Orthopaedic Surgeon, Staff Nurse, Private Hospital

Report on Opinion - Case 97HDC8205

Complaint

The Commissioner received a complaint about the services provided to the complainant's husband by the provider, an Orthopaedic Surgeon.

The complaint is that:

- *On a date in early October 1996 the Orthopaedic Surgeon performed a through knee amputation of the consumer's left leg. Before the consumer was discharged the Surgeon did not remove two corrugated drains from his wound. This omission caused the stump to become infected.*
- *On a date in late October 1996 the Surgeon did not keep an appointment with the consumer at the Public Hospital, at a time when the consumer was very ill and not responding to treatment.*
- *The high dose of antibiotics prescribed by the Surgeon for the consumer to combat the infection of his stump weakened his immune system.*

The Commissioner extended her investigation to include the nursing services provided by a Staff Nurse and the Private Hospital.

Investigation

The Commissioner received the complaint from the Medical Council of New Zealand on 27 October 1997 and an investigation was carried out.

Information was received from:

The Complainant
The Provider, an Orthopaedic Surgeon
The Surgical Services Manager, the Private Hospital
The Provider, a Staff Nurse, the Private Hospital
An Enrolled Nurse, the Private Hospital

The consumer's medical records were obtained from the Private Hospital and a Public Hospital. The Commissioner also obtained professional nursing advice.

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

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Outcome of Investigation

On a date in early October 1996 the consumer was admitted to a Private Hospital for a left through knee amputation. A Staff Nurse, to whom the Commissioner extended her investigation, prepared the consumer for surgery and the Orthopaedic Surgeon, assisted by an Orthopaedic Registrar, performed the operation the day after admission.

The consumer's intra-operative note records *"drains – corrugated left stump."* A hand written post-operative note indicates *"post operative stump dressings"*. It is signed by the Orthopaedic Registrar and there is no reference to wound drainage. The post-operative Recovery Room form documents *"corrugated drains in wound."* The typed operation note indicates *"Closure, Penrose drains from either side, Post-operatively reduce dressings after 48 hours, redress from 3 days with stump bandaging and remove Penrose drains."* The date on which the typed note was available to nursing staff cannot be established. The date typed is not recorded and although the Surgeon signed it, he has not recorded the date. The Surgeon was not aware that the typed notes would not be available to the nursing staff for some time.

The Staff Nurse confirmed it is likely that she went to the recovery room to collect the consumer. It cannot be established if the Staff Nurse was informed about the drains by the recovery room staff. She nursed the consumer until she completed that duty. Her nursing report indicates *"wound ooze nil"*. There is no reference to drains. The Staff Nurse "handed over" to another nurse, who nursed the consumer during the afternoon shift. The second nurse's nursing report indicates *"nil wound ooze nil redivac* [drain] *loss"*.

The day after the amputation, the medical notes record *"day 1 post operatively, well apyrexial itching over back after epidural, calves non tender no cough sob* [short of breath]*."* The notes do not record whether or not the dressing was disturbed, whether drains remained in the wound or were shortened, the condition of the wound or the condition of the dressing. They are signed by the Orthopaedic Registrar. The nursing notes for that day indicate *"day 1 small ooze over stump."* This notation is signed by the Staff Nurse.

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

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Outcome of Investigation, *continued*

Two days post-operatively, the Surgeon saw the consumer as part of the routine post-operative management. As the Surgeon was leaving he spoke to the Staff Nurse who was in another room. The Surgeon advised that he ordered the Staff Nurse to remove the drains. He did not ask her to trim the drains because he had shortened the drains the day before.

The Staff Nurse advised that the Surgeon asked her to trim the drains. She had nursed the consumer on his return from the recovery ward and on the first post-operative day and was unaware of any drains in the wound. She had no notification at the "hand-over" report that any drains were present and there was no record of the drains in written reports. The Staff Nurse was unfamiliar with the procedure and asked the Surgeon for further instructions. She was instructed to pull the drains out about 2 or 3cm and cut them off.

The Staff Nurse had not previously nursed anyone with a Penrose or corrugated drain and asked the Enrolled Nurse, who has 25 years nursing experience, if she could help her with the procedure. The Enrolled Nurse had never performed this procedure before. She confirmed that she asked the Staff Nurse to repeat the Surgeon's instructions. The Staff Nurse and the Enrolled Nurse were the only two nurses on duty in the ward that shift.

