General Practitioner, Dr A
Medical Centre 1

A Report by the
Deputy Health and Disability Commissioner

(Case 21HDC00473)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. This report concerns the care provided to Mr B between 2017 and 2020 by Dr A in relation to prostate cancer screening. Dr A is also a relative of Mr B.

2. Mr B presented to Dr A in 2017 and underwent routine screening blood tests, which indicated that Mr B had a raised prostate-specific antigen (PSA) level.

3. Mr B should have been informed of his PSA result and sent for further investigation. However, Dr A did not do this, and said that he did not want to inform Mr B of his results when he was experiencing a hypertensive crisis.

4. Mr B made several visits to Dr A over the next three years seeking advice for symptoms he was experiencing. Dr A did not inform Mr B of his PSA result at any of these visits.

5. Dr A failed to inform Mr B of this result until a repeat PSA test was done in 2020, which showed a very high PSA result. Mr B was then diagnosed with metastatic prostate cancer.

6. This report highlights the importance of full disclosure of information to patients, the appropriate management of test results, and the need for healthcare practitioners to consider the appropriateness of treating family members.

Findings

7. The Deputy Commissioner considered that Dr A failed to take appropriate action following receipt of Mr B's abnormal test result, and that Dr A's management of the result was not consistent with Ministry of Health guidelines. Accordingly, the Deputy Commissioner found Dr A in breach of Right 4(1) of the Code.

8. The Deputy Commissioner also found that Dr A's failure to inform Mr B of his abnormal test result within a reasonable time constituted a breach of Right 6(1) of the Code.

9. The Deputy Commissioner made adverse comment about Dr A treating a relative and criticised his use of administrative aids such as recall tasks.

Recommendations

10. The Deputy Commissioner recommended that Dr A provide Mr B with a written apology, undertake self-directed learning about the importance of sharing test results, undertake an audit of the current policies at his practice to ensure that they are appropriate in light of the learnings from this case, and reflect on how his familial relationship with Mr B affected his care.

11. The Deputy Commissioner recommended that the Medical Council of New Zealand consider whether a review of Dr A's competence is warranted in light of the concerns outlined in this report.

Complaint and investigation

12. The Health and Disability Commissioner (HDC) received a complaint from Mr B about the services provided by Dr A and Medical Centre 1. The following issues were identified for investigation:

- *Whether Dr A provided Mr B with an appropriate standard of care between August 2017 and December 2020 (inclusive).*
- *Whether Medical Centre 1 provided Mr B with an appropriate standard of care between August 2017 and October 2019 (inclusive).*

13. This report is the opinion of Deputy Commissioner Deborah James and is made in accordance with the power delegated to her by the Commissioner.

14. The parties directly involved in the investigation were:

Dr A	Provider/general practitioner (GP)
Mr B	Consumer
Medical Centre 1	Group provider/medical centre

15. Further information was received from:

Medical Centre 2	Medical centre
DHB1	District health board
DHB2	District health board

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

Information gathered during investigation

Background

17. Mr B[1] had seen Dr A[2] for GP care for over 20 years at Medical Centre 1 and at Medical Centre 2,[3] the practice to which Dr A moved in 2019. Dr A is a relative of Mr B. This report focuses on the care provided while Dr A was still practising at Medical Centre 1.

18. Mr B has a history of several health problems, including an episode of chest pain in July 2009. He also has a family history of prostate cancer. In 2011, Dr A discussed routine

[1] In his sixties at the time of the 2017 test (discussed below).
[2] Dr A is a GP with an annual practising certificate from the Medical Council of New Zealand. He is a Fellow of the Royal New Zealand College of General Practitioners.
[3] HDC is not concerned with the care provided by Medical Centre 2. This investigation focuses on the care provided by Dr A while he was at Medical Centre 1.

screening with Mr B, and recommended that he complete a prostate-specific antigen (PSA) test.[4] However, the test was not completed at this time.

3 August 2017 test

19. Mr B told HDC that he went to see Dr A on 3 August 2017 with a throbbing vein in his upper left leg, an uncomfortable perineum,[5] and a low libido. He said that as a man in his sixties with a family history of prostate cancer, he was concerned about these symptoms.

20. Dr A told HDC that on 3 August 2017, Mr B did not have an appointment, and attended with his wife while she was having an appointment. While there, he reported increased headaches and fatigue, and they discussed episodes of pale skin and blue lips when stressed and a family history of heart disease. Dr A extended the consultation time to see Mr B also.

21. In response to the provisional opinion, Mr B told HDC that on 3 August, effectively his wife's appointment was given over to him because of the urgency of his matters.

22. Dr A took Mr B's blood pressure, which was 185/107mmHg,[6] and carried out a cardiovascular examination, which was normal. Mr B explained the high levels of stress he was under due to his work and personal life. He was taken to the nurse's clinic for further assessment. Mr B was given metoprolol[7] to lower his blood pressure.

23. Dr A told HDC that because Mr B had not booked an appointment and the examination took considerable time, and the waiting room was full, there was no time to investigate any other health issues. Dr A said that he does not remember any complaint regarding a throbbing vein in Mr B's upper left leg, or his uncomfortable perineum and low libido, and there is no documentation of such complaints in the clinical record.

24. In response to the provisional opinion, Mr B told HDC that he has a firm recollection of reporting the above symptoms to Dr A during the consultation, and he is surprised that there is no mention of this in Dr A's records.

25. Mr B was given a blood test form, primarily for an urgent cardiovascular risk assessment, but the requested tests also included a PSA screening test. Mr B completed the blood tests on the same day, and the results were returned to Dr A the following day (4 August 2017).

26. In response to the provisional decision, Dr A said that in 2011 he had a full and detailed discussion with Mr B about the PSA screening test but accepts that "given all that occurred at the 3 August 2017 fit-in consultation there was not such a full discussion".

[4] The PSA test is a blood test used primarily to screen for prostate cancer. The test measures the amount of prostate-specific antigen (PSA) in blood.
[5] The area between the anus and genitals.
[6] Normal blood pressure is considered 120/80mmHg.
[7] Used to treat high blood pressure.

27. The normal range for PSA levels in a man of Mr B's age is ≤4.0ng/ml. The test results of 4 August 2017 showed that Mr B's PSA level was 30ng/ml. The following note accompanied the result:

> "The elevated PSA exceeds the recommended level for referral (under the MOH[8] guidelines). If this is a repeat raised value, or in the presence of abnormal digital rectal examination (DRE) or other red flag conditions,[9] refer to a urologist."

28. Medical Centre 1 told HDC that it had a protocol to ensure the timely communication of abnormal test results, which required the doctor who ordered the test to follow up with the patient. Dr A did not contact Mr B to advise him of the abnormal test result received. Dr A told HDC that he believed that Mr B was critically unwell due to stress, which they were addressing. He felt that if he were to follow the protocol and ask Mr B to come into the practice to discuss the PSA result, it would have caused more harm, with a significant rise in blood pressure and possibly a stroke or heart attack. Dr A told HDC that he wanted to inform Mr B once his blood pressure was under control.

29. In response to the provisional opinion, Mr B told HDC that he does not believe that such information would have overloaded him with stress but rather galvanised him to take the appropriate action immediately.

30. According to Medical Centre 1's internal audit, on 7 August 2017 Dr A created a "post-it note" highlighting the PSA rest result on Mr B's clinical records on the patient management system.[10] Medical Centre 1's test result policy required significant test results that needed follow-up to be noted on recalls, which doctors or nurses can set up using a "Recall" task on the system.

31. In response to the provisional opinion, Dr A told HDC that although a new tests policy was introduced at his practice in mid-2016, the "Patient Test Results and Reports Management Policy" that Medical Centre 1 has referred to was not finalised or made fully operational until March 2018.

32. Also in response to the provisional opinion, Dr A told HDC that once he saw Mr B's PSA result he created a digital "to do" note and a "post-it note" with the expectation that Mr B would be back within a few days to discuss the result. Dr A said that the system at the time should have chased Mr B to come in, and it is unlikely that this did not happen as there would have been an outstanding note at reception.

[8] Ministry of Health.

[9] Acute nervous system symptoms, kidney failure, bone pain, visible blood in the urine without a urinary tract infection.

[10] Medical Centre 1's patient management system allows clinicians to set reminders using different "recall tasks" depending on the seriousness of the matter that needs to be followed up. A correctly set up recall task should prompt the clinician to follow up on a matter. The system also allows for "post-it notes" to be created, which act in a similar manner to a recall task but without the reminder function.

2017 consultations

33. Mr B returned to Dr A on 16 August 2017 as a follow-up regarding his stress levels. His blood pressure was still high, and he still had the cardiovascular symptoms he had presented with on 3 August 2017. Dr A investigated and treated the blood pressure issues, but again decided not to inform Mr B of his elevated PSA levels until his blood pressure was under control.

34. In response to the provisional opinion, Dr A told HDC that he vividly recalls how distressed Mr B was and the shared concern they had about Mr B's heart. Dr A said that they were in the nurses' station, which was not a place where they could speak easily, and Mr B's stress and agitation during this discussion was such that Dr A felt that it was not an appropriate time to discuss the raised PSA result.

35. On 25 August 2017, Dr A had a telephone call with Mr B, during which they discussed that his symptoms were abating with the increased medication. Dr A told HDC that he stressed to Mr B the importance of seeing him in person. Dr A said that he intended to inform Mr B of the PSA result at this next consultation but did not push the issue so as not to alarm Mr B over the phone.

36. In response to the provisional opinion, Mr B told HDC that he has no recollection of Dr A saying that he wanted him to visit the surgery, and has no record of any emails or telephone messages to this effect.

37. The next time Dr A saw Mr B was on 12 September 2017, when he attended Medical Centre 1 following a fall (this was not a booked appointment). Dr A was called into the nurses' room to assess Mr B for an injury to his wrist caused by the fall, and to review his blood pressure. Dr A did not mention the PSA result from 4 August 2017 at this time.

38. Mr B told HDC that at both the consultation on 16 August 2017 and the unexpected visit to the nurse on 12 September 2017, he presented to Dr A with the same symptoms as the 3 August 2017 presentation — the throbbing vein in the upper left leg, the uncomfortable perineum, and low libido. Mr B said that he was told that these symptoms were stress related.

