Anaesthetist, Dr B

A Report by the

Health and Disability Commissioner

(Case 02HDC05291)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Parties involved

Mrs A	Consumer
Mr A	Witness / Husband of consumer
Dr B	Provider / Anaesthetist
Dr C	Provider / Obstetrician and gynaecologist
Dr D	Provider / Plastic and cosmetic surgeon
Ms E	Provider / Nurse
Ms F	Provider / Nurse
Ms G	Provider / Nurse
Ms H	Provider / Anaesthetic technician
A Private Hospital	Provider

Complaint

On 18 April 2002 the Commissioner received a complaint from Mrs A about services provided by anaesthetist Dr B. The complaint was summarised as follows:

Dr B did not provide services of an appropriate standard to Mrs A on 15 February 2001. In particular:

- *Dr B injected anaesthetic drugs in the incorrect order or injected incorrect drugs while administering anaesthetic at a private hospital*
- *Dr B did not respond appropriately to Mrs A's attempt to communicate her concern after Dr B administered the anaesthetic.*

Dr B did not communicate effectively with Mrs A or provide her with information that a reasonable person in Mrs A's circumstances would expect to receive. In particular:

- *on 15 February 2001 Dr B did not respond to Mrs A's comment to him that intravenous access in her right arm may be problematic*
- *Dr B withheld information from Mrs A about the anaesthetic incident that occurred on 15 February 2001.*

An investigation was commenced on 14 August 2002.

Information reviewed

- Information provided by Dr B
- Information provided by Mrs A, and her husband, Mr A

- Medical records and information from obstetrician and gynaecologist Dr C, and plastic and cosmetic surgeon Dr D
- Medical records and information from the private hospital
- Information provided by nurses Ms E, Ms F and Ms G
- Information provided by anaesthetic technician Ms H

Independent expert advice was obtained from Dr Vaughan Laurenson, an anaesthetist.

Information gathered during investigation

Background
On 15 February 2001 Mrs A was admitted to the private hospital for a hysterectomy by Dr C to be followed by an abdominoplasty by Dr D. Dr B's role was to administer the anaesthetic prior to the surgery. Dr B was contracted to perform this function by Dr D.

Events prior to the administration of anaesthetic
Mrs A was admitted to the hospital at approximately 6.30am on 15 February 2001. Mrs A was met by a nursing staff member and shown to her room in preparation for surgery. Dr B entered her room and checked her admission details. Mrs A was then transferred to an area adjacent to the operation room. Details of the proposed surgery were discussed with Dr C. Dr B then approached her, and began to examine the inside of her right arm to obtain a suitable site for the administration of anaesthetic.

Mrs A stated that she told Dr B that it was easier to gain intravenous access through her left arm, as there had been problems with accessing her right arm in the past. Mrs A stated:

> "Staff nurse [Ms E] then commented 'that is his favourite side'. [Dr B] continued. He did not compare my arms at all. He also did not ask any questions about my comment on the right arm being a potential problem. [Dr B] continued on with his procedure without hesitation. He without doubt was having trouble inserting the equipment into my arm. At this point his manner definitely altered. [Dr B] then astounded me with his demand of 'Who has been in here?' – referring to the vein in my right arm.
>
> It was at that stage that I believe [Dr B] then moved his tray of what appeared to me to be drugs/injections to a different position on my bed and also moved himself to a slightly different position so he could have a second attempt at trying to insert the equipment into my vein in my right arm."

Dr B confirmed that he made the comment, "Who has been in here?" He explained that his comment was "not for anyone in particular, but just thinking aloud when I observed that someone had accessed that vein". He subsequently added that he wanted to put Mrs A at ease.

Dr B advised that when he attempted to insert an IV cannula into Mrs A's right arm he encountered an unusual vein and, as a result, he changed the angle of IV access. Dr B said that he informed Mrs A that he preferred the right arm because of the positioning of other equipment and operating personnel during surgery. He stated:

> "It is therefore important to choose the side and the site that will ensure continued easy access, will not get displaced or obstructed … I did not disregard [Mrs A's] suggestion and I believe I did explain the reason."

In contrast, Mrs A stated:

> "The only comment concerning the use of my right arm for intravenous use came from Nurse [Ms E]. There was no mistaking my recollection of any reply from [Dr B], as he gave no reply at all."

In a letter of apology to Mrs A dated 29 August 2002, Dr B provided the following explanation:

> "I would like to clarify the choice of injection site. A secure intravenous line is fundamental to safety in anaesthesia. In choosing a site, I consider the following:
>
> a) surgical procedure – which has a bearing on position during operation, where surgical team and various equipment is placed around the patient, as well as placement of anaesthetic machine, infusion systems and monitoring equipment.
>
> b) during the above that site has to remain easily accessible, safe from obstruction and/or displacement.
>
> c) after the operation it should cause least hindrance to patient's comfort. In this regard I take account of any expression of preference by the patient, but for safety's sake, only if points a and b can be satisfied."

