

Whanganui District Health Board
Whanganui Accident and Medical Clinic Ltd

A Report by the
Acting Health and Disability Commissioner

Case 09HDC01190



Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Overview

At 8.09pm in October 2008, Ms A arrived at Whanganui Accident and Medical Ltd (an after-hours accident and medical clinic) with her son, Baby A (aged 23 months), because she was concerned that he had been sick for three days and had started vomiting that evening. Baby A was triaged shortly after arrival by a registered nurse, who found his temperature markedly elevated at 39.6°C and assigned him as category B — needing to be seen by a doctor within 20 minutes of arrival. Baby A was not seen by a doctor until about 9.30pm. The doctor noted that Baby A's temperature was 39°C but, despite a thorough examination, could not determine the cause of his illness, and referred him to Wanganui Hospital Emergency Department (ED), which was next door to the after-hours accident and medical clinic.

Baby A was admitted to Wanganui Hospital ED at 9.52pm. He was seen immediately by a registered nurse, who took him to a cubicle for assessment. The nurse triaged Baby A as level 4 — semi-urgent to be seen by a doctor within an hour. Baby A was seen by the paediatric resident medical officer (RMO) at 10.25pm. The doctor examined Baby A and found he was improving, with a temperature of 36.8°C. She noted a number of small red spots on his back. At that time a consultant paediatrician was in the ED. The RMO asked the consultant to check Baby A. When the consultant examined Baby A, he advised the RMO and Baby A's family that the spots were probably insect bites, and that Baby A had a viral infection. Ms A was told that she could take Baby A home, but if she was concerned about him in any way, or if his temperature went up, she should bring him back to the ED. Baby A went home at 11.20pm.

The next morning Ms A woke to find Baby A lethargic and covered in a non-blanching rash. An ambulance was called. Baby A was admitted to Wanganui Hospital ED at 7am. He was seen immediately by the RMO, who called the consultant paediatrician. At 7.48am Baby A went into respiratory arrest and was not able to be resuscitated. His cause of death was determined to be meningococcal septicaemia.

Complaint and investigation

On 6 May 2009, the Health and Disability Commissioner (HDC) received a complaint from Ms A about the services provided by Whanganui District Health Board and Whanganui Accident and Medical Clinic Limited. The following issues were identified for investigation:

- *Whether Whanganui District Health Board provided care of an appropriate standard to Baby A in October 2008.*
- *Whether Whanganui Accident and Medical Clinic Ltd provided care of an appropriate standard to Baby A in October 2008.*

An investigation was commenced on 2 June 2009.

The parties involved in the investigation were:

Baby A	Consumer
Ms A	Baby A's mother/Complainant
Mr A	Baby A's father
Whanganui Accident and Medical Clinic Ltd	Provider
Dr B	Medical practitioner
Ms C	Registered nurse
Ms D	Registered nurse
Whanganui District Health Board	Provider
Dr E	Paediatric medical officer
Dr F	Paediatric consultant
Ms G	Registered nurse
Ms H	Registered nurse

Also mentioned in this report:

Dr I	Paediatric Head of Department
Dr J	Paediatric Clinical Director, Childrens' Hospital

Independent expert advice was obtained from general practitioner Dr David Maplesden, and paediatrician Dr Hugh Lees. Their advice can be found at **Appendices A and B**.

Information gathered during investigation

Introduction

In October 2008, Baby A was 23 months old. He lived with his parents, Ms A and Mr A. He developed a runny nose and was unwell for three days. That evening, he started shivering and developed a temperature. Ms A watched him for an hour before deciding to call her mother for transport to the Whanganui Accident and Medical Clinic (WAM).

Whanganui Accident and Medical Clinic

Baby A arrived at WAM at 8.09pm with his mother and grandmother. About 10 minutes after their arrival, they were greeted by registered nurse Ms D, who took them into triage and completed a verbal history and physical examination of Baby A. At 8.48pm, Ms D entered her assessment of Baby A in the computer, noting:

“Patient presents with chesty cough for past [three days], and today got temperature, and vomited [once]. Had Pamol at 1745hrs, and vomited 1800hrs. Eating and drinking fine, normal amount of wet nappies, nil diarrhoea. Has some spots on his back ...”

Ms D also noted that Baby A weighed 11.1 kgs, was not on any medication, had no medical history, his immunisations were up to date, and his temperature was 39.6°C.

She triaged Baby A as “category B”, which meant that he should be seen by a doctor within 20 minutes of arrival.

At around 8:30pm, Baby A was briefly assessed by the WAM general practitioner, Dr B, who prescribed ibuprofen to lower Baby A’s temperature. Ms D administered 5.5mls of 100mg/5mls Fenpaed (ibuprofen syrup)¹ to Baby A at 8.45pm and, by 9pm, his temperature had dropped to 39.4°C.

At 9.17pm, another registered nurse, Ms C, checked on Baby A, who was sleeping, and documented that his temperature was 39.0°C.

At around 9.15pm, Baby A was fully assessed by Dr B. He entered his assessment into the computer at 9.43pm, noting:

“Initially resting quietly after having his ibuprofen² but then woke up when I tried to examine him and he was quite distressed. Ears are fine, throat ok, chest sounds clear to me. HR 160+ Temp 39. Spots noted, discrete erythematous spots, scattered over his trunk and groin and back, blanching non tender. Supple neck, ??photophobic.
Not a happy child.
Imp[ression]: Unwell child, hi fever ?cause”

Dr B was unsure of the cause of Baby A’s illness. He examined Baby A’s ears and nose and listened to his chest but could not find an obvious cause for his fever. Dr B was unable to establish whether Baby A had photophobia, because he did not like to be “poked and prodded” or to have a light shone in his eyes, although he tolerated the overhead fluorescent lights in the examination room. Dr B found no other signs of meningism, such as neck stiffness.

Dr B was unsure why the ibuprofen had not reduced Baby A’s fever as the examination did not reveal any obvious cause for his illness. Dr B told Ms A and Mr A that the serious illnesses of pneumonia and meningitis needed to be ruled out and recommended that Baby A be reviewed at Wanganui Hospital Emergency Department (ED). Baby A and his parents left WAM at 9.49pm.

Wanganui Hospital ED

WAM and the Wanganui Hospital ED have a common entry and foyer. The WAM reception desk is to the left and the ED admitting desk to the right of the entry.

Ms A and Baby A were recorded as arriving at the ED at 9.52pm. Baby A was promptly assessed by registered nurse Ms H, who took them into room 8, as the usual paediatric room, room 16, was occupied at the time.

Ms H recalls that when she first saw Baby A he was irritable and crying “hard out”. She said she attempted to monitor Baby A’s oxygen saturations, pulse and respiration

¹ To control high temperature.

² Also known as Brufen and Fenpaed.

rates, but her efforts increased his irritability. She recalls quickly assessing his temperature while holding his head still. His temperature was 38°C. Ms H noted that Baby A had been given Pamol and Brufen, so he could not have any further medication at that time. She recorded that Baby A was irritable, but had been eating and drinking normally, and had had the usual amount of wet nappies and no diarrhoea.

Ms H triaged Baby A as level 4, meaning that he was semi-urgent and should be seen by a doctor within one hour. After triaging Baby A, she left the room to get him an ice block. When she returned, Baby A had settled. Ms H offered the ice block and quickly left rather than disturb him again.

Baby A's father, Mr A, arrived at about 10pm. At 10.25pm, Ms H checked Baby A's temperature again, and documented that it had reduced to 36.8°C.

At 10.35pm, Baby A was assessed by paediatric RMO Dr E. Dr E noted that Baby A was alert and interactive, his colour was good, and his chest was clear. She documented a normal respiratory rate of 30 breaths per minute, and recalls that he had a normal heart rate. Dr E also documented that Baby A's neck was soft and he was not photophobic. She examined the spots on his back, which blanched when pressed, and concluded that they looked like insect bites.

Dr E stated:

“At the time I saw [Baby A] in ED he was sitting up in bed eating what looked like a cookie having just finished an ice block. He was alert and interactive and was in fact playing with my ID badge and stethoscope as I examined him.

