

Waitematā District Health Board

A Report by the Health and Disability Commissioner

(Case 18HDC00630)

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Executive summary

1. This report considers the services provided to a woman by Waitematā DHB. The woman had a medical history of cancer of the left breast, for which she had received radiation treatment, implant reconstruction, a left mastectomy, and a breast implant replacement with left breast reconstruction.
2. In September 2017, the woman began to experience pain in her chest region, which worsened over the following months. By February 2018, the pain had become severe and she was experiencing shortness of breath, so she visited the Emergency Department (ED) at the public hospital.
3. During her admission to the public hospital, the woman's pain was considered to be musculoskeletal, caused by her recent left breast reconstruction surgery. The woman asked staff for a computed tomography (CT) scan numerous times, as she was concerned about a recurrence of her breast cancer. A CT scan was ordered but never undertaken, as it was cancelled manually by the Radiology Department when it did not hear back from the General Medicine team as to whether the scan was required.
4. Subsequently, the woman was discharged from the public hospital and arranged a CT scan privately, which showed a recurrence of cancer in her breast and in her sternum.

Findings

5. When the woman first presented to the ED, and during the first few days of her admission, staff missed opportunities to identify and act upon clinical "red flag" symptoms. Further, the system for requesting and cancelling CT scans was not sufficiently robust. Accordingly, it was found that Waitematā DHB did not provide services with reasonable care and skill, and therefore breached Right 4(1)¹ of the Code.

Recommendations

6. The Commissioner recommended that Waitematā DHB provide a written apology.
7. The Commissioner also recommended that Waitematā DHB update HDC on the implementation of a formal process to improve communication between the Radiology Department and the referring clinicians and teams, to ensure minimal clinical risk where concerns have been raised previously, and to disseminate the learnings from the woman's experience via the hospital morbidity and mortality forum.
8. The Commissioner further recommended that heuristic bias training be provided to the staff who were involved in the woman's care.

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

Complaint and investigation

9. The Health and Disability Commissioner (HDC) received a complaint from Mrs A about the services provided by Waitematā District Health Board (DHB). The following issue was identified for investigation:
- *The appropriateness of the care provided to Mrs A by Waitematā District Health Board in February and March 2018.*
10. This report is the opinion of Health and Disability Commissioner Anthony Hill.
11. The parties directly involved in the investigation were:
- | | |
|---------------|--------------------|
| Mrs A | Consumer |
| Mr A | Consumer's husband |
| Waitematā DHB | Provider |
12. Further information was received from:
- | | |
|---|---------------------------|
| Dr B | General practitioner (GP) |
| GP practice | |
| Accident Compensation Corporation (ACC) | |
13. Other parties mentioned in this report:
- | | |
|------|---|
| Dr C | General Medicine Senior Medical Officer (SMO) |
| RN D | Registered nurse |
| Dr E | Consultant |
14. Independent expert advice was obtained from Dr Richard Shepherd and is included as Appendix A.
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Information gathered during investigation

Background

15. Mrs A, aged in her sixties at the time of these events, had a medical history that included cancer of the left breast, for which she had received radiation treatment in 1998. In November 2016 she had a left mastectomy, and in December 2017 she had a breast implant replacement with left breast reconstruction under plastic surgeon Dr E. Mrs A also underwent implant reconstruction in 2000.
16. Mrs A told HDC that she began to experience pain in her chest area in September 2017. She visited her registered GP, Dr B, a number of times between September 2017 and January 2018, and investigations, including a chest X-ray and blood tests, were

inconclusive regarding the cause of the pain. The pain was considered to be musculoskeletal in origin.

17. Dr B told HDC that he reviewed Mrs A's symptoms carefully at every consultation between September 2017 and January 2018, and was reassured by his examination findings, a normal chest X-ray in November 2017, and the long lag time without further problems since her initial diagnosis and treatment for breast cancer more than 20 years previously.
18. Mrs A told HDC that the pain in her chest continued to worsen, and eventually spread to her back. On 18 February 2018, the pain was so severe that she visited the ED at the public hospital.

