Whanganui District Health Board

A Report by the

Health and Disability Commissioner

(Case 12HDC00785)

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Executive summary

Factual background

1. On 23 May 2012 Mrs A, then aged 48 years, presented at the Emergency Department (ED) of a public hospital on referral from her general practitioner (GP), with a two-day history of abdominal pain and nausea. Mrs A was prescribed pain relief medication, and was advised to return the next day for a renal ultrasound.

2. The renal ultrasound showed no obvious renal pathology. Mrs A was discharged home with pain relief medication, and advised to seek a further review if her pain did not settle. On 31 May 2012, due to ongoing pain, Mrs A's GP referred her to the ED for an abdominal computerised tomography (CT) scan. The scan showed no obvious pathology, and Mrs A was again discharged home with pain relief medication.

3. On 5 June 2012, Mrs A consulted a private surgeon, who referred her to the public hospital for an urgent CT IVU (intravenous urogram) scan. Mrs A presented to the public hospital for the scan on 12 June 2012, at which time the public hospital radiologist elected to perform a CT KUB (CT of the kidneys, ureter and bladder) scan instead. The scan showed "two tiny calculi in the left renal substance", but no significant abnormality outside the urinary tract.

4. On 26 June 2012, Mrs A presented at the ED with continuing pain. On this occasion, she was prescribed paracetamol despite having a documented allergy to the drug. A nurse attempted to administer the drug to Mrs A before her allergy was ascertained.

Findings

5. The Commissioner found that Mrs A received care of a reasonable standard at the public hospital in May 2012, and that the radiologist's change in scan in June 2012 was also reasonable.

6. The Commissioner found that Whanganui District Health Board breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights 1996 (the Code)[1] for prescribing paracetamol to Mrs A on 26 June 2012, despite her having a documented allergy.

7. The Commissioner made adverse comment about consultant Dr B, who did not ascertain Mrs A's allergy status adequately prior to prescribing paracetamol to her on 26 June 2012.

[1] Right 4(1) of the Code states: "Every consumer has the right to have services provided with reasonable care and skill."

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Complaint and investigation

8. The Commissioner received a complaint from Mrs A about the services provided to her by the Whanganui District Health Board. The following issue was identified for investigation:

- *Whether Whanganui District Health Board has provided Mrs A services of an appropriate standard since May 2012.*

9. An investigation was commenced on 12 June 2013.

10. The parties directly involved in the investigation were:

Mrs A	Consumer
Whanganui District Health Board	Provider
Dr B	Provider/consultant

Also mentioned in this report:

Dr C	Private surgeon
Dr D	Resident medical officer
RN E	Registered nurse

11. Independent expert advice was obtained from HDC's clinical advisor, general practitioner Dr David Maplesden.

Information gathered during investigation

Presentation on 23 May 2012

12. On 23 May 2012, Mrs A, aged 48 years, presented to the ED at the public hospital, on referral from her GP, with suspected pyelonephritis.[2]

13. At 4.44pm, the triage nurse noted that Mrs A had a two-day history of abdominal (left flank) pain, was nauseous, had no urinary symptoms, and was taking Voltaren,[3] codeine[4] and tramadol[5] with little effect.

14. When a patient presents at ED, an ED Assessment Booklet is filled out. Page one of the booklet includes information about the patient's Triage Assessment, including any allergies and/or drug sensitivities. Pages two to five of the ED Assessment Booklet are for the nursing and medical notes. Page six of the ED Assessment Booklet includes a "Fluid Balance & Medication" chart (the ED medication chart), and there is a space on that chart to record drug sensitivities and/or allergies. A new ED Assessment Booklet is completed for each presentation.

[2] Kidney infection.
[3] Trade name for diclofenac, a non-steroidal anti-inflammatory medication used to treat pain.
[4] An opiate used, among other things, to treat pain.
[5] A synthetic analgesic used to treat pain.

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15. It was recorded on the front page of the ED Assessment Booklet for that presentation that Mrs A was allergic to Panadol,[6] but her allergy was not documented on the ED medication chart.

16. According to Whanganui District Health Board's Medication Procedure (see below at paragraph 48), as well as documenting all known medicine reactions and/or allergies on the patient medication chart, staff should document all known medicine reactions and/or allergies on an alert/adverse reactions/allergies form (the AAA form). There is no evidence that an AAA form was completed for Mrs A for that presentation.

17. Mrs A was assessed by a doctor, who noted that her blood results were normal and that no abnormality was detected on urinalysis. Mrs A was administered Voltaren, fentanyl,[7] and OxyNorm.[8] She was sent home with an additional dose of OxyNorm and advised to return the next day for a renal ultrasound.

Renal ultrasound

18. On 24 May 2012, Mrs A attended ED for the renal ultrasound.

19. The ED Assessment Booklet for that presentation noted Mrs A's allergy to Panadol on the front page, but the allergy was not documented on the ED medication chart. Furthermore, there is no evidence that an AAA form was completed for Mrs A for that presentation.

