

**Hawke's Bay District Health Board  
General Surgery Registrar, Dr A**

**A Report by the  
Health and Disability Commissioner**

**(Case 17HDC00419)**



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## Executive summary

1. In 2017, Mrs C presented with severe stomach pain and was seen over two days by two different general practitioners. Mrs C was admitted to Hawke's Bay District Health Board (HBDHB), where she underwent surgery for a perforated bowel. Mrs C did not recover from the surgery, and passed away the following day. This investigation focuses on the care provided by HBDHB.

## Findings

2. Although individual staff hold some degree of responsibility for the inadequate care outlined in this report, overall the deficiencies identified indicate a pattern of poor care across services, for which HBDHB is ultimately responsible. Of most concern are the staffing levels; the failure to follow both the handover policy and the Early Warning Score System policy, which should be a fundamental part of clinical care; the poor documentation, which did not convey Mrs C's potential to deteriorate; and the lapses in communication between the services. These factors hindered the coordination and delivery of Mrs C's care. Accordingly, HBDHB failed to provide services to Mrs C with reasonable care and skill, and was found to have breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights.<sup>1</sup>
3. Adverse comment was made regarding the care provided by a general surgery registrar, Dr A. The Commissioner found that when Dr A received Mrs C's CT scan result during the night, Dr A should have communicated this to the on-call consultant directly, rather than wait until morning to discuss the proposed treatment plan. The Commissioner reminded Dr A of the importance of effective communication, including her responsibility to ensure that she always consults with her senior colleagues when considering a treatment plan for a patient with abnormal results, regardless of the time of day or night.

## Recommendations

4. It was recommended that HBDHB audit clinical records of patient transfer between its Emergency Department and Acute Assessment Unit (AAU) to ascertain whether the ISBAR tool has been utilised in full; audit clinical records to ascertain compliance with the Early Warning Score System policy in the Emergency Department and AAU; provide evidence that surgical junior doctors are being informed at orientation that the on-call consultant is to be called at any time for support or advice regarding a patient of concern; provide documentation to show the implementation of a dedicated surgical night registrar; and provide a written apology to the family.

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

## Complaint and investigation

5. The Health and Disability Commissioner (HDC) received a complaint from Mrs B about the services provided to her late mother, Mrs C, relating to the diagnosis, management, and treatment of a perforated bowel. The following issues were identified for investigation:
- *Whether Dr A provided Mrs C with an appropriate standard of care in 2017; and*
  - *Whether Hawke's Bay District Health Board provided Mrs C with an appropriate standard of care in 2017.*
6. This report is the opinion of Anthony Hill, Health and Disability Commissioner.
7. The parties directly involved in the investigation were:
- |                                   |                           |
|-----------------------------------|---------------------------|
| Dr A                              | General surgery registrar |
| Mrs B                             | Complainant               |
| Mrs C                             | Consumer (deceased)       |
| Hawke's Bay District Health Board | Provider                  |
8. Further information was received from:
- |      |                      |
|------|----------------------|
| Dr D | General practitioner |
| Dr E | General practitioner |
| Dr F | Surgical consultant  |
9. Independent expert advice was obtained from Professor Andrew Hill, a colorectal surgeon and Professor of Surgery (Appendix A), and Ms Fay Tomlin, a nurse practitioner (Appendix B).

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## Information gathered during investigation

10. Mrs C, then aged 68 years, presented to Dr D (not her usual doctor) with severe abdominal pain. Mrs C had a history of acid reflux, and an aortic aneurysm<sup>2</sup> that had been shown on scan to be stable for the last 10 years.
11. Dr D told HDC that she considered a ruptured aortic aneurysm to be a possible cause of the pain but was reassured that Mrs C was not in extreme distress; she was eating and drinking, and her vital signs were normal with no signs of acute infection. The abdominal tenderness was in the epigastric<sup>3</sup> area. Dr D did not check for bowel sounds. Her

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<sup>2</sup> Swelling or bulge in the aorta — the main blood vessel in the body running from the heart down through the abdomen. A sign of rupture can be severe abdominal pain.

<sup>3</sup> Upper abdomen.

impression was that of gastro-oesophageal reflux disease (GORD),<sup>4</sup> and she prescribed omeprazole<sup>5</sup> and advised Mrs C to see her regular doctor should symptoms persist.

12. The following day, Mrs C presented to her regular doctor, Dr E, with worsening abdominal pain.
13. Dr E told HDC that Mrs C's vital signs were within normal limits and her abdomen was tender but not distended. Dr E did not check for bowel sounds. Her impression was that of gall stones or an ulcer. She administered a tramadol<sup>6</sup> injection at 1.05pm, and by 1.25pm it was noted that the pain was better. Dr E advised Mrs C to have someone with her and to go to the Emergency Department or call an ambulance if she deteriorated. Dr E provided a referral note to Mrs C to give to the Emergency Department should she attend.
14. The next day, Mrs C arrived via ambulance at the Emergency Department at HBDHB. She was seen by the Emergency Department house officer at approximately 2am. On examination, the house officer recorded:

"T[emperature] 37, B[lood] p[ressure] 145/80 left, 150/85 right, H[ear]t R[ate] 104, R[espiration] R[ate] 24 Sa[turation] O2[oxygen] O[n] A[ppliance],  
Alert, appears in pain,  
C[apillary] R[efill] T[est] <2s[econds],  
mucous membranes dry

...

Abdo[men] — generally tender — feels peritonitic,  
cannot hear bowel sounds  
minimal back tenderness.

P[er] Rectum — normal tone, no blood, small amount of stool on glove, no hard stool  
in rectum  
peripheries warm, no mottling

...