39. Dr A told HDC that on reflection, if Mr B had come to see him during an appointment, as they had discussed, then he would have sat him down properly and told him the news of his PSA result, and actioned urgent specialist referral. The visit to the nurse on 12 September 2017 was not an appointment booked directly with Dr A and was added on to his fully booked morning session. The nurse asked Mr B to return to see Dr A. Dr A said that he did not see the task message[11] regarding the raised blood pressure and PSA levels while he was with the nurse, and at the time he had forgotten about the result. Dr A believes this was because his attention was on a possible head injury[12] and cardiovascular concerns.

40. In response to the provisional opinion, Mr B told HDC that he is firm in his recollection that he told Dr A about his ongoing throbbing vein, uncomfortable perineum, and low libido. He

[11] On the patient management system.

[12] Mr B stated in response to the provisional opinion that there was no head injury, only a minor wrist injury.

believes that these "red flag" symptoms should have "rung alarm bells" in relation to his PSA result.

41. In response to the provisional opinion, Dr A told HDC that because he saw Mr B after he had been seen by the nurse, the "post-it" note would not have been on the screen. Dr A also recalled that on 12 September 2017 he attempted to call Mr B when he realised that he had forgotten to bring up the PSA result. However, HDC has seen no evidence of this call.

42. Dr A also told HDC that "at some point" between 12 and 25 September 2017 he asked the nurses to follow up, and he recalls being told that they could not get hold of Mr B, as his mobile voicemail was inactive, and his home phone mailbox was full. Dr A said that as the nurses had been unable to get hold of Mr B, he also tried to telephone him after hours, but at that time he did not write a note if he was unsuccessful in making contact.

43. Dr A planned a holiday shortly after this, and, while clearing his emails in preparation for this, he noted that Mr B's raised PSA level was still an open matter. Dr A noted that a recall task was still in place, and that Mr B had not attended an appointment to follow up on his blood pressure and injuries following the fall. Dr A told HDC that he called Mr B on 25 September 2017 to follow up but was unable to reach Mr B on his mobile phone, and there was no option to leave a voicemail. Dr A said that he then called and left a message on Mr B's home answerphone stressing the need for review, and asking Mr B to come to see him before he went on holiday the following week. Dr A said that despite his attempts to get hold of Mr B, there is no record of him returning to Medical Centre 1 until 7 May 2018.

44. In response to the provisional opinion, Mr B told HDC that he did not attend a follow-up appointment as he did not know he needed one. He has no recollection or record of Dr A calling him. He did not return until six months later because he did not know there was anything seriously wrong.

45. In response to the provisional opinion, Dr A told HDC that he took a number of actions that are missing on the patient management system (discussed further below). He stated that although he made reasonable attempts to ensure further follow-up, a record of these was likely lost because of computer failure, as the practice system experienced a number of difficulties between 2016 and 2018.

46. Regarding the 25 September 2017 phone call, Dr A told HDC that he accepts that there is no recording of the call in his records other than the heading "phone call". He added that the heading-only note is consistent with past results of "computer-crashes" leading to the loss of the record. He provided his standard process for recording this type of note.

2018 consultations

47. On 7 May 2018, Mr B presented to Dr A with high blood pressure, performance anxiety, and a migraine following increased stress in his life. Dr A did not mention the abnormal PSA result from 4 August 2017, or arrange further PSA testing or follow-up at this appointment.

48. In response to the provisional opinion, Dr A told HDC that on 7 May 2018 Mr B was seen first at the nurses' station, so the "post-it note" would have been closed.

49. Mr B attended his next appointment with Dr A on 31 July 2018. Mr B was concerned that the symptoms he was experiencing[13] were related to the blood pressure medication he was taking. Dr A treated Mr B's blood pressure but did not take further action in relation to the abnormal PSA result from 4 August 2017.

50. In response to the provisional opinion, Dr A told HDC that he does not understand how the PSA was missed being put on to the "recall" task list when CVDRA[14] information was added in December 2017.

51. Mr B next attended an appointment with Dr A on 14 September 2018. Dr A told HDC that Mr B's symptoms from the previous visit had cleared, but he was now suffering from headaches and intermittent vertigo, and his stress levels were high again. Dr A was concerned about Mr B's varicose veins[15] and his borderline blood pressure. Dr A told HDC that no genito-urinary symptoms[16] were discussed at this appointment, and that had they been, he is sure he would have recorded them. Dr A took no action in relation to the previously abnormal PSA level.

52. In response to the provisional opinion, Mr B told HDC that he had vertigo and increased pain in his upper leg, and believes that both symptoms should have prompted Dr A to suspect that there was a correlation between these symptoms and his high PSA.

53. Mr B next attended an appointment with Dr A on 17 December 2018. Dr A told HDC that all of the symptoms Mr B had presented with previously had settled, and his blood pressure was normal even though he was still under stress. Dr A changed Mr B's blood pressure medication. He told HDC that, again, there was no mention of genito-urinary symptoms. Dr A took no action in relation to the previously abnormal PSA level.

54. In response to the provisional opinion, Mr B told HDC that while the symptoms (his leg pain and vertigo) had eased they had not gone away.

2019 consultations

55. Mr B attended another appointment with Dr A on 30 May 2019. Dr A told HDC that Mr B had influenza, and his wheeziness was worse, and his lungs were congested. Dr A recommended treatment and reviewed Mr B's blood pressure, which was 126/78mmHg. Dr A told HDC that, once again, there was no mention of genito-urinary symptoms.

56. On 5 July 2019, Mr B consulted Dr A with four issues — a skin infection on his forehead, a significant lumbar strain injury,[17] respiratory issues following his recent influenza with bronchitis,[18] and erectile dysfunction. Dr A told HDC that the erectile dysfunction was a brief

[13] Symptoms included a persistent cough, wheeziness, allergic rhinitis, gastro-oesophageal reflux, mild oral thrush, and a husky voice.
[14] Cardiovascular Disease Risk Assessment.
[15] Gnarled, enlarged veins, most commonly appearing in the legs and feet.
[16] Symptoms that could indicate an issue with the urinary and/or genital tract.
[17] Injury to the lower back.
[18] Inflammation of the main airways of the lungs.

comment added on to an already full consultation, and that he recalled that Mr B dismissed the gravity of the condition. There is no record that Mr B's genito-urinary health was discussed. Dr A told HDC that he was not triggered to review Mr B's PSA history. As Dr A was still at Medical Centre 1, he would have seen the "post-it note" attached to the file (as discussed below).

57. Mr B told HDC that the consultations on 31 July 2018, 14 September 2018, 30 May 2019, and 5 July 2019 were for the "same symptoms". Mr B also said that around this time he saw Dr A socially on several occasions.

58. On 12 August 2019, Mr B presented with a significant flare-up of his varicose veins. He told HDC that he organised the 12 August 2019 appointment because the sildenafil[19] was no longer working and he was concerned that there might be something wrong with his prostate. There is no record that Mr B's genito-urinary health was discussed during this consultation. Mr B told HDC that at the 12 August 2019 consultation he informed Dr A that he was concerned about his prostate.

59. In response to the provisional opinion, Mr B told HDC that by this point he was feeling increasingly low in energy and strength. The pain was intensifying, and he had had more episodes of vertigo. He said that at this appointment Dr A said that he would arrange an appointment with the vascular surgery clinic cardiovascular service.

60. Mr B's wife attended an appointment with Dr A on 13 December 2019, and Mr B joined the consultation. This was the first consultation at Dr A's new practice. Dr A was concerned about Mr B's stress levels and, as no nurse was on duty, Dr A checked Mr B's blood pressure. Dr A told HDC that there was no mention of genito-urinary symptoms. In response to the provisional opinion, Mr B told HDC that he did not have any genito-urinary symptoms at this consultation.

2020 consultations

61. Mr B attended an appointment with Dr A on 10 January 2020. Dr A told HDC that this was in the middle of a very busy morning, and he completed an assessment of Mr B. Dr A noted borderline low blood pressure and recurrent erectile dysfunction. He told HDC that he would have asked Mr B to report back if his problems did not settle with the change made. Dr A said that as they were pressed for time, he did not think to review Mr B's PSA status. Mr B made no reference to what was discussed at this consultation.

62. On 27 May 2020, both Mr and Mrs B received the influenza and zoster (shingles) vaccines. Dr A told HDC that Mr B had reported to the nurse that he was feeling well. Dr A did not see Mr B.

63. Dr A told HDC that during 2020 he knew that Mr B was very busy with work and his personal life. In September 2020, Mr B asked for the dose of his blood pressure medication to be increased again, as he had felt better on that dose. Dr A told HDC that Mr B reported no

[19] Medication used to treat erectile dysfunction.

other symptoms, and a script for the increased dose was completed. Mr B was notified of the need for a blood pressure check-up before being given further prescriptions.

64. Mr B told HDC that in mid-2020 he began to feel very fatigued, and to feel occasional numbness in his arms and legs. He had no libido and a persistent pain in his back, which was not alleviated with pain relief or muscle relaxants.

65. Mr B attended a consultation on 7 October 2020. Dr A told HDC that this was the first time he had seen Mr B clinically in 10 months. Mr B's primary reason for the visit was an injury to his foot, which Dr A treated. Dr A said that Mr B then asked for a number of repeat prescriptions for unrelated matters, which were given. Dr A stated that there was no mention of, or record of, genito-urinary symptoms being discussed.

66. Mr B attended another consultation with Dr A on 24 November 2020. Dr A told HDC that the main reason for the visit was that Mr B's brother had recently had TURP prostate surgery.[20] Mr B's brother had urged him to get his prostate checked. Dr A said that it was clear that a number of the symptoms Mr B had developed over previous months could be prostate related. As Mr B raised potential prostate issues, Dr A ordered the appropriate tests.

67. Dr A told HDC that he was supportive of the suggestion that the symptoms could be prostate related. However, Mr B told HDC that Dr A was dismissive of the suggestion that the symptoms might be prostate related, despite ordering the tests.

