What's hot that the other lot got

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EXERCISE AND COPD

A direct relationship between physical inactivity and mortality following COPD-related hospitalisation was demonstrated by the authors of this retrospective cohort study (*ERJ Open Research* 2016;2. doi:10.1183/23120541.00062-2015). Inactive patients had an almost four-fold higher adjusted risk of mortality from COPD-related causes than active patients. Different levels of activity were shown to have an impact on mortality, with patients with COPD who engaged in some activity (defined as 1–149 min/week) and those that engaged in moderate to vigorous exercise (>150 min/week) having a 28% and 47% reduction in the risk of death, respectively, in the 12 months after hospital admission, compared with inactive patients.

ANTACIDS IN PULMONARY FIBROSIS

Gastro-oesophageal reflux is highly prevalent in patients with idiopathic pulmonary fibrosis and speculated to have a potential role in pathogenesis and progression. In this study (*Lancet Resp Med* 2016. pii: S2213-2600(16)00067-9), the authors undertook a pooled post hoc analysis of data from the placebo group of three pirfenidone trials to investigate the effect of antacid treatment on disease progression. No significant difference in disease progression or mortality was seen at 1 year between patients receiving antacids and those without antacids. Overall infections (74% vs 63%, $p=0.017$) and pulmonary infections (14% vs 6%, $p=0.0214$) were noted to be higher in patients receiving antacids with advanced disease (FVC <70%). The exact role of antacids in pulmonary fibrosis remains unclear.

LEFT ATRIUM SIZE IN PULMONARY EMBOLISM (PE)

PE is a common and potentially fatal disease. A retrospective study (*Chest* 2016;149:667–75. doi:10.1378/chest.15-0666) of patients with acute PE proposed that a reduced left atrium (LA) size, as measured by volumetric analyses on a computed tomographic pulmonary angiogram at the time of diagnosis, is associated with

higher mortality and was found to be the best predictor of adverse outcomes. Mortality was higher among patients with LA volume <62 mL than among those with LA volume >62 mL (19.6% vs 8.8%, $p<0.001$). Other parameters noted to be associated with adverse outcomes included a left ventricular volume ≤ 67 mL and a right atrium/LA volume ratio >1.2.

URINE ANTIGEN TESTING FOR TB

Reported by the authors to be the 'first trial of any diagnostic test for TB to show a reduction in the number of deaths', bedside urine testing of lipoarabinomannan (LAM), a TB glycoprotein, was shown to be associated with better survival at 8 weeks in HIV patients with TB than routine testing (*Lancet* 2016. doi:http://dx.doi.org/10.1016/S0140-6736(15)01092-2). All-cause mortality in the LAM group was 21% vs 25% in the routine group at 8 weeks, with a relative risk reduction of 17%. The proportion of patients who started anti-TB medication by day 2 was greater in the LAM cohort (71% vs 22% of the routine testing cohort). The survival advantage of using LAM urine testing in patients with HIV co-infected with TB may be through earlier diagnosis and treatment.

LONG-TERM PLEURAL DRAIN IN PATIENTS WITH CANCER

The use of indwelling pleural catheters (IPCs) is well established in the management of malignant pleural effusions and they are increasingly used in patients receiving chemotherapy. This retrospective case-control study (*BMC Pulmon Med* 2016. doi:10.1186/s12890-016-0203-7) observed no statistical difference in the incidence of pleural infections in the chemotherapy group compared with non-chemotherapy patients (9.3% vs 4.9%, respectively). Overall 6-month mortality was significantly lower in the patients receiving chemotherapy than in patients in the non-chemotherapy group ($p=0.007$). This study suggests that the use of IPCs is safe in patients undergoing systemic chemotherapy.

WEIGHT GAIN AFTER CPAP

Statistically significant weight gain has been previously reported in patients with obstructive sleep apnoea (OSA) after

initiation of CPAP, although the exact mechanism is unclear. After starting CPAP in a group of 63 patients with newly diagnosed OSA, a significant reduction in basal metabolic rate (BMR) but no change in physical activity or total calorie intake was noted by the authors of this study (*Am J Respir Crit Care Med* Published online 01 Mar 2016. doi:10.1164/rccm.201511-2314OC) after conducting an evaluation of energy metabolism for each. Reduced BMR may contribute to weight gain but the authors reported that dietary intake and eating habits had a greater effect on weight change, hence the importance of lifestyle changes in conjunction with CPAP when managing patients with OSA.

READMISSION RATES FOR ASTHMA

In this large retrospective cohort study (*Chest* 2016;149:1021–29. doi:10.1016/j.chest.2015.12.039) examining the characteristics of 30-day readmission in patients hospitalised for asthma exacerbation, older adults (>65 years) had a higher 30-day readmission rate (16.5% vs 10.1%; $p<0.001$) and were more likely to present with non-respiratory diagnosis than younger patients (53.8% vs 41.7%; $p<0.001$). Of 301 164 patients admitted for exacerbation of asthma, readmission rate was 14.5% and, for all age groups, was highest in the first week after discharge. Sociodemographic characteristics and comorbidities were cited as the reason for the age-related difference seen.

Cochrane newsflash

A Cochrane review of trials in children and adults with cystic fibrosis showed that treatment with dornase alfa over 1 to 24 months improved lung function measurements and reduced pulmonary exacerbations as compared with control. There were no consistent differences in the effect of dornase alfa compared with inhaled hypertonic saline or mannitol, and no evidence of benefit with dornase alfa and mannitol compared with either treatment alone. Yang C, Chilvers M, Montgomery M, et al. Dornase alfa for cystic fibrosis. *Cochrane Database Syst Rev* 2016;(4): CD001127. doi: 10.1002/14651858.CD001127.pub3

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