His colour was good, he was well perfused.³ Cardiorespiratory exam was unremarkable. I noted that a heart rate recording was not done at ED triage but on auscultation I did not feel that he was tachycardic. The spots on his back were examined (I did not see any elsewhere) and were blanching.”

At this time, the on-call paediatrician, Dr F, arrived in ED. Dr F had been called by the hospital maternity unit staff to assist with a newborn. He was looking for Dr E to advise her that she might also be needed. He found Dr E examining Baby A. Dr E queried her findings with Dr F, who examined Baby A, in particular the spots on his back. Dr F agreed with Dr E that the spots appeared to be insect bites, because they were raised, had a small scab in the centre and blanched on pressure. Baby A's temperature had dropped to 36.8°C, and the doctors concluded that he had a viral infection and could be cared for by his parents at home.

Dr F discussed his findings, and likely diagnosis of viral illness, with Ms A and Mr A. Dr F told them that given Baby A's apparent improvement it was appropriate for him to return home. Dr F made sure they were comfortable with that decision, and he and

³ Good oxygenation of the tissues.

Dr E told Baby A's parents that if they were concerned about Baby A in any way, or if his temperature went up again, they should bring him back to the ED.

Dr F advised that he always takes his cue from the parents when deciding whether to admit or discharge. He stated that Wanganui Hospital does a lot of "social" admissions, because they have the capacity, and some children live a long way from the hospital, which has a large rural catchment area. He recalls that he told Ms A and Mr A that he did not think Baby A needed to be admitted and asked them if they were happy to take him home. Ms A replied that Baby A appeared to be his old self. Dr F stated, "You cannot ask for anything more reassuring than that."

Ms A had thought Baby A would stay in hospital. She recalls being told that Baby A had a viral illness, which he had probably caught from his father, who had been unwell. Dr F asked Ms A if she would like to take Baby A home. Ms A stated that as it was then about midnight, she thought the best place for a sick child was at home, and said this to Dr F. She recalls that Dr F told her to keep giving Baby A the Brufen, make him rest, keep an eye on him, give him fluids, and bring him back to the hospital if his fever persisted or he got worse.

Whanganui DHB has a pamphlet, "Fever. Your child and you", which is given to parents who bring their child to the ED with fever symptoms.⁴ Ms A was not given the pamphlet.

Registered nurse Ms G was the triage nurse on the evening shift. She commenced work at 10.45pm. The on-coming staff were given "handover" of patients in the Emergency Department by the afternoon nurses. One of the patients reported on at handover was Baby A. Ms G was not allocated the care of Baby A, as he had already been triaged and seen by the RMO and paediatric consultant. However, between 11pm and 11.30pm the night-shift RMO asked her to give Baby A's parents a prescription for Brufen. (Baby A's assigned nurse was busy with another patient.)

Ms G recalls that when she went into the cubicle with the medication, Baby A was playing on the bed. Ms G talked to Ms A and Mr A to check that they had been cleared for discharge by a doctor. The family confirmed that this had occurred. While Ms G was talking to Ms A and Mr A and giving them the Brufen syrup, she was standing by the door to the room. Baby A was walking around the room, and Ms G had to move quickly to prevent him getting through the door. She recalls that Ms A picked up her son and gave him to Mr A. Ms A and Baby A's grandmother then packed up their belongings and left the ED shortly afterwards at 11.20pm.

Ms A recalls that the Brufen had "perked up" Baby A. She had gone to the hospital to be reassured, and was reassured when the doctors told her Baby A was fine. She left the hospital thinking that Baby A was "just a bit off colour".

⁴ The pamphlet explains fever and how it can be treated at home. The pamphlet advises, "Fever is a normal part of your child's defense against infections. Very few fevers in a child cause any harm, and most do not require antibiotics. If you think your child may have a more serious infection causing the fever, then see your doctor."

Post-discharge

Baby A vomited after arriving home, but then settled. Ms A slept with Baby A in the bed, and Mr A slept on the couch. Ms A noticed nothing untoward about Baby A — he was not hot and sweaty during the night. When he woke at about 2am, she got up, without turning on the light, to make him a bottle of milk. Baby A drank the bottle unaided and went back to sleep. Ms A said, “I had no idea my child was passing away beside me.” When Ms A woke at about 6am, it was light and she could see that Baby A was lethargic and had a “full-blown” rash. She immediately woke Mr A and called an ambulance.

Admission — the following date

Baby A arrived at Wanganui Hospital ED at 7am and was immediately taken to the resuscitation room. The notes record that Baby A had a purpuric, non-blanching rash⁵ over his face and trunk, spreading onto his limbs. He was lethargic, but responding to voice and touch. Baby A’s temperature was recorded at 36.9°C, his respirations were 26 per minute, and his pulse 186 beats per minute. He was seen by Dr E and another doctor, who immediately introduced an intravenous line and started administering IV fluids. Dr E contacted Dr F.

Dr F arrived at the ED at 7.15am and immediately ordered IV antibiotics. Ms A and Mr A were advised of Baby A’s condition.

At 7.40am, Dr F tried to contact the duty intensive care paediatrician at the Childrens’ Hospital in a main centre (Childrens’ Hospital), for advice on treating Baby A, but was advised that he was on his way to work and would call Dr F in 15 to 20 minutes.

At 7.48am Baby A went into respiratory arrest. Despite attempts at treatment and extensive resuscitation efforts, Baby A died at 8.17am.

Immediately after Baby A’s death Dr F took Ms A and Mr A into a private room to express his sympathy for their loss and provide an explanation for Baby A’s death. Ms A was so distressed that she ran from the room. Dr F followed her in an attempt to explain what had happened. However, he did not persist when he realised that Ms A did not want to talk to him.

A member of the Māori Health Liaison team and the Paediatric Service Manager arranged for Ms A and Mr A to move to Te Whare Whakatau Mate, and they were invited to stay there for as long as they needed. The Paediatric Service Manager telephoned Ms A and Mr A at home later that day.

The cause of Baby A’s death was determined to be meningococcal septicaemia.

⁵ Purpuric rash/purpura is a skin rash resulting from bleeding into the skin from the small blood vessels called capillaries. The individual purple spots of the rash are called petechiae. The petachiae do not blanch on pressure. Dr F advised that this rash appears when meningococcal bacteria are in the bloodstream.

Subsequent events

Follow-up with the family

Later that day, Dr I, DHB Paediatric Head of Department, visited Ms A and Mr A to offer his sympathy for their loss and to arrange antibiotic prophylaxis for the family, and contact tracing for family members who might have been in close contact with Baby A. On 7 November, Dr I again met with the family.

On 20 November, a meeting was held so that Ms A and Mr A could talk to the Quality and Risk Manager, Dr I, Dr F and Dr E regarding their concerns about the circumstances of Baby A's illness and death. Dr I apologised to the family, and told them that Ms A and Mr A had done everything right. He said that the hospital staff felt terrible that they had not been able to save Baby A, and that there would be a full investigation into what had happened. He explained that the investigation would be conducted with the aid of an outside paediatrician, and the family would be informed about the outcome.

On 8 December, the Paediatric Clinical Director at the Childrens' Hospital, Dr J, went to Ms A's home to introduce himself and explain his role as the external paediatrician on the Root Cause Analysis (RCA) Review team that would investigate the circumstances of Baby A's death.

On 12 January 2009, the Whanganui DHB Chief Executive and Dr J visited the family. The RCA report was delivered to the family on 15 January.

The Chief Executive and Dr I later appeared with the family on a television programme. The Chief Executive apologised on air for the failure of the staff to diagnose meningococcal disease. This was followed by written apologies from the Chief Executive and the DHB Chair.

Whanganui DHB internal review

In January 2009, the RCA review of the care provided to Baby A was completed. During the course of the RCA investigation, the Quality and Risk Manager kept close contact with the family. At the conclusion of the investigation, Dr I and other DHB staff met with the family to explain the review findings.

