Hutt Valley District Health Board

A Report by the
Health and Disability Commissioner

(Case 17HDC01248)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. This report concerns the care provided to a woman by HVDHB while awaiting a surgical procedure to re-explore a free-flap bone graft that had been carried out four days earlier. Sadly, the free-flap graft subsequently failed. A number of failures in the services provided by HVDHB resulted in multiple missed opportunities to identify the woman's deterioration and trigger the opening of a second theatre to ensure that she received timely surgery in response to her worsening condition.

2. The report highlights the importance of effective communication and handover between nursing staff, monitoring and responding to a deteriorating condition, and adequate policies and procedures to support staff.

Findings

3. The Commissioner found HVDHB in breach of Rights 4(1) and 4(5) of the Code. The Commissioner identified a number of failures in the services provided by HVDHB, including inadequate communication and handover between nursing staff; inadequate monitoring of the woman while waiting for theatre; and inadequate policies and procedures relating to after-hours acute surgery and handover of care between the ward and theatre staff.

Recommendations

4. The Commissioner recommended that HVDHB undertake an audit of patient wait times for acute surgery in the weekend; undertake an audit of the monitoring of patients while awaiting surgery; provide an update in relation to its review of a number of policies; and provide a formal written apology.

Complaint and investigation

5. The Health and Disability Commissioner (HDC) received a complaint from Mrs A about the services provided to her by Hutt Valley District Health Board (HVDHB). The following issue was identified for investigation:

- *Whether Hutt Valley District Health Board provided Mrs A with an appropriate standard of care between May and July 2015.*

6. The parties directly involved in the investigation were:

Mrs A	Consumer/complainant
Hutt Valley District Health Board	Provider/DHB

7. Information was also considered from:

Dr B	Consultant
Dr C	Senior registrar
RN D	PACU (Post Anaesthesia Care Unit) nurse

8. Also mentioned in this report:

RN E	Registered nurse
RN F	Theatre Coordinator

9. Independent expert advice was obtained from a plastic surgeon, Dr Sally Langley (Appendix A), and Registered Nurse (RN) Rosalind Jackson (Appendix B).

Information gathered during investigation

Introduction

10. This report concerns the care provided to Mrs A by HVDHB in May 2015. Mrs A's complaint primarily concerns the delays in a procedure scheduled for 24 May 2015, and the care she received while awaiting the procedure.

Background

11. Mrs A (in her forties at the time of these events) had a history of a maxillary giant cell tumour[1] in her right cheek, which was removed in 2010. The surgery included the removal of seven of Mrs A's upper teeth and the orbital floor bone[2] of her right eye.

12. In 2014, Mrs A underwent a microvascular free-flap[3] using bone from her left fibula[4] in an attempt to reconstruct her cheek bone. Unfortunately, part of the bone flap failed.

13. In 2015, Mrs A made the decision to undergo a further attempt to reconstruct her cheek bone with a right fibula free-flap graft. In her complaint to HDC, Mrs A said that the decision to undergo the second free-flap surgery in 2015 was difficult, but she decided to go ahead in order to get some normality back in her life. Mrs A stated:

> "After speaking to my surgeon [consultant] [Dr B] I made the decision to repeat the procedure again but this time using my right leg fibula. It was a hard decision for me to make but I made that decision purely because I wanted to get my life back to normal, rebuild my self esteem and to get back to the work force to help my husband with the financial burden that he has been and still is carrying for the last 7 years."

[1] A giant, locally invasive lesion in the head and neck.
[2] The bone(s) that form the bottom of the eye socket.
[3] Transplantation of tissue (in this case, bone from the fibula) to reconstruct tissue at another location. The surgery includes reconnection of the tissue blood supply.
[4] One of the bones located in the lower leg.

Surgery — 20 May 2015

14. On 20 May 2015, at HVDHB, microvascular free-flap surgery was performed by Dr B using the right fibula. Postoperatively, the free flap was monitored, including regular Dopplers[5] to check for vascular compromise,[6] and initially there appeared to be good blood supply to the bone.

15. On 23 May 2015, Day 4 postoperatively, Mrs A began to feel unwell and developed some swelling in her right cheek. The clinical records note that Mrs A reported a "foul taste in [her] mouth". The records state: "[Patient] generally miserable today. [Patient] feels pain [and] swelling of face has increased."

Decision to re-explore free-flap — 24 May 2015

16. On the afternoon of 23 May 2015, the ward nurse contacted Dr C[7] to advise that Mrs A was beginning to experience increasing pain and some mild swelling of the free-flap, but that she had normal Doppler readings, although these were difficult to locate. The clinical records note that Dr C instructed staff to monitor Mrs A's temperature, start IV antibiotics, and arrange for an ultrasound the following morning if Mrs A showed no improvement.

17. Sometime after 7pm, Dr C reviewed Mrs A and requested a CT scan. The scan showed a small amount of gas "consistent with an intra-oral flap reconstruction", and mild swelling with no collection. The CT report stated: "Probable developing abscess in the right cheek." Dr C said that she contacted Dr B to discuss the situation, and they decided to undertake a "re-exploration of the free-flap" the following morning. However, there is no reference in Mrs A's clinical notes that a surgical booking was made at that time. The advice given was for Mrs A to be monitored overnight and to be kept fasted in preparation for theatre.

18. Overnight, Mrs A was noted to be experiencing increasing pain and discomfort. An arterial Doppler continued to be audible, but the venous Doppler was becoming harder to find.

19. At approximately 6am on 24 May 2015, the on-call registrar was called to review Mrs A, as she was reporting increased pain and discharge from the graft site, and difficulty swallowing. The registrar subsequently contacted Dr C to advise that Mrs A was experiencing increasing pain and swelling at the graft site, but that the Doppler and pulse were still present in the flap. Dr C told HDC that she requested that Mrs A be placed first on the surgical list for that morning, as a Category Three,[8] and to remain nil by mouth.

20. At 6.22am, the registrar made the surgery booking on the electronic "Acute Acute Surgery Booking" form, and incorrectly categorised the surgery as Category Four. The booking

[5] A type of ultrasound that uses sound waves to measure blood flow through a blood vessel.
[6] Inadequate blood flow.
[7] Dr C was in the Surgical Education and Training Programme with the Royal Australian College of Surgeons on the Plastic & Reconstructive Surgery Programme.
[8] A Category Three is defined as: "The patient is physiologically stable but the surgical problem may undergo deterioration if left untreated. Patients should be operated on within eight hours of booking."

form states under "Acute Surg Priority": "Priority Category: Category 4 (Within 24 hours)."[9] Under "Surgical Details", the form states: "Re-exploration of maxillary reconstruction and right free flap exploration."

21. HVDHB advised that there is no record of the categorisation being upgraded after the initial booking.

Transfer to theatre and first delay — 24 May 2015

22. RN E was caring for Mrs A that morning. At 9.45am, RN E took Mrs A to theatre and handed over her care to the Theatre Coordinator, RN F.

23. HVDHB advised that the Perioperative Checklist form had been completed prior to Mrs A's transfer, and it was available in Mrs A's clinical records. HVDHB stated that the form "is a systematic approach to provide discussion of all relevant patient information relevant to handover".

24. In response to the provisional opinion, RN F further explained that the handover was based on the perioperative checklist, and she was not given any special instructions, including that flap checks needed to be completed. She stated: "I did not ask for any further information, given that following the preoperative checks, Mrs A would be going to theatre." RN F told HDC that after receiving handover she completed the preoperative checks, and during that time she did not notice any swelling, and Mrs A did not complain of any pain, or appear to be in pain.

25. Shortly after Mrs A arrived in theatre, an emergency Category One[10] patient required immediate surgery. HVDHB said that Mrs A was then transferred to the Post Anaesthesia Care Unit (PACU) by RN F to await surgery because the theatre transfer bay is unstaffed during the weekend. HVDHB told HDC that "no instructions were given to the PACU nurse [RN D] regarding monitoring or observations of the flap, and no request was made to return [Mrs A] to the ward if there was a delay".

26. In a meeting summary with the Clinical Nurse Manager Operating Theatres and RN F, it is noted that after Mrs A had been moved to PACU, RN F checked on her and advised PACU that the theatre team was still busy, as surgery had commenced in the acute theatre. However, there is no documentation of this in the clinical records, and RN D told HDC that no additional instructions were given to her at that time.

27. In response to the provisional opinion, RN F added that she went to PACU twice, at approximately 11.20am and 12.10pm, and on both these occasions she asked Mrs A whether she needed any pain relief, and Mrs A confirmed that she did not. RN F also said that she did not notice any swelling of Mrs A's face on either of these occasions.

[9] A Category Four is defined as: "The patient's condition is stable. No deterioration expected." Patients should be operated on "within 24 hours of booking".
[10] A Category One is defined as: "The patient is in immediate risk of life, shocked or moribund. Patient to be operated on immediately."

28. HVDHB said that it was the expectation of staff that Mrs A would be next on the surgery list, and that this was estimated to be around midday.

29. Dr C stated that when she arrived to take Mrs A into theatre, she was advised by RN F that an urgent orthopaedic case had been taken into theatre first, but that Mrs A would be next, and that in anticipation of this occurring Mrs A had been taken to PACU to await surgery. According to HVDHB, the Category One patient was taken into theatre at 11am.

30. Dr C said that she reviewed Mrs A in PACU at approximately 10am. Dr C noted that a Doppler was still present, and that there was slightly more swelling over the angle of the jaw. Dr C then left to attend her other patients and to await a call from RN F to advise when Mrs A would be going to theatre. Dr C stated:

> "I saw [Mrs A] in recovery and noted that she still had a doppler in the flap and that she was slightly more swollen over the angle of the jaw. However I did not feel that it was possible for me to challenge the theatre order that had already been decided given the orthopaedic case had already commenced and there was only one theatre open. As far as I was concerned, [Mrs A] was to be the next patient in line. I left [Mrs A] in the recovery in the hands of the nursing staff and went to attend to my other patients and on-call duties."

PACU

31. On the morning of 24 May 2015, RN D[11] was the only nurse covering PACU. RN D told HDC that Mrs A was never handed over to her. RN D stated:

> "The theatre coordinator [RN F], placed [Mrs A] in the second bay in PACU, prior to her surgery, to wait for an operating theatre to become available. The second bay is located close to theatre, and it is where the theatre staff would sometimes place patients while they are waiting to be taken into theatre."

32. RN D recalled that RN F told her that Mrs A would be going to theatre for a non-urgent wash-out but an acute case had come in that took priority, and Mrs A needed to wait in the bay only until the acute surgery had been completed.

33. HVDHB told HDC that no instructions were given to RN D because it was the expectation of ward staff that Mrs A's surgery would take place immediately, or shortly after her arrival.

HVDHB process for weekend surgery

34. HVDHB told HDC that over the weekend, the Transfer Bay, where patients normally wait before going into surgery, is not open. Instead, patients are kept in PACU, which is where patients are transferred immediately following surgery to manage their postoperative care before being transferred to the ward.

35. RN D's lawyer told HDC:

[11] RN D has been a registered nurse in New Zealand since April 2011.

> "Using PACU as a 'holding bay' during the weekends was not unusual, and when this happened the theatre staff did not usually give a handover of the patient's care to the PACU staff. For this reason, at all times that [Mrs A] was waiting in the second bay of PACU on 24 May 2015, [RN D] considered [Mrs A] remained under the care of the theatre staff. [RN D's] understanding was that [Mrs A] was simply waiting until an acute case was completed, at which time the theatre nurse would collect her and take her into theatre.
>
> At the time this was standard practice for situations like this."

36. HVDHB told HDC that in 2015 it had no policy in place relating to handover of patient care from the ward to the theatre holding area (i.e., PACU), nor was there a policy relating to monitoring patients while awaiting theatre in either PACU or the Transfer Bay. However, HVDHB stated: "It is our expectation that monitoring of [Mrs A] should have commenced as soon as [RN E] had handed over to [RN F]."

Further delays

37. While Mrs A was awaiting surgery, a further emergency Category Two[12] patient took priority over Mrs A. According to HVDHB, this second emergency case was taken into theatre at 1.50pm.

38. Dr C told HDC that she recalls being contacted by the theatre manager and advised of the further delay. Dr C said that she asked the theatre manager whether a second theatre could be opened, but was told that this was not possible because of a lack of anaesthetic technicians.

39. In a meeting summary with the Clinical Nurse Manager Operating Theatres and RN F, it is recorded that Dr C was informed about the second emergency and further delay in Mrs A's surgery, but "[t]here was no advice to change the category for [Mrs A] on discussion with the plastic registrar [Dr C]". The meeting summary also states: "The anaesthetic registrar and plastics registrar were fully informed and involved in all decision making … Based on the categories and discussion with the medical staff the clinical decision was to do the category one and two cases, as appropriate."

40. Dr C stated that she continued her duties and "assumed [Mrs A] was being monitored by nursing staff in recovery". Dr C said that she contacted Dr B to advise him of the situation.

41. HVDHB advised that at approximately 1pm, Mr A arrived at the hospital to see his wife. He was unaware that the surgery had been delayed. When Mr A arrived on the Plastics Ward, RN E accompanied him to PACU.

[12] A Category Two is defined as: "The patient is physiologically stable but there is risk of organ survival or systemic decompression. Patient should be operated on as soon as possible after booking in. Elective lists may be asked to stand down."

42. HVDHB stated:

> "The ward staff did not realise that [Mrs A] had not had her surgery until [Mrs A's] husband arrived late morning, and a phone call was made by the ward staff to the PACU area to see if [Mrs A's] surgery had been completed."

43. HVDHB said that when RN E and Mr A arrived, they found Mrs A in a "great deal of pain and distress. Face very swollen and [Mrs A] requiring pain relief." In response to the provisional opinion, RN F told HDC that while assisting with a patient in theatre, she was contacted and advised that Mrs A was in pain. RN F said that she then arranged for some pain relief for Mrs A before returning to the theatre, leaving RN D and RN E to care for Mrs A.

44. Dr C said that at approximately 1pm she received a telephone call from RN E requesting that she review Mrs A immediately. Dr C attended Mrs A immediately and found her to be in excruciating pain. Dr C said that on assessment, no Doppler was present, and there was a "dramatic increase in swelling". Dr C stated: "At no time prior to 1300 hours was I informed by anyone in recovery [PACU] of [Mrs A's] deterioration."

45. Dr B said that he attended the hospital in the early afternoon, owing to the significant delay in Mrs A receiving surgery.

Care while in PACU

46. Between approximately 10am, when Mrs A was reviewed by Dr C in PACU, and 1pm, when RN E arrived in PACU with Mr A, Mrs A was not monitored, and she was left unattended.

47. Dr B told HDC that "[m]icrovascular monitoring of free-flaps is absolutely routine and part of the postoperative management protocol" and "there is very strict flap monitoring protocol".

48. RN D told HDC that she did not monitor Mrs A, or seek information regarding the status of Mrs A's surgery, while she was on PACU. RN D's lawyer told HDC:

> "As [RN D] believed that [Mrs A] remained under the care of theatre staff, and theatre staff had not handed over her care to [RN D], she did not seek information about [Mrs A]. [RN D] also understood from the theatre that [Mrs A] was going to theatre for a quick non-urgent washout surgery.
>
> [RN D's] understanding was that theatre was simply 'borrowing' the space in the second bay as a 'holding area' where theatre staff could keep an eye on [Mrs A] until they could take her into theatre. This practice was not unusual at that time, with patients remaining under the care of the theatre staff and no handover being given to PACU staff."