December 2020 test

68. Following the consultation on 24 November 2020, Mr B underwent the tests Dr A had ordered, including the PSA test. On 3 December 2020, Dr A called in Mr B (as per the practice's policy) to review the abnormal PSA level of 630ng/ml and discuss the need for urgent assessment and treatment for presumed metastatic cancer.[21] Dr A had already arranged for Mr B to be seen by the urology team at the local public hospital, and informed Mr B that the hospital would arrange a series of further tests.

69. Dr A told HDC that when reviewing Mr B's past results as they related to his genito-urinary system, he found the 2017 result that had not been actioned. Dr A informed Mr B of the earlier PSA result from 2017, explained why he had decided to delay the notification, and apologised for this.

70. In response to the provisional opinion, Mr B confirmed that he was informed of the raised PSA level from the December 2020 test on 3 December 2020.

Diagnosis

71. Mr B underwent a biopsy on 18 December 2020, which confirmed the diagnosis of metastatic prostate cancer. His PSA level had increased further to 675ng/ml, and he had a

[20] Transurethral resection of the prostate (TURP) is surgery to treat urinary problems caused by an enlarged prostate.
[21] Cancer that has spread from the original source to another part of the body.

Gleason score of 4 + 4 (ISUP 4).[22] Mr B was advised that his condition was incurable and that his life expectancy may be around three to five years, or six to eight years with some advanced treatments.

Recall task

72. Medical Centre 1, at which Dr A was working at the time of the August 2017 test, has a policy (appended below) relating to the responsibility of the doctor to follow up test results. In practice, the policy involves doctors creating different kinds of tasks in the electronic system for any results that require follow-up. As noted above, Dr A stated in response to the provisional opinion that although a new tests policy was introduced at his practice in mid-2016, the policy was not finalised or made fully operational until March 2018.

73. For clinically significant results requiring imminent follow-up, a doctor would create a "now" task — this is a task with a due date set on the task. A "now" task would be used in circumstances where a test was ordered to confirm suspected significant pathology, or to follow up when a time-sensitive referral was made. "Now" tasks can be easily filtered by doctors in the system. Medical Centre 1 told HDC that it would be usual practice that upon reviewing an abnormal result and arranging the appropriate follow-up, the result and intended follow-up action would be documented in the body of the patient's notes.

74. Medical Centre 1 said that in the case of Mr B's August 2017 PSA test, this constituted a clinically significant result that required further investigation. Medical Centre 1 believes that Dr A should have created a "now" task in which he documented his intended follow-up, and should have recorded the result and intended follow-up in the body of Mr B's notes. Results are not normally filed until the patient has been advised of the result and any other follow-up actioned.

75. Dr A told HDC that if a result came back that was mildly abnormal, each doctor would leave a note regarding what action was required and set a "not assigned" recall to ensure follow-up in the future. If the result was moderately abnormal, or the doctor knew that the patient was particularly worried, then the doctor could telephone the patient or set up a "now" recall. Dr A said that the "now" recall would notify the nurse to convey the result and proposed plan directly to the patient, and to offer a follow-up consultation where appropriate. If the result was critical, it was the responsibility of the ordering doctor to convey the result or make a plan to review the patient clinically. The result would be held "open" but "viewed" in the doctor's mail until the patient had been notified.

76. Dr A told HDC that the 4 August 2017 result was critical but not urgent, and it was his responsibility to deliver the results. He believes that this case sat outside the standard policy because of the severity of Mr B's acute illness (high blood pressure and severe stress) and the very likely chance of aggravating this critical illness by the delivery of the result.

[22] The Gleason grading system is used to evaluate the prognosis of men with prostate cancer using samples from a prostate biopsy. 4 + 4 (ISUP 4) means that some cells look abnormal, and the cancer may grow quickly or at a moderate rate.

77. Dr A said that at the time when Mr B's 4 August 2017 results were received, constraints within the patient management system meant that he was not able to access an urgent recall under his own name. Instead, Dr A set an urgent "now" recall to give nurses oversight and control over the recall. Dr A said that in hindsight he believes that setting a recall that included more than one issue in the heading is the most likely reason why the recall would have been deleted before both issues had been completed.

78. Dr A told HDC that the recall "task" must have been deleted by his staff around the time he was on holiday. This may have been because Mr B had been in for his BP check earlier in September and they thought that the task had been completed. It is possible that they did not see the portion of the task regarding the "PSA discussion" (the writing field in the task description may not have been long enough to see both "blood pressure review and PSA discussion" in the standard recall description box).

79. Medical Centre 1 conducted an internal audit, which determined that Dr A did not set any tasks in relation to this result. Rather, instead of a task, Dr A had highlighted the result on Mr B's clinical record using a "post-it note". This is a tool on the patient management system where clinicians can highlight points of significance about the patient. A "post-it note" will continue to pop up on entry to the clinical record until it is deleted. While the "post-it note" does function similarly to other alerts, it does not link to a particular clinician's task manager so that they know to action it by a certain date.

80. Medical Centre 1 said that in the case of Mr B's PSA result, Dr A created the "post-it note" on 7 August 2017 after viewing the test result on 4 August 2017. Medical Centre 1 said that the "post-it note" would have popped up every time Dr A (or any other clinician) assessed Mr B's clinical record. On 1 December 2017, a nurse amended the "post-it note" to include "CVDRA[23] 9%". Medical Centre 1 told HDC that it was not uncommon for "post-its" to include multiple pieces of information. The "post-it" created on 7 August 2017 was never deleted. Although Mr B had moved practices when Dr A moved to Medical Centre 2 in October 2019, the "post-it note" still pops up when accessing Mr B's inactive notes in the system. Medical Centre 1 has since learned that "post-it notes" do not transfer via GP2GP,[24] so it may not have been visible on Mr B's notes after he moved practices.

Further information

Dr A

81. Dr A told HDC:

> "[I regret] more than words can say the long delay in relaying this critical result to [Mr B] in 2017, despite the extenuating circumstances which contributed to this delay. Once realized I responded quickly with honest disclosure. Although, I don't believe our relationship had any bearing on what happened in this situation, I will also think more carefully about patients I currently care for with whom I have a closer relationship in case this has a bearing on their healthcare.

[23] Cardiovascular disease risk assessment.

[24] Electronic transfer of patient records between GP practices.

…

Caring for relatives outside of my immediate family hasn't posed any problems [and] the extended family is quite large. On average, I would see [Mr B] socially 2–3 [times] per year — many patients in the community much more often than this.

…

I stand by my decision not to inform him about the raised PSA result immediately when the result was originally received, and again when he returned on 16 August 2017. I believe withholding the result was still the correct thing to do — it could have proved too detrimental to his uncertain cardiovascular health and somewhat fragile mental health."

82. Dr A also told HDC: "I am most distressed that my patient/[relative]/friend and his family are suffering at this time."

Medical Centre 1

83. Medical Centre 1 told HDC:

"Over a 20 year period [Dr A] was the only doctor who saw [Mr B] as a patient. At no time, over this period, did [Dr A] raise matters relating to [Mr B], clinical or otherwise, with the directors."

Mr B

84. Mr B told HDC that the consequence of what he feels are Dr A's failures is that he has been deprived of the opportunity to undergo treatment at a much earlier stage (around late 2017), which he understands would, at the time, have had good prospects.

Response to provisional opinion

Mr B

85. Mr B was provided with the opportunity to respond to the "information gathered" section of the provisional opinion, and his comments have been incorporated into this report where relevant.

86. In addition, Mr B told HDC:

"Sadly, and it is upsetting for me as [Dr A] is [a relative], he was someone I trusted and had deep affection for. He made me feel foolish when I suggested my symptoms might be prostate related.

…

The consequence of his inaction has reduced my life expectancy and required me to have a vast array of medication and treatments that I would otherwise have been spared. My wife and four children have all had to seek counselling. I must live with the daily realisation of my situation, a situation that was preventable. The loss of trust and the deep hurt [Dr A's] actions have caused are immeasurable.

…

I fail to see how anyone can compare day to day stress with that. I was more than capable of handling the news. I have had to handle far worse news as a result of [Dr A's] decision not to tell me that original 2017 PSA result. As mentioned, many times, the system set up a notification that would pop up with every visit to the surgery or viewing of my records. There was ample opportunity to inform me both at the surgery and socially. He was a close [relative]. If he had prostate cancer, it is something I would never forget.

…

I am most unhappy with his summary of my mental health; to say I had 'somewhat fragile mental health' is absurd. I was in no way fragile mentally. I was a busy person, still working on numerous projects and running a busy household with my wife. Taking occasional propranolol does not constitute mental fragility. To paint me as too fragile, both physically and mentally, to be informed of a test result that I would be able to act on immediately is very grievous indeed."

Dr A

87. Dr A was provided with the opportunity to respond to the relevant section of the provisional opinion, and his comments have been incorporated into this report where relevant.

88. Dr A told HDC that this situation was one in which "circumstances lined up during an overwhelmingly difficult work time". He referred to the "swiss cheese" model of error causation and said that the holes in the "swiss cheese" in this case lined up. The circumstances to which Dr A refers are varied and include problems with Medical Centre 1's computer system and Mr B's presentation of cardiac issues.

89. Dr A noted that one key reflection from this case is having a robust recall system, which his practice now has. In addition, he has a practice nurse with whom he works closely, and they double-check each other.

Opinion: Dr A

Standard of care — breach

Failure to take appropriate action in response to PSA result

90. Mr B had been Dr A's patient for over 20 years. They had discussed PSA testing in 2011, and Dr A had recommended that Mr B complete a PSA test. However, this was not completed at that time. In 2017, Mr B presented to Dr A with concerns regarding the symptoms he was experiencing. In particular, Mr B was concerned because he was in his sixties and had a family history of prostate cancer. The blood test form from 2011 was re-printed, and Mr B completed the tests ordered, including a PSA.

91. Mr B's test results were returned to Dr A on 4 August 2017. Mr B's PSA level was reported as 30ng/ml. Alongside the result, a note stated:

> "The elevated PSA exceeds the recommended level for referral (under MOH) guidelines. If this is a repeat raised value, or in the presence of abnormal digital rectal examination (DRE) or other red flag conditions, refer to a urologist."

