feeding management. After these interventions, the number of feeding tubes placed was greatly reduced.

The authors emphasise the importance of an established unified goal of care for each patient.

POEM*

Combinations of antiemetics are better for post-operative nausea and vomiting

Question What is the best approach to preventing and treating postoperative nausea and vomiting?

Synopsis This is a well designed randomised controlled trial (single blinded) that examines all of the possible permutations of six approaches to reducing postoperative nausea and vomiting (PONV). The first three interventions had to do with the anaesthesia itself: propofol or a volatile anesthetic; nitrogen or nitrous oxide; and remifentanyl or fentanyl. The other three interventions occurred postoperatively: 4 mg ondansetron or no ondansetron; 4 mg dexamethasone or no dexamethasone; and 1.25 mg droperidol or no droperidol. There are 64 different combinations of these six interventions. Of the 5199 patients initially randomised, outcome data were incomplete for 38, and because some of the centres did not execute the protocol correctly, only 4086 patients were randomly assigned to the full complement of 64 protocols. The remaining patients could be evaluated only for the following interventions: ondansetron, dexamethasone, droperidol, and propofol. All patients were adults undergoing general anaesthesia expected to last at least an hour, and all were at higher than average risk for PONV on the basis of a risk factor score that included previous experience following surgery, age, sex, smoking, and history of motion sickness. The average age of patients was not given; 81.5% were women, 81.2% were non-smokers, and more than half had a history of PONV. Allocation was concealed, and although treating physicians and patients were not blinded, the outcome assessors were. Overall, 34% of patients had PONV. The two way comparisons showed that all of the interventions but one (remifentanyl instead of fentanyl) reduced the likelihood of PONV, with absolute risk reductions of 4.3% for nitrogen instead of nitrous oxide, 7.3% for propofol instead of inhaled anaesthetic, and about 10% for each of the three antiemetics. Unlike most drugs, more was definitely better. The likelihood of PONV was 52% without antiemetics, 37% with one antiemetic, 28% with any combination of 2 antiemetics, and 22% when all three were given. Regarding anaesthetic agents, the best results were in patients given propofol and nitrogen (29% experienced PONV), and the worst among those given a volatile anaesthetic and nitrous oxide (41% experienced PONV).

Bottom line This study provides guidance regarding the selection of anaesthetic and antiemetic agents. Using several antiemetics concurrently is more effective than individual agents, although this is probably cost effective only in patients at particularly high risk for postoperative nausea and vomiting. For those at lower risk, dexamethasone 4 mg is a good choice because of its low cost and safety. Using remifentanyl instead of fentanyl did not improve outcomes.

Level of evidence 1b (see www.infoPOEMs.com/levels.html). Individual randomised controlled trials (with narrow confidence interval)

Apfel CC, Korttila K, Abdalla M, et al. A factorial trial of six interventions for the prevention of postoperative nausea and vomiting. *N Engl J Med* 2004;350:2441-51.

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* Patient-Oriented Evidence that Matters. See editorial (*BMJ* 2002;325:983)

Editor's choice

Reflecting in the swampy lowlands

Holidays are a good time for reflection, and it feels like holiday time in the *BMJ* office: the air is hot and the office quiet and half empty. So it is fitting that this week's *BMJ* offers a fair amount of quiet reflection.

Some of this reflection is internal. Almost four years ago the *BMJ* set up its own ethics committee, and on page 510 Elizabeth Wager tells its story. We set up the committee, among other things, to help us with difficult cases. Readers might think that much of what editors do—sit and read papers—is a gentle activity, with few risks other than boredom and a sedentary lifestyle. But papers, and their authors, bring with them a whole host of issues. Should authors have to get the consent of the patients they describe or photograph? (Our answer is yes, though several authors accuse us of pedantry and political correctness.) What should we do about a paper describing a scientifically meaningless but potentially harmful intervention where it is not clear whether there was any meaningful informed consent? How do we handle a powerfully written article that describes poor care and worse behaviour by potentially identifiable health professionals? Who should we tell when we discover that a student has plagiarised an article from the *studentBMJ*? (This week's Career Focus has some good advice on plagiarism (p 86): don't.) What do we do when a reviewer raises the possibility that research data might have been made up?

These events are surprisingly common—which is why we decided that an ethics committee could help us with our thinking and help make our actions and policies more consistent. So, as Wager explains, a large part of the committee's time has been taken up with considering the individual cases referred to it. Cases of research misconduct have proved the most intractable. In several other types of cases, putting our concerns to authors often results in clarification and resolution; in many cases of potential research misconduct it as often produces stonewalling and legal threats.

With many of these ethical problems we are operating in what Donald Schon, author of *Educating the Reflective Practitioner*, called the “swampy lowland where situations are confusing ‘messes’ incapable of technical solution.” Ed Peile invokes Schon in his commentary on the outcome of the current interactive case report (p 500). This case (of abnormal liver function) was unusual in many ways—in its presentation, in the way doctors responded, in its shocking effects on the patient and her family. And Peile's conclusion is that “if we reflect honestly on what we do, and why we do it, we may begin to become more coherent and effective in our clinical practice.” He also highlights the fact that many of the rapid responses showed that there was as much to learn from this case about obstructions in the healthcare system as there was about obstructions in the bile duct.

Jane Smith *deputy editor* (jsmith@bmj.com)

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