in which he handed over care to Dr. Wintle.

That note read:

Care handed over to Dr. Wintle, ED Registrar on evenings. He kindly accepts care.

He denied any conversation about taking over Gabi’s care.

There was no discussion about treatment and he did not ask about antibiotic treatment. He did not turn his mind to meningococcal disease, claiming his involvement was not that detailed and that Gabi had been seen by another Emergency Department Registrar.

He maintained that he did not examine Gabi because she had been examined by Dr. Rooban. But Dr. Rooban had made no note of that examination, nor was there any note regarding treatment in Gabi's clinical notes. In fact, the only notes at the time Dr. Rooban handed over care to Dr. Wintle came from Dr. MacFadden, which included a query as to UTI and a note regarding the holding off of treatment.

Dr. Wintle had been present since before 4 pm. He had authorised administration of ibuprofen at 3.15 pm. He agreed he had a conversation with Dr. MacFadden and her notes corroborate at least in part her uncertainty about Gabi's presentation.

He claims Dr. Rooban gave a direct handover of Gabi's care to the Paediatric Registrar, Dr. Parsch, but the notes clearly show that Dr. Rooban handed over care to Dr. Wintle at 6.45 pm. Dr. Parsch makes no mention of a handover by Dr. Rooban to her care.

It was put to Dr. Wintle by Mr. Graham that he was distancing himself from "this girl." Dr. Wintle thought that an unfair comment.

Dr. Wintle made a poor impression as a witness. He was defensive and reluctant to accept any responsibility for Gabi's care, even though he was the Emergency Department Registrar on duty whilst Gabi was in the Emergency Department. His evidence is contradicted by the evidence of Dr. Parsch, Dr. Rooban and Dr. MacFadden. He distanced himself from accepting responsibility for Gabi's care by claiming responsibility had been handed to the paediatric team. He could not possibly have known this. There is no note of this. He could not say when this supposedly occurred and it is in direct conflict to the evidence of Dr. Parsch and Dr. Rooban. I also note the expert opinion of Dr. Vinen that, until Gabi was transferred and admitted into the paediatric ward, her care continued to be the responsibility of the Emergency Department.

Dr. Wintle is deserving of strong criticism.

Dr. Bindu Baburaj.

Dr. Baburaj was the Paediatric Registrar on night shift on 4 December 2007. She commenced work at 8 pm. Dr. Parsch handed over care of Gabi to Dr. Baburaj stating that Gabi probably had a UTI as her urine test result showed bacteria and blood and some epithelial cells. She recalled Dr. Parsch saying that a repeat urine test was necessary because of possible contamination [eg on account of the presence of a large number of epithelial cells] before the commencement of antibiotic treatment and Dr. Parsch indicating she had asked Emergency staff to organise a second urine test. Dr. Baburaj believed it was her task to chase up the results of this second test and depending on the results, to commence antibiotics. Dr. Baburaj's recollection of this handover is somewhat at odds with that described by Dr. Parsch. I again note that, by the time of this handover, another urine sample had not been collected for the purposes of urine microscopy since the one collected at 2.52 pm.

Dr. Baburaj organised a review by a gynaecology registrar because of the history of unprotected sex with more than one partner. She did not believe, at this time, that there was an urgent need to see Gabi.

She attended Gabi at 9.30 pm in the Emergency Department. She noted Gabi had been suffering high fever since that morning and she had lower abdominal pain. She also had stinging on micturition. She had vomited after dinner. Gabi also reported headaches.

She was aware that Ms Smith was very unhappy with the lack of progress in Gabi's treatment.

Gabi looked pale, her abdomen was soft and there was no guarding on abdominal examination. She appeared alert and orientated and there was no neck stiffness. There was no rash. Dr. Baburaj queried whether Gabi had pelvic inflammatory disease or a urinary tract infection.

Her vital signs were recorded as follows:

HR 92

RR 20
Temperature 37.1
O2Stat 98%

She developed the following plan:

- Continue intravenous hydration
- Nurses to check Gabi's blood pressure – (Dr. Babaruj was concerned that diastolic blood pressure was low in earlier observations)
- Repeat urine test (because of epithelial cells and also to check for Chlamydia)
- Await gynaecology review to exclude P.I.D
- Discussion of Gabi's sexual encounters with the Emergency Department's social worker

At 10.05 pm Gabi's blood pressure was recorded as 91/33

At 11.00 pm her blood pressure was 91/42

At 1 am her blood pressure was 111/72

During this time Gabi was being administered intravenous fluid.