92. The normal range for PSA levels is less than 4ng/ml.

93. My in-house clinical advisor, GP Dr David Maplesden, advised that accepted management of an elevated screening PSA level is represented in the Ministry of Health publication "Prostate Cancer Management and Referral Guidance". He stated:

> "[Mr B's] PSA of 30 ng/mL on 4 August 2017 was outside the reference range for his age (≤ 4 ng/mL) and required further investigation. Accepted practice is to notify the patient of the abnormal result and its potential significance in a timely manner then exclude 'red flags' for prostate malignancy and reversible causes of elevated PSA (check [mid-stream urine], renal function) and perform digital rectal examination (DRE) if not already undertaken. If DRE is normal and there are no red flags evident, rechecking of PSA in 6–12 weeks after managing any reversible causes of elevated PSA (such as prostatitis or urinary tract infection) is recommended with subsequent management dependent on the result (urology referral if still outside the reference range for age). Immediate referral is recommended in the presence of any red flags, DRE suspicious for malignancy or PSA > 100ng/mL."

94. I accept this advice and agree that in response to the elevated PSA result of 4 August 2017, Dr A should have followed accepted practice and informed Mr B (discussed further below), performed a DRE, and taken steps to exclude red flags for prostate malignancy.

Conclusion

95. Dr A did not provide services to Mr B with reasonable skill and care when he failed to initiate the required actions upon receipt of the raised PSA levels as per the accepted practice outlined by Ministry of Health guidance. Dr Maplesden believes that Dr A's failure to follow accepted management of such a result in a timely fashion would be met with moderate to severe disapproval by his peers.

96. Accordingly, I find that Dr A did not provide services to Mr B with reasonable care and skill, in breach of Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).[25]

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

Information provided to Mr B — breach

Discussion of rationale for PSA test in 2017

97. On 3 August 2017, Dr A re-printed the blood test request form from 2011 when ordering blood tests to assess Mr B's cardiovascular risk. The request form included a PSA screening test.

98. Although discussions around PSA testing occurred in 2011 when the test was first ordered, Dr A accepts that he did not have a full discussion with Mr B when ordering the PSA test in 2017. Dr Maplesden noted that the record of the August 2017 appointment contains no reference to Mr B complaining of urinary or other symptoms that might have raised suspicion of underlying prostate issues or prompted PSA testing. Dr Maplesden considers it a mild to moderate departure from accepted standards if Mr B was not aware that the PSA test had been requested and he had not consented to it.

99. Given the lack of clarity around the rationale for the PSA test, I find it likely that Dr A did not obtain Mr B's consent to carry out the test.

Disclosure of 2017 test result

100. When an abnormal PSA result such as Mr B's is returned to a doctor, there is an expectation that it will be conveyed to the patient in a timely manner, along with appropriate advice and recommendations. Due to a number of circumstances (which are outlined below), this was not done by Dr A for over three years.

101. Dr A told HDC that he did not inform Mr B of the result at the time as he did not want to cause him any additional harm, having regard to his stress and cardiovascular risk. Dr A decided that he would inform Mr B once his blood pressure was under control. Dr A informed Mr B of the result on 3 December 2020.

102. Dr Maplesden advised that while it may have been reasonable to delay discussing the result in the immediate aftermath of Mr B's hypertensive crisis, he believes there should have been such a discussion within a week or so of receipt of the result, particularly by 16 August 2017 when Mr B's blood pressure and overall condition had improved. There were further missed opportunities to ensure that the result was discussed on 23 August 2017 and 12 September 2017, and there is no evidence in the follow-up plan from 12 September 2017 of the intent to arrange an appointment to discuss the result.

103. Dr Maplesden noted that the recorded consultations between 2018 and 2019 do not appear to raise issues that would have reasonably prompted Dr A to consider repeat PSA testing or remind him of the outstanding PSA result. Dr Maplesden believes it was reasonable for Dr A to consider the extreme stresses Mr B was reporting as being the likely cause of the erectile dysfunction. I accept this advice, but, as discussed below, note that this does not excuse the failure to inform Mr B of the abnormal result.

104. Dr Maplesden advised that since its creation, the "post-it note" should have been visible to Dr A every time he opened Mr B's file, until the electronic file transfer took place in October 2019. Dr Maplesden noted that there were at least 10 occasions between 4 August 2017

and October 2019 when the reminder would have been visible to Dr A, yet he failed to act on it.

105. Dr Maplesden considers that Dr A's failure to notify Mr B of his abnormal PSA result and the potential implications of the result in a timely fashion would be met with moderate to severe disapproval by his peers.

106. Dr Maplesden considers that if the "post-it note" was visible to Dr A during the date range indicated, Dr A's failure to notify Mr B of his result and to manage the result appropriately despite repeated reminders would be met with severe disapproval by his peers.

107. I accept Dr Maplesden's advice. Dr A had at least 10 opportunities to inform Mr B of the elevated PSA result. Furthermore, there was a digital post-it note on Mr B's file containing the reminder. Doctors owe a duty of care in handling patient test results, including advising patients of, and following up on, abnormal results. An explanation of the significance of the result and advice about any recommended investigations or treatments is important information that a reasonable consumer in Mr B's circumstances would expect to receive. In addition, knowledge of test results enables patients to be partners in their own health care and provides a layer of protection should other systems fail, and the required follow-up be overlooked.

108. While Dr A said in response to the provisional opinion that he made reasonable efforts to contact Mr B, and that a number of "holes" in the "swiss cheese" model of error causation lined up in this case, I do not accept that computer crashes, difficulty in reaching Mr B on the phone, or Dr A's assumption as to how Mr B would react derogate from his responsibility to inform Mr B of his PSA test result or the need to act on the reminder attached to his file.

109. As a consequence of not informing Mr B of the abnormal PSA result, Dr A did not advise him of the recommended options for further investigation. Dr Maplesden noted that Dr A needed to advise Mr B of the relevant investigations required to exclude "red flags" for prostate malignancy and reversible causes of elevated PSA and perform a digital rectal examination if not already undertaken, as per the Ministry of Health publication "Prostate Cancer Management and Referral Guidance". I agree with Dr Maplesden's advice. Alongside informing Mr B of the abnormal test result, Dr A needed to inform him of the relevant options for further investigations.

110. Dr A told HDC that a lesson learned from this event is that potentially stressful screening tests should not be ordered when someone is already under severe stress. I am concerned about Dr A's self-reflection. The decision whether or not to undertake a recommended screening test should be an informed decision, based on evidence-based practice, made by the patient following discussion with the GP, rather than being a unilateral decision based on assumptions by the GP of the patient's potential reaction to such discussion. I accept that it may be reasonable to defer such discussion for a period if the screening test is not particularly time critical, but that was not the case here. In my view, Dr A should not have withheld critical information from Mr B on the assumption that he would have found this information too stressful.

111. I am very concerned that Dr A made a deliberate decision to withhold the PSA test result from Mr B in the first instance. In my view, Dr A failed in his duty of care to Mr B in this regard. In failing to inform Mr B of the test result in a reasonable time at any of the subsequent opportunities and failing to provide information about the recommended options for further investigation, Dr A removed Mr B's ability to participate in and make decisions about his own health care. In addition, Dr A failed to inform and explain to Mr B the rationale for completing the PSA test. Accordingly, I find Dr A in breach of Right (6)(1)[26] of the Code.

Administrative steps taken — adverse comment

112. The relevant policy outlining responsibility for following up on test results provides that for a clinically significant result requiring imminent follow-up, a doctor would create a "now" task, which sets a due date on the task. Medical Centre 1 told HDC that Mr B's 3 August 2017 test constituted a clinically significant result that required further investigation. Medical Centre 1 said that results are not normally filed until the patient has been informed of the results and any other follow-up actioned.

113. Dr A believed that a "now" task was used if the result was moderately abnormal, and this was to ensure that nurses knew of the result to convey it to the patient. He said that for critical results, it was the responsibility of the ordering doctor to convey the result or make a plan to review the patient clinically. Dr A considered that in this case the result was urgent but not critical, and it was his responsibility to convey the results to Mr B. However, Dr A also considered that this case sat outside the standard policy because of the severity of Mr B's acute illness and, in his view, the very likely chance of aggravating this by delivering the result.

114. Dr A told HDC that he wanted to create an urgent recall under his own name but was unable to because of constraints in the patient management system. He said that he then set a "now" task to give the nurses oversight and control over the recall. However, Medical Centre 1 told HDC that upon further investigation, it found that Dr A had never set any tasks in relation to Mr B's PSA result. Instead, Dr A had created a "post-it note" in the clinical record and had highlighted the result there. "Post-it notes" are used to highlight points of significance about a patient, and the note pops up on entry to the clinical record until the note is deleted. Medical Centre 1 told HDC that while a "post-it note" could be used to highlight an aspect of a patient's care that requires further action, the drawback of this approach is that the "post-it note" cannot be linked to a particular clinician's task manager so that they know to action it by a certain date.

115. The "post-it note" for Mr B's PSA result was never deleted, but when Dr A moved practices, the note did not transfer alongside the clinical records. Following the move to Medical Centre 2, Dr A had no access to the "post-it note" on Mr B's clinical file.

[26] Right 6(1) states: "Every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive."

116. I accept Medical Centre 1's internal investigation finding that Dr A created a "post-it note" rather than a "now" task. I am critical that Dr A did not follow the policy of creating an appropriate reminder in the form of a "now" task, which sets a due date on the task.

117. Dr Maplesden noted that discussion and appropriate management of Mr B's PSA result should have been of high priority and, in the event of any delay in such discussion, a robust reminder or tracking process was required to ensure that the discussion took place within a reasonable timeframe, with the result not filed until appropriate action was completed.

118. In response to the provisional opinion, Dr A told HDC that the policy referred to above was not in place at the time of the events. Medical Centre 1 told HDC that the policy was in place at the time. Given that the policy is undated, I am unable to make a finding regarding the policy and whether it was followed.

119. In any case, I agree with Dr A that it was his responsibility to convey the results to Mr B appropriately and, in my view, his failure to do so is the primary issue in this case rather than the administrative aids he chose to use. However, it does appear that the administrative aids put in place by Dr A did not work as intended, and I remind him of the value of effective administrative aids when dealing with significant test results.

