

CONSTRUCT VALIDATION OF THE FRAILTY FLAGS IN PRIMARY SENSE

Collaboration between Australian Frailty Network, University of Queensland and GCPHN, 2025

Background

Frailty affects around 20% of older adults and is associated with increased adverse health outcomes. Currently, Australia lacks a validated, scalable approach to identifying frailty in general practice. Primary Sense uses routinely collected general practice data, via the Johns Hopkins Adjusted Clinical Groups (ACG) System, to generate a Frailty Flag that identifies patients at risk of frailty. Preliminary analyses found that the ACG Frailty Flag under-estimates patients, which prompted the development of a modified version (ACG-Modified), currently used in Primary Sense across Australia. However, neither flag has been validated.

Frailty Flags

- **ACG FRAILTY FLAG:** assesses presence of 10 diagnostic frailty concepts
- **ACG-M FRAILTY FLAG:** expands ACG Flag by including diagnosis of frailty, tiredness/weakness, weight/appetite loss, and falls/balance concepts

Aim

To perform construct validation of the ACG and ACG-M Frailty Flags against adverse outcomes including multimorbidity, polypharmacy, hospitalisation risk, and frequent GP visits.

Methods

- Retrospective analysis of Gold Coast Primary Sense data
- 142,524 patients aged ≥ 65 years
- Mean age 74.8 years; 53.7% female

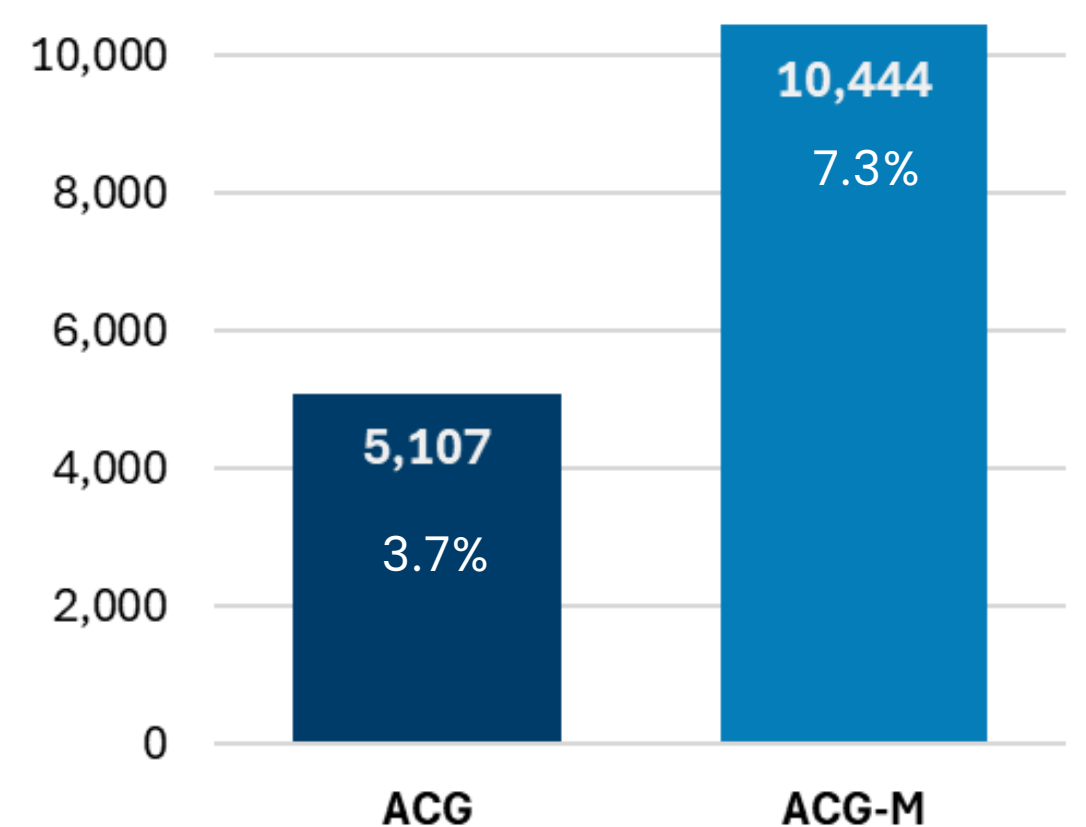
Key Results

ACG-M identified **10,444** at-risk or frail patients (7.3%)

- twice as many as the ACG Flag ($n=5,107$; 3.7%)
- most additional patients were identified through criteria:
 - tiredness or weakness (56%)
 - weight or appetite loss (27%)
 - falls or balance issues (18%)

- ACG-M showed stronger associations with polypharmacy and frequent GP visits.
- Frailty prevalence increased with age for both flags.
- ACG-M demonstrated better overall discrimination particularly when combined with age and sex.

Number (%) of patients identified as frail or at risk of frailty



Conclusions

The ACG-M Frailty Flag identifies more at-risk older adults and better predicts adverse outcomes than ACG Flag. Validated frailty flags in Primary Sense support earlier identification, targeted assessment, and more proactive care planning for older patients at scale.