CITATION:	*Inquest into the death of Braden (aka* Braydon)(Kwementyaye) Brown* [2014] NTMC 019
TITLE OF COURT:	Coroners Court
JURISDICTION:	Alice Springs
FILE NO(s):	A0016/2012
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HEARING DATE(s):	9 – 11 July 2014
FINDING OF:	Mr Greg Cavanagh SM
CATCHWORDS:	**Bacterial meningitis; need for early intervention; Yuendumu Clinic; CARPA manual.**

REPRESENTATION:

Counsel Assisting:	Dr Peggy Dwyer
Counsel for NT Dept of Health:	Ms Jodi Truman

Judgment category classification:	B
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* also known as

IN THE CORONERS COURT
AT ALICE SPRINGS IN THE NORTHERN
TERRITORY OF AUSTRALIA

No. A0016/2012

In the matter of an Inquest into the death of

BRADEN (aka BRAYDON)
(KWEMENTYAYE) BROWN
ON 4 APRIL 2012
AT ALICE SPRINGS HOSPITAL
ALICE SPRINGS

FINDINGS

Mr Greg Cavanagh SM:

Introduction

1. On 4 April 2012, a 17 year old indigenous child by the name of Braden (aka Braydon) Brown died in Alice Springs Hospital after contracting bacterial meningitis in his home community of Yuendumu. From 9-11 July this year, an inquest was held into the tragic death of this promising young person. Out of respect for the family and the cultural practice of avoiding use of the Christian name of an Aboriginal person who has passed away, I will henceforth refer to the deceased as Kwementyaye, with the exception of the formal findings.

2. The function of the Coroner is outlined out in the *Coroners Act* NT ("the Act"). Pursuant to section 34 of the Act, I am required to find, if possible,

    (i) the identity of the deceased person;

    (ii) the time and place of death;

    (iii) the cause of death;

    (iv) the particulars needed to register the death under the Births, Deaths and Marriages Registration Act; and

(v) any relevant circumstances concerning the death.

3. Section 34(2) of the Act operates to extend my function as follows:

> "A coroner may comment on a matter, including public health or safety or the administration of justice, connected with the death or disaster being investigated."

4. Relevant to this case, I may also make recommendations pursuant to section 35(1) and (2):

> "(1) A coroner may report to the Attorney-General on a death or disaster investigated by the coroner.
>
> (2) A coroner may make recommendations to the Attorney-General on a matter, including public health or safety or the administration of justice connected with a death or disaster investigated by the coroner."

5. In order to fulfil my statutory obligation to make the findings required by s 34(1), including consideration of the broader circumstances surrounding the death, I had tendered in evidence the following: the brief of evidence, including a supplementary volume (Exhibit 1); Additional notes from the Yuendumu Clinic (Exhibit 2); work history for Nurse Sinclair (Exhibit 3); Additional statements from Dr Boes and Nurse Simmons (Exhibit 4) and the Birth certificate (Exhibit 5).

6. I heard oral evidence from the officer in charge of the investigation, Senior Constable Phillip Brooke-Anderson; Registered Nurse Peggy Sinclair; Dr Paul Davies; Dr Sabina Boes and Dr Jeff Brownscombe. Expert evidence was called from Dr Simon Quilty, a Physician at Katherine Hospital. The Director of Medical Services (Primary Care Branch, Department of Heath), Dr Hugh Heggie, provided an overview of action taken by the Department of Health to review Kwementyaye's death and outlined improvements in

patient care. A number of members of Kwementyaye's family told me of the sadness his death has caused and their hope that lessons will be learnt from his passing.

7. In the week before his death, Kwementyaye had contact with the Yuendumu clinic on three separate occasions – 29 March 2012; 1 April 2012 and 3 April 2012. On the first and third occasion he was reviewed by a doctor, but on the second occasion he saw a nurse and Aboriginal Health worker, and no medical doctor was called in. At inquest I inquired into the treatment he received from clinic staff on each of the three occasions he presented. The aim of these investigations was not to be hyper critical of those involved in Kwementyaye's care, but rather to see if there was anything that could be learnt from this sad death to ensure that other people infected with meningitis in the future receive the most effective treatment, as swiftly as possible.

