General Practitioner, Dr C

Medical Centre

A Report by the

Health and Disability Commissioner

(Case 15HDC01116)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

Facts

1. On Friday 26 June 2015, Ms A (aged 18 years) and her mother consulted Dr C at a medical centre. Ms A was complaining of constipation, being thirsty and tired, and having had an unintentional weight loss of 30 kilograms (kg) over a couple of months. Dr C tested Ms A's blood glucose levels, which were found to be 34mmol/L (normal being 4.0 to 5.9mmol/L). Dr C made a diagnosis of diabetes and, during the consultation, attempted to contact the local diabetic nurse, but was unsuccessful.

2. Dr C provided a prescription for laxatives and advised Ms A to avoid sugary food and drinks over the weekend, and to have a fasting blood test the following Monday morning. Over the weekend Dr C spoke to Ms A's mother and told her that she (Dr C) still had been unsuccessful in contacting the diabetic nurse.

3. On Monday 29 June 2015, Ms A returned to the surgery and had a finger-prick blood test, the result being 16mmol/L. Dr C assessed her and contacted the hospital registrar, who advised hospital admission. Ms A went to the Emergency Department at the public hospital, where a diagnosis of diabetic ketoacidosis was made. Ms A was admitted to the Intensive Care Unit and remained in hospital until 3 July 2015.

Findings

4. On 26 June 2015 Dr C failed to take immediate action for the management of Ms A's serious presentation. In these circumstances, Dr C should have made an immediate referral for the required hospital management. Overall, Dr C failed to provide services with reasonable care and skill and breached Right 4(1)[1] of the Code of Health and Disability Services Consumers' Rights (the Code).

5. Ms A was not provided with an explanation of her condition and, in particular, was not told about the potential risks of diabetic ketoacidosis. Dr C did not provide the information that a reasonable consumer, in that consumer's circumstances, would expect to receive and, accordingly, Dr C breached Right 6(1)[2] of the Code.

6. Dr C's documentation for the 26 June 2015 visit was very brief. There was no documentation regarding her discussion with Ms A about diabetes, including her diagnosis, management plan and "safety-netting" advice. Dr C made no documentation of her telephone discussion with Ms A's mother over the weekend and, for the 29 June 2015 visit, Dr C made no notes of her examination of Ms A other than the information in her referral. Accordingly, Dr C failed to comply with professional standards and, accordingly, breached Right 4(2)[3] of the Code.

7. The medical centre was found not to have breached the Code.

[1] Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."
[2] Right 6(1) states: "Every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive."
[3] Right 4(2) states: "Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards."

Recommendations

8. In the provisional opinion it was recommended that Dr C undertake further education and training on diabetes management. In response to the provisional opinion, Dr C advised that since these events, she has been attending a diabetic clinic and has learnt "a great deal on specialist care and management of complex patients with diabetes".

9. It is recommended that Dr C undertake an audit of the last six months of her clinical documentation in order to identify any patients where a diagnosis has been made but not documented and report back to HDC regarding the above audit within six months of the date of this report.

10. It is recommended that Dr C provide a written apology to Ms A. The apology should be sent to HDC within three weeks of the date of this report, for forwarding to Ms A.

11. The Medical Council of New Zealand has advised that Dr C will undergo a performance assessment under section 36 of the Health Practitioners Competence Assurance Act 2003. It is recommended that the Council provide HDC an update at the conclusion of the performance review.

Complaint and investigation

12. The Commissioner received a complaint from Ms B about the services provided to her daughter, Ms A,[4] by Dr C. The following issues were identified for investigation:

- *Whether Dr C provided an appropriate standard of care to Ms A between 26 June 2015 and 29 June 2015.*
- *Whether the medical centre provided an appropriate standard of care to Ms A between 26 June 2015 and 29 June 2015.*

13. An investigation was commenced on 29 October 2015.

14. The parties directly involved in the investigation were:

Ms A	Consumer
Ms B	Complainant/consumer's mother
Dr C	Doctor/Provider
Medical centre	Medical practice

15. Information from the district health board was also reviewed.

16. In-house clinical advice was obtained from general practitioner Dr David Maplesden (**Appendix A**).

[4] Ms A supports the complaint.

