



Senior Friendly Emergency Departments

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Agenda

1. Why we need them

- Utilization
- Outcomes

2. What makes an ED “Senior Friendly”?

- Paradigms & Structures
- Processes & Staff
- Education



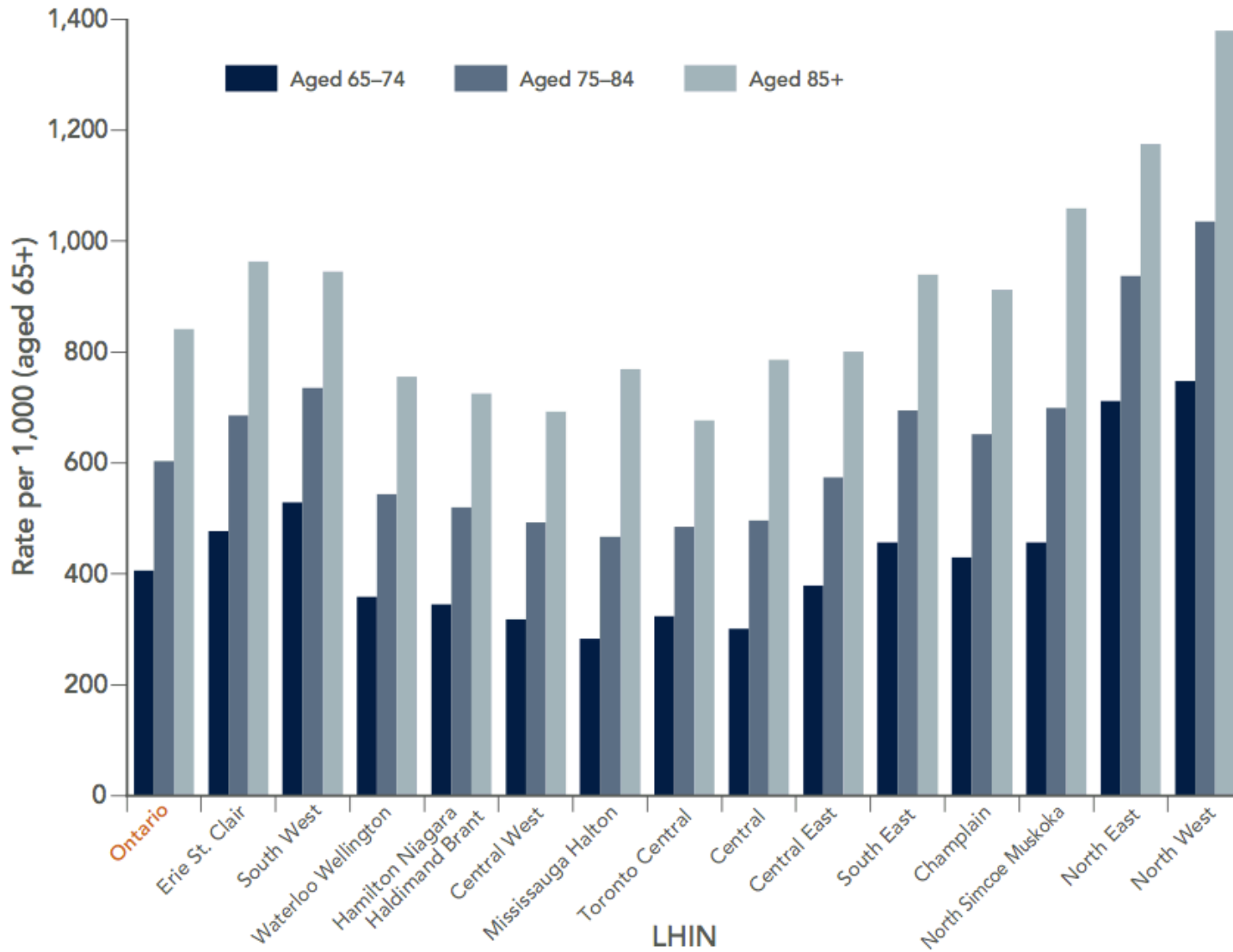
Why we need Senior Friendly EDs

Patterns of Use

- Older adults account for a disproportionate share of visits (Aminzadeh et al., 2002; Downing et al., 2005; Grief et al., 2003; McCusker et al., 2003; Salvi et al., 2007)

Myth: Older adults visit the ED for non-urgent reasons!!??

- They have more serious illnesses on arrival in the ED relative to all other age groups (Ackermann et al., 1998; Altmayer et al., 2005; Ettinger et al., 1987; Roberts et al., 2007