49. RN D told HDC that the reason she did not ask for handover when Mrs A was brought to PACU "was hugely influenced by the 'usual practice' in PACU at that time". RN D said that

she had no knowledge of Mrs A's condition or monitoring requirements, and that had Mrs A been handed over to her, she would have followed any instructions for monitoring.

50. RN D stated that she "assumed [Mrs A's] surgeon was aware of the further delay", and that she would be informed if she was required to commence monitoring and care for Mrs A. RN D said that "[n]either the surgeon nor the theatre nursing staff informed [her] at any stage that [Mrs A's] situation in PACU had changed and that she would now require monitoring and potentially nursing cares". Further, RN D believed that the family had been updated by theatre staff, and was surprised that the family were unaware of the delays.

51. RN D said that she did "keep an eye on [Mrs A] from time to time", and that Mrs A remained with her eyes closed and resting until her husband arrived.

52. RN D stated that initially Mrs A did not complain of pain. RN D said that she "did not notice anything visible that made her think [Mrs A] was not safe to wait for her surgery without further monitoring or intervention". RN D said that she became aware that Mrs A was in pain only when RN E arrived with Mrs A's husband and requested pain relief. RN D stated that she was "completely unaware" that Mrs A required hourly flap checks and monitoring, or that she might require pain relief.

53. When RN E requested pain relief, RN D took Mrs A's observations (recorded at 1.20pm) and administered morphine as requested. RN D recalled assisting Mrs A to the toilet, and said that at that time she took Mrs A's observations (recorded at 2.38pm).

Surgery

54. Dr C said that at 2.30pm, they were advised that a second theatre could be opened. Mrs A was taken to theatre at 3.30pm.

55. Dr B told HDC that by this time the swelling had spread into the neck, and Mrs A was at risk of airway compromise. A Doppler was no longer present, indicating that the vessels were no longer functioning. Dr B said that after Mrs A was anaesthetised, it was obvious that intubation would not be possible, and a decision was made to perform an emergency tracheostomy. During surgery, the vessels that connected the flap were salvaged and blood flow was established. Mrs A was transferred to ICU postoperatively.

Subsequent events

56. On 25 May, Mrs A was taken back to theatre for an emergency exploration of the neck wound, following significant haemorrhage in ICU. A clot was identified and removed, and the blood vessels were re-joined.

57. On 26 May, the blood flow to the flap was again noted to have stopped. Dr B said that he then made the decision to remove the free-flap, as he considered it "too dangerous to attempt a further revision of the anastomosis[13]". The procedure was undertaken on 26 May.

[13] The surgical connection of two structures, in this case blood vessels.

58. On 30 May, further swelling on the right-hand side of the neck was noted, and the wound was opened and washed out.

59. Mrs A was discharged from hospital on 18 June.

60. As a consequence of these events, Mrs A is not suitable for further reconstructive surgery. In addition, she now suffers from a number of ongoing problems, including a right vocal cord palsy[14] and subglottic stenosis,[15] and intraoral fibrosis.[16] She has difficulty with activities of daily living and has suffered psychological effects.

DHB policies

Categorisation and prioritisation of surgery

61. HVDHB's "Management of Acute Acute Surgery" policy in place at the time of these events required patients to be categorised according to clinical condition. The policy stated:

> "Any category three cases not operated within eight hours will be advanced to category two by the coordinator … Any category four cases not operated in within 24 hours will be advanced to category three by the coordinator."

62. In addition, the policy stated:

> "… An additional theatre may be opened with the agreement of all senior medical and nursing staff. However this must take into account:
>
> — The number of nurses available and their experience level.
>
> — Whether an Anaesthetist may be required in ICU.
>
> — The potential availability of an operating theatre within 24 hours.
>
> This decision must be made by Consultant Surgeon, Consultant Anaesthetist, and the Coordinator."

63. As part of HVDHB's response to HDC, the Theatre Support Manager stated:

> "For the weekend, the first case for Saturday morning is generally agreed on Friday evening between the DA [Duty Anaesthetist], Surgeon and Co-ordinator. In most instances this happens — as it would have for [Mrs A]. At the time there was no indication that two urgent cases would take precedence. If there are two cases at the same time that are Category 1 or Category 2 then a second theatre team is called and opened (i.e, Laparotomy and Caesarean)."

Handover of patient care from ward to theatre holding area

64. HVDHB's "Patient Transfer And Escort" policy (October 2014), which relates to transfer of patients to another ward or department, stated:

[14] The inability to move the muscles that control the vocal cords.
[15] The narrowing of the area below the vocal cords.
[16] Excessive connective tissue or scarring in the mouth.

> "The transferring nurse gives a complete verbal report to the receiving nurse/Doctor when a patient is transferred using the ISBAR tool.
>
> … Transferring patients must be accompanied by **documentation** sufficient to support a seamless and safe continuance of health care provision. This may include, but is not limited to a nursing transfer form, medication chart, and summary of care received, medical image reports, laboratory results and care needs."

65. HVDHB advised that this was the only policy at the time relating to patient transfers, and in 2015 it did not specifically mention handover of care from the ward to the theatre waiting area.

Further comment from Dr B

66. Dr B advised HDC that although reconstructive surgery of this nature is potentially risky, his view is that Mrs A's outcome could have been different had she received adequate care. Dr B stated:

> "In [Mrs A's] case the very frustrating and disconcerting aspect is that the outcome could have potentially been quite different if she had been correctly monitored in the theatre suite and the progressive nature of her swelling and the loss of the blood supply to the free-flap noted as soon as it occurred. This would have enabled medical staff to legitimately up-grade the urgency of her prioritisation in waiting for surgery and open a second theatre. If an intervention had been able to be performed prior to the swelling causing occlusion of the blood vessels or as soon as this had occurred, then there is a strong possibility there would have been a very different outcome."

67. Dr B said that although both the cases that were prioritised ahead of Mrs A were a higher priority, by mid-morning Dr C was "imploring the Anaesthetic Team to open a second theatre". Dr B stated:

> "[I]t is at this point I believe [Mrs A] was let down.
>
> …
>
> [I]nitially I was of the understanding that the theatre delay would be quite short. If I had any inkling that the delay would have been more than four hours, I would have personally contacted the Anaesthetist myself because of the potential that swelling around the cheek could eventually compromise the free-flap reconstruction that had been performed. However, I was not at any stage made aware that there might be airway compromise or compromise of the blood supply to the free-flap and the urgency of that situation is significantly different to regional cheek swelling."

Further comment from RN D

68. RN D told HDC that on the morning of 24 May 2015, at the time Mrs A was brought into PACU, she was working on the staff roster, which was "an important task that took several hours to complete". RN D said that after the first acute surgery case was finished she was

then responsible for providing one-on-one care to that patient, from approximately 11am until 12.30pm.

69. RN D said that later, at around 2.45pm, she received the second postoperative patient.

70. RN D stated that during her shift there was no arrangement in place for a relieving nurse to cover her breaks. She said that from 12.30–1pm she was able to take one break between the two acute surgeries, and at that time she informed the Theatre Coordinator, RN F.

71. RN D said that during her shift she was also trying to complete the staff roster. She stated: "I believe while concentrating on completing this task I lost track of time and did not give enough attention to [Mrs A] to see if she needed anything."

72. RN D noted that at the time of these events there was no clear system in place for using PACU as a holding bay. She stated:

> "Due to the lack of a clear system with supporting policies and guidelines [Mrs A's] medical conditions, including pain and any requirement for flap checks was not handed over to me."

73. RN D said that she is "sincerely sorry for [Mrs A's] dreadful experience and the impact this has had on her and her family".

Changes made by RN D

74. RN D advised HDC that since these events she has spent a lot of time reflecting on the events, and she has changed her practice. RN D stated: "I am now much more aware of being proactive and looking for potential patient risks and hazards in our nursing practice and healthcare system."

75. Having reviewed the expert advice obtained by HDC from RN Jackson, RN D stated:

> "With the benefit of hindsight, reading Ms Jackson's report, and the learning I have undertaken, I accept that I should have asked for more information about [Mrs A] when she was placed in the PACU bed space. I am very regretful that I did not do this. At the time I did not do so because I was influenced by the HVDHB practice, in which the pre-operative patient care was not transferred to the PACU nurse. Nonetheless, I recognise that I should have been more proactive in taking steps to understand [Mrs A's] situation, and especially when it became clear that there was going to be a further delay in [Mrs A] going to theatre. I should have liaised with the theatre team to request that [Mrs A] be transferred back to the ward to wait for her surgery."

76. Further to this, RN D acknowledged that although she had a busy workload, she should have introduced herself to Mrs A and advised her that if she needed anything to signal her, and that she should have checked on Mrs A from time to time, between her other tasks. RN D stated:

> "I am regretful that I did not actively initiate conversation with [Mrs A], therefore, missing an opportunity to better understand her concerns and any discomfort she had at the time. Now I am more cautious in asking my patients what they need to find out something that may not [be] in the handover."

77. RN D also said that she now recognises that she should have questioned staff when it was clear that Mrs A had been waiting for a long time. RN D stated:

> "Given what I have learnt I should also have questioned the theatre or surgical team on any change in the requirements of care for [Mrs A] once it was clear that she would be waiting for a prolonged period before having her surgery."

78. RN D said that she is now "more proactive not passive". She stated: "I question what is happening more freely and I am much more aware of possible complications in [the] hospital system."

Further comment from HVDHB

79. In a statement to HDC, the Chief Executive stated:

> "I would like to take this opportunity, on behalf of Hutt Valley District Health Board, to offer our sincere apologies to [Mrs A] and her family for the distress and worry caused to them by the lapse in care she experienced at the time of her surgery in May 2015. The prolonged wait that [Mrs A] was subjected to while awaiting the start of her surgery, combined with the lack of communication with her husband is [not up to] the standard of care that we expect for the patients in our care.
>
> All who were involved in [Mrs A's] care at that time understand that she did not receive the responsive and high quality care that she deserved, and that as a result the outcome of her surgery may have been compromised."

80. In response to Mrs A's initial complaint, the Chief Executive stated: "There was a lack of clarity about who was responsible for pre-operative care while Mrs A was waiting …"

81. The Chief Executive apologised that Mr A was not updated about the delay. The Chief Executive stated:

> "The theatre staff were the only people with the knowledge in real time to be able to further inform everyone, including [Mrs A], the surgical team, the plastic surgery ward and [Mr A] of what was happening."

82. HVDHB also stated:

> "We [HVDHB] agree the Theatre Co-ordinator, Registrar and PACU RN knew that a category 1 case had changed the order of the acute list and all three could have provided reassessment of [Mrs A's] condition or asked for [Mrs A] to return to the ward."

83. In relation to the decision to open a second theatre, HVDHB stated:

> "Opening a second theatre is the domain of the anaesthetic team taking into account the workload, the need to call in staff if a second theatre is opened and is done in consultation with the consultant surgeon. Unfortunately in [Mrs A's] case, the urgency of the progression of the infection was not apparent to the theatre team."

84. Further to this, HVDHB stated: "[I]f [Mrs A's] category [had been] correctly changed from four to three at 1030 a second theatre would have been opened and [Mrs A] would have been second on this [the surgery] list." However, it said: "Given the clinical information available and categorisation of other acute patients the decision not to open a second theatre was deemed reasonable at this time."

85. In June 2015, HVDHB undertook a Case Review, which concluded: "It is possible that operating on Mrs A more quickly on 24.5.15 may have changed the outcome."

Changes made by HVDHB

86. HVDHB has made a number of changes to its services in light of these events. In particular:

"— An additional nurse is now available to support the theatre team.

— The 'Expectations of Care in the Surgical Acute Unit' policy (2019) states:

  - Patients are not held in either the transfer bay or PACU without a nurse, they are returned to the ward. Afterhours if there is a delay of longer than 20 minutes the patient is returned to the ward. This is a decision made and followed through by the Theatre Coordinator.

— When patients are handed over by ward staff to the theatre team, the theatre team take on the responsibility of active monitoring. Any monitoring requirements are explicitly handed over between the nursing teams and documented.

— In addition to the Perioperative Checklist, for patients arriving in the Transfer Bay during business hours, pre-checks are now required.

— Changes have been made to the weekend theatre policy relating to the criteria for opening a second theatre:

Category 1 case and an operating theatre is not available within 20 minutes;

Category 2 case and an operating theatre is not available within 60 minutes;

14 hours or more of Category 3 cases booked on the acute whiteboard."

87. Further to this, HVDHB stated:

> "[N]ow both the surgical consultant and the on call consultant anaesthetist will make the decision regarding upgrading of surgical category.
>
> — The Nursing Care Plan and Assessment Policy now requires observations to be done within four hours of arrival.

— RNs who are responsible for developing staff rosters will be provided non-clinical time each month to complete that task."

88. In response to the provisional opinion, HVDHB also advised that "the introduction of additional rostered and on-call teams both at night, and across the weekend, is under active planning".

Comment from Mrs A

89. Mrs A told HDC that these events have had a significant impact on her health, both relating to the failure of the free-flap, as well as ongoing issues relating to having had a tracheostomy. There has also been a significant impact on her and her family both financially and emotionally.

90. Mrs A said that in making this complaint, she wants to make sure that such events will not happen to anyone else.

Responses to provisional opinion

HVDHB

91. HVDHB was given an opportunity to respond to the provisional opinion. On behalf of HVDHB, the Chief Executive stated: "I would like to acknowledge the findings and [Mrs A's] experience."

92. The Chief Executive said that "[a]s an organisation [HVDHB] acknowledge[s] that a second theatre should have been opened earlier", but provided clarification relating to whether a second theatre would have been opened had Mrs A's categorisation been changed. The Chief Executive stated:

> "Category 3 remained, and remains, 'patients should be operated on within 8 hours of booking.' We acknowledge the decision to open an additional theatre should have been supported by appropriate and timely reassessment of [Mrs A], and clear communication, which did not happen."

93. The Chief Executive noted that HVDHB has since revised and broadened its policies relating to Acute Surgery access, including patient waiting time, the communication process to identify the need to open additional theatre resources, and the handover process.

94. The Chief Executive stated:

> "[The Clinical Head of the Regional Surgery service] is clear that the robust handover practices and policies that have been put in place since these events should prevent a patient such as [Mrs A] being left in a vulnerable situation with inadequate care and monitoring. He does however observe that the ability to access additional out of hours operating theatre space, and adherence to some policies around acuity categorisation, remain challenging given there has been no additional staffing to support these policies."

95. The Chief Executive advised that HVDHB accepted the recommendations of the provisional report, and said that the Clinical Head of the Regional Surgery service is "very supportive of an audit of all our processes and the pathways for our acute patients to better understand our performance".