The Surgeon indicated that he had placed safety pins in the drains when he shortened them the day before. The Staff Nurse removed the consumer's dressings and trimmed the drains as instructed with the Enrolled Nurse's assistance. The Staff Nurse advised that when she removed the dressing there were no sutures or safety pins in the drains. This was confirmed by the Enrolled Nurse. The Staff Nurse gripped each drain with the forceps, withdrew it about 2cm and cut each drain flush with the skin. The Staff Nurse advised that *"the left drain was difficult to remove because it was not clearly visible in the wound".* The Staff Nurse then consulted the Procedure Manual about the procedure for shortening or trimming drains. She found the description in the Procedure Manual confusing because of its reference to safety pins. The Staff Nurse did not seek further clarification. She was the senior nurse on duty and did not know who the "on-call manager" was or how to contact them.

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

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Outcome of Investigation, *continued*

The Private Hospital advised the Commissioner that the Orthopaedic Surgeon must have brought his own sterile equipment including safety pins because that Ward did not have them at that time.

The Staff Nurse advised that she always read the operation report when it was available, for example, attached to the patient's file. In this particular instance she cannot recall whether it was on the file. The Surgical Services Manager reported that *"the operation report would have been dictated by the operating surgeon (in this instance [the Orthopaedic Surgeon]) immediately on completion of the operation. Depending on how busy the typing pool was, the report would then be put into the patient's file together with the patient's other notes."* The Surgical Services Manager said that nurses normally refer to patients' care plans (nursing notes) and did not read the operation report for instructions. The Staff Nurse followed the Surgeon's instructions documented in the consumer's notes and informed the afternoon staff about the drains before going on days off.

The Surgical Services Manager confirmed that *"this type of operation is rarely performed at [this Hospital]. Consequently there was not a lot of staff experience to draw from in terms of the care of such wounds."* The Surgical Services Manager, who has been nursing since 1969, was aware of two cases in the five years she had been at the Private Hospital. Furthermore, she said, *"there is a manual on nursing procedures, kept in the nurses' office, that has brief instructions on the removal/shortening of drains"*. The Surgical Services Manager is available to the nursing staff whenever they feel the need for advice or guidance. She is also available at weekends. The Staff Nurse advised that the nursing staff had requested education on stump wound care before nursing these patients but this had not happened. The Surgical Services Manager advised that the staff did not request education and she was unaware that the drains were in-situ.

It is noted that the nursing care plan form is designed for the nursing management of patients following a total hip joint replacement and has been adapted to cater for a through knee amputation.

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Outcome of Investigation, *continued*

While the consumer was in hospital he received physiotherapy. His physiotherapy notes indicate that *"[…]/10/96 Private physio visited on Sat. Already instructed on bed exc [exercises] & bandaging diagonal fig of 8 from mid to lat, fixing high around the thigh). Very chirpy energetic and positive Should do well.*
Outcome date […]/10/96 Mobilised excellently on elbow crutches…"

The consumer was discharged from the Private Hospital four days post-operatively. His discharge plan records *"no post operative problems"* and he was given an appointment to see the Orthopaedic Surgeon in two weeks. There is no record that the Surgeon or any nursing personnel reviewed the wound before the consumer's discharge.

About a week later the consumer was not well. He consulted a General Practitioner, who prescribed antibiotics. About mid-October the consumer removed a piece of drain from his wound while he was having a bath. His condition continued to deteriorate. Three days later the consumer's wife (the complainant) again consulted the GP who continued antibiotic therapy. The complainant telephoned the Orthopaedic Surgeon who advised her to bring her husband to the Public Hospital immediately.

On that day the consumer and his wife arrived at the hospital at about 6.00pm and saw the Orthopaedic Registrar who had assisted the Orthopaedic Surgeon with the original surgery in early October. A x-ray confirmed that a piece of corrugated tubing was still in the wound. The consumer went to theatre where a piece of plastic drain was removed. Post-operatively the consumer received intravenous antibiotics for 72 hours before being reduced. The Surgeon advised that *"the antibiotics used were Penicillin and Flucloxacillin and were within the normal therapeutic range".* The consumer received intravenous Penicillin (two million units) and Flucloxillin (two grams) every six hours for three days. After three days, each antibiotic was reduced to 500 milligrams, six hourly taken by mouth.

