Tui Medical Limited
General Practitioner, Dr B
General Practitioner, Dr C

A Report by the
Health and Disability Commissioner

(Case 18HDC01892)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. This report concerns the care provided to a woman by a medical centre and two general practitioners (GPs). Between 2014 and 2017, the woman had several consultations with a number of providers at the medical centre about her urinary symptoms. She was treated with antibiotics, despite her urine tests showing no infection.

2. The woman saw a GP on 29 July 2016 and 4 August 2016. Her urinary symptoms were persisting and she had blood in her urine. The GP prescribed further antibiotics despite test results showing a negative culture. The woman was not notified of her results, and no further follow-up action was undertaken by the GP. The woman next saw the GP on 29 November 2016 with continuing urinary symptoms, but no further investigation was undertaken.

3. The woman saw the GP again on 20 February 2017, when she dropped off a urine sample for testing. The test results showed red blood cells in the urine and again indicated no infection. The GP did not arrange further follow-up regarding the abnormal urine result.

4. On 19 April 2017, the woman saw another GP about her persisting urinary symptoms and blood in her urine. This was the only consultation between this GP and the woman. A repeat urine test showed blood in her urine but a negative culture. The GP prescribed antibiotics and asked the woman to repeat the urine test in two to three weeks' time. The GP did not refer the woman for renal and bladder imaging.

5. On 2 May 2017, the woman returned to the medical centre and was seen by a nurse practitioner, who conducted a urine test and advised the woman to return if the test was negative for infection. The result again indicated no infection, but on that day the nurse practitioner had an unplanned family emergency, and the woman was not informed of her test result.

6. On 28 August 2017, the woman again consulted the first GP about urinary symptoms, and the GP referred her to the district health board's (DHB's) Urology service. A cystoscopy revealed a tumour in the woman's bladder.

Findings

7. The Commissioner found the medical centre in breach of Right 4(1) of the Code for failing to provide an appropriate standard of care; in breach of Right 6(1)(f) of the Code for not informing the woman of her test results following her consultation on 2 May 2017; and in breach of Right 4(5) of the Code for the lack of effective cooperation between the practitioners who provided care to the woman.

8. The Commissioner considered that the first GP failed to provide services to the woman with reasonable care and skill by not reviewing her clinical history adequately and not following up her persistent symptoms appropriately. Accordingly, the Commissioner found the GP in breach of Right 4(1) of the Code.

9. The Commissioner was critical that the second GP failed to consider the extended pattern of the woman's presentations, and did not refer the woman for renal and bladder imaging.

Recommendations

10. The Commissioner recommended that the medical centre discuss the findings of this report with all staff currently employed who were involved in the woman's care; update its policy for the review of test results when staff require leave at short notice; review its processes around provision of care to patients who present repeatedly with the same problem; report back to HDC regarding implementation of the changes it has made; and apologise to the woman.

11. The Commissioner recommended that the first GP attend a Medical Protection Society workshop, review the HealthPathways guidance on urinary symptoms, and provide a written apology to the woman.

12. The Commissioner recommended that the second GP review the HealthPathways guidance on urinary symptoms and provide a written apology to the woman.

Complaint and investigation

13. The Health and Disability Commissioner (HDC) received a complaint from Mrs A about the services provided to her at Tui Medical Limited. The following issues were identified for investigation:

- *Whether Mrs A was provided with an appropriate standard of care by Tui Medical Limited, between and including 2014 and 2017.*
- *Whether Mrs A was provided with an appropriate standard of care by Dr B in 2016 and 2017.*
- *Whether Mrs A was provided with an appropriate standard of care by Dr C in 2017.*

14. The following parties were directly involved in the investigation:

Mrs A	Consumer/complainant
Dr B	Provider/medical practitioner
Tui Medical Limited	Provider
Dr C	Provider/medical practitioner
Nurse Practitioner (NP) D	Provider/nurse practitioner
Dr E	Provider/medical practitioner

15. Also mentioned in this report:

Dr F	General practitioner (GP)
Dr G	GP

16. Further information was received from:

The Medical Council of New Zealand
District Health Board
ACC

17. Expert advice was obtained from in-house vocationally registered GP Dr David Maplesden (Appendix A).

Information gathered during investigation

Background

18. Between 2014 and 2017, Mrs A (aged 76 years in 2014) repeatedly consulted a number of providers at the medical centre (Tui Medical) about her urinary symptoms. Mrs A's medical conditions include vitamin D deficiency, hypertension,[1] exercise-induced asthma,[2] hiatus hernia[3] with GERD,[4] and hyperlipidaemia.[5]

19. Dr E told HDC that Tui Medical Limited operates out of several sites, offering general practice services and urgent care services.

20. This opinion considers the care provided to Mrs A by a number of providers at Tui Medical, from 2014 until her diagnosis with bladder cancer in November 2017.

Consultations regarding urinary symptoms

2 July 2014

21. Dr E told HDC that he was Mrs A's nominated medical provider/GP. He saw Mrs A on 2 July 2014 and noted that she had flank pain[6] and dysuria[7] that worsened as the day progressed, and recorded a plan to conduct a mid-stream urine (MSU)[8] and treat Mrs A with nitrofurantoin.[9]

22. Mrs A told HDC that when she first started going to Tui Medical she was seen by Dr E but later on it was difficult to get an appointment with him so she had to see other doctors.

23. The urine test showed no evidence of an infection. Dr E recorded that he had advised Mrs A to return if she deteriorated or had any concerns or problems. In response to the

[1] High blood pressure.
[2] A narrowing of the airways in the lungs triggered by strenuous exercise.
[3] A small part of the stomach bulges through a hole in the diaphragm.
[4] Gastro-oesophageal reflux disease (acid from the stomach flows back up into the oesophagus).
[5] High levels of fat particles (lipids) in the blood.
[6] Discomfort in the upper abdomen or back and sides.
[7] Pain, discomfort, or burning when urinating.
[8] A specimen of urine to be examined for micro-organisms.
[9] An antibiotic.

provisional opinion, Mrs A told HDC that she "was never advised to return if there was a problem".

23 July 2014

24. On 23 July 2014, Mrs A was seen by GP Dr F, who recorded that Mrs A was again complaining of dysuria. Dr F recorded: "I am wondering about [a]trophic vaginitis.[10]"

25. Dr F recorded that a urinary tract infection (UTI) had been considered as part of the differential diagnosis. Mrs A was given a script for nitrofurantoin and sent a prescription for metronidazole[11] in case her MSU showed a UTI. Mrs A's MSU was negative for infection, but a vaginal swab[12] showed features consistent with bacterial vaginitis.[13]

20 August 2014

26. On 20 August 2014, Mrs A was seen again by Dr F for pain in her right knee and thigh. A repeat MSU and a vaginal swab were taken. The urine test showed no infection, and a lower number of red cells. The vaginal swab again showed features consistent with bacterial vaginitis.

19 November 2014

27. On 19 November 2014, Mrs A presented with a sore throat, fever, and discomfort while passing urine. Mrs A was seen by GP Dr G, who conducted an MSU and noted "RBC (red blood cells)[14] and protein++[15]" in the urine. Mrs A's blood pressure was elevated at 169/96mmHg. Dr G prescribed co-trimoxazole[16] for five days and arranged for blood tests to assess Mrs A's renal function, which was found to be normal. Dr G did not arrange a follow-up appointment for Mrs A. Mrs A said that Dr G told her that the urine sample result was "OK even though it contained blood".

28. Dr G told HDC that the primary reason Mrs A had attended the practice was her sore throat, and he attributed her elevated blood pressure to her pain and discomfort. Dr G accepted that the follow-up arrangements for Mrs A were inadequate, and stated: "I regret I did not book an appointment with [Mrs A's] regular GP to follow up her urine test results and sincerely apologise for this oversight."

29. In response to the provisional opinion, Mrs A told HDC that by this time she did not have a regular GP, as she was unable to get an appointment to see Dr E.

[10] Inflammation of the vaginal walls as a result of tissue thinning caused by low oestrogen levels. Symptoms may include pain with sex, vaginal itchiness or dryness, and an urge to urinate or burning with urination.
[11] An antibiotic.
[12] Taken to test for infection.
[13] Inflammation of the vagina.
[14] Haematuria.
[15] An abnormal amount of protein in the urine may be a sign of kidney disease.
[16] An antibiotic.

8 April 2015

30. On 8 April 2015, Mrs A presented again with dysuria and urinary frequency[17] and was seen by GP Dr H.[18] No MSU was taken, but a dipstick test[19] showed blood and white cells. Dr H prescribed nitrofurantoin and advised Mrs A to trial Ovestin cream.[20]

July 2016 to February 2017: consultations with Dr B

29 July 2016

31. Between April 2015 and July 2016, Mrs A consulted the practice on a number of occasions, but no complaints relating to urinary issues were recorded. In response to the provisional opinion, Mrs A told HDC: "[A]s my urinary problem was ongoing, I do not believe I did not visit Tui [Medical] for urinary issues from April 2015 to July 2016."

32. On 29 July 2016, Mrs A saw GP Dr B, who recorded that Mrs A was complaining of urinary frequency, dysuria, and left flank pain, and was feeling cold and weak. Dr B conducted a urine dipstick test, which was positive for blood and leucocytes.[21] An MSU showed no bacteria, borderline red blood cells, and insignificant pyuria.[22]

33. Dr B diagnosed a UTI and prescribed trimethoprim.[23] She advised Mrs A to keep up her fluid intake, and to return if she deteriorated or had any concerns or problems.

4 August 2016

34. On 4 August 2016, Mrs A was seen again by Dr B, who noted that Mrs A was experiencing pain on passing urine, and that the previous day her urine had been brown in colour. Dr B recorded that a urine dipstick was positive for leucocytes, and that there was "large blood". She considered that Mrs A could have an ongoing UTI, and because Mrs A had improved in 2015 when she was treated with nitrofurantoin, Dr B prescribed it again. Another MSU test showed no infection, but indicated a significant number of red and white blood cells in the urine.

35. Dr B told HDC:

> "I had been in general practice for three months at that time. I assumed that the UTI has been resistant to the first antibiotic. I changed the antibiotic, and assumed it had worked, because [Mrs A] did not come back until November 2016 for her repeat medications."

