Dr D

Dr E

A Medical Clinic

A Report by the

Health and Disability Commissioner

(Case 00HDC05094)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Parties involved

Dr A	Complainant / Grandfather
Ms B	Mother
Mr C	Consumer
Dr D	General Practitioner at the rural medical clinic
Dr E	General Practitioner at the rural medical clinic
Dr F	Medical Director of the rural medical clinic
Ms G	Staff nurse at the rural medical clinic
Ms H	Staff nurse at the rural medical clinic
Dr I	Former colleagues of Dr A
Dr J	Former Colleagues of Dr A
Dr K	General Practitioner at the rural medical clinic
Dr L	General Practitioner at the rural medical clinic
Dr M	General Practitioner at the rural medical clinic

Expert advice was obtained from two independent general practitioners.

Complaint

On 15 May 2000 the Commissioner received a complaint from Dr A on behalf of his daughter, Ms B, and son-in-law about the care provided to his grandson, Mr C, by a rural medical clinic, Dr D and Dr E. The complaint initially included allegations about nursing staff who had contact with Mr C. However, this part of the investigation was discontinued following consultation with Ms B in July 2000.

Dr D

- *During the afternoon of 9 April 2000 Dr D did not diagnose meningococcal disease in Mr C.*
- *On the same occasion Dr D did not, in a timely manner, treat Mr C for meningococcal disease or refer him to hospital for further care.*
- *Dr D did not properly monitor Mr C's vital signs, namely his temperature, pulse, respiration and blood pressure, ignored a probable petechial haemorrhage, and did not observe his eyes even when requested to do so by his mother, Ms B*
- *Dr D did not heed the concerns of Ms B that her son may have meningitis.*

Dr E

- *During the afternoon of 9 April 2000 Dr E, when asked for a second opinion by Dr D regarding Mr C, did not recognise or diagnose his meningococcal disease.*

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

Information reviewed

Statements, correspondence and interview notes from:

- Dr A Grandfather
- Ms B Mother
- Dr D Provider
- Dr E Provider
- Dr F Medical Director of the medical clinic
- Professor G Medical Professor invited to comment by Dr A

Documents:

- Clinical notes from the medical clinic
- Ambulance Case Record
- Newspaper article from local newspaper
- Comparative list of signs and symptoms between meningitis and meningococcal septicaemia supplied to Ms B by a hospital specialist
- D. Aponso and C. Bullen, "Presenting features of meningococcal disease, public health messages and media publicity: are they consistent?" *New Zealand Medical Journal*, 2001.
- Reports supplied by Dr A from Dr I and Dr J
- Reports supplied by Dr F from Dr K, Dr L and Dr M
- Response to provisional opinion from Dr A, including a report from Professor G.
- Reports to the Commissioner from two independent general practitioner advisors.

Information gathered during investigation

Mr C was four years old when he died at a children's public hospital on 21 April 2000 from complications of meningococcal disease.

Pre-assessment history

Ms B recalled that on the return trip home from the supermarket on the morning of 9 April 2000 Mr C felt hot, but when the window was opened he felt cold. Mr C also complained that the sun hurt his eyes. On arriving home, Mr C helped take in the groceries but then felt tired and lay down on his mother's bed. When Ms B, who was a nurse, checked Mr C about 11am she found Mr C's "hands cold, torso warm but not hot. Again I thought this strange, as the day was a beautiful warm clear end of summer day. I immediately thought that the only thing that could cause this was peripheral shutdown. I checked his feet and they too were coldish. He became hot and shook intermittently." Ms B said Mr C was "normally full of youthful energy" but had also "complained of a sore side". Ms B advised

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that after waiting for an expected guest coming to Mr C's planned birthday picnic and attempting to contact Mr C's father, she took Mr C straight to a nearby clinic. The drive from their residence to the clinic takes approximately 30 minutes.

Ms B arrived at the clinic soon after 1.00pm.

Assessment at the clinic
Staff nurse, Ms G was informed by the receptionist at approximately 1.20pm that Mr C was vomiting in the triage room. Ms G recorded Mr C's condition, as reported to her by Ms B, in the triage section of the clinical notes as: "Feverish since this afternoon, photophobia, rash, worsened since 1100 vomiting [no] diarrhoea. c/o headache also sore R) arm and R) leg." Mr C's temperature was 39.8 and his weight 14 kilograms. Ms B stated that Mr C needed supporting as he was weighed but the nurse had said to her "not to worry about holding him". No known allergies were noted. Pulse, respiratory rate and blood pressure were not recorded; observations of pulse and blood pressure were not routinely taken at the clinic for every febrile child.

Dr D saw Mr C almost immediately after he was triaged and noted in the clinical notes: "Well prior, acute onset, vomited x1, [no] diarrhoea, [no] rash. Quiet." Dr D found that "cardiovascular, respiratory, ear, nose and throat and abdominal systems were all normal" and there was "[no] petechial rash, CNS [no] photophobia, [no] meningism, Kernig -ve [negative]". Ms B disputes that Mr C did not have photophobia as she recalled Mr C complaining to her that the sun hurt his eyes. When Dr D asked Mr C if the light hurt his eyes, Ms B stated that Mr C had replied, "That [artificial] light does not hurt my eyes but the sun does."

Dr D diagnosed a "probable viral illness". Dr D stated that he reached his diagnosis on the basis of the following information:

> "A suddenly sick child – normally very healthy who became sick about 2 hours earlier. He was febrile (39.8). He had vomited in reception. He was probably 'floppy' and weak when the nurse tried to weigh him. He responded to the paracetamol with a reduction in temp and improved wellbeing. …"

Dr D prescribed Pamol syrup and Brufen syrup, which were given at 1.30pm and 1.50pm respectively. Dr D also requested that Mr C's temperature be monitored every 15 minutes. The record indicates a decrease in temperature from 39.7 to 38.7 at 2.30pm and then to 36.5 at an unrecorded time, later advised by Ms G to be approximately 3.15pm. Ms B confirmed that Mr C's temperature was monitored every 15 minutes although not all temperature measurements were recorded. Ms B later stated her views:

> "[Mr C was] hypothermic not normothermic as suggested by [Dr D]. In all my years as a mother and a nurse temperatures do not come down from 39.8 to 36.5 so quickly. I believe [Mr C] was progressing further into his shocked state and again the professionals did not think of this. …"

Dr D checked in on Mr C several times over the next couple of hours while he slept. Dr D confirms that during this time he discussed meningitis with Ms B and the signs and symptoms to look for. Ms B expressed her concern that Mr C might have meningitis. Ms B later stated that she also expressed concern to Dr D that Mr C had meningococcal disease. Ms B advised she told Dr D that her father was "a GP who had diagnosed many cases [and] had remarked that many cases had this 'odd look about the eyes'. That they looked through you rather than at you." Dr I, a colleague of Dr A, confirmed this observation. "The far away look in his eyes is a most important sign. … This is a feature noted by myself as well as my colleagues as a common and significant sign in adult as well as paediatric patients with meningococcal septicaemia." Ms B said that Mr C's eyes "were doing just this and I relayed this to the doctor".

Ms B also advised that she asked Dr D whether he had taken Mr C's pulse, which she had taken as measuring 162. Ms B stated that Dr D replied to her "he hadn't but had felt it, and it was rising". Dr D has said it would be most unlikely he would have stated any trend in Mr C's pulse because it was not taken serially. Dr D also said it was difficult to count a pulse of 140, let alone 162.

Towards the end of the time that he and his mother were at the clinic, Mr C was resting and Ms B stated:

> "I noticed a small deep purple spot (this resembled a flat skin stone bruise) with a red halo on [Mr C's] right arm in the ante cubital fossa. This spot was not large, about 2mm in diameter. I showed this to [Dr D] who then got out a medical textbook. He showed me photos of what the 'rash' (meningococcal) looked like. He continued to say it was a viral infection."

Dr D recalled Mr C's condition at about 3.20pm, when he woke up:

> "[Mr C] looked very well, was afebrile and again there were no signs of meningitis or a petechial rash. His mother and I checked him all over for spots and did find 2 blemishes on his right upper arm. These did not look petechial at all, but because she was unsure whether they were new or not, I asked my colleague, [Dr E], to review [Mr C]."

In the clinical notes Dr D recorded that Mr C was "Well. [Decreased] temp, no meningism. No evidence of meningitis. Review prn [as necessary]."

Ms B stated that she showed both Dr D and Dr E the "little spot" in Mr C's right arm but that they concentrated on a freckle on Mr C's chest.

Dr E examined Mr C at Dr D's request. Dr E later wrote:

> "… [Dr D] asked me to look at a spot on his chest, explaining to me, he was a 4 year old boy who'd presented with a high temperature [subsequently settled] and vomiting.

> The spot on [Mr C's] chest was circular, well defined, raised approximately 1-2mm, light brown in colour and resembled a raised freckle or skin tag. At the same time, I noted [Mr C] was alert, co-operative, quiet but spoke to me. He could easily place his chin on his chest with no signs of neck stiffness or photophobia. Kernig negative.
>
> I agreed with [Dr D] that the spot was not representative of the rash typically described with meningococcal disease.
>
> I remember overhearing [Dr D] ask [Mr C's] mother to stay in town for the afternoon, as she lived so far away."

Dr E recorded in the clinical notes:

> "Also saw at 1500 [3pm] ([Dr D] asked me to see as well). Afebrile, brighter, alert, talking, warm peripheries, normal capillary return. No meningeal Sx [symptoms] – no photophobic, no neck stiffness, Kernig [negative]. 1 spot mid-chest light brown in colour, slightly raised (regular 1mm) resembled freckle."

Leaving the clinic

Ms B confirmed that Dr D asked her if she could stay in town for a couple of hours, in case there was any change in Mr C's condition, since they lived 30 minutes away. Ms B stated: "I was left alone and as Mr C woke and was conversant and the most awake he'd been for hours, I decided to go home due to my other children. …"

Ms G stated in regard to Ms B's leaving the clinic:

> "At approximately 1520 [3.20pm] [Mr C] appeared more alert and had stopped vomiting for the past hour and a half, and his temperature had reduced to 36.5. … [Ms B] stated to [Dr D] she was happy to take [Mr C] home, as his general condition had improved and his temperature had reduced. I heard [Dr D] advise [Ms B] that if [Mr C's] condition changed, to bring him straight back to clinic or to go to the hospital."

Dr D stated he also offered Ms B the option of admitting Mr C to hospital for observation. Ms B denied that this offer was ever made.

Soon after 3.20pm Ms B left the clinic with Mr C to get his prescription filled at the pharmacy next door. However, Mr C vomited again outside the pharmacy and was immediately returned to the clinic. Staff nurse, Ms H, who had commenced her duty at 3pm, passed this information to Dr D, "who immediately went to see the patient. I recall the patient being very pale." Ms B reported that "[Dr D] stated that he too was getting paranoid – meaning that this may be a meningococcal infection".

Ms G stated as follows:

> "[I] went out to the reception and brought [Mr C] and [Ms B] into a triage room. [Dr D] came into the room straight away. I heard [Dr D] advise [Ms B] to stay for a bit longer in the clinic, seeing as they lived out of the city. [Dr D] advised me to keep [Mr C] and to observe his condition till further notice. Approximately 15-30 mins later [Ms B] stated that she was happy to take [Mr C] home as he had improved. I informed [Dr D] of this and [Mr C] and [Ms B] left the clinic at approximately 1600 hours [4pm]."
>
> Once home, [Mr C] played briefly with his friend but then continued to vomit. [Ms B] sponged [Mr C]. The spot on his arm had not multiplied. [Mr C] was "not able to keep anything down". Staff nurse Ms H recalled receiving a phone call from [Ms B] at approximately 8.30pm. [Ms B] reported that [Mr C] was "floppy" and she was bringing him in. Staff nurse Ms H further stated that at "approximately, 2140 hrs [9.40pm, corrected from 2115hrs, 9.15pm] [Mr C] and his mother arrived".

Return to the clinic
Dr E recalled:

> "[Ms B] arrived before 2100 [9pm] carrying [Mr C] over her shoulder wrapped in a duvet cover. As she lay him down, it was immediately obvious [Mr C] was septic, shocked and shut down, with mottled blue/red skin discolouration and cool peripheries. He was conscious but very drowsy. He was still able to speak and try to be co-operative.
>
> I immediately called to the receptionist for a 111 ambulance (for a shocked child) and asked [Ms H] to draw up 600mg of Benzyl Penicillin, while I inserted a 22 gauge IV cannula into the R cubital fossa. I injected the Benzyl Penicillin, then [Ms H] connected the Haemacel 250ml fluid bolus, by which time the 3 ambulance crew had arrived.
>
> In a subsequent conversation with [Mr C's] mother, she told me [Mr C] had not had the skin discolouration prior to coming in. I have since visited [Mr C] in [a children's public hospital] on two occasions as I was in [the city]."

Staff nurse Ms H recalled:

> "… While we were in the room inserting the line and antibiotic, the ambulance officers arrived. We transferred him to the ambulance trolley at which time the ambulance officer inquired about [Mr C's] blood pressure which I took immediately [30mmHg systolic]. The patient was then transferred into the ambulance. … "

The Ambulance Case Record states the ambulance was despatched at 9.13pm, arrived at the clinic three minutes later at 9.16pm, left for a neighbouring public hospital at 9.25pm, and arrived there at 9.31pm.