Referred to surgical team"

15. A computerised tomography (CT) scan was performed at 3.20am.
16. At 3.49am, Mrs C was referred to the surgical registrar, Dr A, and seen at 4.30am. Dr A told HDC:

"At 04:30 [Mrs C] was able to fully communicate and tell me her history. She had presented with abdominal pain and vomiting for two days. Initially her pain was in the middle of her upper abdomen (epigastric region), now more generalised. She also had

<sup>4</sup> Inflammation of the oesophagus lining arising from stomach acid leaking upwards.

<sup>5</sup> Medication used to treat gastric or duodenal ulcers or GORD.

<sup>6</sup> Opioid pain medication for moderate to severe pain.

discomfort on passing urine. Her past medical history included a thoracic aortic aneurysm, GORD, osteoarthritis and a tubal tie.

On examination, I found her to have no fever (T[emperature] 36.2) an increased heart rate (105) and respiratory rate (25) and a normal blood pressure (115/70). While I wrote B[lood] P[ressure] 105/70 in my clerking, this is a documentation error and her chart shows a B[lood] P[ressure] of 115/70. Examination of her chest was normal as were her heart sounds. Her abdomen was soft with voluntary guarding but no specific point of tenderness. I did not feel she was peritonitic.<sup>7</sup>

Investigations showed a normal white blood cell count and elevated [C R[eactive] P[rotein], lactate and creatinine ...

My impression was that her abdominal pain could be diverticulitis<sup>8</sup> and she had an acute kidney injury because of her vomiting.”

17. At 4.46am, Dr A received the results of the CT scan, which suggested enteritis<sup>9</sup> of the bowel with perforation.<sup>10</sup>
18. Dr A knew that Mrs C would require surgery for the perforated bowel, but at the time of examination it was Dr A’s opinion that Mrs C was clinically stable. Dr A ordered Mrs C to be kept nil by mouth, and prescribed intravenous antibiotics and fluids. Dr A did not call the on-call consultant, Dr F, to discuss Mrs C, as it was a “relatively short time before the morning round”.
19. Between 2.05am and 5.15am, the Early Warning Score (EWS) chart, used to alert staff of deterioration, was not filled in.
20. At 5.15am, Mrs C’s temperature was 38.1°C, and her heart rate was 112 beats per minute (bpm), giving her an EWS of two. According to the EWS chart, a score of two should trigger half-hourly vital sign observations and escalation. No further observations were recorded until 10.15am, and escalation to Dr A did not occur.
21. No beds were available in the surgical ward, so Mrs C was admitted to a medical ward — the Acute Assessment Unit (AAU) — at 5.43am. No observations were recorded on arrival. The receiving nurse said that Mrs C walked well with minimal assistance to her AAU bed, where she settled to sleep. The nurse did not think that Mrs C appeared septic, and said that she understood from the handover that the EWS score was zero rather than two, and she was not aware of the potential for Mrs C to deteriorate rapidly.
22. At 7.10am, the nursing documentation records that Mrs C was “settled to bed comfortably”. No observations were recorded.

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<sup>7</sup> Inflammation of the membrane lining the abdominal wall.

<sup>8</sup> Inflammation or infection in the digestive tract.

<sup>9</sup> Inflammation.

<sup>10</sup> A hole in the wall of the bowel.



23. At 8.00am, Dr F was advised that Mrs C was in the AAU. He reviewed the CT scan with Dr A and noted that surgery would be required at some time that day. As he had no information to suggest that Mrs C was extremely unwell, he proceeded to see his patients in the surgical ward before reviewing Mrs C in the AAU.
24. At 9.50am, Dr F reviewed Mrs C and ascertained that surgery was required as soon as possible because of a likely diagnosis of a perforation. However, the operating theatre was unavailable because a trauma patient was undergoing surgery.
25. At 10.15am, Mrs C's observations were recorded as: "EWS = 3 H[ear]t R[ate] 121 R[espiration] R[ate] 25."
26. At 10.39am, Mrs C's observations were recorded as: "EWS = 3 H[ear]t R[ate] 135 R[espiration] R[ate] 26."
27. At 11.10am, Mrs C was noted to be very unwell, and her health status was escalated to the anaesthetic registrar. Her EWS continued to rise, and she was taken to theatre at approximately 12.30pm.
28. During surgery, Dr F found that a part of Mrs C's bowel had slipped under a band adhesion<sup>11</sup> that had formed during her tubal ligation<sup>12</sup> some years ago. The bowel had become strangulated, and had died and perforated. Dr F removed the dead bowel. However, Mrs C deteriorated further and passed away the following day.

#### **Early Warning Score System policy**

29. The Early Warning Score System is a "track and trigger" system where vital signs are measured and given a score. Certain scores trigger further patient review and escalation to the appropriate medical practitioner.
30. The EWS System is noted to improve patient safety by:
  - Ensuring that professional requirements for adult patient vital sign recordings are met;
  - Assisting clinical staff to recognise deteriorating patients; and
  - Empowering all members of staff to escalate concerns about any patient whose condition is deteriorating.
31. The policy states:

"All patients are required to have a minimum of 4 hourly vital signs for the first 24 hours of any hospital admission ..."

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<sup>11</sup> A band of scar tissue that forms between two parts of tissue that are not normally joined together.

<sup>12</sup> Surgical procedure for sterilisation.

[A]ll R[egistered] N[urses] must increase frequency of vital signs as per escalation protocol on EWS chart. If this is not done, clinical rationale must be documented in clinical notes.

...

Any patient being transferred between departments require[s] a full set of vital signs within 30 minutes of transfer, and on arrival to a new ward area.

...

All vital signs must be documented on the EWS form ...”