RN D

96. RN D was given an opportunity to respond to the relevant parts of the provisional opinion, and stated:

> "I accept your decision to make an adverse comment in relation to my role in the care provided to [Mrs A] on the 24th of May 2015. I have spent a great deal of time reflecting on my role in [Mrs A] care. I am deeply sorry that [Mrs A] suffered the outcome she did. As a direct result of [Mrs A's] case I have changed my practice."

97. RN D commented:

> "I accept that I should have been more proactive in checking on [Mrs A] during her time in PACU and deeply regret that I did not do so. Following this case I have been much more proactive in communicating with teams, including theatre, ward and surgical team, especially when the circumstances had changed for the patient."

98. RN D advised that she is no longer employed as a nurse but still works in a hospital setting and has spent a lot of time improving her knowledge on ways to support patient safety. She stated:

> "In particular, I have undertaken several training opportunities that relate to communication and handover between clinical teams, and have made significant changes to my practice as a nurse. I also undertook several projects or activities in my workplace to improve handover procedures and to improve my own communication skills, especially in relation to handover and communication between team members.
>
> Since [Mrs A's] case I challenge situations and advocate for patients where I feel this is necessary. I also made improvements in my [current] role … including creating a handover checklist, initiating a new clinical guideline and leading projects in various aspects to improve the quality of handover, communication and team collaboration to bridge the gaps in the health system."

RN F

99. RN F was given an opportunity to respond to the relevant parts of the provisional opinion, and, where appropriate, her comments have been incorporated into the report above.

100. RN F told HDC that since this incident, she has undertaken further training relating to handovers and team communication, including the following courses:

— ISBAR communication tool

— Calm Communications

— Head and neck surgery, including undertaking flap checks

— Handovers in the perioperative environment.

Mrs A

101. Mrs A was given an opportunity to respond to the "information gathered" section of the provisional opinion, and advised that she had no further comment to make.

Opinion: Hutt Valley District Health Board — breach

Introduction

102. HVDHB was responsible for ensuring that Mrs A was provided with services that complied with the Code of Health and Disability Services Consumers' Rights (the Code), and to have in place adequate systems to ensure that the care delivered to Mrs A was safe, appropriate, and timely. In my view, for the reasons set out below, a number of failures in the care provided to Mrs A arose from systemic issues at HVDHB.

103. Guided by expert advice, I am satisfied that the surgical care provided to Mrs A, both in relation to the period leading up to 24 May 2015, and the postoperative period following the surgery on 24 May 2015, was appropriate and consistent with accepted standards. Accordingly, the focus of the following discussion is on the care provided to Mrs A in the preoperative period prior to the 24 May 2015 surgery, and in particular the systems and processes that should have supported Mrs A to receive appropriate and timely care.

Weekend processes and policies for acute surgery and handover of care

104. I am very concerned about the lack of monitoring Mrs A received after her surgery was delayed on the morning of 24 May 2015. I consider that primarily this occurred because of inadequate and unclear systems around the management of patients who were awaiting surgery after hours.

105. HVDHB told HDC that the theatre process in 2015 was that over the weekend the transfer bay was not open, so patients who were awaiting surgery were kept in PACU.

106. The HVDHB "Patient Transfer and Escort" policy (October 2014) stated that when transferring a patient to another ward or department, the "transferring nurse gives a complete verbal report to the receiving nurse/Doctor when a patient is transferred using the ISBAR tool". HVDHB advised that at the time, this was the only policy that related to patient transfers, and the policy did not specifically mention handover of care when a patient was being transferred from the ward to theatre. I consider that the policy could have been clearer in this regard.

107. Dr C told HDC that on the evening of 23 May 2015, Mrs A was experiencing increasing pain and swelling, and upon discussion with Dr B, a decision was made to take Mrs A to theatre the following morning to re-explore the flap. Mrs A's clinical notes contain no reference

that a surgical booking was made at that time, but advice was given for her to be monitored overnight and to be kept fasted in preparation for theatre.

108. Dr C told HDC that she asked for the surgery to be booked as a Category Three, and for Mrs A to be placed first on the surgical list for that morning. However, the surgery was incorrectly booked as a Category Four. I am critical that this error occurred.

109. At approximately 9.45am on 24 May, Mrs A was taken to theatre by RN E. HVDHB told HDC that because staff anticipated that Mrs A would be first into surgery, instructions for monitoring the flap were not handed over to theatre staff.

110. My nursing expert, RN Rosalind Jackson, advised:

> "[W]hilst it is not ideal that a full handover was not provided, it is not unreasonable given [RN E] was not to know, nor should have been expected to know that other cases were taking priority to the order of the acute list and that [Mrs A's] waiting time for surgery was prolonged."

111. I acknowledge RN Jackson's advice. However, notwithstanding the practice at the time, my expectation is that when staff transfer the care of a patient to another clinician, a complete handover should occur, particularly in a case such as this where regular monitoring was so important.

Handover and monitoring in PACU

112. While Mrs A was awaiting preparation for theatre, a Category One patient was taken to theatre. Because this patient was deemed more urgent, Mrs A's surgery was delayed, and she was transferred to PACU to await her surgery, which was consistent with standard practice at HVDHB at that time. The expectation was that Mrs A would be next in line, which HVDHB said was estimated to be around midday.

113. I note that Dr C attended Mrs A shortly after her arrival in PACU. Dr C said that she reviewed Mrs A and noted that a Doppler was still present and there was slightly more swelling over the angle of the jaw. Dr C then left to attend her other duties, on the understanding that Mrs A would be next on the theatre list. Unfortunately, a second emergency case — a Category Two patient — was then taken to theatre, resulting in further delays to Mrs A's surgery.

114. On 24 May 2015, RN D was the only registered nurse rostered on duty in PACU. RN D said that Mrs A was placed in the second bay, which is located closest to theatre. RN D recalls being told that Mrs A would be going to theatre for a non-urgent wash-out, and that an acute case had taken priority and Mrs A needed to wait in the bay only until the acute surgery had been completed. HVDHB said that no instructions for monitoring or observations were given to RN D. RN D told HDC:

> "Using PACU as a 'holding bay' during the weekends was not unusual, and when this happened the theatre staff did not usually give a handover of the patient's care to the PACU staff."

115. RN D said that she considered that Mrs A remained under the care of the theatre staff. RN D stated that she did not seek any information or undertake any monitoring of Mrs A, nor did she introduce herself to Mrs A, as her understanding was "that theatre was simply 'borrowing' the space in the second bay as a 'holding area' where theatre staff could keep an eye on [Mrs A] until they could take her into theatre".

116. In a statement on behalf of HVDHB, the Chief Executive said that there was a "lack of clarity about who was responsible for pre-operative care whilst [Mrs A] was waiting". It is clear that no staff member, either in PACU or in theatre, undertook any monitoring of Mrs A, and she was left unattended.

117. I accept that it was the expectation of staff that when Mrs A was taken to the theatre area, she would be taken directly into surgery. I also accept that it is the nature of a hospital setting that other emergencies may arise at short notice and take priority, and that this can be unpredictable. However, in such situations there should be a system in place that ensures that when a patient's surgery is delayed, the patient continues to receive care of an appropriate standard. In Mrs A's case, this did not happen.

118. I note RN Jackson's advice that staff reasonably assumed that Mrs A would be first into theatre, and that the failure of both RN E and RN F to adhere to the HVDHB "Transfer and Escort" policy by providing a verbal handover was a minor departure from accepted standards.

119. I further note that my expert plastic surgeon advisor, Dr Sally Langley, stated:

> "In such a circumstance [of a patient being delayed for surgery] the surgical team, ward staff, and operating theatre staff should be advised and the patient should be returned to the ward or held for a short time expecting to proceed in to the operating theatre within an hour or so. The expectation is that a patient who is kept in the operating theatre area would expect to be treated as well as a patient in the ward i.e. have recordings done, special requirements such as flap monitoring, personal cares and pain and other medication. It is not acceptable for a patient to be kept in the operating theatre area/holding bay/transit/PACU for more than a short period of time. Arrangements should have been made to return [Mrs A] to the ward where she would continue her usual monitoring and cares while she waited. I consider that holding a waiting patient for up to an hour or so is acceptable but longer than that is very unlikely to be acceptable due to multiple risks for the patient."

120. Dr Langley advised that the failure to undertake monitoring and flap checks, and provide Mrs A with personal cares and pain relief for six hours was a significant departure from accepted standards.

121. My nursing expert, RN Jackson, considered that when it was clear by mid-morning that Mrs A's surgery had been delayed further, there was a responsibility on RN F to check that Mrs A was comfortable and being cared for. Similarly, RN Jackson advised that at that time, RN D also had a responsibility to proactively seek information about Mrs A.

122. I accept Dr Langley's and RN Jackson's advice. It is extremely concerning that despite the nature of Mrs A's condition, which required regular monitoring, no one staff member took steps to monitor Mrs A, check whether she needed any pain relief or had any other needs, or follow up with her surgical team. While I note RN F's advice that she checked Mrs A twice at approximately 11.20am and 12.10pm, and on both occasions Mrs A denied she had any pain, neither RN F nor RN D took any steps to check whether any additional monitoring or reassessment was required. I note that HVDHB accepts this, and stated:

> "[W]e [HVDHB] agree the Theatre Co-ordinator, Registrar and PACU RN knew that a category 1 case had changed the order of the acute list and all three could have provided reassessment of [Mrs A's] condition or asked for [Mrs A] to return to the ward."

123. RN Jackson advised:

> "In summary, in May 2015 relevant perioperative policies were in evidence however [these] did not provide staff guidance on required standards when holding perioperative patients in PACU after hours."

124. In particular, RN Jackson noted that whilst the HVDHB policy for the management of acute surgery ("Management of Acute Surgery", August 2012) outlined the responsibilities between teams and the role of co-ordinator to facilitate communication, "it did not account for the out of hours 'silent' practice of holding patients in PACU whilst they waited for theatre".

125. I agree. HVDHB should have had in place clear systems for the management of perioperative patients over the weekend, and I consider that by omitting to do so, HVDHB breached Right 4(1)[17] and Right 4(5)[18] of the Code.

Delay in opening a second theatre

126. I also consider that a second theatre should have been opened earlier.

127. HVDHB's "Management of Acute Acute Surgery" policy in place at the time stated that "[a]n additional theatre may be opened with the agreement of all senior medical and nursing staff", but that nursing and anaesthetist availability must be taken into account when making the decision.

128. According to Dr B and Dr C, when Dr C was made aware of the further delays around mid-morning, she requested that a second theatre be opened, but this was declined because of the lack of availability of anaesthetic technicians. Dr C said that she did not hear anything further until approximately 1pm, and she assumed that Mrs A was being monitored over this time.

[17] Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."
[18] Right 4(5) states: "Every consumer has the right to co-operation among providers to ensure quality and continuity of services."

129. The Theatre Coordinator, RN F, stated that "[t]here was no advice to change the category for [Mrs A] on discussion with the plastic registrar [Dr C]".

130. I note Dr Langley's opinion that the failure to open a second theatre when Mrs A was delayed for the second time was not acceptable. Dr Langley advised:

> "[After the first emergency case came in, if] [Mrs A] was then going to be second and wait less than an hour or so for the one acute operating theatre it would have been acceptable for her to wait in the operating theatre area and for the second operating theatre not to be opened. If the theatre team had known that she was Category 3 they should have opened the second operating theatre."

131. Dr Langley considers that despite the error in the recording of the theatre category, theatre staff should have been aware that Mrs A was a Category Three. Dr Langley advised that the fact that Mrs A was kept in the operating theatre area initially, instead of being returned to the ward, supports this view. Dr Langley stated:

> "I understand that the two other patients were also very urgent but that just emphasizes that [Mrs A] should have been treated as a Category 3 patient and triggered opening of the second operating theatre during the morning, rather than waiting until mid-afternoon."

132. Dr Langley considers that the failure to open a second theatre for a Category Three patient was a "severe departure from acceptable standard", and that even if Mrs A had been a Category Four, the failure to open a second theatre after the initial delay was "a moderate departure from acceptable standard of care and would be viewed as such by surgical peers".

133. Similarly, RN Jackson advised that after the second delay, both RN F and RN D had a responsibility to seek further information and ensure that Mrs A received adequate care. RN Jackson stated:

> "[W]hilst there is a process in place to open a second theatre this decision would be made after reassessment which was not achieved for [Mrs A]. Instead, the theatre team maintained the impression that [Mrs A] remained a category 4."

134. RN Jackson considers that once Mrs A's deterioration was identified, "more effort should have been evident to mobilise a second theatre," and that the additional delay "would be considered a potentially severe departure from accepted standards".

135. I accept Dr Langley's and RN Jackson's advice. The delay in opening a second theatre was unacceptable. By the time the second delay occurred, there should have been a review of Mrs A's situation and a discussion between the relevant staff. There is no evidence that this took place. As noted by Dr Langley, this should have occurred even if staff were unaware that Mrs A was a Category Three patient.

136. I note Dr B 's comments:

> "In [Mrs A's] case the very frustrating and disconcerting aspect is that the outcome could have potentially been quite different if she had been correctly monitored in the theatre suite and the progressive nature of her swelling and the loss of the blood supply to the free-flap noted as soon as it occurred. This would have enabled medical staff to legitimately up-grade the urgency of her prioritisation in waiting for surgery and open a second theatre. If an intervention had been able to be performed prior to the swelling causing occlusion of the blood vessels or as soon as this had occurred, then there is a strong possibility there would have been a very different outcome."

137. I note that in response to the provisional opinion, HVDHB advised that it acknowledges that a second acute theatre should have been opened earlier. It stated:

> "We acknowledge the decision to open an additional theatre should have been supported by appropriate and timely reassessment of [Mrs A], and clear communication, which did not happen."

Communication with family

138. As a result of no staff member or team taking responsibility for Mrs A while she was in PACU, no one contacted Mr A to advise him of the delays. It was not until Mr A presented to the Plastics Ward in the afternoon, expecting to find that Mrs A had returned from surgery, that he was made aware of the delays. This is unacceptable, and added to the stress Mr and Mrs A were experiencing. In my opinion, HVDHB let Mrs A down in this regard.

Conclusion

139. Overall, I consider that a number of failures in the services provided by HVDHB resulted in multiple missed opportunities to identify Mrs A's deterioration and trigger the opening of a second theatre to ensure that Mrs A received timely surgery in response to her worsening condition. In particular:

- Mrs A was incorrectly recorded as being a Category Four when in the early hours of 24 March 2015 she was assessed as being a Category Three.
- Inadequate communication and handover between nursing staff meant that no one took responsibility for the care and ongoing monitoring of Mrs A.
- Inadequate monitoring of Mrs A while waiting for theatre meant that no one identified her deterioration or provided her with adequate care such as pain relief, and her acute theatre booking category was not reviewed.
- Inappropriate delay in opening up a second theatre resulted in Mrs A waiting an inappropriate length of time for surgery.
- The policies and procedures relating to after-hours acute surgery and handover of care between the ward and theatre staff were inadequate.

140. In my opinion, for the reasons set out above, HVDHB breached Right 4(1) of the Code by failing to provide services to Mrs A with appropriate care and skill. By failing to have in place adequate policies to enable co-operation amongst providers to ensure quality and continuity of services to Mrs A, I find that HVDHB breached Right 4(5) of the Code. I note that both experts who advised in this case considered these failures to be significant.