Mrs A's experience of the administration of anaesthetic

Having gained intravenous access, Dr B intended to inject a fast-acting sedative as the first step in the anesthetic process. However, Dr B mistakenly injected a syringe containing a muscle relaxant, which caused Mrs A to experience an adverse reaction. Within seconds of the administration of the anaesthetic, Mrs A became distressed. Mrs A provided the following description:

> "It was a very few short seconds after that I first felt extremely odd. I started to try and say something. What I was feeling was far different from previous anaesthetic experiences. [Dr B] then gave me a look as if I was being a difficult patient. By now I was struggling to try and fill my lungs with air on my own, I was also struggling to keep my eyes open or to move any part of my body. On trying to speak, I found it was impossible. I was able to try and mouth 'Can't breathe' and also to hit my chest a couple of times to try so desperately to get attention. I also remember my face frowning

> badly. I still had a level of awareness even though I could not breathe. I do not know at this stage what the medical staff were doing. At this stage I believed that I was dying."

Mrs A has experienced ongoing anxiety since these events. Three years later, the emotional trauma she experienced continues to cause anxiety:

> "It has just been on the three years since this incident occurred. … My recovery from the emotional issues surrounding the anaesthetic incident have unfortunately taken its toll in comparison to the positive recovery with all the physical reasons for the surgery in the first place."

Dr B's immediate response to anaesthetic incident

Dr B stated that he immediately noted from Mrs A's face that things were not well, and on checking his tray discovered that he had mistakenly administered rocuronium 1.5ml, a muscle relaxant. Dr B stated:

> "I was immediately concerned to note from observations of [Mrs A's] face and body movements that something was not right and in particular she was aware. … Reassuring her that she was alright and that everything was under control I acted quickly to alleviate the distress I knew she would be suffering. I immediately put an oxygen mask on her face, procured an ambu bag to assist her respirations and monitored her blood oxygen levels. I called for help and it came quickly. … Once on the operating table, her airway was secured with endotracheal intubation; sedative administered and anaesthetic commenced, while placing monitoring equipment on [Mrs A]."

Dr B's incident report to the hospital stated, in part:

> "Within seconds it was obvious that she was given relaxant instead of midazolam. I immediately gave oxygen via face mask and first assisted and then took over her breathing with ambu bag as she was taken to the operating room. In the O.R, she was intubated and connected to the anaesthetic machine and to infusion of anaesthetic agents."

Nurse Ms E advised that she was present when the incident occurred. She stated that "it was obvious that [Mrs A] had an adverse reaction at that time, as she lost consciousness".

The hospital operating room staff incident report stated, in part:

> "On realising he [Dr B] had given muscle relaxant he quickly gave Midazolam and called for assistance. The patient was transferred to operating room 3 and intubated."

(This report was written by anaesthetic technician Ms H. When contacted during the investigation Ms H advised she had no recollection of the incident.)

Mrs A was provided with oxygen and transferred into the operating theatre. Her airway was secured and her condition stabilised. She was given a sedative, and surgery proceeded as planned.

Mrs A was concerned that Dr B did not respond appropriately to her distress. As noted above, she found it difficult to get Dr B's attention in the moments after the anaesthetic was administered, and resorted to hitting her chest. She recalled that she only received help when she was losing consciousness. She stated:

> "There was quite a distressing time lapse before [Dr B] did actually register my efforts were not that of an 'anxious or difficult patient' rather than something genuine was wrong."

Dr B commented:

> "[Mrs A's] description of the incident is sadly and to my sorrow what I would expect her to describe experiencing. I fully accept that to her it would have been an experience that seemed to go on forever."

Identity of drug administered by Dr B
As noted previously, Dr B confirmed that he encountered an unusual vein in Mrs A's arm:

> "The vein ran across [Mrs A's] arm, making initial access difficult and meaning that I had to approach her from a different angle to usual. Having moved to an unusual position I then reached onto the tray for a syringe to administer 1.5ml of what I believed to be Midazolam, a fast action sedative followed by 1ml (test dose) of Rocephine (antibiotic)."

Dr B's incident report to the hospital stated, in part:

> "I met [Mrs A] in the pre operative holding area to cannulate her vein to give her a small dose of midazolam (1.5mg) and a test dose of antibiotics as is my usual practice. However, [Mrs A] received vecuronium 3mg (muscle relaxant) followed by a test dose of antibiotic."

Dr B stated that because of an oversight on his part, there is no clinical record of the drugs given preoperatively or the actions taken. Dr B's medical records state that the muscle relaxant drug used was vecuronium, but there is no record of the dosage. His records make no mention of the incident itself. Dr B stated:

> "An oversight! When I took copies of the anaesthetic record the other day, I was surprised that there is no record of the drug given in the pre op area and subsequent actions taken! I can only assume that in the shock of the incident I was so engrossed to steady the situation and concentrate on 'incident free' anaesthetic that I forgot to record the incident. The incident was discussed at the time and reported."

