

# Communication between anaesthesiologists and patients: how are we doing it now and how can we improve?

Alison Hool<sup>a</sup> and Andrew F. Smith<sup>b</sup>

<sup>a</sup>Department of Anaesthesia and <sup>b</sup>Lancaster Patient Safety Research Unit, Royal Lancaster Infirmary, Lancaster, UK

Correspondence to Dr Andrew F. Smith, Lancaster Patient Safety Research Unit, Royal Lancaster Infirmary, Ashton Road, Lancaster, UK  
Tel: +44 1524 583517; fax: +44 1524 583519;  
e-mail: andrew.f.smith@mbht.nhs.uk

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## Purpose of review

The purpose of this review is to present and bring together the relatively small body of recent work on anaesthesiologist–patient communication.

## Recent findings

Anaesthesiologists and patients may have different ‘agendas’ during their consultations, with anaesthesiologists focusing more on information and patients more on the emotional aspects of care. As effective communication implies a two-way process, anaesthesiologists should be aware of this. Communication can make good use of written media, video, E-mail and telephone as well as face-to-face interaction. The content of communication, both verbal and nonverbal, is critical but much of this is learned informally despite the recent interest in teaching communication skills. Some recent studies have observed and described how communication is actually performed in practice and these are a useful starting point for reflection and experiment. The few studies to examine whether communication can improve outcomes for patients have all produced broadly positive findings. Communication with children, communicating about risk and dealing with the aftermath of anaesthetic disasters are also reviewed specifically.

## Summary

Communication between anaesthesiologists and patients is essential for effective clinical practice. Some practical suggestions are made and pointers to further reading given.

## Keywords

communication, paediatric anaesthesia, patient information, risk

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## Introduction

Effective communication between doctors and patients improves patient satisfaction, recall of information, medical outcomes and can even protect doctors against malpractice litigation [1••]. Poor communication bedevils professional and personal relationships [2]. Anaesthesiologists work throughout the hospital in many different settings and need to be able to communicate appropriately with patients in each. Despite its importance in everyday practice, and its prescription as an essential part of postgraduate training in anaesthesiology in many countries, communication between anaesthesiologists and patients has been little studied. In this review, we aim to bring together recently published work in this field.

## Communication: a two-way process

Tate [3] has proposed a model of the medical consultation based on the assumption that patients and doctors have different agendas. These agendas may not align and

may even conflict. For instance, the doctor’s first priority may be information gathering and collecting facts, with sharing of understanding further down the agenda. A patient, on the contrary, may be more concerned with hopes, fears and hidden or perceived problems, with the exact detail of the presenting problem being of less importance. This theoretical model was borne out by the work of Kindler *et al.* [4••], who analysed what was said during videotaped routine preanaesthetic visits. More than 60% of anaesthesiologists’ utterances were concerned with receiving and giving information, whereas only 7% were of emotional affect. Patient involvement (expressed as number of patient statements, questions, expressions of concern and amount of psychosocial discussion) correlated well with the anaesthetist using facilitators, asking open questions or expressing affective comments. Capuzzo *et al.* [5•] also found that inpatients undergoing anaesthesia value highly those elements of care that pertain to emotional and interpersonal relationships. Two recent studies [6,7] have highlighted the importance of appropriate communication skills in eliciting drug allergy-related information from

patients, illustrating how good communication can be critical for safety.

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### Communication formats

Face-to-face interaction is the mode of communication which attracts the most attention. The preoperative consultation is one of the most important interactions for the anaesthesiologist and patient alike. However, it appears to be possible to enhance the value and effectiveness of the routine interview. Snyder-Ramos *et al.* [8] compared three methods of conducting the pre-anaesthetic visit: face-to-face interview, brochure and video in 272 patients. The brochure and video techniques were conducted in combination with an interview as neither can be said to allow the discussion necessary to gain informed consent. The authors showed statistically significant increase in patient satisfaction and information gain in the video group compared with the interview alone, and also between the video and the brochure.

