

**Journal Club Gruppo di Ricerca Geriatrica**  
24 maggio 2019

# **La valutazione multidimensionale in un reparto per acuti: è davvero utile?**

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*SCC Geriatria, AO S Gerardo Monza*

# Outline

- Definizione e Storia del CGA (e ACE units)
- Evidenze di efficacia del CGA nelle ACE units
- Basi concettuali del CGA
- Sottospecializzazioni di ACE units e esportazione modelli
- Cosa manca?
- Conclusioni

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# Comprehensive Geriatric Assessment

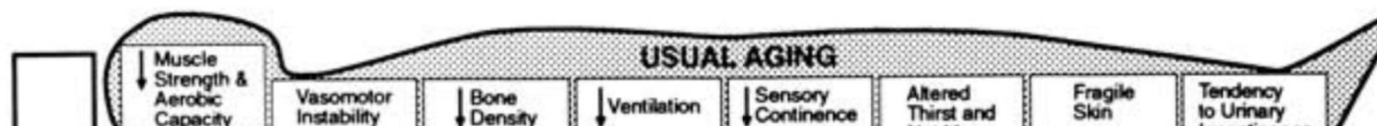
- A multidimensional process designed to assess an elderly person's functional ability, physical health, cognitive and mental health, and socioenvironmental situation.

# CGA peculiarities

- CGA differs from a standard medical evaluation by including nonmedical domains, by emphasizing functional ability and quality of life, and, often, by relying on interdisciplinary teams.
- This assessment aids in the diagnosis of health-related problems, development of plans for treatment and follow-up, coordination of care, determination of the need for and the site of long-term care, and optimal use of health care resources

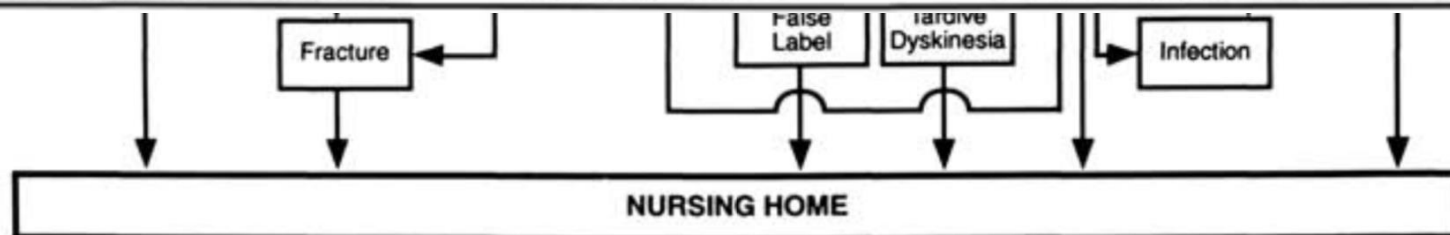
# Hazards of Hospitalization of the Elderly

Morton C. Creditor, MD



**Table 1. Interaction of Aging and Hospitalization**

Changes with Usual Aging	Contribution of Hospitalization	Potential Primary Effects	Potential Secondary Consequences
Reduced muscle strength and aerobic capacity	Immobilization, high bed and rails	Deconditioning, fall	Dependency
Vasomotor instability Baroreceptor insensitivity and reduced total body water	Reduced plasma volume Inaccessibility of fluids	Syncope, dizziness	Fall, fracture
Reduced bone density	Accelerated bone loss	Increased fracture risk	Fracture
Reduced ventilation	Increased closing volume	Reduced PO <sub>2</sub>	Syncope, delirium
Reduced sensory continence	Isolation, lost glasses, lost hearing aid, sensory deprivation	Delirium	False labeling, physical restraint, chemical restraint
Altered thirst, taste, smell, and dentition	Barriers, "tethers," therapeutic diets	Dehydration, malnutrition	Reduced plasma volume, tube feeding
Fragile skin	Immobilization, shearing forces	Pressure sore	Infection
Tendency to urinary incontinence	Barriers, "tethers"	Functional incontinence	Catheter, family rejection



November 1999

# INSTITUTE OF MEDICINE

*Shaping the Future for Health*

## **TO ERR IS HUMAN: BUILDING A SAFER HEALTH SYSTEM**



March 2001

# INSTITUTE OF MEDICINE

*Shaping the Future for Health*

## **CROSSING THE QUALITY CHASM: A NEW HEALTH SYSTEM FOR THE 21ST CENTURY**



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# Effectiveness of a Geriatric Evaluation Unit — A Randomized Clinical Trial

- 123 patients aged 65+ years, admitted to the VA Acute Care Sepulveda, CA, randomly assigned to usual care or GEU.
- On admission, each patient received CGA by a multidisciplinary, multiprofessional team, which applied in weekly meetings the most reliable instruments and scales available at that time.
- At 1-year follow-up, the intervention arm had improved survival, cognitive, and functional status and had spent fewer days in nursing homes after discharge, at no additional cost. Improved survival and preserved quality of life, again at no additional cost, with CGA compared with usual care was confirmed by 2-year follow-up data

**SPECIAL ARTICLES**

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**A RANDOMIZED TRIAL OF CARE IN A HOSPITAL MEDICAL UNIT ESPECIALLY DESIGNED  
TO IMPROVE THE FUNCTIONAL OUTCOMES OF ACUTELY ILL OLDER PATIENTS**

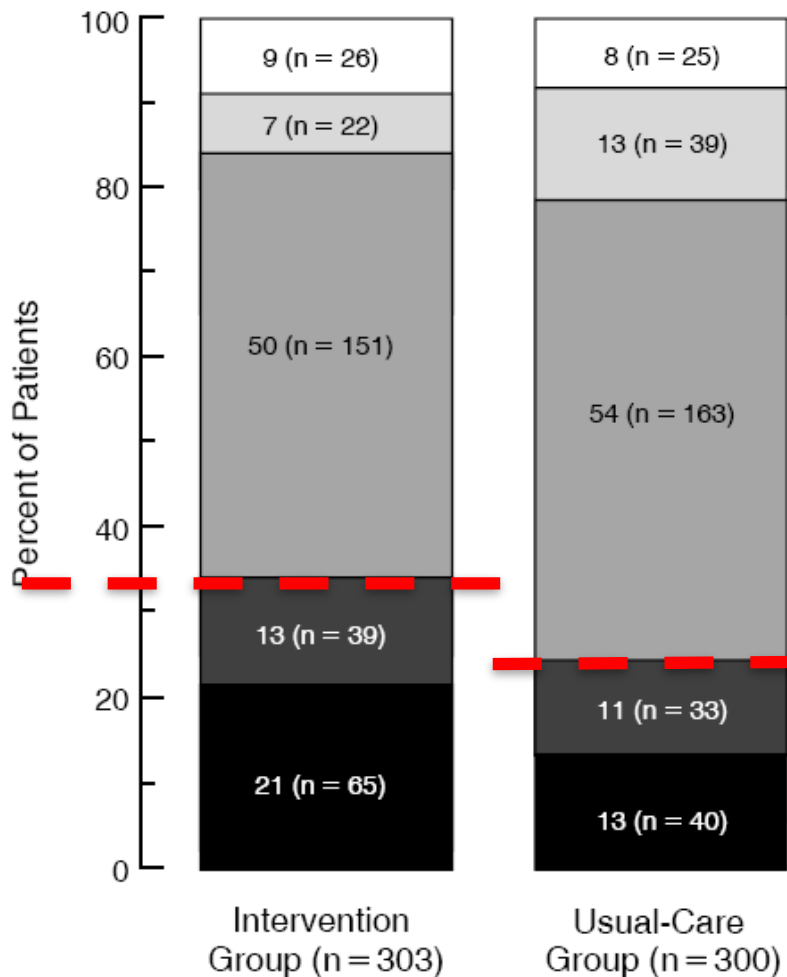
C. SETH LANDEFELD, M.D., ROBERT M. PALMER, M.D., DENISE M. KRESEVIC, M.S.N.,  
RICHARD H. FORTINSKY, PH.D., AND JEROME KOWAL, M.D.

Table 1. Key Elements and Illustrative Features of the Intervention Program.

KEY ELEMENT	ILLUSTRATIVE FEATURES
Prepared environment	<p>Carpeting, handrails, uncluttered hallways</p> <p>Large clocks and calendars</p> <p>Elevated toilet seats and door levers</p>
Patient-centered care	<p>Daily assessment by nurses of physical, cognitive, and psychosocial function</p> <p>Protocols to improve self-care, continence, nutrition, mobility, sleep, skin care, mood, cognition (implemented by the primary nurse and based on the daily assessment)</p> <p>Daily rounds by the multidisciplinary team, led by the medical and nursing directors with the primary nurse, social worker, nutritionist, physical therapist, and visiting-nurse liaison</p>
Planning for discharge	<p>Early, ongoing emphasis on the goal of returning home</p> <p>Assessment of plans and needs for discharge by a nurse at the time of admission</p> <p>Early involvement of a social worker and home health care nurse, if indicated</p>
Medical care review	<p>Daily review by the medical director of medicines and planned procedures</p> <p>Protocols to minimize the adverse effects of selected procedures (e.g., urinary catheterization) and medications (e.g., sedative-hypnotic agents)</p>