141. Following these events, HVDHB made a number of changes to its systems, including that if there is a wait of longer than 20 minutes for surgery, after-hours patients are returned to the ward, and they are not held in either the transfer bay or PACU without a nurse. If implemented appropriately, these changes will help to ensure that patients do not experience inappropriate delays and a lack of monitoring while awaiting surgery after hours.

Opinion: RN D — adverse comment

142. On the morning of 24 May 2015, RN D was the only registered nurse rostered on duty in PACU.

143. At approximately 9.45am, Mrs A was placed in a bay in PACU to await surgery. RN D was not provided with a complete handover. RN D recalled that RN F told her that Mrs A would be going to theatre for a non-urgent wash-out, but that an acute case had taken priority and Mrs A needed to wait in the bay until the acute surgery had been completed. RN D's lawyer stated:

> "Using PACU as a 'holding bay' during the weekends was not unusual, and when this happened the theatre staff did not usually give a handover of the patient's care to the PACU staff. For this reason, at all times that [Mrs A] was waiting in the second bay of PACU on 24 May 2015, [RN D] considered [Mrs A] remained under the care of the theatre staff. [RN D's] understanding was that [Mrs A] was simply waiting until an acute case was completed, at which time the theatre nurse would collect her and take her into theatre."

144. Principle 1.1 of the New Zealand Nursing Code of Conduct (June 2012) states that a registered nurse should:

> "Respect the dignity of health consumers and treat them with kindness and consideration. Identify yourself and your role in their care."

145. Principle 4.1 states that a registered nurse should:

> "Use appropriate care and skill when assessing the health needs of health consumers, planning, implementing and evaluating their care."

146. Principle 6.3 states that a registered nurse should:

> "Communicate clearly, effectively, respectfully and promptly with other nurses and health care professionals caring for the health consumer and when referring or transferring care to another health professional or service provider."

147. RN Jackson advised that RN D did not fully adhere to the handover requirements as set out in the HVDHB "Transfer and Escort" policy, as she did not obtain a verbal handover when she received Mrs A. RN Jackson considers that the failure to do so represented a minor departure from accepted practice, in light of the DHB's practice of having preoperative patients wait in PACU prior to their surgery.

148. However, RN Jackson advised that when further delays occurred, RN D should have been more proactive in Mrs A's care. RN Jackson stated:

> "On balance, after delays to theatre were known [RN D] had a responsibility to proactively reassess the care arrangements for [Mrs A]. This was her responsibility because [Mrs A] was in [RN D's] unit."

149. RN Jackson advised:

> "What [Mrs A] required was someone to advocate for her. To notice that her wait was becoming prolonged, to ask after her comfort, liaise directly with the theatre coordinator or ward staff about the appropriate options."

150. Further, in relation to RN D's advice that she also had to complete the staff roster during her shift, RN Jackson advised that "[i]t is not appropriate that an administrative task take priority over patient care".

151. RN Jackson considered that overall, in the context of what was usual practice at HVDHB at the time, and because RN D felt that she had to spend time completing the staff roster, RN D's failure to provide Mrs A with an appropriate standard of care was a moderate departure from accepted standards.

152. I accept RN Jackson's advice. It is concerning that despite being aware that Mrs A was awaiting acute surgery, and had been subject to delays, RN D did not take a more proactive approach in ensuring that Mrs A was being monitored adequately. I accept that RN D had other responsibilities and had not received a full handover. However, as noted by RN Jackson, in accordance with core nursing standards, RN D had a responsibility to, at a minimum, check that Mrs A was comfortable, and follow up with theatre staff that she was being cared for appropriately.

153. I note that RN D has accepted that she should have been "more proactive in taking steps to understand [Mrs A's] situation, and especially when it became clear that there was going to be a further delay in [Mrs A] going to theatre". I further note that the deficits in the care RN D provided occurred in the broader context of a systems failure.

154. I also note that staff responsible for completing staff rosters are now allocated non-clinical time to complete this task.

Opinion: RN F — other comment

155. At the time of these events, RN F was the Theatre Coordinator in charge of the acute theatre. RN F received Mrs A from RN E when Mrs A was brought from the ward. However, as noted by HVDHB, no instructions were handed over regarding monitoring of Mrs A's flap, and no request was made to return Mrs A to the ward if there was a delay. When Mrs A's surgery was delayed, RN F placed Mrs A in PACU, in accordance with usual practice at the time. According to RN D, RN F told her that Mrs A was awaiting wash-out surgery, but did not provide a full handover.

156. I note RN Jackson's view that although it was reasonable that staff anticipated that Mrs A would be going directly to theatre, RN F failed to adhere to the HVDHB "Transfer and Escort" policy. The policy required RN F to provide a verbal handover of care when transferring Mrs A to PACU. RN Jackson stated that the failure to follow this policy was a minor departure from accepted standards. I note also that RN F had received no special instructions from RN E regarding monitoring of the flap.

157. RN F and Dr C had differing expectations regarding the management of Mrs A. Dr C "assumed [Mrs A] was being monitored by nursing staff in recovery", and RN F said that Dr C was kept informed of the delays, but "[t]here was no advice to change the category for [Mrs A] on discussion with the plastic registrar [Dr C]".

158. RN Jackson advised that it was reasonable for Dr C to expect Mrs A to be cared for on PACU, and that RN F "had a responsibility to check that [Mrs A] was comfortable and being care for throughout this time". I note RN F's comment that she checked Mrs A on two occasions but Mrs A denied any pain.

159. RN Jackson said that when the delays were apparent, RN F "had the responsibility to both co-ordinate the variables that impacted on her [Mrs A's] progress to theatre and ensure appropriate oversight of [Mrs A's] care".

160. RN Jackson commented that as RN F was not in a position to both directly oversee Mrs A's care and work in the operating theatre, "[RN F] should undoubtedly have been more proactive to ensure that [RN D] had accepted handover of [Mrs A's] care".

161. However, noting the practice at that time to hold patients in PACU, and the competing priorities RN F was managing, RN Jackson considered that RN F's failures in this case would be considered a minor departure from accepted standards. RN Jackson stated:

> "[W]hilst [RN F] did make an error by not adequately handing over to [RN D] … the context of the event places this departure from accepted standard as minor, related to a systems induced error."

162. While in hindsight RN F should have taken steps to ensure that a full handover was provided to RN D when RN F placed Mrs A in PACU, and taken a more proactive role in ensuring that adequate care was being provided to Mrs A once further delays became evident, I note that these failings occurred in the broader context of inadequate systems in place at the time of these events.

163. I note that since these events, HVDHB has added an additional nurse to support the theatre team, to allow the Theatre Coordinator to carry out co-ordination duties.

Recommendations

HVDHB

164. In response to the provisional opinion, HVDHB agreed to the following recommendations:

a) Provide a written apology to Mrs A for its breaches of the Code. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding to Mrs A.

b) Undertake an audit of patient wait times for acute surgery in the weekends. Where any findings demonstrate a departure from relevant policies, in particular the requirement to return a patient to the ward if there is a delay of longer than 20 minutes, as set out in the "Expectation of Care in the Surgical Acute Unit" (2019), HVDHB should provide an outline of the steps it is taking to address these.

   A report detailing the results of the audit should be provided to HDC within four months of the date of this opinion.

c) Undertake an audit of the monitoring of patients while awaiting surgery. Where any findings demonstrate a departure from relevant policies, in particular "The Nursing Care Plan and Assessment" policy, HVDHB should provide an outline of the steps it is taking to address these.

   A report detailing the results of the audit should be provided to HDC within four months of the date of this opinion.

d) Provide an update in relation to its review of the following policies:

   i. Management of Acute Surgery

   ii. Expectations of Care in PACU

   iii. Expectations of Care in the Surgical Admission Unit

   The update should be provided to HDC within four months of the date of this opinion.

RN D

165. In the provisional opinion, I recommended that RN D undertake further training on handover of care and the importance of communication between teams.

166. RN D provided evidence that she has undertaken further training in relation to communication and handover between clinical teams. She also advised that she has been involved in a number of projects relating to the improvement of handover procedures and her own communication skills.

167. I accept that RN D has met this recommendation.

RN F

168. In the provisional opinion, I recommended that RN F undertake further training on handover of care and the importance of communication between teams.

169. RN F advised that she has undertaken further training relating to handovers and team communication, including courses on the ISBAR communication tool, Calm Communications, and handover in the perioperative environment.

170. I accept that RN F has met this recommendation.

Follow-up actions

171. A copy of this report with details identifying the parties removed, except HVDHB and the experts who advised on this case, will be sent to the Nursing Council of New Zealand, the Royal Australasian College of Surgeons, and 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 was obtained from a plastic surgeon, Dr Sally Langley:

"My name is Sally Jane Langley.

I qualified in medicine, University of Otago, MBChB, 1980.

I gained my fellowship in plastic and reconstructive surgery, FRACS, in 1988.

I have worked in Christchurch as a plastic and reconstructive surgeon since 1990. I am in full active practice. My work is general plastic surgery in public and private practice. My work includes the full range of plastic and reconstructive surgery.

The plastic surgery community in New Zealand is small. I know [Dr B], plastic surgeon, and I have met [Dr C] […] after the events in May 2015.

I do not consider that I have a conflict of interest.

I have read and agree to the HDC's Guidelines for Independent Advisors.

I have been asked by [HDC] to review the notes and records re [Mrs A] and provide a report addressing the questions posed.

The documents provided were:

1. Letter of complaint to Hutt Valley DHB dated […].
2. Referral of complaint to HDC from Advocacy Services dated […].
3. Letter from [Dr B] dated 24 June 2015.
4. Letter from [plastic surgeon] dated 2 July 2015.
5. [Psychologist Report] dated 22 July 2016.
6. Hutt Valley DHB's response dated 14 September 2017 including:
   a. Patient Case Review from 22 June 2015
   b. Clinical Records from Hutt Valley DHB
7. Clinical records from ACC received 22 June 2018.
8. Radiology reports from Hutt Valley DHB, received 7 August 2018.
9. Hutt Valley DHB's response dated 4 September 2018, including:
   a. Response from [Dr C] dated 28 August 2018
   b. Summary of care from Plastics Unit for 22 to 24 May 2015
   c. Meeting notes [RN F] (theatre coordinator) and Clinical Nurse Manager Operating Theatres.
   d. Letter from [Dr B] (undated).
   e. Response letter from [plastic surgeon] dated 12 June 2015.
   f. Management of Acute 'Acute' Surgery policy issued August 2012.
   g. Updated version, Management of Acute Surgery policy issued January 2018.
   h. Weekend First Acute Surgical policy created February 2014, re-issued with no changes in August 2016.

i. New policy, Expectations of Care in the Post Anaesthetic Care Unit Policy 30 Sep 2015.
j. Medicines Management Policy issued July 2014.
k. CD of photos

10. Clinical records from Hutt Valley DHB received 7 September 2018.
11. Response from [anaesthetist] dated 16 Nov 2018.
12. Response from [RN D] dated 12 December 2018.
13. Response from [Dr B] dated 15 January 2019.

Summary:

I have obtained this summary from the letters and notes written by [Dr B], [the Chief Executive], [Dr C] and others, as provided.

[Mrs A] was diagnosed with a right maxillary giant cell tumour in 2010. Her initial care was with [a surgeon] and his team.

14/09/2010 Right maxillary tumour resected and repair with rectus flap.

16/09/2010 Repositioning right orbital plate.

14/02/2011 Repair rectus hernia.

25/02/2011 Haematoma complication of rectus repair.

31/01/2012 Left and right nasal cavity rhinoscopy and debulking right maxilla defect with free flap reconstruction.

30/10/2012 Debulking right intraoral flap.

[Dr B] took over the care of [Mrs A] at Hutt Valley DHB in 2013. Prior to that her care was with [the surgeon] and his team.

25/11/2014 Complex reconstruction with left free fibula.

January 2015 urgent review; potential infection. Monitored closely. Bone scans to try and establish where the infection was coming from and whether the bone flap still alive.

14/01/2015 Examination under anaesthetic showed that muscle and some of the bone had been lost. A 7cm section of bone, fibula, was exposed. There was a foul odour. I have not seen the microbiology result.

23/01/2015 Buccal mucosal advancement flap to cover exposed fibula.

04/02/2015 Further exploration

11/02/2015 Further exploration — looking better.

February 2015 Keen to start dental rehabilitation and to have another flap to cover the defect. [Mrs A] refers to this as a hard decision. She wanted to get her life back to normal, rebuild self esteem and get back to the workforce to help her husband with the financial burden he was carrying for 7 years. This would be her third free flap (microvascular tissue transfer). The risk of failure was estimated to be about 5% by [Dr B]. This was due to the complexity of the surgery, relatively short length of pedicle and poor condition of the vessels in her neck, as they had been dissected on two occasions.

20/05/2015 Operation at [HVDHB] with [Dr B]. Re-exploration of right maxillary reconstruction and right sided free fibula flap. [Dr B] says that this operation was fairly routine but the microsurgery was extremely challenging. The blood vessels from the leg only just reached the neck vessels, similar to the previous time. There was size difference between the leg and neck vessels. Nonetheless the flap worked well and was revascularized. [Mrs A] was given IV antibiotics but I have not been able to identify which antibiotic and whether this continued. That information will be in the file but I was unable to see it.

As far as I can tell the events of the days between this operation on 20/05/2015 and 23/05/2015 were unremarkable and have not been commented on. The hospital notes have been reviewed and indeed the next couple of days were routine and the flap checks were stretched out to every four hours on 23/05/2015.

It was on the evening of 23/05/2015 that [Dr C] was called by the ward nurse to review [Mrs A]. [Dr C] was the Fellow on call. The call was due to increasing pain and some mild swelling of the free flap with normal doppler readings. [Mrs A] had a foul taste inside her mouth. There was an offensive smell. [Dr C] reviewed [Mrs A] at 2130 and discussed her with [Dr B]. She could feel the pulse inside [Mrs A's] mouth. A CT scan was requested by [Dr B] and done. It showed a small amount of gas consistent with an intraoral flap reconstruction and no collection (fluid collection). [Dr C] spoke with [Dr B] and the plan was made to re-explore the right neck the following morning. [Dr B] has explained that at that stage he thought [Mrs A] had an infection and needed exploration and washout. At that stage [Dr B] had confidence that the blood flow to the flap was satisfactory.

At 0500–0545 [Dr C] received a phone call from the night registrar that [Mrs A] was having increasing pain and swelling. The doppler and pulse were still present. [Dr C] requested that [Mrs A] be first on the list that morning and asked for her theatre booking to be Category 3. (*The doppler is the signal picked up by a probe that the artery is pulsating and the vein is flowing. This is reassuring that the artery and vein are providing appropriate blood supply to the flap*). Apparently the change from Category 4 'no urgency to perform surgery', to 3 was not registered with the operating theatre and this (lack of recognition of Category change) was not known to [Dr C]. The change from Category 4 to Category 3 was not on the electronic system. However [Dr C] says that she made many phone calls that morning explaining the concern about

neck swelling. [Dr C] feels that it should have been known by the theatre staff the urgency of the case as expressed by [Dr C].