8. I have no doubt that the doctors and nurses who gave evidence before me genuinely care about their patients and are dedicated to their jobs. However my investigations revealed flaws in the treatment Kwementyaye received on 1 April, when he was only seen by a nurse and health worker, and again when he presented to Yuendumu Clinic for the final time on 3 April. I was grateful for the candour of members of the medical staff and the Department of Health in helping the Court to identify deficiencies in care and opportunities to learn about managing risk in these circumstances.

9. Kwementyaye was a young person with an enormous amount of talent who was much loved by his family, many of whom attended court for the inquest. His death was a great loss to them and to our broader community, and it is hoped that improvements in health care since he passed away, particularly in training and tele-conferencing, will improve recognition and treatment of meningitis in the future.

Background

10. Kwementyaye Brown was the youngest son of Jillian Brown and Anderson Walker. He aspired to be a ranger, like his older brother and was tracking well to achieving his goals. Until shortly before his death, he was a healthy young man who didn't drink or smoke and was very physically fit. Even in the week before his death he had travelled to play football for the Yuendumu magpies under 17s and his family had no reason to suspect that he was about to fall gravely ill.

First presentation to Yuendumu clinic with symptoms

11. On Thursday 29 March 2012, Kwementyaye presented to the Yuendumu health clinic and was examined by Dr Paul Davies, a doctor from New Zealand who had worked in the community before and was back for a two week locum. Clinical notes taken on examination record "Soreness to the right side of neck past couple days, hurts when turns, no associated throat soreness, headache, ear ache, neck stiffness, normal temp (36.9)". In oral evidence, Dr Davies explained that what he intended to record was that in addition to the sore neck there was "a degree of headache, earache and neck stiffness" (Trans, 9.7.14, p 31).

12. Dr Davies considered it likely that Kwementyaye had a harmless virus, similar to many that affect members of the community throughout the year. He gave evidence that "At the time, there's always viruses going around and it's not uncommon to get a stiff neck and a headache if you have a bit of a viral illness. … People get muscle aches and pains, so you have to take that into account when you consider the illness of the person" (Trans, 9.7.14, p 32).

13. Kwementyaye was due for blood tests but said that he preferred to come back in the morning. He was sent home with some anti-inflammatory drugs and told to rest and return to the clinic if he was not improving. His case

was not discussed at the clinical team meeting the next morning and no follow up visit was arranged.

14. I had the benefit of an excellent expert report and oral evidence from Dr Simon Quilty, a Consultant physician with many years experience working in the Northern Territory who is now based at Katherine Hospital. Dr Quilty was asked to comment on the appropriateness of the treatment Kwementyaye received on each occasion he interacted with clinic staff in the week before his death. In relation to this presentation on 29 March, Dr Quilty was not critical. Although he explained that Kwementyaye may well have been exhibiting the early symptoms of meningitis, he agreed with Dr Davies that his presentation could easily have been mistaken for a more harmless virus. While it would have been best practice to have discussed the case at the team meeting the next day, and that did not occur, I am not critical of the care that Kwementyaye received on this first visit.

Second contact with clinic staff

15. On Sunday 1 April, Kwementyaye complained to his mother that he had a headache and she contacted the Yuendumu Clinic. A Registered Nurse (RN) Sarah Simmons, accompanied by Aboriginal Health Practitioner (AHP) Jeremy Downes attended on him at home and then took him into the clinic. Notes suggest that Kwementyaye told RN Simmons that he had had a headache since waking up and had taken panadol with no effect; he had no recent head trauma and consumed no alcohol or other substances the night before. There were no signs of neurological abnormality. The findings at the clinic review reveal:

- Headache (no other pain)
- Fever (38.3)
- Slight increased respirations of 24
- Urine analysis slightly abnormal with Leukocytes +++

- no photophobia

16. It is not clear whether Mr Downes or Ms Simmons looked up the clinic records of Kwementyaye, or were aware of his presentation two days earlier, when he was examined by Dr Davies and found to have various symptoms, including a head ache and sore neck. It is likely that they did not, since that would surely have alerted them to a potentially evolving condition that required review by a medical officer. Sadly, there was no contact with a doctor, either by phone or in person. Kwementyaye was treated with pain relief medication (Iboprofen) and given instructions to return to the clinic if he had any of the following symptoms - double vision; his gait changed; dizziness or unmanageable pain.