Treatment of family member — adverse comment

120. The Medical Council of New Zealand has guidance[27] for physicians regarding the treatment of family members. It states that providing care to people with whom the physician has a close relationship, or a personal rather than a professional relationship, may be inappropriate owing to discontinuity of care and the lack of clinical objectivity.

121. The Medical Council defines a family member as:

> "An individual with whom you have both a familial connection and a personal and close relationship such that the relationship could reasonably be expected to affect your professional and objective judgement. Family member includes, but is not limited to, your spouse or partner, parent, child, sibling, members of your extended family or whānau."

122. The Medical Council defines those close to the physician as:

> "Any other individuals who have a personal or close relationship with you, whether familial or not, where the relationship is of such a nature that it could reasonably be expected to affect your professional and objective judgement. Council recognises that those close to you will vary for each doctor."

123. Dr Maplesden noted that Dr A implied in his response to HDC that he had quite limited contact with Mr B outside of the professional relationship, consisting of two to three social

[27] Medical Council of New Zealand, "Statement on providing care to yourself and those close to you". 2016. https://www.mcnz.org.nz/assets/standards/1ea7db06d0/Statement-on-providing-care-to-yourself-and-those-close-to-you.pdf.

interactions a year. In response to the provisional opinion, Mr B told HDC that in 2017 Dr A and his family spent Boxing Day at Mr B's house, and they had several family get-togethers. Dr Maplesden said that he is unsure whether the relationship as described by Dr A and Mr B would reasonably be expected to affect Dr A's professional and objective judgement. It is also difficult to say whether the relationship is likely to have influenced Dr A's oversight, leading to this complaint.

124. I agree that it is difficult to determine whether or not Dr A's professional or objective judgement was affected by the relationship, as the definition of a "close personal relationship" is itself a subjective issue. However, I ask that with the benefit of hindsight, Dr A reflect on the care he provided in this case, and consider whether his relationship with, and greater knowledge of, Mr B's personal life did indeed cloud his objectivity and factor in the decisions made.

Opinion: Medical Centre 1 — no breach

125. Medical Centre 1 was responsible for providing services to Mr B in accordance with the Code. Dr A operated out of Medical Centre 1 until 2019, and it was here that Mr B presented to Dr A on 3 August 2017. I have considered whether the systems and policies in place at Medical Centre 1 contributed to the deficiencies in the care provided to Mr B. As stated above, because the policy is undated, I am unable to make a finding regarding whether or not the "Patient test results and reports management policy" was in place in 2017 but note that Dr Maplesden considers that it was fit for purpose.

126. Dr A was a director of Medical Centre 1 until 2021. He was the sole physician in charge of Mr B's care and made a deliberate decision to delay informing Mr B of his abnormal result. While it was unfortunate that the administrative aids Dr A used as a reminder did not work as intended, in my view this does not detract from the individual responsibility Dr A held for informing Mr B of his abnormal test results and the multiple opportunities he had to take appropriate action in response. Therefore, I consider that Medical Centre 1 did not breach the Code at a service level.

Changes since events

Dr A

127. Dr A told HDC:

a) He has adjusted his protocol to ensure that there is a single, brief entry for each recall (rather than combining them as he did on receiving the original result for Mr B).

b) He will ensure that if a recall is to be made for urgent results, it will come under the treating doctor's personal recall/task list.

128. Dr A also stated: "Another issue learnt from this event, is that potentially stressful screening tests should not be ordered when someone is already under severe stress."

129. In response to the provisional opinion, Dr A noted the following additional changes to his practice:

a) He implemented a prostate screening policy to achieve the RNZCGP foundation standard.

b) He attended teaching by a urologist, to improve his knowledge and practice.

c) He read and considered a 2018 meta-analysis of prostate screening.

d) He improved the way in which recalls are input, so that there is a separate heading for each issue.

e) He carried out an audit of prostate screening in his practice.

f) Having already undertaken the bpac[nz][28] learning module on the prostate cancer testing decision support tool, he reviewed the module and tested his recall system around its guidance.

g) He implemented a portal[29] so that patients can access their results as well as other information. This provides an additional layer of protection and also allows much easier communication with patients in a safe encrypted form. Most of his patients use the portal, as an inducement system gives a reduction in prescription fees. He wants there to be open communication.

h) Because of the impact of this case, he does not rely on systems, but actively searches for test results at each consultation. He does not want such an event ever to happen again.

Medical Centre 1

130. Medical Centre 1 told HDC:

> "[We] raised this case with all doctors at [Medical Centre 1] in a doctor's meeting on Tuesday 16th November, highlighting the potential issues raised by [HDC's] queries and Dr Maplesden's advice. This will include discussion of treatment of family members, PSA testing/result management, and management of clinically significant results in general."

[28] Best Practice Advocacy Centre New Zealand.
[29] A system that gives patients access to their medical records.

Recommendations

131. I recommend that Dr A:

a) Provide a written apology to Mr B for the breaches of the Code identified in this report. The apology is to be sent to HDC within three weeks of the date of this report.

b) Undertake self-directed learning/reflection about the importance of sharing test results and key clinical information with patients to allow them to participate in their own health care. Proof of completion of this is to be sent to HDC within six months of the date of this report.

c) Undertake an audit/review of the current policies at Medical Centre 2 to ensure that there are robust methods of following up abnormal test results and communicating these to consumers appropriately. Results of the audit are to be sent to HDC within six months of the date of this report.

d) Reflect on his familial relationship with Mr B and how it may have affected the decisions he made and the care he provided.

132. In the provisional report, I recommended that Medical Centre 1 test whether a "now" recall task would transfer along with clinical notes via GP2GP if a doctor relocated. In response, Medical Centre 1 provided evidence that a "now" recall task is transferred along with medical records when transferred via GP2GP. No further action is required on this recommendation.

133. I recommend that the Medical Council of New Zealand consider whether a review of Dr A's competence is warranted, in light of the concerns outlined in this report.

Follow-up actions

134. Dr A 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.

135. A copy of this report with details identifying the parties removed, except the advisor on this case, 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 A's name.

136. A copy of this report with details identifying the parties removed, except the advisor on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: In-house clinical advice to Commissioner

The following expert advice was obtained from Dr David Maplesden:

> "1. My name is David Maplesden. I am a graduate of Auckland University Medical School and I am a practising general practitioner. My qualifications are: MB ChB 1983, Dip Obs 1984, Certif Hyperbaric Med 1995, FRNZCGP 2003. Thank you for the request that I provide clinical advice in relation to the complaint from [Mr B] about the care provided to him by [Dr A] of Medical Centre 2. 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.
>
> 2. I have reviewed the following information:
>
> Complaint from [Mr B]
>
> Response from [Dr A]
>
> GP notes [Medical Centre 2]
>
> Clinical notes [DHB1] and [DHB2]
>
> 3. [Mr B] complains about delays in the diagnosis of his disseminated prostate cancer which was diagnosed in December 2020 after PSA performed by his GP, [Dr A], returned a result of 630 ng/mL. [Mr B] states he attended [Dr A] ([a relative]) in August 2017 with symptoms including perineal ache and low libido. He queried whether the symptoms might be related to his prostate and was aware [that two other relatives] had both died with prostate cancer between ages 56 and 73. He requested a PSA test (result 4 August 2017) which returned as significantly elevated (30 ng/mL). [Mr B] states [Dr A] did not inform him of the result or arrange any follow-up in relation to the result despite repeated consultations over the next three years with *the same symptoms* and new onset erectile dysfunction for which he was prescribed sildenafil. In November 2020 [Mr B] states he insisted on a repeat PSA test which returned a very high result as noted above. It was when discussing this result with [Dr A] that he was informed by [Dr A] of the previous elevated result in 2017 and that it was not conveyed at the time because [Dr A] felt [Mr B] *was suffering from too much stress at the time.* [Dr A] subsequently 'forgot' about the result. [Mr B] is now requiring palliative therapy for incurable metastatic prostate cancer.
>
> 4. Accepted management of an elevated screening PSA level is represented in the Ministry of Health publication 'Prostate Cancer Management and Referral Guidance'[30]. A management algorithm from this publication is reproduced in Appendix 1. [Mr B's] PSA of 30 ng/mL on 4 August 2017 was outside the reference range for his age (≤ 4 ng/mL) and required further investigation. Accepted practice is to notify the patient of

[30] Prostate Cancer Working Group and Ministry of Health. 2015. Prostate Cancer Management and Referral Guidance. Wellington: Ministry of Health. https://www.health.govt.nz/system/files/documents/publications/prostate-cancer-management-referral-guidance_sept15-c.pdf Accessed 10 August 2021

the abnormal result and its potential significance in a timely manner then exclude 'red flags' for prostate malignancy and reversible causes of elevated PSA (check MSU, renal function) and perform digital rectal examination (DRE) if not already undertaken. If DRE is normal and there are no red flags evident, rechecking of PSA in 6–12 weeks after managing any reversible causes of elevated PSA (such as prostatitis or urinary tract infection) is recommended with subsequent management dependent on the result (urology referral if still outside the reference range for age). Immediate referral is recommended in the presence of any red flags, DRE suspicious for malignancy or PSA > 100ng/mL.

5. [Dr A] states he saw [Mr B] on 3 August 2017 as an unscheduled appointment ([Mr B's] wife had an appointment) as there were concerns about [Mr B's] cardiovascular health due to extreme stress he was currently suffering, and a friend had recently suffered a heart attack. [Mr B] was noted to be very hypertensive (past history of treatment for hypertension but unmedicated for several years). [Mr B] was given a stat dose of metoprolol and observed until his blood pressure settled somewhat and was then given a form for blood tests and prescription for aspirin and metoprolol. Blood tests requested were lipids, non-fasting glucose, CRP and PSA. [Dr A] states he has no recollection of [Mr B] complaining of perineal pain or lack of libido, and the PSA was requested because a form for that test had previously been provided to [Mr B] in 2011 but he had not had the test completed at that time.