Admission to the public hospital

19. Mrs A was admitted to the ED at 2.48pm. Her history included shortness of breath (SOB) and chest pain that radiated down her left arm. She said that she had been experiencing chest pain for three and a half months, and that it had become worse following a fall eight days previously, and that she had been experiencing SOB and a burning feeling in the central chest region for one month prior to admission.
20. At 3.20pm, Registered Nurse (RN) D inserted an intravenous (IV) cannula² into Mrs A's left anterior cubital fossa (ACF).³ RN D was a few weeks into her new role in the ED at that time. Waitematā DHB told HDC that it is routine practice in the ED for a cannula to be inserted to provide intravenous access in the case of a clinical emergency, to administer pain relief or other medications as required, and to take blood samples for testing.
21. An ED SMO arranged a chest X-ray, routine blood tests, and a D-dimer⁴ test, and referred Mrs A to the General Medicine team. Mrs A was seen by a General Medicine registrar, who thought that Mrs A's pain could be musculoskeletal or post-radiation pain syndrome of the chest wall triggered by recent surgery or a recurrence of cancer.
22. Mrs A's blood tests, chest X-ray, and electrical activity of the heart were normal. The plan documented by the registrar was for Mrs A to be admitted to the Assessment and Diagnostic Unit (ADU) with a plan to start gabapentin⁵ and OxyNorm⁶ for pain when required, and for an SMO to review her the following morning. Mrs A was transferred to the ADU at 8.20pm on 18 February 2018.
23. Mrs A was reviewed the following morning by a General Medicine SMO, who noted that Mrs A had ongoing pain that was worse on mobilising. The SMO documented his impression that Mrs A's pain was musculoskeletal chest pain, and that the plan was for regular painkillers and follow-up with Mrs A's breast surgeon (Dr E). The SMO felt that Mrs

² A thin tube inserted into a vein or body cavity to administer medication, drain off fluid, or insert a surgical instrument.

³ Left elbow pit.

⁴ Blood tests used to help rule out the presence of an inappropriate blood clot (thrombus).

⁵ A medication used to treat epilepsy, neuropathic pain, hot flashes, and restless leg syndrome.

⁶ An opioid painkiller used to treat moderate to severe pain.

A could probably be discharged the following day, but she was transferred to the General Medicine ward because of her ongoing pain and need for analgesia.⁷

24. At 9.00am on 20 February 2018, Mrs A was seen by Dr C, a General Medicine SMO, on the ward round. Dr C's impression was that Mrs A's pain was musculoskeletal following her breast surgery, and that there were no breast masses or signs of inflammation. Dr C noted Mrs A's history and arranged for a follow-up appointment to be booked for 1 March 2018 with Dr E at the Waitematā DHB Breast Clinic (as noted above, Dr E had undertaken Mrs A's breast reconstruction in December 2017). Dr C's plan of care for Mrs A was ongoing analgesia and to increase the dose of gabapentin.
25. Waitematā DHB documentation shows that Dr C had discussed Mrs A's case with the Plastic Surgery registrar at another DHB, who also thought that Mrs A's pain seemed to be muscular in origin, and suggested that an ultrasound scan (USS) of the breast be undertaken to look for a collection of fluid.
26. At 11.55am on 21 February 2018, Dr C reviewed Mrs A again and referred her for a USS of her chest and breast. The USS showed nothing of concern.

IV cannula site

27. On 22 February 2018, a nurse documented that although Mrs A's IV cannula had been removed, the site on her left arm remained painful and red. Mrs A told HDC that she recognised this as cellulitis,⁸ as she had had it in the past.
28. By 23 February 2018, Mrs A's arm had become more inflamed and the redness was spreading, so the blood thinner Clexane was commenced in an attempt to diminish the risk of deep vein thrombosis and pulmonary embolism, and a USS was ordered. The USS report raised suspicion of a fragment of cannula being present in her arm, possibly from a previous peripherally inserted central catheter (PICC). This was later eliminated as a possibility.
29. A computed tomography (CT) scan of Mrs A's left arm was undertaken on 24 February 2018, and this showed a thrombus (blood clot) in the left cephalic vein.⁹ Antibiotics and Clexane were continued.

26 February to 1 March

30. Dr C reviewed Mrs A again on 26 February 2018, and noted that she had ongoing chest wall and breast pain. Mrs A's Clexane dose was increased.
31. On 27 February 2018, a CT scan was requested by Dr C's registrar at Dr C's request.
32. Dr C reviewed Mrs A again on 28 February 2018 and, whilst Mrs A still complained of some chest pain, Dr C's impression was that the pain had improved. A decision was made to

⁷ Pain relief.

⁸ A bacterial infection of the skin and underlying tissues.

⁹ The large vein in the upper arm that runs from the hand to the shoulder.

discharge Mrs A the following day with ongoing analgesia and instructions on how to self-administer the Clexane injections.

