General Practitioner, Dr B

General Practitioner, Dr C

A Report by the

Health and Disability Commissioner

(Case 14HDC00894)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

1. From 2008, Mr A was enrolled in an ongoing clinical trial. Regular blood tests were taken as part of the trial, and the trial clinicians undertook to notify participants' general practitioners of any significantly abnormal findings.

2. On 30 May 2011 Mr A (aged 81 years at the time of these events) consulted general practitioner (GP) Dr B and had routine screening blood tests, which showed a slightly low haemoglobin level (127g/L).

3. On 20 January 2012, as part of the trial, additional blood tests were ordered, which also showed a low haemoglobin level (113g/L). On 25 January 2012, a trial clinician wrote to Dr B enclosing a copy of Mr A's blood results. Neither the letter nor the results are in Mr A's clinical record. However, on 2 February 2012, Mr A took a copy of the letter to an appointment with Dr B. Dr B recorded that Mr A had mild anaemia, that he ate red meat, and that he had no bowel problems. Dr B prescribed Mr A with three months' supply of iron supplements.

4. The first of two further blood test results ordered in early 2012 by the trial clinicians showed that Mr A had a low haemoglobin level of 118g/L; the second test showed he had a haemoglobin level within the normal range (132g/L). Dr B told HDC that the first set of results did not confirm iron deficiency, and that he did not receive the second set of results. Mr A's last consultation with Dr B was on 5 September 2012.

5. On 5 October 2012 Dr B ordered further blood tests for Mr A, which showed a haemoglobin level of 115g/L and low ferritin. Dr B wrote to Mr A informing him that he was mildly anaemic and enclosed a further prescription for three months' supply of iron supplements.

6. In December 2013 Mr A transferred to another GP, Dr C, having not seen a GP since 5 September 2012. Dr C referred Mr A for blood tests, which were performed on 16 December 2013. These revealed a significantly abnormal haemoglobin level of 82g/L.

7. Dr C did not take action on the abnormal result until 14 February 2014 (when he was reminded of the result a second time by his practice nurse), at which point he asked Mr A to return for a follow-up appointment. Dr C then referred Mr A for urgent investigations, which included a colonography and a gastroscopy. The investigations revealed that Mr A had a malignant tumour in his stomach. While awaiting a staging laparoscopy, Mr A developed neurocognitive symptoms, and a computerised tomography (CT) scan revealed brain metastases. Sadly, Mr A died later that year.

Findings summary

8. By failing to take steps to determine the possible underlying cause of Mr A's anaemia to guide appropriate management, by failing to organise structured follow-up to assess Mr A's response to treatment, and by failing to discuss the potential implications of the October 2012 blood test results with Mr A, Dr B failed to provide services to Mr

A with reasonable care and skill and therefore breached Right 4(1)[1] of the Code of Health and Disability Services Consumers' Rights (the Code).

9. Adverse comment is made about Dr B in relation to his documentation and management of test results, and the lack of a policy for the management of test results at the medical centre (Medical Centre 1).

10. Dr C did not follow up Mr A's significantly abnormal haemoglobin level for nine weeks, and therefore failed to provide services to Mr A with reasonable care and skill and breached Right 4(1) of the Code.

11. Adverse comment is made about the lack of a policy for the management of test results at the second medical centre (Medical Centre 2).

Complaint and investigation

12. The Commissioner received a complaint from Mrs A about the services provided to her late husband, Mr A. The following issues were identified for investigation:

- *The appropriateness of the care provided to Mr A by Dr B.*
- *The appropriateness of the care provided to Mr A by Dr C.*

13. An investigation was commenced on 27 February 2015.

14. The parties directly involved in the investigation were:

Mr A	Consumer
Mrs A	Complainant
Dr B	General practitioner
Dr C	General practitioner
Also mentioned in this report	
Dr D	Clinician, research organisation

15. Information was also received from the research organisation.

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

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

Information gathered during investigation

Background

17. Mr A (aged 81 years at the time of these events) was healthy with no known family history of cancer or any gastrointestinal issues. He was very active, and did physical work.

18. From August 2006 Mr A was enrolled at Medical Centre 1 under the care of GP Dr B.[2] In 2008 Mr A was enrolled in an ongoing clinical trial. Regular blood tests were taken as part of the trial. The research organisation told HDC that participants' GPs would be notified of any significantly abnormal findings.

Dr B

19. On 30 May 2011 Mr A consulted Dr B. Dr B ordered routine blood screening tests for Mr A (unrelated to the trial). The results showed a low haemoglobin level of 127g/L (the normal range is 130–175g/L), a mean cell volume of 86fL[3] (normal range is 80–99fL), and a mean cell haemoglobin of 28pg[4] (normal range is 27–33pg). The results indicated borderline anaemia[5] with no evidence of microcytosis[6] or hypochromia.[7] Dr B recorded the results in Mr A's clinical notes.[8] There is no documented action taken by Dr B in relation to the results.

20. The next entry in Mr A's clinical notes is dated 2 February 2012 (see below).

Consultations and investigations — 2012

21. On 25 January 2012 Dr D at the research organisation faxed a letter addressed to Dr B enclosing a copy of blood results obtained from Mr A on 20 January 2012 as part of the trial monitoring. Evidence was provided by the research organisation that the facsimile was successfully transmitted to Medical Centre 1. The blood results showed a low haemoglobin level of 113g/L.[9] The letter stated that the blood results showed "a microcytic anaemia" and that Mr A had a "loud systolic [heart] murmur audible over his mitral and aortic areas". The letter also stated that Mr A had been asked to make a follow-up appointment with Dr B. Dr B told HDC that he did not receive the letter or blood results, and neither the letter nor the blood results are in Mr A's clinical record.[10]

[2] Dr B has been a vocationally registered GP for many years. At the time of these events he was a self-employed GP practising out of Medical Centre 1.
[3] Fluid ounce. There are 17 fluid ounces per 500mL of blood.
[4] Picogram. A picogram is one-trillionth of a gram. A gram is about 1/30 of an ounce.
[5] A decrease in the amount of red blood cells or haemoglobin in the blood.
[6] Microcytosis is a condition in which red blood cells are unusually small.
[7] Hypochromia is where the red blood cells are paler than normal.
[8] Dr B provided HDC with a copy of the clinical notes for the period May 2011 to December 2013, including relevant test results.
[9] A falling hemoglobin count may indicate that a person has anaemia. The results also included serum creatinine of 107µmol/L (normal range 50–110µmol/L) and ALT (alanine aminotransferase) of 11U/L (normal range 0–40U/L). ALT is often part of an initial screening for liver disease.
[10] References to the "clinical record" relate to Mr A's clinical records held by Medical Centre 1.

22. On 2 February 2012 Mr A consulted Dr B, as requested by the research organisation. Mr A's wife, Mrs A (who was present at the consultation), told HDC that she and Mr A took Dr D's letter with them to show Dr B, and Dr B told them that he had "received a copy already". Mrs A said that Dr B "reviewed [Dr D's] letter and [the] blood results and prescribed iron tablets". She stated that no other investigations were initiated, and Dr B did not physically examine Mr A or suggest that he return for a follow-up appointment in any particular timeframe.

23. Dr B recalls reviewing Mr A on 2 February 2012 but does not recall whether he physically examined Mr A at that appointment. Dr B also told HDC that he can no longer recall whether he received the letter from Dr D. Dr B's record in the clinical notes for the 2 February 2012 consultation was: "Mild anaemia. Eats red meat. No bowel problems." Dr B told HDC that his practice at the time was not to note all normal clinical findings. He said:

> "It is my standard practice to ask patients who are anaemic if they are experiencing other symptoms such as [a] change in bowel habit, blood in bowels or overt bleeding, weight loss, tiredness, or pain in the abdomen."

