Letter to the Editor

Clinical practice guidelines and statements from key professional respiratory societies: the status quo

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Respiratory medicine encompasses a multitude of acute and chronic illnesses that contribute to significant global morbidity and mortality (1-3), including many diseases that cross-disciplines to critical care and sleep medicine. To combat this significant health burden, guidance documents have been developed by various professional respiratory societies to provide a combination of evidence-based and expert consensus recommendations that are intended to improve patient outcomes and promote research through the identification of evidence gaps and priority areas. To date, little is known about the breadth of topic coverage and the distribution of guidance document types developed by key professional respiratory societies. Establishing this knowledge is crucial for supporting the future development of societal guidelines and consensus statements in the field of respiratory medicine.

We collated non-coronavirus disease 2019-related societal guidance documents in English language published up to July 2024 for major respiratory societies of different continents: Africa (PanAfrican Thoracic Society), Asia Pacific [Thoracic Society of Australia and New Zealand (TSANZ)], Europe [European Respiratory Society (ERS)], North America [American College of Chest Physicians (CHEST), American Thoracic Society (ATS)], and South America [Latin American Thoracic Association (ALAT)] using online repositories at society websites and affiliated journals. Data extraction of each societal guidance document focused on the societies involved in document development, year of publication, document type, and topic covered. Citation counts for each document were obtained using Google Scholar as of 11th August 2024. Document characteristics are summarized using descriptive statistics, with categorical and continuous data being presented as frequency (%) and median (interquartile range).

A total of 403 societal guidance documents were identified, with a rising trend in numbers over the past two decades (*Figure 1A*). Clinical practice guidelines were the most common guidance document type (n=138, 34%), followed by consensus statements/position papers (non-guideline clinical documents) (n=125, 31%). Other included workshop reports (n=69, 17%), research statements (n=29, 7%), policy statements (n=20, 5%), technical standards (n=18, 4%), and commissioned systematic reviews (n=4, 1%). Most documents were developed by a single society

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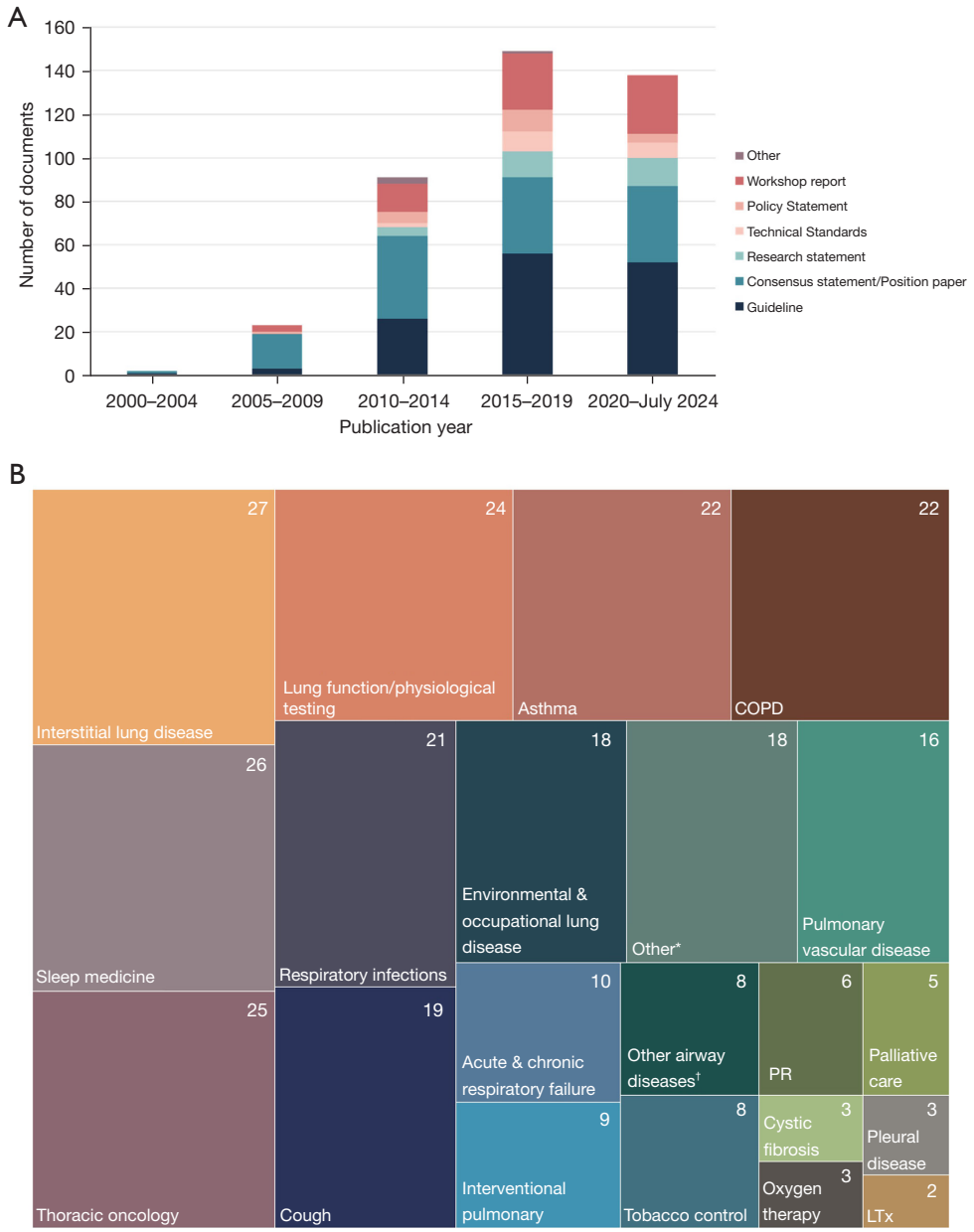

Figure 1 Publication trend and topic coverage of societal guidance documents. (A) Trend of publication count of societal guidance documents from 2000 to July 2024 stratified by document types. (B) Treemap of topic coverage for guidance documents by key professional respiratory societies, excluding those developed specifically for paediatrics and adolescent patients, critical care, and research conduct and priorities setting for broad applications. The numbers of documents for each topic are presented. *, other included ethics and/or health policy, guideline implementation, mixed diseases, non-infectious lung injury after hematopoietic stem cell transplantation, and public health; †, other airway diseases included α1-antitrypsin deficiency lung disease, bronchiectasis, and inducible laryngeal obstruction. COPD, chronic obstructive pulmonary disease; PR, pulmonary rehabilitation; LTx, lung transplantation.

