HEALTH & DISABILITY COMMISSIONER
TE TOIHAU HAUORA, HAUĀTANGA

Anaesthetist failed to disclose information about medication used during surgery

1. On 1 October 2022, the Health and Disability Commissioner (HDC) received a complaint from Dr A regarding the care she received from Dr B, anaesthetist. Specifically, Dr A's complaint concerned Dr B's use of sevoflurane[1] during hip repair surgery on 30 April 2020. Dr A had requested that sevoflurane not be used during her surgery because of a family history of complications in the context of this medication. Dr A was also concerned that Dr B did not inform her after the surgery that sevoflurane had in fact been administered to her during the operation.

Information gathered

2. On 30 April 2020, Dr A had hip repair surgery at a private hospital. Dr B was the anaesthetist for the procedure.

3. Before the operation, on 29 February 2020, Dr A emailed her surgeon's secretary, asking that information be added to her anaesthesiology form. Her email noted concerns about a family history of complications following general anaesthesia. Dr A said that her mother had possibly experienced malignant hyperthermia,[2] although she was unsure of the exact details and her mother did not have further testing to confirm this. Accordingly, Dr A requested that Dr B use propofol[3] as her general anaesthetic, stating: 'I hope they could just use propofol with me?'. This email was forwarded to Dr B on 24 April 2022.

4. Dr B called Dr A to have a pre-surgical assessment and discussion, but it is unclear when this conversation occurred.[4] Dr A said that during the conversation she advised Dr B that she did not want to receive gaseous anaesthetics (specifically, sevoflurane) because of her mother's apparent poor reaction to this medication. Dr A said that she was mainly concerned about the risk of mitochondrial[5] injuries, rather than malignant hyperthermia, which is treatable, and that she explained this to Dr B before surgery. Accordingly, Dr A requested that Dr B use propofol. She recalled that Dr B was 'initially apprehensive' because he considered that complications with sevoflurane were rare but that he ultimately agreed to use propofol.

5. Dr B confirmed in his response to HDC that he agreed during this phone conversation to an anaesthetic plan using intravenous (IV) propofol and to avoid gaseous medications. He disagreed with Dr A's comment that he was reluctant to do this, noting that propofol anaesthetic is commonly used and said that he was happy to use it.

[1] An inhaled general anaesthetic.
[2] A severe reaction triggered by certain gaseous general anaesthesia medications. Symptoms include fever, muscle rigidity, and increased heart rate.
[3] An IV anaesthetic used for the induction and maintenance of general anaesthesia.
[4] Dr A said this conversation occurred in the week before the surgery. Dr B said the conversation happened in 'early March'. It does not appear that Dr B documented this discussion in Dr A's clinical notes.
[5] A lack of energy production from mitochondria in your cells causes mitochondrial disease.

6. Dr A told HDC that, on the day of surgery, Dr B confirmed the use of propofol and that he would not use sevoflurane.

7. Dr B said that, at the preoperative meeting, he offered regional anaesthetic as an alternative,[6] but Dr A chose to have general anaesthetic using propofol. During this meeting, he also agreed not to use sevoflurane.

8. Shortly after surgery started, the bispectral index (BIS) monitor[7] reported a value that suggested Dr A could regain consciousness. The IV line administering propofol was found to be obstructed. Without a functional IV line, and while it was being troubleshooted, Dr B administered a low dose of sevoflurane to deepen Dr A's anaesthesia. Dr B told HDC that the maintenance of anaesthesia to facilitate the ongoing surgical procedure was his priority. The surgery required access to the hip area, so Dr A's arms were folded across her chest and wrapped to hold them in place. She was also covered with a warm air blanket and surgical drapes, making it difficult to access her arms and insert another IV line. Dr B said that the only option in this situation was to provide sevoflurane via the anaesthetic breathing system. Dr B told HDC that, following administration of sevoflurane, there was no indication that Dr A had reacted poorly or exhibited any symptoms to suggest malignant hyperthermia.

9. Dr B said that the IV line was restored, although he could not establish what precisely fixed it, and the rest of the procedure was completed without any further issues or need to administer additional sevoflurane. Dr B noted that occasionally the patient's folded arms can obstruct veins at the elbow, causing IV access issues.

10. Dr B said that he would not usually document such events, noting that the issue was corrected and that BIS monitoring showed a return to an appropriate state of anaesthesia. However, Dr B acknowledged in his response to HDC that he did not adequately document this event in the clinical notes and that making a note regarding the IV line would have been appropriate. The automated anaesthetic record documented that sevoflurane had been administered, although no reasoning as to why it was used, or mention of the IV-line obstruction, is documented.

11. One week following the surgery, Dr A developed an acute kidney injury requiring hospitalisation. In November 2020, she was diagnosed with myalgic encephalomyelitis/chronic fatigue syndrome.[8] Dr A said that, although the diagnosis was eventually made in November 2020, the symptoms began right after the surgery. To assess possible causes of these complications, Dr A reviewed her surgical clinical records. It was then that she discovered she had received sevoflurane during the operation, as Dr B had not informed her of this after the surgery.

