QUESTION: In well nourished patients with cancer of the gastrointestinal (GI) tract, is preoperative supplementation (PSUP) or PSUP plus postoperative enteral nutrition (POEN) with key nutrients more effective than conventional treatment (COTR) for reducing postoperative infections and length of hospital stay?

Main results
Analysis was by intention to treat. Fewer patients in each of the PSUP and POEN groups than in the COTR group developed postoperative infections (table). The PSUP and POEN groups did not differ for postoperative infections or length of postoperative hospital stay (table).

Conclusion
Preoperative supplementation with or without postoperative enteral nutrition with key nutrients was more effective than conventional treatment for reducing postoperative infections and length of hospital stay in well nourished patients with cancer of the gastrointestinal tract.

COMMENTARY
Although the GI tract is an essential barrier to the absorption of gut antigens, it is less effective in malnourished patients.1 Hence, artificial nutritional has generally been aimed at malnourished patients or those who cannot resume normal diets soon after surgery. Recently, efforts towards strengthening patients’ defences to infection have resulted in the increased use of immunonutrition. The common ingredients of immunonutrition formulas include arginine, glutamine, and omega 3 fatty acids.2–3

The trial by Gianotti et al differs from previous studies in that it investigated immunonutrition in nourished or well nourished patients and included an unsupplemented control group. The finding that immunonutrition was more effective than no supplementation for reducing postoperative infection in well nourished patients with cancer of the GI tract is sufficient impetus for change in standard practice. Cost will be a factor for many clinicians in making this change in practice. Immu