Written information is also widely used. A study by Binhas *et al.* [9] found that only 16.7% of patients had received information on postoperative pain management (POPM) during their consultation with an anaesthetist. Previous work had shown both that patients may have insufficient understanding of its management and that they would like more information. The authors introduced a patient information leaflet on POPM which was given to patients prior to their consultation with the anaesthetist, and also informed the anaesthetists in the department of the poor initial findings. A repeat survey found that 57% of patients discussed pain management in their consultation. The written information improved patients' knowledge, but also seemed to encourage patients to seek information on POPM and facilitated discussion.

Electronic mail is a technology little used in patient communication. Stalberg *et al.* [10] evaluated the effectiveness of e-mail communication between surgeon and patient prior to elective surgery. After the initial preoperative consultation, patients were randomized into either receiving an information sheet promoting e-mail as the preferred method of communication or a standard information sheet (telephone/fax number and postal address). More patients in the e-mail group made additional contact with the surgeon, suggesting e-mail promotes physician-patient interaction. E-mail allows patients to raise issues or ask questions that they felt inhibited about in the face-to-face interviews, but would be quite unsuitable for some tasks such as the breaking of bad news. Patients' privacy must also be safeguarded. It cannot replace face-to-face contact but may be a useful adjunct in preoperative anaesthesia evaluation.

Other methods of communication have also been explored in the perioperative setting. Jones *et al.* [11] evaluated follow-up by telephone after day case adenotonsillectomy, rather than the traditional clinic visit 2–4 weeks postoperatively. They enquired about postoperative complications, pain management and return to normal diet and activities. Although the opportunity for a clinic visit was available at any time, only 15% of 2554 patients required a postoperative visit (28% of these were at the surgeon's request due to the need for further surgery). Telephone follow-up also lends itself to anaesthesia, especially for day case surgery and for postnatal women who have had an epidural for labour. In both these circumstances, patients may not stay in hospital long enough for complications to become evident. Patients' privacy should be respected, and telephone contact avoided unless patients have been asked before discharge and agreed to this.

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### The content of anaesthesiologist-patient communication

In communication, what is said and how it is said is of great importance. However, many of the techniques used by experienced anaesthesiologists have not been formally taught to them, but have been learned instead as part of the informal or 'tacit' knowledge of anaesthetic practice [12]. A number of recent studies have explored how such communication is actually carried out in practice, focusing on the induction of general anaesthesia. Drawing on data gathered observing anaesthesiologists at work, Smith *et al.* [13\*\*] studied the styles of communication on induction and found three categories. These were: evocative communication (which was intended to invoke reassuringly pleasant or familiar images), descriptive communication (in which anaesthetist explains to the patient what they may expect to feel) and functional communication (in which the talk is geared to assessing depth of anaesthesia or maintaining physiological stability). Typically, these are formed through repeated practice into 'routines', which often incorporate elements from two or three of the communication types identified. The authors did not witness these being explicitly taught, even though a number of the observed sessions were when a consultant was working with a trainee, suggesting that a substantial proportion of teaching and learning goes on unrecognized. A further point of note was that although the talk was nominally for the patient's benefit, it also served to signal to the anaesthesiologist's assistant that induction was about to take place.

Carlyle *et al.* [14\*\*] investigated communication during induction of anaesthesia in children. Commonly used communication techniques included voice changes, distraction, repetition, imagery and direct commands; the balance of techniques varying with the age of the child.

They also found a 17% incidence of 'sabotage', which was defined as the use of language with negative emotional content, for instance saying, 'this injection will sting'. Such comments were made variously by anaesthesiologists, parents and surgeons. An earlier observational study by Lang *et al.* [15] suggested that phrases and comments with negative emotional content can increase pain perception and anxiety, so all members of the healthcare team should be aware of the impact their utterances can have. Many of the communication techniques used by the paediatric anaesthetists in the Carlyle *et al.* study can be broadly characterized as hypnotherapeutic, in that the suggestions embodied in these techniques elicit subconscious changes in patients' perception, mood or behaviour in a way that facilitates a neutral, positive or inadvertent negative response.

The same group has also tested the notion that negative emotional comments may increase pain perception by investigating the effect of communication on pain during intravenous cannulation [16<sup>•</sup>]. There was greater verbalization of pain and withdrawal response in the 'sting' group. Despite some methodological drawbacks to the study, the authors' finding appears valid and goes against widespread belief that warning patients of pain is beneficial and starts to suggest it may actually be undesirable.