12. Dr B confirmed that he did not inform Dr A of the use of sevoflurane because he did not consider it to be important in light of the operation and postoperative recovery going smoothly. He also considered that disclosure would not have provided any comfort to Dr A regarding her concerns about susceptibility to malignant hyperthermia because triggering the condition is reliant on dosage and the agent. Dr B could therefore not provide

[6] Dr A said she was not offered this option.
[7] A device that analyses a patient's level of sedation.
[8] Severe fatigue that does not improve with rest, lasting for at least six months.

reassurance that Dr A was not at risk of malignant hyperthermia. However, in retrospect, Dr B said that not informing Dr A of the sevoflurane use was an oversight, and he has apologised.

Independent clinical advice

13. HDC sought independent clinical advice from Dr Sheila Hart, anaesthetist (**Appendix A**). She identified several departures from expected standards in the care Dr B provided to Dr A relating to disclosure of the use of sevoflurane, maintenance of the IV line, and documentation.

14. Dr Hart stated that, when a drug delivery issue is detected during propofol anaesthetic administration, it is a high priority for this to be corrected so the patient does not regain awareness. Although Dr A had mentioned that her mother may have experienced malignant hyperthermia following the use of sevoflurane (a volatile anaesthetic), Dr Hart considered that the use of sevoflurane was still appropriate because the reaction was unconfirmed and the immediate priority was to maintain anaesthesia. Dr Hart considered that, in the circumstances, it was indicated and appropriate for Dr B to administer sevoflurane to Dr A and to monitor her reaction.

15. Regarding the preoperative assessment, Dr Hart said she would have expected Dr B to record a brief summary of this consultation, including the discussion with Dr A about the use of sevoflurane, the reasons why she wished not to receive it, and the agreed anaesthetic plan. Dr Hart also noted that Dr B did not document the airway assessment. She considered that this amounted to a moderate departure from accepted standards. However, Dr Hart said that this criticism was mitigated by the fact that there are a range of opinions among anaesthetists regarding acceptable standards of documentation. It would not be unusual to see few details recorded by an anaesthetist for a fit and healthy patient, as was the case for Dr A before her surgery.

16. Dr Hart also identified a moderate departure in relation to Dr B's intraoperative documentation. She noted that the lack of intraoperative documentation meant that it was difficult to understand what occurred in relation to the obstructed IV line. Dr Hart said that when consulting with her peers, some felt it was important for this issue to be documented, especially in the context of Dr A's request for sevoflurane not to be used. However, Dr Hart also noted that many of her peers did not take issue with the lack of documentation of the IV issue, as they considered it a minor event and managed appropriately.

17. Dr Hart considered that, in light of Dr A's specific request that sevoflurane not be used, it would have been appropriate for Dr B to have disclosed the use of this medication to her postoperatively and explain the rationale for using it. Dr Hart said that Dr B's failure to openly disclose the departure from the agreed anaesthetic plan amounted to a severe departure from accepted standards.

18. For the sake of completeness, I note that Dr Hart was critical of Dr B's failure to ensure adequate IV access during the procedure. However, her comments were based on the belief that the IV-line issue was not resolved until the surgery was completed and drapes removed. In this respect, I accept Dr B's statement that the IV line was restored, which is corroborated by the anaesthetic record showing cessation of the sevoflurane after approximately half an

hour and well before the operation was completed. I, therefore, do not propose to comment further on this particular matter. However, Dr Hart is correct that intraoperative documentation about this incident is lacking, making it difficult to determine from the record what actually happened with the IV line.

Responses to provisional report

19. Dr A and Dr B were provided with a copy of the provisional report for their comments.

20. Dr A said the complications resulting from the surgery have been disabling and life altering. Other comments made by Dr A have been incorporated into this report where relevant.

21. Dr B said he was disappointed that this case did not reflect his usual standards of practice. He accepted that his documentation could have been better and agrees that he should have disclosed to Dr A the use of sevoflurane and the reasons why it became necessary. Dr B would like to reassure Dr A that he always acted with her best interests in mind.

Opinion: Dr B

Administration of sevoflurane – no breach

22. I am satisfied that, based on Dr Hart's advice, it was indicated and appropriate for Dr B to administer sevoflurane to Dr A notwithstanding the anaesthetic plan that sevoflurane would not be used. This action was necessary because of an IV-line obstruction that temporarily prevented Dr A from receiving IV anaesthetic, resulting in a risk of her regaining consciousness during surgery. This was described by Dr Hart as a 'high priority' to be corrected. Under Right 7(4) of the Code of Health and Disability Services Consumers' Rights (the Code) (which relates to informed consent), providers may provide services in circumstances where the patient is not competent to make an informed choice and it is in the best interests of the consumer. In Dr A's circumstances, she was not 'competent' at the time the urgency arose because she was under anaesthetic, and, in Dr B's clinical judgement, it was in Dr A's best interests to administer sevoflurane to maintain her anaesthesia, despite her previously expressed views. My advisor agreed with that determination, even with the knowledge of Dr A's family history. Accordingly, I consider that Dr B acted appropriately by administering sevoflurane to maintain anaesthesia to Dr A during surgery and in his monitoring for signs of malignant hyperthermia.