33. Mrs A was discharged on 1 March 2018 at 9.57am, prior to the requested CT scan being undertaken. Dr C told HDC that any CT scan or USS request must be discussed with the radiologist before a scan is accepted or booked, and that the CT scan that was booked would have been cancelled by Waitematā DHB's automated systems when Mrs A was discharged, as she was no longer an inpatient. Dr C recalls that the acceptance or prioritisation of the requested CT scan was not discussed with the radiologist prior to Mrs A's discharge because Mrs A was booked to see Dr E on the morning of 1 March 2018, and she (Dr C) was keen to know Dr E's opinion.
34. However, Waitematā DHB advised HDC that it does not have a system in its Radiology Department that automatically cancels bookings on discharge, and it did not have such a system when Mrs A was a patient. The DHB explained that in Mrs A's case, a Radiology registrar did contact the referring General Medicine team regarding the requested CT scan (as per normal process), and was advised that a decision had not been made on whether or not to proceed with the scan. The General Medicine team agreed to contact Radiology again if a scan was required. Waitematā DHB noted that the clinical records do not document the member of the General Medicine team to whom the Radiology registrar spoke.
35. According to Waitematā DHB, Radiology did not receive any further contact regarding Mrs A's CT scan, and the scan was cancelled manually — it was not cancelled automatically on discharge. Unfortunately, the cancellation of the scan did not generate any form of "cancellation notification" to the General Medicine team, which meant that it was not prompted to discuss further whether or not the scan was required.
36. The discharge plan was for regular analgesia as required, follow-up with Dr E that day, and for Mrs A to self-administer Clexane for two weeks initially.

Follow-up by Dr E and GP

37. Dr E saw Mrs A on 1 March 2018 after she was discharged from the hospital's care. Dr E knew of Mrs A's admission for chest pain and was aware that physicians had concluded that her chest pain was musculoskeletal, and he saw no need for further investigation at that time.
38. Mrs A visited her registered GP practice on 5 March 2018 and saw a locum GP. She explained that she had been "refused a CT scan" at the hospital, and that she had been discharged without a diagnosis. Mrs A and the GP discussed the option of obtaining a CT scan under Mrs A's private health insurance. This was agreed to and carried out the same afternoon.

Diagnosis of cancer recurrence

39. The following day, 6 March 2018, Mrs A returned to the GP practice and was advised that her CT scan had shown a recurrence of cancer in her breast and in her sternum.

40. Mrs A told HDC that on three separate occasions during her admission to the public hospital she requested a CT of her chest area, and each time this was denied. She recalls that her husband, Mr A, also asked hospital staff on at least four separate occasions whether they had done or intended to do any further tests or assessments to determine whether the pain could be related to cancer. Mrs A advised that on each occasion, they were told that the cause of the pain could not be cancer as this would have been evident in the blood tests if it were the case.
41. Although one of the differential diagnoses was metastatic breast cancer, Dr C told HDC that this was considered by her to be very unlikely for the following reasons:
- a) Mrs A's history did not point in the direction of metastatic cancer. She did have a history of breast cancer but this was 20 years prior to these events. This deems Mrs A's presentation to be very atypical of metastatic cancer.
 - b) Mrs A had been examined by a number of doctors since arriving at the ED, and none could find any objective signs that indicated metastatic cancer of her chest wall. She presented with no weight loss or any systemic symptoms, and her blood test results were all within normal range.
 - c) Mrs A had two chest X-rays, one in November 2017 and one on her admission to the ED, and neither described any changes that would indicate chest cancer, particularly not a sternum mass with a pathological fracture, as the CT scan later showed.
 - d) The USS did not identify any signs that would increase the possibility that it was a malignant chest process.
42. Dr C is sorry that she did not ensure that a request for a CT scan of Mrs A's chest was made, and that Mr A did not feel listened to.

Further information from Waitematā DHB

43. RN D conveys her deepest apologies to Mrs A with regard to the insertion of the IV cannula into Mrs A's left arm when she had a history of surgery to her left breast. RN D recognised that this will have caused "unintentional harm which could have been avoided".
44. As a result of the incident, RN D had a thorough discussion with her Charge Nurse Manager regarding the actions that she took and the consequences that occurred for Mrs A. They also discussed the education that she and other ED nurses have had in order to prevent this kind of incident happening again. In future, prior to IV cannulation, RN D will ask all her patients about contraindications, including asking about previous mastectomies, and will avoid using the ACF where possible. RN D has learnt from this incident the importance of thorough checking of this nature prior to procedures, and anticipates that such an incident will not happen again in the future.
45. Since this incident, ED staff at Waitematā DHB have had further education about IV cannulas and the importance of correct placement, including the risks involved and contraindications to be aware of. The ED service has had an education campaign on this

topic, with reminders on the “daily communication sheet” that is read out at every nursing handover at the beginning of a new shift. All staff have been educated to locate IV cannulas in the ACF only when required for active resuscitation or when medication needs to be administered in a large cannula located in the ACF.