29 November 2016

36. On 29 November 2016, Mrs A saw Dr B again for repeat medications. Mrs A told Dr B that for months she had been urinating three times each night, and that her urine was no

[17] The need to urinate frequently.
[18] Dr H has since left Tui Medical and resides overseas.
[19] A chemical strip that changes colour to show the level of certain substances in the urine.
[20] A hormone replacement cream used to relieve menopausal symptoms of vaginal dryness or irritation.
[21] White blood cells.
[22] Pus in the urine.
[23] An antibiotic.

longer pink but urinating was sometimes uncomfortable, and Ural sachets[24] had helped. Dr B prescribed Mrs A Ural sachets PRN (as required). Dr B did not undertake a dipstick urinalysis or MSU at this consultation, and did not make a follow-up plan.

20 February 2017

37. Dr B saw Mrs A again on 20 February 2017 regarding her left leg and heel injury sustained in March 2016. A further MSU test showed red and white blood cells but no infection.

38. Dr B documented in the clinical notes that she texted Mrs A that the results were normal. Dr B told HDC: "I did not realise there were a lot of red cells in [Mrs A's] urine until I looked at the results again when I saw [Mrs A] in August [2017]."

19 April 2017 — consultation with Dr C

39. On 19 April 2017, Mrs A saw GP Dr C. Mrs A had made an appointment at short notice and was unable to see her usual GP.

40. Dr C recorded that Mrs A said that she had had urinary symptoms at the time she made the appointment, but they seemed to have improved. Mrs A complained of urinary frequency and dysuria, nocturia,[25] and blood in her urine. Dr C recorded that Mrs A had recurrent urinary symptoms usually without a positive MSU test result. A repeat MSU was taken, and Mrs A was given more Ural sachets. This was the third consecutive MSU over eight months that had returned a negative culture but had shown persistent haematuria.[26]

41. The MSU results were received the following day and showed a large number of white cells, red cells, and no infection. Dr C called Mrs A to explain the results, and told her that it was unusual to have so many white and red blood cells in the urine, and that a UTI was possible but that once a UTI had been treated, all the red cells should have cleared. Dr C said that they agreed on a course of antibiotics and then a repeat MSU to ensure that the red blood cells had cleared. The clinical notes document: "[Repeat] MSU 2–3 weeks to ensure red cells cleared." Dr C prescribed trimethoprim for Mrs A.

42. Dr C stated that a UTI could not be excluded completely, and that after discussing the MSU result with Mrs A, the agreed plan was for Mrs A to repeat the MSU in two to three weeks' time and to follow up with her usual GP at that time.

43. Dr C told HDC that she did not consider it necessary to refer Mrs A for renal and bladder imaging following the consultation. Dr C stated:

> "[M]y primary concern was to ensure that the microscopic haematuria resolved, which is why I *spoke* to [Mrs A] myself to ask her to have the follow up with her GP, it was reasonable to transfer her follow up care/management back to her usual GP who she would see in 2–3 weeks' time."

[24] A powder used to reduce the acidity of urine to provide relief from burning symptoms when passing urine.
[25] Excessive urination at night.
[26] Blood in the urine.

44. Dr C said that Mrs A confirmed that she would see her GP in two to three weeks' time for follow-up and a repeat MSU. Dr C stated that this was her only consultation with Mrs A, and she had no further contact with her.

2 May 2017 — consultation with nurse practitioner

45. On 2 May 2017, Mrs A saw NP D at an urgent care/drop-in clinic. The clinical notes document that Mrs A reported dysuria and cloudy red-tinged urine. Mrs A said that she was urinating four to five times overnight and passing good amounts of urine. NP D recorded her impression that Mrs A had a UTI and/or a vaginal infection, with a differential diagnosis of atrophic vaginitis. NP D told HDC that Mrs A declined an internal examination at that time. Mrs A was prescribed nitrofurantoin and given further Ural sachets. An MSU and a high vaginal swab (HVS)[27] were sent to the laboratory for testing.

46. NP D said:

> "I had encouraged [Mrs A] to please follow up with her usual GP for importance of continuity of care and have a Health Care provider whom will oversee her care versus using urgent care/drop in services."

47. NP D documented that if no infection was found, the symptoms would require further investigation, including an internal examination to check for vaginal atrophy.[28] She recorded in the clinical notes that the results of the MSU and HVS would be texted to Mrs A when available. Later on the same day, NP D noted: "Urine — no growth." However, no further follow-up by NP D is recorded.

48. NP D told HDC that if the infection results had been negative, she would have ordered a series of monthly urine tests assessing for haematuria and, if there had been persisting haematuria, Mrs A would have required a cystoscopy.[29] NP D stated:

> "I cannot answer if [Mrs A] received my results as I was away from work from evening of 2 May 2017 … I do recall someone was looking at my results for me, but are unable to confidently say whom this person was as I was away."

49. NP D stated that 2 May 2017 was the last day on which she worked at Tui Medical for several months, because she had a sudden and significant family emergency. She said that when she returned to work, she was placed at another Tui Medical site, and did not return to the medical centre.

50. NP D told HDC that she does not recall asking a colleague to review her results and action them while she was away, and she believed that management would organise that for her. She stated:

[27] To test for infection.
[28] Also known as atrophic vaginitis.
[29] A procedure to examine the lining of the bladder and urethra (the tube that carries the urine out of the body).

> "I assumed that [my clinical manager] would pass on to the team at [the medical centre] that I was away for unknown length of time and nominate a colleague to review results for me … I do not recall appointing anyone personally myself."

51. NP D does not know whether Mrs A was informed of her results, and there is no entry in the clinical records that Mrs A was contacted regarding her results after the 2 May 2017 consultation. Tui Medical told HDC: "It appears that [Mrs A] was not notified of her results."

7 June 2017

52. On 7 June 2017, Mrs A requested a repeat prescription for Ural sachets and other regular medications. These were prescribed by a provider who had not been involved in Mrs A's care previously.

28 August 2017 — consultation with Dr B

53. On 28 August 2017, Mrs A saw Dr B for her repeat medications. Mrs A told Dr B that she took Ural sachets four times per day, every day, otherwise she had blood-stained urine and burning pain when passing urine. An MSU sample was obtained.

54. Mrs A told Dr B that she had been experiencing nocturia three to five times per night, but no urinary incontinence,[30] for more than a year. On 29 August 2017, Dr B sent a referral to the DHB Urology service.

Subsequent events

55. On 8 September 2017, the MSU results showed: "LEU [leucocytes] ++ blood large +++." On the same day, Mrs A was seen for an urgent care consultation. The records note her presenting complaint as haematuria (blood in the urine) and increased frequency of urination, and that all her urine tests had been negative and she had been referred to a urologist and was waiting for an appointment.

56. On 6 November 2017, a cystoscopy revealed multiple bladder lesions.[31] Mrs A was referred to the Gynaecology team at the DHB, and subsequently was diagnosed with urothelial bladder cancer.[32]

57. Mrs A had surgery to remove the tumours on 4 December 2017, and again in January 2018. Subsequently, she underwent surgery to remove her bladder, uterus, and lymph nodes, followed by a course of chemotherapy. Mrs A has now completed all scheduled treatments and is being monitored for any return of the cancer.

58. Dr B stated that she saw Mrs A again in March 2018 and expressed her sincere apologies for not being prompt enough. Dr B said that at that time she completed an ACC treatment injury form, which then led to further investigation.

[30] The involuntary leakage of urine.
[31] Tumours.
[32] Cancer that most often begins in the cells that line the bladder (urothelial cells).

Further information

Mrs A

59. Mrs A told HDC:

> "The result of this missed diagnosis from Tui Medical for three years has changed my life considerably. I am [in my eighties], and the impact of living without my bladder, and the effects of chemotherapy have left me weaker, and unable to live the life I did prior. I was a fit person who looked after the house and garden, as well as was the full time carer for my husband who is [disabled] …
>
> I would like [HDC] to please investigate the treatment I received from Tui Medical between 2014 and 2017 that led to this outcome, in the hope that it stops a similar situation occurring for anybody else."

Dr B

60. Dr B told HDC that the Medical Council of New Zealand (MCNZ) was notified about this case in September 2018, and that a performance assessment was arranged.

61. Dr B stated that she accepts that she ought to have undertaken further investigations to exclude other causes for Mrs A's symptoms, and should have considered Mrs A's history more thoroughly. Dr B considers that her inexperience was a factor.

62. Dr B apologised "unreservedly" for her part in the chain of events that led to Mrs A's late diagnosis.

Dr C

63. Dr C told HDC: "[W]ith the benefit of hindsight, I regret not referring [Mrs A] for further investigation." Dr C stated:

> "I am deeply sorry for all that [Mrs A] had to go through as a result of the delayed diagnosis of her symptoms. This has been a sobering experience for me and it is my hope that this learning will prevent this happening to anyone else."

Tui Medical Limited

64. Dr E said that he is not made aware of staff who go on leave within the organisation, but it is Tui Medical's expectation that clinicians organise amongst their peers to follow up test results or make alternative arrangements to ensure that these are followed up and not missed.

65. Tui Medical said that it takes responsibility for Mrs A having seen multiple practitioners, and her fragmented care. Dr E stated:

> "The multiple practitioners that [Mrs A] had was not because she did not have the opportunity to see a regular GP but at that time, she herself thought this was a trivial issue that did not warrant her general practitioners' attention."[33]

66. On behalf of the medical centre, Dr E said that if a cystoscopy had been performed at any time before 6 November 2017, Mrs A's prognosis would have been "infinitely better and she would have been spared the morbidity she is currently going through". He noted that the various doctors who saw Mrs A "did not do her justice in picking up her condition sooner". Dr E stated: "At the end of it all, there is [a woman in her eighties] who was poorly done by and that is not something any of us can live down." Dr E told HDC: "I would like to take this opportunity again to apologise to [Mrs A] and wish her all the best with her ongoing treatment and recovery."

Tui Medical Result Notification Policy

67. The Tui Medical Result Notification Policy states that all incoming laboratory results are seen and actioned by the staff member who requests them, or a designated deputy. The policy states: "3.3 When a clinician goes on leave a designated team member is nominated to cover his/her patient load. This includes management of patient results."