Documentation – adverse comment

23. The Medical Council's 'Good Medical Practice'[9] states that doctors must keep clear and accurate records that report (among other things) relevant clinical information, options discussed, the proposed management plan, and decisions made and the reasons for them. It is evident that Dr B's documentation was not adequate with regard to his preoperative assessment, discussions with Dr A and plans regarding the use of sevoflurane, the IV line issue, and rationale for the use of sevoflurane during the operation. Dr Hart was critical of Dr B's documentation, and he has accepted that this could have been better. I agree and am critical of the standard of Dr B's documentation, which was incomplete and missing key details.

[9] https://www.mcnz.org.nz/our-standards/current-standards/good-medical-practice-2/.

Open disclosure – breach

24. Right 6(1) of the Code states that every consumer has the right to information that a reasonable consumer, in that consumer's circumstances, would expect to receive.

25. It is evident that, on three separate occasions (via email, during a preoperative phone conversation, and on the day of surgery), Dr A requested that Dr B not use sevoflurane for her anaesthetic. Dr B confirmed receiving this information on all three occasions and provided verbal confirmation to Dr A during the preoperative phone call and their meeting on the day of surgery that sevoflurane would not be used.

26. Notwithstanding Dr B's clear understanding of Dr A's requests and concerns, he did not advise her that it had been necessary to administer sevoflurane under urgency during the operation, contrary to their agreed anaesthetic plan. He has described his failure to do so as an 'oversight' and has apologised for it.

27. Dr Hart advised that Dr B's failure to disclose that he had administered sevoflurane was a severe departure from accepted standards, and I agree.

28. Open disclosure is an appropriate response where unexpected events directly impact a patient and their future care. In addition, Right 6(1) requires the consumer's individual circumstances to be considered when determining what information they should receive. Dr A clearly indicated to Dr B on multiple occasions how important she considered this issue, and the clinical record reflects her anxiety about the potential for complications arising from the use of sevoflurane. In my view, Dr B had a clear duty to disclose that he had administered sevoflurane to her as that was information that a reasonable consumer in such circumstances would expect to receive. I therefore consider that Dr B breached Right 6(1) of the Code.

Changes made since the events

29. In his response to HDC's notification of an investigation, Dr B informed this Office that he retired from medical practice in December 2021.

30. In addition, I note that, in response to this case, the private hospital undertook a review of its open disclosure policy to include the process to be followed when there is any deviation from the agreed plan of care. It was also exploring a training programme to support clinicians to decide as to when open disclosure is appropriate. I will be following up with the private hospital on these actions.

31. In response to my proposed recommendation, Dr B provided a formal written apology to Dr A for the issues identified in this report.

Recommendations and follow-up actions

32. Noting that Dr B has retired and is no longer practising medicine, I have no further recommendations.

33. A copy of this report will be sent to the Medical Council of New Zealand.

34. A copy of this report with details identifying the parties removed, except the clinical advisor on this case, 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.

Morag McDowell
Health and Disability Commissioner

Appendix A: Independent clinical advice to Commissioner

The following independent advice was obtained from anaesthetist Dr Sheila Hart:

'Independent clinical advice to Health and Disability Commissioner

Complaint:	**Dr [A]/ Dr [B] at [private hospital]**
Our ref:	**C22HDC02436**
Independent advisor:	**Dr Sheila Hart**

I have been asked to provide clinical advice to HDC on case number C22HDC02436. I have read and agree to follow HDC's Guidelines for Independent Advisors.
I am not aware of any personal or professional conflicts of interest with any of the parties involved in this complaint.
I am aware that my report should use simple and clear language and explain complex or technical medical terms.

Qualifications, training and experience relevant to the area of expertise involved:	Dr Sheila Hart BMedSci, MBChB, DTM&H, FANZCA, Advanced PTEeXAM, AFRACMA, CMIoD Specialist Anaesthetist I qualified in November 2011, Fellow of the Australian and New Zealand College of Anaesthetists. I have worked in the Wellington Anaesthesia department since then, with the exception of 1 year (2013–2024) when I completed a cardiac fellowship at Toronto General Hospital in Canada. My current practice is a mix of general and cardiac anaesthesia, along with departmental administration.
Documents provided by HDC:	1. Letter of complaint dated 3 October 2022 2. Dr [B]'s response and supporting clinical records 3. [The private hospital's] response, supporting clinical records, and policies
Referral instructions from HDC:	1. The standard of Dr [B]'s pre-anaesthetic assessment of Dr [A], including the standard of clinical documentation and whether any further investigations were warranted in light of the medical and family history provided. 2. The standard of intraoperative anaesthetic management, including the standard of clinical documentation and the decision by Dr [B] to administer sevoflurane despite Dr [A]'s documented wishes. Should the pre-anaesthetic consent form have referred to the plan to avoid sevoflurane? 3. Expectations regarding open disclosure by Dr [B] of the use of sevoflurane in the circumstances described.