46. The ED nurse educator has used this incident as a case review to highlight the importance of accurate assessments and history-taking to ascertain whether a patient has any particular reason for placement of an IV cannula in a particular site.
47. Waitematā DHB stated that Mrs A’s case is a lesson in having a low threshold for advanced imaging in such cases, even if the primary cancer was diagnosed and cured years ago.
48. In January 2020, Waitematā DHB’s Radiology Department implemented a process change to improve communication with referring clinicians/teams. All radiologists must now use a “declined process”, which generates a “declined” notification to the referring team and prompts further consideration by the requesting team. Waitematā DHB told HDC that currently a more formal process is being developed and will be sent to HDC on completion.
49. Waitematā DHB did not initiate an adverse event investigation into this event.

Response to provisional decision

50. Mrs A was provided with an opportunity to respond to the “information gathered” section of the provisional decision. She reiterated that is very unhappy with the treatment she received and that the experience was very stressful for her and her husband. Further comments from Mrs A have been taken into account in forming my final opinion.
51. Waitematā DHB was provided with an opportunity to respond to the provisional decision and it provided new information that was incorporated into a second provisional decision. Waitematā DHB did not have any comments to make on the second provisional decision.

Opinion: Waitematā DHB — breach

52. As a healthcare provider, Waitematā DHB is responsible for providing services in accordance with the Code of Health and Disability Services Consumers’ Rights (the Code) — that is, the health services provided by Waitematā DHB must be of an appropriate standard, and it must have in place adequate systems, policies, and procedures. Waitematā DHB also has a responsibility for the actions of its staff.
53. When Mrs A visited the ED on 18 February 2018 with severe chest pain and SOB, one of the differential diagnoses made was of metastatic breast cancer. A CT scan was requested on 27 February 2018, some nine days later, to investigate her symptoms. Any CT scan request must be discussed with the radiologist before the scan is accepted or booked. Waitematā DHB told HDC that when Radiology did not hear anything further from the General Medicine team as to whether the scan was required, it was cancelled manually.

There was no system in place at the time to notify the referring team of the cancellation by Radiology, which likely would have prompted further discussion about whether or not a scan was necessary. As a result, Mrs A did not receive a scan before she was discharged.

54. My expert advisor, Emergency Medicine specialist Dr Richard Shepherd, advised that while metastatic breast cancer was a clinically unlikely diagnosis owing to the manner in which Mrs A presented, by that stage of her presentation musculoskeletal chest pain was a similarly increasingly unlikely clinical diagnosis. Dr Shepherd noted the potential significance of missing a sinister cause by not undertaking a CT scan in this clinical scenario. He considers that Mrs A's unexplained severe chest pain was out of proportion with her diagnosis and represented a clinical "red flag", and that the clinical indication was to perform a CT scan.
55. I accept Dr Shepherd's advice and agree that the clinical red flags present mandated further investigation of Mrs A's chest pain, which was clearly not decreasing during her admission. It was only through Mrs A's own ongoing significant self-advocacy and ability to arrange a privately performed CT scan that ultimately her correct diagnosis of metastatic breast cancer was reached.
56. In my opinion, Mrs A was let down by various aspects of the care provided to her by numerous staff at Waitematā DHB. Given that when she first presented to the ED, and during the first few days of her admission, staff missed opportunities to identify and act upon clinical "red flag" symptoms, and because the system for requesting and cancelling CT scans was not sufficiently robust, I find that Waitematā DHB did not provide Mrs A with services with reasonable care and skill and, accordingly, breached Right 4(1)¹⁰ of the Code.

Recommendations

57. I recommend that Waitematā DHB undertake the following, within five months of the date of this report:
- a) Provide an update to HDC regarding the implementation of a formal process to improve the communication between the Radiology Department and the referring clinicians and teams to ensure minimal clinical risk where concerns have been raised previously.
 - b) Disseminate the learnings from Mrs A's experience via the hospital morbidity and mortality forum, and provide HDC with evidence of this having been completed.
 - c) Provide heuristic bias training to the staff who were involved in Mrs A's care, including Dr C, and provide HDC with evidence of the training.

¹⁰ Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."