[Dr C] arrived at the operating theatre on 24/05/2015 at about 0900 and was told that an orthopaedic case had gone in to the operating theatre first and [Mrs A] would be next. In expectation of this [Mrs A] was wheeled in to the Post-Operative Care Unit (PACU) at 0900, ready for theatre to follow the case in theatre. [Dr C] says that she saw [Mrs A] at that stage and she still had a doppler and was slightly swollen. [Dr C] did not think that she could challenge the theatre order which had already been decided. [Dr C] expected [Mrs A] to be next. [Dr C] left [Mrs A] in the hands of the nursing staff and attended to other on-call duties and was very busy. At 1030 [Dr C] was phoned by the theatre manager and told that there was an urgent laparotomy from ICU. [Dr C] asked if a second theatre could be opened and was told that as advised the day before it was not possible to open a second theatre due to the lack of anaesthesia technicians. [Dr C] phoned [Dr B] to advise him and then continued her busy duties. [Dr C] assumed that [Mrs A] was being monitored. She heard nothing until 1300 when she received a phone call from the ward nurse who had taken Mr A down to visit [Mrs A] to say that [Mrs A] needed to be attended to immediately. The nurse found [Mrs A] in excruciating pain. The doppler was lost and there was a dramatic increase in swelling. It appeared there had been no observations between 0900 and 1300. [Dr C] says that at no time was she informed of [Mrs A's] condition while she was in PACU.

[Dr B] came in to the hospital himself early afternoon because of the significant delay and because [Dr C] had communicated frustration. When he saw [Mrs A] in waiting area before surgery it was immediately obvious that the swelling had extended well beyond the cheek and now involved the neck and [Mrs A] was at risk of compromised airway. At 1430 the second theatre was opened.

[Mrs A] was in theatre at 1530. I am unclear whether the theatre used for [Mrs A] was the acute theatre or the newly opened second theatre.

She had to be anaesthetised by two anaesthetists due to concerns about her airway and an emergency tracheostomy was needed to be done by [Dr B]. The microvascular anastomoses between arterial and venous were revised and heparin infusion started. [Mrs A] went to ICU at 2030. There was purulent blood and fluid in the wound. I have not found the microbiology results for the fluid aspirate or swabs to check which bacteria or multiple bacteriae were growing.

In the early hours of the Sunday morning 25/05/2015 [Dr C] was contacted by the night registrar about [Mrs A] and neck swelling. [Dr C] removed some sutures and some haematoma was removed. [Dr C] was called again at 0400 re increased swelling and haemorrhage, attended, opened the wound and applied pressure to the external carotid artery and returned [Mrs A] to the operating theatre. [Mrs A] required inotropic support and 3 units of blood. The doppler signal had been lost to the flap.

The arterial anastomosis had dehisced (separated). Flow was re-established. Heparin ceased and [Mrs A] returned to ICU.

26/05/2015 The blood supply to the flap was lost and the non-viable, failed, flap was removed. [Dr B] did not accept to put [Mrs A] through any more potentially life-threatening complications.

30/05/2015. An infected seroma of the right neck was washed out. No bacterial swab has been seen by me.

[Mrs A] was discharged from [HVDHB] on 18/06/2015. She had developed a right leg deep vein thrombosis. She had been investigated for pulmonary embolus and that was negative. [Mrs A] was reviewed by respiratory physicians for breathlessness and cough and by [an] ear nose and throat surgeon who confirmed the diagnosis of right sided vocal cord palsy. There is also mention of subglottic stenosis. [Mrs A] had limited mouth opening due to intraoral fibrosis.

In the ACC documentation there is also documentation that [Mrs A] had a likely injury to her right common peroneal nerve and tethering of her flexor hallucis longus muscle/tendon.

[Mrs A] was also noted to be positive for Extended Spectrum Beta Lactamase (ESBL). I presume this followed weeks of broad spectrum antibiotics in the ICU.

There has been mention of right optic nerve injury at the operation 14/09/2010 but [the surgeon] says that was not correct.

[Mrs A] has had a very difficult time as a consequence of the primary diagnosis of right maxillary giant cell tumour in 2010. The surgery to reconstruct the defect has been complicated at every step. [Mrs A] has undergone 3 major free flap (microvascular tissue transfer) operations to try and reconstruct the defect and improve her function. Each of these operations has resulted in one or several significant complications. It is the third of these free flaps, the right free fibula to reconstruct the right maxilla on 20/05/2015 by [Dr B], which has had the major life-threatening interventions and complications which could possibly have been avoided.

[Mrs A] was supposed to have an urgent operation by [Dr C] and [Dr B] on 24/05/2015 for swelling, possible infection, just to wash out the infection, to prevent deterioration of infection. Following a long delay in the operating theatre area, without routine vital signs monitoring, flap checks, personal cares and pain medication, [Mrs A's] condition had deteriorated and she was then taken to the operating theatre for emergency surgery requiring an emergency tracheostomy, revision of arterial and venous anastomoses and time in intensive care. [Mrs A] went on to suffer life-threatening bleeding and failure of the flap reconstruction. As a consequence of this sequence [Mrs A] suffers from a number of ongoing problems including those related to right vocal cord palsy and subglottic stenosis. She has intraoral fibrosis and her neck is not

suitable for a further reconstruction. [Mrs A] has difficulty with activities of daily living and has major psychological problems.

1. The reasonableness of the care provided by Hutt Valley DHB.

Many aspects of [Mrs A's] care have been of an acceptable standard but not all. The failures in some key areas have led to a very poor outcome for this patient. The areas of departures of care from acceptable standard are:

a. Delay in opening the second theatre.
b. Inappropriately long wait for acute surgery on 24 May 2015.
c. The inadequate communications and handovers between nursing teams with respect to [Mrs A's] acute theatre attendance on 24 May 2015.
d. The inadequate process for upgrading the acute theatre booking category from Category 4 to Category 3.
e. The lack of monitoring including flap checks and lack of access to pain medication while waiting for surgery on 24 May 2015.
f. The inadequate policies and procedures in place.

2. The reasonableness of the care provided by [Dr B], including pre and post operative care (Consultant Plastic Surgeon).

The care provided by [Dr B] is satisfactory. [Dr B] has planned this difficult challenging surgery appropriately and he was well aware of the risks and complications. Pre-operatively [Dr B] had explained the possible failure rate. [Mrs A] had been through this type of surgery already and had suffered significant complications so she knew what the possible complications were. [Dr B's] care after surgery is also acceptable. He was available to be contacted by [Dr C] and he was involved over the telephone with the assessment on 22/05/2015 and plan. [Dr B] was going to attend in person when [Mrs A] went to the operating theatre. However, he says he could have trusted [Dr C], senior plastic surgery registrar, to appropriately care for [Mrs A]. [Dr B] was fully aware of the skills of [Dr C]. It is accepted practice for a consultant surgeon to be ready to come in once the patient is due in the operating theatre. [Dr B] chose to come in to investigate the delay in getting [Mrs A] in to the operating theatre. [Dr B] has undertaken each stage of [Mrs A's] complicated surgery for infection, blood supply, bleeding. This has been very urgent surgery particularly when [Mrs A] was bleeding from the external carotid artery.

A comment has been made that [Mrs A] should have had a tracheostomy for the 20/05/2015 surgery. Some surgeons might have provided a tracheostomy as a precaution for this type of operation, but many would not. The surgery is on the upper face and mouth, not the tongue or floor of mouth or pharynx. The neck part of the surgery was for access to the blood vessels. [Mrs A] had not had a tracheostomy for the previous similar operation. It is the surgeons' clinical judgement based on experience of such operations. [Dr B] has a lot of experience of craniofacial and head and neck surgery.

A comment has also been made that a vascular surgeon should have been involved and transfer to [a larger hospital] made because of carotid involvement. I think that this is a misunderstanding. The carotid artery used for anastomoses was the external carotid artery, frequently used by plastic surgeons for head and neck reconstruction. However as the revisional surgery became more complicated the repair was close to the internal or common carotid artery so was very significant. Again [Dr B] and the team do have the surgical skills to deal with this challenging situation of major blood loss. Transfer to [another hospital] where vascular surgeons are present, at the time of haemorrhage, would have been inappropriate and would have caused life-threatening delays.

3. The reasonableness of the care provided by [Dr C], including pre and post-operative care (Senior Plastics Registrar).

The care provided by [Dr C] is satisfactory and of an appropriate standard. I am not aware of [Dr C's] involvement pre-operatively. I have read of [Dr C's] involvement from 20th May and it is of an appropriate standard. [Dr C] has assessed [Mrs A] in person when requested by the ward nurse and made appropriate phone calls with [Dr B]. She organized the CT scan and discussed it with [Dr B]. The appropriate plan was made and [Dr C] delegated the task of booking [Mrs A] in to the operating theatre to the night registrar. This is acceptable practice. [Dr C] says that she requested that [Mrs A's] acute theatre booking category be changed from 4 to 3. [Dr C] has assumed that that message was received, and she did not have reason to query it. [Dr C] was concerned that [Mrs A] was not taken in to theatre first in the morning as planned but accepted that she would be second, a common occurrence despite plans. [Dr C] had checked [Mrs A] when she was first in holding bay/PACU at about 0900 and then proceeded with her busy day on call. [Dr C] communicated with [Dr B] about her concerns about delays during the morning.

[Dr C] attended and dealt with challenging problems for [Mrs A] over the subsequent few days.

4. The adequacy of precautions taken to prevent infection.

The operations early in 2015 were for infection of the flap/bone used to reconstruct the right maxilla. I was not able to find microbiology reports for the bacteria causing the infection. Often chronic infections do not have any bacterial growth. Waiting for several months until May 2015 was appropriate. [Mrs A] received intravenous antibiotics prior to commencement of the major reconstructive surgery on 20th May. I have not been able to identify the name of the antibiotic or whether subsequent doses were given.

When [Mrs A] returned to theatre with the problems she was washed out, including with hydrogen peroxide. Again, I have not been able to identify bacteria grown or antibiotics given.

Infectious disease service, who check which antibiotic are appropriate were involved.

5. The appropriateness of the decision not to open a second theatre earlier in the day on 24 May 2015.

This is not acceptable.

[Mrs A] was a Category 3 urgent acute patient. She had been brought down from the ward to the operating theatre area with the expectation of having the urgent operation in a timely fashion. At that stage the plan to get her in to the operating theatre first thing in the morning was appropriate. If [Mrs A] was then going to be second and wait less than an hour or so for the one acute operating theatre it would have been acceptable for her to wait in the operating theatre area and for the second operating theatre not to be opened. If the theatre team had known that she was Category 3 they should have opened the second operating theatre. My opinion is that they should have been aware that she was Category 3 by revised booking and by discussion. By keeping [Mrs A] in the operating theatre area first thing in the morning rather than returning her to the ward supports that the operating theatre team knew that she was urgent and she needed to proceed in to the operating theatre.

I understand that the two other patients were also very urgent but that just emphasizes that [Mrs A] should have been treated as a Category 3 patient and triggered opening of the second operating theatre during the morning, rather than waiting until mid afternoon.

If [Mrs A's] acute operating theatre booking was indeed Category 3, this is a severe departure from acceptable standard of care. This delay in opening the second operating theatre for a Category 3 patient who was deteriorating is a major departure from acceptable practice and would be viewed as such by surgical peers.

If [Mrs A's] acute operating theatre booking was Category 4, this is a moderate departure from acceptable standard of care and would be viewed as such by surgical peers.

I have noted that [Mrs A's] acute operating theatre booking Category whether 4 or 3, should be taken in the context of a patient waiting in the operating theatre area for several hours (> one hour) and deteriorating while she waited.

6. The appropriateness of the long wait for surgery on 24 May 2015.

This is not acceptable.

[Mrs A] was brought down to the operating theatre first thing in the morning at about 0900. The expectation of [Mrs A], [Dr C], [Dr B] and the ward staff was that [Mrs A] would proceed to the operating theatre within a short period of time and have her operation. In fact, she waited about 6 hours in the operating theatre holding area/PACU without being monitored, without flap checks, without personal cares and without pain relief.

This is a major departure from the standard of care expected and would be viewed as such by peers.

When a patient is called to the operating theatre, there is the expectation that the operating theatre is ready, and the patient called will proceed to surgery after a short period of time. It is understandable that more urgent cases can arise within a short period of time and then the patient called will not proceed directly to the operating theatre. The system of Categories for acute operating theatre booking should allow for this. In such a circumstance the surgical team, ward staff, and operating theatre staff should be advised and the patient should be returned to the ward or held for a short time expecting to proceed in to the operating theatre within an hour or so. The expectation is that a patient who is kept in the operating theatre area would expect to be treated as well as a patient in the ward ie have recordings done, special requirements such as flap monitoring, personal cares and pain and other medication. It is not acceptable for a patient to be kept in the operating theatre area/holding bay/transit/PACU for more than a short period of time. Arrangements should have been made to return [Mrs A] to the ward where she would continue her usual monitoring and cares while she waited. I consider that holding a waiting patient for up to an hour or so is acceptable but longer than that is very unlikely to be acceptable due to multiple risks for the patient.

I have read the document 'Expectations of Care in the Surgical Admission Unit — Issue date March 2019'. This new policy, amongst other things, outlines criteria for admission to SAU/Theatre Holding Bay. After hours if there is a delay of more than 20 minutes the patient will be returned to the ward. The decision will be made and followed through by the Theatre Coordinator. This is clear advice that a patient is not to be held in the theatre holding Bay or PACU for more than 20 minutes. This is an appropriate policy.

There is also the new policy 'Expectations of Care in the Post-Anaesthetic Care Unit — Issue date 30/09/2015'. Item 5: The PACU will not be used to manage pre-op patients when the Surgical Admission Unit is unmanned. I interpret this as meaning that someone like [Mrs A] will no longer be put in the PACU while waiting for theatre. These two policies establish clear policies which prevent someone waiting a long time in Holding Bay/PACU as [Mrs A] did.

7. The adequacy of communications and handover between teams on 24 May 2015.

With respect to the transfer from the plastics ward to theatre on the morning of 24/05/2015 I have read that RN E took [Mrs A] to the operating theatre and no other detail is provided. [The Chief Executive] states in his statement 8c, page 5/77 that there was no written policy for handover of patients from ward to theatre holding area prior to May 2015.

This handover was acceptable standard for that time, May 2015.

The policy 'Patient Transfer and Escort — Issue Date 1997; Re-issue date October 2014' was active in May 2015. It includes patient transfers within [HVDHB]. Amongst other relevant items: Transferring patients must be accompanied by documentation sufficient to support a seamless and safe continuance of health care provision. This may include, but is not limited to a nursing transfer form, medication chart, summary of care received, medical image reports, laboratory results and care needs. This might not have been applied to the transfer, ward to operating theatre.

This policy has been revised 'Patient Transfer and Escort — Issue date Aug 2017': Handover is emphasized. A transit nurse may be used.

I have read [RN D's] commentary in Item 12. [RN D] was the sole registered nurse in the PACU and she had prescribed duties. [Mrs A] was placed in the 2nd bay in PACU by the Theatre Coordinator prior to surgery to wait. [Mrs A's] care was not handed over to [RN D]. [RN D] was not given any instructions re observations or monitoring. [RN D] believed that [Mrs A's] care remained under theatre staff and she did not seek information. PACU staff are responsible for patients' care post-operatively. [RN D] did attend to [Mrs A] at times during her stay in PACU.

