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Assessment of frailty screening practices for older adults in emergency departments

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INTRODUCTION

Population aging represents a major challenge for healthcare systems. In 2021, Québec had 1.7 million people aged 65 years and over (20 % of the population), and this proportion is expected to reach 24 % by 2031. Among the associated issues, frailty—a multidimensional and dynamic condition characterized by increased vulnerability to stressors—is an important predictor of adverse clinical outcomes such as hospitalization, loss of autonomy, and mortality. Emergency departments are a frequent point of entry for older adults, who account for approximately 25 % of users, of whom up to 60 % may be considered frail. In 2022, the Ministère de la Santé et des Services sociaux (MSSS) published guidelines on frailty screening for individuals aged 75 years and older in emergency departments, recommending the use of the programme de recherche sur l'intégration des services pour le maintien de l'autonomie (PRISMA-7) tool or the Identification of Seniors at Risk (ISAR). Despite this directive, screening practices remain heterogeneous across healthcare institutions, and the appropriateness of the tools used in emergency settings has been questioned, particularly because of the limited proportion of services implemented following an acute care episode. Within this context, the Health Technology and Intervention Assessment Unit (UETMIS) of Santé Québec Centre hospitalier universitaire de Québec–Université Laval (CHU), in partnership with the Health Technology and Health and Social Services Assessment Unit (UETMISSS) of Santé Québec Capitale-Nationale – Universitaire, and with the collaboration of Santé Québec – Institut universitaire de cardiologie et de pneumologie de Québec – Université Laval (IUCPQ–ULaval) and Santé Québec Gaspésie, undertook this assessment.

DECISION-MAKING QUESTION

Should current practices for screening frail older adults assigned to stretcher areas in the emergency departments of the CHU, IUCPQ–ULaval, and Santé Québec Gaspésie hospitals be modified?

METHODOLOGY

The assessment was conducted in accordance with the UETMIS methodology, with support from an interdisciplinary working group. A systematic literature review was performed in several bibliographic databases (Medline/PubMed, Embase, Cochrane, Epistemonikos, AgeLine, PsycInfo, among others) and in the grey literature, covering the period from January 1, 2000, to March 10, 2026. Study selection was carried out independently by two reviewers. Outcomes of interest identified in the literature primarily concerned the performance of screening tools (e.g., sensitivity, specificity, and predictive values), the effects of screening on clinical outcomes and healthcare service utilization, as well as the organizational characteristics of screening and care models for older adults experiencing loss of autonomy who present to emergency departments. Only screening tools available in a validated French version and evaluated in at least two studies were included.

Contextual data were collected through semi-structured interviews (n = 14 interviews conducted between August 6 and September 22, 2025) with key informants from the CHU, IUCPQ–ULaval, and Santé Québec Gaspésie; through clinico-administrative data from the partner institutions' databases and the MSSS Emergency Department Common Database (BDCU); through a review of electronic patient records at the CHU (n = 141); and through data from l'équipe Accès of Santé Québec Capitale-Nationale – Universitaire (January–October 2025). A province-wide practice survey on frailty screening among older adults was also conducted using a self-administered questionnaire distributed to emergency department professionals between August 12 and September 23, 2025.

RESULTS

The various available data sources were analyzed to address the evaluation questions.

What do organizations and professional societies recommend regarding frailty screening practices for older adults in emergency departments?

Recommendations identified from organizations and professional societies (including the MSSS, the American College of Emergency Physicians, the Royal College of Physicians of the United Kingdom, the British Geriatrics Society, and the Institute of Health Economics in Alberta) converge on the importance of early and systematic identification or screening of frailty or risk of loss of autonomy among older adults presenting to emergency departments. They recommend the use of brief, standardized tools administered at triage or shortly after arrival, such as the PRISMA-7 (positive threshold ≥ 4), ISAR (threshold ≥ 2), or the Clinical Frailty Scale (CFS; score ≥ 5). These recommendations emphasize, however, that screening should be embedded within a structured care pathway including more comprehensive assessment following a positive result, referral to appropriate resources, and effective continuity with home-care or community-based services. The two expert consensus documents identified specify that a frailty screening tool for older adults in emergency settings should be rapid, multidimensional, validated, and integrated into routine emergency department workflows.

What is the diagnostic performance of validated and/or commonly used screening tools in emergency departments for identifying frailty among older adults?