RCA findings

The RCA Review Team could not find any root cause that contributed to Baby A's death. They found that — putting aside the benefit of hindsight — the clinical assessment process and subsequent diagnosis and treatment decisions had been made by an experienced paediatrician and were entirely reasonable. However, the Review Team did identify a number of clinical practice and systems issues that could be improved. The findings of the RCA were:

1. Duplication of systems and processes (including triage and administration) between Whanganui Accident and Medical Clinic and the Emergency Department, and the potential for confusion in the minds of patients and parents as to where to present.

2. Areas of incomplete clinical assessment, and areas of inadequate clinical documentation.
3. Some inadequacies of communication with the family throughout the assessment, treatment, discharge and death of Baby A, and subsequent contact with the family, including disclosure.

A number of recommendations were made as a result of the review and have been largely complied with by the following actions:

Whanganui DHB response to RCA review

Dr I advised that Wanganui Hospital has a lower threshold for admission of children than many larger hospitals because of the distance that parents have to travel. He said that Baby A would not have been admitted to a hospital in a main centre where Dr I also worked, with the symptoms he had.

Dr I stated that Dr F talked to him about the detailed verbal instructions he gave to Ms A and Mr A prior to allowing them to take Baby A home. Dr F considered Ms A and Mr A to be very capable, and was confident that they would return to the hospital at the first sign of deterioration, but offered to keep Baby A in hospital if they were worried about taking him home at that time of night. Dr F always urges parents to return to the hospital for review if their child is not getting better as expected.

Dr I acknowledged that the instruction sheet provided by the hospital was not given to Ms A and Mr A. He said, “When the advice is straightforward and is a reinforcement of common messages about managing a temperature in a child, and the need to seek further medical attention if the child is not improving, verbal instructions may be more useful than written instructions.”

Dr I noted the opinion provided by the external paediatrician, Dr J, that the diagnosis and the management plan (discharge home without further investigation or treatment) was “entirely reasonable”. He said, “It is important to understand that it is extremely unusual for children who have meningococcal septicaemia to improve in their general condition without vigorous treatment including intravenous fluid and antibiotics. Any paediatrician would be greatly reassured that a child who improved over a period of three hours after treatment with paracetamol and/or ibuprofen [Brufen], and who had a normal examination and was alert, playing and happy, did not have meningococcal disease.”

Dr I advised HDC:

“[Baby A’s] death is a tragedy which had affected many lives. ... I think this case has provided an opportunity for us to look at and improve a number of processes. We have initiated additional training for Resident Medical Officers in paediatric assessment and the management of emergencies, and have decided to invite the medical and nursing staff at Whanganui Accident and Medical to these training sessions. We have reviewed our Febrile Child guideline at both [the hospitals where I work] to reflect the latest management approaches in the post-pneumococcal vaccine era. Incidentally, the new guideline is less interventional

than the one it is replacing, and [Baby A] would also have been discharged under the new guideline (which is based on the recently revised [Childrens' Hospital] guideline). I have reviewed the evidence for the use of blood tests which might conceivably yield earlier detection of meningococcal disease, such as white blood count, C-reactive protein, and procalcitonin (PCT). Of these PCT has shown the most promise, but sadly the sensitivity and specificity of this test for the detection of very early meningococcal disease is not sufficient to recommend its use outside of the research environment. This view is almost universally held by paediatricians and emergency physicians in New Zealand and abroad. We are in the process of evaluating the [Emergency Care booklet at the other hospital where I work], including the observation chart which is part of it, for adaptation and use in the Emergency Department at Wanganui Hospital."

WAM review

WAM conducted a "significant event review" and reviewed its practice in light of Baby A's death, and has made the following changes:

- Nursing staff now record the time of triage, with focus on the recording of baseline observations and checking the child for the presence of a rash, and recording ongoing observations.
- For patients categorised as "triage B", a "task reminder" is sent to the doctor on duty. The "task reminder" flashes on their computer until they remove it. Nursing staff will interrupt existing consultations to ensure a "triage B" patient is seen within the required time.
- All members of the nursing staff have been sent written instructions and the Children's Hospital Meningococcal Guidelines, which have been adopted for management of children with fever of unknown cause.
- Staff have been instructed to provide the patient information document "Fever in a child" to the families/carers of children presenting with a fever.
- Trialling commenced on 29 March 2010, in collaboration with Wanganui Hospital ED, of a paediatric assessment form for children transferring from WAM to the ED.

Expert advice

WAM — Dr Maplesden

HDC's GP clinical advisor, Dr David Maplesden, found that Baby A was adequately assessed and monitored by WAM staff, although it would have been prudent for nursing staff to record any changes in his rash over the period of observation. Dr Maplesden also noted that the waiting times between arrival, triage and the doctor assessment were not satisfactory and did not meet the clinic's own guidelines. However, Dr Maplesden was of the opinion that the general care provided to Baby A by WAM was consistent with expected standards, and appropriate action had been taken regarding their processes.

ED — Dr Lees

Paediatrician Dr Hugh Lees stated that Baby A was appropriately assessed in Wanganui Hospital ED and correctly regarded as low risk. However, he was concerned that there was no apparent assessment made of the family's social circumstances and therefore the family's ability to care for Baby A at home. Dr Lees also commented that parents looking after a child at home should be advised to check their child during the night, and be shown how to identify a non-blanching rash, in line with the NICE⁶ guidelines. He stated that it is important that parents are given appropriate written and verbal instruction on what signs to look for in their child that would prompt them to return for further medical assessment and treatment. He said it is not apparent that Baby A's parents were given these instructions.

Whanganui DHB response to the provisional opinion

In response to the provisional opinion and, in particular, the comments made by Dr Lees, Dr I made the following points on behalf of the DHB:

Assessment of the social circumstances

“[Dr F] was aware that the family had a car and a phone, and he spoke to the child's mother for several minutes, during which conversation he was able to form a clear impression of her understanding of her child's illness, and of her ability to cope with the illness. There may be limited documentation of this assessment in the patient notes, but there is no doubt at all that this assessment took place.”

Returning to a medical institution

Dr Lees commented in his advice that it can be very difficult for parents to return to a medical institution where they have recently been assessed and reassured. Dr I told HDC that that may be true where parents have been told emphatically that there is nothing seriously wrong with their child, or where the parents have had their concerns dismissed. However, in this case, he says that medical staff had explained that, while no serious cause for the fever could be found, illnesses could develop over time, and Baby A should be returned for further assessment if there was any deterioration, if the parents were concerned, or if Baby A's temperature went up again.

Written information

Dr I noted that the NICE guidelines referred to by Dr Lees state:

“The safety net should be one or more of the following:

- Providing the parent or caregiver with verbal and/or written information on warning symptoms and how further health care can be accessed.”

Dr I said that it is not always practicable or desirable to give written information in every case. Further, a written handout is “no substitute for a verbal explanation, in

⁶ National Institute for Health and Clinical Excellence.

terms that can be understood by the parent”. He pointed out that it was late at night, and in Dr F’s judgement he felt it better to convey the information verbally.

Checking on the child at night

Dr I pointed out that the NICE guidelines state, “There was a lack of evidence to show whether parents/caregivers looking after a feverish child should check their child during the night.” The necessity to check a sick child during the night was specifically addressed by Dr J when he reviewed this case. Dr J stated that he does not advise waking an unwell child in the night to check their status, because it is very difficult for parents to assess a sleeping child for the important signs of lethargy, irritability, social interaction, eye contact and level of consciousness. There is no evidence that waking a child at night to check their wellness has any influence on the early detection of complications of a low-risk febrile illness.

Dr I said that many paediatricians in New Zealand would not have recommended that Baby A’s parents wake in the night to check him.

Identifying a non-blanching rash

Dr Lees advised that parents should be given specific instruction on how to assess for a non-blanching rash. Dr I believes that Dr F did discuss blanching and non-blanching rashes with Baby A’s parents, as evidenced by Ms A’s recognition of the meningococcal rash on the morning of his death. Dr I further advised that, in New Zealand, all paediatricians recommend that any child with a rapidly evolving rash should be seen by a health practitioner without delay. Emphasis on whether a rash is blanching or non-blanching may lead to a false sense of reassurance, which may delay parents seeking medical help.