Nurses Ms E and Ms F were present at the time, and both recalled the incident involving Mrs A. They confirmed that the nursing staff were not involved with the preparation of anaesthetic equipment or drugs. Neither has any particular recollection of the events prior to the incident occurring.

Anaesthetic technician Ms H advised that her role would have been to help set up the theatre before the anaesthetic was used. The technician is present during the entire anaesthetic process and helps support and monitor the patient. The anaesthetic drugs are usually drawn up and labelled by the anaesthetist. Ms H has no recollection of Mrs A.

As previously noted, Dr C performed the hysterectomy for Mrs A after she was stabilised and satisfactorily anaesthetised. Dr C became aware of the anaesthetic incident while she was in the adjacent theatre tea room. Dr C stated that Dr B explained that he had inadvertently given Mrs A suxamethonium, when he had meant to give her midazolam.

Following Mrs A's hysterectomy, Dr D performed an abdominoplasty under the same anaesthetic. Dr D commented that he was unaware that there had been a problem with the anaesthetic induction until the next day. Mrs A told him about the experience during his 7am ward round the following morning. Dr D followed up the matter with Dr B and the hospital management, and discussed the incident further with Mrs A.

Explanation of incident
After the surgery, Mrs A was concerned that Dr B withheld from her information about the anaesthetic incident. Mrs A was visited by Dr B three times during her recuperation at the hospital. Mrs A stated:

> "I did have at least three visits from [Dr B], the first one being far too early after the operation for me to clearly get to the cause of what did actually happen. I believe that he withheld information from me. [Dr B's] explanation of what happened developed with each visit. … On the second visit he said that he did the order of the drugs wrong, but again continued to show no remorse or concern. On his last visit there was an apology which was so brief it appeared insincere."

Dr B stated that on this first visit on the evening after the operation, he reassured her that things had gone satisfactorily and he would talk to her the next day. Dr B stated that he took this approach because Mrs A was in the recovery stage after a long operation, and patients in this state often find it difficult to process and retain information.

Dr B explained what had happened with the anaesthetic at his second visit, which occurred the day after the operation (16 February 2001). Dr B stated that Mrs A was concerned that there might have been a reaction to the drugs, which could also affect her sister. Dr B assured her this was not the case.

Mrs A's husband, Mr A, was present on 16 February. He agreed that Dr B explained what had occurred, although he "downplayed" the "incident". Mr A stated that Dr B explained that when his nurse gave him the tray with the syringes, the tray was the wrong way around. This caused the drugs to be administered in the wrong order. Dr B explained the matter as a fairly routine error. Mr A recalled that his manner was not sympathetic or empathetic. Mr A did not recall Dr B providing an apology.

Nurse Ms G was also present during this conversation. She advised that Dr B's explanation was "quite brief".

The third time Dr B visited Mrs A was on the day she was discharged on 20 February 2001. Dr B stated that he went over what had happened in the pre-op area and apologised for the distress caused.

Response to complaint
In response to Mrs A's complaint to the Health and Disability Commissioner, Dr B commented as follows:

> "Before responding to the points in your letter let me emphasise that I am very sorry that [Mrs A] had had so disturbing an experience. I was devastated that this occurred and as soon as I was able reviewed my practice to determine how this happened and could be prevented in the future. Awareness during anaesthesia, a phenomenon where a patient is awake and unable to move is a risk all anaesthetists are vigilant to recognise as early as possible. Minimising this experience by (safely and adequately) administering a sedative prior to anaesthesia had always been part of my practice."

Dr B included with his response a letter of apology addressed to Mrs A in which he stated:

> "It is a basic tenet of anaesthetic practice that – First (of all) do no harm (Primum non nocere). That was impressed upon me during my training to be an anaesthetist. I have taught that to scores of doctors I trained. I failed in that respect that day with you. I offer you my sincere apology."

Dr B stated that he always administers a sedative prior to anaesthesia to minimise risk of awareness during anaesthesia. He advised:

> "My practice at the time was to take my entire tray of drugs into the pre-operative area. That tray consisted of all the drugs I expected to use as well as those prepared for use in case of an emergency. All the syringes were labelled and placed in exactly the same position in which they were always placed. In doing this I was following a practice that was unchanged for over twenty years.
>
> …
>
> I am even more vigilant since 15/02/01 and have made changes to my practice to avoid a similar slip occurring e.g. I do not take relaxant containing syringes to the pre-op area. I read the label (aloud) before giving [the] injection."

Dr B commented that he adopted this practice as it allowed him to draw up the drugs at a time when he was able to concentrate on the task (ie, before the patient was present).

Dr B's incident report to the hospital stated, in part:

> "I am at a total loss as to how the relaxant and not midazolam was given. I had followed my usual practice of labelling syringes".