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### Paediatric anaesthesia

The same principles of two-way communication apply as for adults, as it is important to listen to children and take their views seriously when making decisions and planning treatment. Two recent studies have attempted to identify how children themselves feel about the perioperative period and what they want to know, as opposed to the information needs of their parents.

Wennström *et al.* [17<sup>•</sup>] used semi-structured interviews, participant observation, field notes and drawings to explore children's thoughts and feelings about the hospital visit. They found the children they studied (all aged between 6 and 9 years) felt they were forced into an unpredictable and distressing situation. They feared the unknown, losing control, breaking away from daily routine and pain. Children tried to gain some control by asking questions and relating to earlier experiences. Post-operatively they 'breathed a sigh of relief' and appreciated regaining normality in life. The authors suggest that continuity of care and the opportunity for repeated dialogues (rather than one-way communications) with their anaesthetic providers may better prepare the child for surgery and anaesthesia by gaining a sense of control.

On a more factual level, Smith and Callery [18] conducted a qualitative study using the 'write and draw' interview method to examine in detail the preoperative

information needs of a small group of 7–11-year-olds. None of the children had received information from the hospital or healthcare professionals. They had gained their information from reading the parent's information leaflet, from visiting relatives in hospital, from the television or explanations from parents. It should not be assumed that parents/carers feel comfortable preparing their child for admission or possess the necessary knowledge. The children in the study had numerous questions about their admission including questions about anaesthesia, procedures, hospital environment, pain, family support and their underlying medical condition. These are listed in the article and may be of use to those preparing information materials for children. The authors suggest that an information leaflet could be sent to the child, as well as the parents.

Information materials may be based on what the producer, rather the recipient, thinks is necessary. Wisselo *et al.* [19<sup>•</sup>] constructed a questionnaire to elicit parents' information needs and used the responses to produce a video to be used as part of the preoperative preparation process. Common themes were premedication, induction of anaesthesia, side-effects of anaesthesia and postoperative pain. Spencer and Franck [20] compared parental knowledge, anxiety and satisfaction in two groups who received an anaesthesia information leaflet at different times: at the presurgical assessment clinic and by post 1 week after, and found that earlier information seemed beneficial. However, both groups still had unmet information needs on the day of surgery. The same authors have also recently written a review article on the subject [21].

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### Communicating risk

One key aspect of communicating with patients about anaesthesia is the discussion of risk. This is important firstly so that patients have a clear idea of the interventions proposed, and so can weigh up the potential risks and benefits. It thus allows them to make informed choices and take a full part in the consent process [22]. It also permits them to make changes to improve their chances of a successful outcome – for instance, by giving up smoking preoperatively. Anaesthesia is perceived by many patients as especially risky; they are often more afraid of the anaesthetic than the surgery which it enables. However, this is matched by anaesthesiologists' deep-seated cultural preoccupation with safety. It is no surprise then that many interactions between patients and their anaesthesiologists centre on safety. This is often explicit, but, as we found working on the UK Royal College of Anaesthetists' Patient Information Project (<http://www.rcoa.ac.uk/index.asp?PageID=126>), notions of risk and safety are touched upon in every aspect of our contact with patients, and cannot be 'packed away' into a separate section of the information leaflet or one

isolated part of the consultation [23]. One possibility is that the current desire for the risks of medical care to be 'brought out into the open' springs partly from concerns over the nature of the doctor–patient relationship in general. If this is so, then it is not sufficient simply to find and publicize our most accurate estimates of the risks of anaesthesia. The whole tone of our written information, the way we conduct ourselves in person, communicate our beliefs and intentions are more important than the factual content of the words or numbers we use. We must inspire trust in those whom we treat. We have published a more detailed review of how people perceive risk and the various ways of communicating risks in anaesthesia [24\*\*].