6. Comment: Clinical notes are brief which might represent the time constraints of an unscheduled but complex appointment. In addition to blood pressure recordings, notes refer to: *family report episodes of facial pallor and peri-oral cyanosis when stressed Exam: Wt = 110kg, BMI = 28.6. see nursing notes regarding huge BP.* Follow-up advice is not recorded. It is unclear why non-fasting glucose rather than HbA1c was requested, why there was no request for renal function in a markedly hypertensive patient and the rationale for CRP request (no CBC requested). The rationale for requesting PSA on this occasion is not entirely clear but I assume [Mr B] was aware the test was requested and had consented to it (and I would be mildly to moderately critical if this was not the case). There is no reference to [Mr B] complaining of urinary or other symptoms that might have raised suspicion of underlying prostate issues or prompted PSA testing. Had he done so, I would expect such symptoms to have been documented.

7. Results were received on 4 August 2017. Abnormal results were: elevated non-fasting glucose (7.9 mmol/L, pathologist comment: *If diabetes mellitus not known to be present, there is a high risk of diabetes or glucose intolerance, especially if the interval since food is more than 2 hours. Suggest follow up with HbA1c.*); markedly elevated PSA (30 ng/mL), pathologist comment: *The elevated PSA exceeds the recommended level for referral (under the MOH guidelines). If this is a repeat raised value, or in the presence of abnormal DRE or other 'red flag' conditions, refer to a urologist.* I believe it is accepted practice for the patient to have been notified of these abnormalities in a timely fashion with follow-up as clinically indicated. In the (apparent) absence of symptoms suggestive of prostatitis or urinary tract infection, the PSA result was particularly concerning and appropriate follow-up has been discussed in section 4. It is unclear if the elevated

glucose level was discussed but given the borderline result I believe this was of lesser significance than the PSA result.

8. [Mr B] returned for review on 16 August 2017 and [Dr A] has recorded: *took BP on meter at home — thinks he got 128/82! feeling quite tired on beta-blocker rx. Pain in solar plexus and burning feeling distal limbs when stressed have settled since using beta-blockers, has purchased bike. Exam: BP = 165/104, BP = 162/102, Wt = 106kg, BMI = 27.6 Action: stay on 190mg metoprolol — review BP 4/52 and cf with his meter please … discussed options for lipid mgmt considering levels so low but not down to LDL 2.0 goal.* Referral was made for CT calcium score. There was to be follow-up in person in a week but once the reassuring calcium score was received (0%) this was deferred and [Dr A] spoke with [Mr B] per phone on 23 August 2017 noting: *Reports feeling much less stressed on metoprolol rx. Exam: coronary calcium score = 0% … for BP review 2–3/52 … can stop Atorvastatin & aspirin, stay on metoprolol.* [Mr B] apparently failed to return for review with [Dr A] and nursing staff had reported difficulty trying to contact him by phone to come in (reported at the time of consult 12 September 2017). On 12 September 2017 [Mr B] presented to nursing staff at the practice for blood pressure check and ongoing wrist pain following a recent fall (date unclear but at least some days previously) in which he had also suffered facial injuries. [Dr A] was called in to review both blood pressure results and [Mr B's] wrist. Follow-up management recorded included: *for hand physio +- x-ray if not improving after 3–4 visits* and *reduce metoprolol to 95mg and review BP 6–8/52.* [Dr A] then states: *On clearing my mailbox (in preparation for my upcoming holiday) and seeing his raised result still open, I checked to see that the task/recall was in place. I realised that [Mr B] hadn't yet attended for follow-up of BP and his injuries — hence my phone call to him on 25th September, 2017. As I couldn't get him on his mobile and there was no option to leave a voicemail, I left a message on his 'identified' home answerphone stressing the need for review requesting that he come in before I left on vacation the following week. I tried to get hold of him both by mobile and landline. Despite having been asked on the 12th September to return to have his BP re-checked again within a fortnight, plus the follow-up phone call from myself, there is no record of him returning.* Notes for 25 September 2017 refer only to *Phone call.* [Dr A] states further: *What is clear, is that the recall 'task' must have been deleted by my staff around the time I was on vacation. This may have been because he had been in for his BP check earlier in September and they thought the task completed. It is possible they had not seen the portion of the task regarding the 'PSA discussion' (the writing field in the task description may not have been long enough to see both 'blood pressure review and PSA discussion' in the standard recall description box).* I have not seen a copy of the task referred to and it may be worth requesting this together with any audit trail related to the task. It appears the abnormal result [the 4 August result] was filed sometime after 25 September 2017 (if it had remained unfiled in [Dr A's] inbox it may have served as a reminder the result had yet to be actioned). [Dr A] might be asked to clarify, based on the inbox audit trail, when the result was filed and by whom.

9. Comment: It is apparent some blood results were discussed on 16 August 2017 (lipids). Blood pressure remained elevated but improved from previous levels. There is no reference to enquiry regarding prostate cancer red flags or enquiry about possible

prostatitis/UTI symptoms at either the face to face or telephone consultations in August 2017. [Dr A] states he was aware of the abnormal PSA result and the recommended management. He states he did not discuss the PSA result with [Mr B] immediately on receipt of the result or at the 16 August 2017 consult as: *the dilemma was that [Mr B] was already made critically unwell by stress which we were addressing. I felt that relaying the result immediately in accordance with protocol and my usual expected practice would likely cause harm in this situation it would have caused a significant rise in his BP and possibly promoted a stroke or heart attack.* He did not discuss the result during the telephone consultation as he was firm in his recommendation [Mr B] should come in for review and *My intention was that when he came in there would be discussion about his raised PSA result (plus complete DRE examination (as was indicated) in the privacy of my consulting room) but I didn't push this issue as I didn't want to alarm him over the phone.* The consultation of 12 September 2017 was unscheduled and complex and [Dr A] states: *What I don't understand is how, at that time, I hadn't remembered about the raised result. The likely explanation is that I was diverted to concerns about possible head injury and his cardiovascular concerns. This I sincerely regret.* Discussion and appropriate management of [Mr B's] PSA result should have been of high priority and if there was to be any delay in such discussion, a robust reminder or tracking process was required to ensure the discussion took place within a reasonable timeframe, and I would not expect the result to be filed until appropriate action was completed. While it might have been reasonable to delay discussing the result in the immediate aftermath of [Mr B's] hypertensive 'crisis' I believe there should have been such discussion within a week or so of receipt of the result, and particularly by 16 August 2017 when [Mr B's] blood pressure and overall condition had improved. There were further missed opportunities to ensure the result was discussed on 23 August 2017 and 12 September 2017 with there being no evidence in the follow-up plans from 12 September 2017 of intent to arrange an appointment to discuss the results. I believe the failure by [Dr A] to notify [Mr B] of his abnormal PSA result and the potential implications of this result in a timely fashion would be met with moderate to severe disapproval by my peers. I believe the failure by [Dr A] to follow accepted management of such a result in a timely fashion (as per section 4) would be met with moderate to severe disapproval by my peers assuming [Mr B] consented to further investigations as clinically indicated. I do note [Dr A] states he had an intention to notify [Mr B] of the result (and apparently had set a task to do so), and an intention to manage the result according to practice policy (see section 18) and these observations, together with the unplanned and complex nature of the consultations of 3 August and 12 September 2017, have been regarded as mitigating factors. Had there been a failure to recognise the significance of the result and no intention to notify or follow up the result, I would regard this as a severe departure from accepted practice which would raise competency issues. The apparent failure of the reminder/recall system used by [Dr A] might also be regarded as a mitigating factor (although currently details regarding the system are unclear) but I remain of the view that notification of the result should have occurred well before [Dr A] was departing on leave.

Addendum 23 November 2021: See discussion in section 20 regarding findings of an internal review of [Dr A's] actions undertaken by [Medical Centre 1].

10. [Mr B] next presented for review on 7 May 2018 having phoned for repeat prescriptions in the interim. Blood pressure was checked, skin lesions reviewed and a discussion regarding current stressors is recorded in some detail. There is no reference to complaint of symptoms suspicious for prostatism or prostate cancer and no record of prescription for Viagra. There were further consultations in 2018: 31 July, 14 September and 17 December. These were in relation to cough, varicose veins, stress issues and blood pressure review. There is no record of symptoms suspicious for prostate cancer or prostatism being raised and no record of prescription for Viagra.

11. The first recorded consultation in 2019 was 30 May when issues of influenza, bronchitis and blood pressure check were addressed. Next was 5 July when multiple issues were addressed: infected skin lesions; acute back injury (ACC/physiotherapy referrals); recurrence of bronchitis; blood pressure review and *Partial ED 3y — due heavy stress… etc.* With respect to the erectile dysfunction (ED), [Dr A] states this was presented in a light-hearted manner at the end of a prolonged consultation so was not discussed in great detail although stress appeared to be a contributing factor. A trial pack of sildenafil (Viagra) was evidently provided although I could not see this recorded in the notes. On 12 August 2019 [Mr B] presented with longstanding varicose vein issues (referred for vascular surgical review) and noted he was shortly leaving for [an overseas holiday] with [Dr A] required to provide travel advice at short notice that day. [Dr A] notes in his response: *He ordered a dozen Sildenafil tablets as part of his 'travel pack', my memory supported by this record is that the original trial pack of four tablets the previous month had been effective. There is no record of discussing his Genito-urinary health in what was a lengthy consultation.* On 13 December 2019 [Mr B] attended with his wife and there is record of nausea symptom presented which appeared to be related to intense situational stressors. Metoclopramide was prescribed. There is no reference to complaint of urinary tract symptoms or ED on this occasion.

12. Comment: The recorded consultations in 2018 and 2019 do not appear to raise issues which might reasonably have prompted [Dr A] to have considered repeat PSA testing or have reminded him of the outstanding PSA result. Erectile dysfunction is not regarded as a symptom of prostate cancer except in metastatic disease[31]. Local HealthPathways guidance for investigation of ED[32] does not include PSA or DRE although serum testosterone is recommended particularly if there is concurrent loss of libido or signs of androgen deficiency. I believe it was reasonable for [Dr A] to consider the extreme stresses [Mr B] was reporting as being a likely cause of his ED.

