



Highlights from this issue

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The Triumvirate

At the time of writing we have reached a grim COVID-19 milestone with some salutary lessons, a couple described in this issue of *Thorax*. It is just over a year since the global pandemic was announced and there have been over 125 million confirmed infections and almost 3 million deaths worldwide. However, almost 500 million people in the world having received their first dose of COVID-19 vaccine and finally a pathway out of the pandemic seems possible. What better time to celebrate the music of one of the Triumvirate's favourite bands: "The Vaccines"?

"WHAT DID YOU EXPECT FROM THE VACCINES?"

This was the intriguing title of the band's first album, released in 2011. What do you expect from a vaccine against pneumococcus, administered as part of the primary immunisation schedule? Not increased rates of empyema surely? In this month's *Thorax*, Strachan and colleagues (see page 487) study the effects on Australian children of the switch from the seven valent to the thirteen valent pneumococcal vaccine at the end of 2011. The authors report that the increase in serotypes covered by the vaccine (with the introduction of the thirteen valent form) was followed by a significant reduction in hospitalisations for bacterial pneumonia in children. However, empyema hospitalisations significantly increased. Pneumococcal serotype 3 emerged as the dominant serotype in empyema. Although this serotype is included in the thirteen valent vaccine, the authors speculate that increased capsular polysaccharide production by serotype 3 may interfere with antibody dependent killing. What "the Vaccines" (the band) delivered in their first album was a medley of indie songs, including "blow it up" and "lack of understanding". Strachan and colleagues have blown up some of our preconceptions about pneumococcus and illustrated our lack of a full understanding of the pathogenesis of empyema in children.

TASK SHIFTING

The vaccines next outing was the album "Come of Age" which featured such unlikely titles as "Aftershave Ocean" and "I Wish I Was a Girl". An approach which has come of age is the use of enhanced care packages and task shifting in asthma, as described by Rylance *et al* in their randomised controlled trial, conducted in Blantyre, Malawi and published in this issue of the journal (page 434). The trial saw 120 children randomised

to enhanced care delivered by non-physicians vs routine outpatient care. The enhanced package included: clinical assessment, optimised inhaled treatment and individualised asthma education. The primary outcome was the change in asthma control test at 3 months. Children in the enhanced care group had a greater improvement in asthma control test (2.7 vs 0.6p<0.001). Fewer children needed emergency visits and fewer missed school in the intervention group. An accompanying editorial (page 430) puts the trial in context as well as pointing out the difficulties of task shifting for COVID-19 vaccination in the UK which requires "...hours of online training ...a checklist of 21 training requirements..." The Vaccines (the band) only foray into healthcare was their track on last year's "Songs for the National Health Service". "Take me to your internet disco. Free me from my email chains. Want to dance like no one's watching..." I think we can all identify with the sentiment!

FROM AKUREYRI WITH LOVE

One of the things that The Vaccines and *Thorax* have in common is a 'band' member originally from Akureyri in Iceland. Iceland is known as the land of Ice and Fire and has a proud history of volatility, who can forget the Eyjafjallajökull eruption of 2010, incidentally the year the Vaccines were formed?! Humans can also be volatile, as editorial committee meetings frequently illustrate, and much of this hot air contains Volatile Organic Compounds (VOCs) which be measured in exhaled breathe using a technique described rather politely by Ibrahim *et al* (page 514) as 'breathomics'. Ibrahim and colleagues describe the perils, pitfalls and progress of using VOCs in clinical practice including the tantalising electronic Nose (eNose) and Headspace analysis (not much of that around here). They describe how VOCs can distinguish asthma from COPD and the emerging potential in Cystic Fibrosis and early detection of lung cancer. There are clearly many possibilities for breathomics, but it will be some time before this technology will be used for decision making at the *Thorax* editorial committee.

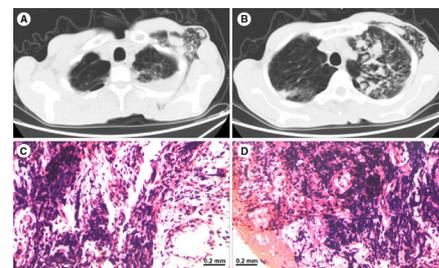
A LACK OF UNDERSTANDING

This song was written ahead of its time of that there can be no doubt! Penned in 2010 they must surely have been preparing for the anniversary of the pandemic as they sing "It's only been a year, But it feels like a lifetime here, How's it been for you? Does it feel like a lifetime too? What would you do now in light of it all?" A song about COVID-19 and written

by The Vaccines. #Apt. I am sure our readership across the world would agree with the sentiment that it has been a particularly rough year for those in working in respiratory and critical care medicine. So, what would we do now in light of it all? There are some simple answers, develop a functional test, track and isolate system for a start, but other questions are more vexing and there are two questions for which we now have some answers. Early in the pandemic it became clear that the SARS-CoV-2 virus uses ACE2 as the primary receptor for cellular entry and this led to speculation that ACE inhibitors (ACEI) or angiotensin II receptor blockers (ARB) may have potentially beneficial or harmful effects. In this issue of *Thorax* Lee *et al* (page 479) describe a systematic review of the use of ACEI/ARB in patients with COVID-19 and assess the impact on mortality or severe disease. They assessed over 20 000 patients and found that ACEI/ARB use had an OR of death 0.52 with confidence intervals between 0.37–0.72 suggesting at the very least they are safe in COVID-19. Another major impact of COVID-19 has been the introduction of strict social distancing measures which has been very effective in reducing the transmission of SARS-CoV-2, as well as other respiratory viruses! In this issue of *Thorax* (page 512) Tan *et al* describe the effect of strict social distancing on acute exacerbations of COPD (AECOPD). Following the introduction of social distancing measures they observed a 50% reduction in admission for AECOPD and a big reduction in PCR positive respiratory viral infections. To answer the final question asked by The Vaccines in this song about COVID-19, "Should I shake your hand or should I give you a kiss?" the answer is now very, very clear. NO!

UNDER YOUR THUMB

"I'm perfectly aware of what I'm yet to know" Well if you want to know where the third lobe of the lung may be found its not under your thumb.



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