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Outcome of Investigation, *continued*

After one week the consumer was discharged from the Public Hospital but was re-admitted the next day for further surgery for open drainage of the operation site. The consumer again received intravenous antibiotics for four days, then the reduced dose of oral antibiotics. His antibiotics continued for five days after he was discharged. While the consumer was a patient in the Public Hospital he suffered headaches which continued after his discharge.

In mid-December 1996 the consumer was taken to a second Public Hospital where a brain scan revealed a "*huge cerebral mass*". He was transferred to a third Public Hospital the next day where the cerebral mass was confirmed as malignant. The consumer was discharged from that Hospital and nursed at home until his death in mid-March 1997.

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

Report on Opinion - Case 97HDC8205, continued

Independent Advice to Commissioner

The Commissioner sought professional nursing advice, in particular to advise her on whether the instructions on the shortening of corrugated drains given to the Staff Nurse were clear and unambiguous and whether the Staff Nurse took appropriate action in the circumstances.

The advisor indicated that *"this nurse was faced with a procedure that she had not undertaken before. She sought out an enrolled nurse with extensive clinical experience but who had no experience of this procedure. It is unknown if there was another RN on the ward with more experience than these two nurses. The director of surgical services was apparently available but it is unknown if it was common practice for her to be contacted about clinical matters.*

…The nurse asked the surgeon himself for direction and was given a verbal instruction. The nurse undertook the procedure and checked her technique after the event against the procedure manual. (This should have been done first). The procedure manual instructions are succinct and explicit in this technique. On realising that the drains that she had shortened were not pinned she did not seek clarification on this aspect with a more experienced nurse.

…in my experience the formal typed operating note from the Surgeon does not appear in the clinical record for a couple of days. However a hand written note in the patient's clinical record, by the surgeon documents the surgery briefly with any instructions. This note was present but no instructions about the management of the drains. The Inter–Operative form clearly states that there is a drain in the left stump, but no instructions. [The Staff Nurse] specifically asked the surgeon if there was any instructions for [the consumer's] care and she was given a verbal instruction to trim/shorten the drains. If [the Staff Nurse] had been able to read the formal typed operation record a verbal instruction like this from the surgeon would have overridden an instruction that was recorded three days ago. In light of the above information I believe [the Staff Nurse] took the appropriate action and shortened the drains. If they had been pinned their existence would have been obvious to subsequent nurses re-dressing his wound. It is not imperative that these drains in this situation are pinned. The Surgeon having not done so [sic]. *[The Enrolled Nurse] witnessed this.*

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

Report on Opinion - Case 97HDC8205, continued

Independent Advice to Commissioner *continued*

There are a series of events that have led to [the consumer] receiving substandard care. The surgeon introduced to his ward a routine surgical technique but a new type of surgery for the nursing staff in this particular ward, to care for. It is the Surgeon's responsibility to convey to the nurse in charge of the ward of any new surgical developments so that the appropriate teaching can be undertaken. It is stated that this teaching did not occur.

...Even though [the Staff Nurse] had documented that the drains had been shortened this had not been taken note of by subsequent nursing staff and the drains were not removed prior to discharge.

...It is standard practice that drains are signed for on the operating note when they are removed. This was not done, as they had not been removed. The surgeon could have checked this and sought clarification when this documentation wasn't complete.

...The nursing staff that cared for [the consumer] after [the Staff Nurse] also had a responsibility in this event as they did not read or take heed of the documentation in the nursing care plan stating that the drains had been shortened and not removed."

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

Report on Opinion - Case 97HDC8205, continued

Code of Health and Disability Services Consumers' Rights

The following Rights are applicable to this complaint:

RIGHT 4
Right to Services of an Appropriate Standard

2) Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards.

...

5) Every consumer has the right to co-operation among providers to ensure quality and continuity of services.

