Drug-Induced Sleep Endoscopy (DISE) Scoring Systems: Ideal DISE Scoring System and Comparability Properties

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We read with great interest “Systematic Review of Drug-Induced Sleep Endoscopy Scoring Systems” by Amos et al. The well-presented systematic review deduces 2 key conclusions. First, there is no consensus on which drug-induced sleep endoscopy (DISE) scoring system should be used for reporting clinical findings during DISE. Second, standardization of the reporting of DISE findings would improve comparability among studies. Our interest in this letter lies in an ideal DISE scoring system, DISE scoring systems, and comparability of DISE scoring systems. The presented systematic review raises 2 key discussion questions.

First, what is an ideal DISE scoring system? Amos et al proposed that an ideal grading system should include all anatomical sites contributing to upper airway obstruction, be simple to use and practical enough to allow high inter- and intrarater reliability, and provide a means to quantify the severity of obstruction. Although all the stated characteristics of an ideal DISE scoring system are desired, the characteristics remain loosely defined. As shown in the European position paper on DISE and in the presented system review, different DISE experts will preferentially use different anatomical structures for reporting DISE findings. Furthermore, simple to use and practical enough is relative to the experience of the DISE expert: what is simple enough and what is practical enough? The chances of developing an ideal DISE scoring system are becoming more limited as new DISE scoring systems remain 2 critical areas of further research as highlighted in the presented systematic review.

Second, how do we compare DISE scoring results? As clearly identified by Amos et al, there is a critical need to compare DISE scores for comparative results analysis and comparative outcomes analysis between different practitioners and centers. Although the comparability of DISE scoring is highly desirable, the practical bases of comparability are almost impossible. On a scoring level, the absence of a universally agreed-on DISE scoring system and a growing number of new proposed DISE scoring systems significantly limit the scope of comparability. On a global level, different sedation techniques, dose administration strategies, and experience of DISE experts further compound the complexity of the comparability of DISE scoring systems. A potential practical solution to enhance comparability of the DISE scoring system would be a form of referential DISE scoring map.

In conclusion, lack of a consensus regarding which DISE scoring system should be used to report DISE findings and lack of comparability between different DISE scoring systems remain 2 critical areas of further research as highlighted in the presented systematic review.

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References