The incident report written by the hospital operating room staff stated, in part:

> "… the anaesthetist drew up his drugs, labelled the syringes and went into the pre-operative area to insert the IV."

Dr B advised that since this incident he has made changes to his practice. He stated:

> "Since 15 February 2001 I use different sizes syringes for sedative drugs and leave muscle relaxant in the operating room. I continue to label my syringes. I have gone over and over the events trying to see how this happened. My view is that departing from my usual practice when inserting the IV line meant the tray was oriented differently. I relied on my practice without recognising that this subtle change put me at risk of a mistake occurring."

The hospital

The Director of Clinical Services of the hospital advised that the incident was managed on behalf of the hospital by the CEO and a specialist anaesthetist. Mrs A confirmed that the CEO visited her on the fifth day of her admission. Mrs A recalled:

> "He gave us a medical view of how such things happen, what new techniques the hospital were involved with and what would be done ie 'a medical review' was mentioned."

The specialist anaesthetist subsequently advised that the CEO asked him to contact Mrs A after the event:

> "This was a verbal request, and I think it was somewhat informal. I recall telephoning [Mrs A] and discussing the event with her. … I think I explained that the Hospital was taking steps (ie by installing the IDAS system) to minimize the chances of a recurrence of this type of error. I think I asked her if she would be willing to assist our (ie mine in general, not the [hospital's] specifically) work in reducing error, by speaking about her experience, perhaps on video."

(The "IDAS system" refers to the "Injectable Drug Administration System", which involves the computerised checking of barcoded syringes prior to administration.)

The Director of Clinical Services explained that the incident was documented on a Morbidity and Mortality form, and this data was presented to the hospital's Clinical Advisory Board. Mrs A was offered access to a counsellor by the hospital, but was already seeing another counsellor organised through her general practitioner.

Mrs A also raised a number of concerns about the services she received at the hospital in July 2001. These issues were resolved directly with the hospital through the advocacy process.

Independent advice to Commissioner

The following expert advice was obtained from anaesthetist Dr Vaughan Laurenson:

"Medical expert advice – 02/05291/…

I have read the following documents:

A. Letter from [Mrs A] to [the Director of Clinical Services] dated 23rd October 2001.
B. Investigation letter to [Dr B] dated 14 August 2002.
C. Letter from [Dr B] to the Commissioner dated 25 August 2002, with enclosed clinical notes.
D. Medical records forwarded by [the hospital] dated 30 August 2002, together with incident reports.
E. Letter from [Dr C] dated 11 November 2002.
F. Letter from [Dr D] dated 29 October 2002.

Expert advice required

From the information available did [Dr B] give the anaesthetic in accordance with professional standards?

What are the relevant standards relating to this complaint and did [Dr B] comply with those?

Are there any other matters relating to professional standards which you believe to be relevant to this complaint?

In addressing this complaint I wish to deal with it as two separate stages, events in the preoperative area first, and the postoperative management second.

In the preoperative area there are two issues subject to complaint. The first is the choice of intravenous access site. Secure accessible intravenous access is essential for surgery such as that [Mrs A had] on 15 February 2001. The normal layout in the operating theatre concerned may dictate which arm [is] more accessible, making one side more suitable for intravenous cannula. However failure [to] adequately explain [to] [Mrs A] why he was persisting with trying to obtain access at the right elbow when she suggested he tried the other arm represents [a] failure [to] adequately inform the patient.

There is no dispute that [Dr B] accidentally injected a muscle relaxant when he meant to give a sedative. What is not clear to me [is] which drug was given. In his original hospital incident report dated one week after the event [Dr B] states that he administered vecuronium 3 mgs. Vecuronium is the only muscle relaxant mentioned on the anaesthetic record although no dose is recorded. In his statement to the HDC dated 25 August 2002 [Dr B] states that he administered Rocuronium 1.5mls (which would be 15mgs of the normally available commercial preparation). [Dr C's] report [to] HDC

dated 11 November 2002 states that he [Dr B] explained to her that he had inadvertently given [Mrs A] suxamethonium.

The administration of the 'wrong drug' has become one [of] the more common errors [in] anaesthesia with the [ad]vent of sophisticated anaesthetic monitoring and hence elimination of many other types of errors. A confidential survey of New Zealand anaesthetists showed an error occurred in about 1 in every 133 anaesthetics. 20% of the errors were of the type (i.e. drug substitutions) that occurred in this case. The pattern of error depends on the pattern of practice at an individual hospital and in the absence of any information about the drug preparations and syringe sizes used it is difficult to sort out which drug was actually given. From the records provided I would favour the drug being Vecuronium, however the speed of onset (she only received 3 mgs and the normal intubating dose is 8-9mgs which would be expected to produce intubating conditions in 3 minutes) and the fact that [Dr B] was able to intubate [Mrs A] on the dose given (1.5mls) would favour suxamethonium being the drug given [in] error. Once the error was recognised, the management of [the] physical problem was good. However it appears that no one tried to reassure [Mrs A] that the situation was being brought under control and that she would be all right at a stage when she was still conscious.