32. The policy escalation process states that an EWS of two to four requires the following action:

- “1. Inform the nurse in charge;
2. Repeat vital signs within half an hour;
3. If EWS is unchanged, to contact the patient’s House Surgeon or On-Call team;
4. Contact C[linical] R[esource] N[urse] (1600–2400) or D[uty] M[anager] (02400–0700)
5. Continue half hourly vital signs until House Surgeon review;
6. Review with House Surgeon within one hour, a treatment plan must be documented within this time;
7. If House Surgeon not available call the Registrar. If Registrar not available contact the Consultant.”

33. The policy does not define the “vital signs” that require measuring. However, the EWS “guideline for use” chart within the patient clinical record defines the “vital signs” as temperature, systolic blood pressure, heart rate, and respiratory rate.

#### **Nursing Clinical Handover — Transfer of Accountability and Responsibility policy**

34. This policy advises that ISBAR is the standard clinical handover tool to be used throughout the clinical areas to ensure the appropriate transfer of information. ISBAR means:

**I** — Introduction — Identify yourself and the patient

**S** — Situation — Relevant presenting problems. Current Observations. Early Warning System (EWS)

**B** — Background and History — Provide a brief relevant history with a summary of background information, current problems, evaluation and management to date.

**A** — Assessment and Actions — This is to ensure that all tasks and abnormal or pending results are clearly communicated. Most importantly there must be established and agreed management plan along with a plan for escalation of care.

**R** — Request — The handover process includes transfer of accountability and responsibility, not just information. This is where questions and clarifications are responded to.”

### Further information from Dr A

35. Dr A's decision to admit Mrs C was based on her clinically stable picture at approximately 5am. Dr A acknowledged that on examination Mrs C had a heart rate above 90 bpm and a respiration rate above 20 breaths per minute. Dr A received the CT scan results showing a perforation after she had performed the examination which, coupled with Mrs C's vital signs, meant that she could have possible sepsis. Dr A explained that it was her expectation that she would be contacted according to the EWS system should Mrs C's condition deteriorate. Dr A was not contacted regarding any changes in Mrs C's condition.
36. Dr A told HDC that it is her usual practice to contact the on-call consultant with results of an abnormal scan, and she accepts that in this case she should have. She cannot recall exactly why she did not, but feels confident that she did not contact Dr F because her impression was that Mrs C was stable, it was not long until morning rounds with Dr F, and her expectation was that had she called, he would have agreed to her plan for conservative management overnight. Further, Dr A stated:

"... I am confident if I had been alerted to her rise in temperature, or if a set of observations had shown deterioration; and I had been asked to review the patient, this would have been a further trigger for me to call the consultant ...

I handed this patient over to [Dr F] at 0800[hrs], we reviewed the CT scan and report, and her bloods and he was happy with my management at that time. He did not change the plan."

37. Dr A expressed her sorrow at Mrs C's death and the distress it must have caused her family. Dr A told HDC that she has reflected on Mrs C's case and shared her learnings with both senior and junior colleagues, and now always calls the on-call consultant with any abnormal scan results.

### Further information from HBDHB

38. The AAU is geographically distant from the surgical ward. Following handover from Dr A, Dr F understood that there was no urgency to review Mrs C, so first he undertook his round on the surgical ward. He then reviewed an Intensive Care patient who required surgical intervention that was planned for later that morning.
39. On review of Mrs C at 9.50am, Dr F assessed her as requiring surgery as soon as possible. However, the patient from the Intensive Care Unit was more unwell and considered to be the first priority.
40. The anaesthetic team alerted Dr F to Mrs C's deterioration when he was operating on the Intensive Care patient. He considered opening another theatre, but because the staff required would have had to travel from home, he decided that the timing would be similar if he performed Mrs C's surgery immediately after the Intensive Care patient's surgery.

41. HBDHB conducted an investigation into the care provided to Mrs C and “identified several process and system issues”, including the staffing level of nurses, poor documentation and communication, limited handover information to AAU, a subsequent lack of observations, and the under-recognition of Mrs C’s deterioration resulting in Dr A not being informed of Mrs C’s deterioration. The relevant findings were:
- “• There was a shortage of appropriate surgical beds and an inability to hold [Mrs C] in the emergency department to wait for a surgical bed to become available therefore she was transferred to the medical ward, AAU;
  - When [Mrs C] was transferred to AAU, the handover tool ISBAR was not used. The nurse that received [Mrs C] was therefore unaware of the critical information about [Mrs C’s] condition or potential to deteriorate. It was found that ISBAR was not commonly used between the emergency department and AAU;
  - Documentation does not show that observations were taken within 30 minutes of arrival to the AAU in accordance with the Early Warning Score policy; therefore [Mrs C’s] deteriorating condition was not recognised or escalated accordingly;
  - The AAU was understaffed. There should have been four registered nurses on the morning shift but one called in sick and another was redeployed to the Intensive Care Unit. This left two registered nurses (one senior and one new graduate) to care for 12 patients;
  - When it was recognised that [Mrs C] had deteriorated, the AAU nurses did not understand the need to communicate directly to the surgical team and instead communicated with the anaesthetic team;
  - There was a lack of a process for specialty review priority for surgical patients in a medical ward.”
42. HBDHB acknowledged that Mrs C’s death was a shock to the family. It told HDC that there was a lack of documentation to support the interactions between its staff and the family regarding Mrs C’s deteriorating condition. It was identified that Mrs C’s treatment was adjusted according to her needs in the Intensive Care Unit, but that this was not communicated well to the family.
43. HBDHB told HDC that as a result of Mrs C’s case it has made improvements, including:
- “• Creating an additional dedicated surgical night registrar position;
  - Informing all surgical junior doctors, at orientation, that the on-call consultant is to be called at any time for support or advice regarding a concerning patient;
  - Supporting the ‘Care Capacity Demand Management programme’<sup>13</sup> and take action to support safe nursing staff levels to ensure a base staff level that meets the demands of the area;

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<sup>13</sup> A programme designed to help match staffing levels with patient demand.