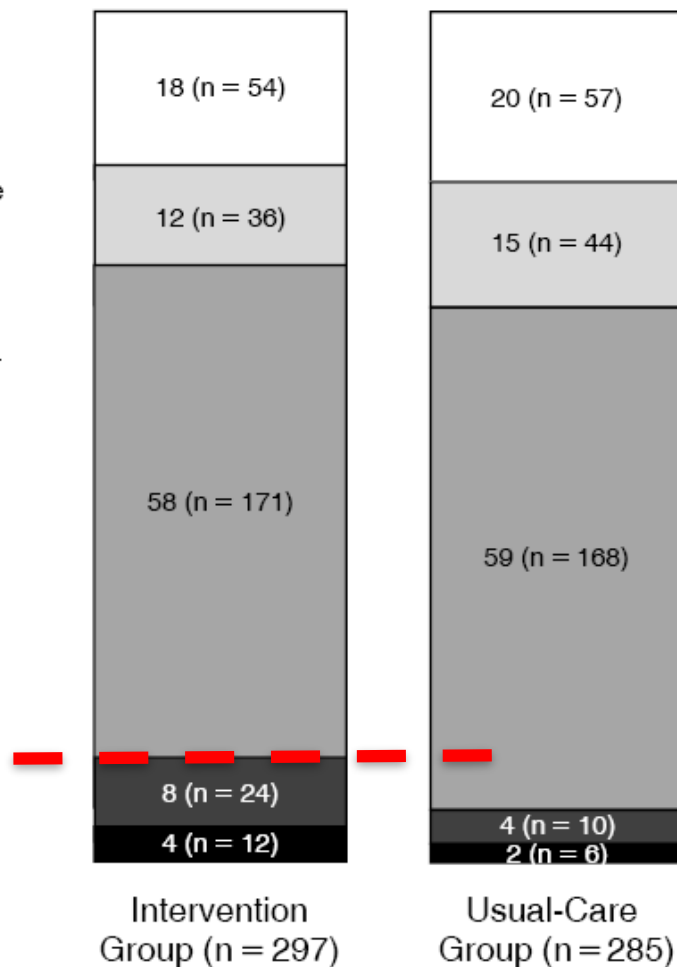
Change from Admission to Discharge

P = 0.009



Change from Two Weeks before Admission to Discharge

P = 0.05





**Cochrane**  
**Library**

**Cochrane** Database of Systematic Reviews

## **Comprehensive geriatric assessment for older adults admitted to hospital (Review)**

Ellis G, Gardner M, Tsiachristas A, Langhorne P, Burke O, Harwood RH, Conroy SP, Kircher T, Somme D, Saltvedt I, Wald H, O'Neill D, Robinson D, Shepperd S

*Cochrane Database of Systematic Reviews* 2017, Issue 9. Art. No.: CD006211.

DOI: 10.1002/14651858.CD006211.pub3.

**[www.cochranelibrary.com](http://www.cochranelibrary.com)**

## Comprehensive geriatric assessment for older adults admitted to hospital (Review)

- Aim: to find out if organised and co-ordinated specialist care (known as CGA) can improve care provided to older people admitted to hospital.
- All relevant studies (29 trials from nine countries that recruited 13,766 people, comparing CGA with routine care for patients over 65 who were admitted to hospital). Most trials evaluated CGA that was provided on a specialised hospital ward or across several wards by a mobile team.

Comprehensive geriatric assessment (CGA) versus admission to hospital without CGA

**Patient or population:** older adults admitted to hospital

**Setting:** unplanned hospital admissions in 9 largely high-income countries

**Intervention:** CGA

**Comparison:** usual care

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	No. of participants (studies)	Certainty of the evidence (GRADE)
	Risk with usual care	Risk with CGA			
Living at home (end of follow-up 3 to 12 months)	Study population		RR 1.06 (1.01 to 1.10)	6799 (16 RTs)	⊕⊕⊕⊕ HIGH
	561 per 1000	595 per 1000 (567 to 617)			
Mortality (end of follow-up 3 to 12 months)	Study population		RR 1.00 (0.93 to 1.07)	10,023 (21 RTs)	⊕⊕⊕⊕ HIGH
	230 per 1000	230 per 1000 (214 to 247)			
Admission to a nursing home (end of follow-up 3 to 12 months)	Study population		RR 0.80 (0.72 to 0.89)	6285 (14 RTs)	⊕⊕⊕⊕ HIGH
	186 per 1000	151 per 1000 (136 to 169)			
Dependence	Study population		RR 0.97 (0.89 to 1.04)	6551 (14 RTs)	⊕⊕⊕⊕ HIGH
	291 per 1000	282 per 1000 (259 to 302)			
Cognitive function		Standardised mean difference ranged from -0.22 to 0.35.	-	3534 (5 RTs)	⊕⊕○○ LOW <sup>a</sup> .

Comprehensive geriatric assessment (CGA) versus admission to hospital without CGA

**Patient or population:** older adults admitted to hospital

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**Intervention:** CGA

**Comparison:** usual care

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	No. of participants (studies)	Certainty of the evidence (GRADE)
	Risk with usual care	Risk with CGA			
Length of stay	Not estimable	Mean length of stay in the intervention group ranged from 1.63 days to 40.7 days	-	5303 (17 RTs)	⊕⊕○○ LOW <sup>a</sup> .
Cost and cost-effectiveness	Healthcare costs per participant in the CGA group were on average GBP 234 (95%CI GBP -144 to GBP 605) higher than in the usual care group (17 trials); CGA led to 0.012 (95% CI -0.024 to 0.048) more QALYs (3 trials), 0.037 (95% CI 0.001 to 0.073) more LYs (4 trials), and 0.019 (95% CI -0.019 to 0.155) more LYLAH (2 trials) per participant. Costs per QALYs gained was GBP 19,802, per LY gained was GBP 6305, and per LYLAH gained was GBP 12,568. CGA was more costly in 89% of 10,000 generated ICERs and led to QALY gains in 66% of cases, LY gains in 87% of cases, and LYLAH gains in 74% of cases. The probability that CGA would be cost-effective at a GBP 20,000 ceiling ratio for QALY, LY, and LYLAH was 0.50, 0.89, and 0.47, respectively			5303 (17 RTs)	⊕⊕○○ LOW <sup>a</sup> .

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Getting Out of Silos: An Innovative  
Transitional Care Curriculum for Internal  
Medicine Residents Through Experiential  
Interdisciplinary Learning

NANCY L. SCHOENBORN, MD  
COLLEEN CHRISTMAS, MD

*Journal of Graduate Medical Education, December 2013*

**Silos to Systems: Three Models  
for Developing Geriatric  
Interprofessional Education**

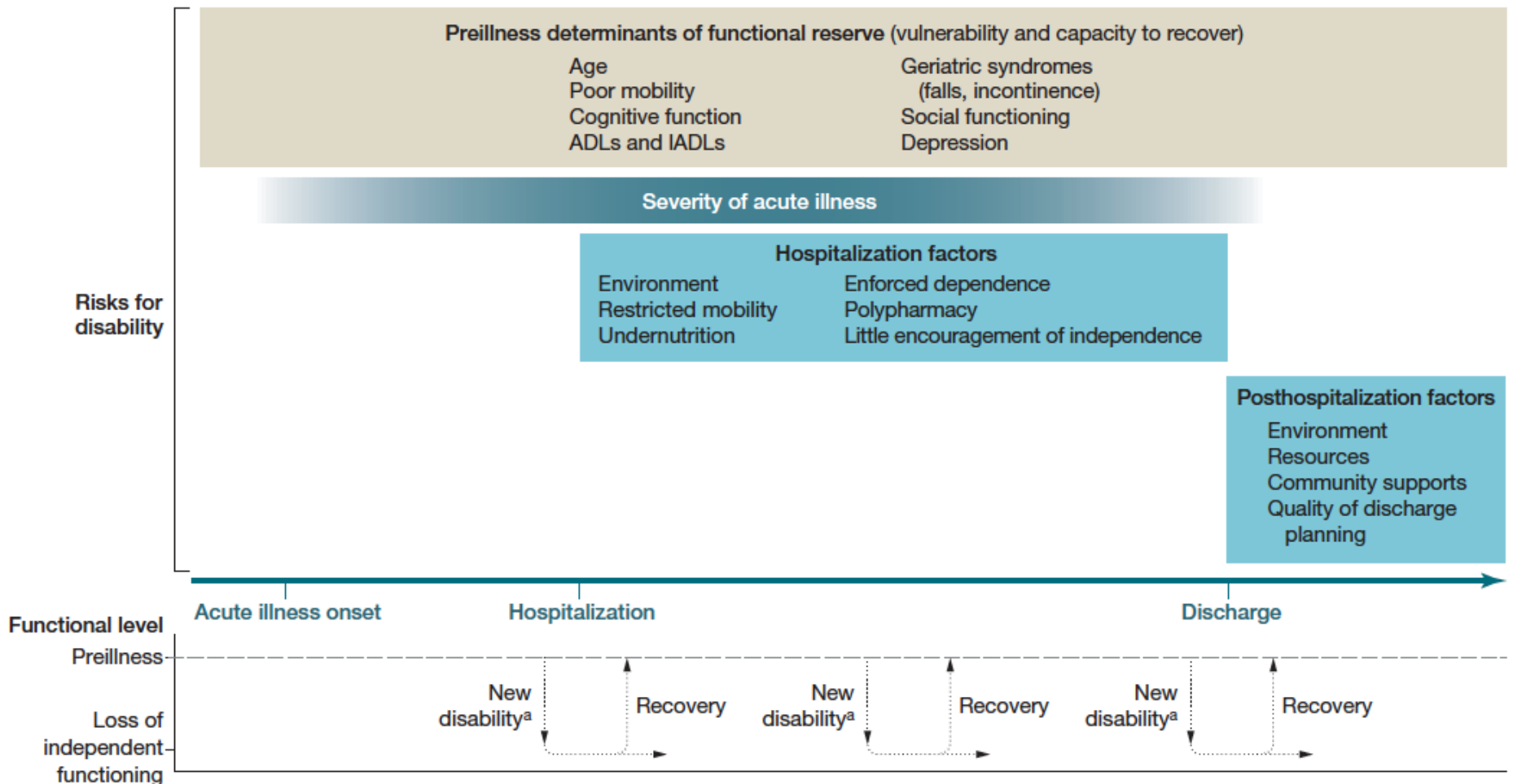
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Annie Y. Lam, Joy B. Plein, Gayle Hudgins, Mark A. Stratton