Information gathered during investigation

Background

17. Ms A, 18 years old at the time, had experienced an unintentional weight loss of 30kg (90kg down to 60kg) over a two- to three-month period and had been drinking a lot of water. Prior to this period Ms A had no known health concerns. Ms A's mother, Ms B, was concerned about her daughter's health so she made an appointment for her daughter to see a doctor at a medical centre.

Friday 26 June 2015 — visit to Dr C

18. On the afternoon of Friday 26 June 2015, Ms B took Ms A for her scheduled appointment with Dr C[5] at the medical centre. This was the first time that Dr C had seen Ms A.[6]

19. Dr C ascertained Ms A's medical history and took a finger-prick blood sample to test Ms A's blood glucose levels. The result was 34mmol/L (the normal range being 4.0 to 5.9mmol/L). Dr C also tested Ms A's urine, and the result showed the presence of glucose.

20. Dr C told HDC that she made a diagnosis of diabetes. During the consultation, Dr C attempted to contact the local diabetic nurse, but was unsuccessful. Dr C documented her attempt to contact the diabetic nurse, but not her diagnosis of diabetes.

21. Dr C's notes from this consultation document the following:

> "[Complained of] constipation, thirsty, sleeps in the afternoon at times, tired, was on pills at 13 for acne, did not tolerate, then jadelle,[7] did not agree with her, removed. Depo for a year — put on a lot of weight.
>
> Bls [blood glucose levels] 34 Rang [the] diabetic nurse — left message. [Blood test] form issued, review on Monday."

22. There is no documentation regarding Ms A's unintentional weight loss and the fact that she had been drinking a lot of water.

Diabetes[8]

23. Diabetes is diagnosed when a person has too much glucose (sugar) in the blood. This happens because the pancreas cannot make enough insulin. There are two main types of diabetes: Type 1 and Type 2.

[5] Dr C has been registered in New Zealand in a general scope of practice since 2012. Prior to coming to New Zealand she practised overseas.
[6] Ms A signed up at the practice in March 2015. Prior to her first appointment with Dr C she had attended the practice only once previously, when she saw a nurse.
[7] A contraceptive implant.
[8] The following information about diabetes is taken from Diabetes New Zealand: http://www.diabetes.org.nz/about_diabetes.

Type 1

24. People who do not make any insulin (or very little) have Type 1 diabetes. As a result, their body is unable to use glucose for energy, and they tend to lose weight very quickly because their body is being starved. Their health deteriorates rapidly and they would die if insulin were not given.

Type 2

25. People with Type 2 diabetes are still making insulin, but the production is sluggish or their body is resistant to insulin. Becoming overweight is a common cause of the body becoming resistant to insulin, and can trigger Type 2 diabetes. Type 2 diabetes can be treated with weight loss and regular physical activity. Medication in the form of tablets is often required to reduce the resistance to insulin or to stimulate the pancreas to make more insulin. People with Type 2 diabetes may eventually require insulin.

26. Dr C told HDC that other than the high blood sugar reading and glucose found in Ms A's urine, Ms A presented as a smiling, healthy, talkative young female. Dr C said it was also reassuring that Ms A did not appear to be drowsy, and appeared well hydrated, was breathing normally, and did not smell of ketones.[9] Dr C said that, at the time, she did consider whether there could be any "complications", but her assessment was that Ms A's presentation posed no acute or serious risk. However, Dr C did not document any of these observations.

27. Dr C provided a prescription for laxatives to treat Ms A's constipation, and advised her to avoid sugary food and sugary drinks over the weekend, and to have a fasting blood test the following Monday morning (29 June 2015) before returning for a review with Dr C on Monday. Dr C said that she also told Ms A to seek medical attention if she deteriorated in any way over the weekend. However, there is no documentation of what she discussed with Ms A or the advice given.

28. Dr C told HDC that she considered that Ms A could be monitored safely over the weekend without hospital admission. Dr C also considered that she gave Ms A appropriate "safety netting" advice.

29. In contrast, Ms B said that Dr C diagnosed her daughter with diabetes, sent her home "with dietary suggestions", and instructed her to have a fasting blood test on the following Monday morning. Both Ms B and Ms A said that they were not given any information about diabetes, including its seriousness and associated risks, and that they were not told to seek medical attention if Ms A became unwell over the weekend. Ms A said that Dr C seemed "very relaxed about it all" and did not give the impression that the diagnosis could have serious consequences. Ms B told HDC that when they returned home, she felt she needed to "google diabetes" as they had not been told anything about it.

