Canterbury District Health Board

A Report by the
Health and Disability Commissioner

(Case 19HDC00851)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. This report concerns the care provided to a man when he was admitted to Canterbury District Health Board (CDHB) following an accident. The report highlights the importance of communication between providers, and the need for adequate processes to ensure follow-up of incidental findings.

2. The man was admitted to CDHB on 18 March 2017 after the accident. During his stay in hospital, a right upper lung lesion was discovered on a CT scan, along with multiple spinal compression fractures. The reporting radiologist registrar recommended that the man undergo a respiratory opinion in respect of the finding, and documented a discussion of the findings with the Emergency Department (ED) registrar.

3. The man remained at CDHB until 24 March 2017. His care focused on the acute spinal injuries, and communication of the incidental finding of a lung lesion did not occur during his transfer between teams at CDHB. At some point during his stay, the man's family was informed of the lesion verbally, but it was not documented on his ED medical record or his discharge summary, and no documentation of the issue was provided to either the man or his family. CDHB acknowledged that communication of follow-up advice to the man's family verbally was insufficient given the stress of the multi-trauma situation.

4. The man's general practitioner was provided with a copy of the ED medical record and the discharge summary, but was not notified of the lung lesion.

5. On 2 August 2017, the man re-presented to CDHB experiencing right-sided facial droop, right arm weakness, and slurred speech. CT scans revealed that a primary lesion in the upper lobe of the right lung had metastasised to the brain. The man was diagnosed with metastasised lung cancer, and subsequently passed away.

Findings

6. The Commissioner found CDHB in breach of Right 4(5) of the Code, as no single doctor took responsibility for the man's incidental finding, and the finding was not recorded in his discharge summary or communicated to his GP. This denied the man the opportunity for earlier diagnosis and intervention of his lung cancer.

Recommendations

7. The Commissioner recommended that CDHB provide HDC with a copy of its new mandatory departmental policy on incidental findings; create a package of educational material on the standards of practice expected in relation to incidental findings and specific systems to help reduce the risk of incidental findings not being followed up; provide HDC with an update on the changes made since this event; use an anonymised version of this report for training staff; undertake intermittent audits of the adequacy and observance of CDHB policies relating to incidental findings that require action; and provide a written apology to the family.

Complaint and investigation

8. The Health and Disability Commissioner (HDC) received a complaint from Ms B about the services provided to her father, Mr A. The following issue was identified for investigation:

- *Whether Canterbury District Health Board provided Mr A with an appropriate standard of care in March 2017.*

9. The parties directly involved in the investigation were:

Ms B	Complainant
Canterbury District Health Board (CDHB)	Provider

10. Also mentioned in this report:

Dr D	ED registrar

11. Further information was received from Dr C, a general practitioner (GP).

12. Independent expert advice was obtained from a medical administrator, Dr Kenneth Clark (Appendix A).

Information gathered during investigation

Introduction

13. On the evening of 18 March 2017, Mr A (aged in his fifties) had an accident. He was taken by ambulance to the Emergency Department (ED) at the public hospital.

14. This report concerns the care provided to Mr A by CDHB when an incidental finding[1] was discovered during his stay.

Admission to public hospital

ED review

15. On arrival at the ED, Mr A complained of severe chest pain and abdominal tenderness. Basic observations were taken, and his pain score was documented as 9/10.[2] The impression was of a chest injury, and ED registrar Dr D documented the following plan:

> "CXR [chest X-ray]
> IV [intravenous] analgesia
> Trauma bloods

[1] A previously undiagnosed medical or psychiatric condition that is discovered unintentionally during evaluation of a separate medical or psychiatric condition.
[2] A pain score of over 7/10 indicates severe pain.

> Re-examine when more comfortable, ??Abdo tenderness ?for CT
> Secondary survey."

16. The chest X-ray showed no obvious contusions, so a CT scan of Mr A's chest, abdomen, and pelvis was performed.

17. A provisional report of the CT scan undertaken by a Radiology registrar noted T3 and T4[3] compression fractures, along with an incidental finding of a lesion in the right upper lobe (RUL) of the lung. The Radiology registrar recommended that Mr A undergo a respiratory opinion, and documented a discussion of the findings with the ED registrar, Dr D, as per CDHB's Critical/Actionable Results Notification Policy (discussed further below).

18. A consultant radiologist completed the final radiology report, documenting T4 and T5 compression fractures, a T7 fracture, and a fracture of the head of the right fourth rib. The incidental lung nodule finding was reported as a "29mm right upper lobe soft tissue nodule with background marked emphysema[4]".