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*The Consultant Pharmacist February 2013*

# Factors Contributing to the Development of Hospitalization-Associated Disability



# Cognitive decline after elective and nonelective hospitalizations in older adults

Bryan D. James, PhD, Robert S. Wilson, PhD, Ana W. Capuano, PhD, Patricia A. Boyle, PhD, Raj C. Shah, MD, Melissa Lamar, PhD, E. Wesley Ely, MD, David A. Bennett, MD, and Julie A. Schneider, MD

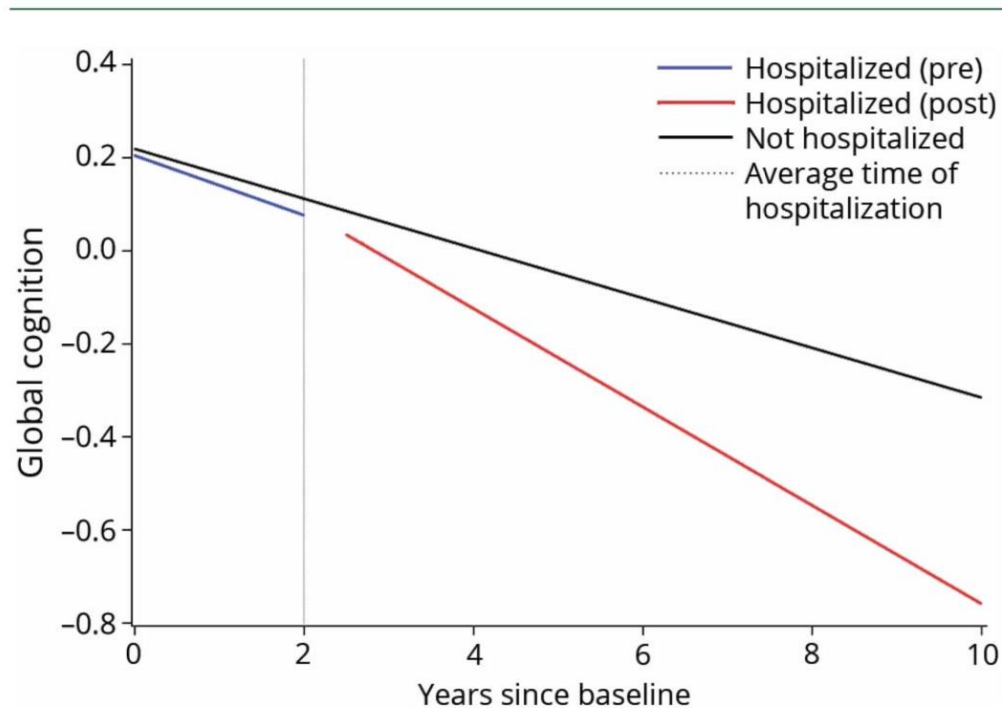
*Neurology*® 2019;92:e690-e699. doi:10.1212/WNL.0000000000006918

## Correspondence

Dr. James

Bryan\_James@rush.edu

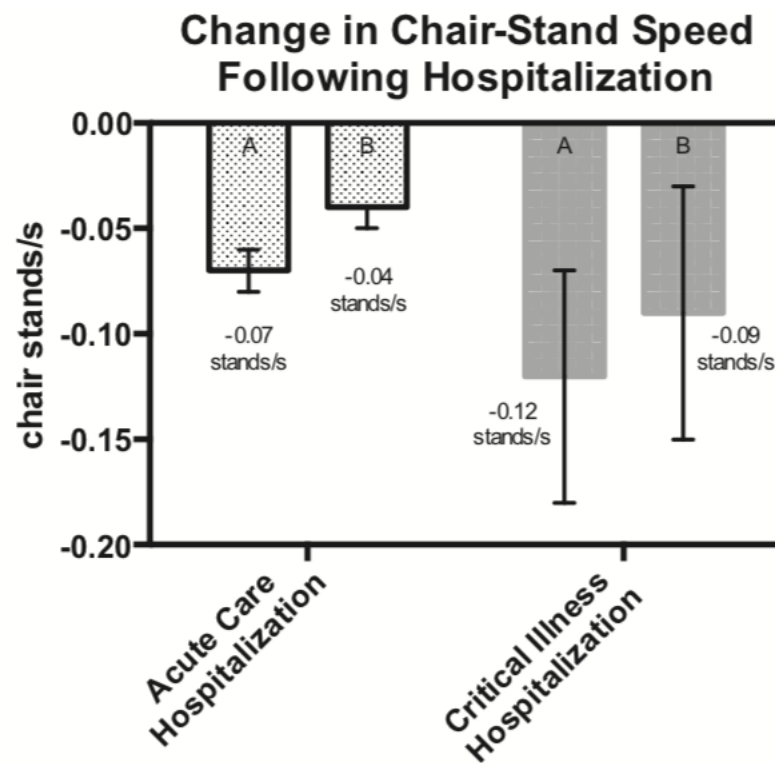
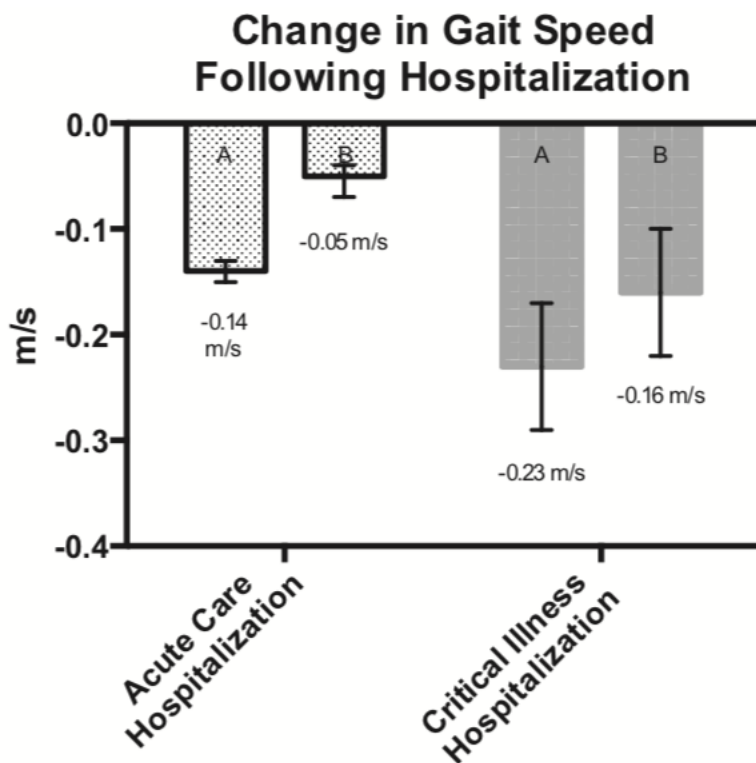
**Figure 2** Rate of decline in global cognition in those who had hospitalization (before and after) or no hospitalization



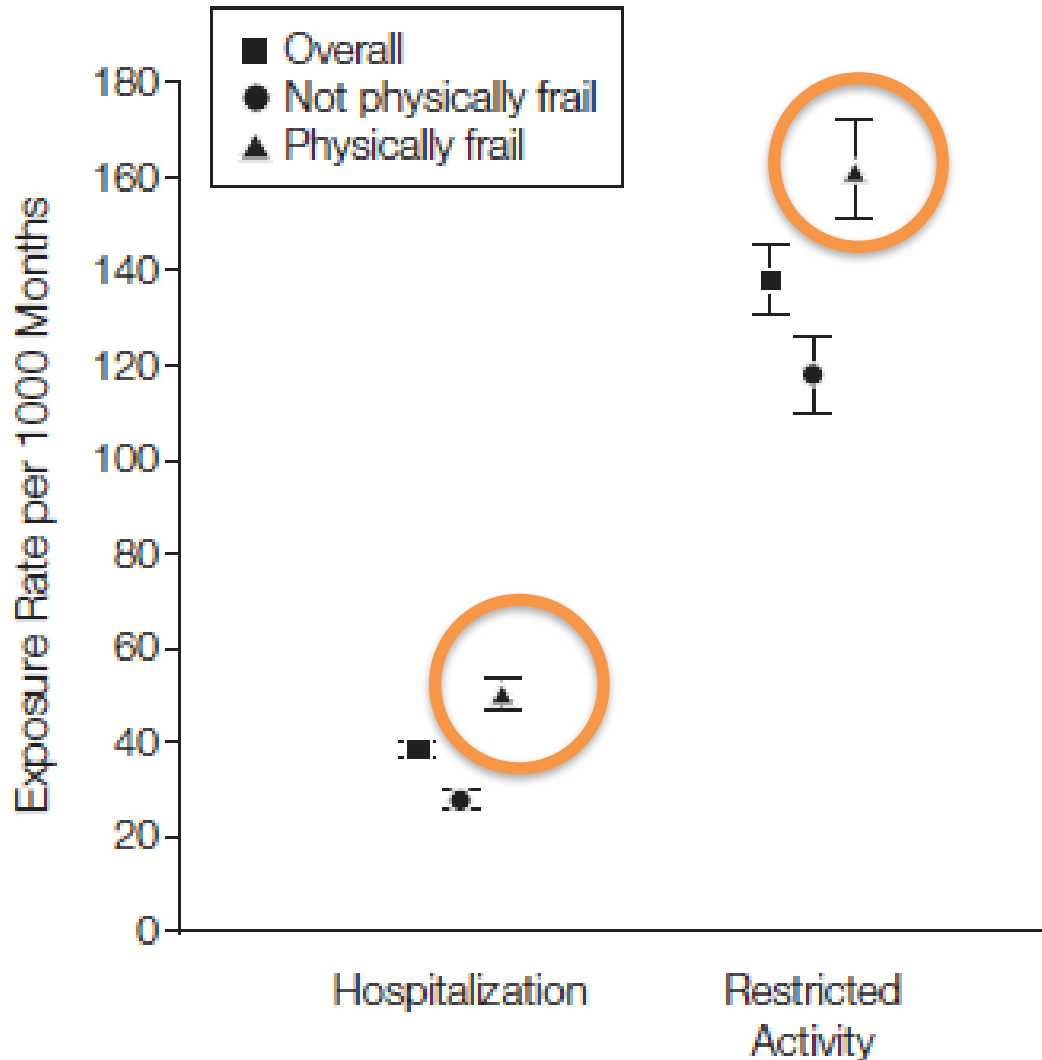
# Physical Function and Disability After Acute Care and Critical Illness Hospitalizations in a Prospective Cohort of Older Adults