[9] When fat breaks down, waste products called ketones build up in the body. Ketones have a "fruity" smell; if there is a build-up of ketones, people commonly have fruity-smelling breath. A high level of ketones is a warning sign of diabetes.

The weekend

30. Dr C said that she rang Ms A at home over the weekend,[10] and that during the telephone call she determined that Ms A remained physically well and was following the instructions provided. Dr C said: "[S]he and her mother reported that she was fine and they had been following my instructions not to have any sweet foods or drinks." Dr C made no notes about this discussion.

31. Ms B confirmed that Dr C called that weekend, but at a time when Ms A was not at home. Ms B said that Dr C asked how Ms A was, and told her that she had still not been able to contact the diabetes nurse. Ms B told Dr C that Ms A was well and not eating sugary foods.

29 June 2015 — return visit to Dr C and referral to hospital

32. On the morning of 29 June 2015, Ms A returned to the surgery as scheduled. The registered practice nurse performed a finger-prick blood sugar test, and the result was 16mmol/L.

33. Ms A then saw Dr C. Dr C said that Ms A remained apparently well, and that a physical examination was unremarkable. However, because of Ms A's persistently elevated blood sugar levels, Dr C consulted a hospital registrar, who recommended hospital admission for Ms A. Dr C did not document her consultation with Ms A, but wrote a referral letter stating the following:

> "Thank you for seeing this patient as per telephone conversation. She presents with high blood sugar level. She c/o [complains of] feeling thirsty and tired at times. No family history of diabetes. O/e [on examination] looking well girl, freely talking, happy. Physical examination unremarkable … Urine prot [protein], blood and sugar present. I would appreciate your assessment and advice."

34. The only documentation of this consultation in Ms A's notes was recorded by the practice nurse, who noted:

> "BSL 16 mmol/L, has had something to eat. [Dr C] spoke with registrar on call and sent her to hospital. Wt 64, Ht 170.5, BP 120/80."

Diagnosis of diabetic ketoacidosis

35. At 1.07pm that day, Ms A presented to the Emergency Department at the public hospital and was assessed by the admitting medical officer, a consultant, who documented that Ms A reported being:

> "Thirsty all the time 5L/day, [polyuria[11] (10 to 15 times a day)] generally tired/unwell. Unintentional weight loss [of 30kg (90kg down to 60kg)] over four months. No vomiting or nausea. No blurring vision, and [no] abdominal pain."

36. Ms A was also noted to have dry mucous membranes. Further blood tests were carried out and a diagnosis of diabetic ketoacidosis (DKA) was made.

[10] Neither party recalls the day on which Dr C spoke to Ms B.
[11] Production of abnormally large volumes of dilute urine.

37. Diabetic ketoacidosis is a life-threatening problem that affects people with diabetes. It occurs when the body cannot use sugar (glucose) as a fuel source because there is not enough insulin, and instead fat is used for fuel. When fat breaks down, waste products called ketones build up in the body. Symptoms include: decreased alertness, deep rapid breathing, dry skin and mouth, flushed face, frequent urination or thirst that lasts for a day or more, fruity-smelling breath, headache, muscle stiffness or aches, nausea, vomiting and stomach pain. It is a common presentation of newly diagnosed Type 1 diabetics, and usually develops rapidly, over a 24-hour period.

38. Ms A was admitted to the Intensive Care Unit for treatment and monitoring "in light of [the] potential for rapid decompensation".[12] On 30 June 2015 she was transferred to a ward until 3 July 2015, when she was discharged.

Further information

Dr C

39. Dr C told HDC that her usual practice is to refer patients with a high blood sugar reading to hospital without delay, but that she did not do so on this occasion because of Ms A's "otherwise healthy presentation". Dr C said that in the future she will refer patients presenting with possible Type 1 diabetes promptly, regardless of their presentation. She also stated:

> "I would also ensure that I obtain the full history and investigate all relevant symptoms, including any symptoms indicating DKA [diabetic ketoacidosis]. I would ensure that these investigations and history were appropriately documented in my clinical notes. Since this incident, I have carefully reviewed the current literature and I believe that I am now fully up [to] date with the management and diagnosis of new hyperglycaemia."

