WHAT IS THE RISK OF VENOUS THROMBOEMBOLISM IN LUNG CANCER?
A cohort of 10 598 patients with lung cancer diagnosed from 1997 to 2006 underwent cox regression analysis to see what factors independently affected the risk of venous thromboembolism (VTE) (doi: 10.1038/bjc.2016.143). The overall incidence of VTE was of 39.2 per 1000 person-years (95% CI 35.4 to 43.5). Factors which were associated with an increased VTE risk were metastatic disease (HR=1.9, CI 1.2 to 3.0); adenocarcinoma subtype (HR=2.0, CI 1.5 to 2.7) having chemotherapy (HR=2.1, CI 1.4 to 3.0); and diagnosis via emergency hospital admission (HR=1.7, CI 1.2 to 2.3), there was an increase in mortality in those with VTE of 50% compared to those without.

CAN THOSE WHO ARE AT RISK OF DEVELOPING TB BE IDENTIFIED?
A biomarker for predicting who develops a disease is the Holy Grail in medicine. This study aimed to see if RNA signatures in blood could predict those who would develop TB (Lancet 2016;387:2312–22). Teenagers from a study group in South Africa were enrolled if they had a positive QuantiFERON TB gold in-tube assay or tuberculin skin test therefore having latent TB. They were followed and those who developed intrathoracic TB were designated progressors, they were matched with healthy controls from their original group. An RNA TB signature was developed from this group. This was then adapted for multiplex quantitative real-time PCR (qRT-PCR) and used to predict the risk of developing TB in untouched samples from the original cohort and two separate independent cohorts of adults who were household contacts of people with active pulmonary disease. There were 46 progressors identified and from these a 16 gene signature was developed. This predicted TB progression with sensitivity of 66.1% (95% CI 63.2% to 68.9%) and a specificity of 80.6% (79.2% to 82.0%) in the 12 months preceding TB diagnosis. When validated in the untouched adolescent group (p=0.0095 for qRT-PCR) and in the independent cohorts (p values <0.0001 by qRT-PCR).

Competing interests None declared.
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WHAT'S HOT THAT THE OTHER LOT GOT
Kathryn Prior

WHICH COMBINATION INHALER SHOULD WE USE FOR COPD?
3362 patients with at least one exacerbation of COPD in the previous year were randomised to a long acting β agonist Indacaterol (LABA) and a Long acting muscarinic agonist (LAMA) Glycopyrronium or LABA Salmeterol and inhaled glucocorticoid fluticasone (doi: 10.1056/NEJMoa1516385). The outcome was annual rate of COPD exacerbation. In the LABA-LAMA group there was an outcome was annual rate of COPD exacerbation. In the LABA-LAMA group there was an increase in FEV1 from baseline at week 12 ranging from 0.35 to 0.43 L (0.05) and ranged from 0.17 L (95% CI 0.03 to 0.32) to 0.26 L (0.11 to 0.40) versus placebo these were sustained throughout the 24 week period and were significant (300 mg every 4 weeks, p=0.0401; 200 mg every 2 weeks, p=0.0264; 300 mg every 2 weeks, p=0.0345).

WHICH SMOKING CESSATION THERAPY IS SAFEST IN NEUROPSYCHIATRIC DISORDERS?
There are substantial concerns regarding varenicline and bupropion in those with neuropsychiatric disorders. A randomised blinded placebo controlled trial with active controls was carried out in 16 countries (doi.org/10.1016/S0140-6736(16)30272-0). A total of 8144 motivated to quit smokers were randomised to either dupilumab 200 mg every 4 weeks showed a significant increase in FEV1 (300 mg every 4 weeks, p=0.0212; 200 mg every 2 weeks, p=0.0008; 300 mg every 2 weeks, p=0.0063) the increase in FEV1 for all regimens from baseline at week 12 ranged from 0.35 to 0.43 L (0.05) and ranged from 0.17 L (95% CI 0.03 to 0.32) to 0.26 L (0.11 to 0.40) versus placebo these were sustained throughout the 24 week period and were significant (300 mg every 4 weeks, p=0.0401; 200 mg every 2 weeks, p=0.0264; 300 mg every 2 weeks, p=0.0345).

DUPILUMAB FOR ASTHMA
Dupilumab is a fully human anti-interleukin-4 receptor α monoclonal antibody, which inhibits interleukin-4 and interleukin-13 signalling, these are drivers of type-2-mediated inflammation. This study was a double blind randomised placebo controlled, pivotal 2b clinical phase trial for Dupilomab (Lancet 2016;388:31–44). Adults receiving medium to high dose corticosteroids (equivalent to fluticasone propionate ≥250 μg twice daily) and a long acting β agonist who were symptomatic with asthma Control questionnaire of score of 1.5 or higher with an FEV1 of 40–80% and reversibility were randomised to either dupilumab 200 or 300 mg every 2–4 weeks or placebo. Those included in the intention to treat analysis had eosinophils of at least 300/μL. The primary end point was a change in FEV1 at week 1. All the regimens except the dupilumab 200 mg every 4 weeks showed a significant increase in FEV1 (300 mg every 2 weeks, p=0.0212; 200 mg every 2 weeks, p=0.0008; 300 mg every 2 weeks, p=0.0063).