19. The consultant radiologist told HDC that he did not personally communicate the findings of the CT scan, as the Radiology registrar had already documented communication of the findings to the ED. He stated:

> "[T]he immediate referring team — in this case the Emergency Department — were notified by Radiology and as such I took no further action after completing the final CT report."

20. Dr D documented the findings of the CT scan in the ED medical record as: "CT shows T3/4 body fractures with retropulsion, no visceral injury." However, he did not document the finding of the lesion. He told HDC that after the CT scan was reported, he handed over Mr A's care to the Orthopaedics team for further management and investigation. A verbal handover was provided by Dr D to the Orthopaedics team, but this was not documented.

21. Dr D stated:

> "Given the passage of time, unfortunately I'm unable to remember any details of my encounter with [Mr A] or handover of his care. For this reason, I cannot be certain that my verbal transfer of care included the information about the chest lesion. However, it is my usual practice to hand over as much information about the patient as I have available to me. This would include an actionable finding in this type of situation."

Orthopaedics admission

22. CDHB told HDC that the Orthopaedics admitting team registrar[5] does not recall receiving verbal information from Dr D about Mr A's RUL lesion.

[3] The third and fourth thoracic vertebrae of the spine.
[4] A lung condition that causes shortness of breath owing to damage to the air sacs in the lungs.
[5] CDHB did not provide HDC with the name of the admitting team registrar.

23. At 7.15am, the duty house surgeon admitted Mr A to the Orthopaedics team. The house surgeon read the provisional report of the CT scan when completing the admission form, and noted the incidental finding. He then placed it on the Orthopaedics admissions "problem list", documenting: "1) T3/4 compression fractures 2) 34mm soft tissue density lesion in the right upper quadrant."

24. Mr A stayed under the care of the Orthopaedics team over the next few days, and initially he was kept on bed rest while further investigations were undertaken relating to his spinal injuries. On 22 March 2017, Mr A was cleared to begin mobilising, and his care was transferred to a spinal team for physiotherapy and assistance with mobilisation.

25. At some point during Mr A's hospital stay, his family were informed of the RUL lesion verbally, and told that it needed to be followed up. However, no documentation of the issue was provided to either Mr A or his family. CDHB acknowledged that communication of follow-up advice to Mr A's family verbally was insufficient given the stress of the multi-trauma situation.

26. Mr A was discharged from hospital on 24 March 2017. During his stay in hospital, he was not seen by the Respiratory team for an opinion on the RUL lesion, as recommended by the Radiology registrar.

Discharge

27. Mr A's discharge summary documented the clinical management undertaken during his stay at CDHB, including the investigations and scans done in relation to his spinal injuries. His discharge diagnosis was documented as a T4 T5 vertebral body fracture, with a secondary diagnosis of T5 T6 foraminal stenosis.[6] The discharge plan was for Mr A to be placed in an Aspen collar[7] for 24 days, and to follow up with the spinal unit in two weeks' time.

28. The discharge summary did not document the incidental finding of the RUL lesion, or provide any follow-up advice to Mr A or his GP in relation to the finding.

Visit to GP

29. On 28 March 2017, Mr A rang his medical centre requesting an appointment with his GP, Dr C,[8] as he thought that the doctors at ED had mentioned that there was something on his chest X-ray that needed to be followed up.

30. Dr C told HDC that he had received a detailed discharge summary and ED record from CDHB describing Mr A's hospital stay, but it included no mention of any RUL lesion that needed follow-up. On receipt of Mr A's call, Dr C viewed a copy of the chest X-ray report and also saw no mention of any lesion that required follow-up.

[6] The tightening of the exiting nerves or nerve roots in the fifth and sixth thoracic vertebrae of the spine.
[7] A hard collar designed to support and stabilise the neck.
[8] The care provided to Mr A by Dr C was assessed separately, and concluded outside of this investigation.

31. Mr A's notes documented:

> "Accessed health one to get CXR [chest X-ray] result as [Mr A] would like to see [Dr C] about this as he thought Drs in ED mentioned that something on this xray needed follow up."

32. Dr C saw Mr A on 29 March 2017, and told HDC that they discussed that the discharge summary noted spinal fractures seen on CT, plain X-ray, and MRI scan, and that the chest X-ray report viewed did not show anything of suspicion.

33. Dr C stated: "On that basis I reassured [Mr A] that there was nothing in the documents I had received and seen that indicated any cause for concern."