At 01.20 am on 5 December, Dr. Baburaj again attended Gabi. She noted Dr. Park had ordered that Gabi be commenced on antibiotics at 12.10 am. Gabi's mother alerted Dr. Baburaj to a rash around her neck. Dr. Baburaj considered whether the rash was as a result of anaphylaxis, which she considered unlikely. She also considered meningococcal disease but because it was not petechial or purpuric she did not believe it to be typical of that disease.

Again, Dr. Baruraj recorded a plan:

- To continue analgesia
- Nurses to observe the rash, to see if it changed or spread
- To continue antibiotics as per gynaecologists recommendations
- To continue IV hydration

In her oral evidence Dr. Baburaj told the court that whilst she could not exclude meningococcal disease as a differential diagnosis she was thinking that the more likely diagnosis was a UTI or PID given Gabi's history of sexual activity.

Dr. Baburaj was frank in her concession that it would have been reasonable on that likely diagnosis to have ordered antibiotics. She was also frank in her admission that a delay of over 8 hours in treating someone with a suspected UTI or PID was not appropriate.

Dr. Felicity Park.

Dr. Park was working night shift as the obstetrics and gynaecology registrar on 4 December 2007. She recalled the mother of Gabi and a nurse approaching her at about 11 pm to ask about someone "seeing" Gabi. This approach is corroborated by the account of Ms Smith. According to Dr. Park, this was the first time she learnt that she would be required to examine Gabi. She then completed another attendance and then commenced examining Gabi at about 11.30 pm. Dr. Baburaj testified that she requested an obstetrics and gynaecological registrar to examine Gabi soon after completing her own examination at about 10 pm.

In the course of her examination, Dr. Park conducted a pelvic examination. That examination and her observations during the same, including lower abdominal tenderness and cervical excitation, as well as Gabi's history, signs and symptoms assisted Dr. Park reach a diagnosis of "possible" PID and dehydration. I observe that whilst Dr. Park had the benefit of the pelvic examination, she did not have the benefit of a clean-specimen urine sample or fresh blood counts when reaching that diagnosis. The microscopy results from the second urine sample were not available until 8.17 pm on 5 December 2007⁵. Gabi was commenced on ceftriaxone, metronidazole and doxycycline for possible PID following the completion of Dr. Park's examination.

Early hours of 5 December 2007

A rapid deterioration in Gabi's condition had commenced by 2 am on 5 December 2007, and continued to do so until she went into cardiac arrest at about 3:30 am. I note that a

⁵ Microbiology Report, p.58 of the written statement of Dr. Julie MacFadden.

number of doctors and nurses were then involved in attempt to resuscitate and save Gabi. Despite their best efforts, Gabi was pronounced dead at about 4:50 am on 5 December 2007.

The Expert Evidence

Dr. J Vinen – Senior Staff Specialist, Calvary Hospital Canberra, Emergency Department

Dr. A Brown – Senior Staff Specialist, Department of Emergency Medicine, Royal Brisbane and Women's Hospital, Brisbane

Dr. J Raftos– Senior Specialist in Emergency Medicine St. Vincent's Hospital, Darlinghurst. Senior Specialist in Emergency Medicine, Sutherland Hospital, Caringbah. Senior Specialist in Emergency Medicine, Sydney Hospital

Each of the specialists wrote an extensive report and gave oral evidence. In the course of giving their opinion, reference was had to the NSW Health clinical practice guidelines for Acute Management of Infants and Children with Fever and the Recognition of Sick Child in Emergency Departments.

Dr. Brown concluded that the diagnosis of meningococcal disease could not have been reasonably foretold until clear signs developed in the early hours of 5 December 2007. He believed Gabi's presentation with fever, headache, and malaise with lower abdominal pain and an abnormal urine dipstick containing blood, leucocytes and protein were all consistent with UTI.

The delay in treatment by the ED staff and the decision to await a fresh, clean –catch urine specimen prior to starting antibiotics, Dr. Brown considered to “be good accepted practice, as the best indication of the organism causing a UTI is to isolate it in a clean-catch MSU.”

He did not believe there was a need to treat Gabi with empirical antibiotics at that point because she was not unwell and there was no evidence of septic shock.

Similarly, he is not critical of the decision to not commence antibiotic treatment by the paediatric registrars. It was appropriate to wait for a repeat urine sample. In addition, Dr. Barburaj came to a differential diagnosis of UTI or PID which he considered a highly relevant consideration and the decision to obtain a gynaecological opinion was reasonable and appropriate.

Dr. Vinen and Dr. Raftos are in strong disagreement with Dr. Brown.