Relevant Standards - Procedure Manual

The following standards in the Private Hospital's *Nursing Procedure Manual* are relevant:

"These notes are intended as a reference for nurses who want to check on procedures already learned..."

and

"remove suture - if drain sutured in place.

To shorten drain - hold swab against drain. Pull out gently (usually 1 – 2cm as ordered). Grip drain with forceps at skin level and insert pin just above forceps. Cut between safety pins."

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

Report on Opinion - Case 97HDC8205, continued

Opinion: Breach, Orthopaedic Surgeon

In my opinion the Orthopaedic Surgeon breached Right 4(2) and Right 4(5) of the Code of Health and Disability Services Consumers' Rights as follows:

Right 4(2)

The Orthopaedic Surgeon was ultimately accountable for the consumer's care during his stay at the Private Hospital. This accountability extends to appropriate and timely discharge planning. The consumer was seen by a private physiotherapist and advised on bandaging his stump and mobilisation but the Surgeon failed to give clear and specific instructions to the nursing staff and check on the consumer's wound prior to his discharge. The minimum preparation of the consumer for discharge should have included care of his wound. There is no evidence that the consumer received any such instructions. Failure to provide this care was a breach of the consumer's right to a professional standard of care.

Right 4(5)

The Orthopaedic Surgeon accepted the consumer as a patient at the Private Hospital. Although trimming drains is not a new procedure it was a new procedure to nurses working at this Hospital. The Surgeon should have ensured that the nursing staff were familiar with trimming drains, or checked with senior nursing personnel and ensured that appropriate education was available before he used this type of wound drainage.

A hand written, post-operative note in the consumer's records makes no reference to drains in the wound. The Surgeon confirmed that he shortened the drain on the first post-operative day but there is no record of it, no sign that the dressing was disturbed and no record that a nurse re-dressed the wound following his visit. In my opinion the first time the dressing was removed was two days post-operatively.

In my opinion on that day the Surgeon ordered the drain shortened and not removed. This was a new instruction to the Staff Nurse who was practised in removing drains but not trimming drains. She asked the Surgeon for clarification and was able to repeat his instructions to another nurse. The Surgeon said he put safety pins in the drains the day before. Two nurses confirmed the absence of safety pins.

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

Report on Opinion - Case 97HDC8205, continued

Opinion: Breach, Orthopaedic Surgeon, *continued*

Furthermore the documentation about the drain was incomplete. The Staff Nurse nursed the consumer for three days post operatively and was not aware of the drains. While documentation about the drain appears in three pieces of documentation, no instruction appears in these records on care of the drains. The typed note was not available to nursing staff for some days and the intra-operative form and recovery room record indicate the presence of drains but no instructions on their care. It is obvious that the Surgeon does not have an integrated system of documentation or he would have been aware of the error.

Opinion: No Breach: Orthopaedic Surgeon

In my opinion the Surgeon did not breach Right 4(2) of the Code of Rights in respect of the following:

The complainant rang the Surgeon in late October 1996 and he advised her to bring her husband to the hospital immediately. The Surgeon spoke to the Orthopaedic Registrar who had assisted him with the original surgery and advised him that the consumer and his wife would be coming to the hospital. The Orthopaedic Registrar diagnosed the problem promptly and treated the consumer appropriately. In my opinion it was not necessary for the Surgeon to be in attendance.

The consumer had an infection that responded to surgical exploration and antibiotics. The Surgeon administered antibiotics to a therapeutic level. There is no evidence that the antibiotics prescribed by the Surgeon weakened the consumer's immune system which ultimately lead to his death. The notes indicate that the consumer died with a malignant brain tumour some time after the surgery.

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

Report on Opinion - Case 97HDC8205, continued

Opinion: Breach, Staff Nurse

In my opinion the Staff Nurse breached Right 4(2) of the Code of Health and Disability Services Consumers' Rights as follows:

Knowledge of Drains

The information about the consumer was documented in a fragmented way but the Staff Nurse's failure to read the notes contributed to the consumer's infection. The Staff Nurse nursed the consumer following surgery. Although the typed notes were not available the wound drainage was documented on the intra-operative note and the recovery room form. The Staff Nurse may not have received verbal information about the drains from the recovery room nurse but if she had read the recovery room notes she would have been aware of the drains. In my opinion she did not read the documentation about the complainant and relied on verbal reports.