68. The policy does not state who has the responsibility to arrange the designated deputy. However, the Tui Medical "Job Description — Clinical Operations Manager" states:

> "2.3 Ensure all cover arrangements are made and any short notice changes handled in accordance with organisational priorities. Act as point of contact and control for roster changes."

Changes made since incident

Dr B

69. Dr B's letter to MCNZ, which was provided to HDC, notes that as a result of this incident she made changes to her practice. The letter states:

> "I have carefully considered the external clinical advisors' reports. I have reviewed haematuria guidelines on BPAC (Best Practice Advocacy Center),[34] Good Fellow Units[35] and Red Whale.[36] I attended urology workshops in June 2018 to broaden my knowledge about haematuria and its management. I have also reviewed the case with my colleagues and had met with the clinical managers and medical directors to discuss the case further.[37]"

[33] This is Dr E's perspective. Mrs A has not confirmed that this is a true reflection of her thoughts.
[34] BPAC is an independent organisation that delivers educational and continuing professional development programmes to medical and health practitioners.
[35] The Good Fellow Unit delivers continuing professional development for primary healthcare professionals.
[36] Red Whale provides update courses for GPs, practice nurses, GP registrars, and pharmacists.
[37] A copy of Tui Medical's minutes for the meeting with Dr B on 19 September 2018 was provided to HDC. The minutes note that they discussed Mrs A's complaint and listed the changes that Tui Medical has implemented.

Dr C

70. Dr C told HDC that as a result of this incident, she made the following changes to her practice:

a) She reviewed the urology guidelines for management of patients who present with lower urinary tract symptoms and haematuria.

b) She now sets herself a task on MedTech[38] to ensure that all follow-up has taken place, including follow-up of abnormal results, and that all necessary steps are taken to investigate further if necessary.

c) She makes it her responsibility to follow up with her patient when she receives significantly abnormal results and it is obvious that multiple providers are involved. She books a follow-up appointment with the patient immediately.

d) She now writes in her notes a clear plan of what needs to be done if a result is abnormal, to ensure good continuity of care.

71. Tui Medical told HDC that as a result of this incident it identified areas for improvement, and undertook the following:

- A document outlining the new NICE[39] guidelines on urinary tract infections was sent to all medical and nursing practitioners, and the guidelines were discussed at multiple peer review meetings. A copy of the email circulated to the staff has been provided to HDC.
- Tui Medical has been separated into Urgent Care and General Practice, to allow better continuity of care.
- More appointment slots have been made available, including same-day appointments and general practice appointments, to allow for better continuity of care.
- Patients have been educated that Urgent Care and General Practice are two different services, and patients are encouraged to see their GP as regularly as possible, and to use Urgent Care only for urgent matters.
- Patients are made aware that when they see an Urgent Care practitioner, they should catch up with their regular practitioner for ongoing follow-up.
- Urgent Care doctors wear scrubs so that patients know that this is a different service.
- Urgent Care notes are made using a different colour from regular notes.
- At the end of each consultation, there is a mandatory classification to show whether it was a General Practice or an Urgent Care consultation.
- All Urgent Care patients are triaged before a consultation and asked whether it is their first presentation for the condition.
- Both Urgent Care and General Practice have regular peer reviews and audits of notes.

[38] Software to assist health professionals to manage their patients efficiently.
[39] National Institute for Health and Care Excellence.

- Urgent Care doctors are encouraged to follow up any investigations they have requested and liaise with the GP if there is anything that warrants further follow-up.
- A Clinical Advisory Group has been formed to oversee all complaints.
- Tui Medical has employed a social worker and an occupational therapist.
- Tui Medical utilises an induction document that outlines each doctor's tasks with regard to handling patient results, responsibility for the management of patient care, and policies and protocols.

ACC advice

72. ACC obtained expert advice from an oncologist and a GP.

Oncology advice

73. An oncologist advised ACC that Mrs A had persistent micro haematuria from November 2014, and it is reasonable to attribute all her bladder symptoms from April 2014 onwards to her progressive cancer. He said that it is probable that a cystoscopy at any time after April 2014 would have revealed significant tumour changes in the bladder and, from November 2014, there would have been a very high probability of finding evidence of early invasive cancer once Mrs A had developed micro haematuria. He said that treatment in 2014/2015 would, in all probability, have been relatively simple for a reasonably well patient of her age.

GP advice

74. A GP advised ACC that from November 2014 the treatment provided to Mrs A appears to have fallen below an acceptable standard. He said that her symptoms and signs were sufficient to raise concern about the possibility of another significant illness, notably glomerulonephritis.[40] This warranted a check of Mrs A's blood pressure, a check for oedema,[41] and blood tests, none of which are evident from the file.

75. The GP advisor stated that in light of the presence of haematuria without infection, Mrs A required careful follow-up, at the very least. He said that the guidelines[42] indicate that symptomatic haematuria in women aged over 40 years requires further investigation and urinary tract imaging, and that if these tests were not completed and acted on appropriately, it was a significant failure of care.

76. The GP advisor advised that there were several occasions of failure in the provision of adequate GP care, and noted that a contributing factor appears to be the large number of different service providers who saw Mrs A for related symptoms.

[40] Acute inflammation of the kidney.
[41] Fluid retention that causes affected tissue to become swollen.
[42] The GP advisor referred to the guidelines on HealthPathways, and BPAC's "Interpreting urine dipstick tests in adults": https://bpac.org.nz/bt/2013/june/docs/BT19-pages-10-21.pdf.

Responses to provisional opinion

Mrs A

77. Mrs A was provided with an opportunity to comment on the "information gathered" section of the provisional decision. Where appropriate, her comments have been incorporated into this report. Mrs A told HDC:

> "My symptoms should have been picked up in 2014. The senior doctor did not diagnose the problem. I am grateful to [Dr B] for sending the referral to [the public hospital]."

78. Mrs A also told HDC that there were times when she dropped into Tui Medical without an appointment as the pain was so severe, and she thought that one of the other doctors would diagnose the problem. She stated: "I'm glad that my complaint has brought changes in Tui Medical."

Dr B

79. Dr B was provided with an opportunity to comment on the provisional opinion. Dr B's lawyer told HDC:

> "[Dr B] has nothing to add regarding the content of the report, beyond what she has already said. She remains deeply regretful about [what] has happened to [Mrs A]. She accepts the report's recommendations."

80. Dr B provided correspondence from MCNZ, which shows that MCNZ completed its Performance Assessment Committee process and determined that Dr B is practising at the required standard of competence, and that no further action is required.

Dr C

81. Dr C was provided with an opportunity to comment on the provisional opinion. She stated that she is pleased that HDC considers that the number of clinicians who saw Mrs A, with no one taking overall responsibility for her care, contributed to the issues. Dr C told HDC:

> "I am deeply sorry for all that [Mrs A] has had to go through as a result of the delayed diagnosis of bladder cancer and the significant impact this has had on her. As previously advised, I have taken this matter seriously and have taken on board your findings and Dr Maplesden's advice and changed my practice."

Tui Medical

82. Tui Medical was provided with an opportunity to comment on the provisional opinion. It told HDC:

> "Tui Medical is confident with the information we have provided to date in the Provisional Report and have no further comments that we feel will have an impact on the outcome of this inquiry."

Opinion: Tui Medical Limited — breach

Introduction

83. Mrs A first attended Tui Medical with urinary tract symptoms in April 2014. Over the following three years, she made repeated visits with urinary tract symptoms that were treated with antibiotics, despite her having no infection present. She was not referred for a specialist review until August 2017, at which time cystoscopy revealed tumours in her bladder.

84. My expert advisor, GP Dr David Maplesden, advised that over at least a year there were numerous missed opportunities for the earlier diagnosis of Mrs A's bladder malignancy. He stated:

> "The number of GP providers involved in [Mrs A's] care over the period in question is exceptional and may well have contributed to the diagnostic delay although this is difficult to prove."

85. In a previous HDC case,[43] Dr Maplesden advised HDC:

> "It is difficult for providers to accurately gauge subtle deteriorations in a patient's condition during multiple sequential presentations, despite use of objective observations, when they are seeing the patient for the first time. When multiple providers are involved the importance of accurate and adequate clinical documentation and good inter-provider communication is paramount …
>
> I acknowledge that many larger medical centers do offer an acute service whereby the patient can be seen in a timely fashion but not necessarily by their regular provider and this mostly works to the patient's advantage. However some thought might be given on how to identify 'risk' situations when a patient is being seen by multiple providers for a significant non-resolving or worsening symptom pattern so optimum coordination management can be achieved."

86. I agree with these comments. I note that from November 2014 to August 2017, Mrs A consulted four GPs and a nurse practitioner about her urinary symptoms. With medical practices focusing less on individual doctor consultations and more frequently involving a multidisciplinary team, attention must be paid to the issues that can arise when no single clinician takes overall responsibility for the patient, and the need to ensure continuity of care.

Deficiencies in care

87. Dr Maplesden advised that Mrs A's management prior to November 2014 was adequate and consistent with accepted practice.

[43] 18HDC02116, page 24 (29 November 2019). Available at www.hdc.org.nz.

19 November 2014 consultation

88. On 19 November 2014, Mrs A was seen by Dr G, primarily because she had a sore throat, but she also raised concerns about having discomfort when passing urine. Another MSU test was performed (this was the fourth MSU test since July 2014) and Dr G noted that the MSU results showed red blood cells and protein in her urine. Dr G prescribed antibiotics and arranged for a blood test to assess Mrs A's renal function. No further MSU test was arranged by Dr G. Dr G told HDC that he regrets not booking an appointment with Mrs A's usual GP to follow up on her urine test results.

89. Dr Maplesden advised that accepted practice would have been to perform a further two or three MSU tests over a two- to four-week period, and refer Mrs A for further investigation if the haematuria persisted in the absence of infection. Dr Maplesden stated:

> "I feel [Dr G's] failure to follow-up [Mrs A's] abnormal MSU result (significant microscopic haematuria in the absence of infection) was a mild to moderate departure from accepted practice."

90. Dr Maplesden also noted mitigating factors that the primary focus of this consultation was the throat infection, and that this was the first occasion on which MSU results had shown significant microscopic haematuria.

91. I accept Dr Maplesden's advice, and I am critical that no further follow-up was arranged despite Mrs A's abnormal MSU result following this consultation.

