Editor—In reply to Dr Morton’s letter, referring to our article in the S. Stacey G. Morton PONV). routine use of a nasogastric tube may also reduce the occurrence of reducing the dose of morphine might decrease its incidence. The Tel Aviv, Israel A. Kogan more effective than ondansetron for PONV prevention after cardiac sive and, in the study of Woodward and colleagues, 6 proved to be mide has been used for many years as an antiemetic. It is inexpen- use nasogastric tubes and we will look into this further. Second, we were surprised by the choice of metoclopramide as a first line antiemetic. Numerous studies2 have shown it to be inferior to use nasogastric tubes and we will look into this further. Thirdly, we would like to reassure Kogan and colleagues that in our audit (that also looked at chest drain losses), we did not find a relationship between an increased chest drain loss and PONV. A. Kogan Tel Aviv, Israel

G. Morton
M. Lim
S. Stacey
London, UK

Editor—In reply to Dr Morton’s letter, referring to our article in the BJA,1 I would firstly like to point out the interesting similarity in the results from our department and their own on the prevalence of PONV after fast-track cardiac anaesthesia. The use of opioids in the postoperative period is one of the main risk factors for PONV,2 and reducing the dose of morphine might decrease its incidence. The routine use of a nasogastric tube may also reduce the occurrence of postoperative vomiting (but not nausea).3 Secondly, metoclopra- mide has been used for many years as an antiemetic. It is inexpen- sive and, in the study of Woodward and colleagues,6 proved to be more effective than ondansetron for PONV prevention after cardiac surgery.

A. Kogan Tel Aviv, Israel

4 Gan JG. Postoperative nausea and vomiting—can it be eliminated? JAMA 2002; 287: 1233–6
doi:10.1093/bja/aej622

Density of spinal anaesthetic solutions

Editor—I read with interest the article by Dr McLeod on the density of spinal anaesthetic solutions.1 Dr McLeod has done excellent work in measuring the densities of the solutions. We know that density has a major role in the spread of spinal anaesthesia. I was wondering if there is a printing error in Table 2? According to the table, the density of bupivacaine 7.5 mg ml−1 is less than that of bupivacaine 5 mg ml−1. Likewise, the density of ropivacaine 10 mg ml−1 at 37°C is less than that of ropivacaine 7.5 mg ml−1. On the other hand, in the text there is mention that ‘increasing the concentration of bupivacaine . . . significantly increased the density’, which is what one would expect. Which numbers are correct? This is important because Dr McLeod has put major effort into his work and these valuable numbers could be referred to in future studies.

In addition, on page 548, solutions, third line from the bottom: should the dilution of ropivacaine be 10 mg ml−1 not 1 mg ml−1?

M. Pitkänen
Helsinki, Finland

Editor—May I thank Dr Pitkänen for taking an interest in my paper and highlighting these points.

With regard to plain solutions, there was a significant increase in the density of bupivacaine 5 mg ml−1 and 7.5 mg ml−1 compared with bupivacaine 2.5 mg ml−1 using one-way ANOVA. There was no difference in density between the 5 mg ml−1 and 7.5 mg ml−1 solutions of bupivacaine. There was a significant decrease in density between ropivacaine 2 mg ml−1 and ropivacaine 10 mg ml−1 using one-way ANOVA. In contrast, the density of levobupivacaine significantly increased from concentrations of 2.5 mg ml−1 to 7.5 mg ml−1. The reason for the discrepancy is to be found in Table 5 of my paper.1

The contribution of electrolyte composition to overall density varies between drugs. With bupivacaine and ropivacaine, there is a reduction in the concentration of sodium as the concentration of local anaesthetic is increased. In contrast, with levobupivacaine, no corresponding reduction in sodium concentration occurs and, hence, osmolarity and density both increase. I hope this clarifies the point.

May I add that all densities should be expressed in g ml−1 and not mg ml−1 as I have written. I have asked for an erratum notice to be published to acknowledge my mistake.

G. McLeod
Dundee, UK

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G. McLeod
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