William J. Ehlenbach, MD, MSc,\* Eric B. Larson, MD, MPH,<sup>†‡§</sup> J. Randall Curtis, MD, MPH,<sup>||</sup> and Catherine L. Hough, MD, MSc<sup>||</sup>

2926 anziani dementia-free, viventi in NH con follow-up a 14 anni



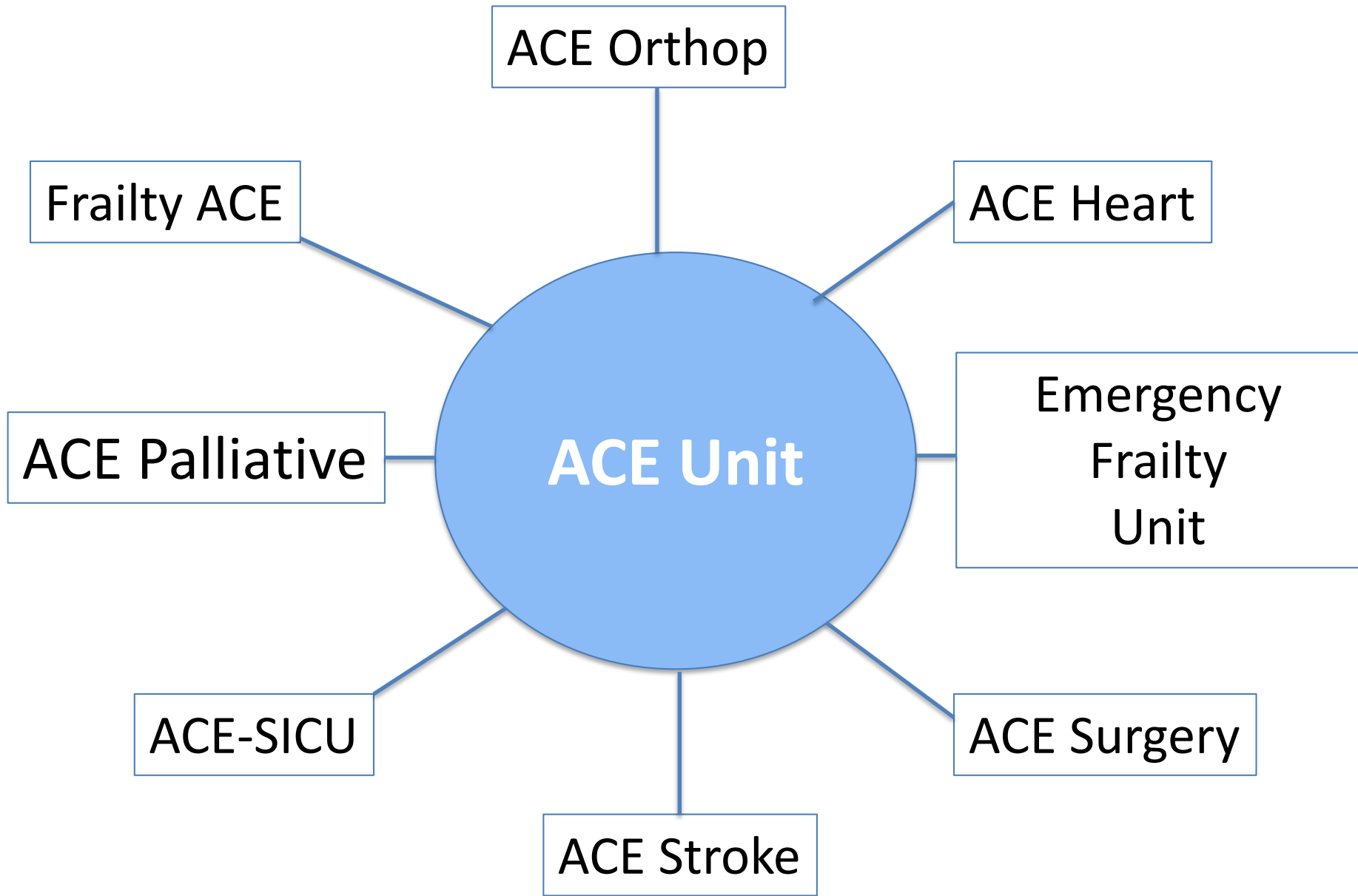
**Figure 2.** Exposure Rates to Intervening Events per 1000 Months According to Physical Frailty



Among older persons, particularly those who are physically frail, intervening illnesses and injuries greatly increase the likelihood of developing new or worsening disability.

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# Developing a Stroke Unit Using the Acute Care for Elders Intervention and Model of Care

*Kyle R. Allen, DO,\*† Susan E. Hazelett, MS, RN,\* Robert R. Palmer, MD, MPH,‡  
David G. Jarjoura, PhD,† Glenda C. Wickstrom, MD,\*† Jan A. Weinhardt, MSN, RN, CS,\*  
Robert Lada, MD,\* Carolyn M. Holder, MSN, RN, CS,\* and Steven R. Counsell, MD<sup>§</sup>*

**Table 2. Comparison of Stroke and TIA Patient Outcomes: Pre-Stroke Unit (SU) (1996) versus Post-SU (1997) Using ICD-9 Diagnostic Codes for Ischemic Stroke and TIA**

Demographic	One Year Pre-SU (n = 622)	One Year Post-SU (n = 544)	P-value
Age	72	72	1.000
Female, %	58	58	1.000
Pneumonia, n (%)			.68 <sup>§</sup>
Aspiration pneumonia	21 (3)	16 (3)	
Other pneumonia	7 (1)	9 (2)	
No pneumonia	594 (96)	519 (95)	
Deaths (in hospital), n (%)	16 (3)	7 (1)	.11 <sup>§</sup>
Length of stay, days, mean	4.6	3.8	<.0001 <sup>¶</sup>
Discharge Destination, n (%)			<.0001 <sup>#</sup>
Nursing home	97 (15)	61 (11)	
Rehabilitation	89 (14)	91 (15)	
Home health	32 (5)	56 (10)	
Other	83 (15)	9 (2)	
Home*	313 (50)	335 (62)	
Readmissions, n (%)			<.0001 <sup>**</sup>
≤ 10 days	30 (5)	37 (7)	
11–30 days <sup>†</sup>	61 (10)	37 (7)	
> 30 days < 1 year	416 (67)	248 (46)	
None (during 1 year) <sup>‡</sup>	115 (18)	222 (41)	

# Comprehensive geriatric care for patients with hip fractures: a prospective, randomised, controlled trial



Anders Prestmo\*, Gunhild Hagen\*, Olav Sletvold, Jorunn L Helbostad, Pernille Thingstad, Kristin Taraldsen, Stian Lydersen, Vidar Halsteinli, Turi Saltnes, Sarah E Lamb, Lars G Johnsen, Ingvild Saltvedt

	Comprehensive geriatric care (N=198)	Orthopaedic care (N=199)
Age (years)	83.4 (5.4)	83.2 (6.4)
Female	145 (73%)	148 (74%)
Sheltered housing	26 (13%)	20 (10%)
Living alone	115 (58%)	124 (62%)
Barthel Index (0-20)	18.3 (2.3)	18.1 (2.8)
Nottingham Extended ADL scale (0-66)	42.5 (17.7)	41.9 (17.5)
Clinical Dementia Rating Scale (0-18)	2.7 (4.0)	2.7 (3.9)
APACHE II (5-89)	9.3 (3.3)	9.1 (2.9)
Charlson comorbidity index (0-30)	2.3 (2.3)	2.3 (2.0)
Previous diagnoses		
Heart disease	97 (49%)	89 (45%)
Stroke	49 (25%)	57 (29%)