### Dealing with anaesthetic 'disasters'

Another area in which anaesthetists may benefit is in training in communication skills specific to the aftermath of an adverse event. Manser and Staender [25\*\*] wrote a review article on supporting healthcare professionals to meet patient expectations through open disclosure in the event of an adverse event. They express how patients and families clearly expect an acknowledgement of the adverse event and that lack of acknowledgement and information increases the likelihood of litigation, decreases trust in doctors, lowers satisfaction and causes a stronger negative emotional response. It seems though that there are still barriers to open disclosure and that the willingness of doctors to disclose decreases as the severity of the outcome increases [26]. This may be due in part to discomfort and lack of training. Learning what patients expect and find most important in the aftermath of an adverse event, communication skills in breaking bad news, attitudes towards adverse events and disclosure, self-awareness and cultural variations are all important teaching points [25\*\*]. Gaba *et al.* [27] describe a simulator scenario used in training in anaesthesia crisis resource management when a healthy patient dies unexpectedly during general anaesthesia. Participants do not know in advance the patient will die despite their best efforts or that the scenario will continue afterwards with role play with a family member. The stress of the prior simulator scenario makes this role play with a family member more realistic. They received very positive feedback from data evaluating the training.

### Conclusion: improving communication

Some of the studies mentioned above offer pointers towards improvement. Harms *et al.* [1\*\*] developed a 20-h training programme to teach communication skills to anaesthetists using videotaped reviews of their preoperative visits and role play. This improved anaesthesiologists' interpersonal skills but had a limited effect on patient satisfaction and no apparent effect on anxiety levels.

Smith *et al.* [13\*\*] suggested that observational methods with transcript analysis and debriefing may be a method of incorporating an awareness of such aspects of anaesthesia expertise for trainees and experienced practitioners. Further, the work of Cyna's [14\*\*,16\*] group, drawing on broadly hypnotherapeutic techniques, is also promising.

Although the interest and investment in communication skills training in medical schools and postgraduate training schemes have risen significantly in the past few years, few programmes have assessed the effect in terms of patient outcome.

Anaesthesia, however, is a practical specialty and we cannot wait until the research literature has grown sufficiently to answer our questions. In the meantime, we hope that this article has made readers more aware of the possibilities for anaesthesiologist–patient communication and provided some starting points for experimentation and learning. A previous review [2] outlines some general communication principles and details how some specific communication tasks might be approached.

### References and recommended reading

Papers of particular interest, published within the annual period of review, have been highlighted as:

- of special interest
- of outstanding interest

Additional references related to this topic can also be found in the Current World Literature section in this issue (p. 456).

- 1 Harms C, Young JR, Amsler F, *et al.* Improving anaesthetists' communication skills. *Anaesthesia* 2003; 58:1–7.
- This group designed a 20-h communication skills programme, but could only show modest increased patient satisfaction and decreased anxiety posttraining. Anaesthetists' interpersonal skills did seem to increase.
- 2 Smith AF, Shelly MP. Communication skills for anaesthesiologists. *Can J Anesth* 1999; 46:1082–1088.
- 3 Tate P. *The doctor's communication handbook*. 2nd ed. Abingdon: Radcliffe Medical Press; 1997. p. 9.
- 4 Kindler CH, Szirt L, Sommer D, *et al.* A quantitative analysis of anaesthetist–patient communication during the preoperative visit. *Anaesthesia* 2005; 60:53–59.
- This is the first study to look at the structure and content of communication in the preoperative visit. The main purpose of the preoperative visit is information exchange. 'Facilitators', open questions and emotional comments can increase patient involvement.
- 5 Capuzzo M, Landi F, Bassani A, *et al.* Emotional and interpersonal factors are most important for patient satisfaction with anaesthesia. *Acta Anaesthesiol Scand* 2005; 49:735–742.
- This study found that patients value elements of care relating to emotional and interpersonal relationships highly and these influence overall satisfaction.
- 6 Burda SA, Hobson D, Pronovost PJ. What is the patient really taking? Discrepancies between surgery and anaesthesiology preoperative medication histories. *Qual Saf Healthcare* 2005; 14:414–416.
- 7 MacPherson RD, Willcox C, Chow C, *et al.* Anaesthetists' responses to patients self reported drug allergies. *Br J Anaesth* 2006; 97:634–639.
- 8 Snyder-Ramos SA, Seintsch H, Bottiger BW, *et al.* Patient satisfaction and information gain after preanesthetic visit: a comparison of face-to-face interview, brochure, and video. *Anesth Analg* 2005; 100:1753–1758.
- 9 Binhas M, Roudot-Thoraval F, Thominet D, *et al.* Impact of written information describing postoperative pain management on patient agreement with proposed treatment. *Eur J Anaesthesiol* 2008; 25:884–890.
- 10 Stalberg P, Yeh M, Ketteridge G, *et al.* E-mail access and improved communication between patient and surgeon. *Arch Surg* 2008; 143:164–169.

