

# Pain and Its Clinical Associations in Individuals With COPD

## A Systematic Review

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**BACKGROUND:** Pain is emerging as a clinical complication in COPD, but the clinical impact of this comorbidity and the measurement properties of instruments used to assess pain require evaluation.

**METHODS:** Electronic searches of five databases were performed up to September 2014 for the two phases of this review. To be included in phase 1, studies reported the clinical associations of pain and prevalence in individuals with COPD. To be included in phase 2, studies reported measurement properties of an instrument assessing pain in COPD. Two independent reviewers rated the quality of quantitative and qualitative evidence (phase 1) and the measurement properties using the four-point Consensus-Based Standards for the Selection of Health Status Measurement Instruments (COSMIN) checklist (phase 2).

**RESULTS:** Of the 358 studies identified in the literature, nine met the inclusion criteria for phase 1 and five for phase 2. The mean (SD) quality score (of 16) for the quantitative studies was 13.1 (1.7). The pooled prevalence of pain in moderate to very severe COPD was 66% (95% CI, 44%-85%). Higher pain intensity was associated with increased dyspnea, fatigue, poorer quality of life, and a greater quantity of specific comorbidities. Of the two identified instruments (Brief Pain Inventory and McGill Pain Questionnaire), the measurement properties analyzed were construct validity, internal consistency, and criterion-predictive validity, with variable findings based on "fair" or "poor" quality studies.

**CONCLUSIONS:** In people with COPD, pain has negative clinical associations with symptoms and quality-of-life measures. Further research exploring the measurement properties of instruments assessing pain is required. *CHEST* 2015; 147(5): 1246 - 1258

[ Original Research **COPD** ]

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**ABBREVIATIONS:** BPI 5 Brief Pain Inventory; COSMIN 5 Consensus-Based Standards for the Selection of Health Status Measurement Instruments; HRQOL 5 health-related quality of life; MPQ 5 McGill Pain Questionnaire

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