- Ensuring the ISBAR tool is used for handover between the emergency department and AAU;
- Implementing the Health Quality and Safety ‘Deteriorating Patient programme’<sup>14</sup>;
- Expanding the ‘Patient at Risk’<sup>15</sup> service by extending hours and overnight cover;
- Implementing a ‘Goals of Treatment’ programme to ensure that staff and families are fully informed about the treatment plan for any particular patient;
- Improving documentation by implementing the national EWS system charts which have space at the bottom of the chart for nursing signatures; and
- Development of a protocol for the early recognition of sepsis.”

44. In addition, HBDHB advised that the practice statement, “[A]ll patients are required to have a minimum of 4 hourly vital signs for the first 24 hours of any hospital admission” had been omitted from its Health Record policy. This has since been rectified.

### Relevant standards

45. The Nursing Council of New Zealand Code of Conduct for Nurses (2012), Principle 4.8, states: “[K]eep clear and accurate records of the discussions you have, the assessments you make, the care and medicines you give and how effective these have been.”

### Responses to provisional opinion

#### *Mrs B*

46. Mrs B was provided with an opportunity to comment on the “information gathered” section of the provisional report. Where relevant, changes have been made to the report to reflect her comments.

#### *Dr A*

47. Dr A was provided with an opportunity to comment on the provisional opinion, and advised HDC she had no comment to make.

#### *Hawke’s Bay District Health Board*

48. HBDHB was provided with an opportunity to comment on the provisional opinion. It agreed with the findings and proposed recommendations. HBDHB stated:

“[We] accept that handover, observations and documentation were inadequate and are committed to progressing the recommendations and other changes in practice as a result of this event.”

<sup>14</sup> A five-year national programme that aims to reduce patient harm caused by a failure to recognise a patient’s deterioration.

<sup>15</sup> A nurse-led service that provides support and education for ward staff who care for acutely unwell patients.

49. HBDHB advised HDC that as a result of this event it has also identified two further areas in which to consider improvement:
- The prioritisation of elective admissions to account for acute surgical capacity; and
  - The adequacy of nursing staffing prompting a more focused use of a patient acuity and patient workload system to better support staffing levels and redeployment decision-making.
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### **Opinion: Dr A — adverse comment**

50. Dr A was the surgical registrar on night shift. She assessed Mrs C at 4.30am and found her to be clinically stable and able to communicate fully.
51. At 4.46am, Dr A received Mrs C's CT scan result, which suggested enteritis of the bowel with a perforation. Dr A knew that Mrs C would require surgery that day, but did not call the on-call surgical consultant, Dr F, because it was only a few hours until his morning ward round. Dr A's impression was that Mrs C was clinically stable, and that Dr F would agree with her treatment plan. Dr A ordered intravenous fluids and antibiotics, and for Mrs C to be nil by mouth in preparation for surgery. Dr A was not notified of any deterioration in Mrs C's condition during the rest of the shift.
52. My expert advisor, Professor Andrew Hill, advised that Dr A's failure to call the consultant, Dr F, to discuss Mrs C's case was a significant breach of the standard of care. Professor Hill said:
- “While it may have been reasonable to resuscitate the patient, and wait until ‘daylight’ before surgery was conducted, this was not a decision for a surgical registrar on the night shift to be making.”
53. Although Dr F agreed with Dr A's treatment plan the next morning, given that the scan results illustrated a perforation, I agree with Professor Hill — Dr A should have been vigilant, and should have consulted with Dr F during the night. I remind Dr A of the importance of effective communication, including her responsibility to ensure that she always consults with her senior colleagues when considering a treatment plan for a patient with abnormal results, regardless of the time of day or night.
54. It is positive to note that Dr A has reflected on this event, shared her learning, and made relevant changes to her practice.
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## Opinion: Hawke's Bay District Health Board — breach

55. District health boards are responsible for the operation of the clinical services they provide, and can be held responsible for any service failures. In addition, they have a responsibility for the actions of their staff, and an organisational duty to facilitate continuity of care. This includes providing adequate support to staff in respect of the application of relevant policies, and ensuring that all staff work together and communicate effectively.
56. In my view, systemic failures in the gathering of, and exchange of, essential information resulted in substandard delivery of safe and seamless care to Mrs C.
57. Mrs C was first examined in the Emergency Department at HBDHB at around 2am. It is documented that she had an EWS of two, which, according to the HBDHB EWS System policy, should have prompted half-hourly vital sign checks. None were documented.
58. The surgical registrar, Dr A, examined Mrs C at 4.30am. Mrs C had an elevated heart rate and an elevated respiratory rate (EWS of two) but was able to communicate fully. Scan results indicated that surgical intervention was required for an inflamed bowel with a perforation. Therefore, Dr A admitted Mrs C and made a treatment plan of nil by mouth, intravenous fluid, and antibiotics. According to the EWS of two, monitoring of Mrs C's vital signs should have occurred every half hour. Dr A relied on the EWS safety net system to alert her to any deterioration. She did not receive an alert. Therefore, at 8am she handed over Mrs C's care to Dr F. The information he received was that Mrs C was stable but required surgical intervention at some point.
59. There were no beds available in the surgical ward, so Mrs C was admitted to a medical ward, AAU, to await her surgery. At 5.15am, just before transfer to AAU, Mrs C's EWS was two, which again should have prompted half-hourly vital sign checks. Further vital sign checks were not documented until 10.15am — five hours following her admission to the medical ward.
60. HBDHB has acknowledged that there were some “process and system issues” that contributed to the poor care Mrs C received. Its investigation found that its standard handover tool, ISBAR, was not being utilised between the Emergency Department and AAU. This meant that critical information about Mrs C was not transferred between departments. AAU was under-staffed and did not have the level of nursing experience required for its caseload. Necessary vital signs were not measured or recorded according to the EWS policy and, when Mrs C's deterioration was detected, there was uncertainty about to whom to escalate the deterioration.
61. My registered nurse expert advisor, Ms Fay Tomlin, advised:

“There appears to be a lack of documented care whilst in the AAU which if [it] had been done, in my opinion, may have expedited a medical (and/or the Consultant) review prior to 09:50 ...”

