

BACKGROUND

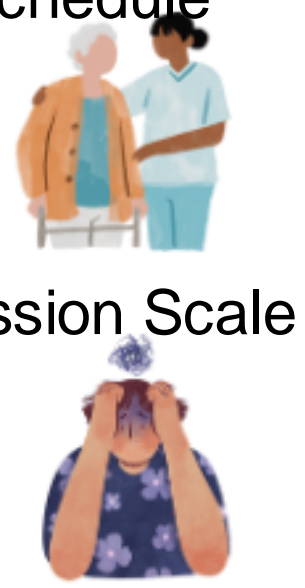
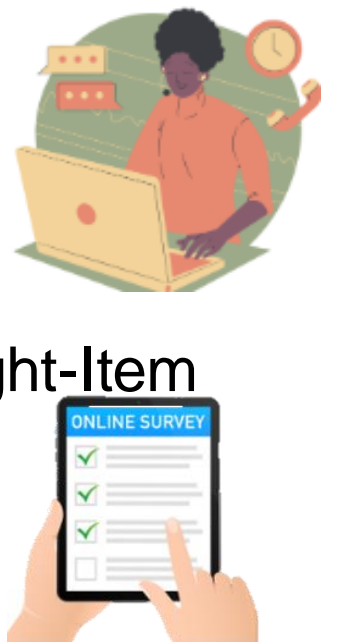
Cognitive impairment (CI) is a risk factor for adverse surgical outcomes in older adults, including delirium, 1-year mortality, and non-home discharge.

OBJECTIVES

- To compare the prevalence of functional disability and depression preoperatively and at 30, 90, and 180 days postoperatively between participants with and without probable CI
- To compare the incidence of adverse clinical outcomes at 30, 90, and 180 days postoperatively between participants with and without probable CI

METHODS

- Eligible participants are ≥ 65 years undergoing elective non-cardiac surgery at Mount Sinai and Toronto Western Hospital, Toronto.
- Preoperative and postoperative assessments:
 - Telephone Montreal Cognitive Assessment (T-MoCA)
 - Ascertain Dementia Eight-Item Questionnaire (AD8)
 - 12-item World Health Organization Disability Assessment Schedule (WHODAS) 2.0
 - 15-item Geriatric Depression Scale (GDS)



RESULTS

Figure 1. Prevalence of functional disability and suspected depression in participants with probable CI on the Ascertain Dementia Eight-item Questionnaire (CI_{AD8}) versus those without (No-CI_{AD8}).

