

Douketis J, Spyropoulos AC, Kaatz S, Becker RC, Caprini JA, Dunn AS *et al.* for the BRIDGE Investigators. Perioperative bridging anticoagulation in patients with atrial fibrillation. *N Engl J Med* 2015; **373**: 823–833.

Some 1884 patients were randomized before elective intervention. The risk of arterial thromboembolism was not reduced by bridging with low molecular weight heparin: 0.3 per cent versus 0.4 per cent with no bridging. Bridging increased the risk of major perioperative bleeding: 3.2 versus 1.3 per cent, $P=0.005$.

Jairath V, Kahan BC, Gray A, Doré CJ, Mora A, James MW *et al.* Restrictive versus liberal blood transfusion for acute upper gastrointestinal bleeding (TRIGGER): a pragmatic, open-label, cluster randomised feasibility trial. *Lancet* 2015; **386**: 137–144.

This study enrolled 936 patients (randomized by hospital) and compared transfusion triggers of 80 g/l (restrictive) and 100 g/l (liberal). The proportion of patients that required transfusion in the restrictive group was (non-significantly) lower: 33 versus 46 per cent. There were no differences in clinical outcomes.

Hsieh M-C, Kuo L-T, Chi C-C, Huang W-S, Chin C-C. Pursestring closure versus conventional primary closure following stoma reversal to reduce surgical site infection rate: a meta-analysis of randomized controlled trials. *Dis Colon Rectum* 2015; **58**: 808–815.

A total of four randomized trials including 319 procedures were analysed. The pursestring method was associated with fewer surgical-site infections (risk difference -0.25 , 95 per cent *c.i.* -0.36 to -0.15 , $P < 0.00001$) and improved cosmetic outcomes ($P=0.02$).

Garcia-Urena MA, Lopez-Monclus J, Hernando LAB, Montes DM, Valle de Lersundi AR, Pavon CC *et al.* Randomized controlled trial of the use of a large-pore polypropylene mesh to prevent incisional hernia in colorectal surgery. *Ann Surg* 2015; **261**: 876–881.

Augmented closure using onlay mesh was studied in 107 patients who had elective or emergency midline laparotomy. Mortality, wound seroma and surgical-site infection rates were similar. After 24 months incisional hernia was evident of 11.3 per cent of meshed patients versus 31.5 per cent of controls ($P=0.011$).

Dai Q, Jiang L, Lin R-J, Wei KK, Gan L-L, Deng CH *et al.* Adjuvant chemoradiotherapy versus chemotherapy for gastric cancer: a meta-analysis of randomized controlled trials. *J Surg Oncol* 2015; **111**: 277–284.

This analysis included six controlled trials with 1171 patients. Radiochemotherapy improved 5-year disease-free survival (odds ratio 1.56, 95 per cent *c.i.* 1.09 to 2.24) compared with chemotherapy alone, but not overall survival (1.32, 0.92 to 1.88). Toxicity rates were similar.

Kwon J, Kim BH, Kim K, Chie EK, Ha S. Survival benefit of adjuvant chemoradiotherapy in patients with ampulla of Vater cancer: a systematic review and meta-analysis. *Ann Surg* 2015; **262**: 47–52.

Ten studies including 3361 patients were analysed. Overall, the addition of concurrent adjuvant radiotherapy significantly reduced the risk of death (hazard ratio 0.75, $P=0.01$). Patients with locally advanced disease (0.42, $P=0.001$) and lymph node metastases (0.52, $P=0.001$) were also shown to benefit.

Chagpar AB, Killelea BK, Tsangaris TN, Butler M, Stavris K, Li F *et al.* A randomized, controlled trial of cavity shave margins in breast cancer. *N Engl J Med* 2015; **373**: 503–510.

Some 235 women were randomized once partial mastectomy was completed. Additional cavity shaving reduced the overall rate of positive margins (19 versus 34 per cent, $P=0.01$), and also the rate of secondary surgery for margin clearance (10 versus 21 per cent, $P=0.02$).

Gnat M, Pfeiler G, Dubsy PC, Hubalek M, Greil R, Jakesz R *et al.* on behalf of the Austrian Breast and Colorectal Cancer Study Group. Adjuvant denosumab in breast cancer (ABCSCG-18): a multicentre, randomised, double-blind, placebo-controlled trial. *Lancet* 2015; **386**: 433–443.

A total of 3425 women with breast cancer receiving aromatase inhibitors were randomized to six monthly injections of denosumab or placebo. The aim was to prevent bone resorption. Denosumab reduced the overall number of fractures (92 versus 176) and also delayed the time to first fracture: hazard ratio 0.5, 95 per cent confidence interval 0.39 to 0.65. Adverse events were equivalent in the groups.

Niemann CU, Feiner J, Swain S, Bunting S, Friedman M, Crutchfield M *et al.* Therapeutic hypothermia in deceased organ donors and kidney-graft function. *N Engl J Med* 2015; **373**: 405–414.

Deceased organ donors were managed preoperatively in one of two temperature ranges: 34–35 °C or 36.5–37.5 °C. Hypothermia reduced the rate of delayed graft function after renal transplantation (28 versus 39 per cent, $P=0.02$) in this study that was terminated early when 370 donors had been enrolled.

Fyhn TJ, Knatten CK, Edwin B, Schistad O, Aabakken L, Kjosbakken H *et al.* Randomized controlled trial of laparoscopic and open Nissen fundoplication in children. *Ann Surg* 2015; **261**: 1061–1067.

After median follow-up of 4 years the rate of recurrent reflux disease was higher after laparoscopic (37 per cent) than open fundoplication (7 per cent, $P=0.001$) in this study that included 87 children.

The trials listed here are added to the Scientific Surgery Archive, which contains all randomized clinical trials in surgery that have been identified by searching the top 50 English language medical journal issues since January 1998. The archive, which is fully searchable, can be found on the *BJS* website (www.bjs.co.uk) together with other useful features for surgeons such as Instructions to Authors, EarlyView of accepted articles and online Your Views.

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