Proceeded to Shorten Drains

The Staff Nurse was faced with an unfamiliar situation and should have consulted the manual before attempting the procedure. The Staff Nurse carried out the Surgeon's instructions on shortening the drains. Then she consulted the Procedure Manual which referred to safety pins. I am advised that it is not always necessary to place safety pins in drains. However having noted that safety pins could be used the Staff Nurse did not then clarify this. She consulted another nurse who was equally inexperienced. The Staff Nurse documented her actions in the nursing notes and informed the afternoon staff about the drains. I do not accept that the Staff Nurse did not know or was unable to find out who the senior nurse/manager "on-call" was at that time in order to clarify this further.

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

Report on Opinion - Case 97HDC8205, continued

Opinion: Breach, Private Hospital

In my opinion the Private Hospital breached Rights 4(2) and 4(5) of the Code of Health and Disability Services Consumers' Rights as follows:

Right 4(2)

The Private Hospital's management personnel did not provide specific instructions to nursing staff on the post-operative care of this type of surgical procedure. Furthermore they did not ensure nursing staff were competent in this new procedure before accepting the consumer as a patient. This surgical procedure is new to the Private Hospital's nursing staff. The Hospital provides a Procedure Manual but it is acknowledged that its purpose is to reinforce prior learning only and there is no evidence that this education was provided.

The consumer's discharge was inadequate and did not meet professional standards. It would appear that the consumer's wound was not inspected, nor was he given instructions on when the stitches would be removed. There is also no indication on whether the consumer needed to continue antibiotics or advice on pain management. There is no indication of whether the consumer required follow-up care or help in his home or modification of his environment. He was given an appointment to see the Surgeon in two weeks. In my opinion the Private Hospital's lack of policies for the management of this surgical procedure and its lack of discharge policies and procedures led to inadequate care for the consumer and was in breach of Right 4(2).

Right 4(5)

The Private Hospital's system of documentation did not ensure adequate follow through of the patients' progress. The consumer's progress and treatment is documented in several different places all of which are disconnected and fragmented. Documentation about the drains appears on three pieces of paper. One was not available to nursing staff, the second and third record the presence of drains but no instructions on post-operative care. The nursing staff record patient progress in the nursing care plan that is not designed for the consumer's operation. In my opinion this fragmented system of documentation contributed to the failure by the nursing staff firstly, to know about the drains, and then to provide appropriate wound care or ensure the removal of the consumer's drains before he was discharged.

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

Report on Opinion - Case 97HDC8205, continued

Actions, Orthopaedic Surgeon

I recommend that the Orthopaedic Surgeon takes the following actions:

- Apologises to the complainant for breaching the Code of Rights in respect of her husband's care. This apology is to be sent to the Commissioner who will forward it to the complainant.
- Reviews his methods of documentation so that appropriate and timely information is available to nursing staff.
- Reviews his practice of using corrugated drains and considers continuous suction drainage.

Actions, Staff Nurse

I recommend that the Staff Nurse takes the following actions:

- Apologises to the complainant for breaching of the Code of Rights in respect of her husband's care. This apology is to be sent to the Commissioner who will forward it to the complainant.
- Reads all documentation about a patient before taking responsibility for care and assesses the quality of the information she receives and gives at "hand-over".

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Orthopaedic Surgeon, Staff Nurse, Private Hospital

Report on Opinion - Case 97HDC8205, continued

Actions, Private Hospital

I recommend that the Chief Executive Officer of the Private Hospital takes the following actions:

- Apologises to the complainant for breaching the Code of Rights in respect of her husband's care. This apology is to be sent to the Commissioner who forward it to the complainant.
- Introduces a system of integrated documentation so that patients' records are comprehensive, appropriate and available to all staff at appropriate times and meet professional standards.
- Audits the quality of "hand-over" reporting between nursing staff.
- Comprehensive management plans should be established which include formal nursing education before any new procedures are introduced to the hospital.
- Reviews its methods of discharge planning to conform to acceptable professional standards.

Other Actions

A copy of this opinion will be sent to the Medical Council of New Zealand, the Royal Australasian College of Surgeons and the Nursing Council of New Zealand.