

# Cardiac-specific comorbidity index beats generic indexes

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(HealthDay)—For patients admitted to the hospital with a cardiac

condition, a cardiac-specific comorbidity index outperforms generic indexes for predicting mortality, according to study published online March 18 in *CMAJ*, the journal of the Canadian Medical Association.

Lorenzo Azzalini, M.D., Ph.D., from the Université of Montréal, and colleagues derived a cardiac-specific comorbidity index from consecutive [patients](#) admitted to a tertiary care cardiology [hospital](#). Age, sex, and 22 clinically relevant comorbidities were incorporated to build the index. The cardiac-specific index was compared to the refitted Charlson-Deyo and Elixhauser comorbidity indexes.

The researchers found that for predicting in-hospital mortality, the novel cardiac-specific comorbidity index outperformed the refitted generic Charlson-Deyo and Elixhauser comorbidity indexes in the derivation population (10,137 individuals: C-statistic, 0.95 versus 0.81 and 0.86, respectively) and in the validation population (17,877 individuals: C-statistic, 0.92 versus 0.76 and 0.82, respectively). In the validation cohort, the cardiac-specific comorbidity index also outperformed the Charlson-Deyo and Elixhauser comorbidity indexes for predicting one-year mortality (C-statistic: 0.78 versus 0.75 and 0.77). Better fit for the prediction of length of stay was also seen for the cardiac-specific comorbidity index. The net reclassification improvement for the prediction of death was 0.29 and 0.192, respectively, for the cardiac-specific comorbidity index versus the Charlson-Deyo and Elixhauser comorbidity indexes.

"Our cardiac-specific comorbidity index outperformed generic comorbidity indexes to predict all-cause death and length of stay in patients admitted to hospital for a cardiac condition," the authors write.

One author disclosed financial ties to the pharmaceutical and medical device industries.

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