Mr C was transferred from the public hospital to a children's public hospital, but died on 21 April 2000 of complications of meningococcal disease.

Meningococcal septicaemia is a systemic disease caused by the presence of meningococcal bacteria in the blood and the effect of the toxins on the body. Meningitis refers to an inflammation of the meninges around the brain, and can be caused by either a virus or bacterium. Meningitis may or may not be present in a person infected with meningococcal bacteria.

File reviews

Dr F, Medical Director of the clinic, stated that meningococcal septicaemia was "notoriously difficult to diagnose and definitive signs often present last". Dr A also stated that "the presenting clinical picture of meningococcal septicaemia is notoriously misleading".

Dr F undertook an internal audit for the clinic of the care provided to Mr C. Dr F reported these findings to Dr A on 1 May 2000. Dr F stated in conclusion:

> "None of the review processes were able to identify any area where the handling of this case could have been improved upon and the rapid decline without any clinical signs of meningitis again reflects the aggressiveness of this particular 'phage' type of meningococcus. The Medical Officer of Health and paediatric staff at [the public hospital] inform me that they are still no closer to identifying that organism either."

Dr F also requested peer review of Mr C's file from general practitioners Dr K, Dr L and Dr M. Dr A also requested that his colleagues Dr I and Dr J from his general practice at […] Medical Centre review Mr C's file, together with the statement from Ms B.

In brief, Dr K, Dr L and Dr M found the management of the case appropriate and the standard of care "good". The clinical notes were good but the record keeping should have been better. However, neither further action nor investigation was warranted during the time Mr C was in the clinic on the afternoon of 9 April 2000. On the other hand, Dr J and Dr I found that the management at the initial presentation was "sub-optimal" in several respects. These involved: the recording of vital signs, the account taken of the mother's concerns, treatment with paracetamol and Brufen, action required on suspicion of meningococcal disease and the adequacy of safety netting.

All doctors had access to the clinical notes from the clinic, but not to the full account of events from all parties directly involved. Dr I had read the opinion of Dr J.

Independent advice to Commissioner

The following expert advice was obtained from an independent general practitioner:

> "SUMMARY OF EXPERT OPINION
> [Dr D] appears to have made several errors of judgement:
> seemingly failing to differentiate meningitis (from whatever infective organism) from meningococcal septicaemia, and failing to appreciate several clinical pointers to how sick [Mr C] was
> underestimating the concerns / clinical acumen of [Ms B]
> underestimating the severity of [Mr C's] illness.
>
> However [Mr C] was observed for several hours and did seem to improve with the medications he was given – his temp came down and from all reports he seemed better. The explanation and mitigation offered in [Dr F's] letter is correct – it is notoriously difficult to diagnose and definitive signs often present last. There is also extreme pressure on GPs to refrain from admitting to hospital.
>
> [Dr E] seems to have acted with a reasonable standard of care – she only saw [Mr C] (during the first presentation) when he was better – having responded to the medicines he was given. She also acted with speed and acumen when he presented the second time.
>
> In response to your questions:
>
> It seems likely that [Dr D's] care was slightly under the acceptable standard – but it is a pretty marginal decision – between a genuine mistake and incompetence.
>
> It would be wise to compare this case to findings on other cases involving meningitis and meningococcal disease (esp. meningococcal septicaemia) before writing the opinion, this especially considering the status of the complainant.
>
> [Dr E's] standard of care was good.
>
> The clinic does seem to have taken steps to review / externally audit the actions of its doctors and this is commendable. I don't have the results of this to see whether it is reasonably objective.
>
> Their record of diagnosis as outlined in [Dr F's] letter is extremely impressive. So there does not seem to be general incompetence or unawareness of the clinic as a whole.
>
> FACTORS CONSIDERED IN REACHING OPINION
> Meningococcal disease is notoriously difficult to diagnose and treat as accurately outlined in the letter from [Dr F], Director [of the clinic].

However there does seem to persist, throughout the correspondence, confusion between Meningitis and disease from Meningococcal infection – in [Mr C's] case meningococcal septicaemia.

Meningococcal septicaemia does not have signs and symptoms of meningitis, although meningococcal meningitis will do so. This is pointed out in [Dr A's] letter.

Meningococcal septicaemia (meningococcemia) – produces the sudden and rapid onset of headache spiking fever chills, arthralgias and muscle pains, with racing pulse (tachycardia) tachypnoea (rapid breathing) and often hypotension (low blood pressure). The rash recognised as a diagnostic sign may appear at about this time but may be, as in this case, sparse. The doctors were apparently looking at a freckle on [Mr C's] chest rather than the petechial spots in the axilla.

Vasoconstriction is also a feature – with pallor and cold extremities although the patient is often alert (see attached chapter from Harrison's Principles of Internal Medicine).

So certainly there were no signs of meningitis – but [Mr C] didn't have meningitis.

Many of the 'soft' signs referred to by [Dr A] – esp. the look in the eyes – can occur as a result of delirium from fever as well as from meningococcal disease. It is not an accepted sign. But such observations are part of the general assessment of how sick the child looks. It's a bit of that nebulous thing – clinical acumen. This increases with experience in general practice.

[Dr D] did a lot of good things. He kept [Mr C] at the clinic and observed him over some time from 13.20 to approx. 4pm with an attempted discharge and didn't just bundle him on out. He requested a second opinion before he OK'd [Mr C's] discharge. He advised [Ms B] to re-present if there was deterioration.

On the other hand some vital signs are not recorded particularly pulse and respiration rates (although in many cases in general practice such things are observed but not recorded). But a child with a fever of 39.7 would probably have both tachycardia and tachypnoea anyhow, irrespective of the cause of the infection.

[Mr C] seemed better after some paracetamol and ibuprofen (both used to manage fever) but immediately outside the clinic he started vomiting again. Although he was re-observed he was not admitted. It is difficult to gauge whether hospitalisation was discussed – [Dr D] says in his statement that he offered hospitalisation – but this is not mentioned in any other of the correspondence.

It is difficult being a City GP and commenting on management in rural areas much further from hospital facilities. I should however have thought that this isolation would increase caution, particularly when dealing with sick children – whose illnesses tend to become more acutely critical very rapidly. So much of the

diagnosis in this case rests on the acumen of the clinician – how sick did this child look? Allied to this is how sick the mother thinks the child is. The second assessment also involves very complex judgements: how accurate an historian is the mother, does she over or understate the problems, how observant is she?

This can be extremely difficult in an emergency where the doctor has no prior relationship – no way of validating either the doctor's perception of the parent or the parent themselves.

Here the concerns of the mother – a trained health professional – do rather seem to have been underestimated. Similarly the severity of the sickness of the child was underestimated, the illness costing [Mr C] his life, and we will never know if treatment at this stage could have prevented this.

[Mr C's] family is an important consideration in how to proceed. His mum is a nurse, his granddad a [retired] GP. I wonder did [Dr D] know this at the time. Under such circumstances most would err very much on the side of caution. It is an important consideration in deciding this complaint too ([Dr A] has written a letter to the NZMJ about the clinical confusion between meningitis and meningococcal septicaemia).

There is also a medico-political element of contention between GPs and commercially based and run clinics such as [the clinic], the doctors and others.

So is this incompetence or a very tragic mistake or a little combination of both?

Probably a bit of both.

But I find it impossible to be conclusive on the basis of this case alone. I would advise the Commissioner to review the decisions of all the cases of complaint about meningitis / meningococcal disease and see where this case fits among those outcomes."

My advisor was provided with the following information about the geographical relationship between the patient's residence, the clinic, and the neighbouring public hospital, and was asked the further questions set out below:

"1. [The clinic] is situated in […], where [Ms B] travelled from is a small settlement […]. The drive from […] usually takes approximately 20 to 30 minutes. [The public hospital] would be within a few minutes' access from [the clinic].

2. A review of other cases involving the diagnosis of meningococcal disease would be unlikely to be helpful as a guide to how this case should be judged as each case turns on its own facts. From a medical point of view however please clarify if it is impossible to be conclusive on the basis of this case alone? The question is whether the service received by [Mr C] was provided with reasonable care and skill? This is, as discussed, ascertained in the usual manner by an assessment of what a

reasonably careful general practitioner, in those circumstances, could reasonably be expected by his or her peers to have done.

3. Were the reasons for your summary comment that '[Dr D's] care was slightly under the acceptable standard' that he '[failed] to recognise clinical pointers'?

If so, what pointers? Was it only a failure to properly estimate the concerns of the mother? In answer to your query as to whether [Dr D] knew of [Ms B's] background; in [Ms B's] statement (The Doctor's Visit) she states she told [Dr D] her father was a GP who had diagnosed many cases of 'meningitis' and also told him of the 'odd look in the eyes' that her father would note.

Underestimating the child's illness? Was this comment from the perspective of the time or a comment made with the wisdom of hindsight? How, or in what actions or omissions, from the perspective of the time did [Dr D] underestimate the child's illness?

4. Both [Dr D] and [Dr E] looked at what was described by [Ms B] as a small deep purple spot, resembling a flat skin stone bruise, 2mm in diameter with a red halo, in the right ante cubital fossa.

[Dr D] consulted a medical textbook and compared it to the spot spoken of by [Ms B]. How does [Ms B's] description of the spot compare with a meningococcal rash? [Dr D] called in a second opinion from [Dr E], and [Ms B] said she showed them the spot in the ante cubital fossa but they seemed concentrated on a freckle on the chest. How do you interpret this? Were both doctors not taking account of the mother or was the significance of antecubital spot missed by both or was the spot possibly of no clinical significance or something else? It is noted that when the child re-presented that [Dr E] said she inserted the 22G IV cannula for the benzyl penicillin and fluids into the right cubital fossa. If a meningococcal spot had been present there earlier in the afternoon, what would have happened to it over the hours to re-presentation? Is it possible that [Dr E] would not have noticed a spot of clinical significance in the antecubital fossa if she was inserting an IV there? Is there a possible confusion of the alleged facts?

5. How is it that [Dr E] gave a good standard of care when she agreed with [Dr D] that the spot was not representative of the rash typically described with meningococcal disease? What are the duties and obligations of a doctor when asked for a second opinion?

6. Was it reasonable to diagnose the child with a 'viral illness' given his signs and symptoms? Was there any clinical feature, and if so what, that reasonably should have triggered an alert to a general practitioner of the underlying seriousness of the child's condition?

7. You have stated there was confusion between meningitis and meningococcal disease. Was this confusion on the part of [Dr D] or [Dr E]? If so, what factors point to the confusion?

8. You have said [Dr D] did a lot of good things and listed them, but in the next paragraph you state 'on the other hand' the pulse and respirations were not recorded before concluding a child with a temperature of 39.7 would be tachycardic and tachypnoeic irrespectively. What is the relative importance of not recording the pulse, respirations and blood pressure?

9. Are you saying in the report that there is no essential difference between the 'look in the eye' of a child febrile with the early stages of meningococcal disease and a child febrile from any other cause?

10. Would it be usual practice to document an offer of hospitalisation if made or made and refused?

11. You have stated that it is impossible to be conclusive but have concluded [Dr D's] care was slightly below the standard. Is it possible to clarify that position?"

My independent general practitioner advisor provided the following additional advice in response to the above questions.

"1. Thank you for clarifying the geography. My assumption of isolation was based in part on the actions of [Ms B] (in taking [Mr C] to the clinic rather than directly to the hospital).

2. I will come back to this in answering point 11.

3. As you say in your 3rd pointer under this topic it is extremely difficult not to use hindsight in this case.

If we consider the data [Dr D] had to work with: (I have taken this from the [clinic] sheet and some information from [Ms B] and the nurses' statements).

VERIFIABLE
There was a suddenly sick child – normally very healthy who became sick about 2 hours earlier.

He was febrile (39.8).
He had vomited in reception.
He was probably 'floppy' and weak when the nurse was trying to weigh him.
He responded to the paracetamol with reduction in temp and improved wellbeing.
[Ms B] says he 'was conversant and the most awake he'd been for hours' before he left the clinic.

ABSENT
Both parties agree there was no sign of meningitis (as accurate assessment: no photophobia; no neck stiffness; [negative] Kernig's).

The eye signs alluded to must be disregarded: it is not an accepted clinical indicator. Certainly sick people get a glassy vacant feverish stare but I do not know that this is different for a septicaemia (or for that matter meningitis).

CONFLICTING DATA IS PRESENTED ABOUT:
Photophobia – [Ms B] says it was present, the record sheet says it was not. [Dr E's] record at 1500 says it was not.

'Peripheral shutdown' – I am not sure what exactly is meant by this. In her statement [Ms B] uses the term to describe that [Mr C's] hands were cold, his feet coldish and his torso warm. No comment is made about what happened to the hands and feet once [Mr C] developed a fever. It is noted on [Dr E's] record at 1500 – 'warm peripheries'.

The things not recorded that I feel should have been (the clinical pointers):

The very rapid pulse was apparently neither verified nor recorded.
It would seem that there was significant weakness (the floppiness when [Mr C] was weighed, his inability to stand unaided) that was not noted.

The clinic seems to have access to paediatric BP equipment – (see the later notation in [Dr E's] page: BP 30/-) but it was not done at the earlier consultation.

4. It seems to me from reading the 2 accounts ([the clinic] c.f. [Ms B]) that the doctors were looking at:

A 'light brown spot on the mid chest' – from [Dr E's] notes on the chest.
c.f. 'a deep purple spot with a red halo … ante-cubital fossa (or elbow) R arm'.

