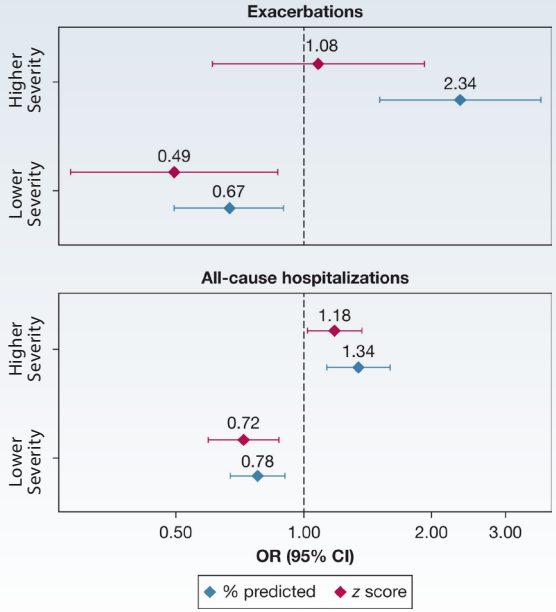
How Does the Transition From Race-Specific to Race-Neutral Equations Impact Severity Classifications in COPD?

STUDY DESIGN

- Retrospective study of 13,324 patients with COPD or FEV_1/FVC <0.70
  - 69.3% were White
  - 30.7% were Black

- **Examined associations** between **a change in severity classification** to **COPD exacerbations** and all-cause **hospitalizations** after changing from race-specific to race-neutral reference equations.

RESULTS



- More Black than White patients had a **change in severity classification** when using % predicted thresholds (20.2% vs 6.1%) but not with *z* score thresholds (12.6% vs 12.3%)

- **Increased severity** classification was associated with increased risk of exacerbation when using *z* score thresholds but not when using % predicted thresholds

- **Decreased severity** classification was associated with lower risk of exacerbation with both % predicted and *z* score thresholds

This study showed that use of the recently recommended race-neutral reference equations and *z* score-based severity thresholds seems to reclassify COPD disease severity accurately among a similar proportion of White and Black patients.

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