20. The renal ultrasound showed no obvious renal pathology. The clinical notes record: "Discussed options. Happy to trial analgesia [and] review if further problems or deterioration." Mrs A was sent home with a prescription for Buscopan.[9] The discharge summary to Mrs A's GP noted, "If not settling consider ovarian cyst or diverticulosis"[10] and recommended further imaging if Mrs A's pain did not settle.

21. Mrs A states that she remained in pain but was told by staff at the public hospital that there was nothing clinically wrong and that the pain would pass.

Ongoing visits to general practitioner

22. Mrs A advised that she visited her GP several times during the following week, owing to her continuing pain.

23. On 31 May 2012, Mrs A's GP referred her to ED for an abdominal CT scan because of her ongoing pain. Mrs A was assessed by a triage nurse on her arrival at the ED. The triage assessment notes record that she had constant abdominal pain with nausea and no urinary symptoms, and she was not distressed.

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[6] Trade name for paracetamol.
[7] An opioid analagesic used to treat pain.
[8] An analgesic used to treat moderate to severe pain.
[9] Trade name for hyoscine butylbromide, used to treat pain associated with stomach and bowel cramps.
[10] The condition of having diverticula in the colon. Diverticula are pouches formed at weak points in the walls of the alimentary tract.

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24. The ED Assessment Booklet for that presentation again noted Mrs A's allergy to Panadol on the front page, but the allergy was not documented on the ED medication chart. There is no evidence that an AAA form was completed for Mrs A for that presentation.

25. The abdominal CT scan showed no obvious abdominal or pelvic pathology. Mrs A was sent home with a prescription for OxyNorm.

Assessment by private surgeon

26. On 5 June 2012, Mrs A's GP referred her to a private surgeon, Dr C, because of her continuing pain. Mrs A states that Dr C diagnosed ureteric calculi[11] and renal colic,[12] and ordered an urgent CT IVU scan.

27. On 12 June 2012, Mrs A presented at the public hospital for the CT IVU scan. However, the public hospital radiologists elected to perform a CT KUB (CT of the kidneys, ureter and bladder) scan instead. The scan showed: "Two tiny calculi in the left renal substance, no ureteric calculi or signs of ureteric obstruction." In addition, the scan report noted: "No significant abnormality is seen outside of the urinary tract. There is no free fluid in the abdomen or pelvis."

28. Whanganui District Health Board advised Mrs A:

> "The surgeon referred you for a CT IVU (intravenous vesico urethrogram)[13], still querying the possibility of renal colic. This was not performed, however, as it was not indicated in this clinical setting — the clinician was pursuing renal colic as a cause of your pain. CT IVU is a very specific investigation to assess the extent and presence of potential renal cancers in patients with painless haematuria. It is basically the same as a normal CT scan of the abdomen but taken three times to assess the excretion phase of the ureters. This exposes patients to very significant amounts of radiation (approximately 1000–15000 times that of a simple chest x-ray). Since you had already had a CT scan of your abdomen, the further contrast would have only increased your risk of renal failure and exposed you to a large amount of radiation.
>
> The request from your surgeon was assessed by our radiologist and it was decided that a CT KUB (kidney, ureters and bladder) scan was indicated in this case. CT KUB is the 'gold standard' investigation for renal colic and uses no contrast and a lot less radiation.
>
> …
>
> In discussion with the radiologist, it is fairly common practice to adjust the type of investigation to best match the request. Due to the frequency of this practice it is impractical to notify the requesting physician in all instances, however, in this

[11] Kidney stones.
[12] A type of abdominal pain associated with kidney stones.
[13] Most commonly known as an intravenous urogram, as referred to above at paragraph 3.

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case, if [Dr C] was not satisfied with the investigation we would have expected him to contact the radiologist to discuss the changes."

Further presentation at the public hospital ED

29. At 1.10am on 26 June 2012, Mrs A presented at the public hospital ED with continuing flank pain. She was assessed by the ED triage nurse, who noted that Mrs A was allergic to paracetamol, had known renal stones, and was experiencing pain at a level of seven out of ten. Mrs A's observations were otherwise noted to be normal.

30. Mrs A's paracetamol allergy was documented on the front page of the ED Assessment Booklet for that presentation. It is not clear whether her allergy was noted on the ED medication chart at the time of her initial presentation (see below). An AAA form was not completed for Mrs A for that presentation.