Either they were looking at different things or one account is inaccurate.

Surely [Ms B] would have seen and corrected them if they were looking at the wrong thing?

Either way 1 small spot would not constitute a meningococcal rash.

No I would not have thought it likely that [Dr E] would have missed such a sign in the area she cannulated if it had been apparent.

5. The duties and obligations of a doctor asked for a second opinion are to frankly evaluate the information presented and reach an independent diagnosis, which should then be compared to the original doctor's ideas. Each should then evaluate the 2 opinions, discuss as necessary and achieve a consensus in the patient's interest. This seems to have happened.

6. On the information present and presented it was reasonable to diagnose a 'viral illness' given the signs and symptoms at 1–3pm. [Mr C] did seem to rally and settle as the fever settled (documented) after the paracetamol. There are no 'hard' clinical features presented by either party to indicate the seriousness of the illness.

If you read the highlighted segment on Meningococcaemia in the Harrison's chapter,

'Patients usually appear acutely ill with an inordinate degree of prostration.'

This is the soft, experience, judgement thing that it is impossible to include in notes but will make the difference between referring and possibly catching something like meningococcaemia early enough to treat effectively, and not. Not having/judging this however does not constitute negligence. It is perhaps that certain something that will differentiate the 'really GUN' diagnosticians from competent ones.

'However clinical shock does not occur unless fulminent meningococcaemia supervenes' – this would be the situation when [Dr E] saw him at 9.40pm.

7. Both doctors and [Ms B] mention in their notes the absence of neck stiffness, photophobia, Kernig's sign etc – all features of meningitis. [Dr D] said that it was 'not meningitis, as I had questioned it was'.

This is of course correct.

8. I think that a pulse of 162 would alarm me. It is a bit too high for a viral fever. Taking the BP, if it had been low in conjunction with the very high pulse may have alerted to the possibility of a more serious illness e.g. septicaemia. A very rapid shallow breathing rate would have supported this concern i.e. some signs of 'inordinate prostration'.

In an ordinary case of a viral illness, taking / recording these things would be of no significance at all. It really comes down to clinical congruence – does it all fit together?

The signs if abnormal could have other explanations (e.g. the fever) but some lack of meshing could have triggered the 'well perhaps we should admit, this doesn't feel quite right' bells we all develop – but they are experience and judgement related.

9. We must disregard the 'eye signs' – they are part of these same judgement triggers – but must be experienced and cannot be taught. They are very 'soft' data.

10. One would document such an offer if you thought it might be necessary (i.e. that medico-legal verification could be necessary).

> Or if you really thought the patient should be in hospital and they refused.
> Or if you had lots of time.
>
> 11. I do wish to revise this opinion.
>
> If any signs were apparent, which cannot be inferred, they were not missed through incompetence. [Dr D] exercised reasonable care and judgement.
>
> The 'soft' signs mentioned may or may not have been present. If so both doctors missed them at the earlier consultation but [Dr E] quickly recognised them at the second. This does not seem likely. Meningococcaemia is a really rotten rapidly progressing deceptive disease, which changes quickly and is rapidly fatal. Its diagnosis is most often extraordinarily difficult until it is very obvious.
>
> It was 5½ hours from the time he left the clinic until he returned – a long time in the course of a meningococcaemia."

My advisor was asked if Pamol and Brufen syrup was a reasonable treatment for a diagnosis of "probable viral illness". My advisor responded in the affirmative, that used together Pamol and Brufen syrup is an effective combination. My advisor was also asked if a temperature decrease from 39.7 to 36.5 between 1.00pm and 3.20pm could be expected. My advisor advised that this degree of temperature drop in that timeframe was normal and could be expected after the administration of Pamol and Brufen syrup.

Response to provisional opinion

The complainant, Dr A, submitted an extensive report dated 30 October 2001 in response to my provisional opinion. The footnotes to Dr A's submission appear as an Appendix to this opinion. Dr A stated as follows:

> "I have received your provisional opinion dated 5 October 2001, on my complaint against [the clinic] and [Dr D].
>
> I disagree with your provisional opinion, and submit this letter by way of response, on the basis of a misinterpretation of fact and the evidence.
>
> I record that this is an incomplete investigation and thereby an incomplete provisional opinion as the complaint against [the clinic] has never been addressed in your said opinion.
>
> I also record that you have not provided a copy of the report from [the clinic], which creates a difficulty in determining upon what basis your opinion has been reached.

My response is set out under the following headings:

1. Failure to record vital signs
2. Failure to heed mother's concerns
3. Failure to diagnose
4. Failure of [the clinic] to formulate protocols in triage of pyrexial children
5. Interpretation of independent medical expert's opinion
6. Summary
7. Outcomes sought

1.0 Failure to record vital signs

1.1 In my complaint we expressed our concern about the failure of [Dr D] to properly monitor the child's vital signs namely, temperature, pulse, respiration and blood pressure.

1.1 (a) This is basic triage and should be a part of the routine assessment of every sick child presenting with a pyrexia of unknown origin, along with a history of the presenting illness and a review of the child's medical and family history.[i]

1.1 (b) I note your opinion states previous cases involving meningococcal disease are not useful as they all turn on the facts.[ii] All cases do turn on their facts, however, precedent does exist in the body of Health and Disability Commissioner reports, where the advice of the Director … of Public Health has been accepted, that it is incumbent on general practitioners to take a full medical history to assist in deciding whether a consumer is experiencing a viral (gastroenteric) illness or a more serious illness.[iii] The failure to undertake basic triage in my opinion is a failure to take a full medical history. As you will be aware, that case resulted in a recommendation to the Medical Council of New Zealand that the general practitioner involved undergo a competence review.

1.2 [Dr D], I note, advised that observations of these recordings (temperature, pulse, respiratory rate and blood pressure) were not routinely taken at [the clinic] for every febrile child.[iv]

1.3 The clinical story on presentation was:

- Sudden onset of illness
- Fever 39.8
- Tachycardia (noted by mother pulse 160 +)
- Vomiting

- Headache
- Weakness – had to be carried and supported when being weighed
- Myalgia – right-sided pain as reported to the triage nurse

1.4 These are all classical signs of meningococcal septicaemia.[v] [vi]

1.5 There was no baseline audit undertaken, apart from temperature. Such basic triage would have alerted [Dr D] to a more sinister illness than a viral infection. This is substantiated by the comment of your independent medical expert,

'I think that a pulse of 162 would alarm me. It is a bit too high for a viral fever'.[vii]

1.6 Any reasonable physician faced with this history, would have or should have been alerted to the possibility of bacterial rather than viral infection with a consequent change in the pattern of management, such as admission to hospital with a throat swab, white blood count, blood culture and administration of antibiotics.[viii]

1.7 Further, having read your provisional report carefully I note that, despite your independent expert advising some vital signs are not recorded,[ix] you appear to approve of the failure of those involved to carry out adequate triage. The inference being that basic recordings are not essential. This is setting a precedent for a standard of service, which will inevitably lead to further missed diagnoses such as occurred in [Mr C's] case.

1.8 This failure to undertake basic triage early in the consultation resulted in the error of diagnosis. [Dr D] decided that he was dealing with a case of viral infection, a diagnosis from which he did not budge.

1.9 In my opinion, the nurse doing the original triage, [Dr D] and [the clinic] are all culpable in their management of [Mr C's] illness. This is a breach of Right 4 of the Code of Health and Disability Services Consumers' Rights.

2.0 <u>Failure to heed mother's concerns</u>

2.1 [Dr D] failed to heed the concerns of [Mr C's] mother ('[Ms B]') in regard to more than one clinical sign of pyrexia of unknown origin.

2.2 <u>Parental knowledge</u>

He ascertained she was a trained nurse, her father a recently retired General Practitioner, that she had discussed meningococcal disease [meningitis] with him and recalled the so-called 'eye' signs, that the child looked through you rather than at you.

2.3 We would ask you to further note that [Ms B] has [very close associations with three doctors, including a paediatrician]. She has [also] nursed in […] hospitals. [Dr D] was aware [Ms B] was a nurse.

2.4 This all leads to the conclusion that she had a certain level of knowledge that lay members of the public may not possess.

2.5 Furthermore, she had left her other 3 children in the care of [Mr C's] friend's mother who was a complete stranger to her, while she took [Mr C] to [the clinic], a 30 minute car journey. This geographical isolation in a rural area, along with the high incidence of meningococcal disease in the locale, is relevant in erring on the side of caution with treatment and monitoring.

2.6 Your independent GP advisor seemingly also held this viewpoint in his initial opinion,

'[Mr C's] family is an important consideration on how to proceed. His mum a nurse, his granddad a [retired] GP. Under such circumstances most would err very much on the side of caution'[x]

2.7 There are many papers on Meningococcal Disease.[xi] All point out:

- That we must have a high index of suspicion for the condition
- That we must take note of the concerns of the parents
- That we must be meticulous in our search for a rash
- That we give antibiotics sooner rather than later

2.8 <u>Meningococcal rash</u>

When [Ms B] alerted [Dr D] to the petechial spot on [Mr C's] right arm in the ante-cubital fossa, he took out a medical textbook and showed her what an advanced meningococcal rash looked like. A recent study[xii] conducted on 126 children with meningococcal disease, showed that parents or relatives were the first to spot a petechial rash in 92 cases. This study highlighted the need to emphasise in information for practitioners and parents the septicaemic rash, not meningitis.

2.9 [Dr D] who, when he sought a second opinion from his colleague, Dr E focussed on a freckle-like spot on [Mr C's] chest and dismissed this petechial spot on his right ante-cubital fossa. This is recorded in Dr E's notes.[xiii]

2.10 Both your medical expert and [Dr D] appear to be confused as to what constitutes a petechial rash. The expert dismisses the possibility of a single spot constituting a petechial rash, and [Dr D] produces a textbook picture of a gross purple rash with blood blisters (i.e. advanced stage meningococcal disease, not dissimilar to that pictured in Ministry of Health guidelines[xiv]).

2.11 Your medical expert, I consider, is at fault in dismissing this with a somewhat cavalier attitude when he says,

'either way 1 small spot would not constitute a meningococcal rash'.[xv]

2.12 The rash in meningococcal disease may present in many ways, as maculopapular, petechial, purpuric or other.[xvi] In other words, your medical expert is incorrect, and one spot can constitute a petechial rash.

2.13 As an example of a parent correctly being concerned is a mother's description of a single spot that saved her baby's life. This child was in [a children's public hospital] with [Mr C].[xvii]

2.14 Clinical research vindicates this position.[xviii] The child must be stripped completely when searching for petechial spots and also mucous surfaces such as the palpebral conjunctiva, as important lesions can be missed.[xix]

2.15 [Mr C] was not stripped at any time and his mother does not recall his conjunctival surfaces being examined at any time during the consultation.

2.16 Pulse rate

[Dr D] discounted [Mr C's] reported pulse of 162, (as recorded by [Ms B]), as he failed to verify it and he further failed to get a nurse to take or record [Mr C's] pulse.

2.17 [Dr D] indicts himself through his own admission that it is 'difficult to count a pulse of 140, yet alone 162',[xx] and he failed to look for any septicaemic process, any bacterial infection or any other reason for [Mr C's] sudden onset of illness, apart from his misdiagnosis of 'probable viral illness'.[xxi]

2.18 The 'eye signs'

[Dr D] failed to look at [Mr C's] eyes, when his mother expressed her concerns. I note that your medical expert states it is a 'soft' sign and is not an accepted sign.[xxii] I disagree with this statement and would refer you and your advisor to a recent study that found 'poor eye contact' as one reason to be alerted to a possible meningococcal disease symptom.[xxiii]

2.19 The responsibility of [the clinic] doctors, having no previous relationship with the mother and having to make a judgement about the quality of her parenting and her ability to be a good historian, places an even greater responsibility on doctors' shoulders.

2.20 Your expert alludes to this in his opinion.[xxiv]

2.21 Regarding the question of hospital admission, [Ms B] is quite definite that it was not offered. Further, this offer was not documented and in light of [Ms B's] clear concerns for her son, such an offer is unlikely to have been refused. In light of what I see as [Dr D's] failings, I cannot accept his statement.

2.22 Despite all this, [Dr D] chose to ignore [Ms B's] concerns leaving her disempowered and forced to accept his diagnosis of viral infection. I would argue that a practitioner who takes a textbook and shows the mother a gross purple rash with blood blisters, is in breach of Clause 1.1 of The Code of Health and Disability Services Consumers' Rights.

3.0 Failure to diagnose

3.1 [Dr D] made an initial diagnosis of probable viral infection and never really waived from it, this despite the mother raising the question of Meningococcal Disease [meningitis].

3.2 Using Ministry of Health guidelines, 1998:[xxv]

3.2.1 Have a high index of suspicion for meningococcal disease

3.2.2 Check all skin areas for the presence of a rash

3.2.3 Accurately assess the severity of illness and ensure treatment

3.2.4 Be aware of the febrile child – suspect meningococcal disease

3.2.5 As part of the diagnostic process, the question must be asked; did he really consider the mother's concerns?

3.3 There was a clear failure to turn his mind to the septicaemic process and therefore [Dr D] lacked any high index of suspicion.

3.4 [Dr D] failed to thoroughly check [Mr C's] body for any sign of a rash and discounted [Ms B's] concern in regard to the petechial spot on the ante-cubital fossa at the 15.00 hours consultation.