Dr I stated that the ability to identify a non-blanching rash is briefly mentioned in the NICE guidelines. He noted that the Guideline Development Group advocated that parents should be taught the “tumbler test”.⁷ Dr I advised that this test is not promoted by public health authorities in New Zealand, as there is no scientific evidence to support its use. He said, “The ability of parents to recognise a non-blanching rash is not emphasised in New Zealand [which has an exemplary survival rate for meningococcal septicaemia because of early recognition and aggressive treatment] and should not form part of any guideline for parents on the care of their febrile child at home.”

NICE guidelines

Dr Lees referred in his advice to the NICE guideline on managing the febrile child. These guidelines were redeveloped in the UK. Dr I said that this guideline differs from New Zealand expert guidelines in several respects. He said, “While the NICE guideline remains a very useful source of reference, it is not necessarily appropriate for New Zealand. Guidelines developed for use in our District Health Boards must reflect the best advice which is available in this country, and this may differ from guidelines developed for use in the UK.”

⁷ Where a blanching rash disappears when compressed with a glass, but a non-blanching rash persists.

Further expert advice

Dr Lees was asked to review Dr I's response to the Commissioner's provisional opinion. Dr Lees acknowledged that there are differing views about whether written information must be provided to parents. He said:

“[Dr I] has written very carefully, in response to the provisional HDC report on [Baby A].

While he agrees that providing written and verbal guidelines for parents is appropriate, I do acknowledge that the effectiveness of such information in helping Parents decide when to return for further Medical assessment and advice is the subject of current debate. In this case, returning to Hospital earlier with [Baby A] would likely have made no difference to the final outcome of his illness.”

Baby A's family's response to the provisional opinion

Mr A said that he was pleased to see that the hospital had changed some things, such as improving its waiting times.

Ms A said that the most important thing for her is to be assured that the hospital learns so that this never happens again.

Opinion: No Breach — Whanganui Accident and Medical Clinic Ltd

Standard of care

Baby A was recorded as presenting at Whanganui Accident and Medical Clinic (WAM) at 8.09pm. He was triaged by registered nurse Ms D. Although Ms D did not enter her triage assessment of Baby A into the computer until 8.48pm, she believes the actual time she saw him was about 10 minutes after he arrived at WAM.

Ms D asked Ms A about Baby A's symptoms, and if she had given him any analgesic/antipyretic medication that night. Ms A had given Baby A Pamol at 5.45pm, but he had vomited shortly afterwards. Ms D noticed that Baby A had spots on his back. She took his temperature, and found it to be elevated at 39.6°C. She spoke to Dr B, the WAM medical officer, to obtain authorisation to give Baby A 5.5mls of 100mg/5mls Fenpaed syrup to reduce his temperature.

Dr B recalls that at about 8.30pm he briefly assessed Baby A, who was quiet and not distressed, before prescribing the Fenpaed.

Ms D gave Baby A the Fenpaed. At 9pm, she reviewed him and recorded the time of this assessment, noting that his temperature had reduced to 39.4°C, in response to the Fenpaed.

At 9.17pm, registered nurse Ms C rechecked Baby A's temperature and found that it had further reduced to 39°C.

Meningococcal disease was clearly considered from the time Baby A presented at WAM. When Dr B saw Baby A he noted that his temperature was 39°C. He recalls that Baby A became distressed at being disturbed but was quickly settled by his mother. Dr B examined Baby A's ears, throat and chest, but found no inflammation or sign that could account for the high temperature. He examined the rash, noting that the spots were discrete, slightly raised and red, and dotted over Baby A's trunk, front and back, and his groin area. The spots blanched on pressure. Baby A did not like having a light shone in his eyes, but his neck was supple and he tolerated the fluorescent light in the examining room. Dr B thought Baby A did not have any obvious symptoms characteristic of meningococcal infection, but took the precaution of suggesting that he be further checked at Wanganui Hospital Emergency Department.

My clinical advisor, Dr Maplesden, advised:

“[Dr B's] decision to refer [Baby A] to ED was quite appropriate and timely and followed an adequate assessment. [Dr B's] management of [Baby A], once he had reviewed him, was consistent with expected standards.”

Dr Maplesden also advised that the nursing assessment, observation and management of Baby A between his arrival and when Dr B saw him was adequate and consistent with expected standards.

Overall, I am satisfied that Baby A was provided with appropriate care by the Whanganui Accident and Medical Clinic. However, I note Dr Maplesden's comment that it may have been prudent for nursing staff to monitor the evolution of Baby A's rash, “which can be very rapid in meningococcal septicaemia”.

Wait for medical assessment

Although I am satisfied that Baby A received appropriate care at WAM, I am concerned that he had to wait so long to be assessed by a doctor. Baby A was triaged as “category B”, and should have been assessed by a doctor within 20 minutes. Baby A and Ms A waited for over an hour for Baby A to be formally reviewed by Dr B. WAM accepts that staff failed to follow triage guidelines.

Dr Maplesden advised:

“[F]ailure to follow clinical guidelines with respect to triage and doctor consult times, in the circumstance of an unwell young child with a high fever, represents a mild to moderate departure from expected standards.”

Response to events

WAM has conducted a significant event review of Baby A's management. The review found that there was no indication that the management of Baby A by WAM played any part in the outcome. However, the review identified areas where improvement

could be made. As a result of this case, WAM has added a “task reminder” into the computer patient record system to alert doctors to patients needing to be seen. All members of the nursing staff have been sent written instructions and the Childrens’ Hospital Meningococcal Guideline (which describes common presenting problems) to record baseline observations and check children for the presence of a rash at time of triage, and record ongoing observations. Staff have been alerted, and instructed to provide parents with the information pamphlet “Fever in a child”. WAM has implemented routine audits to monitor adherence to the changes.

Since 29 March 2010, WAM has been trialling, in collaboration with Wanganui Hospital ED, a paediatric assessment form for children who transfer from WAM to the ED.

Conclusion

I conclude that overall the Whanganui Accident and Medical Clinic provided appropriate care to Baby A, and did not breach the Code of Health and Disability Services Consumers’ Rights.

Opinion: No Breach — Whanganui District Health Board

It is shocking that a child can die from meningococcal septicaemia within nine hours of his discharge from a hospital. Baby A’s family is convinced that Baby A’s treatment at Wanganui Hospital was inadequate. My role is to judge the quality of assessment, diagnosis, treatment and information provided against the standards expected of responsible clinicians given the circumstances faced at the time. I have to consider whether the DHB staff acted reasonably given the information they had before them. Hindsight bias — the use of “the retrospectoscope” to judge conduct with the benefit of the knowledge of the disastrous outcome — must be carefully guarded against.

Having said that, with the benefit of hindsight, areas have been identified where there is room for improvement.

Treatment and care

Meningococcal septicaemia is a pernicious and fast-acting disease. The fact that it is not diagnosed on first presentation does not necessarily indicate that the doctors failed to exercise proper care.

When Baby A was in the ED, he was not exhibiting any signs that should have led the doctors to suspect that he had the early stages of meningococcal meningitis. Dr F is an experienced paediatrician who has considerable experience in assessing and treating children with this terrible disease. He was satisfied that Baby A was low risk because his temperature had reduced with medication, he was eating and drinking, and was described by his mother as back to his usual self. The spots on Baby A were not typical of the petechiae of meningococcal disease, because they blanched.

Dr Lees agreed with Dr F's description that Baby A's presentation at ED was low risk. However, Dr Lees was critical that few recordings, other than Baby A's temperature, were taken. Even if a child is irritable, it is possible to obtain an assessment of his or her pulse rate. The respiratory rate can usually be obtained by observation. Dr Lees commented that when Baby A's temperature was rechecked, when he settled at around 10.21pm, these other recordings could have been checked. However, Dr Lees considered that, even if further recordings had been taken, it is unlikely that Baby A's assessment as a low-risk patient would have altered.