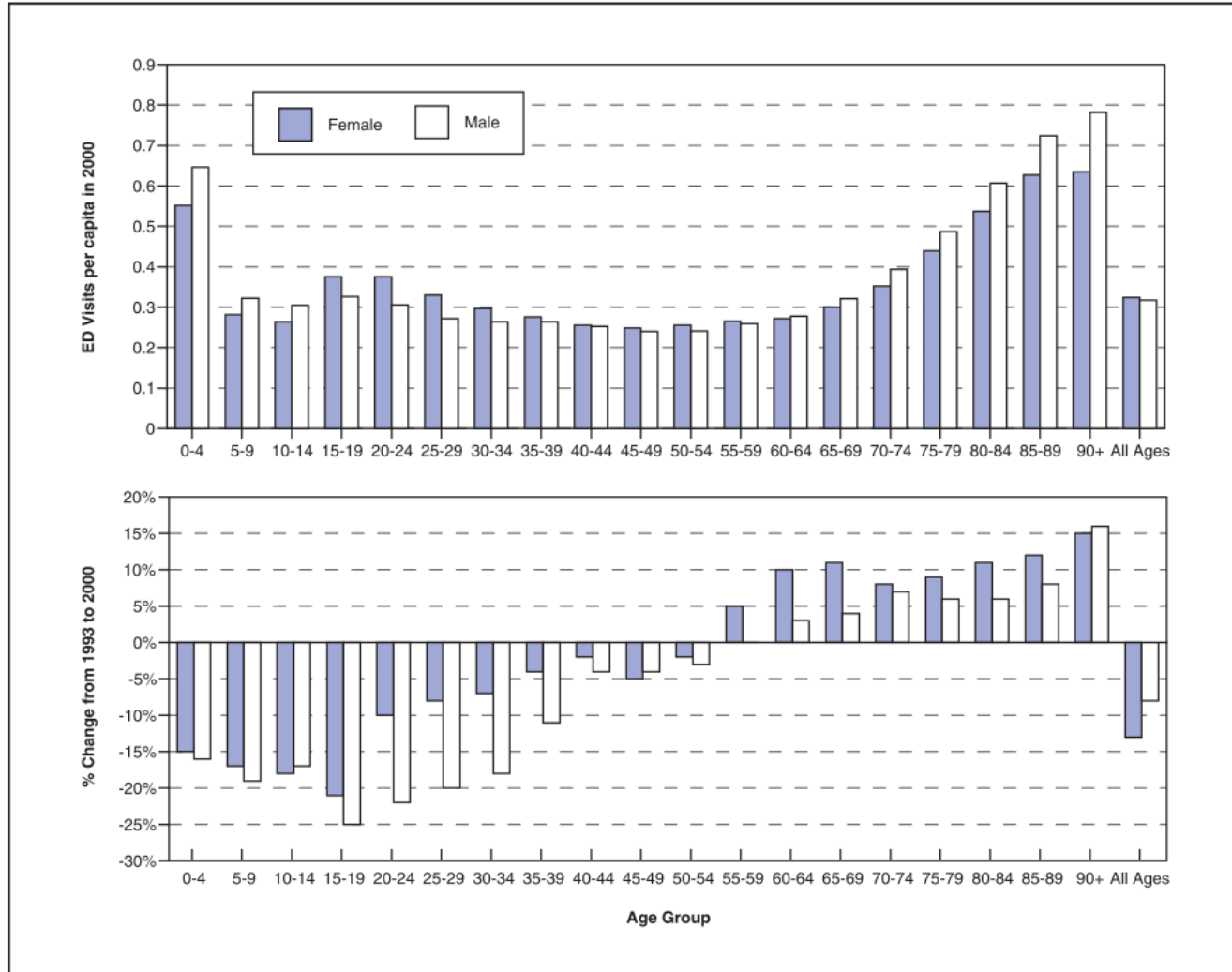


Data sources: National Ambulatory Care Reporting System (CIHI), Registered Persons Database (MOHLTC)

Technical note: Rates are sex-adjusted using the 2001 Ontario population aged 65-120 as the standard population.

Trends: Who uses the ED?

Exhibit 2: Trends in Emergency Department Use by Age and Sex Group



Patterns of presentation (cont.)

- EDs are a point of entry to the health system for older adults
 - Often with complex medical and psychosocial problems
(McCusker et al, 2003; Hustey & Meldon, 2002; Basic et al, 2003)
 - Often a visit is a sentinel event, with risk of bad outcomes
- 2 – 4 x More likely to arrive at the ED by ambulance
(Aminzadeh et al., 2002)
- Stay in the ED for 19% to 58% longer than patients in other age groups (Baum 1987; George 2006; Lowenstein 1986; Moons et al., 2003; Singal et al., 1992)

Outcomes

- Age has been found to be associated with a greater number of diagnostic tests, but higher rates of misdiagnosis (Baum 1987; George 2006; Lowenstein 1986 ; Moons et al., 2003)
- Older adults discharged from EDs have higher readmission rates (McCusker et al, 2003; Hustey & Meldon, 2002)
- Older adults are more frequently admitted from the ED
 - Account for 49% of all admissions from ED (Ontario) (CIHI, 2008)

Aging and the “Emergency Paradigm”

- The complex older patient is not easily managed by the traditional emergency paradigm
 - Complex chronic health conditions
 - Functional and cognitive declines
 - Vague and non-specific patterns of presentation
 - Complex reactions to therapy
 - Social support and resource issues
- Disease (pathological) v.s Normal aging (physiological) effects
- Evidence based medicine & RCTs
 - Older patients with multiple health conditions and polypharmacy are excluded

Geriatric Syndromes

- Clinical conditions that have complex, multifactorial etiologies and often confound single-mode therapeutic approaches (Inouye 2007)
 - E.g., cognitive impairment, delirium, impairments in performing basic activities of daily living (ADLs), falls, impaired comprehension, depression, frailty, malnutrition, and precarious informal care support
- Often remain undiagnosed or unattended to in the ED (Carpenter 2011a; Rutschmann 2005 .. Etc)

GERIATRICS/ORIGINAL RESEARCH

Profiles of Older
From the interRAI

News Releases

Seniors Are Not Just

Jun 27, 2013

WASHINGTON, D.C. — Older emergency department patients over the age of 75 are at higher risk for health and social needs that affect illness severity and outcomes of care, according to a study published in the *Annals of Emergency Medicine* from the InterRAI

(Logo: <http://photo>)

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Academic Emergency Medicine

Official Journal of the Society for Academic Emergency Medicine

ORIGINAL CONTRIBUTION

Geriatric Syndromes Predict Postdischarge Outcomes Among Older Emergency Department Patients: Findings From the interRAI Multinational Emergency Department Study