I consider [RN D's] care to be a minor departure from acceptable practice. I consider that [RN D] should have noticed that [Mrs A] was present in her area for a long time, more than an hour, and organized for her to be monitored preferably by return to the ward. I think [RN D] should have discussed this with the Theatre Coordinator. I find it hard to accept that [RN D] was nearby, although with other duties, and not taking the initiative to make sure that [Mrs A] was being cared for appropriately.

The new policy 'Expectations of Care in the Post-Anaesthetic Care Unit — Issued 30/09/2015' item 5: The PACU will not be used to manage pre-operative patients when the Surgical Admissions Unit is unmanned (eg: after hours). This is now clearly stated so parking a patient in a corner of PACU unmonitored will not now be allowed.

8. The adequacy of the process for upgrading the category for surgery

This is not clear. I have not received enough information about how the Acute booking Category is changed.

9. The adequacy of monitoring and access to pain medication while waiting for surgery on 24 May 2015.

This is not acceptable. [Mrs A] should have been monitored and pain medication given. Her care should have been handed over to a registered nurse who continued monitoring of vital signs etc. This is a major departure from accepted practice and would be viewed as such by peers.

10. The adequacy of policies and procedures in place at Hutt Valley DHB.

The policies were not adequate but it is times like this that inform us of the need for such policies. I suspect that the policies had not been challenged by a difficult

situation such as [Mrs A]. A number of policies have been changed or added since this event.

Included in the changes are the Theatre Charter December 2016 and the 3DHB Code of Conduct 2015. These brief documents should be the foundation of good ethical behavior.

11. The adequacy of care in July 2015.

Some aspects of [Mrs A's] care were not acceptable as outlined above. The inadequate care has occurred in relation to the long wait in the theatre waiting area/PACU without monitoring and care. This patient was neglected for most of the 6 hours she spent in the PACU.

Other aspects of [Mrs A's] care in the ward, at operations, by surgeons, anaesthetists, and ICU is usual and acceptable.

I hope that this report covers all aspects required. I am happy to provide further advice as requested.

Sally Langley
Dr Sally Langley
Plastic Surgeon"

Appendix B: Independent advice to the Commissioner

The following expert advice was obtained from RN Rosalind Jackson:

"Thank you for the opportunity to provide opinion to the Commissioner on this case, number **C17HDC01248**. I confirm that I have read and agree to follow the Commissioner's Guidelines for Independent Advisors. By reviewing this case I confirm that I have identified no conflict of interest.

My name is Rosalind Clare Jackson and I am a New Zealand trained Registered Nurse (NZRN comp, reg 120875) and hold a Master's Degree in Health Science. Since 2006 I have worked full time as a Nurse Leader (Anaesthesia and Surgical Services) with responsibility and accountability for operational and professional leadership to nursing in the surgical setting in a larger secondary hospital. In November 2017 I was seconded to programme manager role responsible for organisational development of our staff engagement and culture programme. In March 2018 I was confirmed permanently into that role. More recently, in February 2019 I was appointed into the permanent role as Associate Director of Nursing.

Other training that I have completed that is relevant to the role of an Independent Advisor includes,

— **Institute for Healthcare Improvement (IHI)** — Patient Safety Programme

— **New Zealand Incident Management System** — Root Cause Analysis Training (Clinical event/investigation review)

— **IHI Open School (completed)** — six modules on quality improvement methodology

The Commissioner is seeking my opinion on the care provided by Hutt Valley District Health Board (DHB) to [Mrs A] in May and July 2015.

1.0 Background

In 2010 [Mrs A] had surgery at Hutt Valley DHB to remove her right upper jaw due to a giant cell tumour. On 20 May 2015 [Dr B] performed microvascular free flap surgery to reconstruct [Mrs A's] right cheek bone.

Post operatively, [Mrs A] developed an abscess and further surgery was scheduled first for the following morning (Sunday 24 May 2015). The surgery was delayed due to two other surgeries taking priority in theatre and a second theatre was not opened at the time. [Mrs A] was not returned to the ward or monitored during the approximately six hour wait in PACU. There was a lack of clarity about who was responsible for pre-operative care. Her husband was not informed of the delay. During this time she experienced pain, the free-flap was compromised and her cheek and neck became progressively swollen requiring her to have an emergency tracheostomy. Further surgery was required on 25, 26 and 30 May 2015.

The Commissioner is seeking my comment on:

— The reasonableness of the care provided by Hutt Valley DHB

— The reasonableness of the care provided by [RN E] (plastics unit nurse)

— The reasonableness of the care provided by [RN F] (theatre coordinator)

— The reasonableness of the care provided by [RN D] (PACU nurse)

— The adequacy of policies and procedures in place at Hutt Valley DHB

— The appropriateness of the decision not to open a second theatre earlier in the day on 24 May 2015.

— The appropriateness of the long wait for surgery on 24 May 2015

— The adequacy of communications and handover between teams on 24 May 2015

— The adequacy of the process for upgrading the category for surgery

— The adequacy of monitoring and access to pain medication whilst waiting for surgery on 24 May 2015

— The adequacy of care in July 2015.

For each question I will consider and advise,

— What is the standard of care/accepted practice?

— If there has been a departure from the standard of care or accepted practice, how significant a departure do I consider this to be (mild, moderate or severe departure)?

— How would it be viewed by my peers?

— Recommendations for improvement that may help to prevent a similar occurrence in the future.

In forming my opinion on the matters requested I have reviewed the following documents provided by the Commissioner,

— Letter of complaint to Hutt Valley DHB [date]

— Referral of complaint to HDC from Advocacy Services dated […]

— Letter from [Dr B] dated 24 June 2015

— Letter from [plastic surgeon] dated 2 July 2015

— [Psychologist report] dated 22 July 2016

— Hutt Valley DHB's response dated 14 September 2017 including:

  - Patient care review of 22 June 2015
  - Clinical records from Hutt Valley DHB

— Clinical records from ACC received 22 June 2018

— Radiology reports from Hutt Valley DHB, received 7 August 2018

— Hutt Valley DHB's response dated 4 September 2018 including:

  - Response from [Dr C] dated 28 August 2018
  - Summary of care from Plastics unit for 22–24 May 2015
  - Meeting notes [RN F] (theatre coordinator) and Clinical Nurse Manager Operating Theatres
  - Letter from [Dr B] (undated)
  - Response letter from [plastic surgeon] dated 12 June 2015
  - Management of Acute Surgery policy issues August 2012
  - Updated version, Management of Acute Surgery policy issues January 2018
  - Weekend first acute surgical policy created February 2014, re-issued with no changes in August 2016
  - New policy, Expectations of Care in the Post Anaesthetic Care Unit policy 30 September 2015
  - Medicines Management Policy issued July 2014
  - CD of photos
  - Clinical records from Hutt Valley DHB received 7 September 2018
  - Response from [anaesthetist] dated 16 November 2018
  - Response from [RN D] dated 12 December 2018
  - Response from [Dr B] dated 15 January 2019

Additional documents were requested and supplied by Hutt Valley DHB. These documents pertained enquired about current policy protocol or guideline on clinical communication/handover standards and interdepartmental patient transfers.

— 5 Steps to Safer Surgery, November 2017

— Expectations of Care in SAU, March 2019

— DSU Policy, March 2019

— Theatre Charter, December 2016

— Transfer and escort policy, Re-issue October 2014

— Transfer and Escort Policy Updated, August 2017

2.0 The reasonableness of the care provided by Hutt Valley DHB

Whilst this has been asked as a stand-alone question, it is preferred to reference a response to this in the context of the specific questions 2–11.

Other than the specific delay to surgery on 24th May 2015 the care provided by Hutt Valley DHB appears to be reasonable. Overall, the standard of nursing practice is comparable to expected standards of practice at other DHBs. Where there are opportunities to improve these are noted.

Throughout the documentation provided, it is acknowledged that Hutt Valley DHB have accepted responsibility that on 24th May 2015, [Mrs A's] delayed access to acute surgery resulted in progressive deteriorating of her microvascular flap/graft which caused avoidable complications, an adverse outcome and significant additional theatre time, i.e.

'*lapse in care … not up to the standard of care we expect for patients in our care*'
(Letter to H&DC from HVDHB September 2018)

3.0 The reasonableness of the care provided by the Ward and Perioperative Nursing staff

To inform this section, it is appropriate to identify standards of practice that inform registered nurse practice generally and in the perioperative context. That is,

— Nursing Council of New Zealand, Code of Conduct — a set of standards defined by the Council describing the behaviour or conduct that nurses are expected to uphold. The code of conduct is a 'yard stick for evaluation of the conduct of a nurse'

— Perioperative Standards and Recommended Practices (2013, updated 2015) for inpatient and ambulatory settings. Association of perioperative Registered Nurse (AORN) standards that inform registered nurse practice in the perioperative facility.

Whilst it is not intended to explore these standards in full, there are specific reference points that are relevant to this case. That is,

The Nursing Council Code of conduct

Principle 1 (of 8) **Respect the dignity and individuality of health consumers**

— 1.1 Respect the dignity of health consumers and treat them with kindness and consideration. Identify yourself and your role in their care.

Principle 6 (of 8) **Work Respectfully with Colleagues to best meet Health Consumer needs**.

— 6.3 Communicate clearly, effectively, respectfully and promptly with other nurses and health care professionals caring for the health consumer and when referring or transferring care to another health professional or service provider.

Principle 4 (of 8) **Maintain health consumer trust by providing safe and competent care**

— 4.1 Use appropriate care and skill when assessing the health needs of health consumers, planning, implementing and evaluating their care.

Escalate concerns — 'The Registered Nurse has an ethical obligation to raise concerns about issues, wrongdoing or risks you may have witnessed, observed or been made aware of within the practice setting that could endanger health consumers or others. Put the interests of health consumers first. If you are unsure — seek advice.'

Perioperative Standards and Recommended Practices (AORN)

'As recipients of care, patients are entitled to privacy, confidentiality, personal dignity, and quality health services. The delivery of patient-focused care is guided by ethical, legal, and moral principles. These inherent principles serve as a foundation for perioperative nursing practice and are paramount in achieving optimal patient outcomes.'
(Guidelines for Perioperative Practice, 2015 © AORN)

Recommended Practices for Transfer of Patient Care Information — Provides guidance to perioperative nurses for safe transfer of patient information across all phases of care including the preoperative holding facility, i.e. *'In order to be proactive in addressing patient safety concerns, transfer of patient information processes should be incorporated into the overall perioperative plan of care'.*

Health Quality & Safety Commission of New Zealand (HQSC)

In addition to professional standards of practice there are quality and patient safety elements that are in play. HQSC report an established evidence base that informs practice in the perioperative environment. That is,

'teamwork and communication within a surgical team is an essential component of an effective operating theatre, given that the perioperative department is complex, involving multiple teams of health professionals and transitions of care. There is increasing evidence that poor teamwork and communication is associated with negative patient outcomes, including major complications or death'.

… international observations are consistent with findings in New Zealand. Communication breakdowns may lead to team members being or feeling uninformed or misinformed.'

Health Quality & Safety Commission of New Zealand. **Final report: Improving teamwork and communication within surgical teams (3.8 MB, pdf)**

Determining Culpability of Unsafe Acts

Frameworks such as this example are helpful if reflecting on, in this case, potential departure from accepted standards of registered nurse practice and other systems and processes that may be in effect.

3.1 **The reasonableness of the care provided by [RN E] (registered nurse)**

Assessment of [RN E's] actions on 24th May 2015 have been divided into the following areas,

Handover of care to OT nurse

AP1 Patient Transfer and Escort policy (October 2014–2016) is relevant page 5(b). [RN E's] clinical record documentation and statement does not evidence that a full verbal handover using ISBAR was provided to the Perioperative receiving nurse. Therefore this is a departure from HVDHB's policy. However, [RN E] expected that [Mrs A] was first on the theatre list and would not be waiting for any period of time that required a more fulsome handover. The most relevant monitoring for [Mrs A] was that she would require hourly 'flap checks'. This was likely not handed over as there was already an expectation that [Mrs A] would be in theatre within the hour where her care would change. Furthermore, in her statement (August 2018) Registrar [Dr C] states that she saw [Mrs A] in recovery soon after her arrival and there was still 'doppler in the flap' which helps to establish a baseline and time when the flap was last checked.

In summary, whilst it is not ideal that a full handover was not provided, it is not unreasonable given that [RN E] was not to know, nor should she be expected to know that other cases were taking priority to the order of the acute list and that [Mrs A's] waiting time for surgery was prolonged. The ward part of the Perioperative Check List was completed.

Contacting PACU when [Mr A] arrived

At approximately 1300 hrs when [Mr A] arrived to visit his wife, both [RN E] and [Mr A] expected [Mrs A's] surgery to have been completed. It is accepted standard of care that [RN E] would have enquired with theatre/PACU for an update which did occur followed by [RN E] escorting [Mr A] to theatre.

Attending PACU with [Mr A]

It is not clear whether it is usual for the ward staff to escort a family member from the ward to PACU however on this occasion attending PACU was fortuitous as it provided [RN E] the opportunity to assess [Mrs A] and take appropriate action.

Obtaining pain relief for [Mrs A]

[RN E] accessed pain relief at 1320 hrs and contacted the registrar for urgent review of [Mrs A]. [RN E] completed a reportable event form the following day. These actions are entirely appropriate. At that time, access to controlled drugs was via the theatre staff (not PACU) so it would have taken time to access the keys, check, prepare and administer the medication. If pain is not managed and increases in severity, the impact of any delay to administration will be amplified. Therefore, the issue is poor assessment and management of pain, not the process of accessing controlled drugs in theatre. A change to carry analgesia also in PACU is noted which streamlines the process however does not eliminate delays associated with preparation of controlled drugs.

Contacting the registrar to urgently assess [Mrs A]

It is evident that immediate escalation of concern to the registrar was entirely appropriate.

In summary, [RN E's] standard of care demonstrated accepted practice. Not fully adhering to the handover requirements as set out in the transfer and escort policy is the only minor departure however likely context driven.

3.2 The reasonableness of the care provided by [RN F] (theatre coordinator)

Handover of care

At 0945 hrs, [Mrs A] was transferred to the perioperative department and [RN F] accepted handover of care from [RN E]. At that time [RN F] was also of the understanding that [Mrs A] would progress to theatre promptly. Therefore similar to [RN E], not fully adhering to the handover requirements as set out in the transfer and escort policy is a **minor** departure from accepted standard however context driven.

At this time there are different versions of events between [RN F] and Registrar [Dr C]. Both agree that a conversation between them occurred however some detail differs, i.e.

[Dr C] (August 2018) states that at 1030 hours (45 minutes after [Mrs A] arrived in theatre) a conversation occurred between herself and [RN F] that alerted the Registrar to a more urgent case that resulted in further delay to [Mrs A's] surgery. The registrar enquired as to whether a second theatre could be opened and was advised that this was not possible due to a lack of available anaesthetic technicians. [Dr C] states she heard nothing further until contacted by [RN E] at approximately 1300 hrs. Over this time, the registrar assumed that [Mrs A] was being cared for by PACU staff.

