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# Highlights from this issue

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*The Triumvirate*

## "TO BOLDLY GO..."

If you thought STAR-too might be the next incarnation of the Star Trek franchise, you'd be wrong. On *page 318* of this month's journal, Marianne Muhlebach and colleagues describe the first randomised controlled trial of eradication treatment for methicillin resistant *Staphylococcus aureus* (MRSA) in cystic fibrosis (CF). The primary outcome was MRSA eradication (or not) at 28 days. An impressive 82% of patients were free of infection in the active treatment arm vs. 26% in the no treatment arm. The trial was not powered to detect changes in clinical outcomes. The prevalence of MRSA in CF patients in the USA is high (around 25%) compared to the UK (approximately 3%). It is now time for rollout of MRSA eradication to "...the final frontier..." of routine clinical practice.

## A GALAXY OF STAARS

This month's journal contains a veritable galaxy of stars. On *page 347* Morton and colleagues describe the STAAR trial of electronic adherence monitoring, with reminder alarms and feedback, for poorly controlled asthma in 6 to 16 year olds. The control children had adherence monitoring alone. The trial missed on its primary outcome of the asthma control questionnaire. However, there were significantly fewer courses of oral steroids and fewer hospital admissions in the intervention group – outcomes which are arguably more important to patients. Not sure how to improve adherence? Reach for the STAARs!

## THE BRONCHODILATOR TEST IN PRESCHOOLERS – IT'S CHILD'S PLAY!

The bronchodilator response is an important part of the asthma test battery in school age children and adults. However, preschoolers offer a real challenge! On *page 367*, Busi and colleagues describe the use of the bronchodilator test discriminate between asthmatic and non-asthmatic preschoolers in Argentina. In a neat study design, preschool children with

and without asthma were randomised to salbutamol or placebo – thus differentiating between test variation from a true bronchodilator response. A change in FEV<sub>0.75</sub> of 11% was the best cut off for predicting asthma in preschool children. With a specificity of 88%, the test is best used to "rule out" (rather than "rule in") asthma in this age group.

## OPEX? IPEX? SIMPLEX?

If you thought oPEX was something to do with oil cartels, think again! The term does, of course, refer to pulmonary exacerbations of CF treated with oral antibiotics. The mysteries of oPEX are laid bare by Sanja Stanojevic and colleagues on *page 327*. These are the poor relations of PEX treated with intravenous antibiotics (iPEX?). A quarter of CF patients fail to recover baseline lung function after an iPEX. However oPEX are far from benign with significantly decreased FEV1 seen in the group who had one or more oPEX events in 12 months, compared to the oPEX free individuals. Furthermore there is a dose response effect. Simplex!

## THE LITTLE PSEUDOMONAS ON THE PRAIRIE

The story of a pioneer family in the American Mid West was brought to life by Laura Ingalls Wilder in her series of children's books. "The Little House on the Prairie" was the first of many. In this wholesome world, there was certainly no mention of the "prairie epidemic strain" of *Pseudomonas aeruginosa*, described by Somayaji *et al* on *page 333*. The paper describes 274 patients attending the Calgary Adult Cystic Fibrosis Clinic of whom 64 had the prairie epidemic strain. Infection with this strain was associated with a greater risk of respiratory death or lung transplant compared to those with no *Pseudomonas* or with a unique strain. So a prairie upbringing is not so wholesome after all...

## SURVIVOR

Continuing our theme of American TV shows, one way they have improved the

quality of life (QoL) of the Survivor contestants was to cast them away on a tropical island. Whilst a holiday in the sun may well improve the QoL of patients recovering from ARDS, this was not one of the measures of the ALTOS study (*see page 311*). However, they did assess a number of variables that predicted enhanced QoL at 6 months in those who did survive ARDS. Interestingly of the 616 survivors assessed there was no association between the acute illness variables and 6 month QoL, but pre-morbid lifestyle factors such as increased age, smoking and increased BMI were associated with poorer QoL at 6 months. A healthy lifestyle may not stop ARDS but it certainly appears to help people cope better following it, even away from a tropical paradise.

## SCAR TREK – THE PREQUEL

Many of us will be familiar with Captain Kirk standing on the bridge of the Starship Enterprise responding to a disaster in a far-flung galaxy. He was fortunate that he was able to travel through both space and time to save the universe. Unfortunately for those battling scarring diseases in the lung we have only the current moment in time to decide whether to treat scarring. The decision about when to initiate anti-fibrotic therapy remains controversial, and in the UK it is rendered somewhat redundant by NICE prescribing criteria. However, in this issue of *Thorax* Kolb and colleagues analyse data from the IMPULSIS studies to determine whether the benefits of starting nintedanib are similar when dichotomised around an FVC of 90% predicted (*see page 340*). They found the effect of nintedanib on change in lung in lung function was the same regardless of the starting FVC. So perhaps we should start the movie before the catastrophe to avoid having to make the prequel after the original series?

## A BLOODY PUZZLE!

On *page 385* of the journal we bring you a patient with fever, progressive dyspnoea and haemoptysis. Test your diagnostic prowess!