31. Mrs A was administered Voltaren, fentanyl and tramadol over the course of her presentation at the ED.

32. At 3am, Mrs A was assessed by resident medical officer (RMO) Dr D. Dr D noted Mrs A's history of intermittent left flank pain for a month with associated nausea and vomiting. It was also noted that Mrs A's bowels were normal, but she was experiencing minor stinging on passing urine. Dr D's examination revealed tenderness in Mrs A's left flank and mild tenderness in her right flank. Her previous CT KUB scan results were noted, as were the results of a dipstick urinalysis, which showed haematuria[14] and protein, and her blood test results, which were normal. Dr D recorded: "? renal colic ??? diverticulitis. Plan: IV [intravenous] fluids + analgesia, stay in [Acute Assessment Unit] tonight — likely to need [Outpatient Department] urology followup — ? may have radiolucent stone." Dr D also documented Mrs A's allergy to paracetamol in the clinical records.

33. Registered Nurse (RN) Ms E worked the morning shift in ED on 26 June 2012. She recalls that, at 7am, she took a handover report from the night shift triage nurse, who was also Mrs A's primary care nurse during the night shift. At that time, RN E understood that Mrs A had intravenous therapy in place, was in pain, and was waiting for a medical review at 8am. RN E advised that during handover there was no mention of an allergy to paracetamol.

34. At 7.15am, RN E introduced herself to Mrs A and assessed Mrs A's pain. RN E recalls that, at that time, Mrs A advised that she was comfortable.

35. At 7.25am, ED consultant Dr B noted, "[P]ain improved, wants to go home. Long [discussion with patient]. [Follow-up] urology."

36. At 8.30am, Mrs A advised RN E that her pain had returned. RN E advised that she requested Dr B to chart further pain relief for Mrs A.

[14] Blood in the urine.

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37. Dr B recalls that, during the signing out procedure between the overnight RMO and himself, a nurse asked if he could order more pain medication for Mrs A.

38. The District Health Board advised that there were two overnight RMOs on duty at the time, including Dr D. According to the District Health Board, Dr D was rostered on the wards while the other RMO was rostered in ED. The District Health Board stated:

> "[I]t is normal practice for the night RMOs to share jobs, that is, to cross between the wards and the ED if they both agree. [The District Health Board believes] that [Dr D] 'handed over' [Mrs A's] care to [Dr B] when he came on duty."

39. Dr B recalls that he asked the overnight RMO what medications had been given overnight, and he decided to try Panadol and Voltaren, which he then prescribed. Dr B stated:

> "These medications, specifically Panadol were chosen because the patient had already made a formal complaint about receiving too strong a pain medication while in the emergency department. Panadol … is an extremely benign drug … Since the safety of the drug is well known and allergic reactions are extremely rare I was comfortable ordering it. It was an oversight that I didn't think to check the patient's notes to see if she had an allergy to Panadol, and an error in judgement; there was no intention to harm the patient."

40. RN E recalls that Dr B charted 1 gram (g) intravenous paracetamol in Mrs A's medication chart. RN E noted that, at that time, there was nothing written in the medication chart on page six of the ED Assessment Booklet to indicate that Mrs A had any drug allergies (ie, the section for recording sensitivities and allergies was blank).

41. RN E recalls that she took the prescribed paracetamol to Mrs A's bedside and told Mrs A that she was going to give her paracetamol for her pain. RN E recalls that Mrs A responded that she had an allergy to paracetamol, and that she had already mentioned the allergy to the triage nurse and the night shift doctor on the previous shift.

42. In contrast, Mrs A said that before the nurse administered the medication, she questioned the nurse about what was being administered and advised the nurse of her allergy. Mrs A stated that if she had not questioned the nurse as to what the nurse was about to administer, she would have been given paracetamol. Mrs A also notes that the nurse did not ask her name or if she had any allergies. Mrs A advised HDC that, at that time, she was wearing a red patient wrist band (to alert staff to her allergy, discussed below), but the nurse did not check it.

43. An entry in the ED medication chart at 8.45am records the charting of 1g of intravenous Panadol for Mrs A, and that it was "not given".

44. RN E advised HDC that she apologised to Mrs A for the mistake, and advised Dr B. RN E then gave Mrs A 75 milligrams of intravenous Voltaren for her pain and

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recorded Mrs A's allergy to paracetamol on the ED medication chart. She stated, "It is my handwriting and I recall writing it in after paracetamol [had] been prescribed and offered to the patient in error." RN E could not recall whether Mrs A had a red patient wrist band in place on 26 June 2012.

45. RN E stated, "I wish to apologise for my role in [Mrs A's] care in relation to the paracetamol incident …"

46. Dr B stated, "After I realised my mistake I immediately went to [Mrs A] and offered my apology. [Mrs A] and I then had a long discussion about stronger pain medication to treat her pain as well as imaging studies that had been ordered in the past."

47. Mrs A said that she felt "increasingly unsafe and frightened and decided to discharge [herself]". She subsequently sought treatment privately.

Whanganui District Health Board's Medication Procedure

48. The Whanganui District Health Board's Medication Procedure (the Procedure) that applied at the time of these events (dated 28 January 2011) states: "Before prescribing the patient's sensitivities to medicines must be established."