[RN F] (July 2018) states that she advised the Registrar that a more urgent case had taken priority over [Mrs A] with a new estimated time to theatre of midday. As another case again took priority [RN F] states again that the Registrar was informed. [RN F] assumed that the registrar would ask that [Mrs A] be returned to the ward or convey information that would change the surgical category.

On balance, whilst [RN F] expected the Registrar to provide further assessment of [Mrs A's] category, the Registrar expected that [Mrs A] was being cared for in PACU and that she would have been notified of any change of condition. This is not an unreasonable assumption by the Registrar as the prevailing model of care is that patients are cared for by a named RN, RM or EN who will liaise with the responsible medical team as required, who are not typically always located where the patient is.

Furthermore, regardless of the differences in accounts between [RN F] and the Registrar, what is consistent is that approximately mid-morning it was evident that the order of surgery had changed resulting in delay to [Mrs A's] surgery time.

[RN F] stated that when further delay was evident she checked on [Mrs A], advised PACU and that pain relief was organised at this time. [RN D] states that she was advised that there would be further delay however there is no evidence between either accounts that a more fulsome handover of care occurred.

Regarding provision of pain relief, examination of the medication chart and perioperative documentation for 24th May demonstrates IV Morphine administered by [RN D] and [RN E] at 1320 hrs. Further pain relief was administered intraoperatively. Therefore if pain relief was 'organised' at the time the first category 1 patient was evident this has not been recorded. Alternatively the pain relief referred to by [RN F] was that administered at 1320 hrs. [Mrs A] does not recall pain relief being administered by theatre staff at times other than that administered at 1320 hrs. On balance it appears unlikely that [Mrs A] received pain relief other than that recorded. This discrepancy in [RN F's] account may suggest a loss of situational awareness about the event or passage of time between May 2015 and submitting her statement in July 2018.

[RN F] states that on reflection, the intention to keep [Mrs A] in PACU was to save her from unnecessary transfers. This implies that a deliberate decision was made not to transfer [Mrs A] back to the ward and that her stay in PACU could be extended. Therefore, [RN F] had a responsibility to check that [Mrs A] was comfortable and being cared for throughout this time.

Responsibilities of the Theatre Coordinator

[RN F] was the responsible coordinator in theatre that day and received handover from [RN E]. Stated in the letter of response to H&DC dated 14 September 2017 [the Chief Executive] states that there was '… a lack of clarity about who was responsible for pre-operative care whilst [Mrs A] was waiting', however concedes that '… the theatre staff were the only people with the knowledge in real time to be able to further inform everyone, including [Mrs A], the surgical team, the plastic surgery ward and [Mr A] of what was happening'.

The Management of Acute Acute Surgery (August 2012) states the responsibility of the coordinator to ensure consultation between parties takes place before any case take precedence over another. Whilst this did occur, together with HVDHB's statement that the theatre team were the people with all information in real time and whilst [Mrs A] was retained in the theatre facility and because [RN F] had accepted 'handover' from [RN E], [RN F] had the responsibility to both co-ordinate the variables that impacted on her progress to theatre and ensure appropriate oversight of [Mrs A's] care.

On balance, when delays to theatre were known and by not providing an adequate handover to [RN D], [RN F] is in breach of the New Zealand Code of Conduct for Registered Nurses Principle 6.3 *Communicate clearly, effectively, respectfully and promptly with other nurses and health care professionals caring for the health consumer and when referring or transferring care to another health professional or service provider.*

This breach would be regarded by my peers as a departure from accepted standards of care. However, there was context to consider. That is, the theatre coordinator also appears to have been included in the theatre team numbers and therefore engaged in

other surgical activities as well as list co-ordination duties. [RN F] was not in a position to both directly oversee [Mrs A's] care and work in the operating theatre. Therefore, [RN F] should undoubtedly have been more proactive to ensure that [RN D] had accepted handover of [Mrs A's] care.

Reflecting on the 'Determining Culpability of Unsafe Acts' model, competing demands of the coordinator role suggests that [RN F] did not knowingly violate safe operating procedure. In addition, because at the time it was usual practice to hold patients in PACU awaiting theatre, another RN coordinator may have acted in a similar way. Therefore whilst [RN F] did make an error by not adequately handing over to [RN D] which is in breach of NZNC code of conduct principle 6, the context of the event places this departure from accepted standard as **minor**, related to a systems induced error.

3.3 The reasonableness of the care provided by [RN D] (PACU nurse)

At approximately 0945 hrs, when [Mrs A] was placed in the PACU bed space, [RN D] did not seek further information about [Mrs A] as there was a prevailing practice of patients waiting in PACU. [RN D] was also of the understanding that [Mrs A] would progress to theatre promptly.

Therefore similar to [RN E] and [RN F], not fully adhering to the handover requirements at this time, as set out in the transfer and escort policy is a **minor** departure from accepted standard however context driven.

However by approximately 1030, it was evident that [Mrs A] would be further delayed and that [RN D] knew this. It has been established that [RN F] had a responsibility to ensure that a handover to [RN D] occurred as she would not be able to provide care herself as she was part of the theatre team. However, it would be expected practice that [RN D] would have proactively sought to understand more about the patient who was residing in PACU.

[RN D] agrees that she did not seek information about [Mrs A]. Therefore between 1030 and approximately 1300 hrs (2½ hrs) and referring to [RN D's] statement of December 2018 it appears that [RN D],

— did not introduce herself to [Mrs A]

— advise [Mrs A] about how she might ask for assistance (no evidence that she had access to a call bell or similar)

— remained fixed in her assumption that [Mrs A] was under the care of another member of staff even though that member of staff could not have attended [Mrs A] because she was in theatre

— remained fixed in her assumption that [Mrs A's] care needs would not change in the time she was waiting in PACU and that if this did occur [RN D] expected to be informed

— remained fixed in her belief that she should have been provided a handover by someone else and because this had not happened believed she had no further responsibility for a patient who was present in her immediate work environment

— did not make her own enquiries about changes to the acute list that resulting in prolonged wait time for a patient in her immediate work area

— assumed that [Mrs A] 'resting with her eyes closed' meant that she was comfortable

— assumed, without assessment that [Mrs A] would have had difficulty talking therefore did not initiate conversation with her

— believed that she was providing care by remotely 'keeping an eye' on [Mrs A] however failed to address her directly

— continued to prioritise completing the unit staff roster over 'noticing' that a patient in her immediate work environment may need care

— assumed that the theatre coordinator would check on [Mrs A] when [RN D] took her lunch break.

[RN D] states that she did provide care to [Mrs A] when she assisted her to the toilet (1438 hrs), helped to administer pain relief (1325 hrs) and complete a set of vital signs (1320 hrs). This is correct however occurred after [RN E] brought [Mr A] to PACU and when it became evident that her condition had deteriorated.

In point 16 of [RN D's] statement she stated that she was not trained to do pre-operatively care and goes on to describe elements of the more intensive nature of PACU nursing care. A registered nurse skilled in post anaesthetic care possesses transferable skills to patient care of less intensity. Therefore this statement appears to be a poor defence to not providing any care during this time period. Specifically,

— [RN D] did not know nor seek to find out what care may have been required so was not in a position to know what aspects of care she was not 'trained for'

— It seems logical that in the PACU environment, where patients can be held for periods of time recovering from surgery that flap checks may need to occur prior to transfer to the ward to provide a baseline

— [RN D] could have phoned the ward RN and sought a verbal handover

— [RN D] could have asked [Mrs A] what she needed.

[RN D] comments that prior to the category one patient being transferred to PACU, there was no other (post-operative) patient that required her care. Instead [RN D] was completing the unit roster. It is not appropriate that an administrative task take priority over patient care.

Overall, what [Mrs A] required was someone to advocate for her. To notice that her wait was becoming prolonged, to ask after her comfort, liaise directly with the theatre

coordinator or ward staff about the appropriate options. On this occasion, [RN D's] practice lacked accountability and compassion.

In point 38 of her statement, [RN D] provides the example that in her current place of work, PACU staff are not responsible for the pre-operative care of a patient waiting in PACU prior to going to surgery. However, [RN D] fails to explain what arrangements are in place under these circumstances which appears to reinforce her belief that she was not responsible for [Mrs A] either explicitly or implicitly.

There is no documentation in [Mrs A's] clinical record between 0945 and her ICU admission after 2130 hours. There is one entry on the PACU record and evidence of one dose of pain relief at 1320 hrs, nearly four hours after [Mrs A's] admission to theatre facility.

On balance, after delays to theatre were known [RN D] had a responsibility to proactively reassess the care arrangements for [Mrs A]. This was her responsibility because [Mrs A] was in [RN D's] unit. By not seeking further information about [Mrs A's] care, it is my advice that [RN D's] standard of practice is in breach of the following principles of the New Zealand Code of Conduct for Registered Nurses:

Principle 1 (of 8) **Respect the dignity and individuality of health consumers**

— 1.1 Respect the dignity of health consumers and treat them with kindness and consideration. Identify yourself and your role in their care.

Principle 6 (of 8) **Work Respectfully with Colleagues to best meet Health Consumer needs.**

— 6.3 Communicate clearly, effectively, respectfully and promptly with other nurses and health care professionals caring for the health consumer and when referring or transferring care to another health professional or service provider.

Principle 4 (of 8) **Maintain health consumer trust by providing safe and competent care**

— 4.1 Use appropriate care and skill when assessing the health needs of health consumers, planning, implementing and evaluating their care.

Escalate concerns — The Registered Nurse has an ethical obligation to raise concerns about issues, wrongdoing or risks you may have witnessed, observed or been made aware of within the practice setting that could endanger health consumers or others. Put the interests of health consumers first. If you are unsure — seek advice.

This breach would be regarded by my peers as a **severe** departure from accepted standards of care. However, there is some context to consider. [RN D's] expectations of what would occur for [Mrs A] was influenced by the usual practice of patients waiting in PACU prior to transfer to theatre where brief, if any, handovers occurred. In addition [RN D] felt compelled to complete the staff roster during clinical 'down time' rather than being provided other allocated non-clinical time. The impact of the

expectation that the roster be completed during clinical 'down time' may have reinforced to [RN D] that the roster would take priority.

Reflecting on the 'Determining Culpability of Unsafe Acts' model, the competing demands of [RN D] when it was not uncommon for patients to wait in PACU for surgery and her responsibility to complete the unit roster suggests that [RN D] did not knowingly violate safe operating procedure. However, not all PACU RNs who might have been rostered that day hold the responsibility for completing the unit roster and an RN in PACU with no post-operative patients to care for would be reasonably expected to have been more proactive in caring for [Mrs A]. Therefore the mitigating factor for [RN D] may be her compulsion to complete the unit roster. Therefore the context of the event reduces this departure from accepted standard to **moderate** and related to 'possible negligent error'.

If this has not already occurred, the practice of completing the roster during clinical time (especially in the context of the Weekend First Acute Surgical process (February 2016) whose purpose is to reduce underutilised theatre time) should be addressed. The unit roster can be delegated however remains the responsibility of the Clinical Nurse Manager. Non clinical administration time should be allocated to clinical staff if delegated this task.

4.0 The adequacy of policies and procedures in place at Hutt Valley DHB

In May 2015, the relevant policies in play include,

- **Management of Acute Acute Surgery (August 2012).** Whilst responsibilities between teams and role of coordinator to facilitate communication is evident it did not account for the out of hours 'silent' practice of holding patients in PACU whilst they waited for theatre.
- **Management of Acute Surgery (January 2018).** The responsibilities of the coordinator are carried through this updated policy however is not explicit about the process of how acute patients proceed to theatre. In addition, the policy could be more explicit to require patient category reassessment if surgical priority changes. This would be the responsibility of the medical team and ensure that the surgical category was current. (Note, include Anaesthetic Technician into the list of staff that need to be taken into account when considering a second theatre).
- **Expectations of Care in PACU (September 2015)** is now more explicit that PACU will not be used to manage pre-operative patients when the Surgical Admissions Unit is not staffed. Whilst this is a clear recommendation there is no guidance about how acute patients should proceed to theatre.
- **Expectations of Care in Surgical Admission Unit (March 2019)** states that, '… after Hours: If there is to be a delay of more than 20 minutes for Surgery the patient will be returned to the ward unless a staff member has been arranged to stay with the patient. This decision will be made and followed through by the Theatre Coordinator.'

In summary, in May 2015 relevant perioperative policies were in evidence however did not adequately provide staff guidance on required standards when holding preoperative patients in PACU after hours. Since then, whilst changes have been made to the policies, it **is recommended** that all four policies referenced are reviewed to ensure alignment of the after-hours process when patients **are** transferred to theatre. This is because the current wording is clear about what not to do however need to be consistent and explicit about the agreed process between the ward and theatre complex out of hours when transferring and handing over patients. This recommendation is supported by AORN standards that require safe transfer of care and patient information across all phases of care which includes the transition of patients between their ward/inpatient bed and perioperative facility.

Technically, any policy that inadequately guides staff practice is a departure from expected standard. However, Hutt Valley DHB's efforts to update their policies, albeit with further improvements to be made, demonstrate recognition of opportunities for improvement expected of a learning organisation. Therefore, this departure from accepted standard would be considered **minor.**

5.0 The appropriateness of the decision not to open a second theatre earlier in the day on 24 May 2015.

The decision to open a second theatre is the outcome of assessment and reassessment of acute cases. On this occasion, whilst the decision not to open a second theatre followed understood processes, in hindsight it was the wrong decision because it was made with incorrect information about [Mrs A's] booking category and without reassessment. I note that,

— The statement from [the anaesthetist] (16 November 2018) responds to the care and treatment provided to [Mrs A] however does not make any reference to communication, assessment, discussion, co-ordination about the acute workload that day. Therefore it is unclear what part the Anaesthetist played, or not, in review of the acute list that day.

— Whilst the theatre coordinator states that the surgical team did not reassess [Mrs A], she was in their facility therefore the theatre coordinator was responsible to facilitate care and/or request reassessment of [Mrs A's] condition. The outcome of the assessment then presents options of reprioritising operating order, returning [Mrs A] to the ward or opening a second theatre.

Once [Mrs A's] deteriorating condition was evident, there appears to have been a lack of urgency to mobilise a second theatre.

In summary, whilst there is a process in place to open a second theatre this decision would be made after reassessment which was not achieved for [Mrs A]. Instead, the theatre team maintained the impression that [Mrs A] remained a category 4. Whilst this error in initial category (entered at 0622 hrs) is acknowledged, the impact of this was that [Mrs A] had less capacity to wait.

Consequently, at approximately 1300 hours, when Registrar [Dr C] attended [Mrs A] there was a loss of Doppler and significant facial swelling. However, the second theatre was not 'opened' until 1430 hours with surgery commencing at 1500 hours. Therefore a further 2 hours passed before [Mrs A's] surgery commenced. During this time she would likely have been a category 1 patient, i.e. Life (or limb) threatening condition requiring immediate surgery.