3.5 [Dr D] failed to accurately assess the severity of the illness through the failure to undertake basic triage. Verification of [Ms B's] assessment of the pulse rate of 162 may have alerted the doctor to a bacterial rather than viral infection. Failure to investigate urine output, failure to investigate any tachypnoea (high respiration rate) and failure to understand the significance of staring (eye signs) would have alerted [Dr D] to the severity of the illness.[xxvi]

3.6 [Dr D] treated Mr C with Pamol and Brufen. Pamol will reduce temperature and Brufen will mask the clinical signs of any bacterial infection. It follows that his temperature would reduce, which is what happened when [Dr E] gave her second opinion at approximately 15.00 hours.

3.7 For the reasons stated herein and under paragraphs 1.0 & 2.0 of this response, there was a clear failure to diagnose on [Mr C's] first presentation.

3.8 This failure to diagnose in my opinion is a breach of Right 4 of The Code of Health and Disability Services Consumers' Rights.

4.0 Failure of [the clinic] to formulate protocols in triage of pyrexial children

4.1 [Dr D] advised that observations of temperature, pulse, respiration and blood pressure are not routinely taken at [the clinic] for every febrile child.[xxvii]

4.2 Your independent medical advisor notes,

'I think that a pulse of 162 would alarm me. It is a bit too high for a viral fever. Taking the BP, if it had been low in conjunction with the very high pulse may have alerted to the possibility of a more serious illness e.g. septicaemia'.[xxviii]

4.3 The medical research supplied with this response, in particular, *Red Flags in Common Pediatric Symptoms*[xxix] clearly indicate basic measures to take in clinical practice.

4.4 It is a reasonable expectation of the public that their doctor, however recently acquainted with the patient, will provide a level of care and skill in their service that is of a reasonable standard.

4.5 It is reasonable to expect the health service provider, in this instance [the clinic], to regulate performance of its staff through appropriate training and other methods including service protocols, induction into New Zealand culture and knowledge from senior practitioners on local conditions.

4.6 The second opinion provided by [Dr E] at 15.00 hours was not that of a senior practitioner. If [Dr D] had uncertainty of his diagnosis of viral infection, reasonableness would dictate that he sought the opinion of a paediatrician or physician. This is recommended practice by the Medical Officer of [the district health board].[xxx]

4.7 This failure of [the clinic] to have adequate protocols in place, both in terms of basic triage and appropriate second opinions clearly contributed to the misdiagnosis by [Dr D].

4.8 Such failures on the part of [the clinic] is clearly a breach of Right 4 of The Code of Health and Disability Services Consumers' Rights.

5.0 Interpretation of independent medical expert's opinion

5.1 I am retired from General Practice and was retired at the time of [Mr C's] illness and subsequent death.

5.2 I have no proprietary interest in [the medical centre Dr A worked for]. I am in no way influenced by what I may have to say about my colleagues or they about me.

5.3 As noted earlier in this response, the reports supplied by [Dr F] of [the clinic] from [Dr K, Dr M and Dr L] are not available for my perusal. It is my understanding that Doctors [M and L] hold directorships in [the clinic] and its shareholding entity […], respectively. This raises the question of their impartiality.

5.4 I have always seen myself as the patient's advocate. The profession is notorious for protecting its own. Now as an older and retired general practitioner I have no hesitation in speaking out on behalf of the patient. In my mind, your provisional opinion not only shows how the profession supports its own, but it endorses their stance of cronyism to the detriment of the user of the service.

5.5 Medico-Politics

Your independent GP advisor remarks about:

'a medico-political contention between GPs and commercially based and run clinics such as [the clinic] …' [xxxi]

This may be relevant to your independent advisor as a city GP, however, I note that the [the medical centre Dr A worked for] is a 24-hour service that is not in competition with [the clinic] on either a geographical or patient basis. I question the relevance of the expert raising this as an issue. Unless, he was under the impression, that I was a practising local GP and that I was antagonistic to [medical centres].

5.6 Soft signs

The 'soft signs' your independent medical expert dismisses will not appear in Harrison's or any other standard book of Medicine. It takes many years before advances in knowledge reach standard textbooks. The single volume of Harrison's that was available as the latest edition in April 2000 was already two years old (i.e. published in 1998). Harrison's is a general medical text, not a paediatric specific textbook.

5.7 There is surely a burden of responsibility on a doctor to stay current of existing trends, particularly where New Zealand is seen as being in the midst

of an epidemic. I do not believe that Harrison's is totally adequate in this paediatric case.

5.8 The eye signs have been recognised as looking through you rather than at you. The only other similar case seen by me was a young sixteen-year-old suffering from Toxic Shock Syndrome. These eye signs have been recognised by the partners at [the medical centre Dr A worked for] for some years. My letter to the editor of the New Zealand Medical Journal last year brought confirmatory reports from other general practitioners within New Zealand. 'Staring' is noted as a symptom in research.[xxxii]

5.9 Peripheral Shutdown

Your medical expert when talking of peripheral shutdown,

> '… I am not sure what exactly is meant by this'.

I do not understand his confusion, as this is a standard medical term. Further on he states,

> '… [Dr E's] record at 15.00hrs – "warm peripheries" '.[xxxiii]

He does not appear to take any note of [Dr E's] description of [Mr C's] presentation at 21.00 hours when [Dr E] recognised and noted that,

'[Mr C] was septic, shocked and shut down, with mottled blue / red skin discolouration and cool peripheries'.[xxxiv]

The description appears a little similar to that given by [Ms B] of peripheral shutdown at 11.00 hours. These signs are documented on www.meningitis.org, specifically at web page http://www.meningitis.org /frame1b.html.

5.10 Both [Ms B] and [Dr E] have respectively described sets of symptoms clearly defined by the Meningitis Research Foundation[xxxv] for the early (at 11.00 hours) and late stages (at 21.00 hours) of this disease process.

5.11 Peripheral shutdown was described clearly by [Ms B],

> '… hands cold, torso warm but not hot … and feet coldish'.[xxxvi]

This was with the onset of fever. As she is a trained health professional her evidence must be accepted as clinical evidence supporting the diagnosis as a bacterial rather than viral infection. Again, I refer you to www.meningitis.org.

5.12 It is noted that two or so hours later following administration of Brufen and Paracetamol, [Dr E] states that [Mr C's] peripheries were warm. This is to be expected due to the effects of the anti-inflammatory and anti-febrile drugs

administered and in no way reduces the observations of [Ms B] at approximately 11.00 hours that morning.

5.13 I cannot agree with the use of Brufen in a patient who is vomiting. It is an anti-prostaglandin and may have an adverse effect in some infections.

5.14 I note you questioned your medical expert, if a meningeal spot had been present there earlier in the afternoon is it possible that [Dr E] would have missed seeing it at the second presentation when inserting an IV line. In the urgency of the moment a shocked child with collapsed veins and blue mottling of the skin, it would be quite likely that a small petechial spot would not be noted. Further she had already looked at this area earlier with [Dr D] and they had elected to ignore it.

5.15 Your medical expert in discussing meningeal spots and rashes makes no mention of the need to strip the child completely to make sure that no spots are missed and he makes no mention of the need to examine conjunctival and mucosal surfaces. This is in direct conflict with Ministry of Health guidelines 1998.[xxxvii]

5.16 What has impressed me all along is the degree of confusion in the minds of the medical people and the public about meningococcal disease and meningitis. This is highlighted in your medical expert's initial report:[xxxviii]

'[Dr D] appears to have made several errors of judgement: seemingly failing to differentiate meningitis (from whatever infective organism) from meningococcal septicaemia, and failing to appreciate several clinical pointers to how sick [Mr C] was, underestimating the concerns / clinical acumen of [Ms B], underestimating the severity of [Mr C's] illness.'

5.17 Quite apart from the confusion about meningococcal disease and meningitis, the medical expert appears to believe that it was acceptable to seek a second opinion on this very sick child from a similarly and relatively inexperienced general practitioner, rather than phoning the hospital for a verbal second opinion, from a paediatrician as general practitioners have been encouraged to do.[xxxix]

5.18 <u>Due care and exclusion of meningitis</u>

Your medical expert says that,[xi]

> '[Dr D] did a lot of good things. He kept [Mr C] at the clinic and observed him over some time from about 13.20 to approx. 4pm'.

He goes on to state,

> 'On the other hand some vital signs are not recorded.'

Keeping the child in for observation showed that [the clinic] was concerned, however, I do not agree that they showed due care. It was too late. The mistake had already been made. Two health professionals, staff nurse [Ms G], and [Dr D] had failed in their responsibilities to the child. As a result a delay of some hours occurred allowing progression of the disease process to its final disastrous state.

5.19 Offer of hospital admission

With respect to the offer of hospital admission [Ms B] is quite definite that it was not offered and in light of what I see as [Dr D's] failings I cannot accept his statement, and believe that his lack of documentation speaks for itself.

5.20 City general practitioner

To use a city general practitioner to provide independent advice on the situation must be questioned. He is not conversant with rural practice conditions or with a community where almost everyone has known someone who has had experience of meningococcal disease. Your medical expert comments on this difficulty,

'… and commenting on management in rural areas much further from hospital facilities. I should however have thought that this isolation would increase caution, particularly when dealing with sick children, whose illnesses tend to become more acutely critical rapidly'.[xli]

He asks,

- 'How sick did this child look?
- Allied to this is how sick did the mother think the child is?' [xlii]

He continues saying,

'… the concerns of the mother – a trained health professional – do rather appear to be underestimated. Similarly, the severity of the sickness of the child was underestimated, the illness costing [Mr C] his life and we will never know if treatment at this stage could have prevented this.'[xliii]

5.20 In conclusion, it is my opinion that the independent medical expert has erred in his / her judgement.

6.0 Summary

I cannot agree with your conclusions.

6.1 It is my firm opinion that [the clinic] and its staff (Staff Nurse [Ms G] and [Dr D]) failed in its duty to [Mr C].

6.2 The failure to, record history in detail, monitor temperature, pulse, respiration and blood pressure, respond to the concerns of the mother and such lack of basic triage, I consider to be responsible for the failure to diagnose. I question the validity of a 'normal cardiovascular system and normal central nervous system' as recorded in [Mr C's] [the clinic] notes, in the absence of this baseline data (temperature, pulse rate, respiratory and blood pressure).

6.3 If reasonable protocols were in place, the nurse doing initial assessment would have noted, not only temperature, but also pulse, respiratory rate and blood pressure.

6.4 This should have raised the suspicion in the mind of the doctor as to the possibility of bacterial rather than viral infection.

6.5 It was this failure early in the consultation that led ultimately to the final outcome.

6.6 All the doctors concerned, other than Doctors [J] and [I], accept that it is not necessary to do basic recording. Your independent medical expert goes along with this view although his thinking appears a little confused and contradictory and the Commissioner supports his view. If all health professionals follow this line of thinking, further cases of meningococcal and other septicaemic infection will be missed with subsequent morbidity and mortality.

6.7 In our initial complaint we expressed our concern regarding the standards in [medical centres]; this point has not been considered or answered in your provisional opinion.

6.8 There was failure to note and act on parental concerns.

6.9 There was failure to recognise the seriousness of [Mr C's] illness.

6.10 There was an obvious lack of knowledge of the meningococcal septicaemic disease process. I note that the doctors were fixated on meningitis, namely neck stiffness, Kernig's sign and photophobia.

6.11 An observation period of two plus hours where recordings were only of temperature. To quote your expert,

'at least they didn't just bundle him on out'. [xliv]

[Dr D] only suggested that he stay around town for a while. Such an extended observation period rendered no value in the absence of other clinical measurements.

6.12 We have asked [Professor G, a medical professor at a New Zealand medical school] to give an opinion on your report and his report will come with this expression of our view of your provisional opinion. This is attached …

6.13 If the Commissioner accepts that it is not necessary for doctors to undertake basic recording of vital signs, we are concerned at the precedent that this would set. It is foreseeable that a doctor facing a similar complaint may raise a defence that the Health and Disability Commissioner has approved of the practice of not monitoring or recording basic data such as temperature, pulse, respiratory rate and blood pressure.

7.0 Outcomes sought

7.1 I would ask that you request the Ministry of Health to lay down national protocols for the triage of febrile children.

7.2 I would ask that you request the Ministry of Health to further the education of health professionals, especially in light of the confusion that is apparent when diagnosis between meningitis and meningococcal disease has to be considered. I would suggest that particular attention be shown to the education of practice nurses, as they are the front line contact for patients.

7.3 I would ask that you draw attention of the New Zealand Medical Council to the problems that are faced by doctors working in Accident and Medical Centres. Many will be young doctors working under 'general oversight' by vocationally registered doctors. Special skills will be needed, as they will have to deal with patients that are unknown to them and that have no previous medical records available.

Special courses, such as the Paediatric Emergency Programme, now run by [ ] and the paediatric department at [the public hospital] will help ensure that basic knowledge and skills are developed and updated in tandem with on the job experience."

Professor G provided me with a copy of the following report prepared by him for Dr A after reviewing my provisional opinion:

"I am in receipt of your letter dated 12th October 2001 and your request for me to review the Health and Disability Commissioner's provisional report and other documents associated with the complaint made against [the clinic] and [Dr D], regarding the management of the illness of [Mr C].

I received from you a copy of the report from the HDC, copies of various correspondence and hospital notes from [the children's public hospital]. I met with [Ms B] and [her husband] on Wednesday 17th October.