34. Dr C arranged for Mr A to have further time off work on ACC, and prescribed him with orphenadrine[9] to relieve muscle spasm.

35. Dr C told HDC that it was only after he received the complaint letter from Ms B that he found out that the CT scan of Mr A's chest had shown a lesion. Dr C stated that this CT report was not sent to him, and there was no indication on the discharge summary that the CT scan showed anything other than a T3–4 fracture.

Subsequent events

36. At approximately 11.30am on 2 August 2017, an ambulance was called by Mr A's family, as Mr A was experiencing right-sided facial droop, right arm weakness, and slurred speech. The initial impression was that of a stroke, and Mr A was taken to ED.

37. CT scans of both the head and chest were performed, which revealed that a primary lesion in the upper lobe of the right lung had metastasised to the brain. Mr A was diagnosed with metastasised lung cancer, and subsequently passed away.

CDHB policy

38. At the time of these events, CDHB's Radiology Department had a "Critical/Actionable Results Notification" policy, which was intended to clarify the communication processes to be used by the Radiology Service in relation to an imaging study that revealed new or unexpected findings that could result in mortality or significant morbidity.

39. The policy stated that "Level 3 results", such as a lung nodule on a chest X-ray, require notification of the referring medical officer or other team member who can initiate the appropriate clinical action for the patient, within three days of the time at which the finding was noted.

Further information

40. CDHB acknowledged that written notification to Mr A's GP of his RUL lesion or referral for a respiratory opinion as recommended by the Radiology registrar did not occur. CDHB

[9] Medication used to treat muscle spasms and pain.

believes that in the complexity of a multi-trauma accident, no single doctor took responsibility for ensuring that the RUL finding was acted on. CDHB told HDC that it offers its sincere apologies for these omissions.

41. CDHB stated that the Orthopaedics Department has taken steps to ensure that findings that are not immediately related to orthopaedic injuries, but require follow-up, have a plan made to ensure that they are acted on appropriately.

42. CDHB told HDC that there was an expectation that the person signing off the report would generate the consequent action for the finding. CDHB said that it has reminded all doctors that the consultant in charge is to be made aware of any incidental findings requiring action, and that the consultant will then be responsible for ensuring that any relevant referrals are made. CDHB stated that it will also be creating a mandatory departmental policy that will stipulate that the team in charge of the patient will take responsibility for informing the patient's GP of any incidental findings, and the finding will also be noted on the discharge summary.

43. In order to improve co-ordination of care throughout the hospital, CDHB has rolled out a new electronic system that supports the delivery of co-ordinated care through the creating and viewing of clinical notes, teams, and individual task management. The new system enables the ordering of diagnostic tests, notification of the availability of results, and direct access to results, Radiology, and patient observations. The new system also allows for the generation of tasks, with allocated responsibility, which are clearly visible within the record until they have been completed. CDHB told HDC that this will significantly reduce the risk of the sort of error Mr A experienced.

44. In addition, currently CDHB is working on a way to enable the Radiology electronic results to follow the patient from the ED to the inpatient team automatically.

Responses to provisional opinion

45. CDHB was provided with the opportunity to comment on the provisional opinion. It stated that systems were in place at the time of these events, such as the "Communication of critical/actionable results" policy, the expectation of the person signing off a report to generate the action consequent on the incidental finding, and the section on the electronic discharge summary entitled "information and requests to GP". CDHB stated that despite these systems, on this occasion there was a "breakdown of communication" that led to a failure in continuity of care.

46. CDHB advised that since these events, it has reminded all staff of the importance of incidental findings being investigated and referred as required, and has also set in place policy guidelines to try to prevent this from happening again. CDHB stated:

> "This case has prompted ongoing conversations as to how we can improve our overall systems related to the documentation and management of incidental findings. Dr Kenneth Clark has outlined the challenges that healthcare systems face with communication of incidental findings both within New Zealand and overseas. We

> accept that in this case, we failed to adequately communicate between providers the incidental finding of a lung lesion when coordinating the care of [Mr A]. CDHB apologises for this failure."

47. Ms B was provided with the opportunity to comment on the "information gathered" section of the provisional opinion, and had no comments to make.

Opinion: Canterbury District Health Board — breach

Introduction

48. This case concerns the reality of incidental findings in hospital situations, where undiagnosed medical conditions are discovered during investigation of a separate medical condition. In this case, Mr A suffered a traumatic accident, and was taken to ED with suspicion of a chest injury. I am mindful that this was the focus of his admission, and it was in this context that the incidental finding of a lung lesion was discovered.

