

# The Saudi guidelines for chronic obstructive pulmonary disease: A fresh “Real-World” approach to COPD

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Chronic obstructive pulmonary disease (COPD) is a major cause of morbidity and mortality in the USA and throughout the world.<sup>[1-3]</sup> In spite of this, it remains a relatively neglected disease both in terms of public awareness and in public-health planning. The impact of COPD is particularly felt in developing countries despite the paucity of information on epidemiology and management of this disease in such countries. This impact was recently uncovered by the BREATHE study.<sup>[4-7]</sup> The findings of this large epidemiological study conducted in 10 countries in the Middle East and North Africa, provided the first international collaborative attempt to document the prevalence and burden of COPD in that region of the world. Its findings were derived from interviews of over 60,000 respondents in the general population. Although the prevalence of COPD in all participating countries combined was around 4%, this prevalence rate may be have been underestimated, especially since other risk factors frequent in that part of the world including water-pipe smoking and exposure to burning biomass fuel, were not considered in the determination of prevalence. Another important finding of the BREATHE study was the documentation of largely unsatisfactory standards of care in the different countries where it was conducted. Indeed, lesser than one-third of COPD cases were diagnosed, lesser than one-third evaluated for lung function, and lesser than one-third received appropriate treatment for COPD. In addition, less than 10% of treatment was compliant with the international GOLD guidelines. In addition to its human impact, COPD is responsible for considerable healthcare costs in that region as it is in other countries.

Several evidence-based clinical practice guidelines exist for COPD.<sup>[8-15]</sup> However, these guidelines have been mainly a result of weighing evidence obtained from randomized controlled trials from developed countries. Therefore, such guidelines have been criticized to be of limited value when it comes to being implemented in the population at large in a real world setting and in developing countries.<sup>[16]</sup> This is especially true when it comes to many patients with multiple

comorbidities who are very often excluded from trials used to weigh the evidence for such guidelines. Furthermore, many existing guidelines place unrealistic expectations from clinicians who are in need of simple practical recommendations they can adopt in their busy practices. It is therefore, not surprising that such guidelines are rarely adopted by practicing clinicians who constitute the forefront in managing COPD.<sup>[17,18]</sup> Hence it is imperative that future clinical practice guidelines take into account the practical aspect and feasibility of complying with their recommendation.

The Saudi Thoracic Society (STS) Initiative for Chronic Airways Diseases' (SICAD) main aim has been to develop evidence-based guidelines which are more suitable to local practices in the aim to improve COPD awareness and optimize patient care by healthcare providers. These guidelines, which constitute the first initiative of the SICAD, were developed by a panel of academic and practicing pulmonologists who are experienced in developing guidelines. The panel used standard methodology and grading of evidence strategies incorporating studies published in developed countries, locally in Saudi Arabia and throughout the region. While these guidelines have many similarities to existing international COPD guidelines, they also have unique differences that make them more adaptable in the real-world setting.

The first asset of the STS guidelines is the recommendation to use a simplified clinical approach to COPD based on patient symptoms using the COPD assessment test score, and assessment of risk of exacerbations and comorbidities. While the guidelines continue to emphasize the need of spirometry for the initial diagnosis of COPD, they do not recommend the routine use of spirometry beyond that for further management. The rationale behind this recommendation stems from the fact that spirometry remains widely underutilized among primary care clinicians in Saudi Arabia as they are throughout the world, but also from the fact that physiologic measures such as forced

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**Table 1: STS classification of COPD**

Class	Symptoms	Exacerbation risk
Class I	Low symptoms CAT score $\leq$ 10	Low risk of exacerbation (0-1/year)
Class II	High symptoms CAT $\geq$ 10	Low risk of exacerbation (0-1/year)
Class III	Any symptom any CAT score	High risk of exacerbation ( $\geq$ 2/year) or any hospitalization

STS = Saudi Thoracic Society, COPD = Chronic obstructive pulmonary disease, CAT = COPD assessment test

expiratory volume in 1 s often poorly correlate with COPD patients' symptoms and health status. The underutilization of spirometry continues to be a major problem throughout the world and is a result of many myths that need to be resolved.<sup>[19]</sup> However, until this is done, it is hard to expect that this tool would be utilized on a routine basis among primary care providers.

The second asset of the Saudi guidelines is their simple classification of COPD severity that would be utilized for the stepwise pharmacologic approach to treatment of COPD. The guidelines recommend three classes for COPD (Class I-III) rather than the four grades recommended by GOLD (Grade A-C) [Table 1].

In addition to the above, the guidelines put forth very important recommendations for the assessment, non-pharmacological and pharmacological approaches to managing COPD considering the availability of such interventions locally and in the region.

In summary, this SICAD's initiative in simplifying the approach to COPD by bringing forward evidence-based guidelines that can be implemented locally in various clinical settings is a major step that may lead to improve outcomes of patients suffering from this disease in the country. A major step now is to ensure that these recommendations be disseminated to all parties involved and more importantly implemented. Future studies that measure outcomes from implementing these guidelines are also warranted.

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