49. The Procedure also states the following under the heading "Adverse Drug Reactions, Including Allergies":

> "The Doctor, Registered Nurse, Registered Midwife, Pharmacist or Dentist who assesses the patient in the first instance must document ALL known medicine reactions/allergies in the patient healthcare record. The assessor must place the drug reaction label on the patient's medication chart and the pre-operative check list (if applicable).
>
> The assessor must document ALL known medicine reactions/allergies in the sensitivity sections of the patient medication chart.[15]
>
> The assessor must complete the alert/adverse reactions/allergies form [the AAA form].
>
> The assessor must place a red patient wrist band on the patient to identify that the patient has an allergy.
>
> …
>
> Staff will identify inpatients prior to any medication administration, and follow the five rights [right person, right drug, right dose, right route, right time]."

50. Whanganui District Health Board advised that it "unreservedly accept[s]" that the prescribing of paracetamol to Mrs A on 26 June 2012 was a significant departure from expected practice. It stated, "There was no excuse for this error" and it apologised to

[15] In the case of presentations to ED, that information would be recorded on the ED medication chart, on page six of the ED Assessment Booklet.

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Mrs A that it put her at risk by not checking her allergy status prior to prescribing and offering that medication to her.

Previous complaint

51. On 30 August 2010, during a previous admission at the public hospital, Mrs A had been offered paracetamol tablets by an RN for pain, despite her allergy status being recorded within the clinical notes and on her medication chart. At that time, Mrs A was also wearing a red patient wrist band identifying her medication allergy. The nurse concerned acknowledged that she did not check the allergy box on Mrs A's medication chart prior to attempting to administer the paracetamol.

52. HDC investigated that complaint and, on 9 September 2013, recommended that Whanganui District Health Board consider adding an explicit requirement to its existing policies for an RN to review a patient's allergy status prior to administering medication, and conduct an audit of nursing staff compliance with District Health Board medication administration policy.

53. In response to those recommendations, Whanganui District Health Board advised that it agrees that checking a patient's allergy status before administering medications is paramount, and the District Health Board's expectation is that this should always happen. The District Health Board considered its medication administration policies and procedures were sufficiently robust not to require an amendment for a specific directive on that point. However, the District Health Board outlined significant improvements it had introduced in relation to allergy alerts and medication management since the time of the first incident in August 2010 (see below).

Compliance with policies at Whanganui District Health Board

54. Whanganui District Health Board provided HDC with copies of its Adverse Drug Reactions/Allergies Evaluation Audits for May 2011, October 2012, and September 2013.

55. The purpose of the October 2012 audit was "[t]o evaluate staff knowledge of and adherence to the [Whanganui District Health Board's] alert/adverse reactions/allergy [AAA] documentation requirements". The October 2012 audit found:

- there was a 50% decrease in compliance from the May 2011 audit in respect of compliance with completion of the AAA form when required, the form being filed in the front of the medical alert divider in the patient's healthcare record, and the alert label being applied to the front of patient healthcare record volumes;

- 10 out of 12 staff interviewed were unsure about the AAA process and location of the forms on their respective wards;

- absolute compliance with the national medication chart "allergy and adverse drug reaction status standard" was at a very low level (26% in September 2011 and 36% in October 2012);

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- medication chart "type of reaction" documentation compliance was 73% and the ED assessment booklet "type of reaction" documentation was 47% on the front page and 6% on the ED medication chart; and

- there was a 64% increase in compliance with the patient discharge summary "type of reaction" documentation.

56. Recommendations from the October 2012 audit included staff education, electronic availability of the AAA process on the intranet as well as laminated hard copies available on all wards, and that the ED assessment booklet front page and page six (the ED medication chart) be aligned with national medication chart requirements.

57. The September 2013 audit found that compliance with the alert label application, AAA form completion and utilisation of the "AMR" (Adverse Medical Reactions) field in Oracare[16] had improved from the 2012 audit, "but remains at an unacceptable level". The audit noted: "The majority of the AAA forms not being completed by the first assessor of the patient are the patients seen in the ED and transferred to the Acute Assessment Unit, Medical or Surgical wards." The audit further noted that discharge summary compliance had decreased. However, the overall documentation compliance in the medication chart allergies and adverse reactions section had improved in five out of the six audit criteria.

58. The audit report included a number of recommendations for improved compliance, including mandatory staff training of the AAA process, monitoring of staff having read and understood the AAA process through staff signage, staff reminders by the manager of the Health Care Records Department to check a patient's "AMR" status when making up new patient files, and a requirement that the ED initial patient assessor complete the AAA form if the assessor is aware a patient has an allergy or adverse drug reaction that has not been entered as an "AMR" on Oracare (if the ED initial patient assessor is unable to complete the form, notification that the form requires completion must be documented on the Transfer of Patient Care Form and an AAA form attached).

