



CRD Editor's Corner Archive: January–March 2021

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COPD caused by biomass fuel exposure – A need for greater understanding

March 31, 2021

COPD due to non-tobacco exposures such as indoor pollution is a substantial global health burden. In this issue of the journal, Montaña et al.¹ present data from Mexico comparing the cytokine profile from patients with COPD due to biomass fuel (firewood) compared with tobacco exposure. Significant differences were observed, interestingly including mediators involved in angiogenesis and tumour progression suggesting future cancer risk might be lower in COPD due to biomass fuel exposure. The findings highlight just how variable the underlying pathophysiology can be among patients who have been diagnosed with COPD, the clinical syndrome. It looks as if comorbidity risk (such as lung cancer) as well as clinical phenotype might be different in the developing world where biomass fuel exposure is such an important cause of COPD.

Familiarity breeds competence for inhaler technique?

March 19, 2021

Getting inhaler technique right continues to be a thorny problem to solve. Ensuring the healthcare workforce have the knowledge themselves to educate patients is a key step but in a survey of hospital respiratory nurses published in the journal this week, Swami et al.² show that there is work to do on this. Fewer than half of the correct steps for inhaler use were taken by participants across the breadth of devices used and there was no

correlation with previously stated confidence in inhaler use by the individual or years of nursing experience. Performance was better for devices that were more frequently prescribed and presumably more familiar to staff. The plethora of newer inhaler devices has been beneficial for patient choice but healthcare professionals providing such devices will need to keep up with how to use them. In an age where remote contacts with patients are so much more common, the use of online technologies such as video instruction might well be the way forward.

Post-COVID syndrome – The evidence accumulates

March 17, 2021

It won't have escaped anyone's notice that many patients experience prolonged symptoms following recovery from acute COVID-19 infection. The enthusiasm in the clinical community to understand the problem is illustrated by the systematic review published by Cares-Marambio et al.³ in the journal this week. Despite the short duration of experience of the disease, the authors found 10 articles describing the breadth and character of symptoms experienced by patients during recovery, finding that breathlessness, fatigue, chest pain and cough were prevalent up to

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3 months. Unsurprisingly, we don't yet have a clear understanding of how long these symptoms will persist—only one study included in the review documented symptoms beyond 3 months. A problem for publishers in this field is that reviews such as this will quickly be superseded potentially making publication less attractive. We suggest that journals in the future might need to support 'living' systematic reviews to keep pace with literature in such rapidly developing fields.

Physical activity in lung disease. Do we really understand it?

March 11, 2021

At CRD we regularly highlight the importance of physical activity (PA) for maintenance of health in chronic lung disease. It's a tricky thing to modify however, even with pulmonary rehabilitation (PR). In the journal this month Carl and colleagues⁴ report a detailed exploration of the competencies that might determine PA after completing PR. It's a salutary message that measurable competencies (such as physical capacity, emotional control and self efficacy) only explained around a third of the variation in PA between individuals. Perhaps more reassuring was the finding that capacity (6MWD) was the strongest contributor. We can be confident that such physical capacity can be enhanced by PR but translating this into gains in physical activity remains an elusive goal.

The 1 minute sit to stand test after COVID-19 infection – Does it have legs?

February 27, 2021

Recovery from severe COVID-19 infection takes time, particularly for those who need hospital care for COVID-pneumonitis. The 1 minute sit to stand test is becoming a popular follow-up assessment and Núñez-Cortés et al.⁵ in this issue of the journal demonstrate that this simple task might be helpful in discriminating patients who are still recovering a month after discharge. Indeed at that stage 20% of participants could not perform the test. While making such measurements could be considered superfluous given that we lack evidence based interventions to speed recovery, we do need to find objective methods to identify people who are not returning to normal daily functioning so that we can target and refine rehabilitation

interventions. The sit to stand test, a simple measure that can be done in resource limited settings, might fit the bill.

Interstitial lung disease in vasculitis

February 19, 2021

In other systemic disease news, Zhou and colleagues⁶ review the prevalence and prognosis of interstitial lung disease in ANCA associated vasculitis. Unsurprisingly for such a heterogeneous group of conditions, prevalence varied across studies but a Usual Interstitial Pneumonia pattern was most common and the finding looks important as mortality in patients with associated ILD was approximately threefold higher. Providing immunosuppressive therapy did not appear to modify mortality but it's difficult to know from the data whether this is due to a lack of efficacy or whether benefits in this group might be offset by the risk of therapy such as opportunistic infection. An interesting area for ongoing study and debate.

Bronchiectasis in rheumatoid arthritis

February 16, 2021

We are all told as trainees that bronchiectasis is one of the myriad lung manifestations of Rheumatoid arthritis (RA) but how robust is this association? Wiater and colleagues⁷ nicely address this question by systematically reviewing literature on this association, reporting an overall prevalence of around 20% in people with RA. Importantly, the heterogeneity of this estimate was wide and symptomatic bronchiectasis much less common suggesting it might be frequently diagnosed incidentally on imaging studies. The impact on patients might be a little less certain but it is reassuring to know that some of our teaching from the mists of time is grounded in fact!

Respiratory disease and COVID-19 in the Big Apple

February 8, 2021

This month in the journal Girardin and colleagues present a fascinating analysis of healthcare records from patients hospitalised for COVID-19 infection in New York during the first wave of the pandemic.

The paper highlights again that age, male sex, ethnicity and obesity have an adverse impact on outcomes. Notably, a crude estimate of household income was also predictive of mortality along with the presence of respiratory disease (itself associated with poor socioeconomic status).

As we battle the second wave of the pandemic, Girardin et al.⁸ remind us of the toll the disease took on the people of the city and its healthcare system in the first wave. In an economically and culturally diverse city such as New York, the paper throws a spotlight on the propensity for COVID-19 to ruthlessly target disadvantaged populations such as those with COPD. Proactive support for these populations combining appropriate shielding with disease management support is ever more crucial.

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