11:30-13:30 **Sessione istituzionale**

LA RIFORMA DEL SISTEMA SANITARIO NAZIONALE E LA LEGGE DELEGA NON AUTOSUFFICIENZA

Conducono: *Cristiano Gori (Trento), Andrea Ungar (Firenze)*

Tavola Rotonda

PROPOSTE OPERATIVE DI CAMBIAMENTO

- Ospedale a domicilio
  Mario Bo (Torino)

Dott. Enrico BRUNETTI
AOU Città della Salute e della Scienza di Torino

Ospedalizzazione a Domicilio

1984

Nel mese di Luglio le autorità sanitarie del Comune di Torino decidono di dare inizio ad un progetto sperimentale di ospedalizzazione a domicilio (Delibera n.1134/41/84).

Dall'Ottobre 1985 il progetto diventa operativo.

OBIETTIVI

1. Essere un'alternativa al ricovero ospedaliero per pazienti anziani fragili
2. Consentire dimissioni ospedaliere precoci e protette
3. Migliorare la qualità di vita dei pazienti e dei caregiver

«IDEAL» HOSPITAL-AT-HOME SCHEME

Would produce outcomes as good as inpatient care

Be no more expensive

Be acceptable to patients and carers

Corrado O. Age Ageing 2000

Pazienti con **patologie** acute o croniche riacutizzate che necessitano di **cure ospedaliere** senza monitoraggio continuo disponibilità di un **caregiver 24/7**

Equipe multidisciplinare: 5 geriatri, 1 coord. infermieristico, 1 inf. case manager, 12 infermieri/e, ass. sociale, 2 fisioterapiste

Ogni giorno, 8.00-20.00, visite in emergenza garantite entro 30 minuti dalla chiamata; emergenze notturne gestite a casa da EMT.

Aree di intervento: BPCO riacutizzata e infezioni, HF scompensata, alterazioni idroelettrolitiche/metaboliche, BPSD scompensati in DNC, ATB terapia protratta, pazienti oncoematologici

DGR Piemonte 16 marzo **2010**, n. 85-13580

J Am Geriatr Soc 52:278–283, 2004.

Home Hospitalization Service for Acute Uncomplicated First Ischemic Stroke in Elderly Patients: A Randomized Trial

Nicoletta Aimonino Ricauda, MD, Mario Bo, MD, Mario Molaschi, MD, Massimiliano Massaia, MD, Dominga Salerno, MD, Dario Amati, MD, Vittoria Tibaldi, MD, and Fabrizio Fabris, MD

PARTICIPANTS: One hundred twenty elderly patients admitted to the emergency department of the hospital with first acute ischemic stroke were randomized to home treatment from a geriatric home hospitalization service (GHHS) or to GMW treatment.

MEASUREMENT: Main outcome was cumulative survival at 6 months in the two groups. Residual functional impairment, neurological deficit, depression, morbidity, and admission to rehabilitation and long-term care facilities were considered as secondary outcomes in survivors.

Table 2. Six-Month Clinical Variables in Patients Admitted to Geriatric Home Hospitalization Service (GHHS) and to General Medical Ward (GMW)

Variable	GHHS (n = 39)	GMW (n = 36)	*P*-value
	Median (Interquartile Range)		
Activities of daily living scale score (range 0–6)	4 (2–5)	4 (2–6)	.57*
Functional Impairment Measure score (range 28–126)	106.0 (67.5–121.5)	96.5 (56.5–116.5)	.26*
Canadian Neurological Scale score (range 0–10)	10.0 (8.5–10.0)	9.5 (7.0–10.0)	.39*
National Institutes of Health Stroke Scale score (range 0–36)	8 (4–26)	8 (6–24)	.37*
Geriatric Depression Scale score (range 0–30)	10 (5–15)	17 (13–20)	<.001*

HEALTH CARE REFORM

Hospital at Home for Elderly Patients With Acute Decompensation of Chronic Heart Failure