Andrew P. Costa, PhD, John P. Hirdes, PhD, George A. Heckman, MD, MSc, Aparajit B. Dey, MD, Palmi V. Jonsson, MD, Prabha Lakhan, RN, PhD, Gunnar Ljunggren, MD, PhD, Katrin Singler, MD, MME, Fredrik Sjostrand, MD, PhD, Walter Swoboda, MD, Nathalie I.H. Wellens, PhD, and Leonard C. Gray, MD, PhD

Abstract

Objectives: Identifying older emergency department (ED) patients with clinical features associated with adverse postdischarge outcomes may lead to improved clinical reasoning and better targeting for preventative interventions. Previous studies have used single-country samples to identify limited sets of determinants for a limited number of proxy outcomes. The objective of this study was to identify and compare geriatric syndromes that influence the probability of postdischarge outcomes among older ED patients from a multinational context.

Methods: A multinational prospective cohort study of ED patients aged 75 years or older was conducted. A total of 13 ED sites from Australia, Belgium, Canada, Germany, Iceland, India, and Sweden participated. Patients who were expected to die within 24 hours or did not speak the native language were excluded. Of the 2,475 patients approached for inclusion, 2,282 (92.2%) were enrolled. Patients were assessed at ED admission with the interRAI ED Contact Assessment, a geriatric ED assessment. Outcomes were examined for patients admitted to a hospital ward (62.9%, $n = 1,436$) or discharged to a

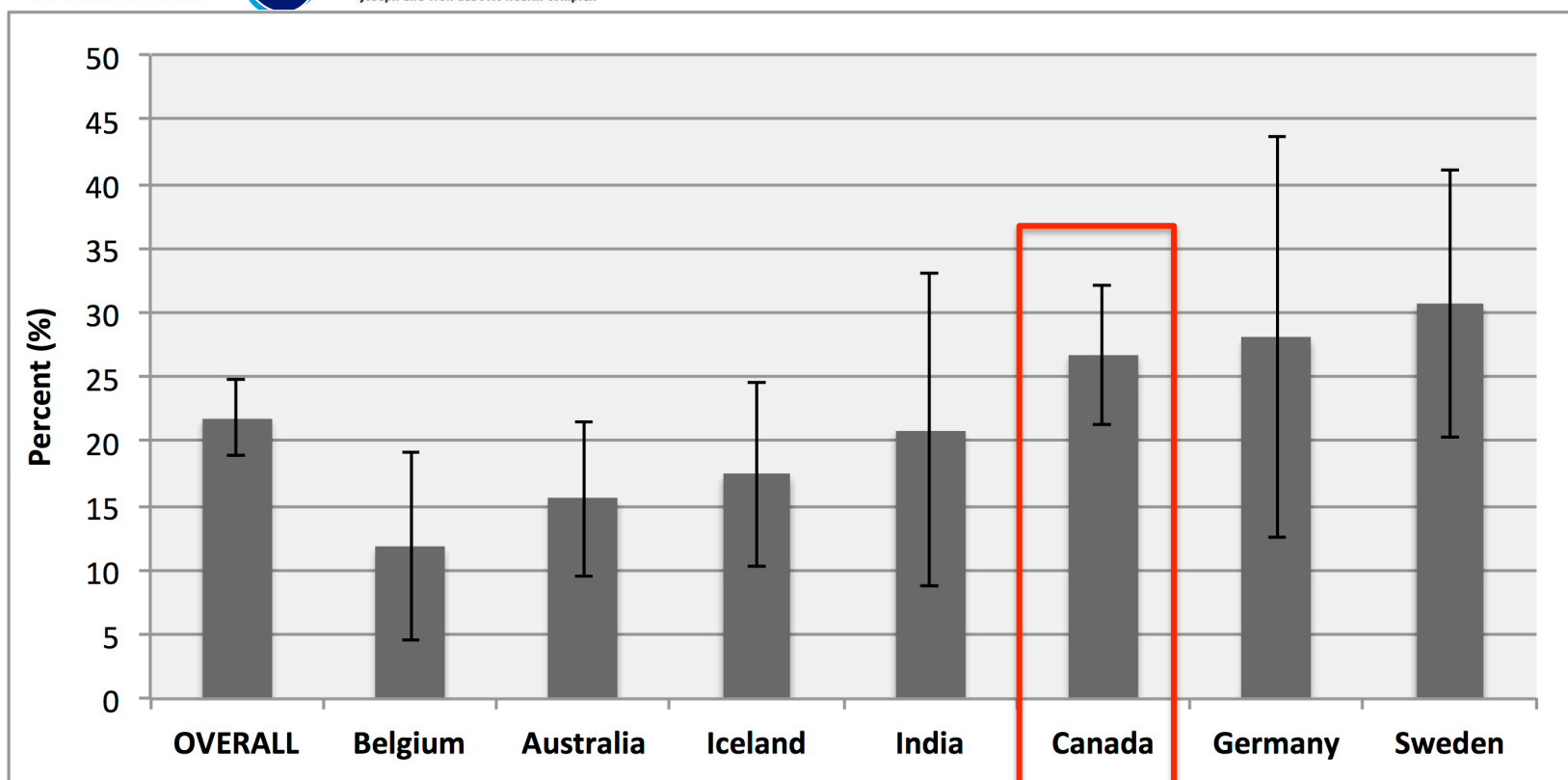


Table 5
Multivariate Model for Any ED or Hospital Use within 28 Days Post-Index ED Visit, Among ED Patients Discharged to A Community Setting, Standard and Country-level Multilevel Generalized Model

Covariates	Standard Logistic		Multilevel Logistic	
	AOR	95% CI	AOR	95% CI
Any premorbid ADL impairment	1.74	1.20–2.54	1.73	1.10–2.75
Expresses anhedonia	1.70	1.20–2.50	1.68	1.14–2.48
Any past ED visits (last 90 days)	2.10	1.44–3.02	2.10	1.42–3.11
ROC AUC (95%CI)*	0.67 (0.62–0.71)			
Hosmer-Lemeshow goodness-of-fit	$\chi^2 = 2.34, p = 0.80$			

ADL = activities of daily living; AOR = adjusted odds ratio; ROC AUC = area under the receiver operating characteristic.