8 April 2015 consultation

92. On 8 April 2015, Mrs A saw Dr H with a recurrence of urinary symptoms. This was Mrs A's fifth such presentation in nine months from July 2014. A dipstick test showed that Mrs A's urine contained blood and leucocytes. However, no MSU test was performed. Dr H prescribed Ovestin cream and antibiotics.

93. Dr Maplesden advised:

> "Given [Mrs A's] relatively recent history of recurrent urinary symptoms in the absence of infection, I would expect a review of the recent clinical notes and MSU results to be undertaken in order to inform further management decisions. I think had such a review been undertaken, the need for urine microscopy would have been apparent and the test ordered. I am mildly to moderately critical of the failure to order a MSU on this occasion although I cannot predict whether the result would have altered [Mrs A's] ongoing management."

94. I accept Dr Maplesden's advice. I am critical that no further MSU was conducted despite the dipstick test showing red and white blood cells, and despite the notes from previous consultations about Mrs A's MSU results and urinary symptoms.

Subsequent consultations

95. Mrs A did not consult Tui Medical with urinary symptoms for almost 16 months. On 29 July 2016, she saw Dr B and described urinary tract symptoms. An MSU was conducted and she

was prescribed antibiotics. The MSU showed no bacteria, borderline red blood cells, and insignificant pyuria.

96. Mrs A presented to Dr B again on 4 August 2016 with pain on passing urine. Another MSU test showed no infection, but indicated a significant number of red and white blood cells in the urine. Mrs A was prescribed further antibiotics. Dr B saw Mrs A again in February 2017, and a further MSU showed red and white blood cells but no infection.

97. On 19 April 2017, Mrs A saw Dr C. Mrs A complained of urinary frequency, dysuria, nocturia, and blood in her urine.

98. The above consultations are discussed further below in relation to my opinion on the care provided by Dr B and Dr C.

Consultation on 2 May 2017

Handover process when staff go on urgent leave

99. On 2 May 2017, Mrs A was seen by NP D for persistent urinary symptoms, including blood in the urine.

100. NP D conducted an MSU and took a vaginal swab, and advised Mrs A to return for a review and a vaginal examination if the MSU and vaginal swab were negative for infection. NP D then required unplanned leave of several months for a family emergency. The clinical notes document that the MSU result was negative for infection.

101. NP D does not know whether Mrs A received the tests results, or whether anyone reviewed the test results while she was on leave. NP D stated that it was her understanding that her manager would arrange cover for her. Tui Medical told HDC that it appears that Mrs A was not notified of her results on this occasion.

102. Tui Medical stated that its expectation was that clinicians would organise amongst their peers to follow up test results or make alternative arrangements to ensure that results were followed up and not missed.

103. Tui Medical's Results Notification Policy stated: "When a clinician goes on leave a designated team member is nominated to cover his/her patient load. This includes management of patient results." Tui Medical's Clinical Operations Manager job description states that the Clinical Operations Manager was responsible for ensuring that all cover arrangements were made, and that any short notice changes were handled in accordance with organisational priorities.

104. Dr Maplesden advised:

> "I feel [NP D's] intended management (as documented) was clinically appropriate. There may have been a failure in Tui Medical processes to ensure [Mrs A's] results were reviewed in a timely fashion and conveyed to her with appropriate follow-up instructions, following the unexpected and prolonged absence of [NP D]. The

> circumstances of this oversight (if this is the case) have not been clearly delineated in any of the responses."

105. Dr Maplesden considers that "the requirement to organise one's own cover for unplanned leave seems onerous and prone to oversight", and that Tui Medical's policies "are not explicit regarding whose responsibility it is to organise cover for results when the provider is on leave but suggests the Clinical Operations Manager takes an active role in this process". Dr Maplesden stated:

> "In my opinion, the organisation has a responsibility to at least oversee the assignment of results cover when a provider is absent (to confirm adequate cover is in place), whether the absence is planned or unplanned. I believe Tui Medical's processes in this regard were deficient assuming there was no formal cover in place for reviewing of the results of tests ordered by [NP D] which were received during her unplanned and prolonged absence."

106. I accept Dr Maplesden's advice. I am critical that Tui Medical did not have a clear policy for the review of test results when the staff concerned went on leave at short notice. As a result, Tui Medical failed to oversee the assignment of staff to cover the review of test results when NP D was unexpectedly absent from work.

Informing Mrs A about her test results

107. As discussed above, NP D does not know whether Mrs A was informed of her test results. Tui Medical advised that it appears that Mrs A was not notified of her results. However, Mrs A's MSU result was annotated in the clinical notes on 2 May 2017. Although NP D denies that she saw Mrs A's results, the clinical notes indicate her initials next to the result.

108. Dr Maplesden advised:

> "The failure to ensure [Mrs A] was notified of her results and follow-up recommendations would be a moderate departure from accepted practice with the expectation being practices will have a robust system in place to ensure all results are appropriately managed, including how this will occur if the clinician who ordered the test is absent …
>
> If [Mrs A's] results were reviewed by a clinician in [NP D's] absence (and there are comments annotated on the results), but no appropriate follow-up recommendations were provided, I would be at least moderately critical of that clinician."

109. Dr Maplesden further stated:

> "Handling of the results of 2 May 2017 is a critical issue as referral for renal tract imaging and/or urology review was strongly indicated following receipt of the results but was not undertaken for a further four months and it remains unclear who was primarily responsible for this omission."

110. Given the information provided by the parties, I am unable to make a factual finding as to which clinician annotated the result of the MSU test on 2 May 2017. In any event, it is clear that Mrs A was not informed of the test results and, as a result, she was unable to follow the clinical advice given by NP D. I am critical that Tui Medical did not inform Mrs A of her MSU result on 2 May 2017.

Conclusion

111. Dr Maplesden advised:

> "In summary, I think there were numerous missed opportunities over at least a year for the earlier diagnosis of [Mrs A's] bladder malignancy. The number of GP providers involved in [Mrs A's] care over the period in question is exceptional and may well have contributed to the diagnostic delay although this is difficult to prove."

112. In my view, multiple doctors who saw Mrs A over an extended period failed to apply critical thinking, given that at no stage did Mrs A have a laboratory-confirmed UTI to explain her symptoms or her MSU findings.

113. It is essential that where it is likely that patients will be seen by multiple providers during the course of their care, providers such as Tui Medical have processes to optimise continuity of care, particularly in circumstances where patients present repeatedly with the same problem. As I have stated previously:[44] "This is an ordinary occurrence. It is wholly foreseeable and is amenable to straightforward management solutions. The practice of reading the notes is one."

114. In summary, I consider that Tui Medical failed to provide appropriate care to Mrs A for the following reasons:

a) The standard of care at various consultations about urinary symptoms from November 2014 to August 2017 was poor. Mrs A's care was hindered by the failure of multiple doctors to apply critical thinking and, as a result, there were lost opportunities to identify the need to refer Mrs A for renal tract imaging and/or urology review.

b) Tui Medical did not have a clear policy for the review of test results when the staff concerned went on leave at short notice. As a result, Tui Medical failed to oversee the assignment of test results cover when NP D was unexpectedly absent from work.

c) Mrs A was not informed of her test results following the consultation on 2 May 2017.

115. Accordingly, I find that Tui Medical Limited breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).[45] As Mrs A was not informed of her test results, I also consider that Tui Medical breached Right 6(1)(f) of the Code.[46] In addition, the practitioners involved failed to cooperate effectively with one other to ensure that Mrs A received quality and continuity of services, and I find that Tui Medical also breached

[44] Opinion 18HDC02116, page 9.
[45] Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."
[46] Right 6(1)(f) states: "Every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive, including the results of tests."

Right 4(5) of the Code.[47] This is a disappointing case reflecting a markedly suboptimal pattern of care involving several clinicians at Tui Medical and having devastating consequences for their patient. The referral to the Director of Proceedings reflects the extent and severity of this failure.

Opinion: Dr B — breach

29 July 2016 consultation

116. Dr B first saw Mrs A on 29 July 2016. At that consultation, Mrs A complained of left flank pain, dysuria, and urinary frequency, and was feeling cold and weak. Dr B conducted a urine dipstick test, which was positive for leucocytes and blood, and prescribed the antibiotic trimethoprim for a UTI.

117. Dr Maplesden advised: "On 29 July 2016 [Mrs A] presented a recent history of UTI symptoms which I think were managed appropriately on that date …" I accept this advice.

4 August 2016 consultation

118. Mrs A presented five days later on 4 August 2016, and saw Dr B again. Mrs A's symptoms were persisting, and she had brown urine and blood was evident on a dipstick test. Dr B prescribed further antibiotics. A repeat MSU showed significant haematuria and pyuria despite a negative culture. Mrs A was notified of her results, and no further follow-up was undertaken by Dr B.

119. Dr B stated that at that time she had been in general practice for only three months, and she assumed that the UTI had been resistant to the first antibiotic, and so she changed the antibiotic.

120. Dr Maplesden advised that the rationale for prescribing further antibiotics is unclear given the absence of bacteria on the previous MSU. Dr Maplesden stated:

> "[T]here was no confirmed benign explanation for [Mrs A's] urinary symptoms or haematuria … I am moderately critical that follow-up at least with sequential MSUs looking for persistent micro-haematuria, was not undertaken at this time."

121. I am critical that Dr B did not arrange sequential MSUs as a follow-up, and I am also concerned that she prescribed antibiotics despite repeated MSU results showing that there was no infection.

29 November 2016 consultation

122. On 29 November 2016, Dr B saw Mrs A again. This was Mrs A's third consultation with Dr B between July and November 2016. Mrs A told Dr B that her urine was no longer pink, but she was urinating three times per night and sometimes this was uncomfortable. Mrs A also

[47] Right 4(5) states: "Every consumer has the right to co-operation among providers to ensure quality and continuity of services."

discussed her frequent use of Ural sachets. There is no record that dipstick urinalysis or an MSU were undertaken at this consultation.

123. Dr Maplesden advised:

> "I think had there been appropriate review of recent clinical notes it should have been apparent that [Mrs A] required follow-up for her possible reported macrohaematuria [48] and confirmed microhaematuria, [49] particularly given the persistence of her urinary symptoms, the cause of which had still to be clarified … [T]here is nothing to suggest formal follow-up was intended or arranged. I think this is a moderate departure from accepted practice."