Whichever drug was given was clearly given at the wrong stage of the anaesthetic induction. The complication was well-managed but the staff failed [to] communicate with [Mrs A] during the emergency. Failure to adequately record the dose and time of the drug given is a failure of the appropriate standard (ANZCA PS 6).

Postoperative management

In his report to the HDC dated 25 August 2002 [Dr B] states that he visited [Mrs A] three times after the episode, although in his initial report dated 20 February 2001 he stated that he visited her four times. The first time was in the evening on the day of the operation. The second visit occurred the next day and both [Mr and Mrs A] were present. Third time was the morning of the day she was discharged. [Mrs A] acknowledges that the three visits occurred, and the first two visits are documented in the hospital notes.

For the content of those conversations we have to rely on the recollections of [Mrs A] and [Dr B]. These agree on most issues although interpretation of the conversation differs. Both parties state first visit occurred at a time when [Mrs A] was still partially under the influence of the anaesthetic. It appears from [Dr B's] report to the HDC and [Mrs A's] recollection that the error was withheld from [Mrs A] at that first visit. There appears to have been full disclosure the next day at the meeting at which [Mr A] was also present. [Mrs A] agrees [Dr B] apologised to her for the error before she was discharged from hospital. It is clear that [Dr B] attempted to both explain and apologise to [Mrs A]. [Mrs A's] perception was altered by the fact that she had suffered an extremely traumatic experience and did not receive an appropriate explanation at the first opportunity. Although [Dr B] did not immediately explain what happened, and his apology was perceived as insincere by [Mrs A], he did attempt to explain and apologise.

In my opinion he provided an adequate if not completely satisfactory standard of postoperative care.

Other issues

I would like to commend [Dr D] for attempting to organise follow up care for [Mrs A] with regards to the anaesthetic problem. Unfortunately it appears that the hospital failed to meet the expectations of [Mrs A], although I notice the general practitioner organised counselling.

Record-keeping: [Dr B's] record-keeping failed to meet contemporary standards (ANZCA PS 6). I have already mentioned failure to record the muscle relaxant given. There is no record of any midazolam being given although it was mentioned in [Dr B's] reports. Recording of the blood pressure during the operation, especially during a period of hypotension in excess of two hours, at 20 minute intervals is in my opinion inadequate. In a 20 minute period the blood pressure can change significantly and with a systolic blood pressure of only 70 there was not much room for error.

Education: I found [Mrs A's] account of the episode extremely harrowing to read. If [Mrs A] is agreeable you may find it worthwhile including it in your report for the purpose of reminding anaesthetists just how terrible it is to be on the receiving [end] of this particular error.

References

Webster CS, Merry AF, Larsson L et.al. The frequency and nature of drug administration error during anaesthesia. Anaesthesia and Intensive Care. 29(5):494-500, 2001 Oct.

ANZCA PS 6 Recommendations on the recording of an episode of anaesthesia care (The anaesthetic record). […]"

Response to Provisional Opinion

Dr B, in response to my provisional opinion, commented as follows:

Intravenous access to arm
Dr B stated:

> "I accept, in retrospect, that I failed to adequately explain and inform [Mrs A] why one site was preferred over the other."

Dr B's immediate response to the anaesthetic error
Dr B stated that Mrs A was mistaken in her view of his manner. He was both concerned for Mrs A, and trying to work out what had happened:

> "I am most concerned that [Mrs A] interpreted the 'look' I gave her as if she was being a difficult patient. That was not my concern at all. The look I gave would have reflected my surprise and worry that what I was seeing was unexpected. I was focused intently on trying to figure out what was occurring, was she experiencing reaction to drugs, had I given her the wrong drugs."

Dr B stated that he communicated with Mrs A during the emergency situation:

> "I was most saddened to read that [Mrs A] felt that I failed to communicate with her during the emergency. Initially when I was noticing that something had gone wrong and trying to work out what it was, I did not communicate, but as soon as I had things under control so that I could support her breathing then I was reassuring her. Both I and the theatre nurse constantly kept repeating that things were under control and that she would be asleep soon … we were being as calm and reassuring as the circumstances allowed."

Anaesthetic record

Dr B stated that the drug he administered to Mrs A was, in fact, vecuronium. With regard to the information provided by Dr C, he stated:

> "I note that [Dr C] has stated that I explained I had inadvertently g[iven] Suxamethonium when I had meant to give her Midazolam. This cannot be correct. I do not use Suxamethonium in these procedures and I do not draw up this drug or have it on my tray. What I said was, that I had given her a relaxant instead of Midazolam."

Dr B emphasised that vecuronium was the drug he recorded in his medical records. He said:

> "I made a mistake when referring to Rocuronium when I wrote my response to your office 18 months after the incident. I wrote this from memory rather than going back to the original documents and I can fully see that this has caused the confusion."