Table 2
Median and 90th Percentile Hospital LOS Among Admitted ED Patients, by Country

	Overall	Australia	Belgium	Canada	Germany	Iceland	India	Sweden
LOS (days), median (IQR)	7 (4–13)	4 (2–7)	8 (4–17)	12 (5–28)	7 (4–12)	6 (3–11)	6 (4–8)	6 (3–9)
90th percentile (days)	24	11	37	57	18	20	15	14

IQR = interquartile range; LOS = length of stay.

Table 3
Multivariate Model for 90th Percentile Hospital LOS, Among Admitted ED Patients, Standard and Country-level Multilevel Generalized Model

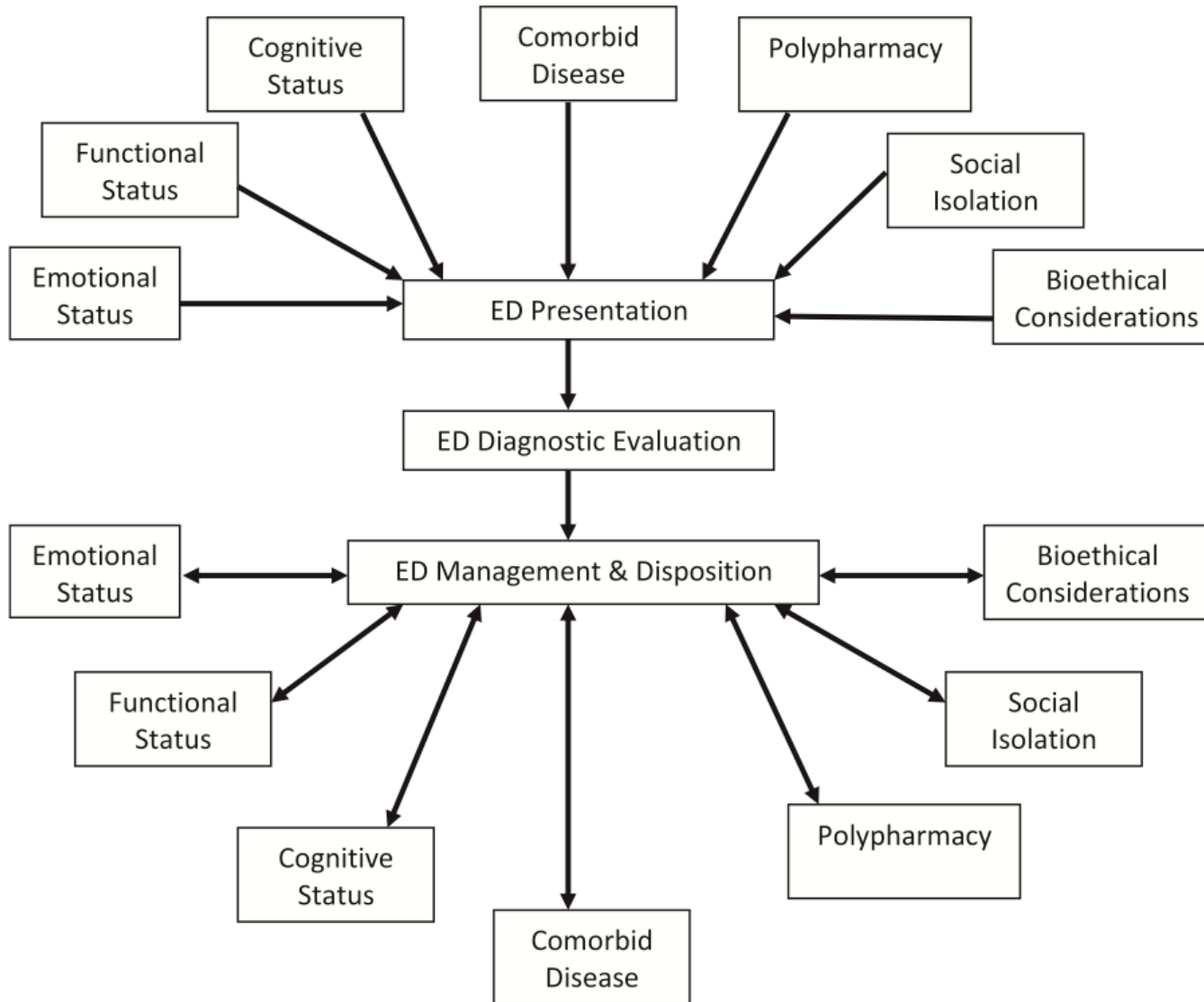
Covariates	Standard Logistic		Multilevel Logistic	
	AOR	95% CI	AOR	95% CI
Lives alone	1.76	1.21–3.49	1.78	1.32–2.40
Distressed informal caregiver(s)	1.65	1.12–2.45	1.69	1.10–2.61
Impaired locomotion (admission)	1.97	1.30–3.00	1.94	1.25–3.00
Poor self-report health (premorbid)	1.86	1.30–2.80	1.84	1.34–2.51
Traumatic injury	2.17	1.35–3.50	2.18	1.68–2.82
ROC AUC (95% CI)	0.70 (0.65–0.74)			
Hosmer-Lemeshow goodness-of-fit	$\chi^2 = 7.61, p = 0.37$			

AOR = adjusted odds ratio; ROC AUC = area under the receiver operating characteristic curve.