59. Whanganui District Health Board provided HDC with a copy of the medication safety presentation that nursing staff receive in their two-year mandatory training programme. It advised that RN E attended the mandatory training on 23 May 2013.

60. On 3 July 2013, in response to the current complaint, Whanganui District Health Board advised HDC:

> "We have undertaken a significant body of work around improving our processes and practice in regard to the recording of patient allergies and adverse drug reactions, and staff compliance with documentation requirements, in the past two and a half years … I am pleased to advise that since [Mrs A's] presentation to ED on 26 June 2012 and following an audit of allergy/adverse drug reaction documentation compliance in the Emergency Department, we have introduced a

[16] A patient electronic management system.

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new ED assessment booklet that includes a highlighted section on the front page where allergies and adverse drug reactions are recorded and a reminder on page six (medication page) to refer to this information … Also, as a result of the audit a recommendation was made to immediately include information about the allergy/adverse reactions/allergy recording process in the [Whanganui District Health Board] on-line education programmes covering safe prescribing and medication practices."

Opinion: Whanganui District Health Board

Assessment, diagnosis and treatment in May 2012 — No breach

61. Mrs A presented to the public hospital on 23 May 2012 on referral from her GP with suspected pyelonephritis. Following a medical assessment, Mrs A was administered pain medication, including OxyNorm, discharged and advised to return the next day for a renal ultrasound. The renal ultrasound was performed on 24 May 2012, and showed no obvious renal pathology. Mrs A was sent home to trial analgesia. It was recommended that she seek another review if she experienced further pain or deterioration.

62. On 31 May 2012, Mrs A's GP referred her to the public hospital ED for an abdominal CT scan because of her ongoing pain. The scan showed no obvious abdominal or pelvic pathology, and Mrs A was sent home with a prescription for OxyNorm.

63. My expert advisor, general practitioner Dr David Maplesden, advised me that Mrs A's pain management of 23 and 24 May 2012 was reasonable and "generally consistent with the basic principles of chronic pain control". While Dr Maplesden noted that there is concern at the increasing use of OxyNorm in New Zealand generally, he considered it was reasonable to prescribe Mrs A with a strong opioid given her relative lack of response to the weaker opioids and non-opioid pain relief. Dr Maplesden also advised that renal ultrasound was a reasonable initial investigation given her symptoms.

64. I accept Dr Maplesden's advice. In my view, Mrs A received reasonable care at the public hospital in May 2012 and Whanganui District Health Board did not breach the Code in relation to that presentation.

June 2012 scan — No breach

65. On 5 June 2012, Mrs A's GP referred her to a private surgeon, Dr C, because of her continuing pain. Dr C diagnosed ureteric calculi and renal colic, and ordered an urgent CT IVU scan.

66. On 12 June 2012, Mrs A presented at the public hospital for the CT IVU scan. However, the public hospital radiologists elected to perform a CT KUB scan instead.

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67. Dr Maplesden advised that the clinical rationale Whanganui District Health Board provided regarding the change in procedure is sound. I accept that advice and, accordingly, am satisfied that the care and treatment Whanganui District Health Board provided to Mrs A in respect of her June 2012 scan was acceptable and not a breach of the Code.

Treatment in June 2012 — Breach

68. At 1.10am on 26 June 2012, Mrs A presented at the public hospital ED with continuing flank pain.

69. The Whanganui District Health Board's Medication Procedure that applied at the time of these events (dated 28 January 2011) required the practitioner who assessed the patient in the first instance to document all known allergies in the patient healthcare record, place the drug reaction label on the patient's medication chart, document all known medicine reactions/allergies in the sensitivity sections of the patient medication chart (in this case, the ED medication chart), and complete the AAA form. The Procedure also required the assessor to place a red patient wrist band on the patient to identify the patient's allergy.

70. It does not appear that Whanganui District Health Board staff fully complied with the Procedure in this case.

71. Mrs A advised the triage nurse of her allergy to paracetamol, and the nurse recorded the allergy on the front page of the ED Assessment Booklet. It appears that the triage nurse followed the Procedure by placing a red patient wrist band on Mrs A, as Mrs A recalls that she was wearing the wrist band when a nurse later proposed to administer paracetamol to her. However, I accept RN E's evidence that Mrs A's allergy to paracetamol was not documented on the ED medication chart despite the Procedure requiring this. In addition, the District Health Board advised that an AAA form was not completed for Mrs A.

72. Mrs A also informed Dr D, the doctor who reviewed her at 3am, of her allergy, and he recorded the allergy in her clinical records.

73. Mrs A requested pain relief from RN E at 8.30am. RN E worked the morning shift in the ED on 26 June 2012. She cannot recall being informed at the 7am handover from the triage nurse, who had been responsible for Mrs A's care that morning, that Mrs A had an allergy to paracetamol.

74. RN E asked Dr B to chart further pain relief for Mrs A. Following a discussion with the overnight RMO (who the District Health Board believes was Dr D), Dr B prescribed Panadol for Mrs A.