24. Dr B told HDC that given the absence of any suspicious symptoms, he gave Mr A a prescription for three months' supply of Ferro-Gradumet (iron supplements). Dr B said that his normal practice would have been to "suggest that [Mr A] return for review at the end of his prescription unless he developed symptoms and advise on possible side-effects".

25. On 15 February 2012 the research organisation faxed Dr B further blood test results for Mr A (collected on 10 February 2012), which showed a low haemoglobin level of 118g/L. These results are included in Mr A's clinical record. There is no record in the clinical notes of any follow-up by Dr B in relation to those results.

26. Although Mr A's haemoglobin level on 10 February 2012 was low (118g/L), Dr B told HDC that the results "did not confirm iron deficiency" as the level was within the normal range.

27. On 21 March 2012 the research organisation sent a further facsimile to Dr B (dated 20 March) with another set of blood test results (collected on 12 March 2012), which showed a haemoglobin level of 132g/L (within the normal range). Dr B told HDC that he did not receive that facsimile. Neither the facsimile nor the results are in Mr A's clinical record, although the word "Study" is recorded in the notes on 22 March 2012. Records from the research organisation indicate that the facsimile was transmitted successfully.

28. On 10 April 2012 Dr B recorded in the clinical notes: "Checked for bloods from Study and can't get them." Dr B told HDC that he believes he was enquiring about the January and March 2012 results; however, the results never arrived at Medical Centre 1. He said:

> "On the 10 April 2012 I noted in the records that I tried to get the blood test results from the study. This I did on the telephone. I rang the [public] hospital laboratory

> and was told that they couldn't [send] the results because of the blinding process.[11] …"

29. On 5 September 2012 Dr B performed a drivers' licence medical examination for Mr A. Dr B recorded: "Passed with glasses. [Blood pressure] 130/80.[12] Heart sounds normal." Dr B did not make a note about Mr A's anaemia at that time. Dr B told HDC that on 7 September 2007 the diagnosis of "mitral incompetence: rheumatic fever" was recorded in Mr A's clinical notes and, on that date and on 1 May 2009 when he carried out the drivers' licence medical assessment, he noted Mr A's heart murmur, "which was normal for [Mr A]". There is no other reference in the clinical notes provided (for the period May 2011 to December 2013) to Mr A having a heart murmur or a cardiovascular assessment.

30. Dr B told HDC:

> "[Mr A] had a consistent and fairly loud murmur that was always present and in his long term Classifications. Accordingly it was in this context that I meant his heart sounds were normal. In other words, I heard the murmur on examination but this was normal for him. On reflection, I accept that this may not be clear to others when reviewing the notes and may give the impression that no abnormalities were detected. I will make sure in future that I make this clear in my notes where, for example, a murmur is always present and normal for the specific patient."

31. On 5 October 2012 Dr B ordered further blood tests (CBC[13] and ferritin[14]) and noted in the "clinical particulars" section on the laboratory form: "[Previous history] low iron." Dr B told HDC that the blood test order was probably made when Mr A attended Medical Centre 1 with Mrs A, who had an appointment that day.

32. On 8 October 2012 Dr B received and reviewed the blood test results, which showed a haemoglobin level of 115g/L, mean cell volume of 82fL, and mean cell haemoglobin of 25pg. An inbox record in Mr A's clinical notes records a ferritin level of 14µg/L (normal range is 20–500µg/L) with an accompanying note: "The ferritin suggests borderline or low iron stores."

33. On 9 October 2012 Dr B wrote to Mr A stating: "Your iron is a little low and you are mildly anaemic so I have enclosed a prescription for iron tablets." Dr B enclosed a further prescription for three months' supply of Ferro-Gradumet but did not provide follow-up instructions. Dr B told HDC that Mr A did not attend him in person again, and there is no record in Mr A's clinical notes of any further consultations between Mr A and Dr B in person.

34. Dr B told HDC that he regrets not referring Mr A for further investigation of his iron deficiency anaemia in 2012. Dr B stated that he may have been distracted by the fact that Mr A was asymptomatic and was taking part in a clinical trial.

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[11] The process used in clinical trials in which the participants, investigators and/or assessors remain unaware of the treatment participants are receiving.
[12] Normal systolic blood pressure is below 120.
[13] Complete blood count.
[14] A measure of the amount of iron stored in the body.

Dr C

Consultations and investigations in 2013–2014

35. Clinical notes suggest that Mr A did not see a GP again until 11 December 2013, when he went to a different medical practice and consulted (for the first time) GP Dr C[15] at Medical Centre 2.[16] Dr C told HDC that he is self-employed at Medical Centre 2. The documentation in relation to that consultation states, in full:

> "Has valvular heart disease, resulting in SOBOE [shortness of breath on exertion]. Recently suffering ankle oedema impairing his mobility. He seems to have intermittent weakness of the legs."

36. During the consultation Dr C carried out a physical examination, which revealed unremarkable findings. He did not record whether Mr A was experiencing any gastrointestinal symptoms or weight loss at that time. Dr C told HDC that there was "no mention of gastrointestinal symptoms nor weight loss at the appointment". Dr C referred Mr A for a chest X-ray[17] and for blood tests and recorded: "Review once all results to hand." Dr C told HDC that he discussed with Mr A the need for him to return once the blood tests were done.

37. On 16 December 2013 the blood tests were performed. The results arrived at Medical Centre 2 on the same day and showed Mr A's haemoglobin level at 82g/L. The pathologist's comment on the reported results reads:

> "Red cells show microcytosis/hypochromia. Irregularly contracted cells are present. Red cell changes are consistent with iron deficiency. Review iron status."

38. Dr C did not make a reminder to follow up on Mr A's results. He told HDC: "I think that because I was expecting to see him back shortly, I omitted to enter a task on MedTech[18] to follow up the results, or possibly I simply forgot to enter the task."

39. Dr C told HDC that on 28 January 2014 the practice nurse at Medical Centre 2 reminded him that Mr A had not been back for a follow-up appointment and left Dr C a "task" asking what he wished to do. Dr C told HDC: "Unfortunately, I simply overlooked the significance of this task and did not give it the attention it needed, leaving it on my list of things to do later when I had time." Dr C said that this oversight was because of work pressures.

40. Dr C said that on 14 February 2014 the practice nurse reminded him of the task and, at that point, he "finally realised its importance". Dr C asked the practice nurse to contact Mr A to arrange a follow-up appointment.

41. On 17 February 2014 Dr C reviewed Mr A. He recorded:

[15] Dr C had been a vocationally registered GP for over ten years.
[16] The notes provided to HDC by Dr B indicate that on 11 December 2013 Mr A's clinical notes were transferred to Dr C via a system that enables medical records to be transferred electronically from one GP to another.
[17] The DHB declined the X-ray request.
[18] A practice management system.

> "Apparently has had iron deficiency for many years, but denies having had any bowel investigations, and I can see no reference to any. Had 3/12 of iron tab[lets] from [Dr B] about 2 years ago. He eats a normal diet including red meat. Bowels are regular with no blood or mucous. OE [On examination]: Weight perhaps down a little. [Abdominal] examination remains NAD [no abnormalities detected]. PR [per rectum] NAD."

42. Dr C recorded under diagnosis: "Anaemia … Hb=115 Oct12, 82 Dec13. Iron deficiency picture …" Dr C's impression was recorded as "unexplained iron deficiency anaemia" and he referred Mr A for an urgent computerised tomography (CT) colonography or colonoscopy.