40. Since these events, Dr C told HDC that she has been attending a diabetic clinic and has learnt "a great deal on specialist care and management of complex patients with diabetes".

The medical centre

41. The medical centre told HDC that it does not have specific policies and guidelines relating to diabetes management. It also said that, following this complaint, it carried out a review and a discussion with its staff about the management of diabetes.

Responses to provisional opinion

42. Ms B, Ms A, Dr C and the medical centre were given the opportunity to respond to relevant sections of my provisional opinion.

43. Ms B, Ms A and the medical centre had no further comment to make.

[12] "Decompensation" refers to the potential for Ms A's blood sugar levels to have become so critical that it could have led to the development of severe damage to her bodily systems and internal organs.

Dr C

44. Dr C responded through her legal counsel. Dr C advised that she did not contest that her actions breached Rights 4(1), 6(1) and 4(2) of the Code of Health and Disability Services Consumers' Rights and that she deeply regrets that she did not refer Ms A to the hospital on Friday 26 June 2015.

Opinion: Dr C — Breach

Initial appointment — 26 June 2015

45. On Friday 26 June 2015, Ms A went to see Dr C complaining of constipation and being thirsty and tired. Dr C tested Ms A's blood glucose level, which was found to be 34mmol/L (normal being 4.0 to 5.9mmol/L). Although Dr C documented Ms A's previous weight gain, she did not elicit from Ms A the presenting unintended weight loss of 30kg.

46. Dr C made a diagnosis of diabetes and, during the consultation, attempted to contact the local diabetic nurse, but was unsuccessful.

47. Dr C gave Ms A a prescription for laxatives and advised her to avoid sugary food and drinks over the weekend, and to have a fasting blood sugar test on the Monday morning.

Information provided to Ms A

48. Dr C said she did not think that there was any serious risk to Ms A, as she appeared otherwise healthy, but she told Ms A to seek medical attention if she deteriorated over the weekend. Dr C considers that she gave Ms A appropriate "safety netting" advice. However, the advice is not documented.

49. Both Ms B and Ms A said that they were not given any information about diabetes, including its seriousness and associated risks, and that they were not told to seek medical attention if Ms A deteriorated over the weekend. Ms A said that Dr C seemed "very relaxed about it all" and did not give the impression that the diagnosis could have serious consequences.

50. While I note that Dr C says that she provided "safety netting" advice, including telling Ms A to seek medical attention if she deteriorated over the weekend, Ms B and Ms A both state that while Ms A was advised to avoid sugary food and drinks over the weekend, she was not advised to seek medical attention if she had any concerns. When confronted with different accounts it is difficult to reach a conclusion.

51. However, I am very critical of the inadequate information provided to Ms A and her mother about diabetes and the possibility of diabetic ketoacidosis. Ms A said that she had no idea of the implications of her diagnosis. I consider that this was information that a reasonable consumer in Ms A's circumstances would expect to receive. Without this information, Ms A was at risk of not recognising any deterioration in her condition over the weekend, including any development of diabetic ketoacidosis.

Clinical management

52. My in-house clinical advisor, GP Dr David Maplesden, advised that the expected management of Ms A by Dr C on 26 June 2015 should have included the following:

> "[T]horough exploration … of [Ms A's] symptoms of hyperglycaemia and any warning symptoms/signs of DKA; assessment … of [Ms A's] hydration status; brief discussion of the likely diagnosis of type-1 diabetes, the potential risk of DKA and the need for hospital admission without delay for further assessment and initiation of definitive treatment for the hyperglycaemia."

53. Dr Maplesden said that an important reason for admission and rapid treatment of uncontrolled hyperglycaemia was Ms A's risk of developing diabetic ketoacidosis. As the degree or duration of hyperglycaemia progresses, neurological symptoms including lethargy, focal signs, and obtundation (altered level of consciousness) can develop and, in later stages, progress to coma. Dr Maplesden advised that the earliest symptoms of marked hyperglycaemia are polyuria, polydipsia, and weight loss, and Ms A had all of those symptoms, although Dr C failed to elicit from Ms A her unintentional weight loss of 30kg.