What makes an ED “Senior Friendly”?

B Geriatric Emergency Care Model*



Components of 'Senior Friendly' EDs

1. Evidence Based Practice Model
2. Nursing Clinical Delivery Involvement or Leadership
3. High-Risk Screening
4. Focused Geriatric Assessment
5. Initiation of Care and Disposition Planning in the ED
6. Interprofessional and Capacity-Building Work Practices
7. Post-ED Discharge Follow-up With Patients
8. Establishment of Evaluation and Monitoring Processes

A review of intervention studies suggest that at least 6/8 of these are needed for measurable success.

Source: Sinha SK, et al. A systematic review and qualitative analysis to inform the development of a new emergency department-based geriatric case management model. *Annals of Emergency Medicine*. 2011;57(6):672-82.

GEM Nursing

Common Roles:

1. Geriatric assessment (targeted)

- Early identification & appropriate care

2. Care and Discharge Planning

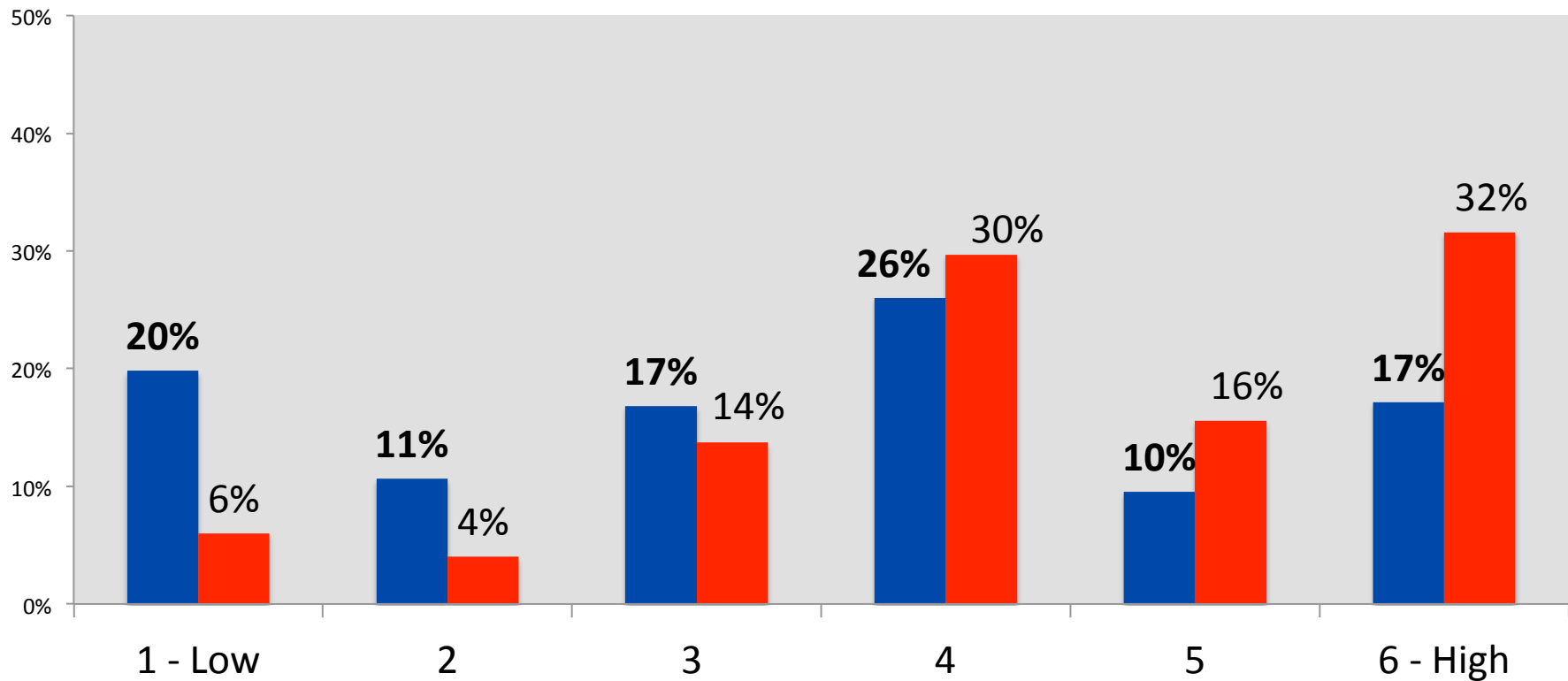
- Disposition decision-making
- Referral, communication, and continuity

