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Advancing the management of respiratory problems

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Respiratory conditions continue to be leading causes of morbidity, mortality and disability worldwide [1] with resulting and extensive negative impacts on patients, their families, and health, social and voluntary care services and systems globally. The role supportive and palliative care can play in identifying and ameliorating these impacts for patients with progressing respiratory problems and their families and informal carers is key, whether delivered by specialist or non-specialist care professionals.

In this issue we present reviews of the current evidence around some of the less commonly addressed aspects of supportive and palliative care for patients with respiratory problems: breathlessness assessment, chronic cough, social dimensions of chronic respiratory disease, post-COVID 19 management, and the burden of respiratory problems in low and middle income countries.

Breathlessness is highly prevalent in people with serious life-limiting conditions; it is the most common symptom of chronic respiratory diseases, but also prevalent in cardiac and neurological conditions, and some advanced cancers. Ekström [2] explores exertional tests for both uncovering and assessing breathlessness and considers these in relation to key factors such as the person's severity of illness, function, the setting and aim of the assessment. To overcome the challenges of recall and reduced physical activity, the review recommends standardised testing to uncover under-reported or "hidden" breathlessness in people with reduced activity (which may be reduced in response to the breathing distress at exertion) and to provide valid assessment of breathlessness severity across people and for the individuals over time. It proposes a framework for selecting the most appropriate test.

Another common symptom of severe diseases (such as COPD, interstitial lung disease, lung cancer and heart failure) is chronic cough. It is a frequent reason for health care contact, yet patients can feel this symptom is not well attended to by health care professionals despite associations with more frequent exacerbations and more rapid disease progression. Management options are limited. Emilsson's review [3] describes cough mechanisms, the burden chronic cough can be for the individual, and the clinical impact of chronic cough in COPD, lung cancer, interstitial lung disease and extra-pulmonary diseases. As well as physical and mental health impacts (pain, fatigue and anxiety), the review highlights how chronic cough can lead to impaired work ability and social isolation, negatively impacting patients' quality of life.

Social dimensions of chronic respiratory disease are explored in more detail by Brighton et al's review [4], particularly in relation to stigma, isolation and loneliness. They identify that people with chronic

respiratory disease report unmet social needs and consider their associations and recent advances in understanding these social concepts within the context of chronic respiratory disease. The contribution of these social needs towards poorer psychological health and self-management, reduced engagement with professional support, and even increased hospital admissions, is highlighted. The review also notes how isolation and loneliness can also impact these patients' informal carers. Interventions currently available to address these needs are outlined.

Our last two editorials [5,6] were written in the midst of the Covid-19 pandemic. Whilst Covid, in its acute phase, remains an international concern, attention has increasingly been given to post-Covid management for those requiring it. In this issue, Kessler et al [7] describe the burden of post-COVID respiratory sequelae in post-hospital and non-hospitalised Covid-19 survivors and priorities of clinical management. They note the varying definitions of 'Long Covid' or 'Post-Covid' and the resulting challenges in estimating prevalence, but identify persistent Post-Covid symptoms, risk factors for those common symptoms, and the impact of these symptoms on quality of life and ability to work. They report on developments in management including the need for long term multidisciplinary holistic care, tailored to the individual, noting that distinguishing post-hospital and non-hospitalised Post-COVID patients may be helpful in clinical practice as care needs will vary.

Finally, the current burden of respiratory problems in low and middle income countries (LMICs) is reviewed explored by Clark et al [8] through exploration of the prevalence of respiratory problems as contributors to disease burden in LMICs, global estimates to highlight trends, and the prevalence and impact of respiratory problems on quality of life in communities. Impacts are identified in relation to physical activity, quality of life and the socio-economic burden. They highlight the disease-focus of global health epidemiology, with symptoms treated as associated problems rather than as targets for intervention. They found the availability of evidence relating to the prevalence of chronic respiratory diseases in LMICs to be broad, whereas data on burden and impact in LMICs was less so requiring them to use indicative studies in order to extrapolate likely symptom burden within disease-groups.

Each of these contributions to this issue show how the field has progressed in the last year but each contribution also clearly identifies key areas for future research. Improved measurement of breathlessness in relation to standardized exertional testing is needed including reference equations for normal breathlessness for different levels of exertion, validation of breathlessness tests for people with conditions other than COPD, and the development of tests to evaluate severity and change in breathlessness in people with more severe illness for use at point of care [2]. More research is needed on cough mechanisms and how they differ between different diseases, as well as whether cough treatment affects cough-associated symptoms such as fatigue, anxiety, pain and social isolation [3]. The complexities of social isolation and loneliness in chronic respiratory disease require further research (qualitative of work on experiences of patients and carers alongside side quantitative work on prevalence), and optimal multi-level interventions to address the range of social challenges need co-developing [4]. Research to explore potentially distinct or overlapping underlying mechanisms in post-hospital and non-hospitalised Post-Covid patients is required, alongside further research to address Post-Covid sequelae [7]. And, finally, prevalence surveys are required in LMICs to investigate the impact of respiratory problems on employment, productivity and absenteeism, in relation to earnings lost, and means need to be identified to enable the effective use technology to address emerging chronic respiratory problems without marginalising some of the most vulnerable people in

those LMICs [8]. There are therefore plentiful well-delineated opportunities to advance our knowledge and care in relation to this advancing field.

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