	4. Any additional comments on Dr [A]'s management by Dr [B], including the postoperative period prior to discharge.
Brief summary of clinical events	**Summary of the complaint by Dr [A]** Week prior phone assessment by Dr [B] - Dr [A] recalls indicating sensitivity to ibuprofen and diclofenac causing stomach discomfort and indicating she did not want to receive gaseous anaesthetic due to a family history of issues with anaesthesia in her mum (this was decades ago with no further details). - Dr [A] recalls Dr [B] to be apprehensive about this, but he agreed. Email sent by Dr [A] emphasising her request not to have any volatile anaesthesia 29th February 2020: 'I found out that my mother had a complicated general anaesthesia years ago, but she doesn't know the exact details and if this was malignant hyperthermia or not. I hope they could just use propofol with me?' 30th April 2020 – elective surgery, right hip (repair of labral tear), [private] hospital. Dr [A] recalls confirming propofol anaesthetic at the start of the case and that Dr [B] indicated he would not use sevoflurane (anaesthetic gas). Dr [A] was discharged home and given a prescription that included naproxen despite indicating this caused stomach discomfort. Dr [A] experienced abdominal pain that was subsequently diagnosed as an ulcer and then retrospectively pancreatitis. Dr [A] was admitted to [a public] hospital 7 days after the procedure with an acute kidney injury, which at the time of the complaint had not fully recovered. In November 2020, she was diagnosed with a chronic fatigue syndrome that has significantly affected her life and ability to work. The anaesthetic record was reviewed as part of the assessment of this, and it was noted at this time that sevoflurane had been used during the case. There was no discussion of this postoperatively with Dr [A]. In 2021, a treatment injury claim was declined by ACC. This has added an additional financial burden for Dr [A]. Dr [A] blames Dr [B] and his anaesthetic care on her change from a highly functioning medical professional to a disabled and highly dependent person.

	Summary of provider response: [Private] hospital 26th April 2022 – [Private] hospital received a complaint from Dr [A] with the following concerns: 1. Use of sevoflurane during the procedure 2. Non-disclosure of this postoperatively 3. Adequacy of anaesthetic reporting 4. Lack of post-surgical care/follow-up A response to this complaint was provided to Dr [A] (note not available to me as part of this review). [The private hospital] note as a private hospital that the specialists working there are conducting their own business on the premises (under the credentialing requirements of that organisation); they are not employees or contractors. The email from Dr [A] regarding the use of sevoflurane, along with her anaesthetic questionnaire, were sent to [the private anaesthetic provider] and added to her admission records [at the private hospital]. They note the omission on the anaesthetic record of any comment about why sevoflurane was used during the surgery. This was discussed with Dr [B], who agreed inputting this into the anaesthetic record should have been done. [The private hospital] has a policy for open disclosure after sentinel or adverse events; however, this policy did not apply in this case as at the time there was no adverse event, and recovery and discharge were considered routine. As a result of this complaint, [the private hospital] are reviewing this policy and plan to incorporate a section on open disclosure when the planned care deviates from the agreed plan. They indicate that postoperative follow-up is determined by the specialists caring for the patient. **Summary of Dr [B]'s response to HDC** Indicates a written communication he sent to Dr [A] once he had been alerted to her concerns. No copy of this included in the documentation sent to me. Preop phone assessment was completed, and at that time the issue with anaesthesia that Dr [A]'s mother had experienced was discussed, in particular if this was malignant hyperthermia (a rare hereditary reaction to anaesthetic gases). It was noted that this name had never been mentioned to Dr [A], nor had any genetic testing been organised, which would be usual.

	Dr [B] agreed to provide a propofol-based anaesthetic after discussing the options (including a regional technique). He does not recall any apprehension or resistance to this choice on his part. Intraoperatively, shortly after the surgery started, the BIS monitor showed a number of 80, suggesting an issue with depth of anaesthesia. The BIS monitor analyses brain waves and produces a number between 0 and 100: 100 is wide awake, 40–60 would suggest general anaesthesia. The IV line that the propofol was running through was checked and found to be occluded, suggesting no propofol was reaching Dr [A]. This is a concern for awareness (being awake during the surgery but unable to move). Sevoflurane was started to provide anaesthesia whilst this was managed. A very low dose of this was administered, achieving a maximum of 0.2 MAC (this is a measure of volatile anaesthetic concentration, affected by many things, but usually a MAC of 1.0 is targeted for anaesthesia). Dr [B] acknowledges that not documenting this on the anaesthetic record or discussing it with Dr [A] postoperatively was an oversight, but at the time he did not consider it important. There were no signs of malignant hyperthermia with the use of sevoflurane. He notes the preop assessment is documented on other forms, and he does not normally duplicate this on the intraoperative anaesthetic record. Dr [B] visited Dr [A] on the ward the next day; overnight, she had used a PCA [patient-controlled analgesia] and vomited once. At this visit she appeared well with minimal pain. A prescription for the standard discharge medication was provided. Dr [B] recalls a comment from Dr [A] that she gets gastric discomfort with non-steroidal anti-inflammatory drugs. He added omeprazole to the prescription and suggested she could try that to see if it helped but left the decision to her. Dr [B] indicates that issues with these drugs in the past had not been mentioned to him or documented on the preoperative notes and that Dr [A] was using celecoxib intermittently. As she was a medical professional, he felt she could manage these medications herself. **Summary of notes** [Private hospital] Patient Registration form and health questionnaire - Occupation: [medical professional]