124. I am critical that Dr B did not arrange any follow-up actions to investigate Mrs A's persisting urinary problems.

20 February 2017 consultation

125. Dr B saw Mrs A on 20 February 2017 when she dropped off a urine sample for testing. The clinical notes document that this consultation primarily concerned Mrs A's leg and heel injury. The MSU results showed red blood cells in the urine, but again showed no infection. The clinical notes record that Dr B texted Mrs A that the MSU results were normal. Dr B told HDC that she did not realise that the results showed significant red blood cells until she looked at the results again when she saw Mrs A the following August.

126. Dr Maplesden advised:

> "I believe further follow-up of [Mrs A's] abnormal urine result was required, particularly as significant microhaematuria had been demonstrated on two sequential MSU results … with no explanation for the finding. I am moderately critical that such follow-up was not arranged on this occasion."

127. I am critical that Dr B did not arrange further follow-up of Mrs A's abnormal urine result.

28 August 2017 consultation

128. Subsequently, Mrs A saw Dr B on 28 August 2017 and again reported urinary symptoms. On this occasion, Dr B appropriately sent a referral to the DHB Urology service.

Conclusion

129. Dr Maplesden concluded:

> "I feel [Dr B's] management of [Mrs A] departed from accepted practice to a moderate degree. This includes the failure to appropriately follow-up (in a timely manner) reported possible macrohaematuria and confirmed significant microhaematuria in the absence of infection in August 2016, failure to investigate in a timely manner

[48] Blood in the urine visible to the naked eye.
[49] Blood in the urine shown using microscopy or a dipstick test.

persistent urinary symptoms in November 2016, failure to appropriately investigate ongoing significant microscopic haematuria in February 2017."

130. As I have stated previously, clinicians must do the basics — read the notes, ask the questions, and talk with the patient. In this case, Dr B did not review the clinical notes adequately and observe that the cause of Mrs A's persisting urinary symptoms had not been clarified. Dr B failed to think critically when Mrs A presented with repeated UTI symptoms but no evidence of infection, and did not arrange appropriate follow-up in a timely manner. The resultant delay in Mrs A's diagnosis with bladder cancer had significant consequences for her.

131. I consider that Dr B failed to provide services to Mrs A with reasonable care and skill by failing to review her clinical history adequately and follow up her persistent symptoms appropriately. Accordingly, I find that Dr B breached Right 4(1) of the Code.

132. I acknowledge that Dr B underwent a performance assessment by MCNZ, which determined that she is practising at the required standard of competence, and that no further action is required.

Opinion: Dr C — adverse comment

133. Dr C saw Mrs A on only one occasion, on 19 April 2017. Dr C recorded that Mrs A had intermittent urinary symptoms and blood in her urine, and noted that Mrs A had had recurrent urinary symptoms, usually without a positive MSU.

134. A repeat MSU showed haematuria and pyuria but a negative culture. This was the third consecutive MSU over eight months to return a negative culture but show red blood cells in the urine. Dr C told Mrs A that a UTI was possible, but that once a UTI had been treated, all the red blood cells should be cleared. Dr C prescribed antibiotics and asked Mrs A to repeat the MSU in two to three weeks' time, and Mrs A indicated that she would undertake the recommended follow-up with her usual GP.

135. Dr C did not refer Mrs A for renal and bladder imaging. Dr C said that her primary concern was to ensure that the microscopic haematuria resolved, and she considered that it was reasonable to transfer Mrs A's follow-up care back to her usual GP.

136. Dr Maplesden advised:

> "[T]he MSU ordered and reviewed by [Dr C] was the third consecutive MSU over eight months which was culture negative but which showed persistent significant haematuria, with no MSU results showing clearing of haematuria between these episodes. In this circumstance, recommended and accepted management would be referral for renal and bladder imaging and I remain moderately critical of this omission by [Dr C]. However, I think it was reasonable for [Dr C] to have assumed that [Mrs A]

would undertake the follow-up requested (which she did do) and that any persistent abnormality in the urine would be followed up appropriately by her usual GP (which unfortunately did not happen for some months)."

Conclusion

137. I am critical that Dr C failed to consider the extended pattern of Mrs A's presentations, and did not refer Mrs A for renal and bladder imaging, which resulted in a missed opportunity to diagnose her cancer at an earlier stage. However, I note that to some extent this was contributed to by the number of clinicians who saw Mrs A, with no one taking overall responsibility for her care. I also note Dr Maplesden's advice that it was reasonable for Dr C to have assumed that Mrs A would undertake the recommended follow-up with her usual GP.

Recommendations

138. I recommend that Tui Medical Limited:

a) Meet with all staff currently employed by Tui Medical who were involved in the management of Mrs A, to discuss the findings of this report, including the importance of critical thinking, consideration of the overall history of a patient's presentations, and review of a patient's notes. Tui Medical is to provide this Office with evidence of the meeting within six months of the date of this report.

b) Update its policy to address Dr Maplesden's advice that Tui Medical did not have clear policy for reviewing results of tests when the staff concerned required leave at short notice, and provide a copy of the policy to HDC within six months of the date of this report.

c) Review its processes around provision of care to patients who present repeatedly with the same problem, and advise this Office of the outcome of the review within six months of the date of this report.

d) Report back to HDC regarding the implementation and effectiveness of the changes stated at paragraph 71 of this report, within six months of the date of this report.

e) Provide a written apology to Mrs A for the breaches of the Code identified in this report. The apology is to be sent to HDC, for forwarding to Mrs A, within three weeks of the date of this report.

139. I recommend that Dr B:

a) Attend either of the Medical Protection Society's workshops, "Medical Records for General Practitioners" or "Mastering your risk". Dr B is to report back to HDC within ten months of the date of this report, with details of the content of the training and evidence of having attended.

b) Review the HealthPathways guidance on urinary symptoms, and report back to this Office on any changes to practice made as a result, within 10 months of the date of this report.

c) Provide a written apology to Mrs A for the breach of the Code identified in this report. The apology is to be sent to HDC, for forwarding to Mrs A, within three weeks of the date of this report.

140. In response to my recommendation in the provisional opinion, Dr C provided an apology letter to Mrs A. I recommend that Dr C review the HealthPathways guidance on urinary symptoms, and report back to this Office on any changes to practice made as a result, within six months of the date of this report.

Follow-up actions

141. Tui Medical Limited will be referred to the Director of Proceedings in accordance with section 45(2)(f) of the Health and Disability Commissioner Act 1994 for the purpose of deciding whether any proceedings should be taken.

142. A copy of this report with details identifying the parties removed, except the expert who advised on this case and Tui Medical Limited, will be sent to the Medical Council of New Zealand and the Royal New Zealand College of General Practitioners, and they will be advised of Dr B's and Dr C's names.

143. A copy of this report with details identifying the parties removed, except the expert who advised on this case and Tui Medical Limited, will be sent to the Ministry of Health and the District Health Board, and will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Addendum

144. Following negotiations with Tui Medical Ltd, the Director of Proceedings filed proceedings by agreement in the Human Rights Review Tribunal. The Tribunal issued a declaration that Tui Medical Ltd breached Rights 4(1), 4(5) and 6(1)(f) of the Code in respect of their care of Mrs A.

Appendix A: Independent advice to the Commissioner

The following expert advice was obtained from GP Dr David Maplesden:

"1. Thank you for the request that I provide clinical advice in relation to the complaint from [Mrs A] about the care provided to her by Tui Medical. 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 [Mrs A]; response from Tui Medical (TM) per [Dr E]; GP notes TM; clinical notes [DHB]. [Mrs A] states she first attended TM in relation to urinary symptoms (described as *noticing blood in my urine*) in April 2014. Despite repeated visits with urinary symptoms over the next three years, which were treated with antibiotics despite no infection being present, she was not referred for specialist review until August 2017. She underwent cystoscopy which revealed large tumours in her bladder and she has since required major surgery (removal of bladder, uterus and lymph nodes with permanent urostomy and bag) followed by chemotherapy. She feels that the delayed diagnosis negatively impacted on the management and prognosis of her condition.

2. The response from [Dr E] is in the form of a timeline which appears consistent with the clinical notes. [Dr E] notes that since [Mrs A's] complaint, he has introduced relevant clinical guidelines on management of urinary symptoms. I have assumed [Dr E] sought input from the multiple providers involved in [Mrs A's] care when he formulated his response and my subsequent comments are based on this assumption.

3. Clinical notes review

(i) Medical history: [Mrs A] ([in her eighties]) is recorded as having never smoked. Coded medical conditions include: vitamin D deficiency; hypertension; exercise induced asthma; hiatus hernia with GERD; hyperlipidaemia. Regular medications at the start of 2014 included: felodopine, Seretide inhaler, salbutamol inhaler, Singulair, cetirizine, simvastatin and cholecalciferol.

(ii) Summary of consultations[1]

Date	Provider	Comment
2/7/14	[…]	H/o dysuria and flank pain. Otherwise well. Rx nitrofurantoin and for MSU. *Return SOS.* MSU result annotated *Noted* but follow-up of result not evident
23/7/14	[...]	Dysuria, back pain, recent history noted. Comment: *I am wondering about atrophic vaginitis.* Only examination finding is *afebrile.* HVS performed (?self-taken), back pocket script for nitrofurantoin. Repeats of usual meds prescribed.
24/7/14	[...]	HVS positive for bacterial vaginosis. Pt notified and Rx metronidazole. MSU result annotated *ok.* Follow-up plan not evident.

[1] Clinical notes have been reviewed from 1 January 2014. The summary begins at the first consultation for urinary symptoms. Subsequent consultations where no urinary symptoms discussed are shaded.