43. On 25 February 2014 Mr A underwent a colonoscopy and a gastroscopy, which revealed a large fungating mass[19] in his stomach. Biopsy/histology confirmed moderately differentiated adenocarcinoma.[20] While awaiting a staging laparoscopy Mr A developed neurocognitive symptoms, and a CT scan revealed brain metastases. Mr A was treated with radiotherapy but, sadly, he died later that year.

Further information — Dr B

44. Dr B told HDC that, on learning of Mr A's diagnosis, he contacted Mrs A to express his "sincere apologies and profound regret that [he] did not refer [Mr A] for further investigation in 2012 to ascertain the cause of his anaemia". Dr B said: "In over 30 years of practice … [t]o the best of my recollection I have never before this matter failed to refer a patient for further investigation following abnormal test results."

45. Following a Cornerstone[21] Audit of Medical Centre 1 in May 2012, Dr B advised that he now documents all examination findings (not just abnormal clinical findings as was his practice previously).

46. Since these events Dr B has also undertaken an audit of all of his patients with iron deficiency anaemia to confirm that they have been assessed appropriately and followed up, and he has reviewed local guidelines on investigation and management of anaemia to ensure that he is familiar with the latest practices and is compliant with them. Dr B has changed his practice for the management of test results, and now discusses, face-to-face with the patient, any abnormal and/or significant results and follow-up referrals that may be required.[22]

47. Dr B told HDC that he has also completed a BMJ Learning[23] module on "Anaemia in old age: common presentations".

48. At the time of these events Medical Centre 1 did not have a written policy regarding test results management. Dr B put in place such a policy at Medical Centre 1 in August 2014.

[19] A fungating mass is marked by ulcerations (breaks on the skin or surface of an organ).
[20] A malignant tumour.
[21] Cornerstone is an accreditation programme designed by the Royal New Zealand College of General Practitioners for general practices in New Zealand.
[22] In late 2014, Dr B began working as a self-employed general practitioner at another medical centre.
[23] Online continuing professional development course for doctors and healthcare professionals.

Further information — Dr C

49. Dr C advised that at the time of these events Medical Centre 2 had no written policy on test results management. Medical Centre 2 now has a written policy (implemented in August 2014) and is working towards achieving Foundation Standard accreditation.[24]

50. Dr C told HDC that he now "ensures that [he] pay[s] extra careful attention to follow-up of results and tasks left for [him] by [the] nurses about results".

Response to provisional opinion

51. Dr B and Dr C accepted the findings of the provisional opinion.

52. Dr C provided a written apology to Mrs A for his breach of the Code and advised HDC that he has overhauled his systems and now ensures that all test results are reviewed in a systematic and timely manner.

Opinion: Dr B

Management of anaemia — Breach

53. Mr A (aged 81 years at the time of these events) was healthy with no known family history of cancer or any gastrointestinal issues. From August 2006 he was enrolled in a clinical trial. Regular blood tests were taken as part of the trial, and the research organisation said that participants' GPs were notified of any significantly abnormal findings.

54. In May 2011 Mr A consulted his GP, Dr B. Dr B ordered routine blood tests. The results showed a low haemoglobin level of 127g/L and borderline anaemia. Dr B recorded the results in Mr A's clinical notes; however, there is no record in the clinical notes of follow-up by Dr B in relation to those results.

55. On 25 January 2012 Dr D at the research organisation faxed Dr B a letter, as part of the trial monitoring, addressed to Dr B and enclosing a copy of blood results obtained from Mr A on 20 January 2012. The blood results showed a lower haemoglobin level of 113g/L. The letter stated that the blood results showed "a microcytic anaemia" and that Mr A had been asked to make a follow-up appointment with Dr B. Dr B told HDC that he did not receive a copy of this letter nor the blood test results. Neither the letter nor the blood results are in Mr A's clinical record.

56. On 2 February 2012 Dr B reviewed Mr A. Mrs A accompanied Mr A to this appointment. Mrs A said that she and Mr A took the letter from Dr D to the appointment with them and that Dr B said that he had "received a copy already". Evidence was provided by the research organisation that Dr D's letter was

[24] The Foundation Standard represents what is considered to be the minimum legal, professional, and regulatory requirements for general practice in New Zealand, according to the Royal New Zealand College of General Practitioners.

successfully transmitted by facsimile to Medical Centre 1. I find that Dr B was aware of Dr D's letter at the least by the time of the 2 February 2012 consultation.

57. Dr B told HDC that his standard practice is to ask anaemic patients if they are experiencing other symptoms such as a change in bowel habit, blood in the bowels or overt bleeding, weight loss, tiredness, or pain in the abdomen. However, it was his practice at the time not to note all normal clinical findings. Dr B recorded that Mr A had mild anaemia, ate red meat and had no bowel problems. Dr B prescribed three months' supply of iron supplements for Mr A. Mrs A recalls that Dr B did not physically examine Mr A. There is no documentation in Mr A's clinical notes suggesting that Dr B performed a physical examination during that consultation. Dr B does not recall whether he did so. In the absence of documentation, I find that Dr B did not physically examine Mr A at that appointment. It is not clear whether Dr B provided follow-up or what is often referred to as "safety-netting" advice to Mr A, although Dr B stated that his normal practice would have been to "suggest that Mr A return for review at the end of his prescription unless he developed symptoms and advise on possible side-effects".

58. On 15 February 2012 the research organisation faxed Dr B further blood test results from a test on 10 February which showed a low haemoglobin level of 118g/L. Dr B said that these results did not confirm iron deficiency. He did not contact Mr A regarding the results or arrange to review him at that time.

59. My in-house clinical advisor, general practitioner Dr David Maplesden, noted that the 20 January 2012 blood test results from the research organisation had showed Mr A as having a normal serum creatinine (which excluded renal insufficiency) and normal liver function. Dr Maplesden noted that Dr B took some steps to rule out nutritional deficiency as the cause of Mr A's anaemia, and asked about gastrointestinal symptoms. However, Dr Maplesden considered that, on the basis of the investigations undertaken, it was not possible to determine the nature of the anaemia[25] in order to direct further investigation, treatment and follow-up. He advised that Dr B's actions in prescribing iron supplements to Mr A on 2 February 2012 without taking further steps to determine the nature and possible underlying cause of the anaemia, and Dr B's failure to organise structured follow-up to assess Mr A's response to the iron supplement treatment, represented a departure from expected standards.

60. I agree with Dr Maplesden that prescribing iron supplements on 2 February 2012 without taking further steps to determine the nature and possible underlying cause of Mr A's anaemia, and failing to organise structured follow-up to assess Mr A's response to treatment, was not appropriate care.

61. On 5 October 2012 Dr B ordered blood tests for Mr A, noting on the laboratory form "[Previous history] low iron". The results of those tests showed a low haemoglobin level of 115g/L and a low ferritin level of 14µg/L. On 9 October 2012, Dr B wrote to Mr A stating that his iron was "a little low and [he was] mildly anaemic" and enclosed a further prescription for three months' supply of iron supplements.

[25] Common causes of anaemia in the elderly include chronic disease, iron deficiency, Vitamin B deficiency, folate deficiency, gastrointestinal bleeding and myelodysplastic syndrome.

62. Dr Maplesden noted that despite Mr A previously receiving three months' supply of iron supplements, Mr A's October test results still showed a slight progression of anaemia from his previous results. Dr Maplesden advised that Mr A's 8 October 2012 blood results were suggestive of iron deficiency as the cause of Mr A's persistent anaemia, and that if the cause was iron deficiency secondary to inadequate iron intake or accelerated iron loss, improvement in the results would have been expected given that Mr A had been taking iron supplements. Dr Maplesden referred to local guidelines,[26] which state that the cause of iron deficiency anaemia should always be investigated, and that upper and lower gastrointestinal investigations should be considered in all males with iron deficiency anaemia unless there is an obvious alternative cause.