62. Ms Tomlin’s opinion is that the lack of nursing documentation was a moderate departure from the accepted standard as outlined in the Nurses Code of Conduct. I accept Ms Tomlin’s opinion. The documentation was not completed according to HBDHB policy in the Emergency Department or in AAU, and, in particular, Mrs C’s EWS chart was not completed fully, resulting in multiple missed opportunities to identify that Mrs C was deteriorating and to escalate her care accordingly.
63. I am critical that Mrs C’s care was compromised. Support systems in more than one area of the hospital failed to support staff to provide Mrs C with good, consistent care in a timely manner.
64. I agree with my expert, Professor Hill, who advised: “Overall, I think that the standards that a patient, as sick as [Mrs C] was, should rightly expect to be met in a New Zealand public hospital were not met.”
65. While individual staff hold some degree of responsibility for their failings, overall the deficiencies outlined above indicate a pattern of poor care across services, for which HBDHB is ultimately responsible. I am most concerned by the staffing levels; the failure to follow both the handover policy and the EWS policy, which should be a fundamental part of clinical care; the poor documentation, which did not convey Mrs C’s potential to deteriorate; and the lapses in communication between the services. These factors hindered the coordination and delivery of Mrs C’s care. For the above reasons, I find that Hawke’s Bay District Health Board failed to provide services with reasonable care and skill to Mrs C, and as such breached Right 4(1) of the Code.

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## Recommendations

66. I recommend that Hawke’s Bay District Health Board:
  - a) Audit 30 sets of clinical records where transfer between the Emergency Department and AAU has taken place, to ascertain whether the ISBAR tool has been utilised in full. If the results do not reflect 100% use of the tool, HBDHB is to consider and provide to HDC further improvements that could be made to ensure full use of the tool. HBDHB is to report back to HDC within four months of the date of this report.
  - b) Audit 50 sets of clinical records to ascertain the compliance rate with the EWS System policy in the Emergency Department and AAU, and provide the results to HDC. If the results do not reflect 100% compliance, HBDHB is to consider and provide to HDC



further improvements that could be made to ensure compliance. HBDHB is to report back to HDC within four months of the date of this report.

- c) Provide evidence that surgical junior doctors are being informed at orientation that the on-call consultant is to be called at any time for support or advice regarding a patient of concern.
  - d) Provide documentation (for example, a roster) to show the implementation of a dedicated surgical night registrar.
  - e) Provide a written apology to the family for HBDHB's breach of the Code. The apology is to be sent to HDC within one month of the date of this report, for forwarding.
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### **Follow-up actions**

- 67. A copy of this report with details identifying the parties removed, except HBDHB and the experts who advised on this case, will be sent to the New Zealand Medical Council, and it will be advised of Dr A's name.
- 68. A copy of this report with details identifying the parties removed, except HBDHB and the experts who advised on this case, will be placed on the Health and Disability Commissioner website, [www.hdc.org.nz](http://www.hdc.org.nz), for educational purposes.

## Appendix A: Independent advice to the Commissioner

The following expert advice was obtained from Professor Andrew Hill, a colorectal surgeon and Professor of Surgery:

“I have been asked to give an opinion on the surgical care provided by the Hawke’s Bay District Health Board to the late [Mrs C] [in] 2017.

I have read and agree to follow the guidelines outlined in the HDC Guidelines for Independent Advisors. I do not believe that I have any significant conflicts of interest but [Dr F] was my surgical registrar some [...] years ago at [...].

I am a clinical academic general surgeon employed by the University of Auckland at Counties Manukau District Health Board. I have been a consultant surgeon at CMDHB since 2002 and have Fellowships from the Royal Australasian College of Surgeons and the American College of Surgeons.

My opinions are based on the clinical notes available to me, a letter from [Dr F] to the HDC, a report by [...] and the relevant literature.

### Facts of the Case (Surgical)

[Mrs C] presented to [HBDHB] at around 2am [in 2017]. It is unclear at what time the surgical registrar (Dr A) saw [Mrs C] but the first note from General Surgery was at 0430 on [date]. She described a woman with severe abdominal pain of approximately 2 days duration. The patient was tachycardic, hypoxic and probably hypotensive with a generally very tender abdomen. Her blood tests showed acute kidney injury and a high haemoglobin (consistent with dehydration), a high lactate, a high glucose and a significantly elevated CRP. A blood gas was not performed and a urinary catheter was not inserted. The patient had undergone an abdominal CT by that stage. This was phoned through (from [a radiology service]) to the surgical registrar (prior to 5am) who documented these findings in the clinical file. The CT showed free air (suggestive of a perforated viscus). There is no record of the surgical registrar contacting the surgical consultant at this time.

The patient was admitted to the Acute Assessment ward at 0530 and was administered IV fluids and antibiotics. The surgical registrar informed [Dr F] at 8am about the patient and the CT report. The patient was seen by [Dr F] at 0950. He decided that the patient had peritonitis and made a decision to operate on the patient as soon as possible.