Having assessed Baby A as low risk, Dr F talked to Baby A's parents about taking Baby A home. It was late at night, and I accept that this is a difficult time to discharge a young child. If Baby A's parents or any clinician involved in his care had been concerned about Baby A going home, I expect that Baby A would have been admitted for the night. However, Baby A appeared much better at the time of discharge, Dr F discussed the options with Ms A, and Ms A was apparently comfortable taking him home.

Guided by my expert advice, I conclude that the clinical assessment of Baby A and subsequent treatment plan by Wanganui Hospital ED staff were appropriate, and did not breach the Code.

Information prior to discharge

Dr E and Dr F asked Ms A if she was happy to take Baby A home, and provided her with basic information about how to care for Baby A at home. Ms A confirms that she was told to continue giving Baby A Brufen, make him rest, keep an eye on him and give him fluids, and bring him back in if anything persisted or his condition became worse.

Dr Lees has been critical of two aspects of the information provided to Baby A's parents when Baby A was discharged from hospital. First, Dr Lees suggested that parents should be given information about checking on the child during the night, and instruction on how to assess for a non-blanching rash. Secondly, he advised that written as well as verbal information should be provided to parents.

Whanganui DHB submitted that appropriate information was provided to Ms A, and that providing this information verbally was more effective than a pamphlet. While accepting the NICE guideline referred to by Dr Lees as a useful reference, Whanganui DHB does not agree that the guideline is the standard in New Zealand.

Right 6 of the Code⁸ sets out the right to be fully informed. This information must be communicated in a form, language, and manner that enables the consumer (or in this case his parent) to understand the information provided.⁹ I have carefully considered

⁸ Right 6: "Every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive."

⁹ Right 5(1): "Every consumer has the right to effective communication in a form, language, and manner that enables the consumer to understand the information provided. Where necessary and reasonably practicable, this includes the right to a competent interpreter."

the information provided by various clinicians to Baby A's parents, and the manner in which it was communicated.

The point of difference between the advice from my clinical advisor, Dr Lees, and Whanganui DHB comes down to whether Baby A's parents should have been told (in writing and verbally) to check him for a rash during the night.

Dr Lees considered the DHB's submission and acknowledged that providing written and verbal guidelines to parents is the subject of current debate.

Written information is not a specific requirement of the Code, except if it is requested by the consumer. I acknowledge that pamphlets can be useful to ensure that information is effectively communicated. However, in the circumstances of this case, I do not consider that the failure to provide a pamphlet was a breach of the Code. The information being provided to Ms A was clearly communicated, particularly by Dr F, as is evidenced by Ms A's detailed account of the conversation with him.

The remaining concern raised by the expert advice is whether Baby A's parents should have been told to check Baby A for a rash during the night. Whanganui DHB does not accept that this is standard advice for parents.

I have carefully considered this issue. In my opinion, it would be overly prescriptive for me to find that Whanganui DHB should have specifically told Baby A's parents to check him for a rash during the night. Clinicians need to make decisions about the degree of detail that information should contain, in the circumstances as they appear at the time.

Baby A had come into the emergency department at 9.52pm. At that stage, he was irritable and crying, and there was a history of a raised temperature. By 10.25pm, he was alert, interactive, his neck was soft, and he was not photophobic. The spots on his back were blanching. His temperature had dropped to 36.8°C. In short, the expectation at that stage was that he had a virus, and was on the road to recovery. In the circumstances, it is understandable that emphasis was not placed on checking for a rash.

While in hindsight it may have been better to have specifically referred to checking Baby A for a rash during the night, I do not consider the failure to do so amounts to a breach of the Code. Ms A advised HDC that she knew what to look for and fully intended to return to the hospital with Baby A if she was concerned. When she noticed the rash in the morning, she knew what to do. I am satisfied that Baby A's mother was given adequate and appropriate information. In the circumstances, Whanganui DHB did not breach the Code.

Since these events, Whanganui DHB has made a number of significant changes to the information it provides to parents of sick children. The DHB has reviewed its pamphlet "Parent handout on managing fever" and revised the guidelines "Management of fever in paediatric patients presenting to the Emergency Department". A specific paediatric observation chart, and guidelines for the

management of febrile children (which detail the critical vital sign trends to be considered over the period of observation, prior to making treatment decisions) have been introduced in the ED.

Recommendations

I recommend that Whanganui DHB:

- ensure that its “Management of Fever in Paediatric Patients Presenting to the Emergency Department” guidelines reflect recommended best practice in New Zealand, particularly with regard to the advice given to families/carers of febrile children about care at home and when to seek further help, and confirm to HDC that it has done so by **30 July 2010**;
 - provide HDC with evidence that nursing staff have received training on how to use the new paediatric observation chart, by **30 July 2010**.
-

Follow-up actions

- A copy of this report will be sent to the Coroner.
- A copy of this report with details identifying the parties removed, except the experts who advised on this case and Whanganui DHB, Wanganui Hospital and Whanganui Accident and Medical Clinic, will be sent to the Paediatric Society, the Accident and Medical Practitioner Association, and all district health boards, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A

General practitioner advice

The following expert advice was obtained from my clinical advisor, general practitioner Dr David Maplesden:

“Thank you for the request that I provide clinical advice in relation to the complaint from [Ms A] about the care provided to her son, [Baby A], by Whanganui Accident and Medical Clinic Ltd. To my knowledge I have no personal or professional conflicts of interest.

1. Documents reviewed

1.1 Complaint from [Ms A] dated 6 May 2009

1.2 Response from Whanganui Accident and Medical Clinic Ltd (WAM)

1.3 WAM notes relating to [Baby A]

1.4 Copies of relevant WAM policy and protocol documents

2. Complaint

2.1 [Ms A] describes how she lost her son, [Baby A], to meningococcal disease [in] October 2008. [Baby A], aged 23 months, became ill quite suddenly [in] October 2008 and [Ms A] took him to WAM because of her concern. They arrived at 1945 hrs and [Baby A] was triaged as ‘Category B’ which meant the patient should be seen within 20 minutes of arrival. However he waited 30–40 minutes to see a nurse. His temperature was noted to be 39.6 and he was given some ibuprofen. He waited another 30 minutes before being seen by the doctor.

2.2 [Ms A] states that at the assessment some spots on [Baby A’s] trunk, groin and back were noted and that he was suffering from photophobia. She states ‘in fact he had 6 symptoms of the 8 clearly shown on the meningococcal pamphlets available to the public in the WAM lobby’.

2.3 [Baby A] was transferred to Wanganui Hospital ED and was released later that night. The next morning [Ms A] found [Baby A] covered in a non-blanching rash and gravely ill. She rushed him back to ED but unfortunately he rapidly succumbed to the illness.

3. Provider(s) response

3.1 The provider response includes individual responses from each of the three providers involved (RNs [Ms J] [Ms D] and [Ms H] [Ms C], GP [Dr B]), a WAM significant event report and patient clinical notes. In addition there are copies of

triage and fever guidelines, standing orders for ibuprofen and paracetamol and a patient information leaflet on fever in children.

3.2 The general response indicates that meningococcal disease was considered when [Baby A] presented [in] October 2008. However the rash that was evident was not non-blanching in nature and there was no neck stiffness on examination. Overall assessment suggested a fever of unknown origin and the GP referred [Baby A] to ED for further assessment. Audit of the notes showed that [Baby A] presented to WAM at 2009 hrs and triage nursing notes were entered at 2048 hrs. The time that the nurse took [Baby A] into triage was not entered but was stated by the nurse to be no longer than 10 minutes after arrival. A full triage assessment was undertaken and the family was accompanied to an examination room where ibuprofen was administered. The other RN on duty was advised of [Baby A's] condition and she repeated observations at 2117 hrs. The doctor entered his clinical notes at 2143 hrs which was after his assessment had taken place and following a call to the triage staff at ED. At the time [Baby A] presented there were four other patients present in the clinic. At the time [Baby A] was undergoing triage, the sole doctor on duty had just commenced a consultation with a patient who had multiple and complex symptoms and who required an extended consultation.