20/8/14	[...]	C/o knee and thigh pain. Also noted: *urine — uncomfortable to pass, no frequency, no fever/pain abdomen/nausea.* MSU/HVS repeated, treated for osteoarthritis (re knee)
21/8/14	[...]	HVS still positive for bacterial vaginosis. Pt notified and Rx further metronidazole. MSU result annotated *clear*. Follow-up plan not evident.
19/11/14	[...]	c/o sore throat and fever, *also reports discomfort while passing urine.* Tonsillitis evident, temp 38.0, *nil pedal oedema.* BP156/93 then 169/96. Dipstick *RBC and protein++* Throat swab, HVS, MSU and bloods ordered. Rx Co-trimoxazole. *Side effects and red flags discussed, see SOS*
19/11/14	[...]	Bloods showed normal renal function, CBC and ferritin. CRP elevated at 126 mg/L (ref range 0–8). Throat swab light growth Gp A strep. MSU annotated *Normal* with no follow-up indicated
24/11/14	[...]	c/o persistent sore throat, headaches. Recent hx noted and persistent tonsillitis confirmed. Antibiotic changed to Amoxil. No reference to MSU result or ongoing urinary Sx.
17/12/14	[...]	Rpt meds. BP 124/70. No reference to urinary Sx
26/3/15	[...]	Wrist injury. No reference to urinary Sx
8/4/15	[...]	*Dysuria and frequency ?UTI … dipstick shows blood and leucocytes.* UTI suspected. *Advice to trial ovestin cream* and Rx nitrofurantoin, Ovestin and usual meds. No vaginal exam recorded. **No MSU sent.** No follow-up recorded
13/7/15	[...]	Respiratory symptoms and jaw pain. No reference to urinary Sx
28/9/15	[...]	Bilateral knee pain. No reference to urinary Sx
12/1/16	[...]	Wrist pain. No reference to urinary Sx
30/3/16	[...]	Calf pain, Investigated for DVT. No reference to urinary Sx
18/4/16	[...]	Follow-up calf pain. No reference to urinary Sx
26/4/16	[...]	Persistent calf pain. No reference to urinary Sx
7/6/16	[...]	Persistent calf pain. No reference to urinary Sx
16/6/16	[...]	Fall related injuries, calf pain review. No reference to urinary Sx
26/7/16	[...]	Review calf injury. No reference to urinary Sx
29/7/16	[...]	2/7 hx dysuria, frequency, L flank pain. Afebrile , slt L flank tenderness. Dipstick *+ve leuc and blood.* Imp: *Clinically UTI.* MSU sent and Rx trimethoprim
29/7/16	[...]	MSU result has been annotated *nad* and *on abx.* Attempt to inform pt of results recorded 2/8/16
4/8/16	[...]	*UTI Sx. Not as bad but still painful when PU and brown in colour yesterday — today OK. No fever.* Dipstick +ve leuc, large blood. MSU sent for culture and Rx nitrofurantoin. Notes include: *1 wk nitro (given previous improvement — UTI April 2015)*
9/8/16	[...]	GP notes: *TXT Normal Result.* Nurse had been asked to contact pt re results. Her notes are: *Phone patient and she says she got result already from the dr today.* There appeared to be some delay in obtaining the MSU results. **I have obtained the MSU result direct from [lab] as it was not present in the file.** No follow-up of the abnormal MSU result evident.
29/11/16	[...]	Rpt meds and respiratory Sx. Also: *UTT 3x during night for months now. No longer pink. Can be uncomfortable sometimes. Trial Ural 1x*

		with relief. Abdo exam normal. Rx supply of Ural for regular use. **MSU evidently not repeated.**
9/2/17	[...]	Review leg pain. No reference to urinary Sx
20/2/17	[...]	Notes refer to assessment of chronic left leg pain. However, a MSU was ordered implying there was some mention of urinary Sx (not recorded). MSU annotated *no growth.* No follow-up of urine result evident. Blood test results unremarkable.
19/4/17	[...]	Notes include: *urinary symptoms when booking was made initially, seems to be better, frequency/dysuria, nocturia, blood in urine, no fevers … recurrent urinary symptoms without positive MSU usually.* Examination unremarkable. Plan is: *fluids, ural, MSU, discussed trying natural agents.*
21/4/17	[...]	Notes are: *Advised, positive for WCC and red cells. Plan: treat as for UTI, rpt MSU 2–3 weeks to ensure red cells cleared.* Script provided for trimethoprim.
2/5/17	[...]	Notes include: *Pt presents reporting dysuria, cloudy redy tinged urine, blood in the urine on wiping to toilet paper … also increased frequency overnight 4–5 times … Treated for UTI with trimethoprim 21/4/17 but sx didn't improve but is now worse … had similar in the past and ahd BV infection. Pt states odour present but no discharge. Frequent UTI infections … not sexually active ?atrophic vaginitis.* Plan was for MSU/HVS, treat for UTI (nitrofurantoin). To treat for BV if confirmed and *if results negative UTI and swab pt tci for r/v and internal consider atrophic vaginitis or other.*
2/5/17	[...]	HVS result is annotated *n* and MSU result *no growth.* **There is no record of pt being notified of results or the documented follow-up occurring**
7/6/17	[...]	Pt phoned requesting more supplies of Ural. Script arranged with provider … Small supply provided initially and extended following repeat call from pt on 12/6/17
6/7/17	[...]	Phone contact regarding WINZ benefits
28/8/17	[...]	Multiple issues presented. Include: *Takes ural 4x a day every day otherwise gets burning pain when PU with blood-stained urine …* Impression was: *>1yr hx dysuria with haematuria ?2ndary to atrophic vaginitis ?other* MSU repeated and **pt referred for Urology review.**

(iii) Summary of MSU and other results

Date	RBC[2]	WBC[3]	Protein	Culture	Comment
2/7/14	10	40	Tr	Neg	No casts, no bacteria, small number epithelial cells.
23/7/14	20	20	Nil	Neg	No casts, no bacteria, small number epithelial cells (HVS bacterial vaginosis)
20/8/14	10	10	Nil	N/A	No casts, no bacteria, no epithelial cells.

[2] Laboratory reference range 0–13 mill/L. **NB Local guidance recommended referral if persistently >20 mill/L in absence of confirmed benign cause** (see Appendix 2)
[3] Laboratory reference range 0–20 mill/L

					No culture as microscopy indicates infection unlikely (HVS bacterial vaginosis)
19/11/14	80	30	Tr	Neg	No casts, no bacteria, small number epithelial cells.
8/4/15	-	-	-	-	Dipstick urine showed blood and leucocytes. MSU not sent
29/7/16	20	10	Nil	N/A	No casts, no bacteria, small number epithelial cells. No culture as microscopy indicates infection unlikely
4/8/16	>200	>200	-	Neg	No casts, no bacteria, small number epithelial cells.
20/2/17	120	80	Tr	Neg	No casts, no bacteria, no epithelial cells
19/4/17	>200	>200	-	Neg	No casts, no bacteria, small number epithelial cells
2/5/17	>200	>200	-	Neg	No casts, no bacteria, no epithelial cells, (HVS negative)
28/8/17	>200	150	-	Neg	No casts, no bacteria, small number epithelial cells
8/9/17	>200	>200	-	Neg	No bacteria, no epithelial cells
28/11/17	>200	>200	-	Neg	No casts, no bacteria, no epithelial cells

- Blood tests 20 February 2017 showed normal renal function, blood count, CRP, HbA1c and iron studies.
- Blood tests 9 September 2017 showed normal renal function, blood count and iron studies. Urinary albumin:creatinine ratio was elevated at 27.7 mg/mmol (ref range 0.0–2.5)

4. Comments

(i) Unless otherwise stated, I have used the BPAC guidance (Appendix 1) and [the public hospital] Urology referral guidelines (Appendix 2) in commenting on [Mrs A's] management. It is important to note that at no stage in the three year history under review did [Mrs A] have a laboratory confirmed urinary tract infection to explain her symptoms or MSU findings. It is not evident from the clinical notes that [Mrs A] complained of macroscopic haematuria or urine discoloration consistent with macroscopic haematuria until August 2016 and I have assumed the clinical notes to be accurate in this regard.

(ii) I believe [Mrs A's] management up to November 2014 was adequate and consistent with accepted practice. Best practice would have been to undertake a vaginal examination by 20 August 2014 when [Mrs A] had presented for the third time with recurrent urinary symptoms in the absence of urinary infection in order to determine whether atrophic vaginitis was a possible cause and to treat this if the

condition was confirmed. However, a mitigating factor is that bacterial vaginosis had been confirmed which could conceivably cause some urethral irritation, and treatment was provided for this. None of the three MSU results in July and August 2014 met the threshold (RBC >20 mill/ml) for referral for further investigation.

(iii) The consultation of 19 November 2014 was somewhat complex in that [Mrs A] exhibited symptoms of possible Group A strep (GAS) tonsillitis and concurrent dysuria. Dipstick urinalysis showed blood and protein and the possibility of glomerulonephritis secondary to GAS required exclusion. Assessment included blood pressure (moderately elevated) and check for oedema (nil). MSU showed 80 RBC mill/ml. This result required formal follow-up to ensure there was no persistent microscopic haematuria. The result was annotated 'clear' which is correct with respect to infection, but the result also showed significant microscopic haematuria. Accepted practice would be to perform a further two or three MSU samples over a two to four week period and to refer for further investigation if the haematuria persisted (>20 mill/ml RBC) in the absence of infection. While I cannot predict whether the results of repeat MSUs would have been abnormal had they been repeated, I feel [Mrs A's] follow-up was **moderately deficient** on this occasion. Blood tests showed normal renal function and CBC but elevated CRP (reasonably attributable to the concurrent tonsillitis although some of my peers might have repeated this to ensure it returned to normal after treatment). I note [Mrs A] was seen by a nurse practitioner on 24 November 2014 because of persistent throat symptoms but there is apparently no discussion of urinary symptoms on this occasion.