She arrived in the operating theatre at 1245. At surgery, she was noted to have a short segment of infarcted and perforated small bowel secondary to an adhesion. It was noted that the distal ileum was dusky. An anastomosis was not performed at this stage and she was sent to ICU with an open abdomen.

Her postoperative course was relentlessly downhill and she died [the following day].

The specific issues that I have been asked to comment on are:

**1. [Dr A's] decision not to contact [Dr F] following review of [Mrs C] and her CT report.**

[Dr A] should have called the consultant on call about [Mrs C]. [Mrs C] clearly had peritonitis at the time she saw the patient. Her blood tests were disturbingly abnormal. A CT demonstrated free air. While it may have been reasonable to resuscitate the patient, and wait until 'daylight' before surgery was conducted, this was not a decision for a surgical registrar on the night shift to be making. In my opinion, this is significant breach of the standard of care.

**2. [Dr F's] management of [Mrs C], given the delay in the availability of the operating theatre.**

At 0800 [Dr F] was told about the patient and the CT findings. He did not see her until nearly 2 hours later. In his own letter to the HDC [Dr F] states that he was unable to operate at that stage as there was another case in theatre. The patient was operated on within 6 hours of deciding to operate by [Dr F].

While it is unfair to expect every surgeon to be completely up to date with every guideline and scientific paper the UK NELA (National Emergency Laparotomy Audit) work is becoming well known by general surgeons and anaesthetists in NZ (<http://www.nela.org.uk/Second-Patient-Report-of-the-National-Emergency-Laparotomy-Audit#pt>). An example of guidelines, derived from this work, aimed at improving management of the patient undergoing emergency laparotomy come from the Emergency Laparotomy Collective (<https://emergencylaparotomy.org.uk>) and most NZ surgeons would aim to adhere to these. These include:

- a. Use of an Early Warning Score or lactate to identify patients most at risk for deterioration and the delivery of prompt resuscitation for these patients
- b. Use of a sepsis screening tool to identify septic patients and treatment with Sepsis Six
- c. Definitive surgery within 6 hours of decision to operate
- d. Appropriate dynamic fluid resuscitation and optimization
- e. Postoperative critical care
- f. Consultant delivered care throughout the perioperative journey.

If it is accepted that these are the standards, and I believe they are, then it is fair to say that [Dr F] did not specifically breach them.

**3. Any other matters in this case that you consider warrant comment.**

While it is difficult to find any one person to blame for the poor care provided to [Mrs C] a number of things seem less than satisfactory to me from the information provided. Overall, I think that the standards that a patient, as sick as [Mrs C] was, should rightly expect to be met in a New Zealand public hospital were not met.

Specifically, why did it take from 2am until 4:30am for a member of the surgical team to see [Mrs C]? She was clearly very sick and this should have led to a surgical consult much earlier in her hospital course. The issue of a call to the surgeon on call has been addressed above. What is also unclear is why it took from 8 am until 12:45 pm for [Mrs C] to get to theatre. Was there a case going on that took 4 hours? This seems unlikely on a Saturday morning [...]. Why was an extra theatre not opened if the case was going to take until the early afternoon? Finally, why did it take from 8am, when [Dr F] arrived for his ward round, until 950am for him to review what I suspect was the sickest patient in the surgical wards/AAU? While not specifically a breach of accepted standards this contributed significantly to the delay to get to theatre as it appears that another case was prioritized ahead of [Mrs C] in the intervening time.

While none of these things were in or of themselves a significant breach it is my opinion that the total time to get [Mrs C] to the operating theatre (total of nearly 11 hours) is a breach of accepted standards for a sick surgical patient with peritonitis. I recommend that Hawke's Bay DHB review their processes for the management of sick acute surgical patients overnight."

## Appendix B: Independent advice to the Commissioner

The following expert advice was obtained from a registered nurse, Ms Fay Tomlin:

“I have been asked to provide an opinion to the Commissioner on case number **C17HDC00419**.

I have read and agree to follow the Guidelines for Independent Advisors (2016) as provided by the Office of the Health and Disability Commissioner. I have no personal or professional conflict in this case.

I am a Nurse Practitioner working in Masterton’s Emergency Department (ED) for Wairarapa DHB. I have a total of 20 years nursing experience in various Emergency Departments in the UK, Australia and New Zealand and providing front line service for the Royal Air Force. I have remained on the shop floor of ED working clinically as well as holding various managerial positions, I have written a guideline for our DHB regarding vital sign monitoring within the ED and been involved in reviewing Early Warning Score guidelines.

My instructions from the Commissioner were to:

Review the documentation I received and advise whether I consider the care provided to [Mrs C] at [HBDHB] was reasonable in the circumstances and why.

In particular to comment on:

1. The appropriateness and adequacy of the nursing care [Mrs C] received from presentation to ED to admission to the operating theatre.
2. Any other matters in this case that I consider warrant comment.

Sources of information reviewed:

1. Letter of complaint dated [...].
2. Hawke’s Bay District Health Board’s responses [...].
3. Hawke’s Bay District Health Board’s Complaint Review Report.
4. Clinical records from Hawke’s Bay District Health Board covering the periods of [Mrs C’s admission].

I requested via [HDC] if Hawke’s Bay District Health Board could provide the following:

- A copy of their policy or guideline regarding Vital Sign recording within ED
- A copy of the electronic documentation to clarify the triage decision(s) as there was a suggestion in their Complaint Review Report that the category had changed from a 3 to a 2 and there was no copy of the electronic triage notes provided in the file of clinical documents.