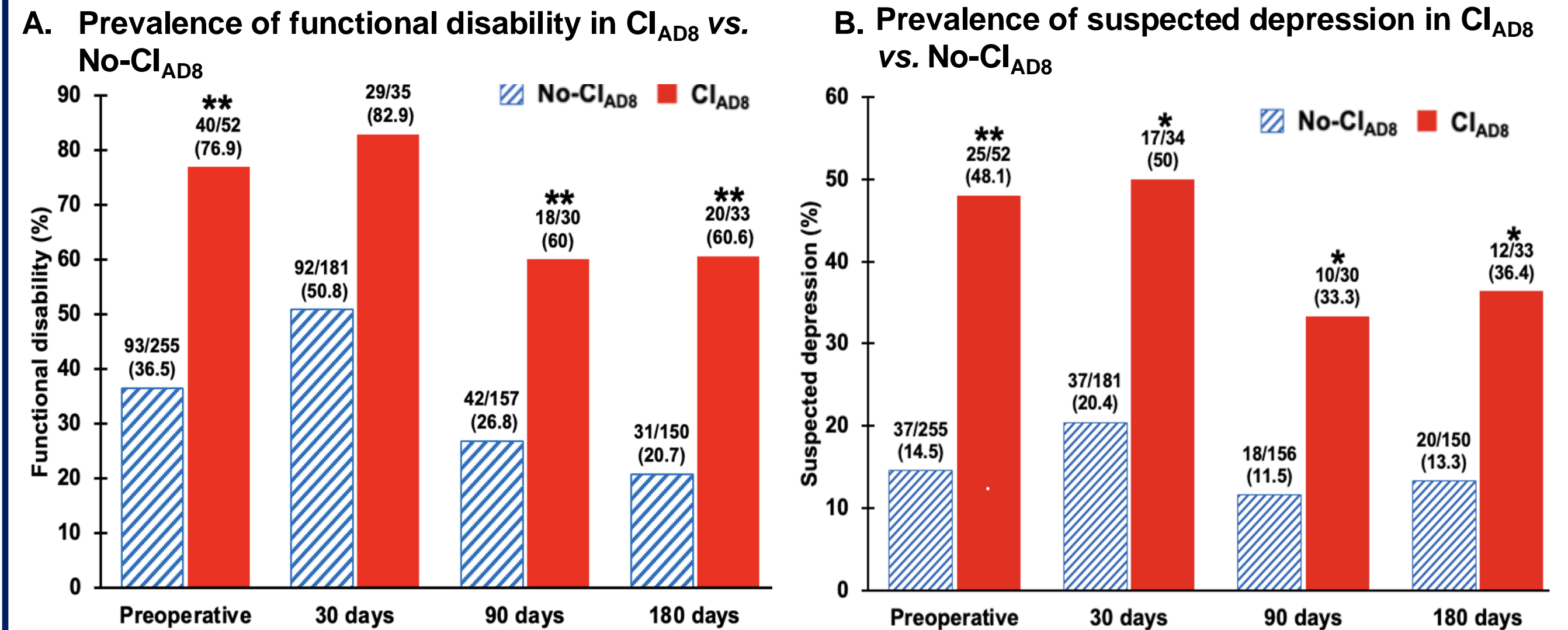
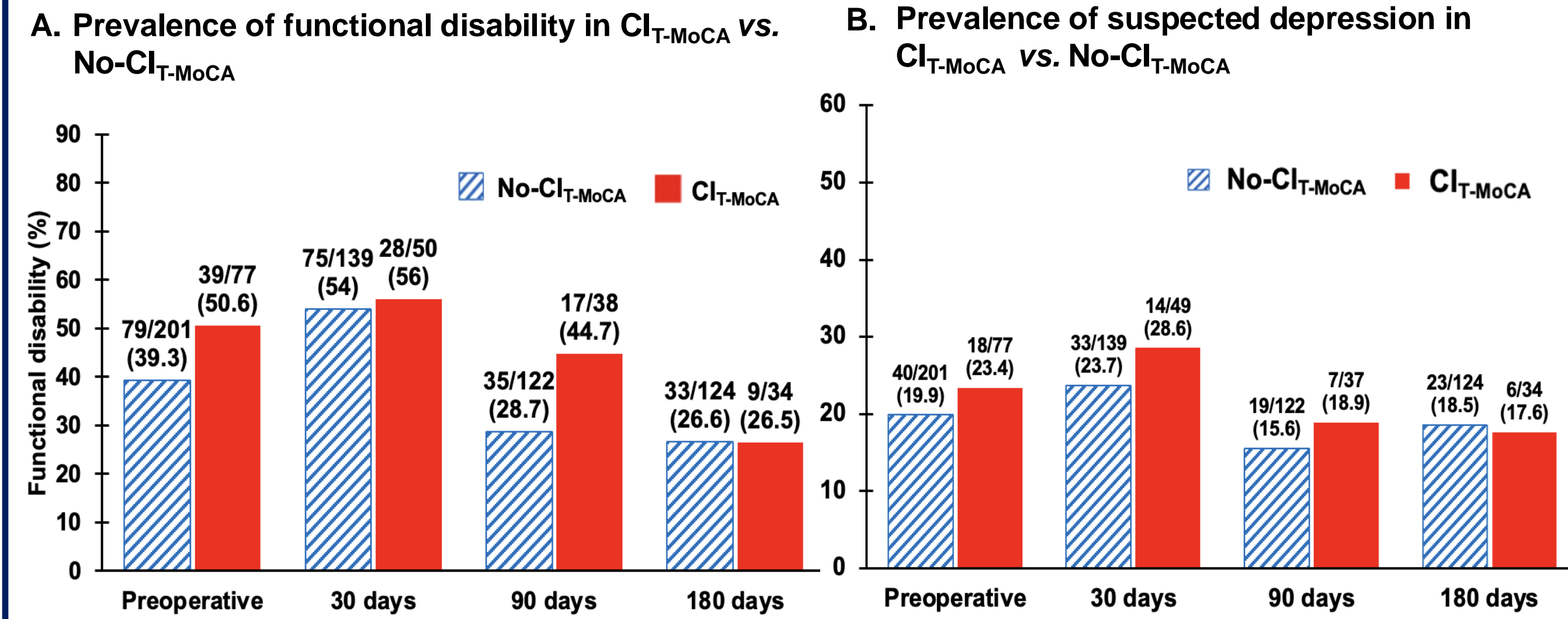


Figure 2. Prevalence of functional disability and suspected depression in participants with probable CI on the Telephone Montreal Cognitive Assessment (CI_{T-MoCA}) versus those without (No-CI_{T-MoCA}).



CI, Cognitive impairment. **P≤0.001, *P≤0.05 in participants with CI compared to No-CI

RESULTS

- Of 307 participants, **17%** screened positive for preoperative CI using the AD8 and **28%** on the T-MoCA.
- Compared to No-CI_{AD8} group, the prevalence of functional disability and depression was **significantly higher** in the CI_{AD8} group (Figure 1).
- Conversely, the prevalence of functional disability and depression **did not differ significantly** between the CI_{T-MoCA} and No-CI_{T-MoCA} groups (Figure 2).
- The AD8 revealed a higher incidence of delirium (13.5% vs. 2.0%, P=0.001) and 180-day emergency room visits (9.6% vs. 2.0%, P=0.015) in participants with probable CI vs without.
- The T-MoCA found a higher incidence of 180-day composite adverse outcomes (15.8% vs. 5.5%, P=0.011) in participants with probable CI vs without.

CONCLUSIONS

- The prevalence of functional disability and depression was higher in participants screening positive for CI by the AD8 than the No-CI group.
- Those with a positive AD8 or T-MoCA screen were more likely to have delirium and 180-day adverse outcomes.
- Our study highlights two rapid remote cognitive screening tools, the AD8 and T-MoCA, that can be implemented preoperatively to identify at-risk patients.