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Article 2 | Collective Wisdom: Editorial



## The InterRAI ED Tool for Screening Older Patients in the Emergency Department: “What am I supposed to do with this?”

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*The following manuscript is an Editorial to accompany this published [JGEM Original Research Article](#).*

In a recent edition of JGEM, Matthew Downer and his colleagues from Sinai Health and University Health Network in Toronto describe the use of the interRAI Emergency Department screener in predicting the trajectories of health care utilization among older patients who presented to the emergency department (ED) in Toronto.<sup>1</sup> Their goal was to determine if the rapid screening tool would be able to predict the health care utilization of older patients seen in the ED. A smartphone app was used by the triage nurse during the presentation of the patient, among a convenience sample. In short, the app was designed to define if an older patient had challenges in basic self-care (basic activities of daily living), cognition, caregiver burden, self-reported health, stability of prior conditions, dyspnea, and depression. The answers to the questions resulted in a low, medium and high risk of additional health care utilization. The authors mapped the trajectories of 755 older patients after their emergency department care. About 40% of the patients were hospitalized after their ED care. A quarter of the 755 patients were identified as high-risk at the time of their triage. Those with a high-risk score on the interRAI were more likely to be admitted to the hospital from the ED, more likely to stay longer in the hospital and receive a geriatric consultation. The tool was not helpful in identifying those who were at high risk of returning to the hospital in 30 days.

In a recent discussion, at Advocate Health in Wisconsin, of efforts to improve the care transitions of older patients from the emergency department to home, a nurse posed a straightforward question about the triage tool for which we had been advocating. She asked, “*What am I supposed to do with this information?*” The emergency nurses and emergency physicians waited for a response from the leaders in the room. Everyone knew that the response would drive the engagement of the nursing staff on further implementation of the screening tool. Our response would determine if the nurses would change their practice and whether their efforts would be followed with improvements in care.

Our system was discussing how to use such a tool to improve our ability to identify those older patients who were at highest risk of returning to the emergency department. I wish to capture that moment in our efforts to improve the emergency department care for older patients as I reflect on Dr. Downer and colleagues’ paper. I will describe a few caveats of the study and highlight key points we can take from the paper. I will further frame an evidence-based response to the nurse’s question and propose some practical steps to consider.

First, a few caveats should be noted from the Dr. Matthew Downer et al study. The emergency department which was the setting of the study is a site of best practice in North America for the emergency care of older adults. The systems of care at this site may function better than most

community emergency departments and may have had an impact on the patterns of utilization. Secondly, the rate of admission of older adults varies from one emergency department to the next, which may have an impact on the subsequent trajectory of the care, as well as the risk of return to the emergency department. Hence interpreting the trajectories at your site should start with understanding your admission rate. Lastly, the interRAI tool was on a smartphone tool and hence may not have been fully integrated into the practice of the emergency department providers during their care.

This study is similar to a prior paper of the interRAI emergency department tool which was studied among 2800 older adults who were seen in a Middlesex County Ontario emergency department.<sup>2</sup> The authors noted 32% of the patients as high-risk on the same triage tool. High risk patients in that study were more likely to be hospitalized, to have a longer hospitalization, to receive home health after their ED visit and had a higher mortality risk. While the utility of these functional screening tools has been called into question in a recent systematic review,<sup>3</sup> I describe below what to do with the results of such a risk screening tool.

The Downer et al paper further provides clinicians with a valuable image of the trajectories of care after the emergency department. The study highlights the importance of safe care transitions as a fundamental aspect of geriatric emergency care. The new GEDA Guidelines emphasize coordinating care in the emergency department and in the outpatient setting.<sup>4</sup> Emergency physicians and nurses can provide a greater array of options to meet the patients' needs and ensure safer care transitions. GEDA further requires that accredited ED sites would provide a structured assessment of function and functional decline with an established tool (e.g. interRAI ED or Identification of Elders at Risk- called ISAR) and appropriate follow up actions in response to the screening results.