Dr. Vinen stated that when Gabi presented to the ED she had a high fever, she was dehydrated, tachypnoeic and tachycardic. She was drowsy with a headache and myalgia and dizziness. His evidence is clear that she was "toxic" at time of presentation and should have resulted in the administration of guideline broad-spectrum antibiotics.

Again, at 4 pm, he was clear that Gabi's presentation clearly indicated she had an infection that resulted in 5% dehydration, a significantly low BP associated with tachycardia and tachypnoea as well as other symptoms and the diagnosis at the top of the list should have been sepsis.

The fact that the first urine sample was contaminated should not have had a bearing on her management.

"What she required was immediate and aggressive treatment – with fluid resuscitation and parenteral antibiotics commencing soon after presentation. To wait until between 16.00 and 18.00 to commence treatment in the circumstances is inexcusable."

In relation to the decision to hold off antibiotics, Dr. Vinen was unequivocal.:

"This is not usual or safe practice. The approach is to collect the urine and commence antibiotics immediately in order to commence treatment of the suspected infection in order to speed up recovery. The decision (to withhold antibiotics) is inexcusable and deserving of strong criticism"

Dr. Vinen's conclusion is as follows:

The failure to ensure senior ED staff review (Registrar and or Consultant) and initiate the indicated treatment directly contributed to subsequent events and Gabrielle's death which in my opinion was preventable by earlier recognition that she was septic followed by fluid resuscitation early administration of broad spectrum parenteral antibiotics and admission to ICU."

Dr. Raftos is clear in his criticism of the treatment Gabi received at Gosford hospital. He stated:

"General Practitioners and Emergency Department doctors are trained to treat children and teenagers who present with high fever with no obvious origin promptly with empirical intravenous or intramuscular antibiotics."

When Gabi was seen by Dr. MacFadden at about 4 pm, Dr. Raftos stated that her presentation should have led to a suspicion of a serious bacterial infection and immediate administration of empirical antibiotics should have happened.

"The doctor's failure to treat Gabrielle with empirical intravenous antibiotics by 16.30 hours represents a major departure from what would have been widely accepted by peer professional opinion in Australia in 2007 to be competent professional practice and led directly to Gabrielle's death."

The weight of the evidence clearly supports the conclusions of Dr. Vinen and Dr. Raftos. They are both well respected and highly experienced experts. I accept their assessment of the treatment or lack of treatment given to Gabi at Gosford hospital

Conclusions

There is no doubt the diagnosis of meningococcal disease presents as a challenge, especially when the patient has no rash and no signs of meningism as was the case with Gabrielle until just prior to her death. All experts agreed that the diagnosis of meningococcal disease is difficult even for the most experienced clinician, and because the symptoms and signs can be non-specific, the diagnosis can be delayed because of the similarity of the symptoms with other infections.

In Gabi's case both Dr. Brown and Dr. Vinen agree that an initial diagnosis of UTI was not unreasonable, although Dr. Vinen states he would have categorised it as a complicated UTI.

Dr. Raftos' preferred diagnosis was fever without obvious cause with a list of differential diagnoses.

Any criticism involving Gabi's care and treatment should not be levelled at the failure of the various doctors to definitively diagnose meningococcal disease. The central issues in this case are:

- the failure to reasonably treat Gabi with that possibility in mind, when all the signs and symptoms reasonably enlivened it as a differential diagnosis, until it was otherwise excluded.
- the failure to appropriately treat Gabi's fever whether it is characterised as fever without obvious cause /complicated UTI or UTI.

Although all the doctors, except Dr. Parsch. who attended Gabi stated in their evidence that meningococcal disease was always on their mind as a differential diagnosis; not one of the hospital doctors recorded that differential diagnosis in the hospital notes. The only doctor who considered the possibility of a serious bacterial illness of this magnitude was the GP, Dr. Ellenberger, and unfortunately she accepted Dr. Pallas' advice to withhold antibiotics as Gabi was to be seen at hospital.

Given what occurred at hospital, this was catastrophic advice. Dr. Ellenberger was not to know of the poor level of attention that Gabi would receive at Gosford Hospital. Her initial suspicion of a serious bacterial infection was reasonable, even though she later amended her referral to include suspicion of UTI. The hospital staff were obliged to consider the possibility of meningococcal infection, especially given that the concerns expressed by the GP.

Dr. Raftos' view is *that "Emergency Department staff should have a high index of suspicion for meningococcal disease, and should treat suspected cases with prompt empirical antibiotics."*

Dr. Vinen is unequivocal in his view that, where meningococcal infection is considered a possibility, treatment with appropriate antibiotics must begin immediately. *"If you consider meningococcal to be a differential diagnosis then without question you must treat it if you can't exclude it."*

Dr. Pallas also agrees:

"Any time a child has a fever you always think bacterial infection" and "Every child with a fever points to a differential diagnosis of meningococcal disease."

