

# Letters and comments

## The role of carbohydrate drinks in preoperative nutrition

### Comment 1

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#### CORRESPONDENCE TO

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#### COMMENT ON

Jones C, Badger SA, Hannon R. The role of carbohydrate drinks in preoperative nutrition for elective colorectal surgery. *Ann R Coll Surg Engl* 2011; **93**: 504–507

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I enjoyed reading and entirely agree with the findings of the review by Jones *et al* on the role of carbohydrate (CHO) drinks in preoperative nutrition for elective colorectal surgery but I offer a word of caution. No mention was made of the possible increased risk of surgical site infection (SSI) that may be caused by this action, even in non-diabetic patients. Tight control of perioperative blood sugar in patients who have diabetes is one of the high impact interventions advocated by the Department of Health to reduce the risk of SSI.<sup>1</sup> In addition, there is compelling evidence that poorly controlled, perioperative blood sugar, even in non-diabetic patients, may significantly increase deep sternal wound SSI rates in patients having cardiac surgery.<sup>2</sup>

In these days of enhanced recovery after surgery (ERAS), the increasing use of a laparoscopic approach (particularly for elective colorectal surgery) and optimal use of anaesthesia<sup>3</sup> (both of which minimise the metabolic response to trauma) may make this caution unnecessary with regard to SSI. However, I should be interested to know if Jones *et al* found any increased incidence of SSI in their meta-analysis when preoperative CHO drinks had been used prior to open elective colorectal surgery. If this were found to be the case, closer control of blood sugar ought to be considered in the perioperative period.

#### References

1. Department of Health. *High Impact Intervention: Care Bundle to Prevent Surgical Site Infection*. London: DH; 2011.
2. Lazar HL, McDonnell M, Chipkin SR *et al*. The Society of Thoracic Surgeons practice guideline series: blood glucose management during adult cardiac surgery. *Ann Thorac Surg* 2009; **87**: 663–669.
3. Adamina M, Kehlet H, Tomlinson GA *et al*. Enhanced recovery pathways optimize health outcomes and resource utilization: a meta-analysis of randomized controlled trials in colorectal surgery. *Surgery* 2011; **149**: 830–840.

## Comment 2

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We read with interest the review of Jones *et al* looking at the role of CHO drinks in perioperative nutrition for elective colorectal surgery. However, we have some concerns regarding the rigour of assessment of elements of the evidence base and the authors' accuracy in presentation of this evidence. The largest randomised controlled trial referenced (and one of only two that looked at clinical outcomes in patients undergoing colorectal surgery in the review) is that of Mathur *et al*.<sup>1</sup> The review by Jones *et al* states that Mathur *et al* showed CHO supplements reduced length of hospital stay. This is at odds with Mathur's own conclusion: 'Preoperative CHO treatment did not improve postoperative fatigue or length of hospital stay after major abdominal surgery.'<sup>1</sup>

Furthermore, the work of Svanfeldt *et al*<sup>2</sup> is misquoted in this review, suggesting it showed that: 'whole-body protein did not change in the high CHO group whereas it was more negative in the low CHO group after surgery...' Svanfeldt *et al* investigated whole-body protein kinetics via a stable isotope labelled amino acid technique and not whole-body protein. This protein kinetic study looked at changes in protein balance before and after colorectal surgery. Whole-body protein balance was shown to be negative at a set point in time during the preoperative fast and again at a set point during the early postoperative period. The rate of loss of protein mass at this instant was faster in the group receiving low dose preoperative CHO than in the high dose group. To interpret this as meaning whole-body protein did not change in the perioperative period in the group receiving high dose CHO is erroneous.

While Yuill *et al* have shown a reduced loss of muscle mass postoperatively in patients receiving CHO,<sup>3</sup> this has been in upper gastrointestinal (GI) surgery and not colorectal surgery. Other studies such as that by Mathur *et al*<sup>1</sup> do measure total body protein in lower GI surgery but have not as yet demonstrated that CHO can significantly attenuate the perioperative loss of total body protein.

We agree that measures to minimise the stress response to surgery will benefit our patients. Evidence exists that supports the implementation of ERAS programmes,<sup>4</sup> most of which include preoperative CHO supplementation. However, it is important for us to present in context an accurate evidence base supporting each component of ERAS to max-

imise the benefit to the patient with the minimum number of steps in the process. The case for CHO perioperative drink is not settled and should not become established as dogma (which applies to any other step in the process) until it is proven.