75. The Procedure stated: "Before prescribing the patient's sensitivities to medicines must be established." Dr B recorded his prescription on the ED medication chart which, as noted above, did not record Mrs A's allergy as it should have done. If the Procedure had been followed in that regard, it would have alerted Dr B to Mrs A's allergy before he prescribed her the medication. Dr B did not check Mrs A's records further to

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ascertain whether she had an allergy to paracetamol, and he did not ask her if she had any allergies. Furthermore, Dr D did not alert Dr B to Mrs A's allergy despite his discussion with Dr B when RN E requested pain relief for Mrs A.

76. The Procedure also stated: "Staff will identify inpatients prior to any medication administration, and follow the five rights [right person, right drug, right dose, right route, right time]."

77. RN E recalls that she took the prescribed paracetamol to Mrs A's bedside and said that she was going to give her paracetamol for her pain. RN E recalls that Mrs A responded that she had an allergy to paracetamol and that she had already mentioned the allergy to the triage nurse and the night shift doctor on the previous shift. In contrast, Mrs A said that before the nurse administered the medication, she questioned the nurse about what was being administered and advised the nurse of her allergy. Mrs A stated that if she had not questioned the nurse as to what the nurse was about to administer, she would have been given paracetamol. Mrs A advised that the nurse did not ask her name or if she had any allergies, or check her red alert bracelet.

78. On the basis of the available information, I am unable to ascertain the exact circumstances surrounding the identification of Mrs A's allergy prior to the paracetamol being administered. However, it would be very concerning if the nurse did not follow the Procedure with respect to medication administration.

79. I accept Dr Maplesden's advice that it is a severe departure from expected standards to prescribe a drug to a patient when that patient has a well recorded allergy to that drug.

80. District health boards are responsible for the operation of clinical services within public hospitals and can be held responsible for any service-level failures.[17] This responsibility includes district health boards ensuring that systems necessary for the safe operation of the hospital are established, well understood, and implemented.[18]

81. I have considered the extent to which the prescribing of paracetamol to Mrs A was a result of an individual error or a service-level failure for which Whanganui District Health Board, as an organisation, is responsible.

82. In my view, the prescribing of paracetamol to Mrs A in June 2012 was the result of a service-level failure at the public hospital. There is evidence of shortcomings in staff compliance with documenting and communicating the presence of allergies and adverse reactions at Whanganui District Health Board.

83. Mrs A's allergy was not documented as required by the Procedure, does not appear to have been communicated between nursing staff at handover, was not mentioned to the prescribing doctor by the overnight RMO, and the prescribing doctor did not take sufficient steps to check Mrs A's allergy status prior to prescribing paracetamol for

[17] See Opinion 10HDC00703 (11 September 2012) available at www.hdc.org.nz.
[18] See Opinion 07HDC03504 (HDC's report into Dr Roman Hasil and Whanganui District Health Board (2005–2006)) (February 2008) available at www.hdc.org.nz.

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her. Furthermore, the extent to which the Procedure was followed with respect to medication administration is also unclear.

84. Despite a similar incident in August 2010, and a 2011 audit resulting in quality improvement recommendations in relation to allergy documentation, compliance with allergy documentation policies at the public hospital in June 2012 appears to have been low (as was later confirmed by the October 2012 audit).

85. In my view, by June 2012, Whanganui District Health Board was on notice that there were compliance issues with its Procedure and, in particular, AAA documentation. Whanganui District Health Board took insufficient steps to prevent a prescribing error in June 2012 on the basis of that poor compliance, and this directly contributed to the poor care that Mrs A received. Accordingly, I find that Whanganui District Health Board breached Right 4(1) of the Code in respect of the prescribing of paracetamol to Mrs A in June 2012.

86. I am concerned that, despite audits resulting in quality improvement recommendations in relation to AAA documentation in 2011, 2012 and 2013, compliance with allergy documentation policies at Whanganui District Health Board remained low in many areas.

Opinion: Adverse comment — Dr B

87. The Procedure required that, before prescribing, a patient's sensitivities to medicines must be established. In addition, the Medical Council of New Zealand publication *Good Prescribing Practice* (April 2010) provides:

> "Take an adequate drug history of the patient, including: any previous adverse reactions to medicines; current medical conditions; and concurrent or recent use of medicines (including non-prescription, complementary and alternative medicines).

88. Dr B wrote his prescription for paracetamol for Mrs A in the ED medication chart which, as noted above, did not record her allergy.

89. Dr B did not take any other steps to ascertain whether Mrs A had any previous adverse reactions or sensitivities to medicines before he prescribed paracetamol for her.