49. The finding was not communicated adequately to the doctors caring for Mr A, nor was it documented on the discharge summary or communicated to Mr A's GP. Approximately five months later, Mr A re-presented to the ED with stroke symptoms, and it was discovered that the lung lesion had metastasised to his brain and he was diagnosed with metastasised lung cancer.

50. Regarding the incidental finding, my expert advisor, Dr Kenneth Clark, stated:

> "It is self-evident that the standard of care in such situations is for both informal and formal processes to be in place for communication of the incidental finding or findings to all relevant health practitioners involved in the care of the patient, both within the secondary setting, and the primary and community setting. Inherent in this standard of care are processes that include checks or follow-up mechanisms to maximise the likelihood of such findings being appropriately acted upon, rather than simply being received.
>
> This standard of care is, however, often not achieved in health organisations across the world and the reporting and follow-up of incidental findings found on imaging is a vexed and extremely challenging issue facing health organisations in their quest to provide high-quality care."

51. I accept this advice and I am mindful that the follow-up of incidental findings is a challenging issue being faced worldwide. However, I consider that this case has highlighted areas for learning and improving communications in regard to incidental findings in a clinical setting.

Co-ordination of care

Communication between providers at CDHB

52. Mr A was taken by ambulance to CDHB after his accident, and was first assessed by Dr D in the ED. A CT scan of Mr A's chest found that he had T3 and T4 compression fractures, along with an incidental finding of a lung lesion. The Radiology registrar recommended that the Respiratory team provide an opinion on the lesion, and documented that he discussed these findings with Dr D as per CDHB's "Communication of Critical/Actionable Results" policy.

53. Dr D documented the main findings of the CT scan in the ED medical assessment record, but did not document the incidental finding of the lung lesion. He then handed over Mr A's care to the Orthopaedics team for further management and investigation.

54. My expert advisor, Dr Clark, stated that the incidental finding should have been documented on the ED medical assessment record, and advised that it was not reasonable for the ED registrar not to have done so. I accept this advice, and I am concerned that the incidental finding was omitted from the ED assessment record.

55. In addition, it appears unlikely that information about the lung lesion was handed over to the Orthopaedics team verbally. Dr D told HDC that given the passage of time, he is unable to remember any details of Mr A's handover of care; however, Dr D noted that it was his usual practice to hand over as much information about the patient as he has available to him. CDHB told HDC that the admitting team registrar does not recall receiving this information from Dr D. As the handover between the two teams was verbal, there is no documentation as to what was discussed. The fact that the lesion was not documented in the ED assessment by Dr D lends weight to the view that he did not communicate information about the lesion verbally.

56. The duty house surgeon performed the medical admission of Mr A to the Orthopaedics team. The house surgeon read the provisional report of the CT scan when completing the admission form, and noted the incidental finding and documented it on the Orthopaedics admissions "problem list". This is the last documentation of the incidental finding in Mr A's clinical records.

57. Mr A was transferred to the spinal team before being discharged, without undergoing the recommended Respiratory opinion. CDHB believes that in the complexity of a multi-trauma accident, no single doctor took responsibility for ensuring that Mr A's lung lesion was acted on. It appears that whilst Mr A's more urgent acute medical problems were being cared for, the incidental finding was overlooked.

58. Dr Clark advised that the systems in place at CDHB at the time of events were a departure from the accepted standard of care. He stated:

> "The subsequent steps taken by that department can, by inference, be taken to mean that at the time of [Mr A's] admission there were no systemised means whereby the consultant in charge of the patient would be automatically informed of incidental

> findings requiring action. Secondly, that the department had no definitive processes for formally communicating with a patient's general practitioner as to incidental findings requiring action.
>
> My considered opinion is that in this case there was a moderate departure from the accepted standard of care. The majority of peer organisations and peer health practitioners would view as not acceptable the practice that occurred in respect to [Mr A's] care."

59. I accept this advice, and note that there were a number of missed opportunities to take action on the incidental finding. DHBs should have in place appropriate systems to facilitate the continuity of care for their patients as they move through the health system. Standards New Zealand's "Continuum of service delivery" standard[10] similarly states that a health service must be "coordinated in a manner that promotes continuity of service delivery and promotes a team approach where appropriate". At the time of these events, CDHB did not have in place an effective system to facilitate continuity of service delivery in respect of incidental findings, for which I am critical.