54. Dr Maplesden considers that it was not clinically appropriate for Dr C to have deferred definitive management on Friday 26 June 2015 with the intention of undertaking a fasting blood test on the Monday (29 June). Dr Maplesden advised:

> "I cannot see there was any clinical rationale for withholding active treatment and undertaking a fasting blood sugar level in two days' time. I feel most of my colleagues faced with this clinical scenario (young newly diagnosed type 1 diabetic diagnosed on a Friday afternoon) would have elected to speak with a medical registrar and arrange same day hospital admission."

55. I note Dr Maplesden's advice that mitigating factors in this case were that although Ms A complained of a degree of lethargy, during her assessment she had no obvious cognitive impairment, and she "was not overtly ketotic". However, Dr Maplesden also advised that Dr C's care of Ms A raises "some competency concerns at least in the area of diagnosis and management of new hyperglycaemia". In particular, he noted the "perceived need to confirm the diagnosis with a fasting glucose (which was not necessary in the clinical scenario described), and under-recognition of [Ms A's] risk of developing DKA".

56. Dr Maplesden considers that Dr C's decision to delay definitive treatment for hyperglycaemia for two days would be met with moderate to severe disapproval by his peers. I accept Dr Maplesden's advice and consider that by failing to refer Ms A for the required hospital management on Friday 26 June, Dr C departed from the accepted standard of care.

Second appointment — 29 June 2015

57. On 29 June 2015, Ms A returned to the surgery and had a finger-prick blood sugar test, with the result being 16mmol/L. Dr C assessed Ms A and contacted the hospital registrar, who advised hospital admission.

58. That same day, Ms A went to the Emergency Department at the public hospital, where her symptoms of constant thirst, polyuria, general tiredness and unwellness, and an unintentional weight loss of 30kg were all documented. She was also noted to have dry mucous membranes. A diagnosis of diabetic ketoacidosis was made and Ms A was admitted to the Intensive Care Unit. She remained in hospital until 3 July 2015.

59. Dr Maplesden advised me that Dr C's care of Ms A during the 29 June 2015 visit was reasonable in that Dr C spoke with the medical registrar and arranged prompt specialist review — the scenario that ideally should have occurred on 26 June 2015. I accept this advice and am not critical of Dr C's care of Ms A on 29 June 2015.

Documentation

60. On 26 June 2015 Dr C documented the following regarding Ms A's presentation:

> "[Complains of] constipation, thirsty, sleeps in the afternoon at times, tired, was on pills at 13 for acne, did not tolerate, then jadelle, did not agree with her, removed. Depo for a year — put on a lot of weight.
>
> Bls [blood glucose level] 34 Rang [the] diabetic nurse — left message. [Blood test] form issued, review on Monday."

61. In relation to the visit on 26 June 2015, Dr C stated that there were some relevant physical findings, including Ms A having good hydration, absence of a ketotic smell, and normal respirations. However, these were not documented in her contemporaneous notes.

62. Dr Maplesden advised me that on 26 June 2015 a thorough exploration of Ms A's symptoms of hyperglycaemia, any warning symptoms/signs of diabetic ketoacidosis, and any assessment of Ms A's hydration status, should all have been documented. Dr C's documentation for this visit was very brief, and did not include any of this information.

63. On 29 June 2015, Dr C made no notes of her examination of Ms A other than the information in her referral.

64. Furthermore, there was inadequate documentation regarding Dr C's diagnosis, management plan and "safety-netting" advice. There was no documentation regarding her discussion with Ms A about diabetes, or her telephone discussion with Ms B over the weekend.

65. Professional and legal standards for clinical documentation are clearly established. The Medical Council of New Zealand (MCNZ) publication *Good Medical Practice* (August 2013) notes the importance of clinical records for ensuring good care for patients, and requires doctors to keep "clear and accurate patient records that report: relevant clinical information; options discussed; decisions made and the reasons for them; information given to patients; the proposed management plan; any drugs or other treatment provided".[13] Dr C had a professional and legal responsibility to keep

[13] See also: "The Maintenance and Retention of Patient Records" (August 2008, MCNZ).

"clear and accurate patient records that report[ed] relevant clinical findings, decisions made, information given to patients, [and] any drugs or other treatment prescribed".[14] In my view, Dr C's documentation fell below the accepted standard.