90. In my view, Dr B did not take sufficient steps to check Mrs A's allergy status prior to prescribing paracetamol for her. While Dr B was, to some extent, let down by the lack of documentation on Mrs A's ED medication chart, I consider that it was unwise for him to rely on the ED medication chart alone to identify whether Mrs A had any allergies or sensitivities to medications. Although allergies to paracetamol are not common, I consider that, at the least, Dr B should have checked Mrs A's notes further

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and/or asked Mrs A directly if she had any allergies, prior to prescribing the medication for her.

91. Dr B should reflect on his failings in this case, and how he individually contributed to the prescribing error.

Recommendations

92. I recommend that Whanganui District Health Board:

- apologise to Mrs A for its breach of the Code. The written apology should be forwarded to this Office by one month from the date of the final report, for forwarding to Mrs A;
- provide evidence to HDC of the implementation of the recommendations made in the September 2013 audit by 4 June 2014; and
- provide HDC with a copy of its 2014 AAA compliance audit by 1 November 2014.

Follow-up action

93. A copy of the final report with details identifying the parties removed, except Whanganui District Health Board and the expert who advised on this case, will be sent to the Ministry of Health and the Health Quality and Safety Commission, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

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Appendix A — Independent advice to the Commissioner

The following expert advice was obtained from HDC's in-house clinical advisor, general practitioner Dr David Maplesden, on 27 September and 4 December 2012:

"1. I have viewed the information on file: complaints from [Mrs A]; responses from Whanganui DHB (WDHB); selected [hospital] clinical notes. [Mrs A] complains that she was given inadequate pain relief in [the] ED 23 May 2012 and 26 June 2012 when she presented with recurring left flank pain. She complains she was prescribed Oxynorm when the cause of her pain was unknown, and questions the appropriateness of this medication for her situation. She complains that on 5 June 2012 her specialist ordered a CT IVU but when she presented to [the public hospital] on 12 June 2012 to have this done, the radiologists would only perform a CT KUB. In [the public hospital's] ED on 26 June 2012 [Mrs A] was offered paracetamol which she had previously notified staff she was allergic to (anaphylaxis).

2. ED attendances 23/24 May 2012
(i) The DHB response accurately reflects the content of the clinical notes. Nursing triage notes and RMO assessment refer to urinalysis done earlier in the day as showing blood and protein, but urinalysis performed by nursing staff in ED is recorded by the RMO as *NAD*.

(ii) I think pain management was reasonable — see comments in 4(iv)a. It is certainly not reasonable to withhold adequate pain relief while a cause for pain is elucidated. It is expected practice for both processes to be undertaken concurrently.

(iii) Renal ultrasound was a reasonable initial investigation given [Mrs A's] symptoms, and showed no obvious renal pathology (24 May 2012).

(iv) The discharge summary to the GP recommended further imaging if [Mrs A's] pain failed to settle. This advice was followed and abdominal CT on 31 May 2012 was unremarkable, showing no obvious abdominal or pelvic pathology.

(v) I note MRI scan of the thoracic and lumbar spine were undertaken on 21 July 2012 and showed no significant abnormality. Formal urine results on file show no red blood cells in the samples of 6 and 20 June 2012, but 10–50 RBCx10^6/L on 29 May 2012. All three samples were culture negative.

3. [Mrs A] complains that a CT IVU (CT urogram) ordered by a surgeon she had attended privately was not done as requested on 12 June 2012, but WDHB radiologists performed a CT KUB (unenhanced CT of kidneys, ureter and bladder) instead. I have not viewed the CT-IVU request form to determine whether the surgeon was suspicious of urological malignancy, but the DHB response implies he wanted to exclude an obstructing renal calculus. The DHB response has outlined the clinical rationale behind the change in procedure, and this rationale is sound. A 2009 review of CT urography[19] confirmed its primary role in the

[19] Silverman S, Levendecker J, Amis E. What Is the Current Role of CT Urography and MR Urography in the Evaluation of the Urinary Tract? 2009. Radiology; 250:309–323.

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detection and surveillance of renal tract malignancy, and investigation of unexplained haematuria. Extracts from the article include:

(i) *In addition to the evaluation of haematuria, CT urography can be useful in the surveillance of patients with a history of urothelial cancers, patients with obstructive uropathy (eg, hydronephrosis, hydroureter of unknown etiology), or any time a comprehensive evaluation of the urinary tract is warranted. There are few, if any, conditions of the urinary tract for which CT urography is not a highly effective diagnostic tool.*

(ii) *It should be emphasized that a CT urogram, as defined here, is not needed to evaluate many urinary problems. Indeed, specific portions of a CT urogram are not only sufficient to address many clinical questions, but are preferred since they result in less radiation exposure. For example, an unenhanced CT scan is the test of choice in patients who present with flank pain and a high probability of an obstructing stone.* I note there was no evidence of an obstructing stone on [Mrs A's] CT-KUB, but the report showed *two tiny calculi in the left renal substance.*

4. ED attendance 26 June 2012

(i) [Mrs A] underwent nurse triage on arrival at 0110hrs. Triage code 3. History includes allergy to paracetamol (documented on ED front sheet and medication chart), known renal stones, and most recent analgesia Tramadol (?dose) at 1700hrs. Observations unremarkable other than pain score of 7/10.