17. It was a serious and regrettable error to fail to arrange for a medical review on this date. Since it was the weekend, Dr Davies was not on duty but nursing staff had access to the Duty Rural Medical Practitioner (RMP), who is a specialist Senior Medical Officer available by telephone 24 hrs a day to assist remote heath staff when the resident doctor is not available. According to the Standard Treatment Manual published by the Central Australian Rural Practitioner's Association (CARPA), and promoted to doctors and nurses as a critical clinical tool, Nurse Simmons should have arranged for a medical review under these circumstances.

18. This case clearly required input from a doctor. The fact that RN Simmons wrote "no photophobia" in the records suggests that she may have had meningitis in mind as a diagnosis to exclude, but she was not trained to test for neck stiffness. There was a good chance that a full medical examination, taking into account the presentation on 31 March, would have picked up that Kwementyaye had symptoms of very persistent headache and sore neck, which were now combined with fever, and that would have been enough to ensure that further testing was done, which could have led to early recognition of meningitis. That was certainly implied in the evidence of Dr

Davies, who had the following exchange with my Counsel Assisting (Trans, 9.7.14, pp 35-36):

> "Counsel Assisting: Doctor, one of the issues that we've identified for this inquest is that when Kwementyaye was seen by Sarah Simmons and the Aboriginal health worker, .. - he reported that he had a headache since waking up and he'd taken Panadol with no effect. He had no recent head trauma and no alcohol or other substances could have explained [the symptoms]. He had a fever of 38.3 and there was no photophobia. … Had you been told of those symptoms on 1 April, would that have alerted you to the fact that there might have been a problem other than a virus?
>
> Dr Davies: ---Yes, probably, I would say almost certainly.
>
> Counsel Assisting: Would meningitis have been in your mind as a possibility on that day?
>
> Dr Davies: ---Yes, correct.
>
> Counsel Assisting: And would that have caused you to undertake further tests and or send him to Alice Springs on that day?
>
> Dr Davies: ---Had I seen him, I would have sent him in, yes".

19. The medical staff that I heard from in this inquest, including Dr Quilty, Dr Davies, Dr Brownscombe and Dr Hugh Heggie were in agreement that Sunday 1 April 2012 was a crucial day for Kwementyaye, and intervention with antibiotics at that stage may have saved his life. Dr Quilty explained that:

> "Whilst the mortality rate associated with bacterial meningitis is approximately 30%, with those having pneumococcal meningitis faring slightly worse off, on 1/4/12 Mr Brown had what could be considered mild meningitis with good prognostic indicators. Younger

> age is associated with better outcomes, as is absence of confusion, focal or generalised neurological insult. On 1/4/12, Mr Brown was not confused or agitated, and the mortality associated with his condition would have been well below the 30% average if treatment had been initiated at this point" (Report, Ex 1, par 6)".

I accept the evidence of Dr Quilty that if there had been diagnosis and treatment on 1 April 2012 it is "entirely reasonable to assume that Mr Brown would have survived the illness".

The third and final presentation

20. On 2 April 2012, Kwementyaye still had a headache, and asked his Aunty for a Panadol. By 3 April his head pain was so intense that his family contacted the clinic for a third time and he was taken in, arriving at around midday. Retrospective notes made by Dr Davies record a "history of ongoing and increasingly severe headache which has been present over the preceding four to five days". He had no fever, but now had symptoms of photophobia, neck stiffness, nausea and unsteady gait. Perhaps most alarmingly, he was demonstrating that he was in terrible pain. Dr Davies explained that (Trans, 9.7.14, p 36-37):

> "it was just that he was in so much pain that he was agitated. When I say agitated, he was constantly moving and had spasms and he couldn't sit still, he couldn't keep his arms still, we - it's difficult to describe because - - - I mean he was in intense pain, it was obvious and he was a very sick boy".

21. Dr Davies gave evidence that Kwementyaye was "screaming in pain" and he ordered that one dose of Diazepam (also known as Valium) be given at 12.55pm and a second at 1.15pm, so that he might stay calm enough for staff to gain intravenous access and provide care (Trans, 9.7.14, p 37).