Dr B advised that he wrote "rocuronium" as this was the drug he had used as a relaxant since the time it became available. He did not have rocuronium on his anaesthetic drug trolley on that day. In response to my advisor's comment that it appears that the drug most likely given was suxamethonium, Dr B advised that this was not on his tray. He submitted that Mrs A's reaction did not indicate a response to administration of suxamethonium.

Dr B commented:

> "I acknowledge the comments you have made about my record keeping. The records you have for this incident do not reflect my usual standard. I recorded the drug Vecuronium, but not the dose. Unfortunately it escaped my attention at a later time to insert this in, in the unusual circumstances of the day."

Standard of monitoring
Dr B stated that Mrs A's condition was monitored electronically and his hard copy records general trends over a period of time:

> "In the case of [Mrs A's] surgery, her blood pressure was kept deliberately low with the use of a specific agent and adequate anaesthetic state. It was monitored every 5 minutes and its safety confirmed from the continuous electro cardio graphic monitoring."

Additional advice to the Commissioner

Dr Laurenson provided additional advice in relation to Dr B's submission that he monitored Mrs A's blood pressure electronically. Dr Laurenson stated that the electronic monitoring of a patient's blood pressure every five minutes is adequate, but ideally a corresponding hard copy would be made.

Code of Health and Disability Services Consumers' Rights

The following Rights in the Code of Health and Disability Services Consumers' Rights are applicable to this complaint:

RIGHT 4
Right to Services of an Appropriate Standard

1) Every consumer has the right to have services provided with reasonable care and skill.

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

RIGHT 6
Right to be Fully Informed

1) Every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive, including –
a) An explanation of his or her condition; …

Other relevant standards

Australian and New Zealand College of Anaesthetists Professional Standards document "PS 6 1996, Minimum Requirements For The Anaesthesia Record":

"**3. Anaesthesia Information**

a) **Medication:** The details of administration of all drugs including any used by the surgeon, and a description of any unusual response.
b) **Technique**: The full details of the anaesthetic technique used, whether general, regional or sedation with monitored anaesthesia care, and a description of any problems encountered.
c) **Time:** The time of significant anaesthesia and operative events, observations and interventions including administration of drugs."

Opinion: Breach – Dr B

Administration of anaesthetic
Under Right 4(1) of the Code patients have the right to have services provided with reasonable care and skill. Dr B mistakenly injected a muscle relaxant, instead of a fast-acting sedative, causing Mrs A to suffer the harrowing experience of awareness without the ability to breathe.

Dr B advised that, in preparation for Mrs A's anaesthetic, he personally prepared the drugs, labelling them and placing them in the "customary" position on his drug tray. [The hospital's] operating room staff report confirms that the drugs were drawn up and labelled by Dr B.

Dr B encountered an unusual vein in Mrs A's arm and as a result he approached from a different angle and an unusual position. Dr B stated:

> "My view is that departing from my usual practice when inserting the IV line meant the tray was oriented differently. I relied on my practice without recognising that this subtle change put me at risk of a mistake occurring."

Having gained intravenous access, Dr B mistakenly injected a muscle relaxant intended for use at a later stage of the anaesthetic process. (It is not known whether Dr B administered rocuronium 1.5mls, vecuronium 3mg or suxamethonium; he had intended to inject the sedative midazolam.) The orientation of the tray appears to have contributed to the error. I note that Mr A stated that Dr B had advised him that the error resulted from the tray being given to him the wrong way round by nursing staff. Dr B advised me, "I am at a total loss as to how the relaxant and not midazolam was given."

The different orientation of the tray should not have led to the wrong drug being administered. A simple check of the label would have averted the error. Dr B failed to check the label on the syringe.

Checking the drug to be given is an elementary and mandatory part of anaesthetic practice. Dr B accepts that, for whatever reason, he did not check what drug he was administering. I note that Dr B has now adopted the practice of using different-sized syringes to differentiate between drug types. He no longer takes muscle relaxant drugs into the preoperative area, and reads the label out loud before giving the injection.

The administration of anaesthetic to a patient always has associated risks. It is incumbent upon anaesthetists to carry out their practice in a safe manner that does not expose their patients to unnecessary risk. Dr B failed to provide Mrs A with anaesthetic services with reasonable care and skill, and accordingly breached Right 4(1) of the Code.

Anaesthetic record

Right 4(2) of the Code gives patients the right to have services provided that comply with legal, professional, ethical, and other relevant standards. The relevant standards in relation to the recording of anaesthetic care are found in the Australian and New Zealand College of Anaesthetists Professional Standards document "PS 6 1996, Minimum Requirements for The Anaesthesia Record":

"**3. Anaesthesia Information**

3.1 **Medication:** The details of administration of all drugs including any used by the surgeon, and a description of any unusual response.
3.2 **Technique**: The full details of the anaesthetic technique used, whether general, regional or sedation with monitored anaesthesia care, and a description of any problems encountered.
3.3 **Time:** The time of significant anaesthesia and operative events, observations and interventions including administration of drugs."