63. Dr Maplesden was again critical of Dr B's decision to prescribe further iron supplements without any further investigations or structured follow-up. I agree with Dr Maplesden. Dr B should have examined Mr A, discussed with him the potential implications of his blood test results, and organised further appropriate investigations to determine the cause of his anaemia. Although Dr B had previously noted that Mr A had no family history of gastrointestinal malignancy, I consider that consideration of that history alone was not an adequate investigation, given that the blood tests then available were suggestive of iron deficiency.

64. Dr Maplesden noted:

> "[Mr A] was well and asymptomatic, he had no gastrointestinal symptoms; the anaemia was mild and relatively stable. Nevertheless, accepted guidelines for investigation of iron deficiency anaemia were not followed."

Conclusion

65. Given Mr A's age, gender and lack of response to the iron supplements, I consider that Dr B should have been more precautionary in his treatment and follow-up of Mr A. I agree with Dr Maplesden's advice regarding Dr B's response to Mr A's January and October 2012 blood results, including Dr B's failure to discuss with Mr A the potential implications of his October 2012 blood test results.

66. Overall, by failing to take steps to determine the possible underlying cause of Mr A's anaemia to guide appropriate management, by failing to organise structured follow-up to assess his response to treatment, and by failing to discuss the potential implications of the October 2012 blood test results with Mr A, I consider that Dr B failed to provide services to Mr A with reasonable care and skill and breached Right 4(1) of the Code.

Documentation and test results — Adverse comment

67. I have a number of other concerns about Dr B's treatment of Mr A. I am critical of Dr B's very brief record of the 2 February 2012 consultation ("Mild anaemia. Eats red meat. No bowel problems"), and his entry in Mr A's notes on 5 September 2012,

[26] BPAC, *Anaemia on full blood count: investigating beyond the pale. Best Tests* (September 2013). Dr Maplesden noted that although the guidelines are dated 2013 they reference sources that pre-date the events in question, so he considered it was appropriate to rely on the guidelines in this case.

"heart sounds normal" despite Mr A having a loud heart murmur. Dr B told HDC that his practice at that time was not to note all normal findings, although he now documents all examination findings. In regard to his cardiac clinical note, Dr B said that Mr A had a "consistent and fairly loud murmur that was always present … Accordingly it was in this context that I meant his heart sounds were normal." Although the murmur was normal for Mr A, "heart sounds normal" does not provide accurate information to others reviewing the notes. I note that Dr B acknowledges that his record-keeping was misleading and states that he will make clearer notes in future.

68. Dr B does not recall having received Dr D's letter of 25 January 2012 enclosing Mr A's 20 January 2012 blood test results. Regardless of whether Dr B received a copy of Dr D's letter directly from Dr D, it was clearly brought to his attention by Mr A during the consultation on 2 February 2012, as during that appointment Dr B recorded in the clinical records that Mr A had "mild anaemia".

69. I am concerned that Dr B did not record the details of Dr D's letter in the clinical record after the letter was brought to his attention by Mr A. I am also concerned that, if Dr B not receive the 20 January 2012 blood results directly from Dr D, and on having Dr D's letter brought to his attention by Mr A, it does not appear that Dr B took any steps to follow up with Dr D regarding his not having received the letter directly. In the circumstances of the blood tests being taken in the course of the trial, and as all providers handling test results have responsibilities to handle those results appropriately, I would have expected Dr B to have contacted the research organisation to follow up on why he had not received Dr D's letter and the 20 January 2012 blood test results directly from the research organisation, and to ensure that a process was put in place so that any future communications from the research organisation regarding Mr A would not go astray.

Policies and procedures — Adverse comment

70. I note that at the time of these events Medical Centre 1 had no written policy in place for test results management. Dr B advised HDC that at the time of these events he was self-employed and working out of Medical Centre 1. I note that Dr B is now working at another practice.

71. As Dr Maplesden noted, the RNZCGP publication of general practice standards, *Aiming for Excellence 2011–2014*, states: "There is a documented policy that describes how laboratory results, imaging reports, investigations and clinical correspondence are tracked and managed."

72. Written policies assist in ensuring that processes are clear and readily accessible to all staff which, in turn, can support clinicians in providing good care. As this Office has stated previously,[27] "medical practices have a responsibility to ensure that they have effective systems in place for the handling of incoming patient test results and follow-up. … [I]t is essential that those systems are robust and support clinicians in providing good quality care." I am concerned that Dr B did not ensure that an appropriate policy and procedure was in place to support his practice at Medical Centre 1.

[27] Opinion 14HDC00132 (23 March 2015), available at: www.hdc.org.nz.

Opinion: Dr C

Management of test results— Breach

73. On 11 December 2013 Dr C requested blood tests for Mr A and recorded in the notes: "Review once all results to hand." Dr C said that he discussed with Mr A the need to return once the blood tests were done. The blood tests were performed on 16 December 2013 and showed a very low haemoglobin level of 82g/L, and the pathologist noted on the reported results that the red cell changes were consistent with iron deficiency. Dr C did not set a reminder in MedTech to follow up the results of Mr A's blood tests.

74. Despite Dr C's practice nurse leaving him a "task" on 28 January 2014 asking him what he wished to do in relation to Mr A's abnormal blood test result, Dr C did not take any action on the result. On 14 February 2014, after a further reminder from his practice nurse, Dr C contacted Mr A and requested he return for a follow-up consultation. On 17 February 2014 Dr C reviewed Mr A and recorded a diagnosis of unexplained iron deficiency anaemia. Dr C referred Mr A for an urgent CT colonography or colonoscopy.

75. Dr Maplesden advised that the 16 December 2013 blood result "strongly suggested a picture of very significant iron-deficiency anaemia (as opposed to the mild picture observed previously) with the most likely cause in Mr A's age group being occult [gastrointestinal] bleeding".

76. Dr Maplesden advised that Mr A's blood test results should have been followed up as a high priority, and noted that local guidelines[28] state that males with haemoglobin levels less than 110g/L require urgent referral. Dr Maplesden said that Mr A should have been brought back to discuss the result when it was received, and Dr C should have determined the presence or absence of gastrointestinal symptoms. Dr Maplesden advised that Dr C should have carried out a physical examination directed at excluding any palpable abdominal or rectal mass, and urgently referred Mr A for an endoscopy[29] to determine the cause of the anaemia, whether or not abnormal gastrointestinal symptoms or signs were present. In Dr Maplesden's view, Dr C's response to Mr A's 16 December 2013 blood test results was a moderate departure from expected standards.

77. I accept and agree with Dr Maplesden's advice. I am particularly concerned that although Dr C was reminded of the results and the need to follow up by his practice nurse on 28 January 2014, he failed to do so until he received a further reminder from his practice nurse on 14 February 2014. As this Office has stated previously, doctors owe patients a duty of care in handling patient test results, including advising patients of, and following up on, abnormal results.[30] The primary responsibility for following up abnormal results rests with the clinician who ordered the tests.

[28] See note 29.
[29] Refers to looking inside the body with an instrument.
[30] Opinion 12HDC00112 (26 June 2014), 12HDC00555 (4 December 2013), and 14HDC00132 (23 March 2015), available at: www.hdc.org.nz.

78. I consider that by failing to follow up Mr A's significantly abnormal haemoglobin level for nine weeks, Dr C failed to provide services to Mr A with reasonable care and skill and breached Right 4(1) of the Code.