60. I consider that there has been a clear, and acknowledged, failure in the coordination of care provided to Mr A by CDHB. As a result of this failure, Mr A was not referred for a Respiratory team opinion as recommended by the reporting radiologist, and ultimately the diagnosis of his lung cancer was delayed.

Communication between CDHB and Mr A's GP

61. Mr A's discharge summary documented the clinical management undertaken during his admission at CDHB, including all the investigations and scans performed. However, the discharge summary omitted to document the incidental finding of the lung lesion, or provide any follow-up advice to Mr A or his GP in relation to the finding.

62. Dr Clark advised:

> "It is my considered opinion that the doctor completing the discharge summary was very much at the end of a chain of clinical documentation and clinical handovers relating to the care of [Mr A]. That doctor was therefore largely dependent on the standard of such documentation and handover."

63. As discussed above, there was a lack of documentation regarding Mr A's incidental finding, as well as a lack of communication between the DHB doctors. The ED medical assessment record completed noted the major findings of the chest CT scan, including the T3/4 body fractures, but the incidental finding was omitted from this record. The omission was then transcribed to the discharge summary.

64. I am critical of CDHB for not ensuring that information about the incidental finding was recorded in Mr A's discharge summary. As I have stated previously, the completion of an

[10] Standards New Zealand, *Health and Disability Services (Core) Standards* (2008) "Continuum of service delivery", NZS8134.1.3.3.4.

accurate discharge summary containing relevant information is a basic requirement[11] that should have been met. A full and accurate discharge summary was even more vital in this situation, as it was crucial that the incidental finding was communicated to Mr A's GP, for him to action a respiratory opinion as recommended.

65. Dr C told HDC that he received a detailed discharge summary and ED medical assessment record from CDHB describing Mr A's hospital stay, but there was no mention of any lung lesion that required follow-up.

66. Dr Clark stated:

> "[I]t is noted that there was no formal communication with the general practitioner about the incidental finding and it seems the only means of communication was to ask the patient's family to ensure that this matter was raised with the general practitioner once [Mr A] had recovered from his injuries. Certainly the orthopaedic team has recognised its shortcomings in respect to these situations."

67. CDHB acknowledged that verbal communication of follow-up advice to Mr A's family was insufficient given the stress of the multi-trauma situation.

68. This lack of communication from the DHB meant that Dr C was not provided with the information he needed in order to support his patient. Communication between providers is an essential aspect of continuity of care, and by failing to inform Mr A's GP of the incidental finding, I consider that CDHB further hindered the care provided to Mr A.

Conclusion

69. During his stay at CDHB, Mr A was seen by many different doctors, under the care of multiple hospital teams. Consequently, no single doctor took responsibility for Mr A's incidental finding, and communication of the finding did not make its way to the discharge summary or to Mr A's GP. This denied Mr A the opportunity for earlier diagnosis and intervention of his lung cancer. Accordingly, I find that CDHB breached Right 4(5)[12] of the Code of Health and Disability Services Consumers' Rights (the Code).

Policy — other comment

70. At the time of these events, CDHB did not have in place a policy for its staff to follow in relation to incidental findings. Dr Clark advised:

> "[I]n 2017 I think it highly likely that many DHBs across New Zealand would have not had such a policy in place … However, failure to communicate incidental findings is a long-standing and well recognised clinical quality and safety issue in health care systems, and a lack of such policies across peer organisations does not mean it would not have been reasonable to have such a policy at the time of these events."

[11] https://www.hdc.org.nz/decisions/search-decisions/2020/17hdc01589/

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

71. I accept this advice. I acknowledge that since these events, CDHB initiated the development of a mandatory departmental policy for staff, so that the team in charge of the patient will take responsibility for informing the patient's GP of any incidental findings, and the finding will also be noted on the discharge summary. CDHB has been asked to provide HDC with further information on the policy once it has been established.

72. My expert advisor considers the changes made by CDHB to be substantive and appropriate improvements to its clinical processes and the governance of those clinical processes, for which I commend CDHB.