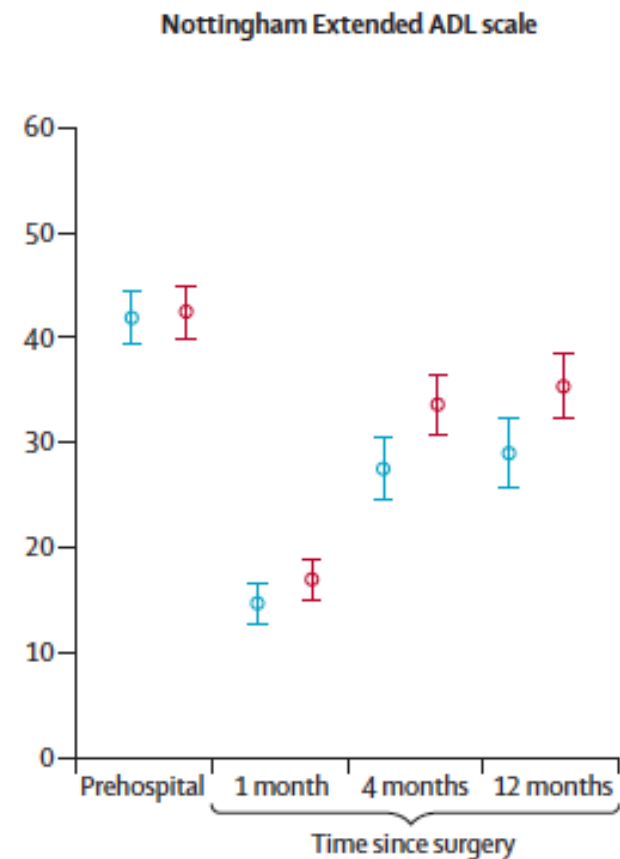
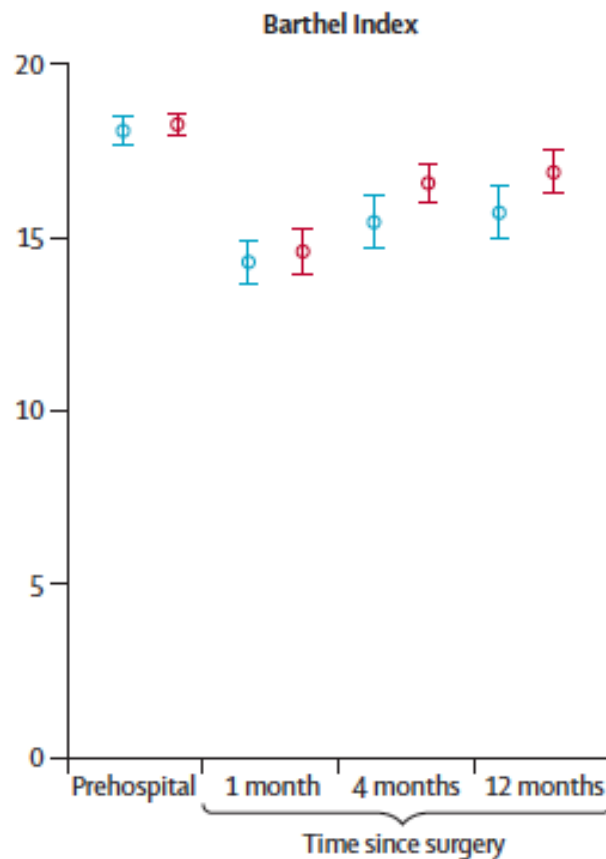
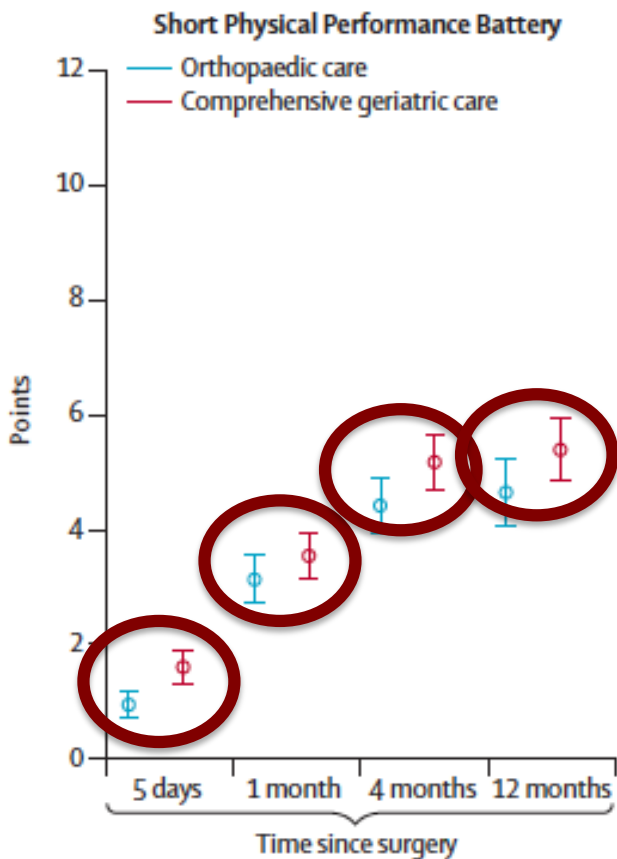
	Comprehensive geriatric care (N=198)	Orthopaedic care (N=199)
Diabetes	23 (12%)	28 (14%)
Dementia	27 (14%)	26 (13%)
Cancer	53 (27%)	43 (22%)
Kidney disease	18 (9%)	9 (5%)
Fracture type		
Femoral neck	119 (60%)	127 (64%)
Trochanteric	66 (33%)	58 (29%)
Subtrochanteric	13 (7%)	14 (7%)
Surgical treatment		
Hemiarthroplasty	76 (38%)	88 (44%)
Screws	38 (19%)	32 (16%)
Bone plates and screws	69 (35%)	63 (32%)
Other	13 (7%)	14 (7%)
Died before surgery	2 (1%)	2 (1%)

	Comprehensive geriatric care	Orthopaedic care
Department	Department of Geriatrics, Clinic of Internal Medicine	Department of Orthopaedic Surgery, Clinic of Orthopaedics and Rheumatology
Facilities*	Geriatric ward: Five one-bed rooms organised in a group together reserved for patients with hip fractures within a 15-bed ward	Orthopaedic trauma ward: One, two, or four-bed rooms in a 19-bed ward before, or single rooms in a 24-bed ward after relocation Mixed orthopaedic trauma patient population
Team members, †number per bed		
Geriatricians	0.13	..
Registered nurses, licensed practical nurses	1.67	1.48
Physiotherapists	0.13	0.09 (0.07 after relocation)
Occupational therapists	0.13	None
Orthopaedic surgeons	..	0.11 (0.08 after relocation)
Treatment	Structured, systematic interdisciplinary comprehensive geriatric assessment and care focusing on: somatic health (comorbidity management, review of drug regimens, pain, nutrition, elimination, hydration, osteoporosis, and prevention of falls); mental health (depression, delirium); function (mobility, p-ADL and i-ADL) and social situation Early discharge planning Early mobilisation and initiation of rehabilitation	Following of routines of Department of Orthopaedic Surgery

For both groups, management of standard treatment and surgery is the same: standard treatment consists of preoperative intravenous fluid, analgesia (preoperative femoral nerve block, regular paracetamol, opioids on demand), thromboembolic prophylaxis, perioperative antibiotic prophylaxis, use of pressure relieving mattresses to avoid decubitus ulcers, and preoperative assessments by an anaesthetist; surgery consists of spinal anaesthesia, two-screw fixation for non-dislocated femoral neck fractures, hemiarthroplasty for dislocated femoral neck fractures, and a sliding hip screw system for trochanteric and subtrochanteric fractures (some subtrochanteric fractures are fixed with antegrade intramedullary nailing). p-ADL=personal Activities of Daily Living. i-ADL=instrumental Activities of Daily living. \* Orthopaedic care was relocated to a new hospital building after 219 of 397 patients were recruited. †Separate teams with no collaboration.

**Table 1: Management in the comprehensive geriatric assessment and care and the orthopaedic care groups**

# Comprehensive geriatric care for patients with hip fractures: a prospective, randomised, controlled trial



# Comprehensive geriatric care for patients with hip fractures: a prospective, randomised, controlled trial



*Anders Prestmo\*, Gunhild Hagen\*, Olav Sletvold, Jorunn L Helbostad, Pernille Thingstad, Kristin Taraldsen, Stian Lydersen, Vidar Halsteinli, Turi Saltnes, Sarah E Lamb, Lars G Johnsen, Ingvild Saltvedt*

**Interpretation** Immediate admission of patients aged 70 years or more with a hip fracture to comprehensive geriatric care in a dedicated ward improved mobility at 4 months, compared with the usual orthopaedic care. The results suggest that the treatment of older patients with hip fractures should be organised as orthogeriatric care.

# Effect of Exercise Intervention on Functional Decline in Very Elderly Patients During Acute Hospitalization

## A Randomized Clinical Trial

Nicolás Martínez-Velilla, PhD, MD; Alvaro Casas-Herrero, PhD, MD; Fabricio Zambom-Ferraresi, PhD; Mikel López Sáez de Asteasu, MSc; Alejandro Lucia, PhD, MD; Arkaitz Galbete, PhD; Agurne García-Baztán, MD; Javier Alonso-Renedo, MD; Belen González-Glaría, PhD, MD; María Gonzalo-Lázaro, MD; Itziar Apezteguía Iraizoz, PhD, MD; Marta Gutiérrez-Valencia, PharmD; Leocadio Rodríguez-Mañas, PhD, MD; Mikel Izquierdo, PhD

- ACE unit, Pamplona, Spain
- Inclusion criteria: age  $\geq 75$  years, Barthel Index  $\geq 60$ , ability to ambulate (with or without assistance) and to communicate.
- Exclusion criteria: expected LOS  $< 6$  days, severe cognitive decline, or extremity bone fracture in the past 3 months
- Control group: usual hospital care, including physical rehabilitation when needed.
- In-hospital intervention: individualized moderate-intensity resistance, balance, and walking exercises (2 daily sessions).