Two further documents were subsequently provided [...]:

5. Hawke's Bay District Health Board's Clinical Practice Guideline 'Early Warning Scoring (EWS) System for Adult Patients — including Rapid Response Team (RRT)'.
6. Copy of the Initial Triage Nurse Documentation Form

A brief, factual summary of events on which my report is focused:

[At 2am] [Mrs C] was transferred to Hawke's Bay Emergency Department (ED) by ambulance with ongoing acute abdominal pain.

Following assessment and a CT scan at 3:20am she was admitted to the Acute Assessment Unit (AAU) at 5:30am.

At 9:50am [Mrs C] was reviewed by the General and Colorectal Surgical Consultant who decided there was a need to operate as soon as possible.

At 11:10am [Mrs C] was reviewed by the Anaesthetic Registrar.

At 12:45pm [Mrs C] was in the operating theatre.

At 6:05am the following day [Mrs C] passed away, *moe mai rā e te kuia i tou moenga roa, e moe oki oki e moe. Kāti*

### **The appropriateness and adequacy of the nursing care [Mrs C] received from the presentation to ED to admission to the operating theatre.**

#### **Facts**

01:57 Arrived in ED via [ambulance] having received 10mg morphine via intramuscular injection, 100mcg fentanyl via intranasal route and inhaled Entonox. This was in addition to the oral painkillers she had taken prior to the ambulance crew's arrival (tramadol at midnight). There is a documented pain score of 10/10 at 01:53 just prior to the administration of the fentanyl.

#### **Opinion**

Although the cause of [Mrs C's] abdominal pain isn't clear on arrival to ED, as is often the case with abdominal pain, it is apparent from the ambulance crew report that she had severe pain, was diaphoretic (sweaty), tachycardic (fast heart rate), tachypneic (breathing fast), with no fever (normal temperature). Presentation of these vital signs and history should suggest to the receiving nurse that she should be prioritized (using the Australasian Triage Tool as standard practice in New Zealand and Australian EDs by a trained and experienced Registered Nurse) as a category 2 or 3. The triage nurse's interpretation of the level of pain, degree of circulatory shock and symptoms suggestive of abdominal aortic aneurysm being the deciding factors between these two categories (College of Emergency Nurses New Zealand, 2017). Either category may be appropriate depending on the triage nurse's findings which lead to my request for the electronic record of the triage category decisions.

**Recommendation**

None

**Facts**

02:01 [Mrs C] was triaged as a category 3 patient by [...] on the Initial Triage Nurse Documentation Form. However in the Complaint Review Report written by [...] pg 3, 2.1:

‘Time line: [Day of admission] 02:09 Electronic Record

Comment; electronically this patient is registered as a triage category 2 although the print out sheet is as a 3. This means that the patient triage category was increased and this necessitated that the patient be seen sooner. It is not documented why this was changed.’

**Opinion**

The triage assessment was carried out as expected on arrival, within four minutes from the ambulance arriving [Mrs C] had been seen and assessed by the triage nurse and the data entered into the electronic record. The triage category appears to be appropriate for the vital signs and information recorded. A response to a category 3 patient requires assessment and treatment to start within 30 minutes. The triage nurse is able to re-triage (increase or decrease the category) if the patient’s condition changes whilst awaiting treatment. If in this case [Mrs C’s] triage category was changed from 3 to 2 (the reason and timing of this decision is not available as it should be) a category 2 requires assessment and treatment within 10 minutes (these are often undertaken simultaneously). The evidence suggests that the initial nursing care received was appropriate and responsive to [Mrs C’s] condition.

**Recommendation**

There should be capacity to re-triage on the electronic system, meanwhile the triage nurse should be encouraged to write their rationale for change on the ED Nursing Assessment page.

**Facts**

The Primary Assessment as documented on the ED Nursing Assessment form was hand written and stamped by [an RN], it was not signed, not dated neither is a time written in. [The] RN recorded that [Mrs C] had a patent airway, spontaneously breathing, was clammy and had a pain score of 8/10 as well as a brief outline of the previous 2 days history of the pain. There is a documented IV catheter insertion time of 02:15 although I cannot decipher/confirm who initialed that action.

The EWS (Early Warning Score) chart has documented vital sign recordings at 02:05 including temperature, blood pressure (for left and right sides), heart rate, respiration rate, AVPU (level of responsiveness) and urine output. Totaled as a ‘2’ at 02:05 (therefore the guideline on the chart stipulates repeat observations ½ hourly). There is no designated space on this document for the nurse to write his or her initials next to

their recording. The pain score element of the chart (which does not influence the overall score) is blank at each time of recording the vital signs.

### **Opinion**

With the time of insertion of a peripheral IV catheter at 02:15 I can assume that the primary assessment was carried out promptly ie within 15 minutes of the triage time.

Although there are obvious omissions in the nurse's documentation such as signature and time, the lab report of blood sample received at 02:18 ... suggests the primary assessment being completed as documented by the nursing staff.

It is unclear from the documentation where in the ED [Mrs C] was being cared for, for example in a cubicle or a resuscitation bay. Knowing where in the department she was being cared for would suggest what type of monitoring she would have been connected to i.e. continuous electronic recordings where the nurse has easy access to automatically cycle vital signs at a touch of a button programme 2, 5, 10, 15, or 30 minute recordings but these would need to be transcribed onto the EWS chart which poses the question of whether they were done but not recorded on the chart.

Repeat vital signs recorded on EWS chart at 02:25 has MORPH written alongside it that suggests a dose of morphine had been given however this does not correspond with the drug chart. There was a documented dose of fentanyl given intravenously at 02:50. The ED house officer's electronic notes referred to in the Complaint Review Report (transcribed but not provided as a separate document) are noted not to include the time that it was undertaken but 'thought to be approximately 2am'.