It is not disputed that Dr B intended to inject a fast-acting sedative but mistakenly injected a muscle relaxant. However, Dr B has made inconsistent comments concerning the identity of the drugs used. As noted on page 4, in his response to the complaint, Dr B stated that Mrs A received rocuronium 1.5mls. (Rocuronium is a neuromuscular blocker of fast onset and intermediate duration.) In his original hospital incident report Dr B stated that he administered vecuronium 3mg. (Vecuronium is a neuromuscular blocker of intermediate duration.) Furthermore, Dr C recalls Dr B stating that he injected suxamethonium. (Suxamethonium is a neuromuscular blocker of short-acting duration.) The medical records state that vecuronium was given but no dose was recorded.

My advisor was critical of the failure of Dr B to accurately record what drug and dosage was given:

"What is not clear to me is which drug was given.

…

Failure to adequately record the dose and time of the drug given is a failure of the appropriate standard (ANZCA PS 6)."

In his response to my provisional opinion, Dr B submitted that the drug he administered was, in fact, vecuronium, as per his medical records. He explained that he did not inform Dr C which muscle relaxant he used and that he had advised me, in error, that he administered rocuronium, as he had responded to the complaint from memory and had not checked his medical records.

Dr B should have checked his records before responding to Mrs A's complaint. However, I find Dr B's explanation credible and accept that it is probable he provided Mrs A with vecuronium. I am unable to determine what dosage was used as it is not recorded.

My advisor considered that Dr B's record-keeping failed to meet contemporary standards. Although it appears that the drug used was recorded correctly, Dr B failed to record the dosage administered, made no reference to the administration of midazolam, and did not record the details of the incident itself. Dr B has acknowledged in his response to my provisional opinion that his medical records were below standard.

Dr B failed to conform to professional standards in his record-keeping, and accordingly breached Right 4(2) of the Code.

Opinion: No breach – Dr B

Information provided in relation to error
Right 6 of the Code states that a patient has the right to the information that a reasonable patient in his or her circumstances would expect to receive. Under Right 6(1)(a), this includes an explanation of his or her condition. After the surgery, Mrs A was concerned that Dr B withheld from her information about the anaesthetic incident, and did not explain what occurred until the second visit on 16 February.

Dr B advised that when he first saw Mrs A on the evening of the day of surgery, she was in the recovery stage with potentially reduced cognitive abilities. Therefore, he did not explain the incident until he saw her the following day.

My advisor commented, in relation to the information provided by Dr B:

"It is clear that [Dr B] attempted to both explain and apologise to [Mrs A] … Although [Dr B] did not immediately explain what happened, and his apology was perceived as insincere by [Mrs A], he did attempt to explain and apologise. In my opinion he provided an adequate if not completely satisfactory standard of postoperative care."

It is not disputed that Dr B did not fully explain the incident to Mrs A immediately after the surgery. I accept that it was reasonable for Dr B not to provide a full explanation while Mrs A was still under the influence of anaesthetic. Dr B provided Mrs A with an explanation of what occurred at his second visit, the following day. His explanation was perceived as "quite brief" and "downplayed", and his apology was perceived as not being particularly sincere. However, while this was Mr and Mrs A's perception, I do not consider that Dr B's conduct amounted to a breach of the Code.

Accordingly, in my opinion Dr B did not breach Right 6(1)(a) of the Code in relation to the information he provided to Mrs A following the anaesthetic incident.

Vicarious liability

Dr B breached Rights 4(1) and 4(2) of the Code. Section 72 of the Health and Disability Commissioner Act provides for the vicarious liability of an employer and/or principal for the actions of an employee and/or agent. Issues of vicarious liability regularly arise in a hospital environment. However, in this instance, Dr B was independently contracted (rather than employed) by Dr D to provide the anaesthesia for Mrs A's operation. There is no evidence that he was an agent of either Dr D or the hospital. In the absence of a legal employment relationship or agency arrangement no question of vicarious liability arises.

No further action

Dr B's immediate response to anaesthetic error
Mrs A was concerned that Dr B did not respond in a timely manner to her obvious distress. The anaesthetic error caused a traumatic "episode of awareness without ventilation". Mrs A provided a description of her experience, which my advisor described as "extremely harrowing". She was unable to breathe, and struggled to obtain the attention and assistance of medical staff.

There is a conflict of opinion about the length of time that had elapsed before Dr B noticed Mrs A's distress. Mrs A found it difficult to gain Dr B's attention, and said her attempts to communicate were initially ignored. Dr B looked at her as if she was being a difficult patient. Being unable to speak, Mrs A resorted to hitting her chest and mouthing words.