13. On 10 January 2020 [Mr B] presented for a … drivers' license medical examination. There is also reference to: *found some benefit from Sildenafil — not much help when too tired and distressed with current [stressors] …* A further prescription of sildenafil was

[31] Taplin M-E et Smith J. Clinical presentation and diagnosis of prostate cancer. Uptodate. Literature review current through July 2021. www.uptodate.com Accessed 10 August 2021
[32] HealthPathways section 'Erectile Dysfunction'.

provided and blood pressure medication adjusted. [Dr A] recalls [Mr B] referring to the ED having improved following [the overseas holiday] (no sildenafil required for a period) but having recurred in conjunction with current stressors. [Mr B] is recorded as being well when he presented for flu vaccine and Zostavax on 27 May 2020. [Mr B] recorded repeat prescriptions of his blood pressure medication by phone in July 2020 and was next reviewed by [Dr A] on 7 October 2020 in regard to a toe injury and leg dermatitis. [Dr A] notes in his response: *He asked for repeat prescriptions of various medications I had prescribed for him over the past couple of years, including the hormonal treatment for hair loss called Finasteride (which I had previously given him in 2001.) As he had already used this medication, I would have been unlikely to discuss potential side effects. Again, no mention of Genito-urinary symptoms recorded.* On 24 November 2020 [Mr B] presented again with symptoms recorded as: *troubled by current bladder function — 2–3x nocturia, decreasing urinary flow, erectile dysfunction, recurrent perineal pain, nil dysuria but urine often smelly — increasing past 18/12's … low-level borderline glucose control 2017 … older brother with recent TURP for BPH …* Blood tests were ordered including PSA and renal function with [Dr A] stating he considered a prostate issue or possible medication related renal issue as cause of [Mr B's] symptoms. Blood tests were performed on 1 December 2020 and showed PSA 630 ng/mL, moderately impaired renal function and normal HbA1c. [Mr B] and his wife were seen on 3 December 2020 when results were discussed and there was open disclosure of the 2017 'missed' result. Urgent referral was made for urologist review (telephone and electronic referrals).

14. Assuming the accuracy of [Dr A's] clinical notes and response, it appears the consultation of 24 November 2020 was the first at which symptoms suggestive of a likely prostate issue were disclosed, and management following this disclosure was appropriate although some of my colleagues might have undertaken a DRE at this consultation given the nature of symptoms described. If [Mr B] complained of lower urinary tract symptoms (LUTS) at any previous consultation, this should have been recorded and failure to do so would be a moderate departure from accepted standards of clinical documentation. I would expect mention of significant LUTS to have led to further investigations to confirm or exclude prostate pathology as a cause. I would not regard mention of ED or reduced libido to raise suspicion of underlying prostate pathology in the absence of LUTS or any red flags for prostate cancer (per Appendix 1).

15. [DHB2] urologist report dated 10 December 2020 includes: *I met [Mr B] and his wife today in Urology Clinic. [Mr B] has been referred with an elevated PSA of 665. This was detected essentially on screening investigations, however, [Mr B] has had some perineal discomfort over the last three or four years. It is unclear if this is related. He did have a PSA check in 2017, which showed a PSA of 30. He has recently re-presented to his GP as his brother has had a TURP recently, which triggered the thought of prostate cancer in his mind … [Mr B] is otherwise a generally well [man in his sixties]. He has hypertension, which is treated, but no other significant comorbidities. He has some obstructive urinary symptoms of nocturia two to three times per night and reduced flow, but no symptoms of metastatic disease. On examination, [Mr B] has a malignant feeling prostate,*

consistent with diagnosis of prostate cancer. His PSA is 665. His ALP is normal. His creatinine is mildly elevated at 110.

16. [DHB1] medical oncologist report dated 30 December 2020 summarises [Mr B's] history and subsequent treatment as:

04/08/17 PSA 30 (missed)

01/12/20 PSA 630. Done to investigate perineal and rectal discomfort.

11/12/20 CT chest/abdomen/pelvis showed malignant appearing prostate with seminal vesical involvement. Mixed lytic/sclerotic L2 metastasis with soft tissue component and spinal canal narrowing. Two indeterminate lung nodules (2 and 5 mm).

11/12/20 Bone scan showing multifocal metastases in spine, ribs and pelvis

18/12/20 Commences zoladex (bicalutamide cover)

21/12/20 TRUS biopsy confirmed prostate acinar adenocarcinoma Gleason 4+4 (ISUP 4)

30/12/20 Medical Oncology FSA. Discussed upfront docetaxel chemotherapy versus Keynote 991 Trial. Urgent referral sent for private radiation oncology opinion with regards to the L2 metastasis.

17. Radiation oncologist letter dated 5 January 2021 summarises [Mr B's] history and treatment to date as: *[Mr B] has been diagnosed with metastatic prostate cancer and has been commenced on hormonal therapy. He doesn't have much in the way of symptoms. He has had perineal discomfort for quite some time which prompted the recent investigations and this is slightly better since he has gone on to the hormones. His staging CT on 11 December 2020 showed an enlarged malignant appearing prostate gland extending into the left seminal vesicle. There were multiple bone metastases noted, most significantly at L2 with destructive metastases with extra osseous and epidural soft tissue extension resulting in mild spinal canal and moderate to severe left neural foramina narrowing. There were also two indeterminate left pulmonary nodules. He also had a bone scan on the same day and this showed evidence of multifocal bone metastases in the spine and also in the pelvis and ribs.* [Mr B] subsequently underwent localised radiotherapy to spinal metastases and medical oncology reports discussed a variety of funded and unfunded treatment options (including a medical trial) in addition to his androgen deprivation therapy. Sadly, these treatments are all regarded as life extending rather than curative.

18. I have reviewed the Medical Centre 2 'Prostate Screening Protocol'. I found it somewhat difficult to follow with clauses such as *Results within the average range (or those with known stable levels within the intermediate range) are compared against past results* without any reference to the age specific ranges noted in the cited guidance, and no definition of 'average range' versus 'intermediate range'. While [Dr A] may be familiar with the intent of this wording, I recommend he incorporate the more

explicit guidance provided by the Ministry of Health (as cited) for the sake of clarity. I recommend [Dr A] be asked to provide a copy of the practice policy on management of test results and clinical correspondence for review. I recommend [Dr A] undertake an audit of PSA results recorded over the past 12 months to ensure management of those results is consistent with the cited guidance. If there are any deficiencies found as a result of the audit, the range should be extended to cover PSA results received in the preceding two years.

19. With respect to the issue of [Dr A] treating an extended family member, the Medical Council of New Zealand[33] advises against treating people *with whom you have a personal relationship rather than a professional relationship as providing care to yourself or those close to you may be inappropriate due to discontinuity of care and the lack of clinical objectivity.* In the cited statement, family member is defined as: *An individual with whom you have both a familial connection and a personal or close relationship such that the relationship could reasonably be expected to affect your professional and objective judgement. Family member includes, but is not limited to, your spouse or partner, parent, child, sibling, members of your extended family or whānau, or your spouse or partner's extended family or whānau*. Those close to you is defined as: *Any other individuals who have a personal or close relationship with you, whether familial or not, where the relationship is of such a nature that it could reasonably be expected to affect your professional and objective judgement. Council recognises that those close to you will vary for each doctor.* [Dr A] implies in his response that he has quite limited contact with [Mr B] outside the professional relationship, and I am not sure the relationship described would reasonably be expected to affect [Dr A's] professional and objective judgement. It is also difficult to state whether the relationship is likely to have influenced [Dr A's] oversight leading to this complaint although this is not obviously the case.

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20. A response from [Medical Centre 1] dated 9 November 2021 has been reviewed. The response outlines [Dr A's] role at [Medical Centre 1] and the reasonable expectation he would follow [Medical Centre 1] policies and procedures. No other doctor at [Medical Centre 1] was ever involved with the care of [Mr B]. The response notes there has been an audit undertaken regarding management of [Mr B's] abnormal PSA result with the following findings:

The result was viewed and filed by [Dr A] on 4 August 2017 — the date it was received.

[Dr A] did not set any tasks in relation to this result (he did not follow [Medical Centre 1] policy in this regard by using the PMS Task function). The Task function is also used for recalls.

[33] MCNZ. Statement on providing care to yourself and those close to you. 2016. https://www.mcnz.org.nz/assets/standards/1ea7db06d0/Statement-on-providing-care-to-yourself-and-those-close-to-you.pdf Accessed 10 August 2021

Instead [Dr A] used another PMS function known as a 'post-it note' which was created on 7 August 2017 and stated: *raised PSA 8/17 — for repeat mid-September.*

This note would appear prominently every time [Mr B's] file was opened within the [Medical Centre 1] system by any provider.

The note was added to by a practice nurse on 1 December 2017 when she recorded [Mr B's] CVDRA of 9%.

[Mr B's] electronic file was transferred to [Dr A's] new practice on 3 October 2019 and the note may not have been visible following this transfer.

21. I have reviewed the [Medical Centre 1] '*Patient test results and reports management policy'* v 3.23.1. The policy appears consistent with similar policies I have viewed from other practices and is fit for purpose.

22. I have reviewed a further response from [Dr A] dated 17 November 2021. Comments include:

(i) [Mr B] did not request a PSA test at the consultation of August 2017. The form provided was reprinted from a 2011 request which [Mr B] had never completed. The blood tests requested on that form were relevant at the time (2011) but a new form was not completed in relation to the current consultation.

Addendum 15 November 2022. In a further response dated 17 October 2022 [Dr A] retracts the statement referred to above and states: *I noted at the consultation that he had not had blood the blood tests ordered this was discussed and reordered what was felt necessary in 2017 informed by what was necessary in 2011 but not exactly mirroring it … At this point I need to correct the wrong terminology that I had previously used — the tests were re-ordered (not just re-printed). As I needed updated serology to calculate his cardiovascular risk, I checked the uncompleted screening request previously given to him and consciously re-ordered what I thought were the appropriate tests. He agreed to have all past screening tests done.* [Dr A] has provided a screenshot of the 2011 request which does differ from the tests ordered on 3 August 2017. While the rationale for the tests ordered remains somewhat unclear as discussed in s6, I accept the form from 2011 was not simply reprinted and therefore retract any criticism in this regard. [Dr A] states: *It was a conscious decision for each test accompanied by a brief discussion* implying [Mr B] was aware of the tests being ordered and consented to them. This would be consistent with accepted practice.

