PERSPECTIVE

Anaesthetic Safety: What Do Patients Understand and Expect?

Lowri M. Edwards

School of Medicine, Trinity College Dublin, University of Dublin, Ireland (LEdwards@tcd.ie)

Key Points

- · Patients' satisfaction depends on their prior expectations. These, in turn, are influenced by their understanding of a procedure.
- Provision of adequate pre-operative information can improve patients' perioperative outcomes.
- Patients' understanding of information provided may be optimised by employment of techniques including consolidation by multiple team members throughout the pre-operative period and the presence of a companion during consultations.
- A relative lack of awareness surrounding the anaesthesia and the role of the anaesthesiologists are contributing factors towards patient anxiety.
- A careful balance must be obtained between providing enough information to facilitate informed decision-making without causing unnecessary stress.
- Causes of patients' perioperative anxiety are variable and are often underestimated. Efforts to acknowledge and alleviate this anxiety are known to have therapeutic benefit.
- Patients' expectations of anaesthesia are influenced by a multitude of individual, social and cultural factors. This highlights the importance of meaningful discussion with the patient and a tailored approach to the pre-operative consenting procedure.
- In light of the COVID-19 pandemic, the good health of healthcare workers is increasingly being recognised as a priority for ensuring patient safety.

Keywords: Anaesthetics, Anaesthesiology, Informed consent, Patient expectations, Patient satisfaction, Patient-centred care

The term *expectation* is defined as "a belief that something will happen because it is likely". In order for a patient to have reasonable expectations, they must first have a clear understanding of the procedure, what can and cannot realistically be achieved by it, and what can go wrong with it. Satisfaction refers to the "degree of congruence between expectation and accomplishment"2. It therefore follows that a patient who lacks the necessary information to formulate a realistic expectation is unlikely to be satisfied by the outcome, regardless of the competence of the physician or the quality of care given.

Two types of expectation are relevant here. The first is conscious and acknowledged, whilst the other is often unrealised until it has not been met. When managing another's expectations, one can either explicitly set out to meet them, or alternatively, focus on regulating excessive anticipation. The latter can be facilitated by establishing a doctor-patient partnership in which there are shared responsibilities for ensuring the best possible outcome^{3,4}.

Properly informing all patients undergoing

anaesthesia can be best achieved through a collaborative periprocedural process involving both the patient and healthcare workers4. The benefits of this approach are impressive. This process is necessary from a legal perspective to properly obtain genuine informed consent, but it is also recognised that patients' perception of their care and involvement in this are factors that also influence their perioperative state, and their sense of safety⁵. Studies demonstrate that the provision of adequate information regarding anaesthesia results in improved satisfaction, reduced pain levels, shorter hospital stays, and decreased anxiety, resulting in a reduced need for sedation6.

It is also helpful to understand that expectations change based on the information given. Consent must, therefore, never be rushed, except in rapidly emergent and life-threatening circumstances. Patients' interpretation can often differ from the intended meaning. Ensuring that the message is consolidated by multiple team members is an effective way to reduce the extent to which this happens. Within an appropriate

confidentiality framework, having a companion present during the consenting procedure improves patients' active participation in the conversation and minimises misinterpretation by an unaccompanied anxious patient⁷. Even in the COVID-19 era, this is worth bearing in mind, and may be safely supported by means of telemedicine consultation.

When examining risk, it is understood that surgical patients either do not properly consider anaesthesia, or their anxiety is disproportionate. Both reactions stem from a lack of awareness regarding anaesthesia itself, and the extent of the anaesthesiologist's role. Studies have shown that as few as 52% of patients were aware that anaesthesiologists are qualified doctors⁸, only 30% recognised that anaesthesiologists are involved in postoperative patient management⁹, and 76% of patients did not realise that their survival could depend entirely on the anaesthesiologist¹⁰. These figures suggest that there is a responsibility to ensure that patients fully comprehend the roles of anaesthesia and the anaesthesiologist prior to consenting.