22. Soon after Kwementyaye's presentation, at around 12.49pm, Dr Davies attempted to discuss his patient with the Duty Medical Officer (DMO) on call. That was Dr Jeff Brownscombe, a General Practitioner based in Victoria who has experience working as a doctor in the Northern Territory, including in Alice Springs Hospital, and continues to work as an on-call DMO for Remote Health in Central Australia. Dr Brownscombe did not get the message immediately and did not return the call until 1.20pm. Although there was a procedure in place to enable clinic staff to call the consultant in Alice Springs if the DMO was not available, it does not appear that Dr Davies (in Yuendumu for a short term locum) was aware of this, and no other clinic staff appear to have told him, possibly because they too had only been in the clinic for a relatively short period.

23. At around 1.30pm, Dr Davies consulted with Dr Brownscombe by phone. It is clear from the notes made by Dr Brownscome in the early hours of the next morning that he was told that Kwementyaye had a severe headache, neck pain and photophobia, and that he had had headaches, neck pain and fevers for five days. Dr Brownscombe later spoke to Dr Sabine Boes (Emergency Department Consultant) who agreed with what he proposed which was that if clinical picture were unchanged in half hour, Kwementyaye should be evacuated to Alice Springs Hospital as a Code 2 (nurse only) with the Royal Flying Doctor Service (RFDS). Dr Brownscombe wrote in his notes that:

> "We also agreed to make Mr Browne nil by mouth, reduce his fluids to N Saline 125ml/hr and hold off antibiotics unless there was a clinical decline or Mr Brown developed a fever".

24. At around 1.40pm, Kwementyaye was given more diazepam (5mg + 5mg) when the irritation and distress caused by the pain returned. Close to 2pm, one of the nursing staff called Dr Brownscombe and left a message advising

him that clinical picture was unchanged. It appears that Dr Brownscombe was not told then, or at any other time, about the doses of diazepam.

25. Kwementyaye continued to deteriorate. At 2.10pm, clinic staff administered 2.5/2.5mg morphine at direction of Dr Davies and 5 minutes later he was unresponsive and had to be managed with a laryngeal mask airway. At around the same time Dr Brownscombe returned a call to Clinic, and at 2:20pm he tasked the Code 2 retrieval flight to arrange for Kwementyaye to be extracted from the clinic.

26. Between 3:45pm & 4.26pm, Kwementyaye went into respiratory arrest and Dr Davies and nurses responded with resuscitation efforts. At 4:28pm, Dr Davies revised Kwementyaye's evacuation to Code 1 and the RFDS were contacted to inform them of the upgrade. At 10:40pm Kwementyaye was evacuated to Alice Springs Hospital, but by that time there was little that could be done. A CT scan shortly after midnight showed extensive brain damage and despite the best efforts of doctors at Alice Springs, in consultation with specialists from Royal Adelaide and Melbourne Hospital, there was nothing else that could be done to save Kwementyaye's life.

27. Dr Davies was crystal clear in evidence that he "was convinced" from the time he saw Kwementyaye on 3 April that he had meningitis (Trans, 9.7.14, p 37). He was aware that the treatment for meningitis was a broad spectrum antibiotic like Ceftriaxone, and the Yuendumu clinic had ample stocks available on that day. Why then did Kwementyaye not receive those drugs until 4.45pm, around four and a half hours after he first presented?

28. As I learnt in this inquest, the delay in administration of antibiotics can be explained by a breakdown in communication between Dr Davies and Dr Brownscombe (the DMO) and a further breakdown in communication between the DMO and Dr Sabine Boes (the Consultant) whom the DMO spoke to on behalf of Dr Davies. A further factor was the failure of the

doctors involved to appreciate who was ultimately responsible for making the decision on behalf of the patient.

29. Dr Brownscombe explained what is required of the DMO on shift, and how that differs depending on whom the caller is (Trans, 11.7.14, p 90).

> "My role is to receive calls from – from across Central Australia, usually from remote area clinics, sometimes from cattle stations, sometimes from mines, sometimes from Tennant Creek Hospital and other enquiries. But predominantly remote area clinics and respond to those enquiries accordingly. Generally – .. it's nurses that are – .. the callers, sometimes Aboriginal health workers and sometimes doctors. My role then I suppose, it's slightly different whether there's a doctor or a nurse on the end of the line. I think when there's a nurse on the end of the line I'm the – .. primary treating doctor in a sense. If there's a GP on the end of the line I suppose it – it's more like a sort of shared care model, or I guess .. – they're considered the primary treating doctor. But whoever the caller is, my responsibility is to provide assistance to them and to liaise with the emergency department and other treating doctors at the Alice Springs Hospital as required and to arrange evacuation as required".

