What's hot that the other lot got

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VIDEO DOT VERSUS STANDARD DOT?

In this modern age of technology and smartphones, making patients present to clinic every day to take their DOT TB medication seems an unnecessary waste of time and resources. A study in the USA and Mexico (Garfein *et al.* *Int J Tuberc Lung Dis* <http://dx.doi.org/10.5588/ijtld.14.0923>) looked at the feasibility of video DOT involving patients filming themselves taking their medication on their smartphone and sending the images to a healthcare professional to document compliance. Patients were recruited from a San Diego Clinic and a Tijuana Clinic to represent high-resource and low-resource settings, respectively. In both settings, adherence was high (96% San Diego, 93% Tijuana). Ninety-two per cent of participants preferred VDOT to in-person DOT.

AN END TO 'UNNECESSARY' CTPAS?

With so many negative CTPAs performed for possible PE in patients presenting with non-specific chest symptoms, a simple blood test to help distinguish CAP from PE would save money and reduce unnecessary radiation for patients where the diagnosis is unclear. Ates *et al* (*Blood Coagul Fibrinolysis* 2015) have come up with the NLR/D-dimer ratio (where NLR is the neutrophil to lymphocyte ratio). It was found to have a 97.4% sensitivity and 96.7% negative predictive value for the differential diagnosis of PE and CAP (where ratios are higher in patients with CAP).

TREATING PULMONARY FIBROSIS

With the poor prognosis and lack of treatment options for idiopathic pulmonary fibrosis, any advances in finding new therapies are potentially exciting. A Chinese study (Jiang *et al.* *Mol Med Rep* 2015. <http://dx.doi.org/10.3892/mmr.2015.4178>) looked at the magic bullet of stem cells and their effect on bleomycin-induced pulmonary fibrosis in mice. The adipose-derived stem cells were injected into the affected

mice. When their lung tissue was subsequently examined under a microscope, there was seen to be some resolution in the fibrosis itself with possible regeneration of lung tissue. If shown to be effective in human models, this could be a game changer for patients with this life-limiting illness.

E-CIGARETTES: GOOD OR BAD?

Public Health England has gone so far as to say we should consider offering them through smoking cessation services. Their recent report (<https://www.gov.uk/government/publications/e-cigarettes-an-evidence-update>) claims they are '95% safer' than standard cigarettes and are 'unlikely' to encourage tobacco smoking in previous non-smokers. However, a paper published on the same day in *JAMA* (doi:10.1001/jama.2015.8950) disagreed and indicates that non-smokers who start using e-cigarettes may then take up tobacco smoking.

AIR POLLUTION IN CHILDREN

The London Low Emission Zone (LEZ) was created in an effort to reduce the air pollution in parts of London. With evidence that air pollution contributes to asthma, rhinitis and other respiratory problems in children, it was hoped that reductions in air pollution would subsequently reduce respiratory problems. However, this study in *PLoS ONE* (doi:10.1371/journal.pone.0109121) showed that air pollution levels did not significantly change in the first 3 years of the introduction of the LEZ and thus, not surprisingly, there was no change in respiratory problems in children living in these zones.

SCREENING FOR LUNG CANCER

As the biggest killing cancer in the UK, there have been calls for a lung cancer screening programme for some time to try and pick up cases early and improve the prognosis. However, a study in *JAMA* (doi:10.1001/jamainternmed.2015.3558) has shown a possible downside to screening. When asked about smoking cessation

in the context of being screened for early lung cancer, some people saw the screening as a substitute for smoking cessation. Although all patients questioned reflected on their smoking status, there were some worrying opinions. If their screening was low risk or normal, some patients considered themselves the 'lucky ones' who had not suffered the ill effects of smoking and therefore did not have to give up.

AN EXCUSE TO BUY AN XBOX?

Need a reason to buy the latest games console? This study (doi: 10.1371/journal.pone.0135433) looked at whether aerobic exercise improved asthma control, airway inflammation and exercise capacity of children with moderate-to-severe asthma. Twenty-six children were either put on a treadmill or played an energetic video game on the XBOX 360 Kinect for 30 min (plus 5 min warm up and cool down) twice a week for 8 weeks. Both groups showed a significant improvement in asthma control (assessed with the Asthma Control Questionnaire) and aerobic capacity. In addition, the video game group showed a significant decrease in FeNO suggesting a reduction in airway inflammation.

COCHRANE NEWSFLASH

A Cochrane review of randomised trials on mepolizumab in adults with severe eosinophilic asthma has shown benefit in quality of life and exacerbation frequency, but not lung function. Only one trial used the licensed subcutaneous route, but the results were in keeping with the earlier trials using intravenous mepolizumab. There are no trials in children. Ideal dosing and duration of treatment need further research.

Powell C, Milan SJ, Dwan K, *et al.* Mepolizumab versus placebo for asthma. *Cochrane Database Syst Rev* 2015;(7): CD010834. doi: 10.1002/14651858.CD010834.pub2. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD010834.pub2/abstract>

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