# Effect of E in Very Eld A Randomi

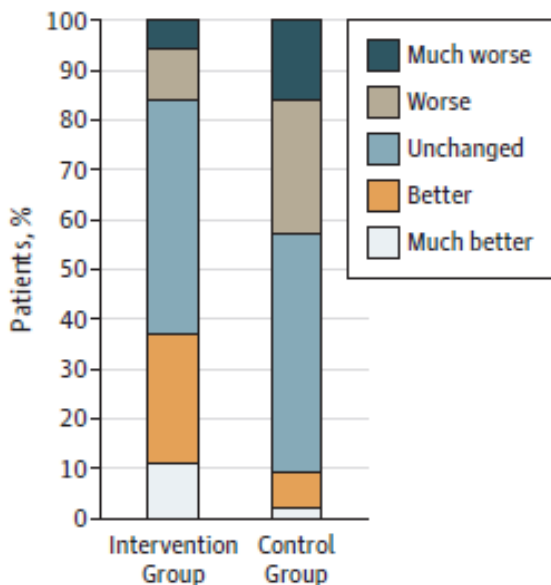
Table 2. Results of Primary a

Variable <sup>b</sup>
Primary End Point: Change in SPPB scale (balance, gait ability, and walking speed) and Barthel Index (ADLs)
Secondary End Points
Cognitive status
MMSE
Depression (GDS)
QoL (EuroQol-5D)
Incident delirium (CAM), %
Handgrip strength, kg

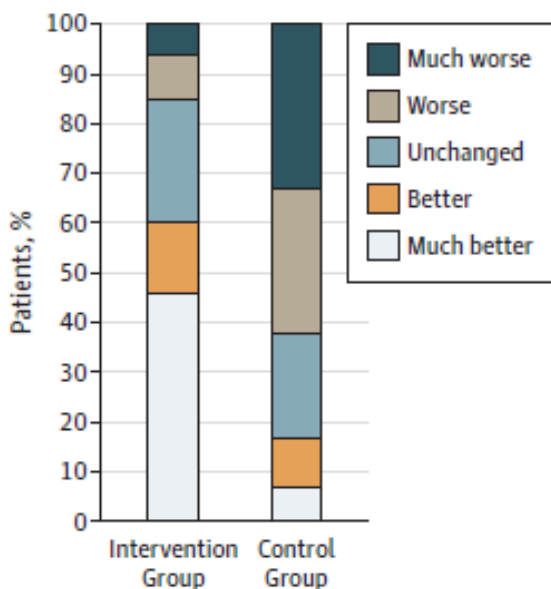
Abbreviations: ADLs, activities of daily living; MMSE, Mini-Mental State Examination; GDS, Geriatric Depression Scale; MMSE, Mini-Mental State Examination; QoL, quality of life; SPPB, Short Portable Mental Status Questionnaire.

<sup>a</sup> All data, except for CAM, were expressed as mean (SD) for each group, data are expressed as mean (SD).

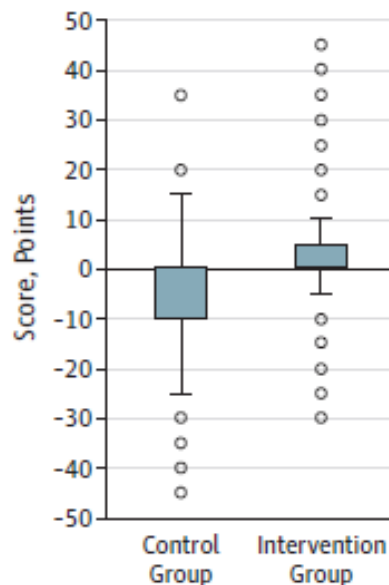
**A** Change in Barthel index from admission to discharge



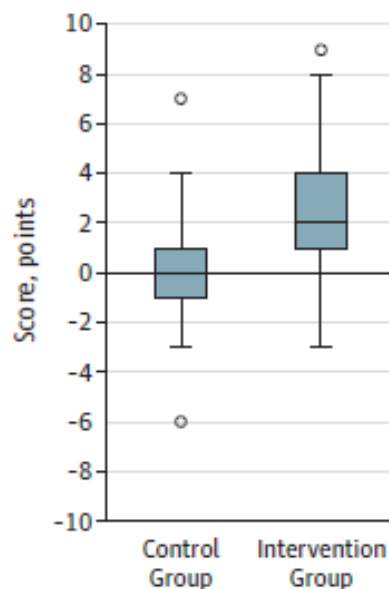
**B** Change in SPPB from admission to discharge



**C** Change in Barthel index



**D** Change in SPPB



# nal Decline pitalization

Between-Group Difference (95% CI)	P Value Between Groups
2.2 (1.7 to 2.6)	<.001
6.9 (4.4 to 9.5)	<.001
1.8 (1.3 to 2.3)	<.001
-2.0 (-2.5 to -1.6)	<.001
13.2 (8.2 to 18.2)	<.001
OR, 1.9 (0.9 to 4.0)	.12
2.3 (1.8 to 2.8)	<.001

... coefficients (95% CI) of the model. For ... corresponds to the coefficient estimated ... up difference was determined with ... nt. For CAM, data are the proportion of ... ped.

... ven in the footnotes to Table 1.

# **A controlled evaluation of comprehensive geriatric assessment in the emergency department: the 'Emergency Frailty Unit'**

## **Key points**

- Emergency attendances in older people will continue to increase.
- CGA can be delivered within the ED.
- CGA in the ED was associated with improved discharge rates and reduces readmission rates in older people; there may be additional related benefits for younger patients.



# Emergency Geriatric Assessment

*Weng et al , Am J Emerg Med 36 (2018) 134–168*

Patient information:

Information source: Patient Family Caregiver Others\_\_\_\_\_

All  $\geq 65$  years patients who need admission or observation except (1)

Acute stroke; (2) Acute myocardial infarction; or (3) Pending surgical intervention

Possible problem	Evaluation	Result
1 Delirium	Confusion Assessment Method (CAM): 1+2+ ( 3 or 4) <input type="checkbox"/> 1. Acute onset and fluctuating <input type="checkbox"/> 2. Inattention <input type="checkbox"/> 3. Disorganized thinking <input type="checkbox"/> 4. Altered mental status	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
2 Depression	Any one of the following: <input type="checkbox"/> Did you feel unhappy in the past 2 weeks? <input type="checkbox"/> Do you prefer to stay at home rather than go out and do new things in the last 2 weeks? <input type="checkbox"/> Do you feel worthless the way you are now in the last 2 weeks?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
3 Dementia	Any problem recalling the following 3 items: please register “bicycle, red, and happy” first, then tell the patient to recall the three items after completing 6 <sup>th</sup> item “Auditory.”	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
4 Activities of daily living	Any deterioration of activities of daily living <1 year? <input type="checkbox"/> Feeding <input type="checkbox"/> Hygiene <input type="checkbox"/> Dressing <input type="checkbox"/> Transferring <input type="checkbox"/> Walking <input type="checkbox"/> Toileting <input type="checkbox"/> Bathing. The earliest deterioration time: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
5 Vision	Does your vision impairment affect your activities of daily	<input type="checkbox"/> Yes <input type="checkbox"/> No

# **Subintensive care unit for the elderly: a new model of care for critically ill frail elderly medical patients**

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Marco Ferri<sup>2,3</sup>, Nicola Travaglini<sup>2,3</sup>, Antonella Ricci<sup>2,3</sup>, Alessandro Morandi<sup>2,3</sup>, Marco Trabucchi<sup>3</sup>

# Onco-Geriatric Approach for the Management of Older Patients with Cancer

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*Introduction and Rationale:* The number of older cancer patients is increasing with global aging of the population. A close interaction between oncologists and geriatricians becomes necessary to (1) better evaluate the elders' health status, (2) determine their residual clinical/biological reserves, and (3) optimize the provided medical care. In fact, aggressive antineoplastic managements are often denied to older patients, possibly because of the common misconception suggesting older age and/or clinical complexity as absolute contraindications to advanced treatments.

*Methods:* The primary aim of the presented project is to assess whether assigning a geriatrician to provide daily medical care to older cancer patients (aged 65 years and older) admitted to an oncology ward increases the number of patients eligible for a chemotherapeutic and/or surgical intervention. The project is articulated in 2 phases: (1) a retrospective phase based on analysis of data collected over the 2 years before the beginning of the study, and (2) a

prospective 2-year intervention. Additional information about clinical conditions, biological parameters, adverse drug reactions, body composition, physical function, and 1-year health-related events will also be recorded.

*Outcomes:* The combination of expertise from oncologists and geriatricians is likely to result in (1) an improved selection of candidates for interventions aimed at increasing disability-free life expectancy and/or overall survival, and (2) a more rational exclusion of patients at higher risk of toxicity or with poor prognosis. In this article, the development of an onco-geriatric unit aimed at the evaluation, management, and treatment of older women with gynecological cancer is also described. (**J Am Med Dir Assoc 2011; 12: 153–159**)

*Keywords:* Cancer; geriatrics; oncology; elderly; comprehensive geriatric assessment; screening; onco-geriatrics; adverse drug reactions; physical function; frailty

# Elements of a CGA in older with cancer

Area	Screening Tools/Assessments
Sociodemographics	
Cancer diagnosis	Site, type Staging Classification
Comorbidity	Cumulative Illness Rating Scale
Cognition	Mini Mental State Examination
Mood	Geriatric Depression Scale
Quality of life—Pain	Euro-QoL 5D Pain Visuo-Analogue Scale
Therapy—Polypharmacy	Naranjo Adverse Drug Reaction Probability scale
Biological measures	Blood cell counts Blood chemical measures Blood cancer markers
Body composition	Anthropometric measures Dual energy X-ray absorptiometry
Functional status	Activities of Daily Living Instrumental Activities of Daily Living Eastern Cooperative Oncology Group Performance Status Karnofsky Performance Status Short Physical Performance Battery
Follow-up	Hand grip strength Hospitalization Institutionalization Survival

*Cesari M et al, JAMDA 2011*

Care of the Aging Patient: From Evidence to Action

# Preoperative Assessment of the Older Patient

## A Narrative Review

Lawrence B. Oresanya, MD; William L. Lyons, MD; Emily Finlayson, MD

**CONCLUSIONS AND RELEVANCE** Geriatric conditions may be associated with adverse surgical outcomes. A comprehensive evaluation of treatment goals and communication of realistic risk estimates are essential to guide individualized decision making.