There is one signature (initial) documenting the administration of three separate doses of intravenous fentanyl (02:50 before the CT scan, 03:40 which I calculate to be after the CT scan and at 04:06), guidelines for recommended practice state that two signatures are required to confirm administration and witnessing the administration of a controlled drug (NZNO, 2012).

The documentation is substandard for controlled drug administration and substandard regarding a lack of repeat pain score recordings under Principle 4.8 of the Nursing Council of New Zealand (2012) Code of Conduct for Nurses which states 'Keep clear and accurate records' and 'keep clear and accurate records of the discussions you have, the assessments you make, the care and medicines you give and how effective these have been'. However it does appear that [Mrs C] received repeated doses of painkillers during her time in the ED and upon transfer to AAU at 05:35 which suggests her pain levels were being monitored and responded to.

### **Recommendation**

Space on the EWS chart for the nurse to initial their recording of vital signs and EWS score.

Feed back to nursing staff involved re guidelines for nurses on the administration of medicines (NZNO, 2012).



**Facts**

The narrative section of the ED Nursing assessment document has two entries — the first at 04:17 and second at 05:38, both have bullet points summarizing the medication and fluid therapy received and that [Mrs C] was alert and orientated.

The narrative nursing notes then continue on the Assessment and Progress pages. There are two entries following transfer to AAU, one at 07:10 ([an] R.N) which describes a summary of [Mrs C's] admission diagnosis and that she is 'settled into bed comfortably' and one at 11:11 which states she 'remains very unwell, for OT asap, generalised abdo pain, declining analgesia EWS currently 3 and Anesthetic Reg assessing the patient currently and aware' (next word illegible). Signature illegible and not stamped.

The EWS chart shows no recording of vital signs between 05:15 and 10:15 where the EWS total score changes from a 2 to 3. Between 10:15 and 1200 there are a total of 4 recordings of [Mrs C's] vital signs increasing to a total EWS of 4. The escalation algorithm (Hawke's Bay DHB, 2017) for a EWS score 2–4 states:

1. Inform nurse in charge
2. Repeat vital signs within half an hour
3. If EWS is unchanged contact the patient's House Officer or oncall team

Nothing is documented in the nursing narrative section to support that the above actions were undertaken. It is noted the guideline was written in 2010 and reviewed [in] 2017 so there may have been recent changes that were not applicable to the nurses [at the time of Mrs C's admission].

The fluid balance chart appears to have been commenced at 05:00 documenting hourly totals of mls given and no urinary output until IDC (indwelling catheter) inserted at 11:00 and it indicated that an NGT (nasogastric tube) was inserted between 07:00 and 09:00.

An intravenous antibiotic (metronidazole) was administered at 07:00 and oral medication (aspirin, bendroflumethiazide, metoprolol) given at 10:00 along with intravenous omeprazole. Intravenous fluid administration appears to have been continued as prescribed throughout the morning.

**Opinion**

For an approximate three and half hour stay in the ED the documentation is at best an accurate summary of interventions performed and medications administered, correctly signed and stamped and timed. Conversely at worst, the documentation is not reflective of the actual nursing care received in between the doctor's examination and the CT scan investigation. I am unable to comment on the workload of the nurses at the time and whether [Mrs C] was accompanied by a nurse to radiology dept for her CT scan to provide ongoing nursing care and observations (the doctor would have directed if a nurse was needed for this time away from ED). I believe the nurses

provided prompt assessment and care in response to the triage score(s), repeated administration of pain killers and timely admission and transfer to the AAU (as no surgical ward beds were available). However there are some deficiencies in the nursing documentation as previously identified.

For the time spent in AAU (approximately six and a half hours) until transfer to the Operating Theatre (OR) there are deficiencies in the documentation of nursing care. Considering that there was no documented medical review between 04:30 and the consultant ward round at 09:50, the only nursing documentation at 07:10 is inadequate as already outlined above in relation to the Code of Conduct for nurses Principle 4.8 and lack of documented repeat vital signs following the DHB's own clinical guidelines for EWS.

Medication appears to have been administered and documented in an appropriate manner on the drug chart and fluid balance chart. I cannot comment if the nursing team from ED are the same that provide care in AAU or if the staffing levels were adequate at the time. It is likely that there was a shift change at 07:00 as is common practice in DHB hospitals. The receiving nurse in AAU (if there was hand over between nursing staff) should have done repeat observations and responded to them as per the EWS policy and the morning shift nurse following handover at 07:00 should have documented repeat vital signs/EWS/pain score and again responded to the findings, neither appear to have been documented therefore I have to presume not done.

There appears to be a lack of documented care whilst in the AAU which if [it] had been done, in my opinion, may have expedited a medical (and/or the Consultant) review prior to 09:50, whether this would have changed the outcome for [Mrs C] is not within my realm to comment. I believe the nursing documentation whilst [Mrs C] was in the AAU would be considered poor by my peers and a moderate departure from the standard expected as outlined in our Code of Conduct (NCNZ, 2012).

Signed:

Date: ...

Fay Tomlin

Nurse Practitioner 176935

MSc. B. Mid.(Hons) B. Nurs. (Hons) Dip Trop Nurs.

**References:**

College of Emergency Nurses New Zealand (2017) *New Zealand Triage Course Pre-reading Workbook*. NZNO Wellington.

Hawke's Bay DHB (2017) Clinical Practice Guidelines Early Warning Score (EWS) System for Adult Patients — including Rapid Response Team (RRT). Issued April 2010 reviewed Sept 2017.

New Zealand Nurses Organisation (2012) *Guidelines for nurses on the administration of medicines*. NZNO Wellington.

Nursing Council of New Zealand (2012) *Code of Conduct for Nurses.*"