

# **Development of a Child Chronic Cough Quality of Life questionnaire (CC-QOL):**

## **Development and validation**

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## **SUPPLEMENTARY FILE**

Two methods were adopted for MID calculations. The first, distribution method, was based on criteria that link important differences to a statistical parameter, most notably effect size (ES),<sup>1</sup> standard error of measurement (SEM)<sup>2</sup> and standard deviation (SD)<sup>3</sup> of the QoL. The effect size reflects a standardized measure of change and is found by dividing the pre- to post-test outcome absolute difference scores by the SD at pre-test. The SEM is not sample dependent and is calculated as the standard deviation of a measure multiplied by the square root of one minus its reliability coefficient. A one-SEM criterion is commonly seen as representing a minimally important difference in QoL scores.<sup>2</sup> A final distribution method that considers a one-half a standard deviation as a minimally important difference<sup>3</sup> was also adopted for the absolute QoL change scores.

A second method in calculating MID scores involved an anchor-based approach<sup>4</sup> where changes in QoL were examined against changes in an external but meaningful anchor, cough severity using VCD. A positive QoL change score (i.e., higher scores at Time-2 than at Time-1) represented an improved QoL. The anchor change scores were derived from the differences in ratings of VCD at the two time points with classification schema based on previous research<sup>4-5</sup> and seen as a change of visible difference. A classification of “unchanged” was indicated by a VCD change score of 0. An absolute VCD change score of 1

denoted a “small” change, equivalent to a minimally important difference (MID). A “moderate” change was represented by absolute VCD change scores of 2 and 3 with a “large” change signified by scores >3. We previously classified using anchor values.<sup>6</sup>

## REFERENCES

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