3. Education

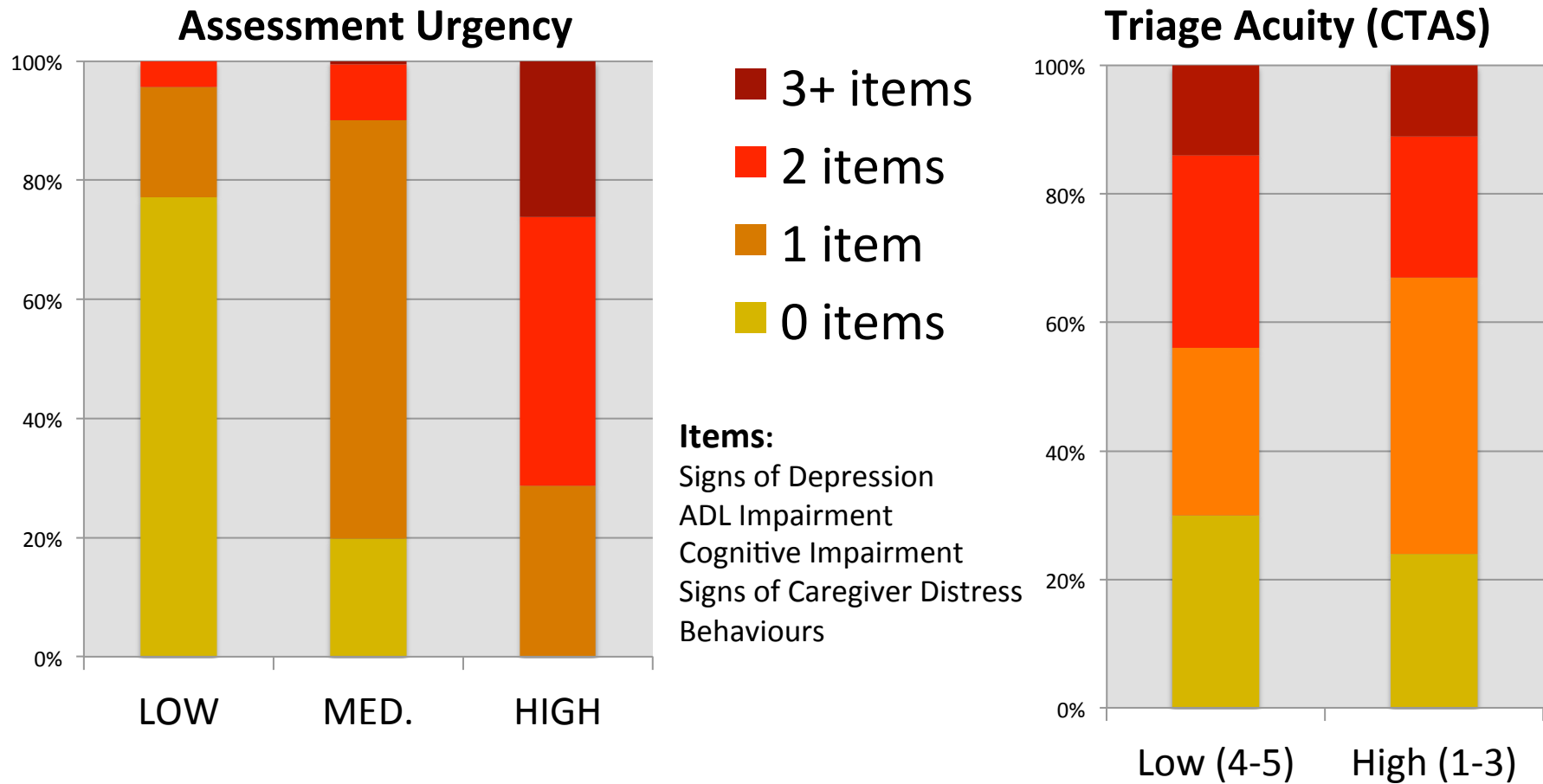
- ED structure and processes

Assessment Urgency Distribution by Discharge Destination, MOPED

■ Community ■ Acute Care



Cumulative Percentage of Conditions, MOPED

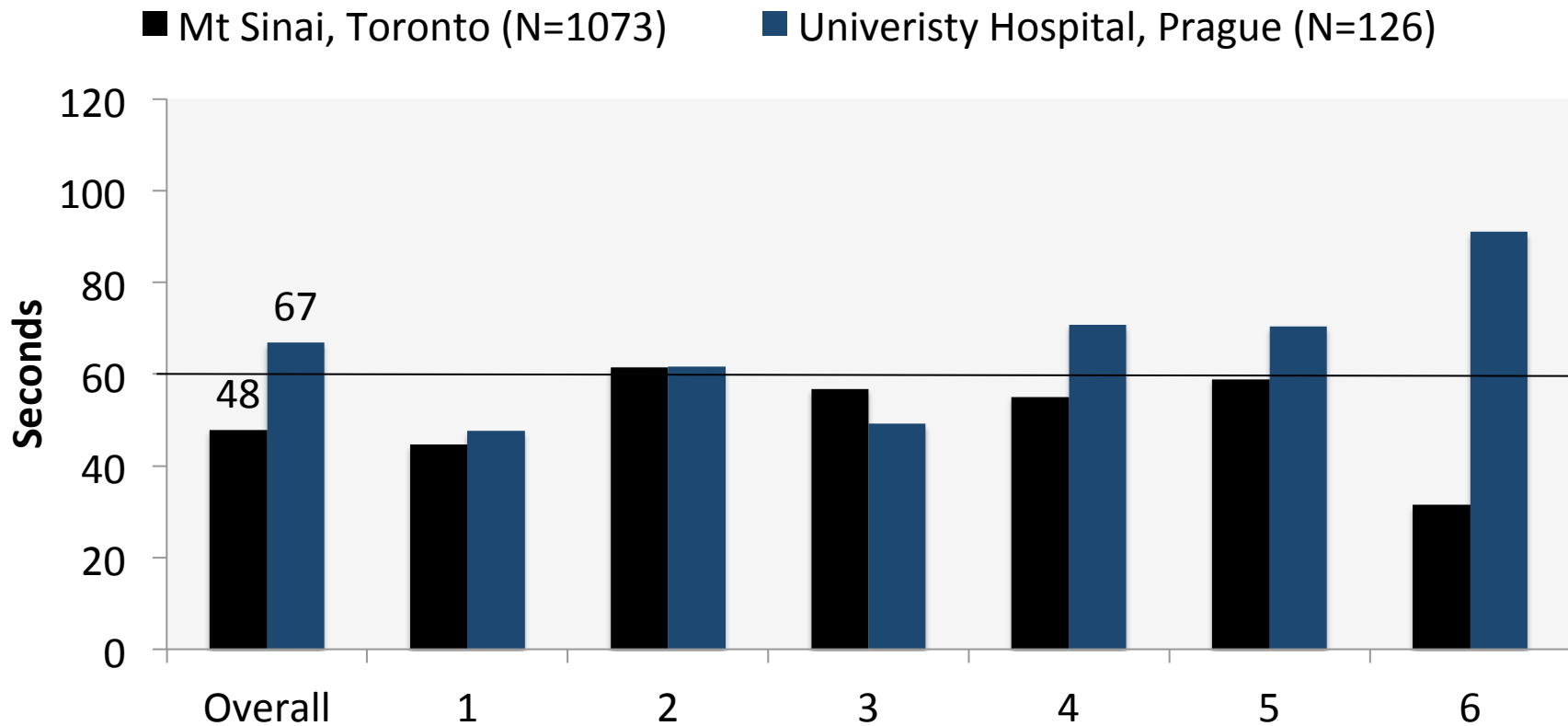


