



What's hot that the other lot got

Ben Soar

COMMUNITY-ACQUIRED PNEUMONIA AND VIRAL INFECTION

This prospective study (*J Infect Dis* 2016;213:584–91) identified the prevalence of 13 different viruses in the upper airway respiratory tract of patients with community-acquired pneumonia (CAP) and concurrently enrolled asymptomatic controls. A total of 1024 patients with CAP and 759 controls were recruited. Real-time reverse-transcriptase PCR was used to identify the viruses. There was a significant increase in the detection of influenza, respiratory syncytial virus and human metapneumovirus among the patients with CAP compared with the control group. The authors feel this probably indicates an aetiological role.

PLEURAL EFFUSION: TO DRAIN OR NOT TO DRAIN PRIOR TO CT

Unexplained pleural effusion invariably requires initial investigation with thoracentesis and CT imaging. Clinical practice varies due to uncertainty as to whether an effusion should be drained before diagnostic imaging. This retrospective study (*Respirology* 2016;21:392–5) compared 110 patients with paired pre/post drainage chest X-rays and 32 patients with paired CT scans who underwent thoracoscopy for undiagnosed unilateral pleural effusion. This study finds that post-drainage imaging did not provide additional information that would have influenced the clinical decision.

ACUTE KIDNEY INJURY AND INCREASED IN-HOSPITAL MORTALITY IN PATIENTS WITH INFECTIVE EXACERBATIONS OF BRONCHIECTASIS

This study reviewed admissions data from the UK clinical practice research data link of all patients admitted with non-CF bronchiectasis and lower respiratory tract infection (*BMC Pulm Med* 2016;16:14). A total of 3477 were identified from 2004 to 2013, with 230 cases involving an acute kidney injury (AKI) diagnosis. In-hospital mortality was 33% in the AKI group versus 6.8% in those without AKI. After adjustment for confounding factors, AKI remained associated with in-hospital mortality.

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VITAMIN D AND OBSTRUCTIVE SLEEP APNOEA

Vitamin D deficiency has been linked with multiple medical conditions but replacement has rarely shown clinical effect. This trial (*Ann Am Thorac Soc* 2016. Published Online First: 4 February) hypothesised that seasonal variation in vitamin D levels was linked with increased incidence and severity of obstructive sleep apnoea (OSA) in the winter. The authors performed a cross-sectional analysis of the outcomes of the study 'sleep disorders in older men', which included the measurement of vitamin D levels. Subjects in the lowest quartile of vitamin D levels were found to have increased severity of OSA. However, the link was largely explained by confounding of larger BMI and neck circumference in this group.

PNEUMONECTOMY IN NON-SMALL CELL LUNG CANCER: NEOADJUVANT VERSUS ADJUVANT CHEMOTHERAPY

This study assessed data from the National Cancer Database of patients who underwent pneumonectomy for clinical stage IIIA non-small cell lung cancer (*Ann Thorac Surg* 2016;101:451–8). Individuals who were treated with neoadjuvant therapy, followed by resection, were compared with those who underwent resection and adjuvant therapy. A total of 1033 patients were identified, of which 739 (71%) received neoadjuvant therapy and 294 (29%) underwent resection followed by adjuvant therapy. The two groups were matched and median survival was similar in both groups: 25.9 months neoadjuvant versus 31.3 months adjuvant. The authors conclude that neoadjuvant or adjuvant chemotherapy provide similar outcomes.

NOVEL DEVICE FOR ACCURATE CHEST TUBE INSERTION

A new device has been designed to assist in the optimal placement of surgical chest tubes (apical for pneumothorax, basal for effusion). This study compared the use of the 'KatGuide' against conventional practice by assessing the drain position post procedure (*Ann Thorac Surg* 2016;101:527–32). A total of 109 patients were enrolled with 49 in the KatGuide group and 60 in the conventional group. Chest tubes were optimally positioned in 84% (41) of the KatGuide group versus 53% (32) in the conventional group. No adverse effects were observed.

INTENSIFIED ANTITUBERCULOSIS THERAPY IN TUBERCULOUS MENINGITIS

Tuberculous meningitis is fatal in nearly a third of cases. This study (*NEJM* 2016;374:124–34) investigated whether intensified antituberculosis treatment would improve survival. The study was randomised and double blinded. A standard 9-month antituberculosis regime was compared against an accelerated regime that included higher dose rifampicin and additional levofloxacin for the first 8 weeks of treatment. Both arms also received glucocorticoid therapy. A total of 817 patients were enrolled, with 409 assigned to standard therapy and 408 to the accelerated group. One hundred and thirteen patients died in the accelerated group and 114 in the standard treatment group. No effect on survival or any of the secondary outcomes was found by an accelerated regime.

COCHRANE NEWSFLASH

Katsura M, Kuriyama A, Takeshima T, *et al*. Preoperative inspiratory muscle training for postoperative pulmonary complications in adults undergoing cardiac and major abdominal surgery. *Cochrane Database Syst Rev* 2015; (9):CD010356. doi: 10.1002/14651858.CD010356.pub2

Although the available evidence is insufficient in terms of the quality and size of trials, we can conclude that training of breathing muscles before surgery prevents lung complications after surgery. This training is easily performed at home under the supervision of a physiotherapist. The training of breathing muscles therefore appears to be a suitable option as one of the preparations for planned surgery, especially for adults awaiting high-risk heart and abdominal surgery. Other surgeries, such as oesophageal resection (removal of part of the gastrointestinal tract 'food pipe'), should be evaluated; cost effectiveness and patient-reported outcomes should be reported. The potential for overestimation of treatment effect needs to be considered when interpreting the present findings, as the quality of evidence is low to moderate.

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