All the hospital doctors claim meningococcal disease was in their mind. None of the hospital doctors could say they ruled it out. The weight of the expert evidence supports the opinions expressed by Dr. Vinen and Dr. Raftos. The hospital doctors' failure to exclude the diagnosis of meningococcal disease and the failure to provide the standard urgent empirical antibiotic treatment for fever without obvious cause led directly to Gabrielle's death. .

Failure to treat the bacterial illness.

As has been seen, Dr. Brown is not critical of the hospital doctor's failure to treat the UTI or PID early.

Dr. Vinen and Dr. Raftos are highly critical.

Dr. Raftos stated that even if a UTI was the preferred diagnosis *"The standard of care therefore is to obtain a sample of urine, perform ward urinalysis and start antibiotic treatment if leucocytes and nitrates are present on urinalysis..."* and *"I doubt there would be an Emergency Department in Australia that withholds antibiotic treatment for UTI until laboratory testing of urine has been performed."*

In other words, treatment of Gabi should have started at 1600 hours when the urinalysis was positive. Standard intravenous antibiotic treatment for UTI according to Dr. Raftos is ampicillin and gentamycin. *"Most meningococci are sensitive to ampicillin."*

Dr. Vinen agrees that antibiotic treatment should have started immediately.

Why the delay in treatment

There does not appear to be a satisfactory reason why antibiotics treatment was delayed, apart from Dr. Brown's assertions that antibiotic treatment in the case of a UTI or PID was not time critical and it was more important to arrive at a positive diagnosis.

In his report Dr. Brown stated:

"This urine sample was sent to the laboratory, and subsequently on microscopy was found to be a contaminated sample, in view of the large numbers of epithelial cells. - - - It was for this reason that it was decided to await a fresh, clean-catch urine specimen prior to starting antibiotics, following discussion between the ED doctor [Dr. MacFadden] and the Paediatric registrar [Dr. Parsch]."

I am unable to find any evidence to conclude that the initial withholding of antibiotic treatment was on account of the treating doctors' concern to obtain a clean-catch urine sample. There is nothing in the accounts of Dr. MacFadden, Dr. Rooban, Dr. Wintle or Dr. Parsch to enable such a finding. The only evidence that permits such a finding is the account of Dr. Baburaj that Dr. Parsch stated, during the handover shortly after 8 pm, that a repeat urine test was necessary owing to possible contamination before the commencement of antibiotic treatment. Even if that were true, the decision to withhold antibiotic treatment for that reason could only have arisen at about 7:30 pm, being the first time Dr. Parsch actually examined Gabi in person. Furthermore, no adequate explanation presented for why it took until 10.38 pm for a second urine sample was collected for the purposes of a urine microscopy. Even assuming Dr. Barburaj is correct in this regard, there was still an unreasonable delay in obtaining that second urine sample.

Mr. Downing posed carefully crafted questions to each of the hospital doctors to the effect that the early treatment of antibiotics where there is no positive diagnosis could

lead to a number of problems including an anaphylactic reaction, resistance in the future to antibiotic treatment and a possible masking of the true origin of the infection. It is noted that none of the doctors questioned raised these concerns unprompted, nor was any such concern recorded in the hospital notes or in the doctors' written statements.

Both Dr. Vinen and Dr. Raftos rejected this reasoning. Dr. Raftos stated he would always treat a UTI after a test had been taken. That could be done immediately, treatment with antibiotics posed a small risk only and the type and dosage used could be adjusted when test results were returned.

Dr. Vinen agreed, stating that Gabi had signs of sepsis, and a diagnosis of complicated UTI was likely and on that basis she required treatment with antibiotics. The risks outlined by Mr. Downing were small and he stated he would treat both UTI and possible PID on spec.

The hospital notes refer on a number of occasions to Gabi's mother appearing distressed and asking for antibiotic treatment.

The issues of concern regarding the possible mis-usage of antibiotics pale into insignificance when considering the outcome.

Mr. Downing also surmised that there is no evidence that earlier administration of antibiotics would necessarily have assisted Gabi.

Dr. Brown supports this view suggesting that there is no evidence to confirm that antibiotic treatment reverses the course of the disease if given less than 24 hours to onset of death.

Dr. Vinen stated there was no guarantee of survival but Gabi's chances of survival may have been improved if antibiotic treatment had been given immediately.

Dr. Raftos goes so far as to state that on balance of probabilities, had antibiotics been appropriately administered, Gabi would have survived her Meningococcal Septicaemia.