Firstly, I am very sorry to learn of [Mr C's] passing and the circumstances surrounding, and offer you my very sincere condolences.

My understanding is that you do not accept the findings of the HDC, in particular feel that the doctors should not have missed the diagnosis and that if earlier action had been taken that [Mr C] would still be alive today.

I have reviewed the various case notes and the HDC Provisional Report and it appears to me that there are two salient points in regard to the diagnosis of [Mr C's] condition.

The first relates to the first visit where the history as recorded in the notes, and confirmed by yourselves is that [Mr C] was quite sick, was not mentating normally, and had mild photophobia. Importantly, [Ms B] noted that he was in mild shock, with peripheral shutdown. While adequate baseline observations were not taken, it is apparent from the history that the peripheries were cold. The young child was in fact sicker than was identified by the doctors.

The second point relates to the rash identified in the antecubital fossa, recorded as petechial in the GP and hospital notes. There is no record in the GP Notes that the patient was then undressed and a full body examination conducted. It is possible that a more detailed examination, called for at this point, may have revealed further lesions and enabled an earlier diagnosis. I further note that both of you as parents were raising the possibility of 'meningococcal meningitis' as a diagnosis because [Mr C] was quite sick. This should also have alerted the doctors to a fuller examination.

You have related to me your concerns regarding to the attitude of [Dr D], who you described as having a closed attitude, and that he failed to take adequate notice of your concerns, both as parents, and particularly also given that [Ms B] is a registered nurse.

In my view, the doctors at the [the clinic] failed to recognize how sick [Mr C] was at the first visit, from the point of view of the history (and related parental observations and concerns in regard to his sickness), and from the peripheral shutdown/shock. In addition, it appears that they failed to do an adequate skin and body examination to exclude the presence of other petechial rashes elsewhere, at the first visit. There is very good evidence in the hospital notes of widespread rash, which if present and diagnosed earlier would have led to a different outcome.

At our meeting, as we discussed the case diagnosis and management through, it became apparent to me that while there was a very unfortunate outcome, that you both wish that something can be learned from this case, both by the doctors, Clinic and general practitioners in general (not all of whom should be considered in the same category, of course).

My understanding is that your concerns would be recognised by:

1. The Health and Disability Commissioner changing the findings of the Report whilst recognizing the difficulties and challenges that this case presented, to find that the doctors failed to properly recognize that [Mr C] was sick, with probable meningococcaemia on the basis of history, fever, photophobia, peripheral shutdown/shock, and petechial rash (of which there may have been more, if examined carefully).

2. An opportunity be given to yourselves to meet the doctors and for you to express your concerns directly in regard to the diagnosis and management of [Mr C's] condition and attitude towards yourselves, that they may learn from the event.

3. That the [the clinic] review their current practice of employing relatively junior doctors, possibly with inadequate training and experience for this role, and that an education programme be put in place, at the clinic. In particular, you would like to see [Dr D] undergo some form of appropriate postgraduate education.

4. That, without prejudice, you do not wish this case to proceed to the Medical Council of New Zealand, provided your concerns are addressed.

After due and proper consideration, I believe that your concerns are fair and will therefore copy this letter to the Health and Disability Commissioner."

Additional independent advice to Commissioner

In light of the response to my provisional opinion, I sought additional independent expert advice from a rural general practitioner, Dr Tessa Turnbull. Dr Turnbull was provided with all relevant material, including my provisional opinion, the response from Dr A, and the report from Professor G. Dr Turnbull provided the following advice:

"**Background:**
Four year old [Mr C] became suddenly and progressively ill on 9/4/00. His mother is a RN and was particularly concerned about his sudden lethargy, warm body but coldish hands and feet. She took him to [the clinic] just after 1p.m. where he vomited on arrival.

He was seen promptly, his temperature was 39.8, he was examined by [Dr D] and given medication (paracetamol and brufen) to bring the temperature down. He was monitored regularly while there for 2-3 hours. The diagnosis of meningitis was raised but rejected by [Dr D]. A small red/purple spot was noted on the right arm by [Mr C's] mother and pointed out to [Dr D].

[Mr C] vomited on leaving the clinic and was re-examined by [Dr E] with [Dr D]. They appear to have concentrated on a freckle on his chest and both checked for signs of meningitis, which were absent.

[Dr D] said he offered to arrange a hospital admission for monitoring but said [Mr C's] mother felt able to do this herself. [Ms B] disputes this and says admission was not offered. [Mr C's] condition had improved somewhat and he was apyrexial at that stage.

[Mr C] continued to vomit at home and his general health worsened so he was returned to the clinic at 9pm, shock recognised, resuscitation begun and transfer to [a children's public hospital] initiated.

Assess and comment on the information and medical literature supplied in response to the Commissioner's Provisional Opinion by the complainant [Dr A].
[Dr A] has provided a dossier of papers and other material to support his disagreement with the Commissioner's provisional opinion in his complaint against [the clinic], [Dr D] and [Dr E].

In applying, or referencing, this material to the Commissioner's Provisional Opinion, it is important to realise that much of the material is educational. This means that doctors assessing young children in an ordinary or emergency situation should have this material, or something similar, at their fingertips or within easy reference.

Some of the papers are important, as they help us test [Dr D] and [Dr E's] performance against their peers.

Report on Opinion – Case 98HDC15681
A fatal case of rotavirus gastro-enteritis and meningococcal septicaemia in a young child. The child had symptoms of gastro-enteritis for several days, leading to dehydration. He then developed progressive meningococcal disease. A telephone consultation occurred late at night between the GP and the child's grandmother during which the GP, who had been away from his practice for the first part of the child's illness, failed to take a complete medical history. This meant the child was not seen for several hours by which time the meningococcal septicaemia was well established. The Commissioner ruled that the GP was in breach of Right 4(2) of the Code of Health and Disability Services Consumers' Rights in failing to obtain an adequate medical history at the first telephone consultation. The GP was required to apologise in writing to the consumer's whanau and familiarise himself with appropriate legislation that would have helped him manage this case better.

The rural GP has changed his practice as a result of the case to one of extreme caution in dealing with sick children in out of hours situations.

My Comment:
This case bears some similarities to that of [Mr C] in that both concern fatal meningococcal septicaemia. However, this complaint relates partly to a telephone consultation during which an incomplete history was elicited.

Meningococcal Meningitis and Septicaemia Diagnosis and Treatment in General Practice
Meningitis Research Foundation United Kingdom

This is a useful guide, which reiterates that meningococcal disease is uncommon but important because of its serious nature. Septicaemia is more likely to be fatal when it occurs without meningitis. A patient with septicaemia may present with very different symptoms from someone with meningitis.

During the early, prodromal stage of the disease a patient may present with a non-specific febrile illness that is not always possible to distinguish from influenza or other viruses. Since the disease can progress so rapidly, it is important, subject to the GP's clinical judgement, that a patient, or parents of a patient, with a non-specific illness who is not being sent to hospital is given:

- reassurance to trust their instincts and encouragement to seek immediate medical help again if the patient's condition deteriorates
- information about the signs and symptoms of serious illness
- a description of both a typical meningococcal rash and the 'Tumbler Test'

The symptoms and signs of the disease are described as a rash anywhere on the body, tachycardia, tachypnoea, cyanosis, cold hands and feet due to poor capillary refill, rigors, oliguria, joint/muscle pain, abdominal pain, drowsiness/impaired consciousness (a late sign in children), hypotension (a very late, pre-terminal sign in children).

Bacteraemia in febrile children presenting to a paediatric emergency department i.e. the Royal Children's Hospital, Melbourne.
Conclusions:
'Most urban Australian children aged 3-36 months presenting to a paediatric emergency department with temperatures over 39 degrees without a clinical focus have a viral infection. However, 3-4% have occult bacteraemia. Neither the clinical features nor a high White Cell Count reliably identify these patients. As empirical antibiotics may contribute to increasing antibiotic resistance and have not been shown to prevent the rare complication of meningitis, we believe that close contact and regular review of these patients is preferable to empiric antibiotic therapy.'

Practice Guidelines for the management of Infants and Children 0-36 months with fever without Source.
Developed by the UCLA Emergency Medicine Centre, Los Angeles from a comprehensive literature search by an expert panel of senior academics with expertise in paediatrics and infectious medicine or emergency medicine.

This was a study to develop guidelines for the care of infants and small children who are assessed in doctors' offices and emergency departments with a fever but without an obvious source of infection.

A child who is described as being 'toxic' is defined as having a clinical picture consistent with the sepsis syndrome i.e. lethargy, signs of poor perfusion, or marked hypoventilation, hyperventilation, or cyanosis. Lethargy is defined as a level of consciousness characterised by poor or absent eye contact or the failure of a child to recognise parents or to interact with persons or objects in the environment.

Conclusion:
These guidelines do not eliminate all risk or strictly confine antibiotic treatment to children likely to have occult bacteraemia. Physicians may individualise therapy based on clinical circumstances or adopt a variation of these guidelines based on clinical interpretation of the evidence.

My Comment:
The study and subsequent guideline development is American based, involves very young children only, and is dependent on having rapid access to a WCC. In addition, as with all guidelines, they have to be accepted, actively adopted and utilised by practising physicians.

BMJ Education and debate 16/11/1996
Lesson of the Week: Who spots the spots? Diagnosis and Treatment of early meningococcal disease in children.
A prospective study of children admitted to four Merseyside hospitals with meningococcal disease over 18 months together with a case study of missed diagnosis, which led to the child's death.

Conclusions:
- The information widely available (about meningococcal disease) may be misleading because it tends to focus on meningitis rather than septicaemia.
- The first doctor to see a child with meningococcal disease needs 'knowledge out of proportion to their previous experience'. GPs and casualty officers need to be taught to recognise the rashes of meningococcal septicaemia and to give 'on the spot' penicillin and not to delay treatment by looking for signs of meningitis.
- The rashes of meningococcal disease may be maculopapular, purpuric, or petechial or there may be no rash.

My Comment:
Excellent paper from an authoritative source.

Recognising meningococcal disease in primary care: qualitative study of how GPs process clinical and contextual information.
BMJ 1998
83 cases of meningococcal disease in children and teenagers under 16 were identified using hospital morbidity data. 31 children were selected by purposive sampling to get a representative group. These children were referred by 26 GPs who were interviewed using semistructured audiotaped interviews.

Objectives:
To describe the presentation of meningococcal disease in primary care; to explore how GPs process clinical and contextual information in children with meningococcal disease; and to describe how this information affects management.

Conclusions:
- The key clinical feature of meningococcal disease, a haemorrhagic rash, was present in only half the study children.
- The GPs specifically hunted for the rash in some ill children but doctors should not be deterred from diagnosing meningococcal disease and starting antibiotic treatment if the child is otherwise well, if the rash has an unusual or scanty distribution, or if the rash is non-haemorrhagic.
- The GPs noted abnormal illnesses with features different from those of acute self-limiting illnesses including unwillingness to interact or make eye contact, altered mental states and pallor with high temperature.
- Knowledge of patients and their help seeking behaviour were important in making management decisions.
- Prompt treatment requires early recognition but in up to a quarter of cases the diagnosis is delayed by more than 48 hrs after the onset of the illness.
- Abnormal features not expected in children with acute self-limiting febrile illness were:
    1. abnormal lethargy, some children were described as almost motionless and not wanting to be moved.
    2. 3 children seemed to be vacant and did not make eye contact or interact with their parents or the GP.
    3. 5 children had altered mental states i.e. 2 were confused, 2 were behaving abnormally and one was comatose. 3 children had abnormal cries, 5 were pale and 3 were cyanosed.
    4. Unusual or puzzling findings were described in 9 children e.g. pallor, hot but not red, crying when handled, joint pain.
- The role of parents was perceived by GPs as being very important in decision making about management – in particular, taking account of perceived level of parental anxiety about their child's condition.

My Comment:
This is an important study as most papers emanate from hospitals where meningococcal disease is seen at a late stage.

Invasive meningococcal infection in Western Australia, J Paediatr. Child Health 1999
Background:
The spectrum of meningococcal disease varies from self-limiting benign meningococcaemia to fulminant septicaemia. Specific signs and symptoms that enable a doctor to make a certain early diagnosis have not been identified.

Study Objectives:
To review the signs and symptoms in children diagnosed with meningococcal infection; to assess age, sex and race distribution of meningococcal infection; and to assess associations of the presenting features with morbidity and mortality.

This is a retrospective study of children documented to have meningococcal disease between 1990-95 presenting to the Princess Margaret Hospital for Children in Perth. If the initial presentation was to a GP or a peripheral hospital, the data from the first presentation was documented.

Conclusions:
- 62% of children had a rash on presentation. The maculopapular rash of meningococcaemia was mistaken for Henoch Schonlein purpura on one occasion, for varicella on two occasions and a non-specific viral illness on three occasions. These children were all sent home and subsequently readmitted either because their condition deteriorated clinically or because specimens collected at the time of their initial presentation returned positive for N meningococcus.
- An incorrect initial diagnosis was made in 17.1% of patients. Two of these were referred from other hospitals.
- No features present on the initial presentation were identified which would expedite the diagnosis.
- 59% (62) of patients had their BP recorded on presentation. The systolic BP was elevated in 6 and decreased in 6. The diastolic BP was elevated in 4 and decreased in 11. 3 patients had an unrecordable BP.
- Mortality was 8.6% and mortality and morbidity in cases with meningococcal septicaemia was higher in comparison with cases of meningitis alone or meningitis/septicaemia.
- Fever and tachypnoea were the most common presenting features followed by vomiting and irritability.
- Rash was a feature in 59% of patients. The rash was absent on the initial presentation in 8 patients and did not become apparent until later in the illness. This reinforces the importance of frequently re-evaluating children in whom a diagnosis is unclear.