A Prospective Randomized Controlled Trial

Vittoria Tibaldi, MD, PhD; Gianluca Isaia, MD; Carla Scarafiotti, MD; Federico Gariglio, MD; Mauro Zanocchi, MD; Mario Bo, MD, PhD; Serena Bergerone, MD; Nicoletta Aimonino Ricauda, MD

Re-hospitalization

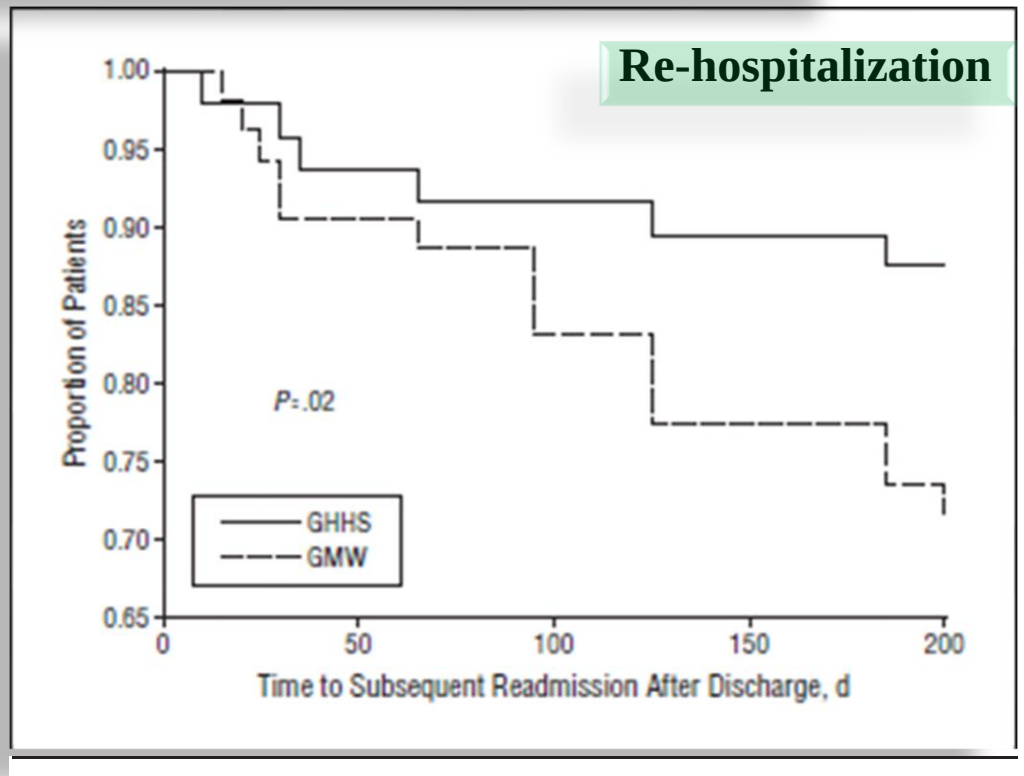


Figure 2. Subsequent hospital admission–free period in the geriatric home hospitalization service (GHHS) and general medical ward (GMW) groups at 6-month follow-up.