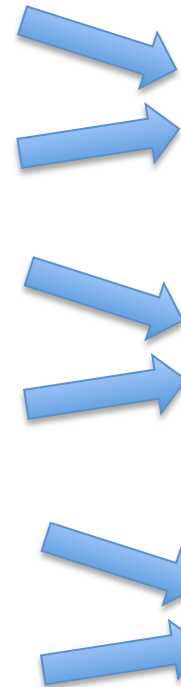
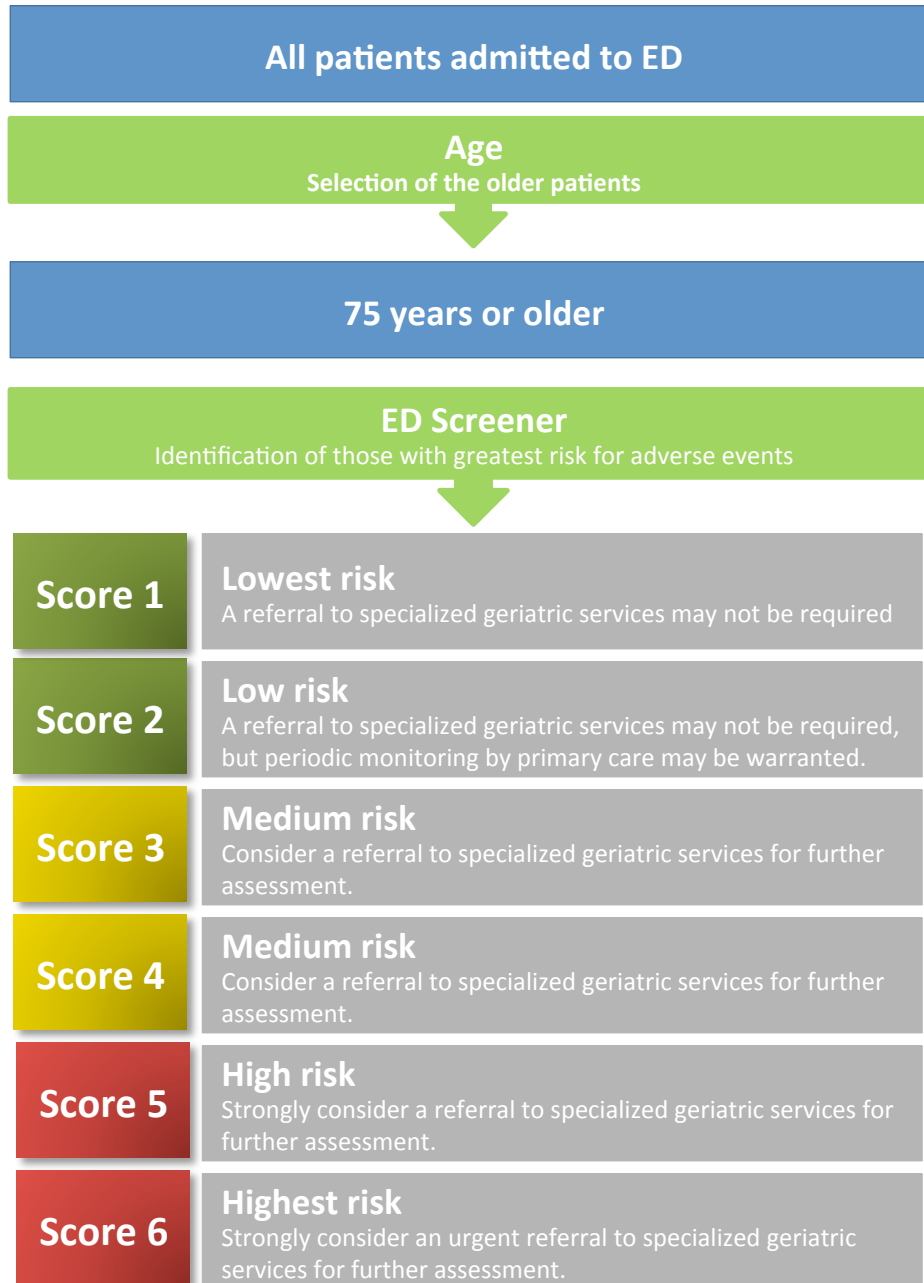
ED Screener



- Free!
- Collects no information
- Platforms:
 - Apple iPhone/iPad/iPod
 - Google Android

Time to Complete by ED Screener Score





??