Evidence identified from 4 systematic reviews and 22 observational studies indicates that several tools validated in emergency settings, including the ISAR, PRISMA-7, and CFS, can identify older adults at increased risk of frailty or loss of autonomy, although their diagnostic performance varies. Overall, the ISAR is characterized by high sensitivity (>80% for several outcomes) but lower specificity (often between 20% and 40%), whereas the CFS generally demonstrates higher specificity (typically 80%-90%) with more variable sensitivity (51%-77%). PRISMA-7 showed intermediate performance, depending on the threshold used and the reference standard applied, with an overall sensitivity of approximately 77% and specificity reaching up to 86%. Overall, heterogeneity in study populations, administration contexts, positivity thresholds, and outcomes assessed limits the comparability of results and prevents determination of whether any one tool has superior diagnostic performance. In addition, very few studies (n = 2) incorporated a reference standard (e.g., comprehensive geriatric assessment) to adequately compare the diagnostic performance of screening tools for frailty.

What effects do frailty screening practices in emergency departments have on healthcare and home-care service utilization?

The available evidence suggests that screening for loss of autonomy or frailty in emergency departments helps identify older adults with increased healthcare and home-care needs; however, the observed effects on actual service utilization remain variable. Studies indicate that individuals with positive screening results generally face a higher risk of hospitalization, prolonged hospital stay, and subsequent use of hospital services. Nevertheless, because screening tools often have limited specificity, their ability to predict such outcomes remains uncertain. Evidence regarding the direct impact of screening on functional decline, institutionalization, and actual home-care service utilization remains limited. Contextual data from l'équipe Accès of Santé Québec Capitale-Nationale – Universitaire show that only a small proportion of individuals screened positive meet eligibility criteria for home-care services following community-based assessment and ultimately receive services after the acute care episode. According to key informants interviewed, establishing mechanisms for follow-up and coordination between emergency departments and downstream services appears essential.

What are the characteristics, advantages, and disadvantages of service organization models for frailty screening among older adults presenting to emergency departments?

Contextual data obtained from an online survey completed by 17 physicians or managers working in emergency departments across 12 Québec institutions indicate that emergency department attendance among adults aged 75 years and older continues to increase annually. At the CHU, this age group accounted for more than 30,000 emergency visits in 2024–2025. All stakeholders consulted during the assessment agreed on the importance of frailty screening in emergency settings for this population. However, they highlighted substantial variability in implementation approaches. Screening is generally performed using standardized tools, primarily PRISMA-7, administered at triage or shortly after arrival, most often by nursing staff. Practices differ, however, regarding the target population, timing of administration, integration of tools into electronic systems, and mechanisms for communicating results. Findings from the internal survey and published practice surveys indicate that, although screening facilitates early identification of at-risk individuals and interdisciplinary coordination, it is sometimes perceived as an additional workload burden in emergency departments, particularly in resource-constrained contexts. The main challenges reported include heterogeneous practices, training needs, and difficulties coordinating with community services and ensuring continuity of follow-up, thereby limiting the concrete benefits of screening. Overall, the data suggest that the value of these models depends less on the specific tool selected than on the clarity of referral pathways, the sharing of clinical responsibilities, and the organizational capacity to ensure effective follow-up after emergency department discharge.

DISCUSSION

Systematic frailty screening among older adults in emergency departments: a practice supported by stakeholder consensus.

Several frailty screening tools for older adults have been validated in emergency settings, but uncertainties remain.

Systematic frailty screening of older adults in Québec emergency departments: variable implementation approaches that require better integration between healthcare settings and community services.

RECOMMENDATION

Emergency departments at the CHU, IUCPQ–ULaval, and Santé Québec Gaspésie hospitals should optimize the systematic screening of frailty among adults aged 75 years and older who are not already known to the Québec health and social services system, by embedding screening within a structured, targeted approach aligned with the services required.

CONCLUSION

Overall, the available evidence and contextual data support the relevance of systematic frailty screening for adults aged 75 years and older in emergency departments. Available tools (CFS, ISAR, and PRISMA-7) generally allow identification of these individuals; however, the literature remains insufficient to demonstrate a direct effect of screening alone on clinical outcomes, care trajectories, or health system efficiency. Potential benefits appear to depend primarily on the availability of interventions following screening and on effective feedback mechanisms between screening settings and community services. The main issue therefore lies not only in the choice of screening tool, but also in the quality of its implementation, interdisciplinary coordination, and continuity of services centered on the actual needs of older adults after their emergency department visit.

Full report (in French): www.chudequebec.ca/dépistage de la fragilité des personnes aînées à l'urgence