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REPLY

Dr. Hardy states that we cannot predict with certainty which patient is specifically at risk of regurgitation and aspiration of gastric contents. We agree with this statement. We also agree that the occasional patient vomits incompletely digested food after an eight-hour fast. That is why we specify "no solid food should be ingested on the day of surgery."

Our recommendations for preoperative oral fluids apply to healthy patients scheduled for elective surgery, and they are based on current physiological knowledge and available data. In the past, we have had, as does Dr. Hardy, difficulty in accepting the idea of unrestricted ingestion of clear liquids until three hours before the scheduled time of surgery. Our opinion has now changed, based on recent publications which we quoted. We believe there is no evidence that an increased fast will reduce the risk of aspiration pneumonia, should regurgitation and aspiration of gastric contents occur. We are not suggesting that our recommendations will eliminate the risk of regurgitation and aspiration of gastric contents – we are stating that a fluid fast beyond two hours is of no measurable benefit in increasing the pH or reducing the volume of gastric content.

Hardy advocates "limiting fluids to sensible quantities and specifying which ones may be safely ingested." We specify clear fluids – tea, coffee, fruit juice, water – but what is a "sensible quantity"? Since instituting the recommended guidelines, experience in our hospitals is that each patient drinks what he or she feels is a comfortable amount. They do not compete to see who can drink the most. Follow-up studies in ambulatory patients¹ and inpatients² show that the ingested volume in adults is usually 100–400 ml and that there is no correlation between volume ingested and residual gastric fluid volume at induction of anaesthesia.

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Optimizing the yield from central venous punctures

To the Editor:

Our practice is limited to cardiac anaesthesia where we do not have free access to the patients' arms during surgery. More and more frequently we are presented with patients at high risk of massive haemorrhage or who are likely to require multiple infusions of drugs during the operative procedure. Easily accessible and large-bore central venous lines must be established to face these situations.

We have found a way of obtaining up to seven central lines (two large-bore lines, one #16 Fr, and four #18 Fr lines) by using only two puncture sites. We insert two #8.5 Fr introducers (Arrow®, Arrow International Inc., PA) in two separate central veins (internal jugular and/or sub-clavian). Through one introducer we pass a five-port pulmonary artery catheter (PAC) and through the other a three-port central venous catheter (Arrow®–Howes®, Arrow International Inc., PA) (Figure).

The two introducer lines and the #16 Fr line on the three-port central catheter provide large-bore entries through which massive fluid resuscitation can be accomplished. Also, four other ports are available for the simultaneous infusion of cardiovascular drugs and/or

FIGURE