Policies and procedures — Adverse comment

79. At the time of these events Medical Centre 2 had no written policy in place for test results management. Dr C advised HDC that at the time of these events he was self-employed and working out of Medical Centre 2.

80. Written policies assist in ensuring that processes are clear and readily accessible to all staff which, in turn, can support clinicians in providing good care. As this Office has stated previously,[31] "medical practices have a responsibility to ensure that they have effective systems in place for the handling of incoming patient test results and follow-up. … [I]t is essential that those systems are robust and support clinicians in providing good quality care."

81. As Dr Maplesden noted, the RNZCGP publication of general practice standards, *Aiming for Excellence 2011–2014*, states:

> "There is a documented policy that describes how laboratory results, imaging reports, investigations and clinical correspondence are tracked and managed."

82. I note that a policy has now been introduced by Dr C, and Medical Centre 2 is working towards achieving Foundation Standard accreditation. Dr C told HDC that he now pays particular attention to follow-up results and tasks left for him by nurses regarding patient results.

Recommendations

83. I note that Dr B has instigated a number of changes following this complaint, namely:

a) undertaking an audit of his patients with iron deficiency;
b) reviewing local guidelines on investigations and management of anaemia;
c) amending his policy on managing test results to require all abnormal/significant results and follow-up referrals that may be required to be discussed face-to-face with the patient; and
d) documenting all examination findings.

I consider these changes to be appropriate.

[31] Opinion 14HDC00132 (23 March 2015), available at: www.hdc.org.nz.

84. I recommend that Dr B:

a) Provide a written apology to Mrs A for his breach of the Code. The apology is to be sent to HDC within three weeks of the date of the final report, for forwarding to Mrs A.
b) Undertake an audit of his standards of clinical documentation against the Royal New Zealand College of General Practitioners' standards and report back to HDC on the results of this audit within three months of the date of the final report.

85. I recommend that Dr C:

a) Conduct a review of the effectiveness of the written policy in managing test results and report back to HDC within three months of the date of the final report.
b) Undertake an audit of his standards of clinical documentation against the Royal New Zealand College of General Practitioners' standards and report back to HDC on the results of this audit within three months of the date of the final report.
c) Review his workload and report back to HDC, within three months of the date of the final report, on the appropriateness of his current workload and any measures he has put in place to ensure patients receive appropriate care.
d) Report back to HDC, within three months of the date of the final report, on the progress made in achieving the Foundation Standard accreditation.

86. I recommend that the Medical Council of New Zealand consider whether a review of Dr C's competence is warranted.

Follow-up actions

87.
- A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Medical Council of New Zealand. The Medical Council of New Zealand will be advised of the names of Dr B and Dr C.
- A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the District Health Board and the Royal College of General Practitioners. The District Health Board and the Royal College of General Practitioners will be advised of the names of Dr B and Dr C.
- A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A — Independent clinical advice to the Commissioner

The following expert advice was obtained from general practitioner Dr David Maplesden:

"1. Thank you for providing this file for advice. To the best of my knowledge I have no conflict of interest in providing this advice. I have reviewed the available information: complaint from [Mrs A], wife of [Mr A]; response from [Dr B]; GP notes [Medical Centre 1]; GP notes [Medical Centre 2]. [Mrs A] complains that [Dr B] failed to investigate her husband's anaemia in 2012, instead prescribing iron supplements on two occasions. [Mr A] enrolled at a different medical centre ([Medical Centre 2]) in late 2013 and the attending GP, on finding out [Mr A] was anaemic, immediately organized further investigations by way of endoscopy. Unfortunately [Mr A] was diagnosed with inoperable gastric cancer and has since been found to have a cerebral metastasis. He is currently receiving palliative care.[1]

2. [Dr B] acknowledges in his response regret at not referring [Mr A] for further investigation of his anaemia in 2012. He states *I am very much aware that iron deficiency anaemia in men is most commonly caused by gastrointestinal blood loss or malabsorption and therefore examination of both the upper and lower gastrointestinal tract including a gastrointestinal endoscopy and colonoscopy to exclude malignancy is an important part of the investigation of patients with such anaemia.* [Dr B] feels he may have been distracted by the fact [Mr A] was completely asymptomatic and was taking part in a clinical trial (supervised by [the research organisation]) at the time of the events in question. Since learning of [Mr A's] predicament, [Dr B] has undertaken an audit of all his patients with iron deficiency anaemia to confirm they have been appropriately investigated and he has reviewed relevant local guidelines with respect to investigation and management of anaemia. He has also changed his practice policy so that all abnormal results are now discussed at a face-to-face consultation with the patient.

3. Available sequential blood results are noted below. [Dr B] states he was not able to access results referred to by the drug trial investigators. [Mrs A] states the trial doctor wrote to [Dr B] in January 2012 enclosing a copy of the results showing [Mr A] was anaemic and requesting review (no such letter on file). [Mrs A] states her husband was told again by the trial doctor in March 2013 he was anaemic and should see [Dr B] for further investigation, and that [Dr B] provided iron tablets on both occasions. There is no reference to a March 2013 consultation or prescription in [Dr B's] notes although a prescription for iron tablets was provided in October 2012 following a blood test result. The sequence of events with respect to communication from the drug trial investigators could be clarified with [a doctor at] [the research organisation] (contact details in the file) if required. With respect to the following results, a reduction in mean cell volume (MCV) below 80 fL represents microcytosis which is characteristic of chronic iron deficiency anaemia but may also be present in anaemia of chronic disease. [Mr A's] red cells did not exhibit microcytosis in the tests undertaken while he was a

[1] Mr A died in 2014.

patient of [Dr B]. However, in the test performed in October 2012 the red cells exhibited hypochromia (reduction in mean cell haemoglobin (MCH) below 27pg, which can be characteristic of iron deficiency, and ferritin level taken at the same time was low suggesting iron deficiency as the cause of the anaemia.

Date	**Haemoglobin** (130–175g/L)	**MCV** (80–99fL)	**MCH** (27–33pg)	**Comment**
30 May 2011	127	86	28	
10 Feb 2012	118	–	–	Pt reviewed and iron prescribed. Test ordered by [the research organisation]
8 Oct 2012	115	82	25	Iron prescribed per phone, ferritin level 14 (20–500 µg/L).[2] Test ordered by [Dr B]
?16 Dec 2013	82	–	–	Only transcribed result on file. Ordered by [Dr C]

4. [Dr B] notes [Mr A] was in excellent health for his age (81 years) with no significant family history. Subsequent specialist letters confirm [Mr A] was exceptionally active up to the time of his diagnosis, working up to 100 hours per week [doing physical work]. Both [Dr B] and [Mr A's] other providers note the absence of any physical symptoms suspicious for malignancy until around the time of the diagnosis (early 2014) when [Mr A] may have experienced some weight loss and early satiety.