Recommendations

73. I recommend that CDHB:

a) Provide HDC with a copy of the new mandatory departmental policy on incidental findings once this has been completed. The policy is to be sent to HDC within eight months of the date of this report.

b) Create a package of educational material to be used throughout departmental teaching sessions and staff inductions, to address the general standards of practice expected in relation to incidental findings, as well as specific systems that will help to reduce the risk of incidental findings not being followed up. This package should include an anonymised version of this report as a case study. Evidence that this has been done is to be sent to HDC within eight months of the date of this report.

c) Provide HDC with an update on the changes made since this event (outlined in paragraphs 41 to 44), including the effectiveness of the changes, along with any further changes made. The update is to be sent to HDC within six months of the date of this report.

d) Undertake intermittent audits of the adequacy and observance of CDHB policies relating to incidental findings that require action. The outcome of the audits is to be sent to HDC within 12 months of the date of this report. If the audit data indicates that there are still weaknesses in the process, CDHB is to report to HDC on the further changes that will be made to address this.

e) Provide a written apology to Mr A's family. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding.

Follow-up actions

74. A copy of this report with details identifying the parties removed, except the expert who advised on this case and CDHB, will be sent to the Health Quality & Safety Commission, the Technical Advisory Service, the New Zealand Orthopaedic Association, and the Australasian College for Emergency Medicine, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: Independent advice to the Commissioner

The following expert advice was obtained from medical administrator Dr Kenneth Clark:

"I have been asked to provide an opinion to the Commissioner on Case number C19HDC00851. I have read and agree to follow the Commissioner's guidelines for Independent Advisors.

I am a vocationally registered specialist in Medical Administration and I am a fellow of the Royal Australasian College of Medical Administrators. I was the Chief Medical Officer of MidCentral DHB for 17 years and the chair of the New Zealand Chief Medical Officers' group for nine years (until March 2019). I am currently the Acting Medical Director of Pharmac. I am also vocationally registered with the Medical Council of New Zealand as an Obstetrician and Gynaecologist and I work clinically as a Gynaecologist.

I have been asked to provide my opinion on the following issues:

1. *The adequacy of the process in place to communicate incidental findings;*
2. *The adequacy of the communication and coordination of care between radiology, the emergency department, orthopaedics, and the general practitioner, bearing in mind that the orthopaedics team was responsible for [Mr A's] care;*
3. *The adequacy of the actions taken to improve the communication of incidental findings to consumers;*
4. *Any other matters in this case that you consider amount to a departure from accepted standards of care.*

For each question, I have been asked to advise:

1. *What is the standard of care/accepted practice?*
2. *If there has been a departure from the standard of care or accepted practice, how significant a departure do you consider this to be?*
3. *How would it be viewed by your peers?*
4. *Recommendations for improvement that may help to prevent a similar occurence in the future.*

In reaching my opinions, I have accessed the following sources of information: *Online complaint submission dated [...]. Canterbury District Health Board's response dated 28 June 2019. Clinical records from [the public hospital] covering the period from 18 March 2017 to 24 March 2017. The following peer-reviewed journal articles:* Lim PS *et al,* Process improvement for follow-up radiology report recommendations of lung nodules *BMJ Open Quality* 2019;8: e000370.doi:10.1136/bmj-2018-000370 Devine A *et al,* Frequency of incidental findings on Computed Tomography of Trauma Patients *West J Emerg Med* 2010 Feb;11(1):24–27 Sierink JC *et al*, Incidental findings on total-body CT scans in trauma patients *J Injury* 2014 May;45(5):840–844 Kumada K *et al*, Incidental findings on whole-body computed tomography in trauma patients: the

current state of incidental findings and the effect of implementation of a feedback system *Acute Med Surg* 2019 Mar;6(3):274–278.

1. The adequacy of the process in place to communicate the incidental findings:

From the clinical records made available to me and the response from Canterbury District Health Board to the HDC's questions, it is clear that there was communication of the incidental findings. The radiology registrar on call discussed with the emergency department staff managing [Mr A's] care the presence of a right upper lobe mass and recommended a respiratory opinion. Secondly, in the problem list prepared by the doctor admitting [Mr A] into the orthopaedic ward, the finding of a right upper lobe lesion was noted. In addition, Canterbury District Health Board in its communication indicated that [Mr A's] family was verbally informed of the right upper lobe finding, with advice to follow up with [Mr A's] GP once he had recovered from the trauma events. It appears, then, that by several informal mechanisms, [Mr A's] incidental finding was communicated. However, the questions to be considered include whether the forms and mechanisms for communication were sufficiently robust to ensure that the findings were noted by all relevant health practitioners, both within [the public hospital] and by [Mr A's] general practitioner. Secondly, and most importantly, were there processes in place to maximise the likelihood of the incidental findings being acted upon?