(iv) On 8 April 2015 [Mrs A] presented with recurrence of urinary symptoms (her fifth such presentation in nine months). Dipstick showed blood and leucocytes. MSU was not sent. A trial of Ovestin cream was commenced for presumed atrophic vaginitis and an empiric antibiotic prescription provided. Such management might have been reasonable if this was [Mrs A's] first such presentation. BPAC guidance on the issue of performing urine culture in older people with UTI symptoms[4] includes: *Urine culture is not primarily a tool for the diagnosis of UTIs, as this is largely done on the basis of the patient's symptoms and signs. The main value of urine culture is to inform management of patients with UTIs by confirming the presence of significant bacteriuria and reporting on bacterial susceptibility to antibiotics. Urine culture is not necessary in older female patients with classical symptoms of uncomplicated cystitis, who can be treated empirically. Urine culture should be requested for older female patients with: recurrent cystitis, persistent urinary symptoms following empiric antibiotic treatment, or atypical symptoms to exclude the possibility of a UTI, e.g. nausea, vomiting, confusion or abdominal tenderness.* Given [Mrs A's] relatively recent history of recurrent urinary symptoms in the absence of infection, I would expect a review of the recent clinical notes and MSU results to be undertaken in order to inform further management decisions. I think had such a review been undertaken, the

[4] BPAC. A pragmatic guide to asymptomatic bacteriuria and testing for urinary tract infections (UTIs) in people aged over 65 years. Best Tests. July 2015 https://bpac.org.nz/BT/2015/July/guide.aspx Accessed 30 January 2019

need for urine microscopy would have been apparent and the test ordered. I am **mildly to moderately critical of** the failure to order a MSU on this occasion although I cannot predict whether the result would have altered [Mrs A's] ongoing management. It was reasonable to trial Ovestin cream given the prevalence of atrophic vaginitis in [Mrs A's] age-group but best practice would have been to confirm the suspicion of this condition by way of vaginal examination, and to schedule formal follow up to assess the response to treatment.

(v) There was no further consultation for urinary symptoms for almost 16 months. It is unclear whether [Mrs A] was asymptomatic over this period (perhaps response to the Ovestin trial) or just did not report her symptoms. On 29 July 2016 she presented a recent history of UTI symptoms which I think were managed appropriately on that date with empiric antibiotics and MSU. The MSU showed no bacteria (culture not undertaken), borderline RBC (20 mill/ml) and insignificant pyuria, meaning infection was an unlikely diagnosis. [Mrs A] presented five days later (4 August 2016) with persisting symptoms and brown urine (possibly representing macroscopic haematuria) with 'large' blood evident on dipstick. Further antibiotics were prescribed, the rationale for which is unclear given the absence of bacteria on the previous MSU. Nevertheless, the MSU was repeated and was culture negative (not unsurprising given recent antibiotics) but on this occasion showed significant haematuria and pyuria (both results >200 mill/ml). GP notes suggest [Mrs A] was notified her results were normal. No follow-up was undertaken. As discussed previously, there was no confirmed benign explanation for [Mrs A's] urinary symptoms or haematuria (by this stage possibly macrohaematuria) and I believe follow-up, as per the cited guidance, was indicated. While the absence of any presentation with urinary symptoms for a prolonged period might be regarded as a mitigating factor, I am **moderately critical** that follow-up, at least with sequential MSUs looking for persistent micro-haematuria, was not undertaken at this time.

(vi) [Mrs A] reported persistent urinary symptoms on 29 November 2016 with the GP noting the urine was 'no longer pink' implying there was an awareness of possible previous macroscopic haematuria. It does not appear there was either dipstick urinalysis or MSU undertaken. I think had there been appropriate review of recent clinical notes it should have been apparent that [Mrs A] required follow-up for her possible reported macrohaematuria and confirmed microhaematuria, particularly given the persistence of her urinary symptoms, the cause of which had still to be clarified. I note symptomatic treatment (Ural) was provided based on [Mrs A] reporting this might have eased her symptoms, but there is nothing to suggest formal follow-up was intended or arranged. I think this is a **moderate departure** from accepted practice.

(vii) The consultation of 20 February 2017 does not contain any reference to presentation of urinary symptoms but a MSU was ordered and a number of blood tests performed. This consultation is not addressed in the TM response and I suggest the provider be given an opportunity to explain why a MSU was ordered. I would be **moderately critical** if [Mrs A] presented urinary symptoms at this consultation and the

history was not documented, although the primary reason for the consultation appears to have been musculoskeletal issues. The MSU result has been annotated 'no growth' which is correct, but there was significant haematuria (120 mill/ml RBC) and pyuria present. It is not clear what [Mrs A] was told about these results but the clinical record 21 February 2017 includes *TXT Normal Result.* For the reasons previously discussed I believe further follow-up of [Mrs A's] abnormal urine result was required, particularly as significant microhaematuria had been demonstrated on two sequential MSU results (albeit over a period of six months) with no explanation for the finding. I am **moderately critical** that such follow-up was not arranged on this occasion.

(viii) [Mrs A] was reviewed on 19 April 2017. Intermittent urinary symptoms were present and the provider recorded *blood in urine.* I take this to mean the patient reported macrohaematuria as there is no reference to dipstick urinalysis being performed. MSU was ordered and [Mrs A's] history of *recurrent urinary symptoms without positive msu usually* was noted. Urine microscopy showed significant haematuria and pyuria (the third sequentially (over eight months) showing such a result) but was culture negative. The GP has annotated the RBC and pyuria findings and then provided treatment with antibiotics and Ural. The rationale for antibiotic treatment is unclear. There was a documented plan to *rpt msu 2–3 weeks to ensure red cells cleared.* I believe referral was warranted at this point given [Mrs A's] history and sequential MSU results, but the provider's intention to follow-up in the near future with repeat MSU was probably not an unreasonable alternative plan. I would regard such follow-up as critical under the circumstances and results required tracking to ensure appropriate action. This does not appear to have been done although the involvement of yet another provider may have complicated matters. Nevertheless, it is not apparent the provider checked that an MSU had been performed within the recommended time frame, or the result of that MSU (see below) meaning yet another opportunity to identify the need for [Mrs A] to be referred was lost. Noting there was at least an intention to follow-up appropriately on this occasion, I am **moderately critical** the intention was not followed through.

(ix) [Mrs A] presented to a nurse practitioner (NP) two weeks later (2 May 2017) reporting persistent/worsening urinary symptoms including macrohaematuria. There had been no improvement with antibiotics. Possible concurrent bacterial vaginosis was discussed. Atrophic vaginitis was considered in the differential diagnosis. MSU and HVS were performed with empiric prescribing of nitrofurantoin while results were awaited. The documented plan was for [Mrs A] to return for review and vaginal examination if MSU and HVS were negative for infection. Results were negative for infection and were annotated as such by the nurse practitioner. It is not evident from the notes what follow-up (if any) was arranged with the patient. The MSU confirmed significant haematuria and pyuria. **The NP should be asked to clarify what follow-up was arranged in relation to the results she reviewed.**

(x) During June 2017 a provider not previously involved with [Mrs A's] care was asked to prescribe further supplies of Ural sachets for her. This might have been a missed opportunity to identify the urgent need to review [Mrs A's] symptoms but would have

required detailed review of the notes prior to prescribing. Ural is an innocuous medication which can be purchased without a prescription and I think it was reasonable for the prescribing GP to assume this was being provided to [Mrs A] for minor urinary symptoms for which previous prescribing had been deemed suitable by her usual provider.

(xi) On 28 August 2017 [Mrs A] again presented with urinary symptoms and macroscopic haematuria and on this occasion the need for urgent further investigation was finally acknowledged and appropriate referral arranged.

(xii) In summary, I think there were numerous missed opportunities over at least a year for the earlier diagnosis of [Mrs A's] bladder malignancy. The number of GP providers involved in [Mrs A's] care over the period in question is exceptional and may well have contributed to the diagnostic delay although this is difficult to prove. I think TM should review its process around provision of care to patients presenting repeatedly with the same problem to optimise continuity of care wherever possible. Providers should be encouraged to access appropriate local guidance (now available as [the] Region Community Health Pathways [website reference]. Given the adverse comments I have made in this report, opportunity should be given to individual providers to further clarify their rationale for the various management decisions undertaken."

Appendix 1: Extracts from 2013 BPAC article[5]

(i) Transient, non-visible haematuria is common and, depending on the studied population, may be reported in as many as 39% of people. It is associated with a mixture of urological and glomerular causes. Persistent, nonvisible haematuria is defined as urine positive on two out of three consecutive dipsticks, e.g. over a one to two week period. It is estimated to occur in 2.5–4.3% of adults seen in primary care.

(ii) Haematuria can be symptomatic or asymptomatic. Relevant lower urinary tract symptoms include dysuria, frequency, urgency and hesitancy. Anticoagulant and anti-platelet medicines are more likely to exacerbate, rather than cause, haematuria. Therefore patients who are taking these medicines who present with haematuria require investigation.

(iii) Clinical suspicion of significant urological disease should be raised in people with haematuria with the following risk factors: History of recurrent visible haematuria; Age over 40 years; Current smoker or recent history of smoking; History of recurrent urinary tract infection (UTI) or other urological disorders; Occupational exposure to chemicals or dyes; Previous pelvic irradiation; History of excessive analgesic use; Treatment with cyclophosphamide.

(iv) A clinical history and examination may indicate a possible source of bleeding. As urinary tract infection (UTI) is a common cause of haematuria, this should first

[5] BPAC. Interpreting urine dipstick in adults: A reference guide for primary care. Best Tests. 2013;19 https://bpac.org.nz/bt/2013/june/docs/BT19-pages-10-21.pdf Accessed 30 January 2019

be considered and excluded. Non-visible haematuria is often transient so persistence should be confirmed by the presence of two out of three positive dipstick tests, seven days apart.

(v) Non-visible haematuria is regarded as significant once transient causes, e.g. urinary tract infection (UTI) or exercise, or benign causes, e.g. menstruation, have been excluded. Urinary tract imaging is indicated for all patients of any age with recurrent, symptomatic, non-visible haematuria. Urological assessment and cystoscopy is also required for patients aged over 40 years, or for patients with risk factors for urothelial malignancy.

(vi) Baseline assessment of blood pressure and renal function with testing of creatinine (eGFR), ACR/PCR and urine microscopy for urinary casts and dysmorphic red cells are also recommended to identify patients with a renal medical cause for non-visible haematuria.

Appendix 2: Local guidance for management of haematuria in place until mid-2018[6]

6. Macro Haematuria

Please perform the following investigations:

- **MSU - if MSU shows infection, then treat and repeat MSU post treatment. If now negative, then no further management required. If positive, then further investigation required.**
- urine cytology x 3 (only in patients with history of smoking)

If either of these is positive, then refer for a CT, with the above investigations attached.

If cytology positive, still refer for a CT **PLUS** refer **HSCAN** to urology

Note - **if patient is <40 year old**, consider referral for an U/S, to try and avoid radiation from a CT scan, especially in women (this may be discussed with a urologist if unsure).