58. I recommend that Waitematā DHB provide a written apology to Mrs A for the breach of the Code identified. The apology is to be sent to HDC within five weeks of the date of this report, for forwarding to Mrs A.
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Follow-up actions

59. A copy of this report with details identifying the parties removed, except the expert who advised on this case and Waitematā DHB, will be sent to the Health Quality & Safety Commission 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, dated 30 August 2018, was obtained from Dr Richard Shepherd:

“My name is Dr Richard Shepherd. I have been asked to provide an opinion to the Commissioner on case number C18HDC00630 regarding the care [Mrs A] received from the Waitematā District Health Board from 18 February 2018 to 1 March 2018. I have read and agree to follow the Commissioner’s Guidelines for Independent Advisors. I am a Consultant General Physician employed by the Waikato District Health Board. I graduated from Otago Medical School in 1997 with Bachelor of Medicine and Surgery (MBCChB). I have attained fellowships with the Royal New Zealand College of Urgent Care, The Division of Rural Hospital Medicine and the Australasian College of Physicians. I have subspecialty interests in nephrology, emergency medicine and palliative care. I have completed the Auckland University Postgraduate Diploma of Community Emergency Medicine, the RACP Clinical Diploma in Palliative Medicine and the Otago University Certificate in Physician Performed Ultrasound. I have no conflicts of interest to declare in this case.

I have been requested by the Commissioner to provide expert advice on the following issues: Please review the enclosed documentation and advise whether you consider the care provided to [Mrs A] at [the public hospital] was reasonable in the circumstances, and why. In particular please comment on:

1/ Was the cause of [Mrs A’s] chest pain adequately and appropriately investigated during her time as an inpatient between 18 February 2018 and 1 March 2018?

2/ Any other comments you may wish to make on the care provided to [Mrs A]. For each question I have been requested to advise:

- a) What is the standard of care/accepted practice?
- b) If there has been a departure from the standard of care or accepted practice, how significant a departure it is in my view.
- c) How would the departure be viewed by my professional peers?
- d) Recommendations for improvement that may help to prevent a similar occurrence in the future.

Sources of information reviewed in the preparation of this report:

Letter of complaint

Waitematā DHB’s responses dated 17 May 2018 and 9 July 2018

Clinical records from Waitematā DHB

Clinical records from [Dr B]

Overview:

[Mrs A] was admitted to the emergency department at [the public hospital] on 18 February 2018. She had been experiencing anterior chest pain for many months which had worsened significantly in the 8 days prior to presentation to hospital following a fall. Her past history included breast cancer in 1998 where she was treated with a left mastectomy, and a latissimus dorsi (muscle) and left breast implant reconstruction. She was subsequently treated with postoperative radiotherapy. She was seen by a consultant plastic surgeon in August 2016 with breast discomfort and a capsular contracture was diagnosed as the potential source. A capsulectomy and exchange for a new implant was recommended. [Mrs A] continued to attend her usual GP over September, October and November 2017 with ongoing left anterior breast and central chest pain. Ongoing chest wall musculoskeletal dysfunction was diagnosed and she was given ibuprofen analgesia and paracetamol. A Chest X-ray was performed on 27 November 2017 which was reported as normal. On 1 December 2017 her operation was performed with capsulectomy and implant exchange. She was further reviewed by her GP on 22 January with ongoing anterior chest wall pain.

On 18 February [Mrs A] presented to [the] Emergency Department due to worsening pain which she felt she was no longer able to manage at home. Her history was recorded as having been pain free prior to the operation in December with increasing pain since. Her pain was described as a tight ache, worse with deep inspiration and with movement. No associated symptoms were noted including the absence of cough, weight loss and no systemic symptoms. Mid sternal, right breast, axillary and subscapular tenderness were noted on examination. Routine blood tests including full blood count, renal function, liver function, calcium, coagulation, D-dimer and troponin were normal. A chest X-ray was also performed and felt to be normal (subsequently formally reported as a mildly enlarged cardiac silhouette with clear lungs and pleural spaces). An ECG was also performed and documented as normal. An impression was recorded of '1/ Chest pain ?Musculoskeletal ?Neuropathic' with a differential diagnosis considered of '?post radiation pain syndrome of chest wall triggered from recent surgery, ?recurrence of disease'. She was admitted to hospital and commenced on stronger pain medication with gabapentin and oxycodone. The plan also included '? Benefit of further imaging'.

[Mrs A] was reviewed the following day on the consultant medical round. Very localised chest wall tenderness was again noted with an impression given of 'musculoskeletal chest pain'. Regular analgesics were recommended with follow-up with private breast surgeon 1 March 2018. A breast ultrasound was also recommended to look for a collection. This was performed on 21 February 2018 with both breasts examined showing no collection or masses. The left breast implant was intact with no axillary lymphadenopathy. [Mrs A's] discharge was however delayed due to the development of left arm redness related to an IV cannula. This resulted in further investigations and treatment for a left cephalic vein superficial thrombophlebitis delaying [Mrs A's] discharge until 1 March 2018. Over the course of her admission her chest pain continued with a diagnosis of 'right chest wall

tenderness ?musculoskeletal' maintained. Her plan documented 'Breast clinic follow-up, no further scanning at present'. She was discharged taking twice daily sustained release morphine tablets, gabapentin and regular paracetamol for pain, in addition to laxatives, anti-nausea medication, antibiotics and blood thinner injection medication (enoxaparin). She was reviewed by a consultant plastic surgeon in the outpatient clinic on 1 March 2018 who felt 'she is getting some pain on the right side of her chest but this sounds more like a musculoskeletal pain and is unrelated to the implant on the left hand side. I have told her it should settle down in a couple of months' time. If not she would need to be referred to maybe a musculoskeletal specialist.' A follow-up in 6 months' time was planned.