This discussion gives rise to a poignant lack of logic. There were no guarantees that earlier, appropriate treatment would have saved Gabi, but without treatment she was doomed.

Secondly, it would appear that the treating doctors anchored themselves to the diagnosis of UTI after Gabi disclosed her sexual history. Dr. Ellenberger amended her referral letter to reflect this information. At hospital the diagnosis of PID was reached after further discussion with Gabi about her sexual history. The notes contained in the clinical notes give a thorough description of this history and Dr. Baburaj suggests that Gabi be referred to the social worker as a result of this disclosure. There is evidence that all the doctors involved were concerned about Gabi's sexual history. Ironically, there is little in the notes that reflect the concern about the treatment to be offered.

Dr. Raftos stated that too much credence was given to Gabi's sexual history. In his oral evidence he stated "*it was a red herring*".

Whilst this history played an important part in diagnosis, the fixation on this history resulted in a failure to recognise the seriousness of Gabi's presentation. As a result Gabi lost her best chance of survival.

Changes to Gosford Hospital

A statement by Dr. Stephen Golding, Acting Director of Medical Services, Central Coast Local Health Network, was included in the brief of evidence tendered in this inquest. In that statement, Dr. Golding reported on changes that had been enacted at Gosford Hospital following the death of Gabi. Those changes included:

1. The creation of an additional paediatric registrar's position on the evening shift, within the emergency department in 2008. On 4 December 2007, it was apparent the day and night shift paediatric registrar were not able to examine Gabi in a timely manner owing to each giving priority to other commitments in the paediatric ward to which they were rostered. The presence of a paediatric registrar, specifically to remain in the emergency department, will hopefully ensure greater

priority and continuity in treatment of a paediatric patient, such as Gabi, in the emergency department.

2. An additional, but non-specialist, medical officer being rostered on night duty to provide coverage in the paediatric emergency area.
3. Recommendations were made in a report dated 27 November 2008 by Commissioner Peter Garling SC following the Special Commission of Inquiry – Acute Care Services in NSW Public Hospitals ("the Garling Report"). Some of those recommendations were targeted at clinical note taking, team communication and clinical handovers. According to Dr. Golding, as a number of actions have been undertaken both at the State level and within Gosford Hospital to improve team communication. In particular, copies of the following protocols that have been introduced following Gabi's death were annexed to the statement of Dr. Golding:

- a) NSW Policy Directive – Clinical Handover – Standard Key Principles.
- b) NSW Health – Caring Together Implementation Tool Kit – Standard Key Principles for Clinical Handover.
- c) Northern Sydney Central Coast Area Health Service Procedure – Patient Safety Handover Checklists – Use in Clinical Handover – NSCCAHS.

Submissions

Mr Graham submitted that the treatment Gabi received at Gosford Hospital was a *cascading series of systematic and individual errors*. He submitted that recommendations be made to the Area Health service for the purpose of formulating cultures and procedures to ensure that there is a clear hierarchy of responsibility in emergency departments and to review guidelines which clearly define when antibiotics should be administered.

Mr Graham ultimately proposed the following recommendation for my consideration in relation to communication:

1. That the Central Coast Local Hospital District reinforce to medical and nursing staff the Standard Key Principles for Clinical Handover as per the NSW Health Policy Directive, Clinical Handover – Standard Key Principles and NSW Health Implementation – Standard Key Principles for Clinical Handover, including:
 - a) Ensuring comprehension, acknowledgment and acceptance of responsibility for the patient by the clinician receiving handover; and
 - b) Reinforcing the requirement that clinical handover be documented by the clinician handing over and the clinician receiving the patient.

2. That the Central Coast Local Hospital District review the guidelines for the timely administration of antibiotics to febrile children.

Recommendations in the above form are not opposed by the Central Coast Local Hospital District. I intend to make those recommendations in that form.

In addition, Mr Graham submitted that Dr. Rooban and Dr. Wintle be referred to the

Director of Emergency Medicine Training, College of Emergency Medicine, because of their failure to take action concerning Gabi's care.

On close consideration I have decided to refer the two doctors. It is my assessment that the behaviour of both these doctors justifies examination. Their inaction is deserving of criticism and in the case of Dr. Wintle, strong criticism.

Findings

I find that Gabrielle Ruth Coventry, born 23 December 1992, died at Gosford Hospital on 5 December 2007 from Neisseria Meningitides infection that had not been diagnosed by a number of clinicians who had examined her.

Helen Barry

Magistrate Helen Barry,
NSW Deputy State Coroner.
Glebe
20 Dsecember, 2011.