

Patients' attitudes towards the involvement of medical students during induction of regional anesthesia

Rajiv K Malhotra
Gurunath Hosdurga

Department of Anesthesia, Weston
General Hospital, Weston-Super-Mare,
United Kingdom

Study objective: We surveyed patients undergoing day surgery to determine attitudes towards medical students' during induction of regional anesthesia.

Design/Interventions: During a two-month period, an anonymous questionnaire was given to one hundred and eighty patients presenting for elective day surgery with planned regional anesthesia.

Setting: Pre-operative assessment area in a district general hospital.

Patients: All adult elective day surgery patients undergoing regional anesthesia.

Main results: One hundred sixteen patients (72%) would allow medical students to be present during the induction of regional anesthesia, and 104 (63%) would allow medical students to perform basic procedures.

Conclusions: This survey confirms that the majority of patients undergoing regional anesthesia would allow medical students to be present during the induction and to participate in supervised procedures. Concerns regarding patient anxiety could be alleviated by the introduction of the student pre-operatively; the problem of clinical errors made by students is the responsibility of the supervising doctor, and careful selection of practical procedures is crucial.

Keywords: patient survey, regional anesthesia, medical student

Introduction

Clinical teaching is a central part of medical student education. These patient encounters can promote clinical learning, improve communication skills and start to develop the basis for a future doctor–patient relationship. However conflict can arise between the educational requirements of medical students and the needs of the patients. Previous studies have shown that patients are generally tolerant of medical students in a variety of settings from the emergency department¹ to outpatient clinics.^{2–7} However, no study has yet enquired about the acceptability of medical students during the induction of regional anesthesia. This can be an excellent forum for basic and clinical science education, but there are concerns regarding the acceptability of medical students to potentially anxious patients.^{4,5} We therefore surveyed pre-operative day case patients to determine attitudes towards medical students' presence and involvement.

Materials and methods

The study took place in a small district general hospital, which serves as a placement for medical students attending the local medical school. We performed a survey of all adult patients presenting for day surgery under regional anesthesia during the period of October to November 2009. One hundred eighty patients were handed an anonymous

Correspondence: Rajiv Malhotra
44 Stottbury Road, Bristol, UK, BS7 9NG
Tel +44 7931984456
Email rajivmalhotra1@hotmail.com

questionnaire (Appendix A) to complete whilst waiting in the pre-operative area.

Results

Of the 180 forms issued, 164 were completed (response rate of 91%). The mean age of the responders was 55.4 years (range 22–89 years), with 56% being male and 44% female. Table 1 outlines the regional anesthesia procedures performed for the survey participants. One hundred sixteen patients (71%) would allow medical students to be present during the induction of regional anesthesia, and 104 (63%) would allow medical students to perform simple tasks under supervision.

In total, 160 patients recognized the benefits for medical students being present in the theater environment. One hundred forty-nine patients (91%) identified potential educational merits, 94 (57%) acknowledged the opportunity to practise skills, and thirty-three patients (20%) stated that the theater environment provided an opportunity for medical students to talk to patients.

Only 22 patients (13%) stated any concerns about medical students being present. The two main points of concern focused on the fact that medical students may make a mistake and that the patients were too nervous; comments included “what if the student did something wrong before it was noticed”, “what if the student injected the wrong drug or amount of drug”, and “their presence would make me more nervous”.

Discussion

Patients who are to undergo an operation have many pre-operative fears, and a large portion of these focus on the anesthetic technique.^{8,9} There is a concern that the addition of medical students to this area may not be acceptable to patients. This survey has shown that 71% of patients would allow medical students to be present. This result agrees with previous research that reveals a general trend of acceptance amongst patients for medical student involvement.^{1–7}

The benefits to medical students of being in the induction room are numerous and include the chance to practise skills

under supervision and work within a multi-disciplinary team. Importantly, this survey demonstrates that patients recognize the benefits for medical students being present in these clinical areas and practising clinical skills; this understanding may be why a majority of patients would allow students to perform supervised procedures such as the cannulation of a vein. Thirty-three patients felt that it would provide a further opportunity for students to practise their communication skills and build experience in how to approach and communicate effectively with anxious patients.

Only 13% of the patients who completed our survey raised concerns about the presence of medical students. Exacerbation of patient anxiety was brought up and this must be avoided; the impact of a simple introduction by a medical student pre-operatively cannot be underestimated, and limiting the number of medical students may also help. The issue of potential mistakes made by medical students could also be addressed in the pre-operative visit; the patient must understand that their safety is paramount and the doctor is responsible for ensuring this.