3.3 There is an acknowledgement that WAM staff failed to follow their triage guidelines. Changes made since this incident include the requirement for staff to record the time of triage and for patients categorised as TB (must be seen by medical staff within 20 minutes) an electronic task reminder is sent to the doctor. If the patient has still not been seen by a doctor within 20 minutes the nurse will interrupt the doctor's consultation to have the TB patient seen within the required time. Routine triage and wait time audits will monitor adherence to the policy changes. Further changes that have been made include development of a policy for management of children with fever of unknown cause using Childrens' Hospital and Clinical Practice Guidelines. This is an interim measure while awaiting the combined education and procedure development process (identified in the Whanganui DHB independent review of the incident) to be implemented. A document 'Fever in a Child' based on an [Australian] Children's Hospital publication is to be printed from the patient management system (PMS) and given to the parent(s) of all children presenting with fever who are discharged from WAM. There is no specific policy for meningococcal infection. In the event of serious or life threatening presentations of the infection referral by nurse or doctor directly to ED medical staff is undertaken.

3.4 The response from RN [Ms D] recounts the initial interview with [Baby A's] mother and grandmother where it was established that [Baby A] had had a cough for three days and on the day of presentation he had developed a fever and had vomited once. Appetite and fluid intake had been normal and there had been no diarrhoea. RN [Ms D] noted some spots on [Baby A's] back, and that he was asleep but awoke crying during the interview. Medication and medical history were established and on examination [Baby A] was noted to have a temperature

of 39.6. It was noted that [Baby A] had been given paracetamol at 1745 hrs but had vomited at 1800 hrs. Paediatric ibuprofen (Fenpaed) was administered in accordance with WAM standing orders. As [Baby A] was unwell he and the family were taken to an examination room for further observation and to await the doctor assessment. RN [Ms D] triaged [Baby A] as a TB, and discussed his current condition and treatment so far with RN [Ms C] who was also on duty. RN [Ms D] rechecked [Baby A] at 2100 hrs — he was sleeping and his temperature was 39.4. She had no further input into his care.

3.5 The response from RN [Ms C] notes her conversation with RN [Ms D] regarding [Baby A], noting that he had presented with a high temperature, most recently recorded at 2100 hrs as 39.4, and he had been given Fenpaed. RN [Ms C] rechecked [Baby A] at 2117 hrs — he was sleeping, appeared settled and temperature was 39.0. She had no further input into his care.

3.6 [Dr B] records that he saw [Baby A] very briefly, at the request of the triage nurse, soon after they arrived in the clinic at about 2030 hrs. The purpose was to authorise the use of Fenpaed and to prescribe it. [Dr B] was attending to other patients concurrently. He noted, during this brief interaction, that [Baby A] was quiet and not in any distress. He undertook a formal assessment of [Baby A] at 2115 hrs. [Baby A] remained asleep for the first part of the assessment during which time he was noted to have a temperature of 39.0 and a slightly elevated respiratory rate although no respiratory distress. [Baby A] then awoke distressed but was quickly calmed by his mother. Examination of the ears, nose, throat and lungs was unremarkable and [Baby A] did not like the torch being shone in his eyes although he tolerated the fluorescent room lighting. There was uncertainty over whether this represented significant photophobia. There was no distress on neck movements and [Baby A's] neck was supple. A rash was evident over [Baby A's] trunk and groins and these were red slightly raised spots which blanched on palpation. [Dr B] advised the family that he was unsure why the Fenpaed had not reduced [Baby A's] temperature and that there was no obvious cause for the temperature noted on examination. He felt it was important to rule out serious pathology such as pneumonia or meningitis and advised that [Baby A] should be seen at ED for further tests and observation. A referral to ED was made at 2130 hrs and a letter was given to the family to take to ED 'across the foyer'. [Dr B] had no further involvement in [Baby A's] care.

4. Review of clinical records

4.1 Clinical records provide a comprehensive account of [Baby A's] presentation and examination findings when nurse and doctor records are combined. The records are consistent with the responses above. In particular, RN [Ms D] notes that [Baby A] has 'some spots on his back' which are further described by [Dr B] as 'discrete erythematous spots, scattered over his trunk and groin and back, blanching non tender'. [Dr B] also records that [Baby A] has 'supple neck, ??photophobic'. These particulars are all noted in the letter to ED. I note that [Baby A] is recorded as being up to date with his childhood immunisations.

4.2 The ABC Triage Scale used by WAM notes that ‘fever with rash + headache or drowsiness (consider meningitis)’ should be Triage A — immediate assessment — interrupt the doctor. The presentation of ‘systemic sepsis: fever with other signs, looks sick, not shocked’ is categorised as Triage B — nurse triage in 5 minutes of arrival/seen by doctor within 20 minutes of arrival. The WAM Triage Guidelines have a stated aim of ensuring that all clients have a triage nurse assessment within five minutes of arrival. The category triage category TB is defined as semi-urgent — client must be seen within 30 minutes by doctor.

4.3 The Fenpaed standing orders have been adhered to. The patient handout ‘Fever in Children’ provides standard and suitable advice for parents.

5. Comments

5.1 The [Childrens’ Hospital] Children’s Health Clinical Guideline ‘Fever in the child under two years of age (2007)’ attached to the response contains some relevant data. It states *‘The majority of children under 2 years of age with a high fever have a viral illness. About 3% of children under 2 years with a rectal temperature of >38.9°C have a potentially serious bacterial infection. Young febrile children often present with non-specific changes in behaviour and appearance. Specific signs, such as meningism, cannot be relied on to diagnose significant illness in this age group. The height of fever, rapidity of onset of illness, and response to antipyretics are not good indicators of the nature of the underlying illness’*. The guideline (written for hospital doctors) recommends that children aged 3 months to two years of age with a fever > 38.9°C and who ‘looks very sick’, should have a full sepsis workup which includes chest X-ray, blood, urine and CSF cultures and blood count. They should be admitted to hospital for observation and IV antibiotics pending culture results. [Dr B] recognised that [Baby A] was unwell and had no clear focus of infection. The rash, as described, was not characteristic of meningococcal infection. There was no obvious meningism (but see the statement in italics above) and there was a possibility of photophobia. His decision to refer him to ED was quite appropriate and timely and followed an adequate assessment. [Dr B’s] management of [Baby A], once he reviewed him, was consistent with expected standards.

5.2 There was a wait of over an hour between [Baby A’s] arrival at WAM and his formal review by a doctor. The estimated wait from arrival to nurse triage was 10 minutes based on the recollection of staff involved. However [Ms A] feels this wait was 20–30 minutes (see 2.1). Either way it was outside the guidelines set by WAM. RN [Ms D] noted [Baby A] to have a rash and a high fever. He was sleeping intermittently. The ABC triage guidelines used at the clinic would place [Baby A] as a possible Triage A or at least a Triage B (see 4.2). It is unclear whether RN [Ms D] satisfied herself that the rash present was non-blanching, or that the doctor was notified that the patient had a rash. The initial nursing assessment and documentation was thorough otherwise. Documentation of the nursing observations at 2100 hrs and 2117 hrs is less thorough. If there was even

a remote suspicion of meningococcal disease it would have been prudent to monitor and document the evolution of the rash which can be very rapid in meningococcal septicaemia. There was communication between nurse providers and [Baby A] was monitored approximately every 15 minutes until seen by the doctor. In my opinion the nursing assessment, observation and management of [Baby A] over the period between arrival and doctor review was adequate and consistent with expected standards although it would have been prudent to record evolution of the rash. However, I feel that the delays between arrival, nurse triage and doctor review were excessive under the circumstances and had the potential to adversely affect the outcome for the patient. In [Baby A's] case I do not feel the outcome was affected, but had he had overt meningococcal septicaemia with minimal rash on arrival at the clinic, such delays could have been catastrophic. I feel that the failure to follow clinic guidelines with respect to triage and doctor consult times, in the circumstance of an unwell young child with a high fever, represents a mild to moderate departure from expected standards. I note that since this event there have been changes made to the triage process (3.3) and that these changes will be audited. I note also that relevant patient education material will be made available (3.3) and that there is already material available on meningococcal disease (2.2). It may be prudent for the clinic to review its policy on nursing observation of children with fever awaiting doctor assessment including a defined time frame for observations to take place and the content of the observations which should include rash assessment.