	- Only positive response on health questionnaire was a tick/? in the 'no' column next to the question "Have you or a blood relative ever had any problems during or after anaesthesia?' No additional details in the space provided. - No allergies/sensitivities to drugs or food, sometimes rash with latex gloves - List of medications includes paracetamol, tramadol and celecoxib when needed, but rarely used. **Anaesthesia Assessment Patient Questionnaire** - All negative responses to the screening questions - No analgesic drugs listed on medications being taken - Allergy section – reference to possible latex allergy - Not had an anaesthetic before - Indicates 'nervous about malignant hyperthermia' - Ticked 'no' to question 'do you want to see your anaesthetist before coming to hospital'. Subsequent email to […]: I would like to add something to my anaesthesiology form. 'I found out that my mother had a complicated general anaesthesia years ago, but she doesn't know the exact details and if this was malignant hyperthermia or not. I hope they could just use propofol with me?' **Anaesthesia assessment and consent** - Height, weight, heart rate, respiratory rate, blood pressure, oxygen saturations and temperature recorded. - Noted no meds taken that morning - Paracetamol premedication given - Nil known allergies/sensitivities apart from maybe latex - The anaesthesia assessment part of the form is blank – no comments in the clinical assessment, no indication of an airway assessment. - The consent form indicates a discussion of GA [general anaesthesia], with risks of anaphylaxis, PONV [postoperative nausea] and infection listed. - Consent for blood not completed **Intraoperative Anaesthetic Record (SaferSleep)** - No known allergies recorded - ASA 1 [American Society of Anesthesiologists grade 1], no other details in the preop assessment box - No comments in the intraoperative comments box - Events note airway management and IV line in left hand

	- Medications administered
	  o Midazolam 3mg
	  o Fentanyl 150mcg
	  o Morphine 10mg
	  o Cephazolin 2g
	  o Propofol TCI [target-controlled infusion] at 4mcg/ml, commenced around 1415 and continued throughout
	- Surgery started 1443
	- Shortly after BIS jumps to almost 80
	- Next recording interval shows sevoflurane administration begins, peaking at a concentration of 0.51% and then reducing to 0.3 and 0.2 over the next 15–20 mins. This represents a maximum of 0.2 of a MAC.
	- Remained in PACU [post-anaesthesia care unit] for just over an hour, routine stay hip arthroscopy pathway
	- 3 postop doses of antibiotics
	- Suture removal, wound check at 10 days, patient to arrange.
	Progress notes
	- 30/4/24
	  o 1300 COVID checklist
	  o 1645 returned to ward
	  o Small vomit after dinner
	  o Discharge expected next day
	- 1/5/24
	  o Did not want to be woken in night for analgesia (paracetamol and tramadol), prefers to sleep and is comfortable.
	  o Seen by anaesthesia, vitals normal. PCA stopped and plan for home. Informed of high risk of DVT [deep vein thrombosis].
	  o Another word with a tick next to it that I cannot decipher. Omeprazole and naproxen.
	  o 0830 seen by surgeon, for discharge
	
	Discharge summary
	- Medications: paracetamol, tramadol, naproxen, omeprazole
	- To see surgeon in rooms 27th May

Question 1: The standard of Dr [B]'s pre-anaesthetic assessment of Dr [A], including the standard of clinical documentation and whether any further investigations were warranted in light of the medical and family history provided.	
List any sources of information reviewed other than the documents provided by HDC:	PG06(A) Guideline on the anaesthesia record 2020 ANZCA PG07 Guideline on pre-anaesthesia consultation and patient preparation 2024
Advisor's opinion:	**Standard of preoperative assessment** A preoperative consultation is a standard of care designed to improve patient safety. I am sure this consultation would have been completed by Dr [B]; however, there is very little documented in the notes to summarise this. With the introduction of electronic anaesthetic records (SaferSleep), it is common for the paper anaesthesia assessment form not to be completed and for this information to be inserted into the electronic record. However, it would be expected that a summary of this consultation (however brief) is documented in at least one of these places. The baseline observations have been entered on the paper form, along with medications taken. The consent form is signed. The patient is indicated as 'ASA 1' on the SaferSleep record. This indicates a 'normal healthy patient'. There is no indication of an airway assessment in either of the documents. Dr [B] indicates this information was not included on the electronic anaesthesia SaferSleep record as the information was contained in other preoperative documentation. A medical assessment of the patient may be assisted by questionnaires and/or review of relevant patient records; it cannot be replaced by them. In addition, it is expected that clinical examination will occur, along with the discussion regarding the anaesthetic plan. There is no indication in the record of discussion around the use of sevoflurane. It is unclear if it was mentioned as a casual preference by Dr [A] ('I hope they can use propofol' in her email does not suggest an unwillingness for sevoflurane), or a flat-out refusal to have it as part of her anaesthetic (which is suggested by her complaint). If it was the former, I would not necessarily expect it to be documented, if it was the latter, then this would be important to document. Clearly, this is an important aspect relevant to the complaint.