30. When Dr Davies and Dr Brownscombe eventually spoke, there was a major communication breakdown relating to first, the severity of the symptoms Kwementyaye was suffering; second, what treatment he had received (Dr Brownscombe was not told that he had been so agitated that he had been given Diazepam); and third, whose responsibility it was to decide on the appropriate care.

31. Dr Davies gave evidence that on the basis of the symptoms exhibited on 3 April (including history of head pain, ongoing headaches, photophobia, neck stiffness, nausea, visible distress, difficulty walking), he was of the view that Kwementyaye had symptoms "not just of meningitis but of a very

fulminant meningitis" (Trans, 9/7/14, p 36). Furthermore, by the time Kwementyaye was taken into the emergency room at the clinic that day, he was fully aware of the urgency of the situation and he understood that the agitation was "almost certainly" related to the meningitis (Trans, 9/7/14, pp 36-37). Although he was aware that the treatment involved antibiotics, he did not administer them immediately because the DMO recommended that they hold off antibiotics and treat first with pain relief orally.

32. When Dr Brownscombe spoke with Dr Davies he did indeed recommend that he hold off on antibiotics and administer oral pain relief, and then monitor Kwementyaye for half an hour and report back if here had been any change. However, Dr Brownscombe gave evidence that his advice to Dr Davies was based on the clinical picture presented and he had not been given all the relevant information. He was not told that Dr Davies thought Kwementyaye had fulminate meningitis or that Kwementyaye was screaming in pain, or was so distressed he had to be given diazepam. As a result, Dr Brownscombe was not aware that there was any urgency in his presentation. He gave evidence that (Trans, 11.7.14, p 93):

> "the picture that Dr Davies painted to me was that he had a patient who had had similar symptoms for five days and was representing with a similar illness. The symptoms included headache and neck stiffness. There was – he had previously had some fever and there was now a suggestion of some photophobia. And the – Paul Davies did not indicate to me at that time that he was – that this patient was unwell. He did not indicate to me that there was any agitation or confusion involved in the – in the case. And he didn't express to me sort of any concern that the patient was declining or unwell, rather it was sort of painted that the – the clinical picture was given to me as someone who was representing with a similar syndrome that they'd had for about five days with no significant acute decline".

33. Dr Brownscombe accepted that Dr Davies was calling for advice. He also acknowledged that meningitis was the diagnosis of exclusion and that "ordinarily if there's a suspicion of meningitis, people should receive antibiotics straight away" (Trans, 11.7.14, p 96). However in this case, his advice was clouded by the information he received that Kwementyaye had five days of preceding similar symptoms and was presenting the same similar picture again with no acute decline.

34. Dr Brownscombe is an experienced doctor who clearly has an interest in improving health care in the Northern Territory and a commitment to his patients. Although now based in Victoria, he lived and worked in the Northern Territory for some years, including at Alice Springs Hospital. He has been a fellow of the Australasian College of Rural and Remote Medicine since 2007, and a fellow of the Australasian Faculty of Public Health Medicine (part of the College of Physicians) since 2013. That demonstrates a certain level of training and scrutiny by his peers. I accept that he genuinely cared about Kwementyaye and had not been given the full picture when he was called by Dr Davies.

35. However Dr Brownscombe has had the grace to review how he handled the case and has learnt from what took place. He told me, frankly, that he probably could have been clearer with Dr Davies as to what his role was, and his level of seniority in the scheme of things, and further that he shouldn't have had a role in clinical management (given the competing interests he was juggling on that day) and that Dr Davies should have spoken directly with the ED consultant in Alice Springs. That candour reflects well on Dr Brownscombe and I am confident that he provides a high level of care for Territorians when he is on shift as the DMO.

36. For his part, Dr Davies also accepted responsibility for the delay in administering antibiotics, He explained that he had assumed that Dr Brownscombe was a more senior or specialist doctor (in fact they were both

GP's) but he accepted that it was "probably an error" on his part not to have given Kwementyaye the antibiotics when he reviewed him (Trans, 9/7/14, p 39).