6. Opinion

6.1 On the basis of the records available to me, and referring to comments in section 5, I am of the opinion that:

(i) the general standard of care offered to [Baby A] by WAM was, with exceptions noted below, consistent with expected standards.

(ii) [Baby A] was adequately assessed and monitored by the staff of WAM [in] October 2008 although it would have been prudent for nursing staff to record any change in the rash appearance over the period of observation.

(iii) the waiting times between arrival, triage and doctor assessment were not satisfactory and should, at a minimum, have met the clinic guidelines of 5 minutes for triage and 20 minutes for doctor assessment. This failure, acknowledged by the clinic, represents a mild to moderate departure from expected standards.

(iv) the changes WAM have made to processes since this incident are appropriate. Their effectiveness should be monitored by audit as planned. A review of nurse observation procedures as suggested in 5.2 may also be appropriate.”

Appendix B

Independent expert paediatric advice

The following expert advice was obtained from paediatrician Dr Hugh Lees:

- “1. My full name is Dr Hugh Robert Lees. I have been asked to provide advice to the Commissioner on Case no. 09/01190. I have read and agree to follow the Commissioner’s guidelines for independent advisors.
2. I qualified MBChB from University of Auckland in 1976. I achieved MRCP (UK) in 1982 and FRACP (Paediatrics) in 1985. I have been employed by the Bay of Plenty District Health Board as a Consultant Paediatrician since 1984. I have been provided with information and specific instructions from the Commissioner as outlined below. I will comment on the basis of this information only and have not seen any other correspondence related to this case.
3. I have no conflict of interest.

Investigation:

On 2nd June 2009, the Commissioner commenced an investigation into:

Whether the Whanganui District Health Board provided care of an appropriate standard to [Baby A] [in] October 2008.

Supporting Information:

1. [Ms A’s] letter of complaint, dated 6 May 2009. (Appendix A, pages 1–2)
2. [Baby A’s] clinical notes of [two days in] October 2008, from Whanganui DHB Accident and Emergency Department. (Appendix B, pages 3–16)
3. Copy of the Commissioner’s letter notifying Whanganui DHB of his investigation. (Appendix C, pages 17–19)
4. List of recommendations made by the Whanganui DHB review team, following an internal review of [Baby A’s] death. (Appendix D, page 20)
5. Whanganui DHB’s response to the Commissioner’s notification of investigation, dated 30 June 2009. (Appendix E, pages 21–71)

Additional Supporting Information (15.12.2009):

- [Baby A’s] clinical notes of [two days in] October 2008, from Whanganui DHB Accident and Emergency Department. Marked with an ‘A’ (pages 1–15).
- Statements provided by Registered Nurse [Ms H] in June & December 2009, marked with a ‘B’ (pages 16–18).

- Statements provided by Consultant Paediatrician [Dr F] in November and December 2009, marked with a 'C' (pages 19–22).
- Statement provided by Paediatric RMO [Dr E] in November 2008, marked with a 'D' (page 23).
- Statements provided by Registered Nurse [Ms G] in June and December 2009, marked with an 'E' (pages 24–28)
- Statement provided by [Ms A] on 9 December 2009, marked with an 'F' (pages 29–31)
- Statement provided by [Dr I], Whanganui DHB Head of Department of Paediatrics, on 16 June 2009, marked with a 'G' (pages 32–36).
- Copy of the Whanganui DHB Root Cause Analysis Finding, reported January 2009, marked with an 'H' (pages 37–52).

Case Summary

[In] October 2008, [Baby A], a 23-month-old boy, developed a high fever (39.4°) and vomiting. His mother, [Ms A], took her son to Whanganui Accident and Medical Clinic Ltd.

[Baby A] was assessed by a GP at the Accident and Medical Clinic, but he was unsure of the cause of [Baby A's] illness, and referred him to the Wanganui Hospital Emergency Department at 9:49pm.

[Baby A] was presented to the Emergency Department at 9:52pm, and was triaged as Level 4 (semi-urgent to be seen by a Dr within one hour). Whanganui DHB has advised that observations were carried out at 15–30 minute intervals while he was waiting to be seen by a Dr.

At 10:35pm, [Baby A] was assessed by the Paediatric RMO, who noted that [Baby A] was alert and interactive, his colour was good, and his chest was clear. The RMO documented that [Baby A's] neck was soft and he was not photophobic, and examined the spots on [Baby A's] back, which were noted to blanch when digital pressure was applied.

Towards the end of the examination, the RMO was joined by the on call Paediatrician, who also examined [Baby A]. The Paediatrician confirmed that the spots on [Baby A's] back were blanching, and he thought that they looked like insect bites, as they were raised and had a small scab in the centre. [Baby A's] temperature had dropped to 36.8°, and the RMO and Paediatrician concluded that [Baby A] had a viral infection and could be cared for by his parents.

[Baby A] was discharged at 11:20pm and, although the paediatric team recall advising [Ms A] to bring him back to the emergency department if his temperature increased again or she was concerned, she was not provided with any written information on caring for a child with a fever, although pamphlets were available.

Early the next morning, [Ms A] checked on [Baby A], and found him to be extremely unwell with a non-blanching rash over his face and torso. She immediately called an ambulance, and [Baby A] was transferred to Wanganui Hospital's Emergency Department at 6:56am.

Despite attempts at treatment and extensive resuscitation efforts, [Baby A] died at 8:17am [that day]. His cause of death was determined to be meningococcal septicaemia.

I was asked to respond to a number of specific questions.

1. Please comment generally on the standard of care provided to [Baby A] by Whanganui DHB [in] Oct 2008.

[Baby A] arrived in the Emergency Department of Wanganui Hospital at 2149hrs and was triaged at 2151hrs being assigned a triage code of 4. It is then noted that he was seen by Dr E at 2235hrs a time interval of 44mins.

The triage notes comment — increased temperature, increased vomiting x 2, irritable or crying ++, eating and drinking ok, wet nappies ✓, no diarrhoea, iceblock given. The triage note records a temperature of 38°C and a weight of 11.1kgs. Brufen 2100hrs, Pamol 1745hrs. No other recordings such as pulse rate, respiratory rate, or oxygen saturation are present in the information I was provided with.

The doctor's notes record a temperature of 36.8°C at 2225. A 23 month old child, history of presenting complaint of fever and cough started at 5.30pm with fever, coughing, vomited x2. Mother unable to keep temperature down with Pamol. Rash noted on back today. Has tolerated food and fluids, miserable, wet nappies, no apnoeas, no seizures, not lethargic with a discharge summary of viral illness and GP follow up. Time of discharge is noted at 2320hrs.

In the physical examination it is noted that [Baby A] was alert, interactive and playing, interested in his surroundings, respiratory rate 30 with no increased respiratory effort. There was no photophobia or stiff neck. Some blanching spots were noted on the back and 'looked like possible bites'. Patient seen by [Dr F], happy for discharge home.

Impression: viral illness.

Plan: Home.

Antipyretics given. Script for Ibuprofen and advised can use Ibuprofen and Paracetamol as needed.

The nursing progress notes record increased temperature and vomiting, very irritable and crying ++ iceblock given to suck. And then a further note: 2330hrs discharged with parent, advised by doctor, patient for discharge. Given Brufen syrup. Patient conversing with parents, walking around room chatting.

[The following morning] at 0700hrs. Arrived by ambulance triage code 2. Triage note, seen in ED last night, vomit x2, Mum awoke to find baby covered in spots, lethargic, rash over face, trunk, limbs. Purple rash over face and trunk. See page 2

of Primary Survey. Pulse 183, respiration 26, temperature 36.9°C, blood sugar 4.8, weight 11.1kgs.