## Hospital Elder Life Program (HELP) for Prevention of Delirium

A comprehensive patient-care program that ensures optimal care for older adults in the hospital. HELP prevents delirium (a sudden state of confusion or change in mental state) and loss of functioning.



[MYHELP ONLINE](#)

[DELIRIUM INSTRUMENTS](#)

[HELP UNIVERSITY](#)

Goals of HELP

Why Consider HELP?

What We Do

**HELP Sites**

Results

Getting Started with HELP

HELP Conference and National Meetings

HELP References

There are over 200 HELP sites in 32 states and 11 countries

## HELP AND THE WORLD



- **200 sites worldwide**
- **U.S.: 32 states**
- **World: 11 countries**

# Effect on Delirium in Patients in a Cluster

## Oral and Nutri

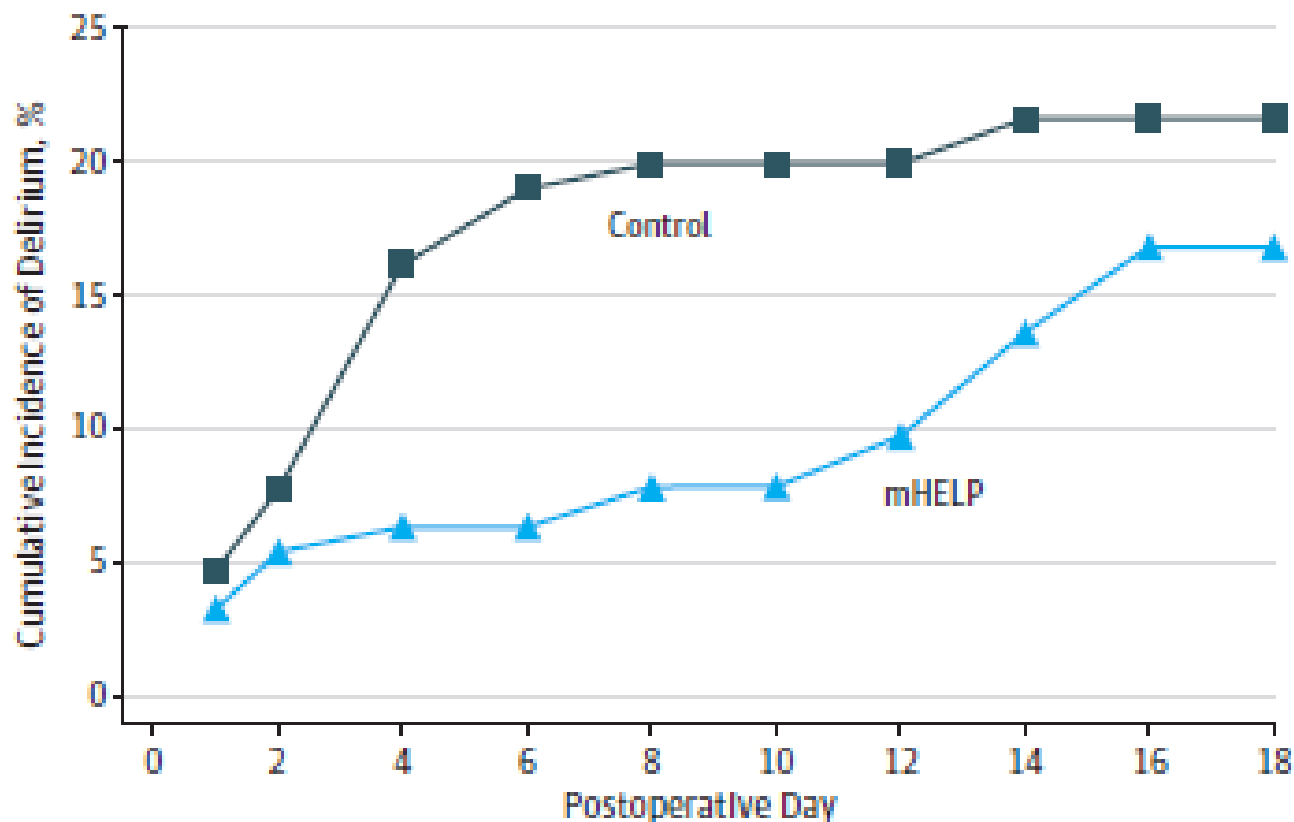
### 1. Daily oral c

- Facial and toothbrush
- The tongue
- Ask patient puffing
- Ask patient inside a side to

### 2. Diet educati

- Dumping
- Diet after
- Tips for d

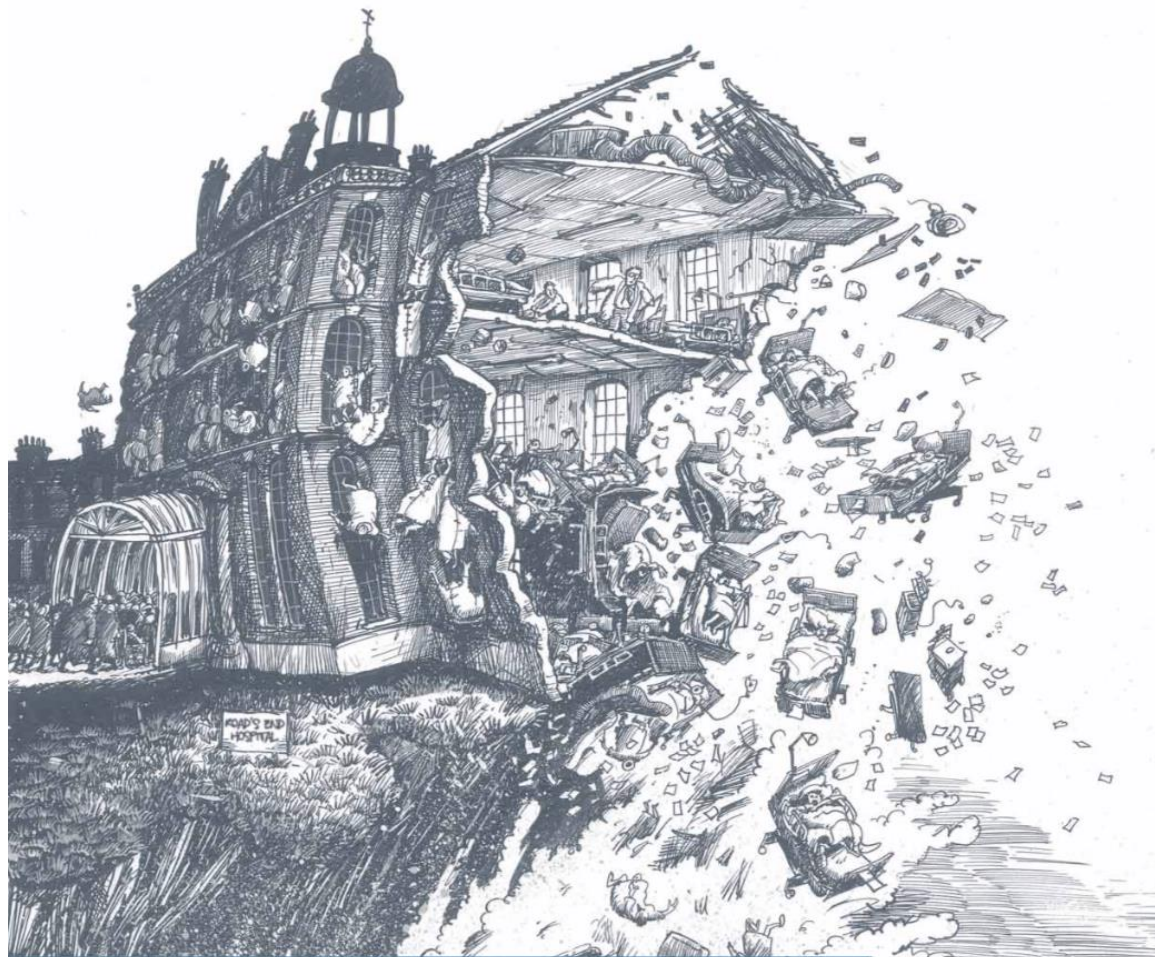
### 3. Encourage c



The cumulative incidence of delirium was defined as the probability of the development of delirium during hospitalization. Data on patients were censored at the time of discharge or death. The difference between the groups was significant ( $\chi^2 = 5.87$ ;  $P = .02$  by the log-rank test). Because of the smaller sample sizes, the figure does not extend beyond 18 days. mHELP indicates modified Hospital Elder Life Program.