- Photophobia and headache were found in only 5 and 8 patients respectively. The number of children who were initially misdiagnosed (17.1%) and sent home (5.7%) is evidence that an early clinical diagnosis is often difficult and a very high index of suspicion is necessary.
- There needs to be a low threshold for making a presumptive diagnosis and commencing treatment. In addition to the described difficulties in making a timely diagnosis, atypical presentations seems to be increasingly common.
- The study identified important prognostic factors: hypotension and purpura at presentation, age, septicaemia rather than meningitis and delayed diagnosis.
- Many studies of sepsis have shown a correlation between a low BP and death or reduced systolic BP and death. There have been no studies indicating that a low BP is predictive. A decreased diastolic BP generally is secondary to hypovolaemia and/or loss of vascular tone and a decreased systolic BP may reflect impaired cardiac function. All these problems may be present to varying degrees in children with meningococcal sepsis. Our results confirm the importance of the measurement and correct interpretation of blood pressure in ill children.

My Comment:
A very useful retrospective study in a country with similar demography to New Zealand. The conclusions could usefully be exported here.

The comments relating to the importance of measuring and correctly interpreting the BP suggest this is an important prognostic factor in ill children. The study showed, however, that only 59% (62) of the patients had their BP recorded on presentation.

Neisseria
Description of the features, diagnosis and treatment of Neisseria disease.
A factual account written by Dr L O'Connor of the Department of Microbiology, University of Western Australia.

Meningitis: NZ's third-world shame.
A Women's Weekly article published in July 2000.

Neisseria Meningitidis
A chapter from a textbook The Principles and Practices of Infectious Diseases.
Detailed description of the disease.

Early Management of Meningococcal Disease
A guideline from RCGP.
It notes that low BP is a pre-terminal sign in children.

Early Intervention Saves Lives
Key messages from Dr J Jarman, MOH, […]

Red Flags in Common Paediatric Symptoms.
An article to alert nurse practitioners to elements of the paediatric history that could herald urgent/emergent conditions.

Meningococcal Disease 'Advice for GP Diagnosis and Management'
NZ MOH 1998
The advice includes checking all skin areas for the presence of a rash and concludes that if 'you do not suspect meningococcal disease, encourage an early return and plan a review'.

New Guidelines for management and prevention of meningococcal disease in Australia.
A comprehensive guideline focussing on management of someone suspected of meningococcal disease.

Advise the practice of the profession in recording the pulse, respiration and blood pressure of paediatric patients in the accident and medical setting.
Practice in this regard will vary from one doctor and practice to another. In general practice, we have traditionally worked in a litigation free environment, which means that the medical record will not reflect the depth and complexity of the consultation that has taken place. This means that many clinical signs will be observed but not necessarily recorded.

Of the three measurements, the pulse will be taken and recorded most often.

Respiration will be noted, but the rate not necessarily recorded, next often in sick people including children. Doctors are more likely to record the type of respiration especially if this is abnormal. For example, laboured breathing, indrawing, expiratory wheeze, associated cyanosis, rather than record the respiratory rate itself.

The BP will normally only be taken in a child in whom shock, for any reason, is suspected.

However, a paediatric cuff for a sphygmomanometer is seen as an essential piece of office equipment for general practice in the Standards document 'Aiming for Excellence in General Practice'.

Interestingly, it is not part of the equipment carried in the PRIME emergency bag. This is the bag of equipment carried by rural GPs, practice nurses and ambulance officers who have undergone training and work together in rural medical and trauma emergencies.

The authors of the paper Invasive meningococcal infection in Western Australia conclude 'Our results confirm the importance of the measurement and correct interpretation of blood pressure in ill children.'

They believe this to be an important prognostic factor.

It is very easy to determine that a child in shock is an 'ill' child, such as Mr C was at his second visit to [the clinic]. The degree of 'illness' in a child in the earlier prodromol stages of meningococcal disease is often missed as many of the papers have reiterated.

This paper showed that only 59% (62) of the patients had their BP recorded on presentation of their meningococcal disease.

Advise the Commissioner whether [Dr D] and [Dr E] provided medical services to [Mr C] with reasonable care and skill.
This is a very interesting question to which some of the material supplied by [Dr A] can be applied. I believe [Dr E] acted with reasonable care and skill during both patient contacts. I think that [Dr D's] professional actions were carried out with adequate care and skill and considerable concern for the child's welfare but that he could be criticised for failing to adequately understand and act upon [Ms B] underlying, and as it turned out, justified anxiety about meningococcal disease.

It is universally accepted, including by [Dr A], that meningococcal septicaemia is not an easy diagnosis to make because of its relative rarity and rapid progression to a shocked and septic state. [Dr A] says, 'We are concerned that public education on meningococcal disease leaves both the public and professionals with the perception that the disease is meningitis, with signs of neck stiffness, and other neurological signs. Meningococcal septicaemia, which is far more dangerous, and likely to be fatal, is missed in the early stages, when treatment is more likely to be successful.'

This is reiterated in The United Kingdom Meningitis Research Foundation guidelines, Meningococcal Meningitis and Septicaemia Diagnosis and Treatment in General Practice. 'The information widely available (about meningococcal disease) may be misleading because it tends to focus on meningitis rather than septicaemia.'

The guidelines also state that septicaemia is more likely to be fatal when it occurs without meningitis. A patient with septicaemia may present with very different symptoms from someone with meningitis.

It is clear that this was the diagnostic mistake made by both [Dr D] and [Dr E] during [Mr C's] first visit to [the clinic]. Both actively looked for meningococcal meningitis and correctly eliminated this. They both assumed a viral illness on the basis of a dearth of hard clinical signs. In general practice, this is the most common diagnosis that we see in children. Reassurance and avoidance of antibiotics is normal practice in these situations. Observation for a period may occur and it is stressed to parents/caregivers to contact the doctor/clinic and return if the child's condition worsens.

The diagnosis of meningococcal septicaemia seems not to have been considered, a common mistake, as the papers provided have shown.

[Mr C] was noted to have a significant illness of short duration. He had vomited, had a high fever and was noted to be weak, floppy and drowsy. [Mr C] mentioned a degree of photophobia, which was selective i.e. to sun not artificial light. The mother's background was provided, as was her concern about meningococcal disease. [Ms B] pointed out a significant tachycardia and the small coloured lesion in the right elbow crease.

It seems to me that a reasonable and full examination was undertaken on [Mr C's] arrival at [the clinic], although the pulse and respiratory rate were not recorded. There does not seem to have been any need to record the blood pressure at that time. All systems were examined in an effort to locate a specific source of infection. [Mr C] was appropriately given paracetamol and brufen and monitored over nearly three hours.

[Ms B] says that she mentioned specifically the possibility of 'peripheral shutdown'. By this she meant that she had noticed that [Mr C's] 'hands were cold, torso warm but not hot'. Cool peripheries and a warm torso are often associated with a high fever, as indeed [Mr C] had on his arrival at [the clinic]. These signs settled as the temperature dropped. [Dr E's] notes specifically mention 'warm peripheries' at her 3pm examination.

The eye symptoms/signs mentioned by [Dr A] do not bear a lot of prominence for me. I agree that this is a 'soft sign', more likely to be picked up by experienced doctors. Although eye signs are mentioned in the accompanying papers, they relate particularly to younger children and babies.

[Mr C] was extensively checked for signs of a rash. [Dr D] did a complete physical check initially. Both [Ms B] and [Dr D] 'checked him all over for spots' after [Ms B] pointed out the purple spot in [Mr C's] right elbow crease. [Dr D] pointed out a 'typical' meningococcal rash from a textbook, which was an advanced rash. [Dr D] later asked [Dr E] for a second opinion and both looked for a petechial rash after [Ms B] pointed out the spot on [Mr C's] right arm.

This may, in hindsight, have been a single purpuric spot and a pointer to meningococcal disease but it is clear that the rash/rashes of meningococcus were actively sought and not seen by the examining doctors.

[Dr A's] reference says, 'the child must be stripped completely when searching for petechial spots and also mucous surfaces such as the palpebral conjunctiva, as important lesions can be missed'. It is not unusual, in general practice, to strip all clothing off children, other than babies, during an examination. However, a detailed skin inspection can be done with a good light by lifting up clothing or taking off selected pieces. I do not agree with Professor Coster 'that a more detailed examination may have revealed further lesions'.

The paper from the Royal Children's Hospital, Melbourne. Bacteraemia in febrile children presenting to a paediatric emergency department concludes, 'Most urban Australian children aged 3-36 months presenting to a paediatric emergency department with temperatures over 39 degrees without a clinical focus have a viral infection. However, 3-4% have occult bacteraemia. Neither the clinical features nor a high White Cell Count reliably identify these patients. As empirical antibiotics may contribute to increasing antibiotic resistance and have not been shown to prevent the rare complication of meningitis, we believe that close contact and regular review of these patients is preferable to empiric antibiotic therapy.'

[Dr D] did not prescribe antibiotics empirically and he did monitor and review [Mr C] for nearly three hours although the monitoring consisted mainly of temperature taking and observation of the child's general state.

The United Kingdom Meningitis Research Foundation guidelines indicate that during the early, prodromal stage of the disease a patient may present with a non-specific febrile illness that is not always possible to distinguish from influenza or other viruses. The symptoms and signs of the disease are described as:

a rash anywhere on the body, tachycardia, tachypnoea, cyanosis, cold hands and feet due to poor capillary refill, rigors, oliguria, joint/muscle pain, abdominal pain, drowsiness/impaired consciousness (a late sign in children), hypotension (a very late, pre-terminal sign in children).

Before [Mr C] was released from [the clinic], he had perked up but ominously vomited again on leaving the clinic.

An important statement is made in BMJ Education and debate 16/11/1996 Lesson of the Week: Who spots the spots? Diagnosis and Treatment of early meningococcal disease in children. 'The first doctor to see a child with meningococcal disease needs "knowledge out of proportion to their previous experience". GPs and casualty officers need to be taught to recognise the rashes of meningococcal septicaemia and to give "on the spot" penicillin and not to delay treatment by looking for signs of meningitis.'

It seems clear that [Dr D] did not display 'knowledge out of proportion to his previous experience'. However, he did display very obvious concern and care and he undertook an adequate examination. He looked for the typical rash of

meningococcal disease, which was not present. He then monitored the child for nearly three hours.

[Dr D] said he offered to admit [Mr C] to hospital although [Ms B] disputes this. Neither persuaded the other that this was the right course of action for [Mr C]. In general the decision to admit a child to hospital is made by discussion between the doctor and parent/caregiver. If either feels strongly about the issue, it is not difficult to persuade the other that an admission should be sought.

I believe, and agree with [Dr A], that it would have been prudent of [Dr D] to persuade [Ms B] that an early hospital admission should have occurred on the basis of:

1. [Mr C's] continued vomiting.
2. The presence of a pulse rate of 160 recorded by [Ms B]. This should have alerted [Dr D] to have monitored this expressly in spite of the temperature dropping to normal levels.
3. [Ms B's] expressed anxiety about the possibility of meningococcal disease.
4. The family's distance from the hospital in the event of deterioration.

I do not think that this amounts to negligence or incompetence but it shows some lack of judgement or inexperience or a mix of these. Pressing for [Mr C's] early admission would have fulfilled the BMJs statement ie 'The first doctor to see a child with meningococcal disease needs knowledge out of proportion to their previous experience'.

As stated in 'Recognising meningococcal disease in primary care: qualitative study of how GPs process clinical and contextual information'. BMJ 1998: the role of parents was perceived by GPs as being very important in decision making about management – in particular, taking account of perceived level of parental anxiety about their child's condition.

The United Kingdom Meningitis Research Foundation guidelines state: 'Since the disease can progress so rapidly, it is important, subject to the GP's clinical judgement, that a patient, or parents of a patient, with a non-specific illness who is not being sent to hospital are given:

- reassurance to trust their instincts and encouragement to seek immediate medical help again if the patient's condition deteriorates
- information about the signs and symptoms of serious illness'

[Mr C] was seen promptly and examined and monitored carefully. His mother was advised to stay in town for a couple of hours and return if deterioration in his condition occurred. This aspect of the care of [Mr C] at [the clinic] cannot be criticised.

However the family situation was that the other children were being minded by a friend which would have put pressure on [Ms B] to return home. It might also have created difficulties returning with a deteriorating child. The family lived in relative geographical isolation from [the neighbouring public hospital] with its access to technology and expert help. Rural patients need readier access to public hospitals because of time and financial barriers than those who live in urban centres. Recognition of and action on these factors would have put [Dr D] into the category of being a first doctor seeing a child with meningococcal disease having 'knowledge out of proportion to his previous experience'.

Any other relevant matter?
There seems to be a desire to learn from this critical event and to use [Mr C's] death in a positive way to improve understanding of a terrible disease. It may be too late for mediation but there may still be something to gain from a facilitated face to face meeting, perhaps through Professor Coster, who has developed a rapport with [the family]."