Irwen et al. reported that 90% of patients preferred to be informed of all potential complications, regardless of their severity¹⁰. While many may agree, it is also important to acknowledge individual factors that may contribute to anxiety levels. A balance must be achieved: on one hand, providing enough information to facilitate informed decision-making, while on the other, avoiding causing undue stress that could potentially cause patients to opt out of important procedures¹¹. Burkle et al. reported that a majority of patients believed that common, less severe, and rare but highly consequential complications should all be disclosed, and that discussion should not be limited based on patients' suspected or apparent inability to comprehend the complexities of their care^{12,13}.

Anxiety is both an important and complex consideration in anaesthetics. Perioperative anxiety is known to correlate with greater requirement for anaesthetic, higher levels of postoperative pain, increased incidence of nausea and vomiting, and longer hospital stays¹⁴. Despite this, Badner et al. reported that anaesthesiologists tend to consistently underestimate patients' anxiety¹⁵. One study found that the commonest causes of perioperative anxiety included postoperative pain, regaining of consciousness or sensation during the surgery, dislike of needles or invasive procedures, and fear of death¹⁴. While these fears are understandable, it is the doctor's role to reassure and provide factual information to ensure that the patient's concern is proportionate to the actual risk.

Generally, lower anxiety levels correlate with

increased age^{16,17} and male sex¹⁶, but curiously there is no relationship with education level^{14,17}, or prior experience^{14,16}. Whilst managing patient expectations, anaesthesiologists could usefully attempt to understand and address factors and individual circumstances which contribute to patients' anxiety. The impact of alleviating this stress is so potent that it has been likened to "a dose of morphine" ¹⁶.

Much like anxiety, patients' wider expectations of anaesthesia are influenced by multiple factors. These vary depending on the patient's age, attitudes, type of surgery or anaesthesia, prior experience, risk profile, and level of suffering, among other influences. Cultural norms also play a substantial role in determining patient satisfaction. For example, one study highlighted significant differences in the anticipation and acceptance of pain levels reported between American and Vietnamese patients following highly similar procedures and methods¹⁸. Consideration of the family's expectations is also important, especially in the care of paediatric and elderly patients. Given these complexities therefore, it would be difficult for physicians to reliably predict patients' specific expectations without direct and meaningful discussion. Ticking boxes on a pre-op consent form falls short of what the current evidence indicates is good and necessary practice.

The recent COVID-19 pandemic has exposed a previously unrecognised expectation from healthcare workers—the expectation of their own good health. Anaesthesiologists and their colleagues on the front line have faced significant exposure not only to the virus itself but also the indisputable mental health care burden that has ensued¹⁹. Recognition of the impact of fatigue and poor health on performance has motivated the appreciation of healthcare worker safety as a priority for ensuring patient safety^{19,20}.

Care that is truly patient-centred is focused on incorporating the individual needs and expectations of patients into the provision of healthcare⁶. Patients can reasonably expect their anaesthesiologist to be healthy, competent, respectful, truthful, professional, to have regard for autonomy, and to act in their best interest. These expectations are universal to all healthcare professionals. Beyond this, patients should also expect an honest and bipartisan conversation resulting in an agreement on mutual and realistic goals, rather than one restricted to specific outcomes. "In somno securitas", the motto of the Association of Anaesthetists of Great Britain, refers not only to the physical safety of the anaesthetised patient, but also the peace of mind that results from true patient-centred perioperative care²¹. ◄

Declarations

This essay was originally submitted as part of the College of Anaesthesiologists of Ireland 7th Annual Medical Student Essay Competition 2020. The author declares no conflicts of interest.