## References

1. Mathur S, Plank LD, McCall JL *et al*. Randomized controlled trial of preoperative oral carbohydrate treatment in major abdominal surgery. *Br J Surg* 2010; **97**: 485–494.
2. Svanfeldt M, Thorell A, Hausel J *et al*. Randomized clinical trial of the effect of preoperative oral carbohydrate treatment on postoperative whole-body protein and glucose kinetics. *Br J Surg* 2007; **94**: 1,342–1,350.
3. Yuill KA, Richardson RA, Davidson HI *et al*. The administration of an oral carbohydrate-containing fluid prior to major elective upper-gastrointestinal surgery preserves skeletal muscle mass postoperatively – a randomised clinical trial. *Clin Nutr* 2005; **24**: 32–37.
4. Varadhan KK, Neal KR, Dejong CH *et al*. The enhanced recovery after surgery (ERAS) pathway for patients undergoing major elective open colorectal surgery: a meta-analysis of randomized controlled trials. *Clin Nutr* 2010; **29**: 434–440.

## A case of reflective evidence-based surgery

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### CORRESPONDENCE TO

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A fellow colleague in the emergency department consulted me for advice regarding a two-year-old child with a facial laceration. The child had had a simple fall against a wooden table and sustained a 3cm clean linear laceration in the intercanthal area. My colleague asked me whether glue would be a better idea than suturing. I replied that the cosmetic outcome with suturing was far superior and that one would avoid the risk of dehiscence. My reply was based on anecdotal evidence from other colleagues and senior surgeons. This doctor followed my advice and the child had her wound sutured under general anaesthesia with no complications.

I later thought to myself that there should be a body of evidence to support or refute my advice on this particular issue. I knew that strong evidence such as a randomised controlled trial (RCT) would answer this question. I performed a MEDLINE® search expecting a paucity of evidence; instead I was greeted with a Cochrane review and a number of prospective RCTs.<sup>1</sup> I discovered that suturing conferred no benefit in terms of cosmesis in the paediatric population but that there was a statistically significant increased risk of dehiscence. This level 1 evidence has changed my practice. With hindsight I would explain this evidence to the parents and offer the option of glue. Indeed, the glue technique would obviate the risks of general anaesthesia and a hospital stay.

As surgeons, we can only be effective if we question our practice daily. We should always endeavour to practise research to strive for the truth as this will improve patient care. Evidence-based practice can save our hospitals money and time, particularly in a period of such financial upheaval.

## Reference

1. Farion K, Osmond MH, Hartling L *et al*. Tissue adhesives for traumatic lacerations in children and adults. *Cochrane Database Syst Rev* 2002; **3**: CD003326.

## Caliper measurement to improve assessment of neck lumps

### Comment 1

Although this comment was published originally in the September 2012 issue of the *Annals*, we omitted to publish the author's response alongside it. We include Mr Wasson's response below and apologise for any inconvenience caused.

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### CORRESPONDENCE TO

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### COMMENT ON

Wasson J, Amonoo-Kuofi K, Scrivens J, Pfeleiderer A

Caliper measurement to improve clinical assessment of palpable

neck lumps. *Ann R Coll Surg Engl* 2012; **94**: 256–260

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I read the above paper with interest. It is certainly an easy-to-use technique to monitor the size of readily palpable lumps that are seen by head and neck specialists and it would seem to increase the accuracy of clinical measurement. However, I was concerned that the authors stated that as a result of increasing numbers of referrals, not all new patients with a palpable neck lump will go on to have ultrasonography and that calipers can improve clinical assessment, particularly when an ultrasonography machine is not available.

They also mentioned that all patients with a lump greater than 9mm in their unit will go on to have ultrasonography. The authors make no mention of what the upper limits of normal size for lymph nodes are in various levels of the neck; these vary depending on site. For example, a 15mm jugulodigastric node with a short axis on ultrasonography less than 9mm may well be reactive while a similar size node in the submental area is almost always pathological and requires fine needle aspiration to exclude malignancy.<sup>1</sup>

The additional advantage of ultrasonography is that it can confirm a reactive node at the first visit not only by short axis measurement but also by demonstrating normal hilar architecture and blood flow using colour flow Doppler. None of these assessments can be made using clinical examination or calipers and, consequently, patients having clinical assessment alone will undoubtedly be followed up in a review clinic instead of being reassured and discharged.

Therefore, perversely, not having access to ultrasonography may result in additional clinic visits as well as potentially delaying a malignant diagnosis irrespective of better accuracy in determining the lymph node size using calipers. In addition to diagnosing metastatic disease, lymphoma