37. It is clear to me, as it was to the Court's expert, Dr Quilty, and the Director of Medical Services Dr Heggie, that Kwementyaye should have received the antibiotics as soon as he came into the clinic on 3 April. He may well have been so sick by then that he would not have survived even if he had received the antibiotic treatment. However, the articles provided by Dr Quilty highlight the fact that early intervention is critical for saving lives and preventing brain damage, so that every hour, and in fact every half hour, is crucial.

Medical Notes

38. I note that there were serious problems with electronic notes taken on the Patient Care Information Service (PCIS). Any entry that Dr Davies had made on 3 April (with the exception of the word "dehydration") was erased for some inexplicable reason. Retrospective notes were made the following day, after it was clear that Kwementyaye was not likely to survive.

Action by the Department of Health

39. The Department of Health commissioned a "Root Cause Analysis" (RCA) that is aimed at identifying any factors that contributed to the death and, if relevant, addressing gaps in the system of health care. That RCA can be very valuable and doctors and nurses involved should be encouraged to participate fully and frankly, and then given a copy of the report and feedback on any action taken as a result. Although I welcome the fact a report was done, I was very disappointed to hear evidence that many of the staff who were critical to the care of Kwementyaye were not properly engaged in this process. Neither Dr Paul Davies, nor Nurse Peggy Sinclair, participated in the RCA and none of the doctors (including Dr Brownscombe and Dr Boes) had received a copy of it, although each of them were affected

by Kwementyaye's death and interested to learn the results of the RCA. Nurse Sinclair said "I actually feel a bit sad that we haven't received that because that way we would be able to see what actually did transpire and what findings were" (Trans, 9/7/14, p 21). Asked to comment on this, Dr Hugh Heggie noted that a lot of doctors and nurses are in relieving positions, and he acknowledged that the Department of Health "could be better" at informing the clinic staff about the results of the report (Trans, 10.7.14 p 76).

40. As Director of Clinical Services, Dr Hugh Heggie conducted his own review of the circumstances surrounding Kwementyaye's death. He went further that the RCA did in identifying the gaps in healthcare for Kwementyaye. Importantly, there is nothing in the RCA about the delay in antibiotics and the problem in communicating the need for early intervention. Yet Dr Heggie did identify that issue and gave evidence that this case highlighted the need for a high degree of suspicion, good risk management and early intervention.

41. The Department of Health are to be congratulated for some important reforms that have been introduced since Kwementyaye passed away. One such reform relates to organising evacuations from community and was outline by Dr Brownscombe. He gave evidence that (Trans, 11.7.14, p 91):

> "a lot of things have changed. The way in which evacuations take place has changed. What would occur now if [Kwementyaye] Brown were evacuated is that – … after my initial consultation … and once the decision was made to transfer him to Alice Springs Hospital, then I would fill out a referral document which would be send (sic) via email to the Alice Springs Hospital Emergency Department and the retrieval doctor and the Royal Flying Doctor Service. And that would be the trigger for the retrieval being arranged. And at that point the retrieval doctor, in consultation with the emergency

physician at Alice Springs Hospital, would become the primary treating doctor".

Dr Brownscombe explained that this was a better system, particularly because it ensures that all clinicians know who is in charge of the patient.

42. Dr Brownscombe also confirmed some improvements in PCIS, although clearly there is a room for more. I was told that there are now fewer technical problems; it is quicker than it was, and crashes less often. However, there are multiple screen and mouse clicks required to do a single progress note in PCIS, and at each of those points there is the potential for delay or technical problems. Dr Heggie explained that similar concerns about PCIS had been expressed to him by many staff members and considerable resources have already been spent to improve the system. Hopefully the Department will continue to listen to its doctors and nurses and will implement changes wherever possible to streamline the electronic note taking system. This is relevant not just for administrative purposes. It is important in order to encourage staff to make the notes in the first place, to free them up for clinical care and to ensure that notes are there for other staff reviewing the patient next time.