7. Macro Haematuria - Order CT scan

- If a cancer is detected, refer **HSCAN** to urology
- If CT is negative, then refer urology marked "semi-urgent."
- If patient is >40 yr old, they will undergo a flexible cystoscopy within 6 weeks of referral
- If patient is <40 yr old, consider referral for an U/S, to try and avoid radiation from a CT scan, especially in women.

8. Micro Haematuria

Must have persistent proven haematuria in at least 2 out of 3 urine microscopy samples, showing **>20 million RBC/L.** (Note: dipstick positivity is not acceptable)

If MSU is otherwise negative then refer for renal U/S.

9. Micro Haematuria - Non-smoker

If the patient has never smoked, request a Renal U/S

If a lesion is visible on U/S, refer to urology as **HSCAN**. The patient will be seen within 2 weeks of referral

If no lesion is visible, refer "routine" to urology. The patient will be seen for a flexible cystoscopy within 3 months of referral.

10. Micro Haematuria - Current or ex-smoker

If patient is a current or ex-smoker, request the following:

- urine cytology x 3 and
- U/S renal

If a lesion is visible on U/S, refer to urology as HSCAN. The patient will be seen within 2 weeks of referral for a flexible cystoscopy

If no lesion is visible, refer "routine" to urology. The patient will be seen for a flexible cystoscopy within 3 months of referral.

[6][Website reference], Accessed 30 January 2019

Further advice

The following further expert advice was obtained from Dr Maplesden:

> "1. I have reviewed the additional responses you have provided to me. There is no new material that significantly alters my original advice dated 4 February 2019, but I have clarified my opinion of the departures from accepted practice per individual provider below. Section references refer to my original advice. The remedial measures undertaken since this complaint appear reasonable and should go some way towards addressing the issue of multiple providers leading to fragmented care. I note there has been education provided to Tui Medical staff regarding appropriate management of haematuria.
>
> 2. [Dr G] (see 4 (iii)) — I feel [Dr G's] failure to follow-up [Mrs A's] abnormal MSU result (significant microscopic haematuria in the absence of infection) was a mild to moderate departure from accepted practice. Mitigating factors are the co-existence of GAS throat infection which was the primary reason for the consultation, and which was managed appropriately, and this was the first occasion on which MSU results had shown significant microscopic haematuria. An exacerbating factor is that this was the fourth report of urinary symptoms in four months and none of the four MSU results over this period had been positive for infection.
>
> 3. [Dr H] (see 4 (iv)) — I feel [Dr H's] failure to follow-up [Mrs A's] previous abnormal MSU when [Mrs A] presented with recurrence of urinary symptoms was a mild to moderate departure from accepted practice. Mitigating factors are the length of time (five months) since previous report of urinary symptoms, and that a trial of treatment was provided for a likely cause of the symptoms (atrophic vaginitis). Exacerbating factor is the failure to arrange/record any follow-up of response to the trial of Ovestin.
>
> 4. [Dr B] (see 4(v)–4(vii)) — I feel [Dr B's] management of [Mrs A] departed from accepted practice to a moderate degree. This includes the failure to appropriately follow-up (in a timely manner) reported possible macrohaematuria and confirmed significant microhaematuria in the absence of infection in August 2016, failure to investigate in a timely manner persistent urinary symptoms in November 2016, failure to appropriately investigate ongoing significant microscopic haematuria in February 2017. I note [Dr B] did eventually make an appropriate referral for specialist review in late August 2017.
>
> 5. [Dr C] — (see 4(viii)) — I am moderately critical that [Dr C] apparently diagnosed [Mrs A] with urinary tract infection following receipt of a MSU result which did not confirm this diagnosis, and failed to appropriately further investigate her symptoms and abnormal MSU result, or to recommend [Mrs A] see her regular GP for such follow-up. There was an apparent failure to acknowledge the significance of observed microscopic haematuria in the absence of infection, or to note [Mrs A's] (by now) long history of recurrent urinary tract symptoms and significant haematuria in the absence of infection on previous MSU results which had yet to be investigated.

6. [NP D] (see 4(ix)) — I feel [NP D's] intended management (as documented) was clinically appropriate. There may have been a failure in Tui Medical processes to ensure [Mrs A's] results were reviewed in a timely fashion and conveyed to her with appropriate follow-up instructions, following the unexpected and prolonged absence of [NP D]. The circumstances of this oversight (if this is the case) have not been clearly delineated in any of the responses. The failure to ensure [Mrs A] was notified of her results and follow-up recommendations would be a moderate departure from accepted practice with the expectation being practices will have a robust system in place to ensure all results are appropriately managed, including how this will occur if the clinician who ordered the test is absent. The current results management policy provided in the Tui Medical response is similar to those I have reviewed from other practices and appears adequate. If [Mrs A's] results were reviewed by a clinician in [NP D's] absence (and there are comments annotated on the results), but no appropriate follow-up recommendations were provided, I would be at least moderately critical of that clinician. [NP D] denies being that clinician.

7. With regard to the repeat prescribing of Ural sachets in June 2017 (see s 4(x)), the importance of the prescribing clinician reviewing recent clinical notes and ensuring the prescription is appropriate should be emphasised. This was a missed opportunity to identify the oversight with respect to [Mrs A's] intended follow-up from her May 2017 consultation with [NP D] but as discussed in my original advice, the fact the medication is available without prescription was a significant mitigating factor. I have no further comments or recommendations."

The following further expert advice was obtained from Dr Maplesden:

"I have reviewed additional responses from: Tui Medical (per chief medical officer [Dr E]) dated 17 October 2019; [Dr B] (per legal representative) dated 11 October 2019; [Dr C] dated 2 October 2019.

1. Response from Tui Medical includes the comment: *It is … an expectation that clinicians organize amongst their peers to follow-up test results or make alternate arrangements to ensure these are followed up and not missed. I acknowledge this is not a perfect system but for the most part it works well.*

(i) From Tui document: Results Notification Policy

3.1 All incoming laboratory results are seen and actioned by the staff member who requested them, or a designated deputy.

3.3 When a clinician goes on leave a designated team member is nominated to cover his/her patient load. This includes management of patient results.

(ii) From Tui document: Job Description — Clinical Operations Manager

2.3 Ensure all cover arrangements are made and any short notice changes handled in accordance with organizational priorities. Act as point of contact and control for roster changes.

(iii) [NP D's] absence was sudden and unplanned. It is not clear if she was aware of the apparent requirement for her to organise her own cover for her patient results but in a previous response she has stated she believed her Clinical Manager would organise such cover. The requirement to organise one's own cover for unplanned leave seems onerous and prone to oversight, particularly if the provider's sudden absence is due to personal ill-health or stressful adverse event (as was the case here). The policies cited above are not explicit regarding whose responsibility it is to organise cover for results when the provider is on leave, but suggests the Clinical Operations Manager takes an active role in this process, particularly if the leave is 'short notice'. In my opinion, the organisation has a responsibility to at least oversee the assignment of results cover when a provider is absent (to confirm adequate cover is in place), whether the absence is planned or unplanned. I believe Tui Medical's processes in this regard were deficient assuming there was no formal cover in place for reviewing of the results of tests ordered by [NP D] which were received during her unplanned and prolonged absence. I note the results in question were initialled (and therefore presumably filed) by [NP D]. I am unable to establish the date of filing. An audit of the results should confirm the date on which they were accessed and filed, and the log-in ID of the person filing them.

(iv) My comments in the supplementary advice dated 26 August 2019 regarding [NP D's] management of [Mrs A] on 2 May 2017 have been made with the assumption, based on [NP D's] responses, that she was not aware of the results of the tests she ordered or whether [Mrs A] had been notified of the results. Handling of the results of 2 May 2017 is a critical issue as referral for renal tract imaging and/or urology review was strongly indicated following receipt of the results but was not undertaken for a further four months and it remains unclear who was primarily responsible for this omission.

2. The response from [Dr B] does not contain any new information.

3. The response from [Dr C] includes the following points:

(i) [Dr C] was not made aware of the context (HDC complaint) of her being asked to provide an account of her contact with [Mrs A] when she provided her initial response.

(ii) [Mrs A's] symptoms on 17 April 2017 were typical for UTI and [Mrs A] *mentioned she had had UTIs in the past but usually there was no growth. She said her symptoms were improved on the day of consultation.*

(iii) [Dr C] decided to wait for a MSU culture result before diagnosing UTI as the cause of [Mrs A's] symptoms. [Dr C] states she advised [Mrs A] of the results of the MSU after they were received on 21 April 2017, saying *that it was unusual to have that many white and red cells without the culture showing bacteria.* [Dr C] considered infection was a possible cause of the presence of white and red cells in the urine sample and this was the rationale for prescribing antibiotics. [Dr C] asked [Mrs A] to repeat the MSU in 2–3 weeks *to ensure that the red cells had cleared from the urine.*

[Mrs A] indicated she would undertake the recommended follow-up with her usual GP ([Dr B]) and [Dr C] states she had no reason to doubt [Mrs A's] reassurance regarding follow-up.

(iv) In my previous advice, I was critical that [Dr C] provided treatment for a UTI when the MSU result was culture negative. On undertaking a literature search, I have found one paper[7] which suggests *that almost all women with typical urinary complaints and a negative culture still have an infection with E. coli.* While I do not believe this finding precludes the need to follow accepted guidance (previously cited) in regard to investigation of unexplained (culture negative) microscopic haematuria, I retract my previous criticism related to [Dr C's] prescribing of antibiotics.

(v) However, the fact remains that the MSU ordered and reviewed by [Dr C] was the third consecutive MSU over eight months which was culture negative but which showed persistent significant haematuria, with no MSU results showing clearing of haematuria between these episodes. In this circumstance, recommended and accepted management would be referral for renal and bladder imaging and I remain moderately critical of this omission by [Dr C]. However, I think it was reasonable for [Dr C] to have assumed that [Mrs A] would undertake the follow-up requested (which she did do) and that any persistent abnormality in the urine would be followed up appropriately by her usual GP (which unfortunately did not happen for some months)."

[7] Heytens S et al. Women with symptoms of a urinary tract infection but a negative urine culture: PCR-based quantification of Escherichia coli suggests infection in most cases. Clin Microbiol Infect. 2017;23(9):647–652.