Highlights from this issue

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The Triumvirate

To celebrate England's historic victory/ glorious failure (delete as appropriate), this month's Airwaves plays homage to some of the great moments of World Cup football.

THEY THINK IT'S ALL OVER

When Ivacaftor was developed many people probably felt like the English when they last won the World Cup in 1966. At last a first in class disease modifying drug that targets the underlying molecular defect to improve the function of CFTR. However, in the 'extratime' of clinical trials, namely the post marketing surveillance, the sustained effects are not always that impressive. However, in this issue of Thorax, Bessonova and colleagues assessed the effects of Ivacftor, in routine practice, using data from UK and US registry data (see page 731). They found ivacaftor-treated individuals had substantially lower risks of death, transplantation, hospitalisation and pulmonary exacerbation relative to comparators. They think CF's all over, it is now?

THE HAND OF GOD

In Mexico, 1986, Argentina met England in the quarter-finals in what was to be one of the most inflammatory games of the World Cup. In this issue, Jeong et al describe another highly inflammatory process, the consequence of epithelial exposure to fungi and the resultant inflammasome (see page 758). Using a variety of in vitro and in vivo models they found that inhibition of PI3K-d ameliorated fungal induced allergic inflammation through modulation of NLRP3 inflammasome. In 1986 Diego Maradona famously said 'un poco con la cabeza de Maradona y otro poco con la mano de Dios' (a little with the head of Maradona and a little with the hand of God). How Peter Shilton could have done with inhibiting PI3 kinase!

FOR HARRY, ENGLAND AND ST GARETH

Once more unto the breach, dear friends, once more; when the blast of winter blows in our ears; then imitate the action of the tiger; stiffen the sinews, summon up the blood, and discharge as many people as thy can: Now set the teeth and stretch the nostril wide, Hold hard the breath and bend up every spirit; and hope for the best. If this description of a day on the admissions ward sounds familiar then the study by Echevarria et al should bring some relief (see page 713). They performed a non-inferiority randomised controlled trial in 118 patients admitted with a low-risk exacerbation of COPD selected by the DECAF score. They were recruited to Hospital at Home (HAH) or usual care. HAH was found to be safe, clinically effective, cost-effective, and preferred by most patients. Maybe now the playing field will have been levelled just a little bit.

IT'S COMING HOME, IT'S COMING

'30 years of hurt never stopped me dreaming' that one day we could reduce asthma deaths. They just know, they're so sure' that there is a uniform standard of care across the board. However, in this issue of Thorax, Gupta and colleagues present data that suggest that asthma management varies considerably by income and region but perhaps not as expected (see page 706). While they demonstrate that symptoms, admissions and diagnosis of asthma follow similar deprivation gradients across ages. However, they find asthma deaths followed the opposite deprivation gradient in younger people. They also show considerable differences in geographical variations in these outcomes, with the South West winning the Asthma World Cup. However, when it comes to asthma outcomes this is one competition where we really want every region to be the winner.

WORLD IN MOTION

'Now is the time; Let everyone see; You never give up; and you continue to try' novel therapeutics for acute lung injury. John Barnes, has something in common with TNF serving both injurious and protective functions. TNF functions diverge at the levels of its receptors TNFR1 and TNFR2 whereas John Barnes functions diverged at the level of his singing. Proudfoot and colleagues used a selective TNF receptor one domain antibody (DAB) to assess whether it would inhibit the injurious effects on TNFR1 and spare the protective effects of TNFR2 in experimental acute lung injury (see page 723). The TNFR1 DAB inhibited cytokine and neutrophil adhesion molecule expression in vitro, and reduced inflammation and injury in vivo. Furthermore, In a randomised, placebo-controlled trial in 37 healthy humans challenged with a low dose of inhaled endotoxin, treatment with the DAB attenuated pulmonary neutrophilia, inflammatory cytokine release and signs of endothelial injury in bronchoalveolar lavage and serum samples. Maybe the development of a new therapeutic for acute lung injury really is in motion?

VINDALOO

The 1970 World Cup was played in Mexico where England's World Cup hopes were dashed by Gordon Banks being stuck 'in the loo' with food poisoning. This was the first World Cup played at altitude with the final in the Azteca stadium being at 7280 feet. However this is not the highest stadium in the world, that would be the Estadio Hernando Siles in La Paz, Bolivia at 11932 feet where the Bolivian national team are rarely beaten, inflicting record defeats on Argentina in 2009, and Lionel Messi was sick on the pitch in 2013. It's not only footballers who struggle at altitude. According to Rojas-Camayo and colleagues 140 million people live at altitudes over 8202 feet (2500 m) and a further 40 million visit (see page 776). Pulse oximetry in these settings will be markedly different and the references ranges for adults aged 1-80 at altitudes up to the highest human habitation described. The graphs are quite revealing.

As Fat Les sang 'put the kettle on' and enjoy this edition of Thorax.

THE WHOLE WORLD-CUP IN HIS CHEST

This month's image looks like a football under the chest-wall but what is it? Answer on page 791.



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