Survival

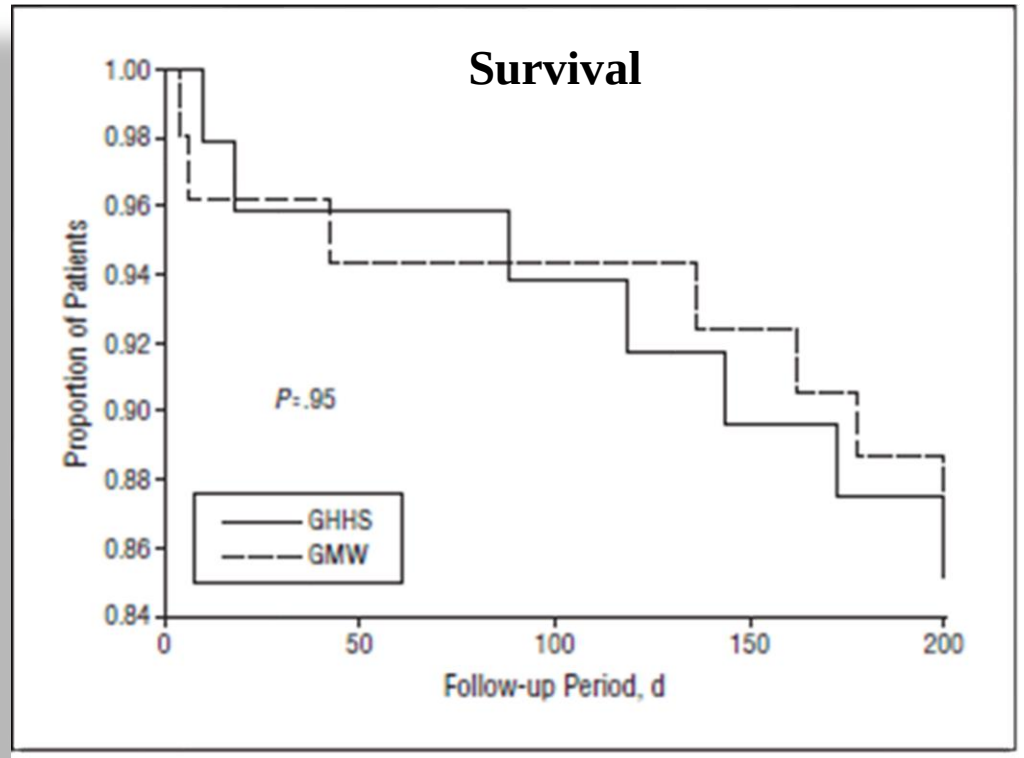


Figure 3. Mortality-free period in the geriatric home hospitalization service (GHHS) and general medical ward (GMW) groups at 6-month follow-up.

J Am Geriatr Soc 56:493–500, 2008.

Substitutive "Hospital at Home" Versus Inpatient Care for Elderly Patients with Exacerbations of Chronic Obstructive Pulmonary Disease: A Prospective Randomized, Controlled Trial

Nicoletta Aimonino Ricauda, MD, Vittoria Tibaldi, MD, PhD,* Bruce Leff, MD,† Carla Scarafiotti, MD,* Renata Marinello, MD,* Mauro Zanocchi, MD,* and Mario Molaschi, MD**

In conclusion, this study shows that a mature, physician-led, substitutive clinical unit model of hospital-at-home care for elderly patients with acute exacerbations of COPD is feasible and is associated with reductions in hospital readmissions and better patient outcomes at 6 months.

Table 4. Clinical Outcomes at 6-Month Follow-Up

Characteristic	Geriatric Home Hospitalization Service (n = 52)	General Medical Ward (n = 52)	*P*-Value
Readmission to hospital, n (%)	17 (42)	34 (87)	.001
Mortality, n (%)	9 (17)	12 (23)	.72
Number of days between discharge and readmission, mean ± SD	78 ± 55	37 ± 29	.005
Change in Geriatric Depression Scale score, mean ± SD	−3.1 ± 4.7	0.7 ± 3.2	.00
Change in Nottingham Health Profile score, mean ± SD	3.6 ± 7.9	0.8 ± 4.5	.04
Change in Activities of Daily Living score, mean ± SD	0.12 ± 0.64	0.08 ± 0.73	.81
Change in Instrumental Activities of Daily Living score, mean ± SD	−1.4 ± 2.6	−0.6 ± 1.9	.10
Change in Mini-Mental State Examination score, mean ± SD	−0.4 ± 4.0	−0.5 ± 1.8	.88
Change in Mini Nutritional Assessment score, mean ± SD	−1.7 ± 2.9	−1.2 ± 4.1	.59
Change in Relatives' Stress Scale score, mean ± SD	4.6 ± 5.6	2.6 ± 6.1	.16
Satisfaction very good/excellent at discharge, n (%)	49 (94)	46 (88)	.83

Delirium in elderly home-treated patients: a prospective study with 6-month follow-up

AGE (2009) 31:109–117

Gianluca Isaia · Marco A. Astengo · Vittoria Tibaldi · Mauro Zanocchi · Benedetta Bardelli · Rossella Obialero · Alessandra Tizzani · Mario Bo · Corrado Moiraghi · Mario Molaschi · Nicoletta Aimonino Ricauda