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(n=287, 71%; ATS: n=142, CHEST: n=57, ERS: n=62, TSANZ: n=26), with ATS and ERS being the most common partners for joint documents (n=42, 10%). There were no societal guidance documents from the PanAfrican Thoracic Society, while ALAT had eight joint documents with ATS and/or ERS.

Most societal guidance documents were developed for the care of respiratory medicine in adults only or both adult and pediatric patients (n=353, 88%), with the top three most covered topics being interstitial lung disease (n=27, 8%), sleep medicine (n=26, 7%), and thoracic oncology (n=25, 7%) (*Figure 1B*). The remaining documents were developed specifically for pediatrics and adolescent patients (n=48, 12%), critical care (n=31, 8%), and research conduct and priorities setting for broad applications (n=29, 7%). The overall collection of professional respiratory societal guidance documents had a combined citation count greater than 157,000 with a median of 92 (interquartile range: 28–314), with over 9% having a citation count of >1,000.

Choosing the right types of guidance documents and topic areas are crucial prerequisites for their usefulness, implementation, and impact on health outcomes. Several types of guidance documents exist to serve different purposes by targeting the right audience and focusing on various aspects of health care. For example, clinical practice guidelines encompass evidence-based recommendations intended for clinicians to optimize patient outcomes and minimize inappropriate clinical care and patient harm, while research statements focus on important issues related to research conduct and priorities for a specific disease or technique of investigation. There was a wide breadth of topic coverage for these guidance documents, which are well-aligned with common respiratory diseases contributing to substantial global burden (1-7). This suggests that key respiratory societies proportionally dedicate efforts to addressing the most impactful respiratory diseases. Nevertheless, the proportion of paediatric-specific guidance documents was relatively low. As pediatrics and adolescents constitute approximately 30% of the global population (8), increased attention is warranted to promote the well-being of children and adolescents globally. There was variation in the number of guidance documents developed by respiratory societies from different continents. Of note, non-English societal guidance documents may be available in different regions, which is beyond this evaluation.

Looking ahead, given the time and resource intensity required for developing guidance documents, it would be favorable to increase collaboration between professional respiratory societies for shared topic areas of significance, which would promote large-scale implementation across multiple regions and ideally globally. This approach can be extended to involve patient advocacy organizations and professional societies of other medical specialties and disciplines to keep pace with the increasing need for multidisciplinary patient-centered care. Instead of multiple guidance documents from various societies and organizations, an alternative approach is condensing and consolidating information into a single one to provide streamlined recommendations with refinement according to the local resource availability. This coordinated approach could be beneficial to clinicians and researchers for ease of use by addressing the challenges with discrepancies in recommendations between different guidance documents (9,10).

Collectively, there has been phenomenal undertaking by professional respiratory societies from different regions with an escalated rate of development of guidance documents for clinical care and research conduct over the past two decades. To meet the ongoing challenges of global burden and continuous rapid emergence of new knowledge for different disease areas in respiratory and critical medicine, innovative and collaborative approaches are needed to enable timely production of guidance documents for topics of the greatest need.

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Footnote

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References

1. GBD Chronic Respiratory Disease Collaborators. Prevalence and attributable health burden of chronic respiratory diseases, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. Lancet Respir Med 2020;8:585-96.
2. Jin X, Ren J, Li R, et al. Global burden of upper respiratory infections in 204 countries and territories, from 1990 to 2019. EClinicalMedicine 2021;37:100986.
3. Safiri S, Mahmoodpoor A, Kolahi AA, et al. Global burden of lower respiratory infections during the last three decades. Front Public Health 2022;10:1028525.
4. GBD 2019 Respiratory Tract Cancers Collaborators. Global, regional, and national burden of respiratory tract cancers and associated risk factors from 1990 to 2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet Respir Med 2021;9:1030-49.
5. GBD 2019 Chronic Respiratory Diseases Collaborators. Global burden of chronic respiratory diseases and risk factors, 1990-2019: an update from the Global Burden of Disease Study 2019. EClinicalMedicine 2023;59:101936.
6. Lyons MM, Bhatt NY, Pack AI, et al. Global burden of sleep-disordered breathing and its implications. Respirology 2020;25:690-702.
7. Hafner M, Stepanek M, Taylor J, et al. Why Sleep Matters-The Economic Costs of Insufficient Sleep: A Cross-Country Comparative Analysis. Rand Health Q 2017;6:11.
8. UNICEF. The State of the World's Children 2023: Statistical tables. 2023 (accessed 1 July 2024). Available online: https://data.unicef.org/resources/dataset/the-state-of-the-worlds-children-2023-statistical-tables/
9. Miravitlles M, Vogelmeier C, Roche N, et al. A review of national guidelines for management of COPD in Europe. Eur Respir J 2016;47:625-37.
10. White J, Paton JY, Niven R, et al. Guidelines for the diagnosis and management of asthma: a look at the key differences between BTS/SIGN and NICE. Thorax 2018;73:293-7.

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