- 11** Jones DT, Yoon MJ, Licameli G. Effectiveness of postoperative follow-up telephone interviews for patients who underwent adenotonsillectomy: a retrospective study. *Arch Otolaryngol Head Neck Surg* 2007; 133:1091–1095.
- 12** Smith AF. Reaching the parts that are hard to reach: expanding the scope of professional education in anaesthesia. *Br J Anaesth* 2007; 99:453–456.
- 13** Smith AF, Pope C, Goodwin D, *et al.* Communication between anaesthesiologists, patients and the anaesthesia team: a descriptive study of induction and emergence. *Can J Anesth* 2005; 52:915–920.  
This descriptive study looks at the styles of communication at induction and emergence of anaesthesia. 'Patterns' of communication were quickly recognized that involved the patient and the whole anaesthesia team. These routines may not be able to be formally taught, but require demonstration followed by practice.
- 14** Carlyle AV, Ching PC, Cyna AM. Communication during induction of paediatric anaesthesia: an observational study. *Anaesth Intensive Care* 2008; 36:180–184.  
This study looks at advanced communication skills used to facilitate induction of children. Many are hypnotherapeutic and formal training may enhance these positive techniques.
- 15** Lang EV, Hatsiopoulou O, Koch T, *et al.* Can words hurt? Patient–provider interaction during invasive procedures. *Pain* 2005; 114:303–309.
- 16** Dutt-Gupta J, Bown T, Cyna AM. Effect of communication on pain during intravenous cannulation: a randomized controlled trial. *Br J Anaesth* 2007; 99:871–875.  
Despite methodological limitations this study starts to question the widespread belief that a warning of pain is useful. Negative emotional statements may actually alter pain perception.
- 17** Wennström B, Hallberg L, Bergh I. Use of perioperative dialogues with children undergoing day surgery. *J Adv Nurs* 2008; 62:96–106.  
Perioperative dialogues were used preoperatively and postoperatively to explore what it means for children to attend hospital. Continuity, repeated dialogues and time may be able to reduce the distress of hospital admission.
- 18** Smith L, Callery P. Children's accounts of their preoperative information needs. *J Clin Nurs* 2005; 14:230–238.
- 19** Wisselo TL, Stuart C, Muris P. Providing parents with information before anaesthesia: what do they really want to know? *Pediatric Anesthesia* 2004; 14:299–307.  
A questionnaire elicited what information parents wanted prior to their child's anaesthetic. This was used to develop an informative videotape.
- 20** Spencer C, Franck LS. Giving parents written information about children's anaesthesia: are setting and timing important? *Pediatr Anesth* 2005; 15:546–553.
- 21** Franck LS, Spencer C. Informing parents about anaesthesia for children's surgery: a critical literature review. *Patient Educ Couns* 2005; 59:117–125.
- 22** Smith AF. Editorial: patient information, risk and choice. *Anaesthesia* 2003; 58:409–411.
- 23** Markham R, Smith AF. The limits to patient choice: an example from anaesthesia. *Br Med J* 2003; 326:863–864.
- 24** Manser T, Staender S. Aftermath of an adverse event: supporting healthcare professionals to meet patient expectations through open disclosure. *Acta Anaesthesiol Scand* 2005; 49:728–734.  
This excellent review article looks at dealing with the aftermath of an adverse event. It explores the expectations of the public of open disclosure and how at present this is not common. Guidance is provided on how to improve dealing with these situations.
- 26** Sweet MP, Bernat JL. A study of the ethical duty of physicians to disclose errors. *J Clin Ethics* 1997; 8:341–348.
- 27** Gaba DM, Howard SK, Fish K, *et al.* Simulation-based training in anaesthesia crisis resource management (ACRM): a decade of experience. *Simulat Gam* 2001; 32:175–193.