a. *What is the standard of care/accepted practice?*

It is self-evident that the standard of care in such situations is for both informal and formal processes to be in place for communication of the incidental finding or findings to all relevant health practitioners involved in the care of the patient, both within the secondary setting, and the primary and community setting. Inherent in this standard of care are processes that include checks or follow-up mechanisms to maximise the likelihood of such findings being appropriately acted upon, rather than simply being received. This standard of care is, however, often not achieved in health organisations across the world and the reporting and follow-up of incidental findings found on imaging is a vexed and extremely challenging issue facing health organisations in their quest to provide high-quality care. I will comment on this in some detail later in this document.

b. *If there has been a departure from the standard of care or accepted practice, how significant a departure do you consider this to be?*

It is my considered opinion that, whilst the standard of care is reasonably straight forward to define, the standard of accepted practice will often vary from this standard and this is certainly commonly the case across secondary health organisations in New Zealand, let alone in other parts of the world. In practice, those services that achieve well in observing this standard of practice do so where individual senior practitioners drive and maintain high quality systems within their departments. Full institution-wide systems to manage these situations are not the norm. Given this context, in this case I believe there has been a mild departure from the standard of care or accepted practice.

c. *How would it be viewed by your peers?*

It is my considered opinion that the majority of peer organisations and peer practitioners would not see the standard of care provided at Canterbury DHB in this situation as acceptable. Of great importance though, almost all peer organisations and peer practitioners would, on passing any judgement, immediately reflect on the adequacy of the processes in place within their own departments and organisations. In doing so many would have cause for concern as to the standard of care provided within their own circumstances.

d. *Recommendations for improvement that may help to prevent a similar occurence in the future.*

Recommendations for improvement will be commented on under question three below.

2. The adequacy of the communication and coordination of care between radiology, the emergency department, orthopaedics, and the general practitioner, bearing in mind that the orthopaedics team was responsible for [Mr A's] care:

Some aspects of this question have already been addressed in question one above. It is noted that there were forms of communication and coordination of care between the departments and practitioners caring for [Mr A], however these were relatively informal means of communication, apart from the recorded observation on the patient's problem list. In particular, it is noted that there was no formal communication with the general practitioner about the incidental finding and it seems the only means of communication was to ask the patient's family to ensure that this matter was raised with the general practitioner once [Mr A] had recovered from his injuries. Certainly the orthopaedic team has recognised its shortcomings in respect to these situations. The subsequent steps taken by that department can, by inference, be taken to mean that at the time of [Mr A's] admission there were no systemised means whereby the consultant in charge of the patient would be automatically informed of incidental findings requiring action. Secondly, that the department had no definitive processes for formally communicating with a patient's general practitioner as to incidental findings requiring action.

Specific points in the clinical process are also of relevance to these discussions, that is all aspects of clinical handover, both between departments and between teams within any specific department. The final extension of this is handover to the patient's general practitioner on the patient's discharge. I have, however, no definitive information to allow true assessment of the quality of handover at Canterbury DHB.

My considered opinion is that in this case there was a moderate departure from the accepted standard of care. The majority of peer organisations and peer health practitioners would view as not acceptable the practice that occurred in respect to [Mr A's] care. Again, I will comment further under question three as to recommendations for improvements to help prevent a similar occurence in the future.

3. The adequacy of the actions taken to improve the communication of incidental findings to consumers:

In the response by Canterbury DHB to the Health and Disability Commissioner, dated 28 June 2019, a number of actions are noted. Several of these relate to the orthopaedic service itself, including the need to inform the consultant in charge of the patient's care of any incidental findings requiring action, with the consultant then being responsible for ensuring any relevant referrals are made. In addition, the orthopaedic team has put in place a mandatory departmental policy whereby the patient's GP will be notified in writing of incidental findings requiring action, with a clear statement requesting the GP instigate any necessary follow-up. Such correspondence is to also inform of any actions taken while the patient was an inpatient in relation to the incidental finding. It is noted at organisational level that Canterbury District Health Board is further reviewing its broader systems and processes, wider than the one service involved here, to ensure that learning opportunities are taken and it is noted that there is to be a discussion with the chiefs of the medical and surgical divisions at [the public hospital] in this respect.

It is my considered opinion that all of the above steps indicated by the Canterbury DHB are appropriate and reasonable in these circumstances. However, as with all organisational policies, there is a key dependence on repeated training and education of staff, particularly in respect to new resident medical officers as they enter the service at regular intervals. One-off reminders of such policies will only have temporary effect and systemised steps need to be taken to ensure that these reminders, education, and training occur in a timely fashion with each intake of new staff into the service. Whilst Canturbury DHB may well be considering a range of system improvements, incorporation of prompts into discharge summary processes and templates can have a role in minimising the chance of such oversights occurring. A further step worthy of consideration is for intermittent audits as to the adequacy and observance of policies relating to incidental findings requiring action. If audit data indicates that there are still weaknesses in process then further adjustments and mitigations can be made.