Characteristic	GHHS (n=84)	GHW (n=60)	P-value
Age (years) (mean ± SD)	86.1±5.8	84.7±4.9	0.11

Table 2 Relative risk of developing delirium according to setting of care, previous history of delirium and gender (logistic regression analysis). *β*Regression coefficient, *CI* confidence interval, SE standard error, *RR* relative risk

	β	S.E.	RR (CI)	P-value
GHW vs GHHS	1.35	0.65	3.84 (1.8–3.7)	0.04
Previous history of delirium: positive vs negative	1.53	1.04	4.64 (0.6–35.7)	0.14
Gender: male vs female	1.02	0.61	2.77 (0.8–9.1)	2.77

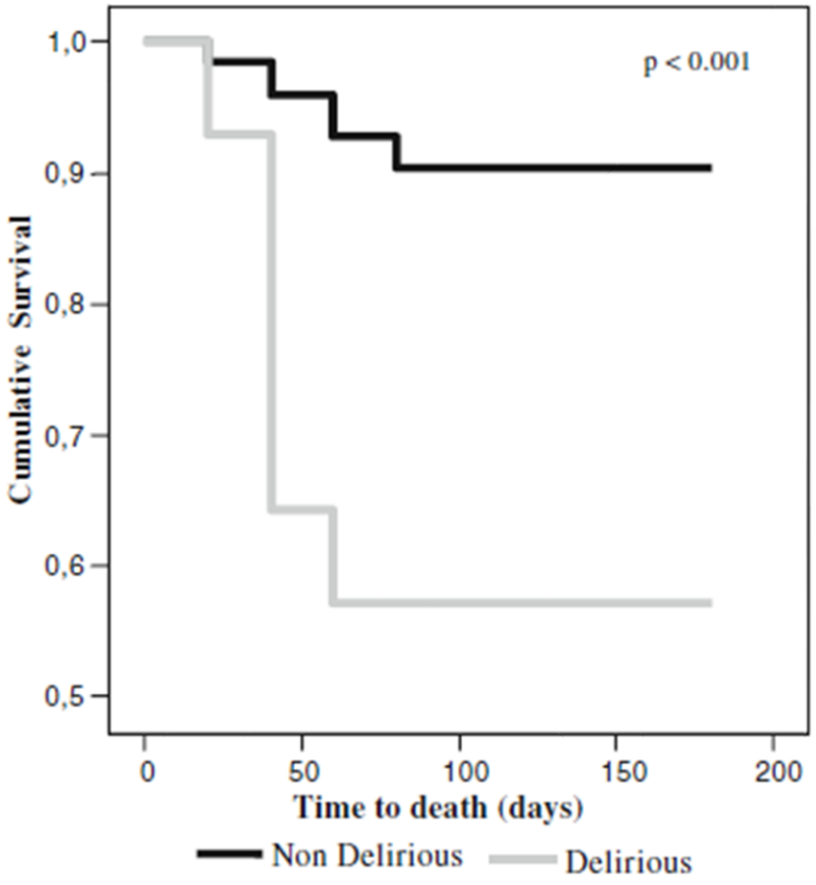


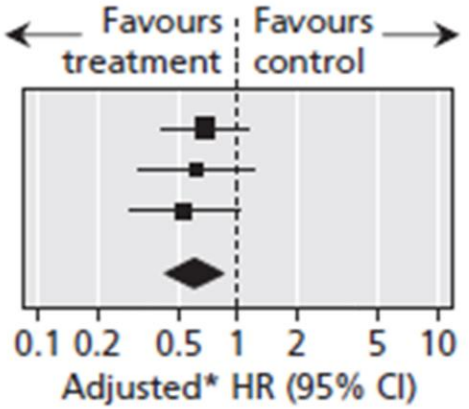
Fig. 1 Kaplan-Meier survival curves for individuals with and without delirium, 6 months after discharge

Avoiding hospital admission through provision of hospital care at home: a systematic review and meta-analysis of individual patient data