(ii) Nursing notes indicate medication regime of: Voltaren 100mg PR at 0155hrs; Fentanyl 100mg IV at 0300hrs; Tramadol 100mg IV at 0500hrs; Fentanyl 100mg IV at 0650hrs; Voltaren 75mg IV at 0845hrs; Oxynorm 5mg at 1000hrs. Oxynorm 5mg prescribed on discharge with ED consultant note recording *Discuss Oxynorm use and CT KUB.*

(iii) RMO assessment notes (0300hrs) note history of intermittent left flank pain for a month, *on diclofenac, tramadol + codeine → some help but not able to control pain tonight.* [Mrs A's] allergy to paracetamol is again recorded *?anaphylaxis*. Examination shows tenderness in the left flank and mild tenderness in the right flank. Previous CT-KUB results noted and that [Mrs A] (a nurse) had performed dipstick urinalysis earlier which showed *haematuria + protein.* Differential diagnosis is *?renal colic ???diverticulitis Plan: IV fluids + analgesia, stay in AAU tonight — likely to need OPD urology followup — ?may have radiolucent stone.*

(iv) ED consultant notes at 0725hrs include *pain improved, wants to go home. Long d/w pt. F/U urology.*

(v) Medication chart is consistent with the nursing notes, but includes an entry at 0845hrs for *Panadol 1g IV ... not given.* [Mrs A] states in her complaint that nursing staff attempted to administer the drug until she informed them of her allergy.

HDC

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(vi) Comments:
a. Pain management was reasonable and generally consistent with basic principles of chronic pain control.[20] There is concern at the increasing use of oxycodone in this country, and rapid release morphine may have been a preferable option to Oxynorm if [Mrs A] could tolerate the medication.[21] However, it was reasonable to provide her with a strong opioid given her relative lack of response to the weaker opioids and non-opioid pain relief. It was known that [Mrs A] had renal stones and specialist review had been initiated.

b. There was a significant departure from expected practice when [Mrs A] was charted, and then offered, a paracetamol infusion when it was recorded in three separate places in her notes, including the medication chart, that she was allergic to this drug. The DHB has acknowledged the error and the doctor concerned has apologised for his oversight for which there was no real excuse. Further nursing education has emphasised the expectation that nurses will recheck allergies before administering medication. The DHB might consider how allergies on the medication chart can be better highlighted (eg fluorescent sticker) rather than just handwritten in the small area provided on the chart.

5. Additional comments 4 December 2012

I have been asked to clarify to what degree [Mrs A's] management departed from expected standards when staff attempted to administer a paracetamol infusion to her on 26 June 2012 (see 4(vi)b above).

A commentary in the New Zealand Medical Journal in 2008[22] noted *preventable adverse events involving medications have been repeatedly identified as a leading cause of iatrogenic harm internationally. They occur in hospitals, in primary healthcare, and notably at the interfaces between healthcare settings (e.g. on admission to and discharge from hospitals). They involve all routes of administration and all provider groups, and they are responsible for much serious and costly morbidity (and occasionally even mortality) in patients of all ages.* While medication errors are common, this does not make them acceptable. [Mrs A] had her paracetamol allergy noted in several places in her medical record, including the possibility of anaphylactic reaction. While such reactions to paracetamol are rare, they have been recorded.[23] There was potential to do [Mrs A] significant harm had the infusion proceeded. While this was a 'near miss' rather than an episode of actual harm, it must be regarded as a severe departure from expected standards (to prescribe and attempt to administer a drug to a patient when they have a well-recorded allergy to that drug) and it is apparent in this case the existing DHB 'safety' measures were insufficient to prevent progression of the prescribing error — [Mrs A] stating it was only her intervention (asking what nursing staff were attempting to administer and then advising them again of her

[20] For example see:
http://www.bpac.org.nz/magazine/2008/september/docs/bpj16_chronic_pain_pages_6-12.pdf
[21] See http://www.bpac.org.nz/magazine/2012/may/oxycodone.asp
[22] Merry A et Webster C. Medication error in New Zealand — time to act. NZMJ. 2008;121:1272
[23] Bachmeyer C et al. Acetaminophen (paracetamol)-induced anaphylactic shock. South Med J. 2002 Jul;95(7):759–60.

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allergy) that prevented a potentially dangerous reaction. Human error has been identified as the primary cause of the incident, and it is hoped the introduction of electronic prescribing will reduce such errors. Further nursing education has been undertaken as previously noted. However, as discussed in 4(vi)b above, I think consideration should be given to improving the prominence of recorded drug allergies in the medical chart while awaiting the introduction of e-prescribing.

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