[Mrs A] returned to see her GP on 5 March 2018 with ongoing chest pain and concerns regarding 'no diagnosis' and having been 'refused a CT scan'. A private CT chest scan was arranged and performed on 5 March 2018. This showed a destructive mass with an associated pathological fracture involving the lower half of the sternum most in keeping with a bone metastasis. A mammogram was performed on 9 March with no features suspicious for malignancy seen. Subsequent tissue biopsy confirmed a metastatic breast cancer origin.

Advice to the Commissioner:

1/ Was the cause of [Mrs A's] chest pain adequately and appropriately investigated during her time as an inpatient between 18 February 2018 and 1 March 2018?

In my opinion the cause of [Mrs A's] chest pain was not adequately investigated during her time as an inpatient at [the public hospital]. I would regard that as a mild to moderate departure from accepted practice due to a number of mitigating circumstances and clinical distractors. In my opinion it is difficult to clearly define the standard of care or accepted practice in this case. Clinical judgement and clinical decision making do appear to have been important factors rather than a clearly defined standard of care which was not followed.

[Mrs A] presented with what appears to have been an acute flare of chest pain on the background of many months of discomfort and pain. Teasing out the variable nature of her pains over time and their possible aetiologies does appear to have been a challenge to the multiple clinicians involved in her care — from her GP, her plastic surgeon, the emergency department doctor and the inpatient team of doctors who attended her. In my opinion [Mrs A's] case was an unusual presentation of metastatic breast cancer with confounding factors present. These included alternative reasonable explanations for her pain (capsular contraction, recent surgery, previous radiotherapy) and routine investigations all being reassuringly normal (her blood tests, X-rays and breast ultrasound). A reasonable differential diagnosis for her chest pain does appear to have been generated and reasonably investigated — at least initially. In retrospect it is all too easy to be critical of the failure to diagnose [Mrs A's] condition whilst an inpatient. It can however be difficult to reconstruct the nuances of the history and clinical examination upon which the attending clinicians would have based their decision making processes. [Mrs A's] initial assessment by the attending medical

registrar did in fact raise the differential diagnosis of a recurrence of her breast cancer and the need for further imaging. However, subsequent clinical decisions were made not to pursue that course of action. Such decision making thought processes, and in particular, why a CT scan was not felt to be necessary, is not documented in the clinical record. In my view [Mrs A's] significant past breast history, the progressive nature of her pain, her significant voiced concerns, and the need for significant opiate and gabapentin medication should have prompted a reconsideration of the diagnosis of 'musculoskeletal pain' during her long inpatient care. At that point consideration of more definitive imaging to attempt to rule out the offered differential diagnosis, was in my opinion, indicated. There does not appear to have been a clinically significant reason to not have further investigated [Mrs A] with a CT. The down sides of missing the potentially serious differential diagnosis would in my view lower the threshold to investigate further. In my view there was a tipping point in clinical judgement which favoured proceeding with definitive imaging, and little to argue against it. I would however acknowledge that not all my professional peers would agree with that view and may weigh factors differently preferring an expectant approach and being adequately reassured by their clinical examination and the negative investigations that had been performed. Clinical judgement is often far from black and white. Whilst the clinical decision that was made, in retrospect proved to be incorrect, that alone in my view does not equate to a departure from the standard of care.

In terms of recommendations for improvement: with reference to the adequate investigation of [Mrs A's] chest pain I was not able to identify any clear systemic, policy or operation issues. I would recommend learnings from [Mrs A's] experience be disseminated via the hospital morbidity and mortality forum and that heuristic bias education be considered by those involved in her care. Issues around communication could also be reflected upon from [Mrs A's] comments of her experience as the patient.

2/ Any other comments you may wish to make on the care provided to [Mrs A]. Other aspects of [Mrs A's] care particularly around her IV cannula and the development of her complications of thrombophlebitis were acknowledged by the Waitematā District Health Board as falling below the accepted standard of care. I have not further expanded on those aspects of her care.