Conclusions

66. On 26 June 2015 Dr C failed to explain to Ms A the potential risks of diabetic ketoacidosis. In addition, Dr C failed to take immediate action to manage Ms A's serious presentation. I acknowledge that Dr C investigated Ms A's thirst and tiredness by way of blood glucose testing, diagnosed diabetes, attempted to seek management advice from the diabetes nursing service, provided some safety-netting advice, made telephone contact over the weekend, and scheduled a follow-up appointment. However, because of the risk of Ms A developing diabetic ketoacidosis, I consider that those steps were not adequate, and that Dr C should have made an immediate referral for the required hospital management. Accordingly, I find that Dr C failed to provide services with reasonable care and skill and breached Right 4(1) of the Code.

67. Ms A was not provided with an explanation of her condition and, in particular, was not told about the potential risks of diabetic ketoacidosis. In my view, Dr C did not provide the information that a reasonable consumer, in that consumer's circumstances, would expect to receive, and therefore I also find that Dr C breached Right 6(1) of the Code.

68. Overall I am critical of the standard of Dr C's documentation, and find that she failed to comply with professional standards and, accordingly, breached Right 4(2) of the Code.

Opinion: The Medical Centre — No breach

69. Under section 72(3) of the Health and Disability Commissioner Act 1994, an employing authority may be held vicariously liable for acts or omissions by an agent of that employing authority. In addition to vicarious liability, the medical centre may also be held directly liable for the services it provides.

70. Previously this Office has found providers not liable for the acts or omissions of staff, when those acts or omissions clearly relate to an individual clinical failure made by the staff member.[15] In my view, Dr C's failure to provide appropriate services to Ms A was a matter of individual clinical decision-making. The medical centre was entitled to rely on Dr C to provide care in accordance with well established clinical guidelines, and with reasonable care and skill.

71. Dr C should have been well aware of the risks of diabetic ketoacidosis and the need to refer Ms A for immediate hospital management. This was a lapse in her judgement

[14] MCNZ, "The maintenance and retention of patient records", August 2008. Available from www.mcnz.org.nz.
[15] See Opinion 14HDC01100 (20 July 2015) available at: www.hdc.org.nz.

and care and, accordingly, I do not find the medical centre vicariously, or directly, liable for Dr C's breaches of the Code.

Recommendations

72. In my provisional opinion I recommended that Dr C undertake further education and training on diabetes management. In response to my provisional opinion, Dr C advised that since these events, she has been attending a diabetic clinic and has learnt "a great deal on specialist care and management of complex patients with diabetes".

73. I recommend that Dr C undertake an audit of the last six months of her clinical documentation in order to identify any patients where a diagnosis has been made but not documented. I recommend that Dr C report back to HDC regarding the above audit within six months of the date of this report.

74. I recommend that Dr C provide a written apology to Ms A. The apology should be sent to HDC within three weeks of the date of this report, for forwarding to Ms A.

75. The Medical Council of New Zealand has advised that Dr C will undergo a performance assessment under section 36 of the Health Practitioners Competence Assurance Act 2003. I recommend that the Council provide me with an update at the conclusion of the performance review.

Follow-up actions

76. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Medical Council of New Zealand and the district health board, and they will be advised of Dr C's name.

77. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be provided to Diabetes New Zealand, and a copy will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: In-house clinical advice to the Commissioner

The following expert advice was obtained from Dr David Maplesden on 14 September 2015:

"1. Thank you for the request that I provide clinical advice in relation to the complaint from [Ms B] about the care provided to her 18-year-old daughter, [Ms A], by [Dr C] of [the medical centre]. In preparing the advice on this case to the best of my knowledge I have no personal or professional conflict of interest. I agree to follow the Commissioner's Guidelines for Independent Advisors. I have reviewed the information on file: complaint from [Ms B] per Nationwide Health & Disability Advocacy Service; response from [Dr C]; [the medical centre] GP notes; [the public hospital's] clinical notes.