Dr Turnbull was asked the following further questions to clarify her advice:

"[Ms B] in her 'Statement of Fact' states that she was concerned 'this might be meningitis' when she advised [Dr D] 'her father was a GP who had diagnosed many cases …'. This concern that [Mr C's] condition might be meningitis is reiterated in paragraph 2 when she states, 'after waiting two or three hours he said that he felt it was a viral infection, not meningitis, as I had questioned it was.' In paragraph three she states it was [Dr D] who showed her a photograph of what a 'meningococcal' rash looked like. Finally [Ms B] states that when she returned to the clinic after [Mr C] vomited outside, '[Dr D] stated that he too was getting paranoid – meaning that this may be a meningococcal infection.'

[Ms B's] concern that afternoon was a concern about 'meningococcal disease' as well as 'meningitis'. You advise that [Dr D] considered 'meningitis'.

What is the basis however for your conclusion that 'the diagnosis of meningococcal septicaemia seems not to have been considered'? That is, what actions or lack of action by [Dr D] indicate to you that he failed to understand and act upon [Ms B's] concern about 'meningococcal' disease?

Was the monitoring that did take place 'reasonable' for a general practitioner, in light of current medical practice? If not, what other monitoring, if any, should have occurred for [Mr C] that afternoon other than temperature taking and observation of his general state?

You stated in your advice, 'Before [Mr C] was released from [the clinic], he had perked up but ominously vomited again on leaving the clinic.' It needs to be noted, however, that [Ms B] immediately took [Mr C] back into the clinic. [Dr D] sought the second opinion of [Dr E], and the two doctors reassessed [Mr C]. Sometime

later, when [Mr C] had apparently settled again, [Ms B] decided to take [Mr C] home and it was at home that further vomiting occurred.

The nature and significance of the 'spot' is disputed fact. However, you quote the statement made in the BMJ Education Lesson of the Week dated 16 November 1996, concerning the recognition of meningococcal rashes and giving 'on the spot' penicillin. Are you saying (discounting the benefit of hindsight) that [Dr D] should have given penicillin to [Mr C] that afternoon?

While it is desirable to be able to display 'knowledge out of proportion to previous experience', is this a reasonable expectation? Is this the professional standard expected of general practitioners in this situation?

Is the view that it would have been prudent to admit [Mr C] to hospital that afternoon – based on the four criteria of continued vomiting, a pulse of 160, specific maternal anxiety, and distance from hospital – a view formed without the benefit of hindsight? If so, at what point should [Mr C] have been admitted to hospital that afternoon? Should any child be admitted to hospital where those four criteria are present?"

Dr Turnbull provided the following clarificatory advice:

"I will attempt to clarify the questions that you ask in your letter of 15/1/02.

…

I made the statement that 'meningococcal septicaemia seems not to have been considered' because:

- it is so rarely seen by an individual GP in his/her practising lifetime. Therefore, it does not spring to mind whereas meningococcal and other forms of meningitis and the plethora of viral illnesses are being actively sought and treated every day. I have been in fulltime general practice for thirty years and have admitted numerous people to hospital with meningococcal meningitis and with septicaemia but I have yet to see i.e. diagnose, or misdiagnose a case of meningococcal septicaemia. I believe that both [Dr D] and [Ms B] were both actively 'thinking about' and excluded meningococcal meningitis.
- in addition, I do not believe that it was possible for anyone, however skilled and experienced, to have diagnosed meningococcal septicaemia in [Mr C's] case either when he was first seen or at the end of the three hour monitoring period. [Mr C] was a sick child with an undifferentiated illness until he returned the second time.

I believe that the monitoring that took place was more than reasonable for a GP practice i.e. it occurred over three hours, a considerable time frame, and included observation and temperature taking on a regular basis and before his return home a very careful scrutiny of the skin for spots and rashes.

With regard to giving penicillin, no I do not think that this should have been given. Modern practice is to discourage empirical penicillin unless there is definite or very strong evidence of a bacterial infection.

No, it is not a reasonable expectation for GPs to display 'knowledge out of all proportion to previous experience'. The BMJ paper was published to provoke debate and aid education and it is very clear about the difficulty of establishing a diagnosis of meningococcal septicaemia.

I accept that there is debate/dispute over whether [Dr D] offered and [Ms B] declined hospital admission for [Mr B]. I can recall instances when I have felt reluctant to admit a child to hospital as the diagnosis was not clear to me and have later felt extremely grateful to the parents for the pressure that they applied, subtly or directly, for admission. So it was with that knowledge, and of course having been totally immersed in meningococcal disease by studying all the attached papers, that I made the statement that it 'would have been prudent to admit [Mr C] to hospital that afternoon'. I am a rural GP too, so err on the side of caution, whereas [Dr D] was practising in a moderate sized city.

So yes, inevitably my view is formed with some hindsight and many years in practice. I do not think that I can say that the four criteria mentioned should automatically provoke a hospital admission. …"

Code of Health and Disability Services Consumers' Rights

The following Rights in the Code of Health and Disability Services Consumers' Rights are applicable to this complaint:

RIGHT 4
Right to Services of an Appropriate Standard

1) Every consumer has the right to have services provided with reasonable care and skill.

Opinion: No Breach
Dr D

Right 4(1)

In my opinion Dr D provided medical services to Mr C with reasonable care and skill, and did not breach Right 4(1) of the Code.

Introduction
When Ms B arrived with her son, Mr C, at the clinic just after 1pm on 9 April 2001 Dr D saw Mr C without delay. Dr D examined Mr C, and diagnosed and treated him for a "probable viral illness". Subsequent events later that evening proved that diagnosis tragically wrong. Mr C had meningococcaemia (meningococcal septicaemia). However, the issue is whether Dr D's diagnosis and treatment, although incorrect, was reasonable in the circumstances.

My first medical advisor stated that "Meningococcaemia is a really rotten rapidly progressing deceptive disease which changes quickly and is rapidly fatal. Its diagnosis is most often extraordinarily difficult until it is very obvious." The Medical Director of the clinic, Dr F, noted that meningococcaemia was "notoriously difficult to diagnose and definitive signs often present last". Dr A, the complainant and Mr C's grandfather, stated that "the presenting clinical picture of meningococcal septicaemia is notoriously misleading". My second medical advisor, Dr Turnbull, noted:

> "It is universally accepted, including by Dr A, that meningococcal septicaemia is not an easy diagnosis to make because of its relative rarity and rapid progression to a shocked and septic state."

Diagnosis
Staff nurse Ms G took an initial triage history, measured Mr C's temperature at 39.8 and weighed him. Mr C had vomited in reception and Ms B observed he was unsteady on his feet as he was weighed. Ms B reported the nurse as commenting "not to worry about holding him". No unsteadiness was documented. Dr D then took a history of Mr C's illness directly from Ms B and physically examined him. Dr D documented that the cardiovascular, respiratory, ear, nose and throat and abdominal systems were all normal and no abnormalities could be detected. Dr D prescribed Pamol and Brufen syrup and ordered that Mr C's temperature be monitored every 15 minutes.

Dr D stated that he reached his diagnosis on the basis of the following information:

> "a suddenly sick child – normally very healthy who became sick about 2 hours earlier.
> He was febrile (39.8)
> He had vomited in reception
> He was probably 'floppy' and weak when the nurse tried to weigh him
> He responded to the paracetamol with a reduction in temp and improved wellbeing. …"

Mr C's temperature dropped over the following two hours from 39.8 to 38.7 and then to 36.5 at approximately 3.15pm. Ms B wrote that Mr C "was conversant and the most awake he'd been for hours before he left the clinic".

Dr D also specifically checked for signs of meningitis and documented "CNS no photophobia, no meningism, negative Kernig's", "no petechial rash" and "no evidence of meningitis".

Disputed symptoms
There is a conflict of evidence about whether Mr C was photophobic, peripherally shut down, and had a meningococcal rash, and about the significance of the look in Mr C's eyes.

First, Ms B disputed that Mr C did not have photophobia as she recalled that Mr C had complained to her earlier that the sun hurt his eyes. However, when Dr D checked Mr C for photophobia, Mr C said that "that [artificial] light does not hurt my eyes but the sun does".

Secondly, Ms B stated that Mr C was peripherally shut down:

> "The time was 11'ish … On checking him I found his hands cold, torso warm but not hot. Again I thought this strange, as the day was … warm … I immediately thought that the only thing that would cause this was peripheral shutdown."

However, when Mr C was first examined by Dr D just over two hours later he documented that Mr C's cardiovascular system was normal. My first medical advisor noted that at 3pm, when Mr C no longer had a fever, Dr E documented that Mr C had "warm peripheries, normal capillary return".

Thirdly, there is conflicting evidence about the "spot" Dr D and Dr E looked at. Ms B stated the spot was a "deep purple spot … with a red halo … about 2mm in diameter" in Mr C's right ante-cubital fossa. Dr D stated that following a conversation about meningitis "[Mr C's] mother and I checked him all over for spots and did find 2 blemishes on his right upper arm. These did not look petechial at all, but because she was unsure whether they were new or not, I asked my colleague Dr E to review [Mr C]." The spot recorded in Dr E's notes, however, does not refer to Mr C's upper arm or ante-cubital fossa but to "a light brown spot on the mid-chest". However, Dr E later that evening inserted a 22-gauge IV cannula in Mr C's right ante-cubital fossa. I accept my first medical advisor's advice that it would be "[unlikely] that Dr E would have missed such a sign [petechial rash] in the area she cannulated if it had been apparent". My advisor also stated that "1 small spot does not constitute a meningococcal rash".

Fourthly, Ms B stated that she told Dr D about her concern Mr C might have meningitis, informing him that her father was a GP who had diagnosed many cases, and had remarked that many cases had "this odd look about the eyes. That they looked through you rather than at you." Dr I, a colleague of Dr A, stated:

> "The far away look in his eyes is a most important sign. … This is a feature noted by myself as well as my colleagues as a common and significant sign in adult as well as paediatric patients with meningococcal septicaemia."

Dr A sought comment from Professor Gregor Coster. He commented that the examination was incomplete and the seriousness of the illness was not recognised in the presence of the history, fever, photophobia, peripheral shutdown/shock and petechial rash. However, I note that whether Mr C was photophobic, peripherally shut down or in shock with a petechial rash is disputed.

My independent medical advisors did not accept that Dr D's examination was incomplete or his diagnosis substandard.

My first advisor stated:

> "The eye signs must be disregarded: it is not an acceptable clinical indicator. Certainly sick people get a glassy vacant feverish stare but I do not know that this is different for a septicaemia (or for that matter meningitis)."

My first advisor acknowledged that interpretations of "soft" clinical signs are "part of the general assessment of how sick the child looks" and that clinical acumen is a "nebulous thing" that increases with experience in general practice. It is a matter of "experience and judgement" and it is this that will "differentiate the 'really GUN' diagnosticians from competent ones".

My first advisor also stated:

> "On the information presented it was reasonable to diagnose a 'viral illness' given the signs and symptoms at 1-3pm. Mr C did seem to rally and settle as the fever settled (documented) after the paracetamol. There are no 'hard' clinical features … to indicate the seriousness of the illness.
>
> …
>
> If any signs were apparent, which cannot be inferred, they were not missed through incompetence. Dr D exercised reasonable care and judgement. … [D]iagnosis [of meningococcaemia] is extraordinarily difficult until it is very obvious. It was 5½ hours from the time he left the clinic until he returned – a long time in the course of meningococcaemia."

My second advisor stated:

> "… I do not believe that it was possible for anyone, however skilled and experienced, to have diagnosed meningococcal septicaemia in Mr C's case either when he was first seen or at the end of the three hour monitoring period. Mr C was a sick child with an undifferentiated illness until he returned the second time."

I accept that, given all the circumstances of Mr C' initial visit to [the clinic] of the afternoon of 9 April 2000, it was reasonable for Dr D to have diagnosed a viral illness, and to have failed to diagnose meningococcal septicaemia. Accordingly, in my opinion, Dr D did not breach the Code in relation to his diagnosis.

Treatment
It follows that, as Dr D's diagnosis of a "probable viral illness" was reasonable in the circumstances, it was also appropriate to treat Mr C as if he had a viral illness. I accept my expert advice that Pamol and Brufen syrup in combination is appropriate and effective treatment for what is thought to be a febrile viral illness.

I also accept my second advisor's advice that penicillin should not have been given to Mr C during the afternoon of 9 April 2000. I note Dr Turnbull's advice: "Modern practice is to discourage empirical penicillin unless there is definite or very strong evidence of a bacterial infection."

Accordingly, in my opinion, Dr D did not breach the Code in the treatment he prescribed for Mr C on the reasonable assumption he had a viral illness.

Monitoring and review
The clinical record documents that Mr C's temperature was taken three times, on admission at approximately 1.15pm, at 2.30pm and then at an unspecified time. This record shows a downward temperature trend from 39.8 to 38.7 to 36.5. Although, at Dr D's request (and as confirmed by Ms B), Mr C's temperature was taken every 15 minutes by the nurse, no record was kept at these intervals. There was also no record of any pulse or respiratory rate and only one blood pressure recording, when Mr C was readmitted at approximately 9.00pm.

Dr F admitted in the clinic's internal review of the notes that the "record keeping should have been better" but queried whether in "retrospective analysis … a diagnosis [could] have been made".

My first advisor stated:

> "[A] pulse of 162 would alarm me. It is a bit too high for a viral fever. Taking the BP, if it had been low in conjunction with the very high pulse may have alerted to the possibility of a more serious illness e.g. septicaemia. A very shallow rapid breathing rate would have supported this concern i.e. some signs of 'inordinate prostration'."