References

- 1. Oxford Learner's Dictionaries. Expectation: Oxford University Press; 2020 [Available from: https://www.oxfordlearnersdictionaries.com/definition/ american_english/expectation].
- 2. Heidegger T, Saal D, Nuebling M. Patient satisfaction with anaesthesia care: what is patient satisfaction, how should it be measured, and what is the evidence for assuring high patient satisfaction? Best Pract Res Clin Anaesthesiol. 2006;20(2):331-46.
- Lateef F. Patient expectations and the paradigm shift of care in emergency medicine. J Emerg Trauma Shock. 2011;4(2):163-7.
- 4. Royal College of Anaesthetists. You and your anaesthetic, 2020 [5th edition:[Available from: https://www.rcoa.ac.uk/sites/default/files/ documents/2020-05/02-YourAnaesthetic2020web.pdfl.
- Soejima K, Goto A, Vu PT, Bien le HT, Vinh NQ, Minh PN, et al. Perception of anesthesia safety and postoperative symptoms of surgery patients in Ho Chi Minh City, Vietnam: a pioneering trial of postoperative care assessment in a developing nation. Environ Health Prev Med. 2010;15(6):333-43.
- Hadjistavropoulos HD, Dobson J, Boisvert JA. Information provision, patient involvement, and emotional support: prospective areas for improving anesthetic care. Can J Anaesth. 2001;48(9):864-70.
- 7. Isenberg SR, Aslakson RA, Dionne-Odom JN, Clegg Smith K, Singh S, Larson S, et al. Family companions' involvement during pre-surgical consent visits for major cancer surgery and its relationship to visit communication and satisfaction. Patient Educ Couns. 2018;101(6):1066-74.
- O'Donnell BD, Iohom G. A cross-sectional survey of anaesthesia-related expectations amongst patients awaiting upper limb trauma surgery. Rom J Anaesth Intensive Care. 2017;24(2):133-8.
- 9. Smith A, Mannion S. Irish Patients Knowledge and Perception of Anaesthesia, Ir Med J. 2013:106(2):50-2.

- 10. Irwin M, Fung S, Tivey S. Patients' knowledge of and attitudes towards anaesthesia and anaesthetists in Hong Kong, Hong Kong Med J. 1998;4(1):16-22.
- 11. General Medical Council. Consent: patients and doctors making decisions together 2008 [Available from: https://www.gmc-uk.org/static/ documents/content/Consent_-_English_0617.pdf].
- 12. Burkle CM, Pasternak JJ, Armstrong MH, Keegan MT. Patient perspectives on informed consent for anaesthesia and surgery: American attitudes. Acta Anaesthesiol Scand. 2013;57(3):342-9.
- 13. Yentis SM, Hartle AJ, Barker IR, Barker P, Bogod DG, Clutton-Brock TH, et al. AAGBI: Consent for anaesthesia 2017: Association of Anaesthetists of Great Britain and Ireland. Anaesthesia. 2017;72(1):93-105
- 14. Celik F. Edipoglu IS. Evaluation of preoperative anxiety and fear of anesthesia using APAIS score. Eur J Med Res. 2018;23(1):41.
- 15. Badner NH, Nielson WR, Munk S, Kwiatkowska C, Gelb AW. Preoperative anxiety: detection and contributing factors. Can J Anaesth. 1990;37(4 Pt 1):444-7.
- 16. Norris W, Baird WL. Pre-operative anxiety: a study of the incidence and aetiology. Br J Anaesth. 1967;39(6):503-9.
- 17. Shevde K, Panagopoulos G. A survey of 800 patients' knowledge, attitudes, and concerns regarding anesthesia. Anesth Analg. 1991:73(2):190-8.
- 18. Carragee E, Vittum D, Truong T, Burton D. Pain control and cultural norms and expectations after closed femoral shaft fractures. Am J Orthop (Belle Mead NJ). 1999;28(2):97-102.
- 19. Association of Anaesthetists. World Patient Safety Day 2020. 2020 [Available from: https://anaesthetists.org/Home/News-opinion/News/ World-Patient-Safety-Day-2020].
- 20. Riad W, Mansour A, Moussa A. Anesthesiologists work-related exhaustion: A comparison study with other hospital employees. Saudi J Anaesth, 2011:5(3):244-7.
- 21. Association of Anaesthetists. History of the Association of Anaesthetists 2020 [Available from: https://anaesthetists.org/Home/About-us/History].