2. [Ms B] states she took her daughter to see [Dr C] on Friday 26 June 2015 because her daughter had had an unintentional weight loss of 30kg over a two month history and she was drinking a lot of water. The GP did a finger-prick blood test (result 35 mmol/L) with glucose also present in the urine. A diagnosis of type-1 diabetes was made and [Dr C] attempted to contact the local diabetic nurse but was unsuccessful. [Dr C] advised [Ms A] to avoid sugary food and sugary drinks over the weekend and to have a fasting blood test done on Monday morning (29 June 2015) before attending the surgery for review. [Dr C] rang [Ms A] at home over the weekend and advised she had still not been able to contact the diabetes nurse. On returning to the surgery as scheduled on 29 June 2015 [Ms A] had a finger-prick blood test repeated and this was 16 mmol/L. [Dr C] referred her to ED to see a diabetic nurse. On presenting to ED ([the public hospital]) she was promptly assessed with further blood tests and a diagnosis of diabetic ketoacidosis (DKA) was made. [Ms A] was admitted to ICU for monitoring for the first 24-hours following initiation of appropriate treatment. *The hospital staff expressed their concerns regarding the consequences of the delay in sending* [Ms A] *to the public hospital when her blood sugar level was so high on the Friday.* [Ms B] complains about the delays in recognition and treatment of her daughter's condition and the subsequent risk to her health.

3. [Dr C] responds that she saw [Ms A] for the first time on the afternoon of 26 June 2015. *She presented with high blood sugar reading of 34. I diagnosed [Ms A] with Diabetes and rung the Diabetes Nurse during the consultation and left a message to discuss … Apart from the high blood sugar reading she presented as a smiling healthy, talkative young female adolescent … it was also reassuring that [Ms A] did not appear to be drowsy and she appeared well hydrated, to be breathing normally and she did not smell of ketones. I therefore decided to send her home on the understanding that she was to be followed up on the Monday morning in the surgery. I issued strict instructions for her to rest and not eat any sugar or sweet drinks and seek medical attention if she in any way deteriorated over the weekend.* [Dr C] states she rang [Ms A] at home over the weekend and determined she remained physically well and was following the instructions provided. At review on the morning of 29 June 2015 [Ms A] remained apparently well and physical examination was unremarkable. In view of the persistently

elevated blood sugar [Dr C] discussed [Ms A] with the hospital registrar who advised hospital admission. [Dr C] states it is her usual practice to refer patients such as [Ms A] to hospital when hyperglycaemia is first detected but she was distracted by the patient's apparent wellness. She has apologised to the family and reassures the Commissioner she will promptly refer patients presenting with a clinical scenario similar to that of [Ms A].

4. GP notes review

(i) 26 June 2015 [Dr C]: *c/o constipation, thirsty, sleeps in the afternoon at times, tired, was on pills at 13 for acne, did not tolerate, then jadelle, did not agree with her, removed. Depo for a year — put on a lot of weight.*

Bls 34 Rang [the] *diabetic nurse — left message.* [Blood test] *form issued, review on Monday.* Prescription was provided for a laxative (Laxol).

(ii) 29 June 2015 [practice nurse]: *BSL 16 mmol/L, has had something to eat.[Dr C] spoke with registrar on call and sent her to hospital. This note has been added later. Wt 64, Ht 170.5, BP 120/80.* [Dr C's] letter to the registrar dated 29 June 2015 included: *Thank you for seeing this patient as per telephone conversation. She presents with high blood sugar level. She c/o feeling thirsty and tired at times. No family history of diabetes. O/e looking well girl, freely talking, happy. Physical examination unremarkable … Urine prot, blood and sugar present. I would appreciate your assessment and advice.* CBG levels are not included but presumably had been conveyed per telephone.

5. Comments:

(i) [Ms A] had a symptom of thirst and fatigue recorded in the consultation of 26 June 2015. The recorded blood sugar level of 34 mmol/L, in the presence of symptoms suggestive of hyperglycaemia (as there was), was diagnostic of diabetes. Additional history gained later (see ED notes) included polyuria and significant unexplained weight loss. I believe such history should have been obtained and recorded as part of the GP assessment, particularly once the elevated capillary blood glucose (CBG) was noted. The most likely diagnosis given [Ms A's] age, degree of hyperglycaemia and symptomatology was type-1 diabetes. I cannot see there was any clinical rationale for withholding active treatment and undertaking a fasting blood sugar level in two days' time. I feel most of my colleagues faced with this clinical scenario (young newly diagnosed type 1 diabetic diagnosed on a Friday afternoon) would have elected to speak with a medical registrar and arrange same day hospital admission.