# Outline

- Definizione e Storia del CGA (e ACE units)
- Evidenze di efficacia del CGA nelle ACE units
- Basi concettuali del CGA
- Sottospecializzazioni di ACE units e esportazione modelli
- **Cosa manca?**
- Conclusioni



## Hospitals on the edge? The time for action

A report by the Royal College of Physicians  
September 2012



## 5. La geriatria nell'ospedale per acuti

- le UGA sono poche e distribuite in modo molto disomogeneo sul territorio nazionale, in misura non giustificata da differenze demografiche. Si stima, infatti, che – con le rare eccezioni di alcune Regioni – l'attuale dotazione di posti letto di UGA in Italia sia pari a meno del 5% del totale di quelli internistici. Considerando che gli anziani rappresentano circa il 40% dei ricoveri in area medica e stimando che, di questi, almeno il 20-25% abbia quelle caratteristiche di problematicità che, secondo quanto dimostrato da solide evidenze scientifiche, rendono vantaggioso l'affidamento alla geriatria, si desume che la dotazione di posti letto in UGA dovrebbe aumentare dell'8-10% del totale dei letti di area medica.

# STATE OF THE GERIATRICIAN WORKFORCE

Geriatricians are physician experts in pioneering advanced illness care for older people, with a focus on championing interprofessional teams, eliciting personal care goals, and treating older people as whole persons.

As we live longer, access to a geriatrics-trained workforce will be key to ensuring we can contribute to our communities for as long as possible. **According to the Health Resources & Services Administration, which tracks data on the workforce we need as we age, the supply of geriatricians is projected to increase modestly between 2013 and 2025 but demand will grow more steeply.**

Research shows that 30% of people 65-years-old and older need care from a geriatrician, and that each geriatrician can care for up to 700 patients. This translates to a larger demand for geriatricians—both nationally and region by region across the U.S.

## FAST FACTS

Older Adult Population (2018)

**49.2M**

Certified Geriatricians ▲

**6,910**

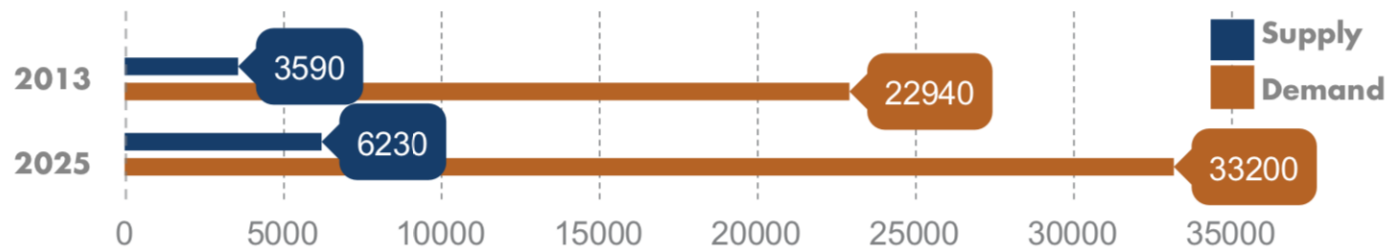
Full-Time Practicing Geriatricians ★

**3,590**

**45%**

INCREASE  
in demand for  
geriatricians,  
2013-2025★

## Geriatrics Workforce Supply & Demand ★



Full-Time Geriatricians in Clinical Practice

# The Acute Care for Elders Unit Model of Care

- Barriers to ACE Unit Dissemination; “If ACE Units Are So Great, Why Aren’t They Everywhere?” “It’s not sexy stuff. In fact, it’s really quite routine care, involving communication and discharge planning that should be the norm for all hospitals trying to do what’s right for their patients”
- There is a misperception that the ACE model of acute-care is a highly complex (hence challenging) intervention, whereas the truth is that older patients are complex (and challenging) and require a different model of care (including an interdisciplinary team to collaboratively evaluate and manage the myriad concerns of complex older patients) than is generally prevalent today

## APPENDIX A: STEPS TO SUCCESSFULLY DISSEMINATE ACUTE CARE FOR ELDERLY (ACE) THROUGHOUT A HEALTHCARE SYSTEM

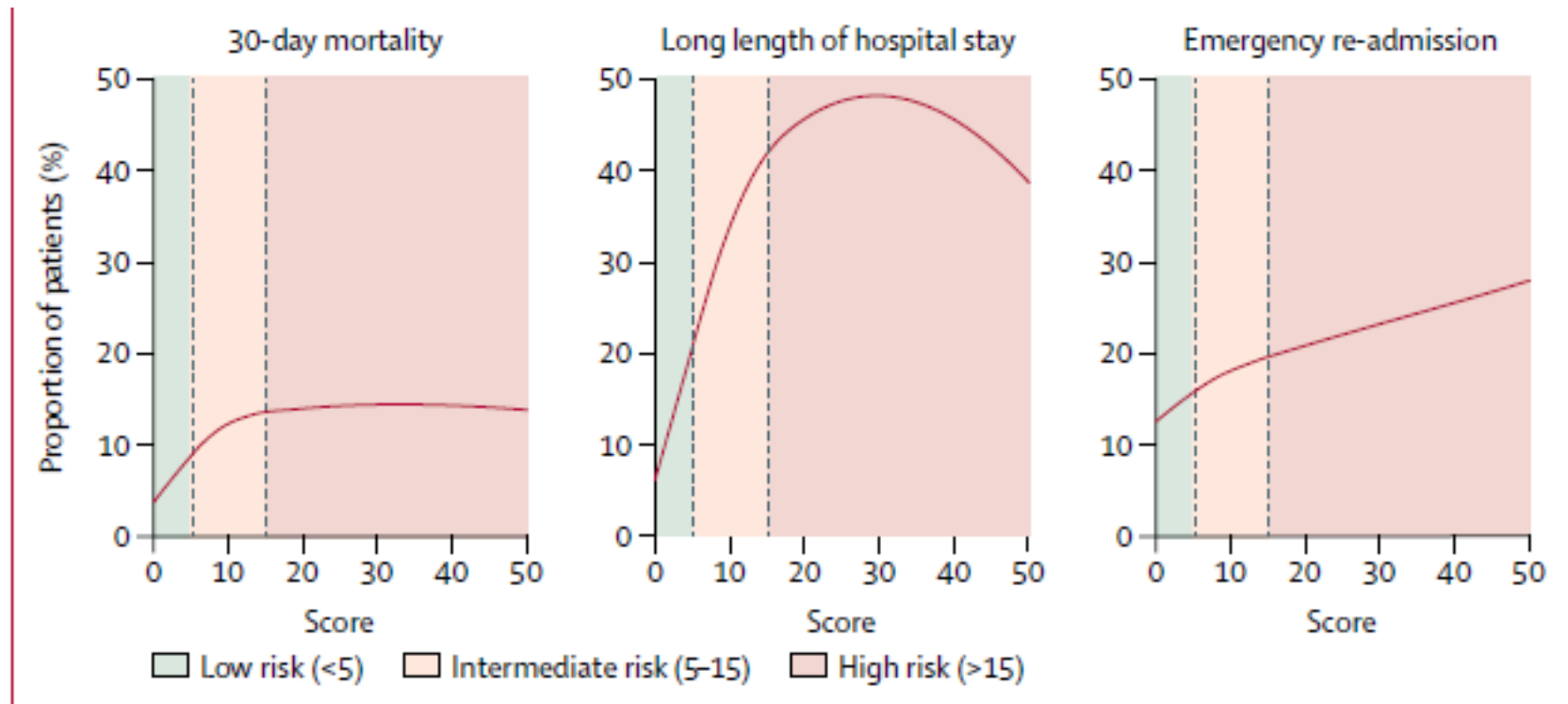
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- (1) Obtain highest leadership acceptance of the model.
  - (2) Define the ACE financial and clinical outcomes and review performance quarterly.
  - (3) Meet with nurses and physicians at each hospital to identify their most difficult problems in caring for older hospitalized patients.
  - (4) Develop philanthropic support and relationships to assist with ACE dissemination.
  - (5) Develop information technology tools (ACE Tracker).
  - (6) Develop standardized ACE order sets for older adults admitted to all hospitals and standardized nursing care plans for care of older hospitalized patients.
  - (7) Develop ACE champions at each hospital to serve on each hospital's ACE advisory team.
  - (8) Place future ACE program leaders on current ACE advisory teams to act as seeds for future expansion.
  - (9) Communicate regularly to leadership groups, departments, and medical staff using evidence-based approach to ACE.
  - (10) Develop tools to communicate ACE concepts (ACE Cards).
  - (11) Bring all ACE teams together twice per year for continuing education with national expert speakers.
-

# Lack of standardization

- In assessment approach
  - Assessment tools generally focus on single domains, such as cognitive functioning or mood, and lack comprehensiveness and standardization.
  - InterRAI (InterRAI Home Care instrument) an attempt to overcome this. Advantages: standardize assessment and data collection and allow comparison, using international data sharing.
- In care approach
  - differences in the delivery of CGA, and variations in who performs the CGA and in which settings.

# Development and validation of a Hospital Frailty Risk Score focusing on older people in acute care settings using electronic hospital records: an observational study



**Figure 1: Relation between Hospital Frailty Risk Scores and outcomes after emergency admission in the national validation cohort**

The vertical dashed lines show thresholds for categorising patients as low frailty risk (score <5), intermediate frailty risk (score 5-15), or high frailty risk (score >15).

# Considerazioni

- CGA è datato ma ancora valido (efficace su alcuni outcomes, non su altri)
  - Personalmente credo sia un bene
- In quanto metodo di lavoro può essere insegnato ai futuri medici e infermieri ed esportato in realtà non geriatriche
- La penuria di specialisti in geriatria impone un ripensamento delle modalità di diffusione della CGA
- La digitalizzazione dei dati sanitari potrà, a mio avviso, permettere una rapida diffusione del modello