CMAJ 2009;180(2):175-82

Sasha Shepperd MSc DPhil, Helen Doll MSc DPhil, Robert M. Angus MBChB, Mike J. Clarke MA DPhil, Steve Iliffe BSc MBBS, Lalit Kalra MD PhD, Nicoletta Aimonio Ricauda MD, Vittoria Tibaldi MD PhD, Andrew D. Wilson MD

Study	Hospital care at home *n/N*	Inpatient care *n/N*	Adjusted* HR (95% CI)
Wilson et al.[20]	30/101	35/96	0.68 (0.42–1.12)
Kalra et al.[12]	15/141	24/149	0.62 (0.32–1.18)
Ricauda et al.[17]	18/60	24/60	0.54 (0.29–1.01)
Overall	63/302	83/305	0.62 (0.45–0.87)



6-month mortality

Figure 3: Fixed-effects meta-analysis of individual patient data: mortality at 6 months. Adjusted for age and sex. The *N* values represent the numbers of participants for which the trialists provided follow-up data (at our request); in some cases these values were less than the numbers of participants initially recruited (as stated in Appendix 2, available at www.cmaj.ca/cgi/content/full/180/2/175/DC2). Note: CI = confidence interval, HR = hazard ratio.

ACUTE ISCHEMIC STROKE IN ELDERLY PATIENTS TREATED IN HOSPITAL AT HOME: A COST MINIMIZATION ANALYSIS

AUGUST 2005–VOL. 53, NO. 8 JAGS

Nicoletta Aimonino Ricauda, MD
Vittoria Tibaldi, MD
Renata Marinello, MD
Mario Bo, MD
Gianluca Isaia, MD
Carla Scarafiotti, MD
Mario Molaschi, MD
Department of Medical and Surgical Disciplines
Geriatric Section
University of Torino
Torino, Italy

RESULTS

In the GMW, the mean length of hospital stay was 22.2 days, whereas in the GHHS, it was 38.1 days. The mean total cost was $6,413.5 for each patient treated at home and $6,504.8 for patients treated in the hospital. On a cost per patient per day basis, GHHS costs were $163.0 ± 20.5, compared with $275.6 ± 27.7 for GMW patients ($P < .001$).

Considering the length of stay, it is important to highlight that all patients discharged from GHHS had completed their rehabilitation program at home, whereas 50% of GMW patients continued their rehabilitation program in rehabilitation facilities after hospital discharge, with an average daily cost of $162.5 for a period of approximately 24.2 ± 7.6 days.

Costo giornaliero di ricovero (2014)

UTI	💰💰💰💰💰💰💰💰💰💰💰💰💰💰	1500€
Ematologia	💰💰💰💰💰💰💰💰💰💰	1086€
MedUrg	💰💰💰💰💰💰💰	850€
Medicina	💰💰💰💰	400€
OAD	💰	155€

Leong MQ, *et al. BMJ Open* 2021;**11**:e043285. doi:10.1136/bmjopen-2020-043285

Comparison of Hospital-at-Home models: a systematic review of reviews

For suitable patients **HaH results in similar or improved clinical outcomes** compared with inpatients treatment…

JAMA Network Open. 2021;4(6):e2111568. doi:10.1001/jamanetworkopen.2021.11568

Original Investigation | Health Policy

Hospital-at-Home Interventions vs In-Hospital Stay for Patients With Chronic Disease Who Present to the Emergency Department

A Systematic Review and Meta-analysis

Results suggest that **HaH interventions represent a viable substitute to an in-hospital stay** for patients with chronic diseases who present to ED …..

Original Investigation | Health Policy

JAMA Network Open. 2023;6(9):e2334936.

Economic Evaluation of Novel Models of Care for Patients With Acute Medical Problems

This study found that the **HaH** and the Ambulatory Care Team (ACT) models **decreased the overall personnel cost of care** …reorganizing hospital resources may help hospitals reap the benefits of reduced hospital-acquired infections, improved patient recovery and reduced hospital bed occupancy rates. ..

