

Bronchiolitis in children: The Saudi initiative of bronchiolitis diagnosis, management, and prevention (SIBRO)

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Bronchiolitis is the leading cause of hospital admissions in children <2 years of age worldwide, and is associated with a considerable burden of short- and long-term morbidity in the respiratory domain, as well as with high societal, parental, and health-care costs.^[1]

This condition is well recognized and impacts heavily on the daily activities of pediatricians and on hospitals' overcrowding during seasonal epidemic peaks. However, adherence to structured, consistent, and authoritative guidelines has always been weak, leading to variability in the management and to prescriptions of medications and laboratory examinations not based on the evidence. Specific recommendations for the management of bronchiolitis have been issued by only a limited number of countries and national scientific societies so far. Such a limited availability of nationally designed and country-centered guidelines is a weakness that adds to the above-mentioned limited adherence.

As a result, it is no surprise that recent surveys and retrospective, cohort studies report a high variability of practices in the management of bronchiolitis as well as an unchanged attitude to overprescribe medications and laboratory/instrumental examinations that are not supported by the evidence.^[2]

These findings underline, once more, the very limited adherence to the existing guidelines, and the need for improving the design, the implementation, and full awareness of these documents.

In this journal issue, the Saudi Initiative of Bronchiolitis (SIBRO) initiative document

regarding the management of bronchiolitis in the KSA is published. This initiative is highly commendable for a number of reasons.

First, it is a national guideline. Adoption of external, imported guidelines may be problematic since the management of a specific morbid condition is always a mix of actions based on the published evidence, on the one hand, and the local perspectives/consolidated practice, on the other hand. The SIBRO document is tailored on a national background of practice and feasibility; thus, it qualifies for a high likelihood of widespread acceptance. Second, it is a multispecialistic document. Similar to what happened with the Italian Pediatric Guideline document on the management of bronchiolitis,^[3] here experts of all different medical subspecialties in the care of bronchiolitis patients have been involved and have given their input and expertise. This is a major strength since – by definition – bronchiolitis is a disease that needs a common, shared approach by several pediatric specialists (neonatologists, pulmonologists, infectologists, etc.).

The document has many strengths: a major one being the goal of ensuring consistency to a number of practices that remain debated or that may even be misinterpreted or

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misled. An example is the approach toward oxygen saturation monitoring and detection. The document endorses a critical interpretation of the oxygen saturation measurements. This is critical since the adoption – as an example – of different lower thresholds of saturation can highly impact on the hospitalization rates. Importantly, this document underlines the need to improve the accuracy of the measurements (as an example, by cleaning the nares of the infant before measuring saturation) and to consider these measurements always in light of the additional clinical data that can arise from the visit and assessment of each single patient. The same applies to the suggestion of adopting a consistent, stable, and validated scoring system, in order to overcome possible misinterpretation of the severity of the disease in specific patients and settings.^[4]

Notoriously, management of bronchiolitis is mainly supportive and consists of oxygen administration, clearing the nasal airway secretions, and fluid balance maintenance. Even though these points appear known and well received, a clear need to reconfirm these statements in an official document still exists, since authoritative guidance at this level is sought by clinicians. The SIBRO document includes a long breakdown of all drugs and medications that have been proposed for the treatment of bronchiolitis, and that proved not effective – and therefore not recommendable for routine use based on the existing evidence. Noteworthy, saying that a medication should not be routinely recommended does not imply that the same medication may be considered for individual use on case-by-case basis. Flexibility is warranted and should be part of the clinical approach of each single physician: we deal with individuals and

all the published data relate to groups of patients; thus, predictions of long-term outcome in a single individual are extremely unreliable.

When translating published recommendations into clinical use, each doctor's ability is challenged to identify exactly the border separating overflexibility from overrigidity. A patient-centered, tailor-made approach is needed and this is even most important in infants and children.

The overall spirit and content of this document should assist clinicians of this geographic region and help them applying in the best possible way the existing evidence regarding management, diagnosis, and prevention of bronchiolitis.

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