Dr B has a different perspective of what occurred. He stated that Mrs A's distress was obvious within a few seconds because of her face and body movements. Dr B also said that Mrs A misinterpreted his look, which was one of surprise and worry. He stated that he sought to reassure Mrs A after the emergency situation was brought under control.

The hospital's operating room report makes no reference to how much time elapsed, or to communications from Mrs A. Ms E's comment that the adverse reaction was obvious, because of a lapse in consciousness, suggests that there may have been a period of time before Dr B and other clinical staff responsible for Mrs A realised she was in respiratory distress.

In these circumstances, I am unable to determine exactly when or how Dr B (and nursing staff) became aware of the error and noticed Mrs A's distress. I accept Dr B's comment that the experience would have seemed to last forever for Mrs A. I am also unable to determine the extent to which Mrs A demonstrated her distress, and whether Dr B adequately communicated with her in response. Mrs A has no recollection of Dr B seeking to reassure her, but her recollection of events may have been affected by the traumatic experience and subsequent anaesthesia.

I note my expert's comments that "[t]he complication was well-managed but the staff failed to communicate with [Mrs A] during the emergency". I am not satisfied that the evidence is sufficiently clear for me to establish such non-communication.

In light of the uncertainty about how long it took for Dr B to respond to Mrs A's distress, and the dispute about whether he communicated adequately with her, I am unable to determine whether Dr B's response was reasonable in the circumstances.

Accordingly, I have decided to take no further action concerning this aspect of Mrs A's complaint.

Intravenous access to arm

Mrs A stated that she suggested Dr B use her left arm to insert the anaesthetic, as her right arm had previously been difficult to access, but Dr B did not respond. In response to her suggestion, Ms E told Mrs A that the right arm was Dr B's favourite side. Mrs A stated that Dr B ignored her request and, with some difficulty, he obtained intravenous access by inserting an IV cannula into her right arm.

Dr B recalled that when he attempted to insert an IV cannula into Mrs A's right arm he encountered an unusual vein and, as a result, he changed the angle of IV access. Dr B believed that he did explain the reasons for his preference, the prime reason being patient safety. Dr B subsequently elaborated these reasons in his letter of apology to Mrs A.

My advisor commented:

> "Secure accessible intravenous access is essential for surgery such as that [Mrs A had] on 15 February 2001. The normal layout in the operating theatre concerned may dictate which arm [is] more accessible, making one side more suitable for intravenous cannula."

I accept that it was reasonable for Dr B to maintain his preference for intravenous access by way of Mrs A's right arm. However, Dr B was obliged to give Mrs A an explanation of why this was the case. There is a discrepancy about whether Dr B provided Mrs A with a satisfactory explanation. Mrs A stated that Dr B did not respond to her request. Dr B

believed that he did explain his reasons, but was not able to specifically recall what information he provided to Mrs A.

Although Dr B has since accepted Mrs A's comments that she did not receive an adequate explanation, I remain unable to form a clear view about what information was provided to Mrs A. Accordingly, I have decided to take no further action in relation to this aspect of Mrs A's complaint.

Other comment

Insensitive comment
Mrs A stated: "[Dr B] then astounded me with his demand of 'Who had been in here?' – referring to the vein in my right arm." Dr B explained that his comment was "not for anyone in particular, but just thinking aloud when I observed that someone had accessed that vein". He subsequently added that he wanted to put Mrs A at ease.

Understandably, Mrs A was upset by Dr B's insensitive comment. I remind Dr B of the need for sensitivity in making remarks within the hearing of a patient in theatre.

Standard of monitoring
My advisor expressed concern in relation to the intervals of time that elapsed during the monitoring of Mrs A's blood pressure. He stated:

> "Recording of the blood pressure during the operation, especially during a period of hypotension in excess of two hours, at 20 minute intervals is in my opinion inadequate. In a 20 minute period the blood pressure can change significantly and with a systolic blood pressure of only 70 there was not much room for error."

Dr B has since clarified that Mrs A's condition was, in fact, monitored electronically every five minutes, and that his hard copy indicates general trends over a period of time.

My advisor commented that electronic monitoring every five minutes was adequate but noted that ideally a corresponding hard copy would be made.

I accept my expert advice. In my view, optimal practice would be to make hard copy records every five minutes, particularly during an extended period of low blood pressure, to ensure any variations in pressure are immediately noted.

Actions taken

I note that since the events complained of Dr B has reviewed his practice. In particular, Dr B now uses different-sized syringes for sedative drugs and does not take muscle relaxant into the preoperative area. He now reads the label aloud before administering an anaesthetic. Dr B has also provided Mrs A with a written apology.

Follow-up actions

- A copy of this report will be forwarded to Dr D, Dr C and the hospital for their information.
- A copy of this report will be sent to the Medical Council of New Zealand.
- A copy of this report, with details identifying the parties removed, will be sent to the Australian and New Zealand College of Anaesthetists and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.