Dr Richard Shepherd
Consultant Physician General Medicine
Waikato District Health Board MBChB FRACP"

Date: 30/08/2018

The following further expert advice was received from Dr Shepherd on 10 October 2018:

"To expand a little further then: This was an unusual presentation of metastatic breast cancer many years after her original diagnosis. At the beginning of her symptoms it would not have been the most likely diagnosis (or perhaps even a likely diagnosis). As

time went on though her symptoms did not resolve/got worse and as initial investigations were normal, in my view further definitive imaging should have been pursued as likelihood ratios began to change with progressive symptoms.

I would not regard the question as a simple black and white one but — as is the case in clinical judgement medicine — a question of changing likelihoods. I attempted to expand on that thought process in my original advice below.

2/ The imaging that was performed did not sadly diagnose her cancer. It was not then ‘sufficient to reliably exclude the recurrence of breast cancer?’ — and would/should not have been anticipated to have been adequate to have excluded it. However — that was NOT the diagnosis that was being pursued when the imaging that WAS requested was ordered. The imaging that was requested was adequate to rule out what was being looked for (US for collection), and other differential diagnoses for pain (with a CXRay) — which is what was being considered at the time of SMO clinical decision making.

The original assessing registrar however did consider the differential diagnosis of recurrence of breast cancer and did question the benefit of further imaging (CT or MRI). That was not however pursued by the SMOs involved and is not explained in the notes as to why — in my view likely related to clinical judgement factors.

In my view the error was in not adequately considering the differential diagnosis (as the initial assessing registrar had suggested) (and then therefore not requesting more definitive imaging) — rather than thinking the imaging that was done was adequate to exclude a recurrence of cancer. (Which in my opinion was not the involved SMO’s thought process.)”

The following further expert advice was received from Dr Shepherd on 4 July 2019:

“Follow-up Additional Advice to the Commissioner:

Further to my original advice to the Commissioner dated 30/08/2018 — I have been requested to review further information and submissions from the Waitemata DHB and [Dr C] regarding the care provided to [Mrs A].

I have been requested by the Commissioner to provide further expert advice on the following issues:

When we notified the DHB of the formal investigation, we provided them with your clinical advice report (and subsequent email clarifying elements of that report) and asked that they supply this Office with a statement from General Medicine SMO [Dr C] about the clinical decision not to follow up on the CT scan request after a differential diagnosis of recurrence of breast cancer was made. We have since received that statement, which I have attached for your reference.

1/ Please consider whether this statement changes your advice. In particular with regard to the severity (mild/moderate/severe) of the departures you have identified. It would be most helpful if you could also clarify what you consider the overall level of departure in the standard of care to have been.

Sources of information reviewed in the preparation of this report:

Response from SMO [Dr C]

Response from Waitematā District Health Board dated June 20th 2019

CT Chest Request form dated 27/02/2018

Updated Information:

In [Dr C's] further response to the commissioner she disagreed that [Mrs A's] chest pain was not adequately investigated during her time as an inpatient at [the public hospital]. This view was based on her clinical judgement and clinical decision making. In her view [Mrs A's] history did not point in the direction of metastatic cancer. [Mrs A] had recent surgeries which could explain her symptoms. She could find no objective signs that could indicate metastatic cancer of the chest wall. She also considered that as [Mrs A] presented with no weight loss or any systemic symptoms, and her blood tests were all normal, metastatic cancer was an unlikely diagnosis. She also considered that as [Mrs A] had a normal CXRay during her admission, and a U/S that did not identify any signs of malignancy, that metastatic cancer was an unlikely diagnosis.

From further information provided by the Waitematā DHB, a CT chest was in fact requested on 27/02/2018 whilst [Mrs A] was an inpatient. Having obtained that request form, the clinical indication was stated as 'Severe right chest wall pain, out of proportion, previous left breast implant Dec 2017.' The question to be answered was stated as '?Rib fracture not seen on CT.' That requested CT was not performed.

The CT was requested by [Dr C's registrar]. In [Dr C's] statement to the commissioner she states 'The CT was requested on 27th February 2018 afternoon by my registrar inquiring about rib fracture. However [Mrs A] was seeing her surgeon at [the public hospital] on the morning of 1st March, so the CT was not discussed next day with the radiologist to accept or prioritise. I was keen for the surgeon's opinion. The CT would have been automatically cancelled by Waitematā DHB's automated systems when [Mrs A] was discharged as she was no longer an inpatient. Any CT or U/S request has to be discussed with the radiologist before they accept or book the scan.'

No response was given to the question if such decision making was discussed with [Mrs A] or if she was informed of the cancellation. There was no clinical documentation regarding that process available to me.