However, my advisor stated that "the signs if abnormal could have other explanations, (e.g. the fever)". Mr C had clinically improved and by the time he left the clinic was afebrile and the brightest he had been for hours.

I agree with Dr F's statement that "the record keeping should have been better". I also accept my first advisor's statement that "these things can be observed but not recorded".

My second advisor commented as follows in relation to monitoring pulse, respirations and paediatric blood pressure:

> "Of the three measurements, the pulse will be taken and recorded most often.
>
> Respiration will be noted, but the rate not necessarily recorded, next often in sick people including children.
>
> The BP [blood pressure] will normally only be taken in a child in whom shock, for any reason, is suspected."

Mr C's temperature was monitored every 15 minutes by the nurse. Dr D had examined Mr C's cardiovascular and respiratory systems and in the course of doing so would have listened to Mr C's breathing and heard his heart rate, and documented those systems as normal. Dr D also frequently observed Mr C as he slept, and noted that his temperature was trending down. Mr C was afebrile at approximately 3.20pm and, as described by Ms B, "conversant and the most awake he'd been for hours".

Dr D did not ignore the spot on Mr C's right arm but made a clinical judgement that the spot was not "petechial". Dr D sought a second opinion from Dr E, who made reference in her notes to a spot resembling a freckle on Mr C's chest, but did insert an IV cannula into Mr C's right ante-cubital fossa that evening. My advisor stated that, had a significant clinical sign been present in that area at that time, Dr E would have been unlikely to miss it.

I accept my second advisor's advice:

> "… [T]he monitoring that did take place was more than reasonable for a GP practice i.e. it occurred over three hours, a considerable time frame, and included observation and temperature taking on a regular basis and before his return home a very careful scrutiny of the skin for spots and rashes."

I accept that Dr D appropriately monitored Mr C throughout his afternoon stay at the clinic. I note that Dr D's failure to record Mr C's pulse and respiratory rate was not best practice. However, in my opinion Dr D did not breach the Code in relation to his monitoring of Mr C's condition during the afternoon of 9 April 2000.

Leaving the clinic

When Ms B informed Dr D that she lived half an hour out of town, he asked her "to stay in town for a couple of hours" in case there was any change in Mr C's condition. Dr D told Ms B that "if Mr C's condition changed, to bring him straight back to the clinic or to go to the hospital".

Dr D also stated that he offered Ms B the option of hospitalising Mr C for monitoring. Ms B, however, strongly denied that this offer was ever made. If an offer was made, it was not documented, although I accept that such an offer would not necessarily be documented. In all the circumstances it is unclear whether an offer was in fact made. Even in Ms B's anxiety, it seems likely that she would have accepted such an offer, and taken Mr C to hospital if it had been made. Instead, Ms B "decided to go home due to my other children being there with [a friend], so I left and went home". Dr D wrote on the clinical notes, "Review prn [as necessary]".

Concerns of Ms B

Ms B complained that Dr D did not heed her concerns about meningitis or meningococcal disease. I accept that while Mr C slept Dr D had discussions with Ms B about meningitis and the signs and symptoms to look for. Dr D did check for signs of meningism and documented that none were found. Ms B wrote that Dr D said "he felt it was a viral infection, not meningitis, as I had questioned it was". Ms B disagreed with Dr D's diagnosis but I do not believe that he failed to heed her concern about meningitis.

Ms B stated that she was also concerned Mr C might have "meningococcal disease". Ms B reported that when she took Mr C back into the clinic after he vomited outside the pharmacy "Dr D stated that he too was getting paranoid – meaning that this may be a meningococcal infection". Dr D showed Ms B a textbook illustration "of what the 'rash' (meningococcal) was really like", and asked his colleague, Dr E, for a second opinion. Again, I believe that Dr D did heed Ms B's concerns and contemplated the presence of meningococcal disease, but maintained his incorrect diagnosis of viral infection.

In commenting on the quality of the communication between Dr D and Ms B, my first advisor stated that the doctor–patient relationship involves "Complex judgements: how accurate an historian is the mother – does she over or understate problems, how observant is she? This can be extremely difficult in an emergency where the doctor has no prior relationship, no way of validating either the doctor's perception of the parent or the parent themselves." I agree with these comments.

I also acknowledge my second advisor's comments about her experience as a rural GP:

> "I can recall instances when I have felt reluctant to admit a child to hospital as the diagnosis was not clear to me and have later felt extremely grateful to the parents for the pressure they applied, subtly or directly, for admission."

Dr D was aware that Ms B had a nursing background and that her father was a local general practitioner. Ms B was first and foremost Mr C's mother, who as his primary caregiver knew him best. Weight should always be given to the insight and concerns of a parent and considered very carefully. It would be professionally inappropriate to surrender clinical diagnostic judgement to those concerns. Nonetheless, I agree with my first advisor that the concerns of Ms B, as Mr C's mother and a trained health professional, "do rather seem to have been underestimated". I am, however, unable to conclude that Dr D did not heed the concerns of Ms B regarding the presence of meningitis or meningococcal disease.

In all the circumstances, in my opinion, Dr D did not breach the Code in the way in which he took account of the concerns of Ms B.

Opinion: No Breach
Dr E

Right 4(1)

In my opinion Dr E provided medical services to Mr C with reasonable care and skill, and did not breach Right 4(1) of the Code.

Dr E was asked by Dr D to give a second opinion on Mr C' condition at approximately 3pm on the afternoon of 9 April 2000 at the clinic. Dr E stated that Dr D asked her to look at a spot on Mr C's chest and explained to her that Mr C had presented with "a high temperature which had settled and vomiting".

Dr E documented that Mr C was "afebrile, alert, talking, warm peripheries, normal capilliary return. No meningeal [symptoms] – no photophobia, no neck stiffness, Kernig [negative]". Dr E examined the spot on Mr C's chest with Dr D and described it as resembling a freckle. Dr E did not comment on the spot in Mr C's ante-cubital fossa described by Ms B. I accept my expert advice that if the spot had clinical significance Dr E would have been unlikely to miss such a sign in the area where she later inserted an IV cannula. Dr E agreed with Dr D that Mr C had a probable viral infection.

My first medical advisor stated:

> "The duties and obligations of a doctor asked for a second opinion are to frankly evaluate the information presented and reach an independent diagnosis, which should then be compared to the original doctor's ideas. Each should then evaluate the 2 opinions, discuss as necessary and achieve a consensus in the patient's interest. This seems to have happened."

When Mr C later re-presented to the clinic at approximately 9pm that evening, Dr E immediately recognised that Mr C was "septic, shocked and shut down with mottled blue/red skin discolouration and cool peripheries". Dr E acted appropriately in directing that the ambulance be contacted for an emergency transfer to hospital, establishing IV access and administering benzylpenicillin and a 250ml bolus of Haemacel.

My first advisor commented:

> "Dr E seems to have acted with a reasonable standard of care – she only saw Mr C (during the first presentation) when he was better – having responded to the medicines he was given. She also acted with speed and acumen when he presented a second time."

In my opinion Dr E did not breach the Code by failing to recognise or diagnose meningococcal disease when asked for a second opinion by Dr D.

Opinion: No Breach
The Medical Clinic

Right 4(1)

In my opinion the medical services provided by the clinic did not fall short of the standard of reasonable care and skill expected of a medical clinic, and did not breach Right 4(1) of the Code.

Mr C, aged four years, died on 21 April 2000 of complications of meningococcal septicaemia. On 9 April 2000 Dr D, a general practitioner employed by the clinic misdiagnosed Mr C with a viral illness. As a result of my investigation I have found that Dr D was not in breach of Right 4(1) of the Code. During the course of his care for Mr C on the afternoon of 9 April 2000, Dr D consulted with his colleague, Dr E, who was also employed by the clinic as a general practitioner. Dr E also failed to diagnose that Mr C was very seriously ill with meningococcal septicaemia. I have found that Dr E was not in breach of Right 4(1) of the Code.

The clinic appropriately carried out an internal investigation and undertook a peer review of the case management and standard of care provided by Dr D and Dr E. The peer review found the management of the case appropriate and the standard of care "good", although the record keeping should have been better. In light of my subsequent investigation and findings that Dr D and Dr E did not breach the Code of Health and Disability Services Consumers' Rights, I am satisfied that appropriate systems were in place at [the clinic].

Accordingly, no question of direct or vicarious liability on the part of the clinic arises.

Actions

- A copy of this opinion will be sent to the Medical Council of New Zealand and the Director of Public Health.
- A copy of this opinion, with all identifying features removed, will be sent to the Royal New Zealand College of General Practitioners and posted on the Health and Disability Commissioner website (http://www.hdc.org.nz).

Other Comments

It is now almost two years since Mr C died. This has been a sad and difficult case to investigate. This final report may be greeted with disappointment by Mr C's family, in particular his grandfather, Dr A, who has meticulously documented his own research on the diagnosis of meningococcal septicaemia in general practice. However, I reject Dr A's observation that my report endorses the "stance of cronyism [within the medical profession] to the detriment of the user of the service". The tragedy of Mr C's death should not be compounded by unjustified allegations against the well-intentioned practitioners and advisors involved in this case.

Appendix

References

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[ii] Health & Disability Commissioner's Provisional Opinion, Case 00HDC05094, 5 October 2001, page 11

[iii] Report on Health & Disability Commissioner's Opinion, Case 98HDC15681, 25 July 2000

[iv] Supra, Endnote ii, page 3

[v] Meningococcal Disease "Advice for GP Diagnosis and Management", NZ Ministry of Health, June 1998

[vi] Meningococcal Meningitis and Septicaemia Diagnosis and Treatment in General Practice, Meningitis Research Foundation United Kingdom, www.meningitis.org

[vii] Supra, Endnote ii, page 16

[viii] Supra, Endnotes v & vi; and Patel, M.S., Collignon, P.J., Watson, C.R., Condon, R.J., Doherty, R.R., Merianos, A., Stewart, G.J. (on behalf of the Meningococcal Disease Working Party of the National Health and Medical Research Council) New guidelines for management and prevention of meningococcal disease in Australia, MJA 1997: 166: 598-601; and Haddon, R.A., Barnett, P.L.J., Grimwood, K., Hogg, G.G., Bacteraemia in febrile children presenting to a paediatric emergency department, MJA 1999: 170: 475-478; and Baraff, L.J., Bass, J.W., Fleisher, G.R., Klein, J.O., McCracken G.H., Powell, K.R., Schriger, D.L., Practice guideline for the management of infants and children 0-36 months of age with fever without source, Annals of Emergency Medicine, 22: 7 July 1993, 108/1198-118/1208

[ix] Supra, Endnote ii, page 10

[x] Supra, Endnote ii, page 11

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

[xi] Supra, Endnotes v & vi, and www.meningitis.org/chart.html and Ministry of Health, High rates of meningococcal disease continue, Media Release, 19 February 2001

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Diagnosis and treatment of early meningococcal disease in children, BMJ 1996, 313: pages 1255-1256 (16 November)

[xiii] Refer Endnote ii at page 15

[xiv] Supra Endnote v

[xv] Supra, Endnote ii, page 15

[xvi] Olesch, C.A. and Knight, G.J., Invasive meningococcal infection in Western Australia. J. Paediatr. Child Health (1999), 35, 42-48 at 44; and O'Connor, Liam, Neisseria, Department of Microbiology, University of Western Australia, May 1999 (unpublished)

[xvii] Waller, J., Meningitis: NZ's third-world shame, New Zealand Women's Weekly, 24 July 2000, pages 20-21

[xviii] Granier, S., Owen, P., Pill, R., Jacobson, L., Recognising meningococcal disease in primary care: qualitative study of how general practitioners process clinical and contextual information. BMJ 1998: 316: pages 276-279 (24 January)

[xix]Apicella, Michael A., "Neisseria Meningitidis", in The Principles and Practices of Infectious Disease, Eds., Mandell, G.L., Bennett, J.G., and Dolin, R., Churchill Livingston (4th ed), 1995, pages 1896-1909, at page 1900

[xx] Supra, Endnote ii, page 4

[xxi] Supra, Endnote ii, page 3

[xxii] Supra, Endnote ii, pages 14 & 16

[xxiii] Supra, Endnote xviii

[xxiv] Supra, Endnote ii, pages 10-11

[xxv] Supra, Endnote v

[xxvi] Early Management of Meningococcal Disease and Introduction from the Royal College of General Practitioners – Diagnosis and Symptoms of Meningococcal Disease, both at www.meningitis.org

[xxvii] Supra, Endnote ii, page 3

[xxviii] Supra, Endnote ii, page 16

[xxix] Supra, Endnote i

[xxx] Jarman, Jonathan, Early Intervention Saves Lives: Notes for health professionals about meningococcal disease

[xxxi] Supra, Endnote ii, page 11

[xxxii] Supra, Endnote xviii

[xxxiii] Supra, Endnote ii, page 14

[xxxiv] Supra, Endnote ii, page 6

[xxxv] Supra, Endnote xxvi, and Physical Signs In Children With Meningococcal Disease, Meningitis Research Foundation, UK, www.meningitis.org

[xxxvi] Supra, Endnote ii, pages 2-3

[xxxvii] Supra, Endnote v

[xxxviii] Supra, Endnote ii, page 8

[xxxix] Supra, Endnote xxx

[xl] Supra, Endnote ii, page 10

[xli] Ibid

[xlii] Ibid

[xliii] Ibid

[xliv] Ibid