The ideal location and timing of this initial interaction between the medical staff and students and the patients is not clear. In patients having regional anesthesia in hospitals that routinely have medical students, it may be appropriate to counsel all patients in clinics beforehand, probably when consent for surgery is being taken. If this route is taken, we still feel that it is necessary for the medical student to introduce themselves to the patient on the day of surgery. Our survey was performed on patients waiting in the pre-operative area. This area consists of a ward adjacent to the operating theaters where day case patients are admitted and prepared for theater (eg, changing into theater gowns, documenting vital signs, checking consent for surgery is documented). This setting allows consent for medical student involvement to occur on the day of surgery and provides a private setting for the medical student to develop a rapport with the patient and for the supervising doctor to allay any last-minute patient fears.

The results of this survey confirm that most day case patients recognize the educational benefits of medical student participation in the induction of regional anesthesia and are accepting their presence. Concerns regarding patient anxiety and potential clinical errors must be addressed in the pre-operative period; this should include an introductory visit by the medical student in question and a discussion between the patient and the supervising doctor.

Table 1 The types of regional anesthesia performed in the survey participants

Type of regional anesthesia	Number of patients (%)
Spinal anesthesia alone	114 (69.5)
Spinal anesthesia with sedation	39 (23.8)
Brachial plexus blockade alone	10 (6.1)
Brachial plexus blockade with sedation	1 (0.6)

Ethical approval

Ethical approval was waived by Weston General Hospital Audit and Research Board. All survey forms were anonymous.

Disclosure

No conflicts of interest were declared in relation to this paper.

References

1. Santen SA, Hemphill RR, Spanier CM, Fletcher ND. "Sorry, it's my first time!" Will patients consent to medical students learning procedures? *Med Educ.* 2005;39(4):365–369.
2. Shann S, Wilson JD. Patients' attitudes to the presence of medical students in a genitourinary medicine clinic: a cross sectional survey. *Sex Transm Infect.* 2006;82:52–54.
3. Hajioff D, Birchall M. Medical students in ENT outpatient clinics: appointment times, patient satisfaction and student satisfaction. *Med Educ.* 2002;33(9):669–673.
4. Ryder N, Ivens D, Sabin C. The attitude of patients towards medical students in a sexual health clinic. *Sex Transm Infect.* 2005;81(5):437–439.
5. Hartz MB, Beal JR. Patients' attitudes and comfort levels regarding medical students' involvement in obstetrics-gynecology outpatient clinics. *Acad Med.* 2000;75(10):1010–1014.
6. Mavis B, Vasilenko P, Schnuth R, Marshall J, Jeffs MC. Medical students' involvement in outpatient clinical encounters: a survey of patients and their obstetricians-gynecologists. *Acad Med.* 2006;81(3):290–296.
7. Shah-Khan M, Chowdhry S, Brand MI, Saclarides TJ. Patient attitudes toward medical students in an outpatient colorectal surgery clinic. *Dis Colon Rectum.* 2007;50(8):1255–1258.
8. Shevde K, Panagopoulos G. A survey of 800 patients' knowledge, attitudes, and concerns regarding anesthesia. *Anesth Analg.* 1991;73:190–198.
9. Oberle K, Allen M, Lynkowski P. Follow-up of same day surgery patients. A study of patient concerns. *AORN J.* 1994;59(5):1016–1018.

Appendix A

Dear Patient

This is a short questionnaire to find out your thoughts on having medical students (student doctors) in theater whilst you are having your operation.

This is completely **confidential**.

Age:yrs

Sex: **Male**

Female

1. What do you think are the advantages for medical students being present in theater?

- Education

- Familiarity with theater environment

- Practice

- Any others ?

2. Would you be ok with medical students being present in the anesthetic room as you have your anesthetic?

Yes

No

3. Would you be ok with medical students helping the anesthetic team with procedures (eg, putting a drip into the back of your hand)

Yes

No

4. What are your main concerns with medical students being present? (eg, too crowded, too nervous, they may make a mistake, I don't feel safe)

5. Are there any other issues regarding medical students being present in theater that you would like to raise?

Local and Regional Anesthesia

Dovepress

Publish your work in this journal

Local and Regional Anesthesia is an international, peer-reviewed, open access journal publishing on the development, pharmacology, delivery and targeting and clinical use of local and regional anesthetics and analgesics. The journal welcomes submitted papers covering original research, basic science, clinical studies, reviews & evaluations,

guidelines, expert opinion and commentary, case reports and extended reports. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <http://www.dovepress.com/local-and-regional-anesthesia-journal>