43. That and other changes are outlined in more detail in the comprehensive statement provided by Dr Hugh Heggie and its annexures, for which I was very grateful. In summary, some of the main improvements (taken from the oral evidence and written statement of Dr Heggie) are:

- a review of the electronic note taking system to make it easier for doctors to record and retrieve patient history and less likely the system will lose information once it is entered.

- DMO's are now required to review the medical record for the patient and record the clinical assessment and treatment plan in PCIS.

- Increased efforts have been made to recruit to the Central Australian duty rural medical practitioner (RMP) roster group.

- Improved training and monitoring of the performance of RMP's;

- The duty RMP in central Australia is now always contacted through the Alice Springs Hospital Switchboard and there are several mechanisms of informing the medial officer of urgent calls.

- Support for changes in the CARPA Manual, so that under the separate subject of headache, the information is cross-referenced to Meningitis.

- The Department is looking at emphasising through "clinical training, orientation, induction and educational activities", clinical risk management, i.e. "being aware of the worst case scenario with the patient's presentation, condition or clinical trajectory and actively managing that potential for harm".

Opportunity for further improvement

44. The Department is also supportive of further improvements in patient care that were identified by my investigation into Kwementyaye's death. They are:

a) Further improvements to the CARPA Manual so that other symptoms of meningitis (e.g. photophobia, fever, stiff neck) are cross referenced to the disease itself, and may trigger recognition.

b) An amendment to the CARPA Manual to articulate the need for proactive, risk adverse treatment of suspected meningitis, stressing the importance of early antibiotic intervention.

45. Ensuring that DMO's who are responsible for giving advice over the phone receive adequate training in the recognition of meningitis and the significance of early intervention.

46. The roll out of video conferencing facilities (tele-health) to clinics across the Northern Territory, and publication of appropriate guidelines so that staff in remote clinics have an opportunity to have their patient reviewed by senior doctors who can better engage with the patient and staff.

Conclusion

47. The death of Kwementyaye Brown will continue to cause his family deep sorrow in the years to come. I also have no doubt that the witnesses who gave evidence before me were affected by his death and are anxious to ensure that systems are in place to maximise the chance that people will survive when they contract meningitis, a painful and deadly disease. As Dr Quilty pointed out, the job of remote nurses and doctors can be very difficult and losing a patient can have a serious impact.

48. Some important reforms have already been made, and the recommendations below, which are based on the evidence of medical professionals, are aimed at further improvements.

Formal Findings

49. As a result of evidence adduced at the public inquest, and pursuant to section 34 of the *Coroner's Act*, I find as follows:

(i) The identity of the deceased was Braden (aka Braydon) Brown born on 19 February 1995 at Alice Springs, Northern Territory, Australia.

(ii) The probable time of death was 1920 hours on 4th April 2012. The place of death was Alice Springs, in the Northern Territory.

(iii) The cause of death was bacterial meningitis.

(iv) The particulars required to register the death:

1. The deceased was Braden (aka Braydon) Brown.
2. The deceased was of Aboriginal descent.
3. The deceased was a student.
4. The death was reported to the coroner by Dr Shashi Krishnamurthy, a clinical specialist from the Intensive Care Unit at Alice Springs Hospital.
5. The cause of death was confirmed by post mortem examination carried out by Dr Terence Sinton.
6. The deceased's mother is Jillian Brown and his father is Anderson Walker.

Recommendations

To the NT Department of Health

50. Review the role out of tele-health facilities in the Northern Territory to ensure that staff in remote clinics have access to facilities and are trained in their use, and that the duty DMO, emergency and other relevant specialists are being made available for the service, and are trained in it use.

51. Encourage changes in the CARPA Standard Treatment Manual so that:

a) The sections on recognizing and treating meningitis are referenced to sections on headache, neck stiffness and fever;

b) The Manual is made more explicit about commencement of treatment for meningitis, noting the imperative to avoid delay if diagnosis is suspected.

c) The Manual should explicitly state at what point a Medical Officer must be notified of a condition and, in the case of meningitis the presence of

new headache and fever alone should be a trigger for Medical Officer referral.

52. All clinical staff to undergo regular training and up-skilling within their scope of practice, with training to highlight conditions that they are unlikely to encounter in routine practice, and the need to obtain, and document expert advice in those circumstances.

Dated this 1st day of September 2014.

_____

GREG CAVANAGH
TERRITORY CORONER