(ii) [Dr A] elaborates on the stresses being experienced by [Mr B] at the time the abnormal PSA result was received and how this affected his decision not to convey the PSA results to [Mr B] at that time.

(iii) [Dr A] states the PSA result remained unfiled and there was a recall in place. After several unsuccessful attempts to contact [Mr B] by phone prior to [Dr A] departing on his overseas trip, [Dr A] states he managed to leave a phone message for [Mr B] (25

September 2017) *asking him to come to see me fairly urgently.* [Dr A] surmises there was no note made of this contact because the PMS may have 'crashed' at the time and this explanation is also used with respect to possible missing documentation on 5 July 2019 (see s 11).

(iv) [Dr A] states that following the phone message *I ensured that the recall for 'blood pressure review and PSA discussion' was still in place. I then filed his result.* [Dr A] assumes the recall *was deleted at some stage between my phone call to [Mr B] on the 25th September and when seen in May 2018.*

(v) [Dr A] confirms [Mr B] did not complain of LUTS at any appointment prior to 24 November 2020.

(vi) The Medical Centre 2 'Prostate Screening Protocol' takes into account the format in which PSA results are presented in [the region] (which differs from my region) and I therefore accept the protocol is probably reasonable. [Dr A] has undertaken the recommended audit with no apparent areas of concern identified. I note it is not expected practice under RNZCGP accreditation guidelines to have such a protocol in place with many practices relying on existing guidance (Ministry of Health and local HealthPathways) as a resource for management decision and I believe this approach is consistent with accepted practice.

23. Final comments

(i) The audits undertaken by [Medical Centre 1] do not support [Dr A's] recollections: that he set a Task to review/recall [Mr B] regarding his PSA; that he did not file the result until 25 September 2017; and that the Task/Recall must have been deleted by a third party without [Dr A's] knowledge. It is unclear whether [Dr A] is confusing the Task/Recall function with the 'post-it note' that was generated by him. I acknowledge a reminder of some sort was generated and have regarded this as a mitigating factor. I would be concerned if [Dr A] was deliberately misleading the HDC with respect to his management of [Mr B's] PSA result.

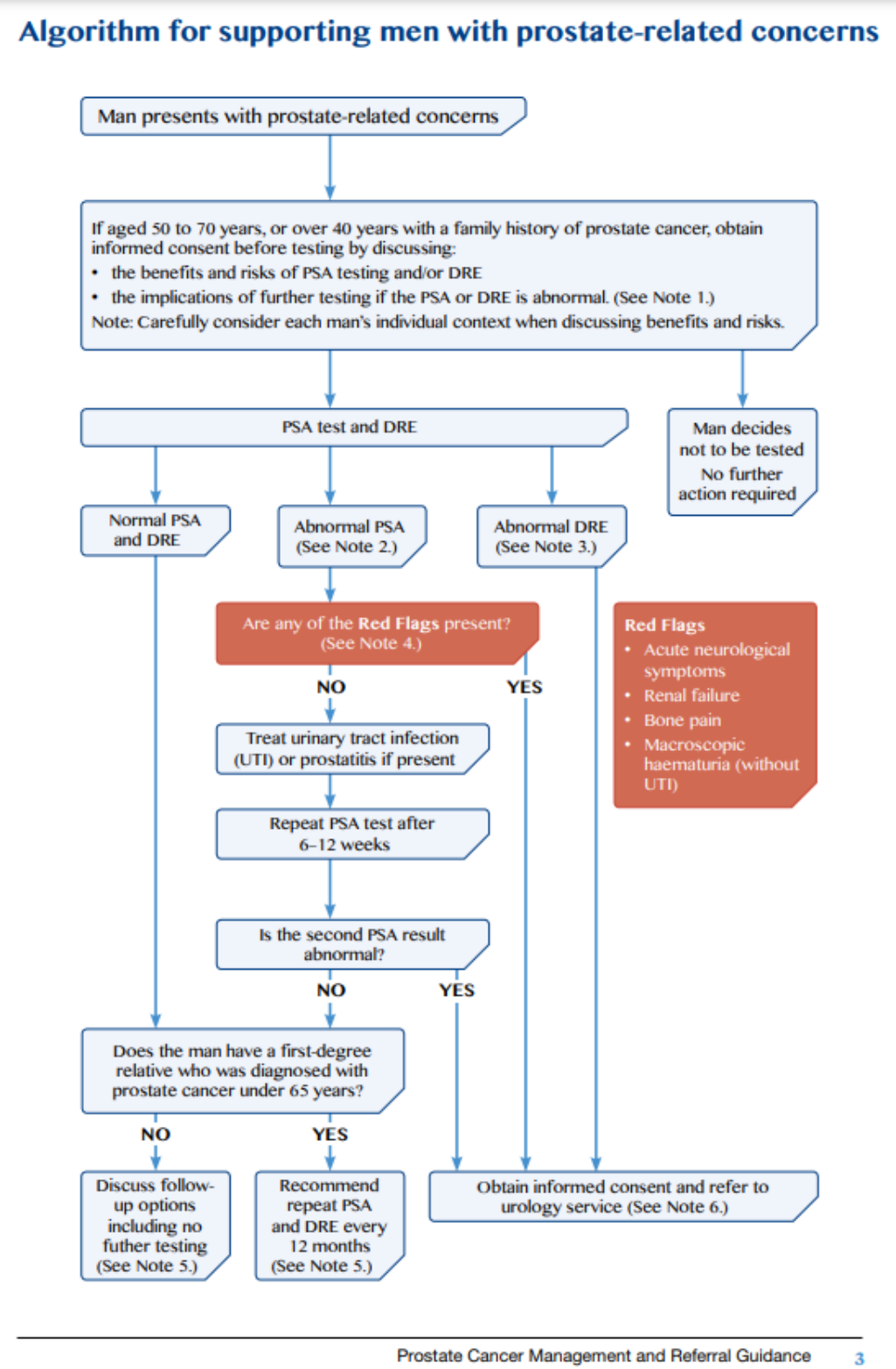
(ii) According to the [Medical Centre 1] result, but not acknowledged by [Dr A], the 'post-it note' generated by him should have been visible to him on every occasion he opened [Mr B's] electronic file subsequent to generation of the 'post-it note' on 7 August 2017 until the electronic transfer of notes to [Medical Centre 2] about the beginning of October 2019. In this scenario there were at least 10 occasions between the dates noted when the reminder would have been visible to [Dr A] yet he failed to act on it.

(iii) Taking into account the additional information provided, if the 'post-it' note for some reason was <u>not</u> visible to [Dr A] between August 2017 and October 2019 I remain of the view that the failure by [Dr A] to notify [Mr B] of his abnormal PSA result and the potential implications of this result in a timely fashion would be met with moderate to severe disapproval by my peers. I remain of the view that the failure by [Dr A] to follow accepted management of such a result in a timely fashion (as per section 4) would be

met with moderate to severe disapproval by my peers assuming [Mr B] consented to further investigations as clinically indicated. If the 'post-it' note was visible to [Dr A] during the date range indicated, I believe the failure by [Dr A] to notify [Mr B] of his result and to manage the result appropriately despite repeated reminders would be met with severe disapproval by my peers.

(iv) I believe [Dr A's] actions on 3 August 2017 in reprinting a blood request form from 2011 rather than generating a new form with requests relevant to the current clinical situation would be met with moderate disapproval by my peers. My comments in this advice remain otherwise unchanged."

Appendix 1[34]



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

Note 2: Prostate specific antigen (PSA) testing

2.1. General information about PSA

PSA is produced by the epithelial cells of the prostate. PSA is organ-specific rather than cancer-specific, meaning that PSA levels may be elevated in the presence of non-malignant prostate conditions, such as benign prostatic hypertrophy or prostatitis (Stamey et al 1987).

Other factors may also produce a temporary increase in men's PSA levels. For this reason, men should ideally not have a PSA test within two days of having a DRE or within three days of ejaculation or cycling (National Health and Medical Research Council 2013). If a man consents to having a PSA test as well as a DRE, the PSA test should always be done first.

2.2. The relationship between age, PSA level and prostate cancer

Generally the higher a man's PSA level, the more likely it is that he has prostate cancer (Heidenreich 2008). However, some men will have prostate cancer even in the absence of a raised PSA (Thompson et al 2004).

Increased PSA levels can be transient, which is why men should always have a repeat PSA test after 6–12 weeks to confirm the result. The exceptions to this are if a man has a raised PSA level and an abnormal DRE or if a man has a raised PSA level and one of the red flags shown in the algorithm on page 3 (see Note 4 for more information on the red flags).

Whether a man's PSA result is considered clinically significant or not depends on his age. This is because the benefits of early diagnosis reduce with increasing age. At 70 years old, a man diagnosed with prostate cancer has a 50 percent chance of his prostate cancer becoming symptomatic during his lifetime, but by the time he reaches 75 years of age this risk reduces to 33 percent (Lamb et al 2007).

Table 1 identifies what an abnormal PSA level is, by age. If a man's PSA level is between 4.0 µg/L and 10.0 µg/L, there is a 40 percent chance of detecting prostate cancer on prostate biopsy (Leinert et al 2009). If a man's PSA level is between 10.0 µg/L and 20.0 µg/L, there is a 67 percent chance of detecting prostate cancer. A PSA level of more than 20.0 µg/L means that prostate cancer is highly likely to be present and metastases can sometimes be seen on bone or computed tomography (CT) scans. Values over 10 µg/L are rarely the result of benign prostatic hypertrophy, but prostatitis can cause significant and rapid rises in PSA levels.

Table 1: Definitions for an abnormal PSA level, by age

Age group	Abnormal PSA level (µg/L)
Men aged ≤ 70 years	≥ 4.0
Men aged 71–75 years	≥ 10.0
Men aged ≥ 76 years	≥ 20.0

[34] Prostate Cancer Working Group and Ministry of Health. 2015. Prostate Cancer Management and Referral Guidance. Wellington: Ministry of Health. https://www.health.govt.nz/system/files/documents/publications/prostate-cancer-management-referral-guidance_sept15-c.pdf Accessed 10 August 2021