	Further investigations The information provided by Dr [A] regarding her mother's reaction is vague; it is unclear what the reaction was, although clearly Dr [A] was concerned about it being malignant hyperthermia. It is not clear whether the concern regarding malignant hyperthermia was shared at the preop consultation with Dr [B], it is documented on the patient preop questionnaire as a concern. However, given the severe nature of this reaction, it is usually well known within families that have it (family testing usually occurs). Of course, usually does not mean always. Given this and the plan to use propofol anaesthesia, further investigation would not have been indicated (and would have caused a significant delay to Dr [A]'s surgery).
What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.	PG 06 is a guideline that encourages best practice in the management and care of patients and defines the standards. It recommends the following be recorded as part of the anaesthesia record: *6.2.1 Documentation of the pre-anaesthesia assessment of the patient. This will normally include:* *6.2.1.1 A summary of general medical status by relevant systems and diseases including co-morbidities and ASA risk classification.* *6.2.1.2 Concurrent therapy and any known drug or other sensitivities.* *6.2.1.3 History of previous anaesthesia and relevant surgery.* *6.2.1.4 Physical examination of the patient including assessment of the airway and dental condition.* *6.2.1.5 Results of relevant laboratory data and other investigations.* *6.2.1.6 Fasting status of the patient* *6.2.2 Any pre-medicant drugs prescribed, time given, route of administration and description of any side effects or reactions. Prescriptions must comply with any applicable regulatory requirements.* *6.2.3 An outline of the anaesthesia plan including documentation of discussion with the patient or guardian.* *6.2.4 Documentation of discussion of risks and consent, if not recorded elsewhere.*

	6.2.5 Documentation of consent should include, where relevant, anaesthesia, blood or blood products, financial, staffing, including presence of students and so on, and/or intimate examination by others, and photography. PG07 applies to all anaesthetists planning to provide anaesthesia care. It was updated in 2024, but the points relevant to this have not changed significantly from the 2017 version. Of note, from this document: *4.3 As part of a pre-admission process, written or computer-generated questionnaires, screening assessments, or documented telephone assessments by medical or nursing staff may be used to supplement the consultation as long as the requirement of 4.4 is followed.* *4.4 Even if a preliminary pre-anaesthesia assessment has been performed by some other person, the anaesthetist or medical practitioner responsible for administering the anaesthesia should be satisfied that all elements of that assessment have been adequately addressed, and if necessary, repeat any elements about which there may be doubt.* *5.14 Contemporaneous written notes documenting the consultation and informed consent should become part of the medical record of the patient*
Was there a departure from the standard of care or accepted practice? • No departure; • Mild departure; • Moderate departure; or • Severe departure.	Standard of care relating to documenting the preoperative assessment – Moderate departure.
How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.	Even though the record keeping is a deviation from the standard of care and expectation set by our college, I do not think it would be viewed as unusual by peers. As always, there is a spectrum in the opinions of anaesthetists as to what is necessary to document and the detail required, especially for a fit and healthy ASA 1 patient, with many writing very little on their record. This is especially so in a high-turnover list. Many would at least document an airway assessment. Many would document the discussion around the use of sevoflurane given the concern regarding malignant hyperthermia expressed by Dr [A] as this is an aspect of care