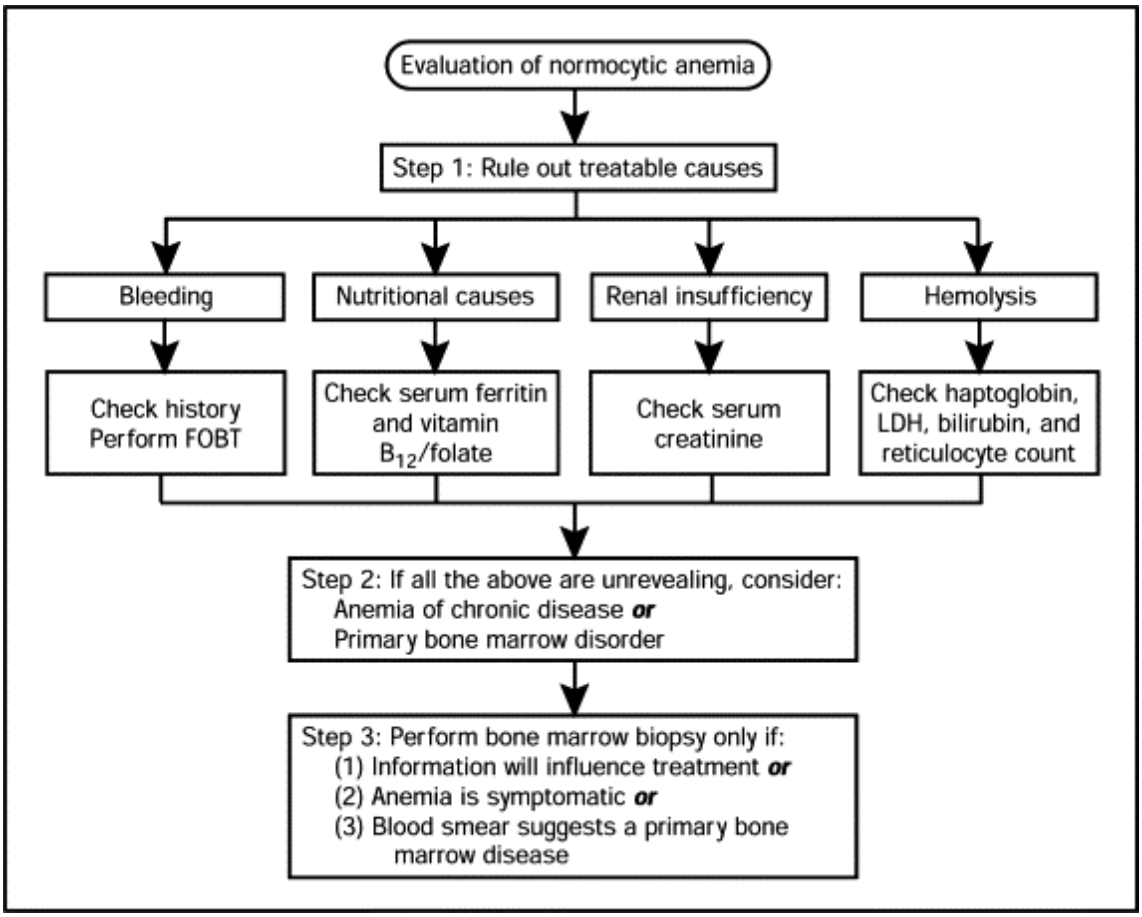
5. On file is a letter to [Dr B] dated 5 March 2012 confirming [Mr A] is taking part in [a clinical trial]. *As part of the study they will have routine bloods, ECG and a chest X-ray and we shall notify you of any significantly abnormal finding.* Prior to this [Mr A] had been noted to have borderline anaemia (30 May 2011) with no evidence of microcytosis or hypochromia. At a preceding consultation for general review (20 May 2011) he was noted to be keeping good health.

6. On 2 February 2012 [Dr B] has recorded *Mild anaemia. Eats red meat. No bowel problems* followed by a prescription for three months of iron tablets. [Dr B] does not recall whether he examined [Mr A] this day but his habit at the time was to record only significant physical findings. He is not sure why the consultation preceded apparent receipt of the blood results from [the research organisation]. The relevant blood results are noted in section 3 with no measure of MCV or MCH recorded by the lab on this occasion.

[2] Pathologist comment: *The ferritin suggests borderline or low iron stores*

Comment: [Mr A's] blood count showed a mild anaemia but it was not possible to determine from the results the nature of the anaemia (eg iron deficiency). [Mr A] was well with no physical symptoms suggestive of GI pathology or other chronic disease. The anaemia had progressed since the test of 30 May 2011. It is reasonable to assume the anaemia was normocytic given the result in October 2012 showed a normocytic picture (although iron had been prescribed in the interim). The following algorithm (Figure 1) I think accurately represents current local recommendations for investigation of normocytic anaemia as outlined in a 2013 BPAC publication[3] although there is some debate over the usefulness of faecal occult blood testing (FOBT).

Figure 1 *(from Tefferi A. Practical Algorithms in Anemia Diagnosis. Mayo Clinic Proceedings. 2004; 79(7):955–956)*



A primary care review article from 2000[4] notes that anaemia is common in the elderly and its prevalence increases with age but it should not be accepted as an inevitable consequence of aging. A cause is found in approximately 80 percent of elderly patients. The most common causes of anaemia in the elderly are chronic disease (30–45%) and iron deficiency (15–30%). Vitamin B_{12} deficiency and

[3] BPAC. Anaemia on full blood count: investigating beyond the pale. Best Tests. September 2013. N.B. References for this publication pre-date the events in question.
[4] Smith D. Anemia in the Elderly. Am Fam Physician. 2000 Oct 1;62(7):1565–1572

folate deficiency (5–10%), gastrointestinal bleeding (5–10%) and myelodysplastic syndrome are among other causes of anaemia in the elderly. Serum ferritin is the most useful test to differentiate iron deficiency anaemia from anaemia of chronic disease. [Dr B] took some steps to determine whether [Mr A] might have a nutritional deficiency (brief dietary history) and asked about GI symptoms (risk of GI malignancy, possibility of coeliac disease). Additional blood tests forwarded from [the research organisation] included normal serum creatinine (excluding renal insufficiency) and essentially normal liver function. There may or may not have been a physical examination but this was not recorded. However, on the basis of the investigations undertaken, it was not possible to determine the nature of the anaemia to direct appropriate management in terms of further investigation, treatment and follow-up. I think [Dr B's] actions in prescribing iron supplements without taking appropriate steps to further determine the nature and possible underlying cause of the anaemia (other than the very preliminary steps mentioned) was unwise as was the failure to organize structured follow-up to assess response to treatment. I feel [Dr B's] management of [Mr A] on this occasion departed from expected standards to a moderate degree.

7. On 5 September 2012 [Dr B] performed a drivers' license medical examination on [Mr A] with no abnormality noted. On 8 October 2012 [Mr A] had blood tests performed — ordered by [Dr B] on 5 October 2012 although it is not apparent why the test was ordered at this time (no entry in the notes other than the outbox document record). [Dr B] recalls he may have provided the form when [Mr A] attended with his wife. Results showed minimal progression of anaemia from previous results despite the three months of iron supplements (when improvement in the parameters might have been expected if the underlying cause was iron deficiency secondary to inadequate intake or accelerated iron loss) with hypochromia and low ferritin levels consistent with a picture of iron deficiency. While the MCV had dropped from May 2011 it was still within the normal range. On 9 October 2012 [Dr B] sent [Mr A] a note stating *Your iron is a little low and you are mildly anaemic so I have enclosed a prescription for iron tablets.* A prescription for a further three months of iron tablets was enclosed. There were no follow-up instructions and the clinical notes and [Dr B's] response indicate [Mr A] did not attend [Dr B] again other than to see his nurse in July 2013 for a flu vaccination. On 11 December 2013 [Mr A's] notes were transferred to [Dr C] at [Medical Centre 2].

