

Pilot Study to Compare Modified Patient-Reported and Standard G8 Frailty Questionnaires in Older Adults

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Background: Frailty is an important marker of cancer treatment but does not always correlate with age. Risk for frailty can be evaluated with the clinically validated Geriatric-8 (G8) tool. A new patient-provider hybrid tool was developed, the online patient portal-based G4+4 (mEpic G4+4), which aims to assess the same frailty metrics while improving ease of implementation. With cancer trial cohorts biased towards younger healthy patients, incorporating frailty data can better guide treatment (1, 2).

Aim: To validate the mEpic G4+4 against the G8 as a frailty screening tool.

Methods: This was a prospective validation study enrolling English-speaking patients over 65 in the Seniors, Blood Disorders, and Urologic Oncology clinics at a large academic medical center. Prior to a visit, patients received and answered the mEpic G4+4 through an online portal. A clinician then completes the G8 and remaining mEpic G4+4 through chart abstraction. The primary endpoint was a pooled comparison of results for the G8 and mEpic G4+4 done using the Symmetry test, Cohen's kappa, and McNemar's test.

Results: 93 patients completed the G8 and mEPIC G4+4 over one month (Urologic Oncology n=87, Seniors n=7). In patients with cancer, there was substantial agreement in frailty score (≤ 14) between the G8 and mEpic 4+4 ($K=0.67$; 95% CI 0.51, 0.85, $P_{\text{McNemar's}}=0.56$). Individual question analysis showed moderate agreement in food intake, fair agreement in weight loss, and near perfect agreement in all other questions. For patients without cancer, agreement was not determined due to small cohort size.

Summary: The mEpic G4+4 and G8 had substantial agreement based on kappa values. Prior to implementation, further work is needed to improve or understand the impact of questions with reduced concordance, such as weight loss.