	unique to this patient and her concerns regarding family history: not many patients have this specific request.
Please outline any factors that may limit your assessment of the events.	I can only review what was documented in the records, and this may or may not reflect what actually happened on the day. My assessment is based on the documents provided to me.
Recommendations for improvement that may help to prevent a similar occurrence in future.	Refamiliarisation with the college documents above. Improved documentation of the pre-anaesthesia consultation on either the paper form or on the electronic anaesthetic record for future cases, more in line with the standard expected by ANZCA [Australian and New Zealand College of Anaesthetists]. Document any discussions that refer to a patient's specific requests.
Question 2: The standard of intraoperative anaesthetic management, including the standard of clinical documentation and the decision by Dr [B] to administer sevoflurane despite Dr[A]'s documented wishes. Should the pre-anaesthetic consent form have referred to the plan to avoid sevoflurane?	
List any sources of information reviewed other than the documents provided by HDC:	PG18(A) Guideline on monitoring during anaesthesia 2017 PG09(G) Guideline on procedural sedation 2023 5th National Audit Project (NAP5) on accidental awareness during general anaesthesia: summary of main findings and risk factors. Br J Anaesth 2014;113(4):549–59. PS26(A) Position statement on informed consent for anaesthesia or sedation 2021
Advisor's opinion:	**Intraoperative management of failure of IV line during propofol anaesthesia** Awareness under anaesthesia is an uncommon event (1:19,600 anaesthetics from NAP5 data, but varies with technique 1/8000–1/135,000). It can have devastating consequences for a patient, depending on what they experience, with potential development of post-traumatic stress disorder. Awareness during propofol anaesthesia is more common than when using a volatile anaesthetic and frequently arises due to a technical problem, e.g. intravenous line not working or failure of the pump delivering the medication. Use of the processed EEG brainwave monitor helps detect such problems, although it does not necessarily prevent awareness. It is also more common in cases that use a muscle relaxant. A small dose of muscle relaxant was used in this case (10mg atracurium at induction). If, during a propofol anaesthetic, failure of drug delivery is detected, it is a high priority to correct. Whilst this is being

done, it is appropriate, and indicated, to add in some volatile anaesthetic to reduce the risk of developing awareness. The exception to this would be if the patient is known to be malignant hyperthermia susceptible (confirmed by genetic or muscle biopsy testing). Given the unknown reaction in Dr [A]'s mother and the need to maintain anaesthesia, it is appropriate in this case to have introduced sevoflurane briefly whilst troubleshooting the IV and then monitor for any signs of malignant hyperthermia.

Ensuring adequate IV access is essential for any patient under anaesthesia, irrespective of the technique being used. The priority in this case should have been to resecure a working IV – either by accessing the current one or re-inserting a new one. Dr [B] indicates in his response to the HDC that:

> *'The intravenous (IV) line administering propofol was found to be occluded and in the absence of functioning intravenous access, the only means to deepen anaesthesia was to administer sevoflurane whilst troubleshooting the IV.*
>
> *….*
>
> *At the time I judged that the administration maintenance anaesthesia to facilitate the ongoing surgical procedure was the priority and in the context of a non-functioning IV line and poor access to the patient to insert another line, the only option for maintenance of anaesthesia was sevoflurane administration via the breathing circuit.'*

This raises two concerns:

1. A working IV is required for reasons other than delivering propofol, for example, if there was an unexpected bleed, or an allergic reaction. This is essential even if it interrupts the surgery. It would appear from Dr [B]'s response to the HDC that the IV line was not sorted until after the surgery was finished and patient undraped.
2. The concentration of volatile used, up to 0.51% (0.2 MAC) is not adequate for anaesthesia or to prevent awareness. I note that the BIS number, as an indicator of depth of anaesthesia, did reduce again after the introduction of the sevoflurane.

The intraoperative anaesthetic record indicates a continuation of the propofol infusion, and there is no description of what happened with the IV line. At the time it may have seemed like an inconsequential event managed routinely; however, the anaesthetic record should detail any complications or unexpected events as a contemporaneous record of the patient's care. And, unfortunately, as this case demonstrates,

	these records are invaluable when assessing what has occurred retrospectively. **Consent** The process of consent is a shared decision-making process and agreement on the plan for anaesthesia care that is best for the patient. Dr [B], in his response to the HDC, indicates that 'I agreed to avoid sevoflurane at the pre-operative meeting and both propofol TIVA [total intravenous anaesthesia] and regional anaesthesia with a spinal anaesthetic were offered. Dr [A] chose to have a volatile free anaesthetic with propofol'. This discussion is not documented as part of the consent or preoperative anaesthesia assessment documentation yet represents a specific request from Dr [A]. No evidence of discussion of low risk of awareness. I also note that the acceptance, or otherwise, of a blood transfusion has not been completed as part of the consent. Even though the surgery in this case has a low risk of bleeding, it is still prudent to know if your patient will be willing to receive blood or blood products in an emergency.
What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.	From PG09 *10.1.1 Reliable venous access is desirable; however, consideration may be given to proceeding without venous access for procedures under minimal sedation. Nonetheless, for deeper levels of sedation, venous access is essential.* From PG06 The *anaesthetic* record should include: *6.3.10 Complications or problems: A detailed description of any complications or problems encountered should be included.* From PG26 *6. Documentation of consent* *The extent of documentation may be dictated by local legislation and practice, but it is wise to record significant details of the consent as part of the patient's notes, including reference to the discussion of relevant material risks and the agreement by the patient to undergo the treatment.*