PCP and CCAC follow-up?

GEM & CCAC?

Geriatric Competencies

EDUCATIONAL ADVANCE

Development of Geriatric Competencies for Emergency Medicine Residents Using an Expert Consensus Process

Teresita M. Hogan, MD, Eve D. Losman, MD, Christopher R. Carpenter, MD, Karen Sauvigne, MA,
Cheryl Irmiter, PhD, Linda Emanuel, MD, PhD, and Rosanne M. Leipzig, MD

Abstract

Background: The emergency department (ED) visit rate for older patients exceeds that of all age groups other than infants. The aging population will increase elder ED patient utilization to 35% to 60% of all visits. Older patients can have complex clinical presentations and be resource-intensive. Evidence indicates that emergency physicians fail to provide consistent high-quality care for elder ED patients, resulting in poor clinical outcomes.

Objectives: The objective was to develop a consensus document, "Geriatric Competencies for Emergency Medicine Residents," by identified experts. This is a minimum set of behaviorally based performance standards that all residents should be able to demonstrate by completion of their residency training.

Methods: This consensus-based process utilized an inductive, qualitative, multiphase method to determine the minimum geriatric competencies needed by emergency medicine (EM) residents. Assessments of face validity and reliability were used throughout the project.

Results: In Phase I, participants ($n = 363$) identified 12 domains and 300 potential competencies. In Phase II, an expert panel ($n = 24$) clustered the Phase I responses, resulting in eight domains and 72 competencies. In Phase III, the expert panel reduced the competencies to 26. In Phase IV, analysis of face validity and reliability yielded a 100% consensus for eight domains and 26 competencies. The domains identified were atypical presentation of disease; trauma, including falls; cognitive and behavioral disorders; emergent intervention modifications; medication management; transitions of care; pain management and palliative care; and effect of comorbid conditions.

Domains

1. Atypical presentation of disease
2. Trauma (incl. falls)
3. Cognitive and behavioural disorders
4. Emergency intervention modifications
5. Medication management
6. Transitions of care
7. Effect of comorbid conditions

Education

Geri-EM

Personalized E-Learning in Geriatric Emergency Medicine

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What is Geri-EM?

Who Can Use Geri-EM?

This e-learning website was designed primarily for Physicians working in Emergency Departments who want to provide optimal care to their older patients.

It will also be of interest to all health-care providers who see older patients as part of their practice – in primary care, in hospital, in long-term care, or in the community.

Members of the public with an interest in geriatric care are welcome to explore the content on this website. We encourage you to register and participate in group discussions and interactive content.

What's Included?

Each of the six modules in this website is designed to provide in-depth knowledge about issues in geriatric emergency medicine and includes:

- recommended readings
- resources for use in the ED
- knowledge assessments (pre-tests)
- knowledge checks (post-tests)
- teaching material
- in-page question and answers with immediate feedback
- videos of simulated patient encounters
- discussion boards

www.geri-EM.com

Table 3. A Proposed Elder-Friendly Emergency Department (ED) Assessment Tool

Education of ED staff in elder-friendly ED care
Educational initiatives exist for nursing and allied health professionals
Educational initiatives exist for ED physicians
Elder-Friendly physical environment and design principles
Prepared environment (e.g., clutter-free environment, noise-reduction methods, appropriate lighting and signage)
Adaptive furniture that promotes function and safety (e.g., low stretchers, thick mattresses, upright and reclining chairs)
Access to adaptive equipment (e.g., walkers, canes, hearing amplifiers)
Presence of staff with geriatrics expertise
Designated clinical coordinator or team leader for ED-based geriatric care—on site
Advanced practice nurse or nurse clinician providing geriatrics assessment and management support—on site
Social worker—on site
Physiotherapist or occupational therapist—available
Pharmacist—available
Geriatrics consultation service—available
Presence of geriatric screening and assessment protocols for vulnerable elderly adults using validated tools
High-risk screening tools to identify vulnerable elderly adults
Cognitive, functional, and mobility assessments
Medication review and reconciliation
Standardized protocols for identification, prevention, and management of delirium, falls, functional decline, dehydration, incontinence, and pain
Discharge planning of vulnerable elderly adults from ED to community
Nurse or nurse clinician for supportive discharge planning
Medication reconciliation at discharge
Transfer of clinical information to primary care physician
Transfer of clinical information to home care services
Key information given in writing/explained to older patients and caregivers at discharge
Linkages between ED and relevant community care and services to ensure service delivery occurs after discharge to community and appropriate information exchange occurs
Primary care physicians
Home care services
Rehabilitation and convalescence services
Geriatric outpatient clinic or day hospital services
Evaluation and monitoring of ED-based geriatric care processes
Hospital admission rate
ED and hospital lengths of stay
ED repeat visits and subsequent hospital admission rate
Patient, caregiver, and provider satisfaction with service

Geriatric ED Guidelines

POLICY STATEMENT

The Geriatric Emergency Department Guidelines

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Categories

1. Staffing
2. Transitions of care
3. Education
4. Quality improvement
5. Equipment/supplies
6. Policies/procedures/protocols

Source: Carpenter CR, Bromley M, Caterino JM, et al. *Ann Emerg Med.* 2014;63(5):e1-3.

Implications

- Traditional disease-oriented models of emergency care do not meet the complex needs of many older adults
- Evidence suggests that senior friendly EDs are necessary
- Appropriate screening protocols and general staff education are needed to ensure effective targeting of geriatric resources



Questions? ...Comments?

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