(ii) An important reason for admission and rapid treatment of uncontrolled hyperglycaemia relates to [Ms A's] risk of developing diabetic ketoacidosis (DKA) — a potentially life-threatening complication of uncontrolled hyperglycaemia which is a common presentation of newly diagnosed type-1

diabetes and usually evolves rapidly, over a 24-hour period[16]. The earliest symptoms of marked hyperglycemia are polyuria, polydipsia, and weight loss, all of which [Ms A] had. As the degree or duration of hyperglycemia progresses, neurologic symptoms, including lethargy, focal signs, and obtundation, can develop which can progress to coma in later stages. While [Ms A] evidently admitted to a degree of lethargy she had no obvious cognitive impairment during her assessment by [Dr C]. Signs of volume depletion are common in DKA and include decreased skin turgor, dry axillae and oral mucosa, low jugular venous pressure, tachycardia, and, if severe, hypotension. Patients with DKA may have a fruity odour (due to exhaled acetone; this is similar to the scent of nail polish remover) and deep respirations reflecting the compensatory hyperventilation (called Kussmaul respirations). [Dr C] states [Ms A] had none of these symptoms although this has not been documented in the contemporaneous notes.

(iii) I feel the expected management of [Ms A] by [Dr C] on 26 June 2015 should have included: thorough exploration and documentation of [Ms A's] symptoms of hyperglycaemia and any warning symptoms/signs of DKA; assessment and documentation of [Ms A's] hydration status; brief discussion of the likely diagnosis of type-1 diabetes, the potential risk of DKA and the need for hospital admission without delay for further assessment and initiation of definitive treatment for the hyperglycaemia. Some of my colleagues might have performed urine dipstick or point-of-care finger prick testing for the presence of ketones although this should not influence the decision to admit [Ms A] to hospital. I do not think it was clinically appropriate to defer definitive management and undertake a fasting blood test in two days. While [Dr C] was conscientious in investigating [Ms A's] thirst and tiredness by way of in-surgery CBG testing, I feel her subsequent management strategy was flawed and would be met with **moderate to severe** disapproval by my peers. Mitigating factors are: there was a documented intention to seek prompt management advice (albeit from the diabetes nursing service rather than medical registrar); some 'safety-netting' advice was provided; telephone contact was maintained over the weekend; follow-up was scheduled after the weekend; [Ms A] was not overtly ketotic. However, there are some features of this complaint (including what appears to be an undue emphasis on negative family history of diabetes as a mitigating factor, the perceived need to confirm the diagnosis with a fasting glucose (which was not necessary in the clinical scenario described), and under-recognition of [Ms A's] risk of developing DKA that must raise some competency concerns at least in the area of diagnosis and management of new hyperglycaemia. It might therefore be appropriate to consider referral of [Dr C] to the Medical Council of New Zealand to determine whether a formal competency review is warranted. I feel [Dr C's] management of [Ms A] on 29 June 2015 was reasonable in that she spoke with the medical registrar regarding [Ms A's] persistent hyperglycaemia and arranged prompt specialist review — the scenario that should ideally have evolved on 26 June 2015.

[16] Information in this section from: Kitabchi A, Hirsch I, Emmett M. Diabetic ketoacidosis and hyperosmolar hyperglycemic state in adults: Clinical features, evaluation, and diagnosis. Uptodate. Last updated June 2014. www.uptodate.com

(iv) I am mildly to moderately critical of the standard of [Dr C's] clinical documentation in that some relevant negative physical findings she noted in her response (good hydration, absence of ketotic smell, normal respirations) were not documented in the contemporaneous notes, and there was inadequate documentation of her diagnosis, management plan and 'safety-netting' advice[17].

6. [Public hospital] notes

Admitting [medical officer] notes dated 29 June 2015 include: *Thirsty all the time 5L/day, PU 10–15 x/day, tired for 1/12, wt loss 30kg (90kg→60kg) 4–5 months, unintentional wt loss, no vomiting, no nausea, no blurring vision, no abdo pain.* [Ms A] was noted to have dry mucous membranes but physical assessment was otherwise unremarkable. However, biochemistry results were consistent with a diagnosis of DKA and [Ms A] was admitted to ICU *in light of potential for rapid decompensation* where her condition was treated and monitored."

[17] Recommended standards of clinical documentation summarised in: http://www.medicalprotection.org/uk/advice-booklets/an-mps-essential-guide-to-medical-records/what-makes-good-clinical-records