Doctor's notes were written in retrospect. Presented last night to ED with fever, settled with Ibuprofen and Pamol and blanching spots on back, vomited x2 at home, but otherwise was himself. Mum woke this morning, found to have purpuric rash over entire trunk and face, spreading to limbs, lethargic, brought to ED by ambulance stat 2, assessed in resus.

0758 noted by nurse to have stopped breathing and bilaterally blown pupils, Bag-mask ventilation started, no pulse, CPR initiated, monitor shows pulseless ventricular activity, intubated by Paediatrician ([Dr F]), air entry confirmed, continuous CPR for 17mins, 3 sets of 0.1ml/kg kilo of 1:10,000 Adrenalin, further 20ml/kg fluid bolus, 10ml/kg fresh frozen plasma bolus on rhythm strip deteriorated into ventricular standstill over the course of resuscitation efforts.

Family informed during resuscitation efforts that things were not looking good for the child. Decision by resuscitation team at 0816 to cease resuscitation.

Concerning the circumstances of [Baby A's] presentation to Whanganui DHB Emergency Department [in the evening]:

I would agree with [Dr F's] comment that the description of [Baby A's] presentation as recorded in the Emergency Department assessment was of a low risk patient at the time of presentation. From the information provided to me, few actual recordings other than a temperature were taken in the department. Although [Baby A] was described by the ED nurse as irritable and difficult to get recordings taken, it is usually possible to obtain an assessment of the pulse rate even if by auscultation. The respiratory rate can usually be obtained by observing from a distance with the patient on their mother's knee. Later when his temperature was rechecked at 2221 hrs and recorded as 36.8°C, he was noted to be more settled and this would have been an opportunity to obtain his other vital signs. I think it unlikely however that these would have altered the assessment that he was a low risk patient.

Although [Baby A] was assessed as low risk, I think it is always difficult discharging a young child to home in the late hours of the evening (2320hrs).

There did not seem to have been any assessment of the social circumstances of the patient made, and therefore the ability of the family to care for [Baby A] at home. I note that [Baby A's] mother is a [young mother], although she was also accompanied to the Emergency Department by her own mother ([Baby A's] grandmother).

In the NICE Guidelines on managing the febrile child, among other things it is commented that parents looking after a feverish child at home should be advised to check their child during the night and to be shown how to identify a non-blanching rash. I am not sure if these instructions were given, and it would appear that [Baby A's] mother was not advised to check her child during the night, as she describes waking the following morning to discover a non-blanching rash covering [Baby A].

I would describe these omissions as of mild to moderate significance.

With regard to the management of [Baby A] [that day], it is clear that the seriousness of his illness was immediately recognised and appropriate treatment initiated from the beginning, including intubation and full CPR resuscitation. I feel that the outcome however was inevitable from the time that his mother woke to find him covered in a purpuric rash, as at the time he represented to Wanganui ED, he was obviously in meningococcal septicaemic shock, with a capillary refill time of greater than 4 seconds.

2. Was [Baby A] appropriately monitored and assessed by ED staff [in] October 2008? If not, what further monitoring or assessment should have occurred?

I feel I have covered this in my comments on question 1.

In particular I feel heart rate, respiration and capillary refill time would have been useful recordings to have been noted at the time he first presented, or at least later on when he was more amenable to having his vital signs recorded. The NICE Guidelines also comment on the importance of trends. Although [Baby A] was described as being active and interested in his environment and the nurse commented that he was checked at 15–20min intervals, there was no documentation provided to indicate that this involved anything other than general observation, whereas pulse rate and respiration rate would have been useful additional measures, especially at the time his repeat temperature had returned to normal. Any tachycardia at a time when his temperature was normal might have been a useful pointer to additional concerns. I note that one of the recommendations of Whanganui DHB review of [Baby A's] case has been to develop a Paediatric Observation chart.

3. Was [Ms A] provided with appropriate information to care for [Baby A] at discharge, if not, what additional information should have been provided?

It would be a common practice in most Paediatric Departments when discharging patients, to verbally give parents general advice that they should bring their child back if they were worried or felt their condition was deteriorating. This form of instruction may not be specific enough however to alert parents to the need to return for further assessment.

Additional information should include specific instructions on fluid management, temperature management, ensuring that [Baby A] was checked during the night, and how to assess for a non-blanching rash.

[Ms A] did comment that [Baby A] woke at about 2.00 am during the night, drank a bottle of milk unaided and went back to sleep. She did not turn on the light however as she wished not to disturb him.

Although not mentioned, it is possible that instructions on assessing a non-blanching rash were given, as in her letter [Ms A] commented that on waking to check [Baby A] in the morning, she found him with a non-blanching rash.

Although there was a pamphlet available on 'Caring for a child with fever', this does not appear to have been given to [Baby A's] family. It is good practice to not only

give parents written information, but to go through it with them verbally at the time, to ensure the main points are clearly understood.

4. Was the waiting time experienced by [Ms A] and [Baby A] at Wanganui ED acceptable, if not, what length of time would be acceptable?

[Baby A] was triaged as a triage 4 patient, and triage guidelines indicate that he should be assessed within 1 hour. [Baby A] was actually seen within 44 minutes of triage which is acceptable.

5. Was [Baby A] provided with appropriate care by ED staff on [the day he died]?

I feel [Baby A] was appropriately assessed and managed by the ED staff at this time. Unfortunately his outcome was largely predetermined at that stage, having presented with meningococcal septicaemia and shock, which has an ultimate poor prognosis. It is recognised that meningococcal septicaemia can present with non-specific symptoms similar to many mild viral infections and to progress unpredictably to fulminant septicaemic shock in a short period of time. In [Baby A's] case this was a matter of only 7 hours 40 minutes after his discharge from Wanganui ED and 13 ½ hours from the time of first symptoms at 5.30 pm.

6. Do you recommend that Whanganui DHB make any further improvements to its ED service in the light of [Baby A's] death?

I note that Wanganui ED and Paediatric Department have made a number of worthwhile changes since their own review of [Baby A's] death. These include reviewing their 'Parent handout on managing fever', and a revision of their 'Management of fever in paediatric patients presenting to the Emergency Department' guidelines. In this guideline there are comments about additional factors that should also be taken into account when sending home a child with fever who is judged to be of low risk and likely to have a viral illness. I think it would be helpful to include in this guideline specific advice to be given to the parent, as are contained within the NICE Guidelines. These should include advice to check their child at least once or twice during the night, and specific instructions on when to return to the Emergency Department. They should also advise caution when discharging children home late at night.

When a parent feels their child has deteriorated, it can be very difficult for them to return to a medical institution where they have recently been assessed and reassured. These instructions should be specific enough to give them the confidence to decide when to return for further assessment and treatment.

7. Are there any other aspects of the care provided by Whanganui DHB that you consider warrant additional comment?

No.

In summary, I feel that [Baby A] was appropriately assessed [in] October and correctly regarded as a low risk case. Unfortunately a small percentage of such

children will still have a significant bacterial illness as occurred in [Baby A]. For these reasons it is important that parents are given appropriate written and verbal instructions on what specific features to look for in their child that would prompt a timely return for further medical assessment and treatment. I don't feel these instructions were adequately communicated to [Baby A's] mother and as a result he re-presented at a stage when the outcome was predetermined. I would view this conduct with mild to moderate disapproval.

In some circumstances an illness such as meningococcal septicaemia can be so fulminant (i.e. rapidly progressive) that despite appropriate care and observation, little can be done to alter the outcome. Unfortunately this is quite likely to have been the case for [Baby A], even if he had returned for earlier assessment.

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Resources used:

1. [Childrens' Hospital] Hospital Guideline 'Fever in the Child under 2 years of age' (August 2007).
2. NICE Guideline 'Feverish illness in children — Assessment and initial management in children younger than 5 years' (May 2007).
3. UpToDate 'Clinical Manifestations of Meningococcal Infection' (August 2008)."