As we return to the question at hand, how do we change the illness trajectory of older patients? Can our emergency care match the patients' goals, while safely avoiding more health care utilization? Table 1 describes interventions to improve care for (about 5% to 20% of) older patients who are identified as high-risk in the emergency department.<sup>5-8</sup> The screen in each of these studies was followed by a cluster of standard geriatric assessments. Those who had additional needs were further evaluated by additional disciplines (social service, pharmacy, and therapy) and connected to primary care, as well as appropriate community resources. The Key Take Away column provides some direction from each study to answer the question- *"What am I supposed to do with this?"*

<b>Table 1: Studies describing interventions to improve care for high- risk older patients after emergency department care.</b>					
<b>Study:</b>	<b>Study design:</b>	<b>Main Intervention Components:</b>	<b>Participant Characteristics:</b>	<b>Results:</b>	<b>Key Take Away:</b>
McCuster et al <sup>5</sup>	Quasi-experimental design Race or ethnicity not described.	Screen with six item ISAR questionnaire followed by a standardized nursing assessment for unmet needs and referral to appropriate community resources.	2,092 patients screened prior to being sent home from ED; 20% had a positive result. Most referrals were back to primary provider and community health center.	Rate of functional decline or death in control group and intervention group (21% vs. 31%, OR 0.5 95% CI 0.3-0.9 adjusted). Overall costs for 4 months after visit were no higher in the intervention group.	ISAR followed by standardized assessment and link to community results in better health outcomes.
Haynesworth et al <sup>6</sup>	Retrospective case-controlled study at Level 1 Geriatric	Comprehensive geriatric assessment (ten screens)/ management of older ED patients who had an ESI of 3	19,000 older patients seen, with 19% meeting criteria. 1209 treatment cases and 1209 matched	Lower rate of initial hospital admission for those who had a comprehensive assessment and	Comprehensive geriatric assessment with multiple screens followed by

	Emergency Department Race or ethnicity described.	and an abnormal ISAR followed by an interdisciplinary care in and after the ED (if needed).	controls. Treatment group received in ED case manager and/or social worker and/or pharmacist.	care 36% vs. matched controls 39%, p<0.001. Lower admissions through the ED for treatment group at 30 and 90 days. Cost savings for treatment group.	team care may reduce admissions and decrease costs of care.
Hwang et al <sup>7</sup>	Prospective observational cohort study. Race or ethnicity described.	ISAR score determined those who received intervention at 2 sites, 3 <sup>rd</sup> site all older patients received intervention. ESI>1. Multiple geriatric physical, cognitive and function screens with resources based on needs identified.	57,287 older patients at 3 geriatric emergency departments. 10% seen by transitional nurse. Mean ISAR scores varied at the 3 sites.	Those seen by transition nurse were less likely to be admitted to hospital after the index visit & less likely to require hospitalization for 30 days at 2 of 3 sites. The ED revisit rate was higher in the treatment group.	Focused geriatric assessment & care transitions targeted to address needs by a specific nurse or nurse practitioner results usually in less hospital use.
Aldeen et al <sup>8</sup>	Retrospective cohort study. Race or ethnicity described.	ISAR of >2 or ED provider request. Six standard geriatric assessments followed by pharmacy or social worker, or therapy consult, as needed. Coordination of care and telephone follow up.	408 geriatric nurse liaison consults among 7,213 older ED patients = about 6% of all older ED patients. Target = those with uncertain discharge.	Compared to those who did not receive the intervention, admission rate to hospital was lower, as was 30-day inpatient readmission. Inpatient hospital stay was shorter in the treatment group.	Trained nursing liaisons providing geriatric assessments for high- risk older patients, followed by interdisciplinary care/ follow up results in less hospital use.

Table 2 describes six practical strategies for emergency department clinicians to answer the question. A few clinical points highlight what I learned of the importance of screening for high- risk older adults in the ED. Performing the ISAR or interRAI screening is not enough. Those who are identified as high-risk should have further assessment- with a simple cluster of efficient geriatrics screens. This should be followed by strategies to coordinate care to address the individuals' unmet needs. I am struck by the importance of follow up with primary care, plus the link to appropriate community resources. Lastly, the patient's health priorities (What matters Most?) can guide the next steps in developing their plan of care. This discussion in the emergency department can help the patient, their family, and the physician to focus their efforts on a shared goal.

Returning to the Matthew Downer et al paper, the InterRAI is a triage tool which can be used to identify those at high risk for health care utilization. Best practice requires us to follow up on this tool for high-risk older patients to provide structured geriatric screens, interdisciplinary care (where needed), and coordination of primary care/ targeted community services after the emergency department visit.

**Table 2: Six practical interventions for older emergency department patients who are identified as “high-risk”.**

1.	Use standardized tools to assess baseline and current function of high- risk patients to determine unmet needs and link to community resources.
2.	Assess for common geriatric syndromes, e.g. falls risk, delirium, medication adherence problems, social isolation, and caregiver strain.
3.	Reconcile medications and changes to medications because of the emergency department visit.
4.	Define the family caregiver support, particularly if the patient is returning home.
5.	Coordinate care with primary physician and community resources, for close follow up.
6.	Target the interventions- based on the identified needs.

## KEYWORDS

Geriatric Emergency Department, risk screening, care transitions, emergency nursing, interdisciplinary care

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