Was there a departure from the standard of care or accepted practice? • No departure; • Mild departure; • Moderate departure; or • Severe departure.	**Intraoperative management** Use of sevoflurane – no departure Failure to ensure adequate IV access during general anaesthesia – severe departure Intraoperative documentation being absent – moderate departure **Consent process** No reference of plan to avoid sevoflurane and why – moderate departure
How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.	The intraoperative use of sevoflurane in the face of the IV failure is in keeping with what peers would do. Not securing IV access is not in keeping with what the majority of peers would do. Although many could not see any issues with the lack of intraoperative documentation as it was a minor event and managed well, others felt it was important to document the issue of the IV line, especially in the context of a specific request from the patient to not use sevoflurane.
Please outline any factors that may limit your assessment of the events.	The lack of intraoperative documentation means it is unclear exactly what happened with troubleshooting the IV line. I can only review what was documented in the records, and this may or may not reflect what actually happened on the day. My assessment is based on the documents provided to me.
Recommendations for improvement that may help to prevent a similar occurrence in future.	Review ANZCA guidelines as above and be more vigilant with documenting intraoperative events, including where care has deviated from the agreed plan.
Question 3: Expectations regarding open disclosure by Dr [B] of the use of sevoflurane in the circumstances described.	
List any sources of information reviewed other than the documents provided by HDC:	[Private hospital] Bylaws Specialist Responsibilities 2021 (provided)
Advisor's opinion:	The intraoperative use of sevoflurane was indicated to reduce the risk of awareness when the IV line stopped working as above. However, given it had been a specific request from Dr [A] not to have it as part of her anaesthetic, it would be appropriate to have discussed this with her postoperatively and explain the rationale for using it. This may have avoided the loss of trust and feeling of betrayal Dr [A] experienced when she found it had been used when reviewing her records after the event.

	Dr [B] has already acknowledged the lack of open disclosure was an oversight on his part in his response to the HDC, indicating he had made contact with Dr [A] to explain as soon as he became aware of her complaint to [the private hospital].
What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.	From [the private hospital] Bylaws *2.6 In the event of any adverse outcome for a patient whilst receiving healthcare at [the private hospital], specialists are responsible for any disclosure of such issues to the patient/family/or representative of the patient required by applicable open disclosure requirements and guidance. It is important for any such disclosure to be witnessed and documented within the clinical records. Specialists are also responsible for advising such issues to the Accident Compensation Commission where required or appropriate, and complete the appropriate documentation.*
Was there a departure from the standard of care or accepted practice? • No departure; • Mild departure; • Moderate departure; or • Severe departure.	Failure to discuss the use of sevoflurane postoperatively in the context of a specific request for it not to be used – severe departure
How would the care provided be viewed by your peers? Please reference the views of any peers who were consulted.	This is a little challenging because it depends on what was the content of the discussion between Dr [A] and Dr [B] and how steadfast Dr [A] was in her request not to have sevoflurane used. If it was along the lines of a preference that was not expressed strongly (as suggested in the email), there was a mix of opinions as to whether they would not have discussed it afterwards. However, if was a strong request/refusal to have it as part of her anaesthetic (as indicated in the complaint), the majority felt it necessary to discuss the use postoperatively as part of open disclosure of a deviation from the agreed care.
Please outline any factors that may limit your assessment of the events.	I can only review what was documented in the records, and the degree of departure from expected care may not be as marked as the written records suggest. As previous, my assessment is based on the documents provided to me.
Recommendations for improvement that may help	Improved documentation all round. Consider what is important to the patient given your preop discussions and document this; this will make it more obvious

to prevent a similar occurrence in future.	if there has been a deviation from the agreed plan that needs to be discussed postoperatively.
Question 4: Any additional comments on Dr [A]'s management by Dr [B], including the postoperative period prior to discharge.	
List any sources of information reviewed other than the documents provided by HDC:	Nil
Advisor's opinion:	Dr [B] reviewed Dr [A] on day 1 post op prior to her discharge – all appeared routine. There was an indication in the record of that visit for naproxen and omeprazole, and these were included on the discharge prescription. Dr [A] received a dose of naproxen that morning at 0840, along with a dose of omeprazole. At that time had declined a dose of paracetamol. She had also declined analgesia overnight with a preference to sleep. This suggests an understanding on Dr [A]'s part that she only needed to use these analgesic medications if required. In addition, as a [medical professional] herself, she would be knowledgeable about these medications. Her subsequent complications, which required her admission to hospital 7 days later, indicate a short course of naproxen, and it is unclear if it was used regularly for that full 7 days. In addition, there is no further information about other medications/illnesses, etc., that may have contributed to an acute kidney injury.
What was the standard of care/accepted practice at the time of events? Please refer to relevant standards/material.	It is standard to review a patient the next day in a private hospital setting. Depending on the facility, it may be the anaesthetist or the surgeon who provides a prescription for discharge medication.
Was there a departure from the standard of care or accepted practice? • No departure; • Mild departure; • Moderate departure; or • Severe departure.	Postoperative care – no departure
How would the care provided be viewed by your peers? Please reference the	Peers would view the postoperative care as standard and in keeping with usual practice.

views of any peers who were consulted.	
Please outline any factors that may limit your assessment of the events.	Nil
Recommendations for improvement that may help to prevent a similar occurrence in future.	Nil