Comment: The blood results received by [Dr B] were suggestive of iron deficiency as the cause of [Mr A's] persistent anaemia despite the MCV still being within the normal range. [Mr A] apparently remained well and active. The BPAC article referred to previously[2] notes that the cause of iron deficiency anaemia always needs to be investigated. [Dr B] had previously noted absence of a family history of GI malignancy in [Mr A] together with absence of any GI symptoms. Nevertheless, this history was not an adequate investigation alone, particularly now that the available tests were suggestive of iron deficiency when previous test results had not indicated a likely cause of the anaemia. Additional recommendations in the BPAC review include *upper and lower GI investigations should be considered in all males and post-menopausal females with iron*

deficiency anaemia unless there is an obvious alternative cause. N.B. faecal occult blood testing is not beneficial for investigating people with iron deficiency anaemia as it is insensitive and non-specific … Coeliac serology should be considered for all people with unexplained iron deficiency anaemia. I think the failure by [Dr B] on this occasion to examine [Mr A] and discuss the potential implications of his results, and his failure to organise appropriate further investigations to ascertain the cause of [Mr A's] iron deficiency anaemia (provided [Mr A] consented to further investigations), and his actions in providing further iron supplementation without any structured follow-up, were at least a moderate departure from expected practice under the circumstances: [Mr A] was well and asymptomatic, he had no GI symptoms; the anaemia was mild and relatively stable. Nevertheless, accepted guidelines for investigation of iron deficiency anaemia were not followed. Had [Mr A] been unwell or exhibiting symptoms suggestive of GI malignancy, or the anaemia was more obviously progressive, I would be more critical, but [Mr A] remained surprisingly asymptomatic until his malignancy was well advanced and this fact, together with the known aetiology of iron deficiency anaemia in the elderly discussed above, may have provided false reassurance to [Dr B] that the likelihood of a sinister cause for [Mr A's] anaemia was low. The remedial actions since undertaken by [Dr B] are appropriate.

8. Clinical notes suggest [Mr A] did not see a GP from 5 September 2012 until his first visit with [Dr C] on 11 December 2013. On this occasion [Mr A] was complaining of intermittent weakness in his lower legs and [Dr C] has documented a thorough examination including normal abdominal examination. Blood tests were ordered as part of further investigation of [Mr A's] leg symptoms and these were apparently undertaken on 16 December 2013 although there is no record of a blood count on file for this date. The next entry is dated 17 February 2012 when [Dr C] documents *Apparently has had iron deficiency for many years, but denies having had any bowel investigations, and I can see no reference to any. Had 3/12 of iron tabs from [Dr B] about 2 years ago. He eats a normal diet including red meat. Bowels are regular with no blood or mucous. OE Weight perhaps down a little, Abdo examination remains NAD, PR NAD. Imp: unexplained iron deficiency anaemia. Referred for urgent CTC/colonoscopy …* There is a note transcribed against the disease code of Anaemia: *Hb=115 Oct 12, 82 Dec 13, iron deficiency picture ….* Subsequent specialist notes indicate [Mr A] had gastroscopy performed on 25 February 2014 and this showed a large fungating mass on the posterior wall of the stomach with histology confirming moderately differentiated adenocarcinoma. CT of the brain on 9 March 2014 following an episode of delirium unfortunately revealed an occipital metastasis and [Mr A] was receiving palliative care at home at the time of the last notes entry on file.

Comment: Assessments of [Mr A] by [Dr C] on 11 December 2013 and 17 February 2014 appear clinically appropriate. The precise course of events following the consultation of 11 December remains unclear and requires clarification from [Dr C]."

Further advice was obtained on 3 October 2014:

> "1. Thank you for the request that I provide clinical advice in relation to the complaint from [Mrs A] about the care provided to her late husband, [Mr A] (dec). In preparing the advice on this case to the best of my knowledge I have no personal or professional conflict of interest. The complaint relates to delays in [Mr A's] diagnosis of gastric cancer. [Mrs A's] complaint was directed towards her husband's management by [Dr B] and I have previously provided an opinion in this regard (see report dated 25 August 2014). However, during the clinical notes review it became apparent there may have been further delays in making [Mr A's] diagnosis of gastric cancer attributable to [Dr C's] handling of abnormal blood results in December 2013. Further information was sought from [Dr C] and has eventually been provided.
>
> 2. [Mr A] saw [Dr C] at [Medical Centre 2] for the first time on 11 December 2013. Notes from [Mr A's] previous practice indicate old notes were transferred [electronically] later the same day. [Dr C's] notes include *Has valvular heart disease, resulting in SOBOE. Recently suffering ankle oedema impairing his mobility. He seems to have intermittent weakness of the legs.* There is no reference to any GI symptoms or weight loss. A comprehensive cardiovascular examination is documented including ECG. [Dr C] noted [Mr A] to have a loud systolic murmur and moderate bilateral ankle oedema. He was referred for chest X-ray (declined by the DHB 17 December 2013) and for blood tests. Notes conclude *Review once all test results to hand.* The blood tests were performed on 16 December 2013 and [Dr C] would have received results within 24 hours of the tests being undertaken.
>
> Comment: The physical examination undertaken was appropriate to the history obtained, and the consultation was well documented. Management plan was appropriate. The absence of any GI symptoms or other 'red flags' for GI malignancy (other than iron deficiency anaemia recorded in the old notes which [Dr C] had yet to access) is notable.
>
> 3. Blood results dated 16 December 2013 show markedly reduced haemoglobin at 82 g/L (normal range 130–175). Other results were essentially unremarkable although no iron studies were done at this point. The pathologist comment was: *Red cells show microcytosis/hypochromia. Irregularly contracted cells are present. Red cell changes are consistent with iron deficiency. Review iron status.* A perusal of [Mr A's] old notes would have shown a haemoglobin of 115 g/L on 8 October 2012 and the fact he had had reduced iron stores and been treated by [Dr B] with oral iron in the past. However, the haemoglobin had never previously dropped below 115 g/L, microcytosis had not previously been present, and there had been only mild hypochromia evident on the test of 8 October 2012. The blood result strongly suggested a picture of very significant iron-deficiency anaemia (as opposed to the mild picture observed previously) with the most likely cause in [Mr A's] age group being occult GI bleeding. The expectation would be that a result such as this would be followed up as high priority: the patient brought back to discuss the result and determine presence or absence of GI symptoms;

physical examination undertaken directed at excluding palpable abdominal or rectal mass; and urgent referral for endoscopy to determine the cause of the anaemia[5] whether or not abnormal GI symptoms or signs were present.

4. [Mr A] was eventually seen for review on 17 February 2014. [Dr C] apparently reviewed [Mr A's] previous records and noted a history of possible iron deficiency anaemia and iron replacement without investigation. Further GI history was obtained (unremarkable apart from possible mild weight loss — 1kg in two months) and an appropriate physical examination undertaken (again unremarkable). Diagnosis was *unexplained iron deficiency anaemia* and [Mr A] was referred for urgent CTC/colonoscopy. Gastroscopy was undertaken promptly on 25 February 2014 and unfortunately revealed a large fungating mass on the posterior wall of the stomach (moderately differentiated adenocarcinoma) which was felt to be locally invasive. However, while awaiting staging laparoscopy [Mr A] developed neurocognitive symptoms and CT scan revealed brain metastases. He was treated with palliative radiotherapy [and died later that year].

5. In his response [Dr C] makes several points:

(i) At the time of the events in question the practice had no written policy on dealing with results. The process undertaken for many years has now been formalised in writing.

(ii) [Dr C] states for some reason the abnormal result was not followed up as would usually have been the case. He wonders if this is because he had requested [Mr A] to come back once he had the tests performed and was expecting him to do so. The practice was also closed for two weeks over the Christmas break.

(ii) [Dr C] states that on 28 January 2014 his practice nurse reminded him [Mr A] had not been back in for follow-up (unclear how this delay was detected) *and left me a task asking what I wanted to do. Unfortunately, due to work pressures I overlooked the significance of this task and did not give it the attention it needed until 14/2/14, at which point I asked my nurse to remind [Mr A] to come back for follow-up.* In an earlier letter dated 15 September 2014, [Dr C] had stated the nurse noted [Mr A] had failed to return for review on 14 February 2014 and contacted him at that stage asking him to come in.