[RN F] states that the afternoon shift came on which enabled them to open the second theatre whilst the first theatre continued a case. I suggest this may be common practice and not specific to [Mrs A's] case and not as a result of [Mrs A's] worsening condition.

On balance, once [Mrs A's] deterioration was identified, more effort should have been evident to mobilise a second theatre, not only to wait until the afternoon theatre team arrived at work. Further delay in surgery time for [Mrs A], when the extent of her deterioration was emergent would be considered a potentially severe departure from accepted standards.

When reviewing appendix nine of the supplied documentation 'Weekend First Acute Surgical' policy I note the description of the model of provision of an acute theatre, i.e. *'during the weekend period, theatre can often start after 0900 hours causing a significant acute surgical load build up'.* Whilst the process to nominate a *'straight forward case prior to the start of business whilst planning for the day occurs'* is helpful, the process acknowledges the backlog of acute surgery that can build up after hours. Whilst single acute theatre availability at weekends has been the dominant model in provincial secondary hospitals, many are now grappling with the growing acute workload and actively working towards scheduling a second acute theatre at known peak times/days. Therefore whilst this policy is helpful it is likely effective in the short term.

It is recommended that HVDHB is explicit about forward workload planning and how they are planning to resource/schedule a second acute theatre.

6.0 The appropriateness of the long wait for surgery on 24 May 2015

As per information from the theatre coordinator and [RN D], it appears that out of hours, a patient waiting in PACU bed space 2 for theatre was not unusual. In addition this wait time appears to include inadequate handover i.e. *'did not usually give handover'* to PACU staff present. What is not clear is how long patients waited. In this case, prolonged period of waiting without care resulted in an adverse outcome and it is logical to suggest that Hutt Valley DHB has been carrying a risk to patient care for some time.

It has been established that at approximately 1030 hrs the theatre coordinator, registrar and PACU RN knew that a category 1 case had changed the order of the acute list. As already stated, the options at that time included reassessment of [Mrs A] or return to the ward.

A long wait for surgery per se is not necessarily an issue in itself. There were systems and process in place for [Mrs A's] acuity to be categorised and the order to be discussed. The issue in this case was that when the order was required to be changed there was no reassessment of [Mrs A's] category/acuity. In addition [Mrs A] was in the theatre facility and inadequately cared for during her wait time. In summary, [Mrs A's] long wait for surgery was inappropriate because she was incorrectly categorised, not reassessed and inappropriately cared for. These factors significantly increased the risks associated with prolonged wait time which were, in [Mrs A's] case realised. This standard of care, as described would be considered by my peers as a **severe** departure from accepted standards.

7.0 The adequacy of communications and handover between teams on 24 May 2015

This question strikes at the heart of this case. It is evident that Hutt Valley DHB accepts responsibility for its failure to support [Mrs A] during this episode of care. This is evident in,

— Letter to [Mrs A] from [the DHB] (July 2015) '*… we could and should have supported you better*'

— 'lapse in care … not up to the standard of care we expect for patients in our care' (September 2018, letter from HVDHB to HDC)

— Letter of 14 September 2017, HVDHB response to HDC '… Lack of clarity about who was responsible for pre-operative care whilst [Mrs A] was waiting', however concede that '… the theatre staff were the only people with the knowledge in real time to be able to further inform everyone, including [Mrs A], the surgical team, the plastic surgery ward and [Mr A] of what was happening.'

It has already been established that the responsibility for communication between parties resided in theatre and that the processes of handover and communication between [RN F] and [RN D] and [RN F] and Registrar [Dr C] was inadequate. The extent of departure from accepted standards for [RN F] and [RN D] has been included in sections 3.2 and 3.3 ([RN E's] handover to [RN F] was also insufficient however [RN E] is not included here because she was not in theatre, did not know of the events unfolding and that the theatre order would be delayed).

I note that in the letter of 14 September 2017, HVDHB response to HDC states '*… when patients are handed over by ward staff to the theatre team, (they) take on the responsibility of active monitoring'.* Whilst this is helpful to be explicit it has always been the case and reflected in expectations of RN practice/ARON standards. I also note that this explicit statement is not reflected in policies provided.

8.0 The adequacy of the process for upgrading the category for surgery

It has been acknowledged that the acute categorisation of 4 was made in error and that the clinical presentation of [Mrs A] reflected a category of 3. An assessment of category 4 was entered at 0622 hrs. Whilst the process appears adequate it is not a substitute for re-assessment. At the time that [Mrs A's] surgery was noted to be

further delayed from being first on the list (actually second to an orthopaedic case) her condition should have been reassessed and category amended (which would have been the likely outcome). The extent of delay would have been evident as the more urgent case was a category 1 (laparotomy from ICU) and an assessment made by the theatre co-coordinator to the registrar that surgery would more likely be closer to midday.

It has been established that both incorrect surgical category and lack of reassessment had a significant impact for [Mrs A] who was located in PACU where she received inadequate care. This will not be the case for all patients. Therefore, as a stand-alone process step where the patient is being appropriately monitored omission of surgical category reassessment would be considered a **minor** departure from accepted standards.

It is recommended that within the expectations for Management of Acute Surgery policy (January 2018) that it is explicit that any change in order is the result of patient reassessment and confirmation of most current category. This is intended to safeguard patients who may be delayed to theatre to ensure they are not compromised by outdated or incorrect category.

9.0 The adequacy of monitoring and access to pain medication whilst waiting for surgery on 24 May 2015

In addition to this question being responded to in section 3.0, further information that deserves comment can be found in the DHB reportable event form reported by [RN E] 25 May 2015 (File ID [number]). Initial outcome notes appear to be in conflict with [RN D's] statement dated 12 December 2018.

The reportable event stated [RN D] 'had been enquiring about the patients pain levels and ([Mrs A]) told she was comfortable'. In her statement of December 2018 [RN D] stated that she did not recall initiating conversation with [Mrs A] whilst she was in PACU.

The outcome notes state that [RN D] helped [Mrs A] to the toilet and administered pain relief. This is correct but these things occurred after [Mr A] and [RN E] visited PACU at 1300 hrs and [Mrs A's] deteriorating condition was noted.

The outcome notes state that [RN D] was not advised that she required close monitoring … 1:1 care. However, [RN D's] December statement confirms that she did not know any aspect of [Mrs A's] care let alone whether it required 1:1 care. It has been established that at the time [Mrs A] was the only patient in PACU so it fell to [RN D] to either provide care or facilitate where the care be best delivered.

The outcome notes state that the PACU nurse cannot be expected to recover patients and care for pre-operative patients … This is correct however at the time [Mrs A] was the only patient in PACU for a time so it fell to [RN D] to either provide care or facilitate where the care be best delivered.

On balance [Mrs A] was inadequately monitored whilst she remained in PACU.

It has been established that the only pain relief administered occurred at 1320 hrs. I note that the morphine administered was 2 mgs IV against a prescription of 1mg boluses. Whilst this may be considered a medication error (of administration) it may also have been the result of a verbal order that at the time was not documented. Given the context of deterioration of [Mrs A's] condition and need for expeditious response to her pain, this would be considered a minor departure from accepted standard. Review of [Mrs A's] medication charts demonstrates that she was prescribed and administered regular Gabapentin, Paracetamol, Ibuprofen, plus as required Oxynorm and Morphine Elixir. On balance, [Mrs A] received inadequate pain relief whilst in PACU.

As per section 3.3 [RN D] had a responsibility to proactively reassess the care arrangements for [Mrs A]. This was her responsibility because [Mrs A] was in [RN D's] unit. Poor monitoring and access to pain relief is incorporated in my advice that [RN D's] standard of practice is in breach of principles 1, 4 and 6 of the New Zealand Code of Conduct for Registered Nurses. Some context variables result in a **moderate** departure from accepted standards.

10.0 The adequacy of care in July 2015.

On 2 July 2015 [Mrs A] was readmitted to HVDHB ICU/DHB following a scheduled outpatients appointment due to shortness of breath and desaturation evident at the appointment. On 9 July [Mrs A] was transferred to [Hospital 2]. Throughout this period there does not appear to have been any expressed concerns by [Mrs A] or the commissioner about her stay at HVDHB at this time. On review of the clinical record I note the following,

— [Mrs A] was clearly anxious throughout her admission, reliving her recent experience in May and upset about her readmission to hospital. It is positive that [Mrs A] was transferred from ICU/HDU back to the Plastics ward as they did know her better than a medical admission. However, I gained the impression that her transfer to the Plastics ward was more due to the physician declining to take over her care rather than listening to [Mrs A's] express wishes.

— There is evidence of multidisciplinary team involvement with referrals from plastics team, physiotherapy, social worker, orthotics to [Hospital 2].

— The patient transfer/discharge letter, completed by Clinical Nurse Manager from Hutt Valley DHB to [Hospital 2] is light on detail pertaining to any nursing care and the date of transfer incorrect as 9 May rather than 9 July 2015. The medical coding and discharge summary is noted.

— The last clinical record entry concluded the nursing morning shift on 8th July. There is no entry evident for the afternoon or night shift or day of transfer on 9th July 2015. This means that there is no record of nursing care for these shifts or evidence of a verbal handover to [Hospital 2] staff. This is a moderate departure from expected practice.

— A set of observations is evident at 0750 hrs on 9th July and these appear unremarkable (incomplete copy).

— In the documents provided, there is variable evidence of nursing assessment or patient care plan.

Overall, the standard of documentation during this episode of care is variable. Whilst there does not appear to have been adverse outcome per se, a lack of transfer of care details (other than the discharge/coding summary) evident in the clinical notes does highlight an area of risk.

As a general observation, informed by knowledge of certification audit against H&D Sector Standards, I would expect that Hutt Valley DHB would be aware of their standard of documentation and opportunities for improvement, for example I noted signature and entry illegibility within the clinical record, timeliness of documentation being completed and updated and completion of documents and templates evident in the record.

Other than stated documentation shortfalls, I find no other significant areas of concern.

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

Timing discrepancies,

— [RN E's] statement included in summary of care from plastics unit (appendix two August 2018). A discrepancy is that both the incident form, pain relief and contact to registrar occurred from 1300hrs. The summary of care from plastics unit reference this activity occurring mid-morning which appears earlier than may have actually occurred.

— Theatre admission — there is a discrepancy of almost three hours between version of when [Mrs A] was admitted to PACU, i.e. [Mrs A] (0700), Theatre coordinator (0830) Registrar (0900) and [RN E] (0945). The clinical record states 0945 hrs as the time [RN E] transferred [Mrs A]. Aligning responses, the likely last flap check was by the registrar in theatre around 0945 hrs where the Doppler was present. The significance of this time discrepancy is possible evidence of loss of situational awareness by the team about the passage of time. Alternatively it may reflect that statements of events have been documented in 2018 and that specific details from 2015 may have been lost. The best case scenario is that [Mrs A] was not appropriately cared for approximately 3¼ hours which is the time between her documented admission to theatre (0945 hrs) and [RN E's] attendance to PACU and escalation to the Registrar (1300 hrs).

Documentation throughout record

— Consistent with other DHB standards, I am confident that Hutt Valley DHB would be aware of their documentation shortfalls, for example signature and entry illegibility, record completion within the clinical record and timeliness of documentation being completed and updated.

— Anaesthetic statement from [the anaesthetist] stated that he started anaesthetising [Mrs A] at about 1330. The record refers to a second theatre being made available from 1430 (OT co-ordinator), vital signs in PACU were recorded by [RN D] at 1438 hrs, anaesthetic record commences at 1500 hrs when registrar also states that surgery commenced. Therefore anaesthetic commencement may have occurred later than suggested. Significance — loss of situational awareness.

Patient Case Review (22 June 2015)

— The document appears incomplete as it refers to a timeline that was not supplied in the case documents. Whilst the review occurred in June, I note that recommendations surrounding improved handover from ward staff to transfer bay, limited time in transfer bay (>1 hour) and parameters for patients in the transfer bay to be returned to the ward. These recommendations do not appear to be aligned in the current expectations of care in PACU, SAU and updated Handover of care policy.

12.0 Summary and Recommendations for Improvement

This report has identified three departures from accepted standards of Registered Nurse practice pertaining to transfer of care. Review of this case has been augmented by Hutt Valley DHB's own internal investigation in to [Mrs A's] care and I find no evidence to contradict recommendations made. In summary,

1) [RN E's] standard of care demonstrated accepted practice. Not fully adhering to the handover requirements as set out in the transfer and escort policy is the only **minor** departure however likely context driven.

2) [RN F] did make an error by not adequately handing over to [RN D] which is in breach of NZNC code of conduct principle 6, the context of the event places this departure from accepted standard as **minor**, related to a systems induced error.

3) [RN D] had a responsibility to proactively reassess the care arrangements for [Mrs A]. This was her responsibility because [Mrs A] was in [RN D's] unit. By not seeking further information about [Mrs A's] care, it is my advice that [RN D's] standard of practice is in breach of principles 1, 4 and 6 of the New Zealand Code of Conduct for Registered Nurses. Some context variables result in a **moderate** departure from accepted standards.

From a systems and process perspective this report identifies four departures from accepted standards of practice. In summary,

1) A policy that inadequately guides staff practice is a departure from expected standard. However, Hutt Valley DHB's efforts to date, to update their policies, albeit with further improvements to be made, demonstrate recognition of opportunities for improvement expected of a learning organisation. Therefore, this departure from accepted standard would be considered **minor.**

2) On balance, once [Mrs A's] clinical deterioration became evident, more effort should have been evident to mobilise a second theatre, not only to wait until the afternoon theatre team arrived at work. Further delay in surgery time by 2 hours for [Mrs A], when the extent of her deterioration was emergent would be considered a potentially **severe** departure from accepted standards.

3) [Mrs A's] long wait for surgery was inappropriate because she was incorrectly categorised, not reassessed and inappropriately cared for. These factors significantly increased the risks associated with prolonged wait time which were, in [Mrs A's] case realised. This standard of care, as described would be considered by my peers as a **severe** departure from accepted standards.

4) As a stand-alone process step where the patient is being appropriately monitored omission of surgical category reassessment would be considered a **minor** departure from accepted standards.

Recommendations

1) If this has not already occurred, in her letter of complaint, [Mrs A] has requested to meet with the Chief Executive. When the time is right for [Mrs A], there is an opportunity for HVDHB to explore this as a valuable story of patient safety opportunities to be shared at board, executive and across the DHB.

2) As per section 4.0; four of the stated policies are reviewed to ensure alignment of the after-hours process of how acute patients **are** transferred to theatre. This is because the current wording is clear about what not to do however should be explicit about the agreed process between the ward and theatre complex out of hours when transferring patients. This recommendation is supported by AORN standards that require safe transfer of care and patient information across all phases of care which includes the transition of patients between their ward/inpatient bed and perioperative facility.

3) Recommendations made in the Patient Case Review of June 2015 should be reconciled with updated policies.

4) Hutt Valley DHB is explicit about forward workload planning and provides comment to HDC about how they are planning to resource/schedule a second acute theatre.

5) Within the expectations for Management of Acute Surgery policy (January 2018) it is required that any change in order is the result of patient reassessment and confirmation of the most current category.

Rosalind Jackson
Associate Director of Nursing
Bay of Plenty District Health Board
29 April 2019

References

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