As mentioned earlier, the reporting and follow-up of incidental findings found on imaging is a vexed issue for every health organisation. There is, in fact, significant literature relating to these matters, including, and relevant to, [Mr A's] situation — that is incidental findings found on imaging of trauma patients. I have referenced several important articles of relevance but there are many such accounts discussing the frequency and incidence of such findings, the level of reporting of incidental findings, the level of appropriate follow-up of incidental findings and, as a key repeated theme, the need for process improvements to mitigate the risks associated with such incidental findings.

A further key repeated theme in the literature is the very substantial difficulties and complexities in this area of clinical practice and governance and it is clear that even in organisations where substantive efforts have been made to improve processes, these have only been associated with moderate improvements. A number of software-

based systems to improve reporting and follow-up of incidental findings are described and analysed. I do note that in the Canterbury DHB response to the Health and Disability Commissioner, it is mentioned that the vendor of the Canterbury PACS (Picture Archiving and Communication System) is currently working on development of such a software safety net. Again, though, a common theme in the literature is that, even with closed-loop monitoring systems with alerts in place, this does not necessarily ensure that appropriate actions are then taken.

I am available to the Commissioner for further comment on, or clarification of, any aspects of this opinion.

Yours faithfully

Dr Kenneth Clark"

The following further advice was received from Dr Clark:

"Thank you for your further correspondence as of 10 March 2020. Included with your correspondence was a copy of Canterbury DHB's response to the Health and Disability Commissioner dated 19 February 2020 and associated appendices. Included with these were several statements from involved medical staff. Separately, I note a statement from the doctor who wrote the discharge summary relating to [Mr A's] admission to Canterbury DHB in 2017.

I have carefully reviewed all of the above information. I do not wish to change any aspects of my initial advice to the Commissioner and believe all aspects of that advice still stand.

I note you ask several further questions of me and I will answer each of these in turn:

1. *The reasonableness of CDHB to not have had a policy regarding incidental findings at the time of these events.*

It is my considered opinion that it would have been reasonable to have expected Canterbury DHB to have had a policy regarding incidental findings at the time of these events. As discussed in some length in my initial advice, in 2017 I think it highly likely that many DHBs across New Zealand would have not had such a policy in place and, again as previously noted, many health organisations around the world would have not had such a policy in place. However, failure to communicate incidental findings is a long-standing and well recognised clinical quality and safety issue in health care systems, and a lack of such policies across peer organisations does not mean it would not have been reasonable to have such a policy at the time of these events.

2. *The reasonableness of the ED registrar to not have documented the incidental finding in the emergency medical assessment record*.

The incidental finding should have been documented on the emergency medical assessment record and it was not reasonable for the ED registrar to have not done so.

3. *The reasonableness of the doctor who completed the discharge summary to have not viewed the CT scan report before completing the discharge summary*.

It is my considered opinion that the doctor completing the discharge summary was very much at the end of a chain of clinical documentation and clinical handovers relating to the care of [Mr A]. That doctor was therefore largely dependent on the standard of such documentation and handover. Equally, a doctor completing a discharge summary should not necessarily be required to have read and checked every investigation report relating to the preceding care of that patient. I therefore believe it was reasonable of the doctor who completed the discharge summary to have not viewed the CT scan report before completing the said discharge summary.

4. Any other matters that I consider warrant comment in this case.

I wish to commend Canterbury DHB on the many steps it has taken and is taking to address the issue of communication of incidental findings, both within the orthopaedic service, who were central to [Mr A's] care, but also across the wider organisation. I also note the DHB's willingness to consider options for adding prompts to the discharge summary template and their willingness to explore intermittent audits and development of any necessary action plans, should deficiencies be found in the appropriate communication and actioning of information pertaining to incidental findings. It is apparent that the Canterbury DHB accepts deficiencies in the care of [Mr A] relating to his admission in 2017 and, to my considered assessment, is making substantive and appropriate improvements to its clinical processes and the governance of those clinical processes.

I remain available to the Commissioner for further comment on, or clarification of, any aspects of either my initial advice or in respect to the opinions contained within this document.

Yours faithfully,

K F CLARK"