6. The practice policy on dealing with results has been reviewed. The policy and process seems consistent with expected standards although does not appear to have been followed in the case in question. It is also somewhat concerning the practice did not have a written policy for results management in place at the time of the events in question (particularly for the benefit of orientating staff to temporary staff such as locums) and I presume from this omission the practice is not Cornerstone accredited. The RNZCGP publication of general practice

[5] BPAC. Anaemia on full blood count: investigating beyond the pale. Best Tests. September 2013: *Males with haemoglobin levels less than 110 g/L and non-menstruating females with haemoglobin levels less than 100 g/L require urgent referral*

standards 'Aiming for Excellence 2011–2014'[6] includes: (Indicator 24.1) *There is a documented policy that describes how laboratory results, imaging reports, investigations and clinical correspondence are tracked and managed.*

7. Comments

(i) I note [Mr A] had advanced disease at the time of his diagnosis, and he had been largely and surprisingly asymptomatic of this apart from his anaemia. [Mr A's] management by [Dr B] has been commented on previously. While it seems unlikely the two month delay between when [Mr A's] blood tests showed a marked deterioration in previously mild anaemia and the appropriate actioning of those results by [Dr C] would have had any significant impact on [Mr A's] clinical course or prognosis, it is concerning that such a delay occurred.

(ii) I feel the failure by [Dr C] to action [Mr A's] significantly abnormal haemoglobin result in a timely manner to be at least a moderate departure from expected standards, noting the results were eventually actioned approximately 10 weeks after they were obtained and in an appropriate manner at that time.

(iii) I feel the failure by the practice to have a written policy on results management at the time of the events in question to be a mild departure from expected practice, noting such a policy is now in place. However, this omission may raise questions regarding the overall standards present within the practice, and consideration should be given to the practice undergoing Cornerstone accreditation or a similar process if this has not been already done.

(iv) I am concerned that, once the abnormal result was once again brought to [Dr C's] attention by his practice nurse on 28 January 2014, he again failed to notify the patient or review the patient urgently as was clinically indicated, instead waiting another (almost) three weeks for the review to occur. This was at least a moderate departure from expected standards and must raise some concerns at [Dr C's] work processes if this oversight was, as he states, due to *work pressures.* For this reason, I recommend consideration be given to [Dr C's] notification to the Medical Council of New Zealand for competency review.

(v) I have some additional concern that the blood test result in question was not forwarded with the initial request for clinical documentation nor when specifically requested a second time in a letter dated 9 September 2014. The general response to this same letter by [Dr C] was somewhat less than frank regarding the oversights in management of [Mr A's] results — appropriate detail only provided following a third more specific request dated 24 September 2014."

Further advice was obtained on 2 June 2015:

"I have reviewed additional information provided on this file.

1. Further response from [Dr C] dated 19 March 2015

[6] Available at: http://www.rnzcgp.org.nz/assets/documents/CORNERSTONE/Aiming-for-Excellence-2011.pdf

(i) [Dr C] explains why blood results of 16 December 2013 were not included in material he provided to HDC in July and September 2015 and I accept this explanation.

(ii) [Dr C's] practice is moving towards RNZCGP Foundation Standards accreditation. The current practice policy on handling of test results has been reviewed and appears robust and is consistent with similar policies I have reviewed.

(iii) No additional information was provided that alters the comments in my original advice dated 3 October 2014 regarding [Dr C's] follow-up of [Mr A's] blood result from 16 December 2013.

2. Further response from [Dr B] dated 27 March 2015

(i) [Dr B] has provided more detail on the audit he undertook since the incident in question on those of his patients identified as having low haemoglobin levels. I have no concerns regarding the results of the audit.

(ii) [Dr B] has provided details of the educational measures he has undertaken since the events in question.

(iii) I have reviewed a copy of [Dr B's] current policy regarding handling of test results and this policy appears robust and is consistent with similar policies I have reviewed.

(iv) The remedial measures undertaken by [Dr B] since he was made aware of this complaint appear appropriate to the nature and severity of the complaint.

3. Additional information was provided by [the research organisation]. I have been asked to comment whether my original comments on [Dr B's] management of [Mr A] would alter if it was assumed he received all of the information provided by the research organisation.

(i) On 25 January 2012 [the research organisation] sent a letter to [Dr B] following a screening assessment by [the research organisation]. The letter included: *His blood results showed a microcytic anaemia, please find enclosed a copy of her* [sic] *laboratory results* [attached results showed haemoglobin 113 g/L, haematocrit 0.36 on 20 January 2012]. *He was well, if rather slender and asymptomatic. On examination his BP=136/68 and he had a loud systolic murmur over his mitral and aortic areas with no added sounds and no radiation to the carotids. His ECG showed evidence of left ventricular hypertrophy, copy enclosed. He has been asked to make an appointment with you for follow up on both these matters.* [Dr B] had no recollection of receiving this letter and there was no copy of the letter in the clinical records provided by [Dr B] to HDC. I note [Dr B] reviewed [Mr A] on 2 February 2012 and discussed anaemia (see section 6 of my original advice) but there is no record of a physical assessment in relation to either the anaemia or the cardiovascular abnormalities noted in the letter.

Comment: If [Mr A] had no known previous cardiac history I would be moderately critical that further cardiovascular assessment was not undertaken in

response to the letter from the research organisation. However, I suspect such a history was known given subsequent records suggesting [Mr A] had had rheumatic fever as a child and had longstanding but asymptomatic rheumatic valvular heart disease. However, it is perhaps of some concern [Dr B] recorded on 5 September 2012 that [Mr A] had *Heart sounds normal* raising an issue regarding his competency in assessing cardiac murmurs. Otherwise, it appears the issue of anaemia was raised on 2 February 2012 and whether or not this was in response to viewing of [the research organisation's] letter, my original comments on the management of [Mr A] by [Dr B] in this regard remain unaltered.

(ii) On 15 February 2012 a fax was sent from [the research organisation] to [Dr B] enclosing more recent blood results dated 10 February 2012 showing haemoglobin 112g/L and haematocrit 0.38. The fax included: *as per our previous letter please find attached the most recent blood results for the above gentleman. Please do not hesitate to contact me if you have any questions.*

Comment: [Dr B] evidently received these results which were provided by him to HDC in [Mr A's] GP notes. A copy of the accompanying fax does not appear to have been retained by [Dr B] but this would not be unusual practice. There was no structured review of [Mr A] following receipt of the result (either for further assessment or to monitor response to the iron therapy he had been prescribed) and I remain of the view this was a moderate departure from expected standards.

(iii) On 21 March 2012 the research organisation transmitted a further fax to [Dr B]. The fax was dated 20 March 2012 and stated: *As per earlier letter please find attached latest haematology result for your patient …* The attached results dated 12 March 2012 showed haemoglobin 132 g/L and haematocrit 0.41 (both within normal limits).

Comment: [Dr B] did not recall receiving this fax and there was no copy of the result in the records provided by him to HDC. On 10 April 2012 [Dr B] had recorded *Checked for bloods from Study but can't get them.* Assuming [Dr B] did not receive these results, my original comments regarding his management of [Mr A] remain unchanged. Had he received the results, they would have been somewhat reassuring illustrating a good response to iron therapy although the underlying cause of the anaemia had yet to be clarified. A follow-up blood test following a period off iron supplementation would also have been indicated — this was eventually done in October 2012.

(iv) The apparent failure by [Dr B's] practice to receive or process [the research organisation's] letter of 25 January 2012 and fax of 21 March 2012 might raise concerns regarding the practice's handling of clinical documents assuming both pieces of information had been successfully transmitted to the centre."