Advice to the Commissioner:

[Dr C's] further statements to the commissioner, and the subsequent information provided by the Waitematā DHB, do not alter my initial advice to the commissioner.

I would agree with [Dr C's] statements that metastatic breast cancer was a clinically unlikely diagnosis due to the manner in which [Mrs A] presented. Confounding factors were undoubtedly present.

Whilst metastatic breast cancer may have been considered an unlikely diagnosis, by that stage of her presentation 'musculoskeletal chest pain' in my view, was a similarly increasingly unlikely clinical diagnosis. In my view what [Mrs A] presented with then, was unexplained severe chest pain 'out of proportion'. In my view that represented a clinical red flag. Two of [Mrs A's] assessing doctors during her inpatient admission documented their concerns regarding a more sinister alternative diagnosis and the need for additional imaging. A CT chest was requested, but ultimately not performed. There was no documentation in the clinical notes of the discussion around this, the clinical reasoning involved, nor the process of its cancellation. As stated in my initial advice 'In my view [Mrs A's] significant past breast history, the progressive nature of her pain, her significant voiced concerns, and the need for significant opiate and gabapentin medication should have prompted a reconsideration of the diagnosis of "musculoskeletal pain" during her long inpatient care.' I would be in agreement of the 'out of proportion' concerns from [Dr C's registrar] and agree with the clinical indication to perform a CT.

In my opinion [Dr C's] explanation of her clinical reasoning and judgement reflects retrospective knowledge of the correct diagnosis and a justification that metastatic cancer was an unlikely diagnosis. In my view that was not the explicit clinically relevant question at the time of [Mrs A's] actual care. The relevant questions in my view were 'what was the cause of [Mrs A's] severe out of proportion chest pain; had other causes been adequately considered; and had they been adequately investigated'? In my view, with the clinical red flags present, that mandated further more definitive advanced imaging.

I would accept other clinicians involved in her care had documented similar concerns and had suggested or requested further advanced imaging.

As stated in my original advice though 'I would however acknowledge that not all my professional peers would agree with that view and may weigh factors differently preferring an expectant approach and being adequately reassured by their clinical examination and the negative investigations that had been performed. Clinical judgement is often far from black and white.'

From a systems perspective, [Dr C's] response describes the process in place for requesting an inpatient CT (or U/S) at Waitematā DHB — and the process of automatic cancellation of such a request. In my opinion and direct experience, such a process, as described, would be very unusual — particularly around the automatic cancellation and having to discuss every written request within hours. I would have significant concerns regarding the potential to introduce system and clerical based error into such a system. Such concerns might include: the influence of increasing fragmentation of inpatient care, frequent handover, the move to rapid patient discharge with outpatient

investigations, and the inevitable difficulty of contacting clinical staff directly at times. Potential poor processes of informing patients regarding their imaging request and its status might also contribute. If as described by [Dr C], I would consider a review of the 'automatic cancellation' processes in place, and its associated clinical risk.

Clinical judgement and clinical decision making do appear to have been important factors in this case rather than a clearly defined standard of care which was not followed. In my view, with the information available to me, I would be critical of [Dr C's] clinical judgement, clinical reasoning and the standard of documentation around [Mrs A's] imaging. I would regard that as a mild to moderate departure from ideal practice given the clinical scenario present and the potential significance of missing a sinister cause.

I would agree with [Dr C's] statement that in clinical medicine 'despite best intention and best effort, the best outcome cannot (always) be reached.' I would question in this case however, if [Mrs A] would regard that best communication, best effort, best investigation and therefore best outcome actually occurred. It was only through [Mrs A's] own ongoing significant advocacy and ability to arrange and pay for a privately performed scan, that her correct diagnosis was ultimately made.

Other aspects of [Mrs A's] care particularly around her IV cannula and the development of her complications of thrombophlebitis would in my view also fall in the band of mild deviation from the accepted standard of care.

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Date: 04/07/2019

In response to the provisional opinion report, Waitematā DHB provided new information regarding its CT cancellation system in place at the time of these events. The DHB identified that the system did not allow for automatic cancellation of a radiology scan upon discharge. Instead, in this instance, [Mrs A's] CT scan was cancelled manually by the Radiology Department when it did not hear back from the General Medicine team about the scan within 48 hours. Dr Shepherd was asked whether this new information changed his advice in respect of this complaint. On 2 March 2020, he emailed the following response:

"No overall change to advice.

It appears from the DHB response that [Dr C's] stated understanding of the 'automatic Radiology Cancellation process' was not correct.

The DHB state they have reviewed their cancellation and communication processes with a change process resulting and a formal report on the outcome to follow to the HDC."