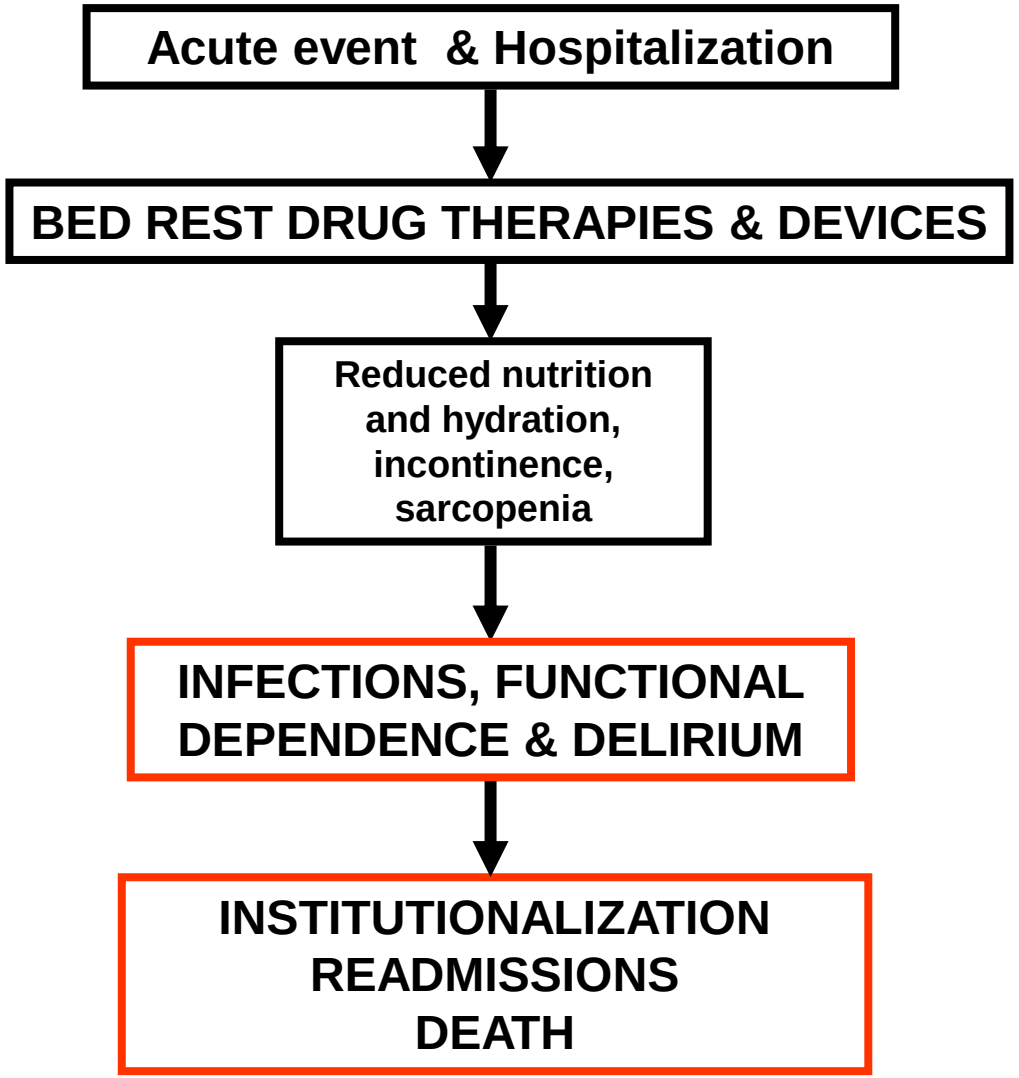
Ko SQ, *et al. BMJ Open* 2023;**13**:e073692.

BMJ Open

Proportion of medical admissions that may be hospitalised at home and their service utilisation patterns: a single-centre, descriptive retrospective cohort study in Singapore

Up to 53% of medical admissions receive care elements that HaH programmes could provide….applying estimates of functional limitations and patient preferences we **propose a target of 18% of inpatient medical admissions to be substituted by HaH services..**

Why we need Hospital at Home, now more than ever



"Acute Hospital Care for Frail Older Patients", in Hazzard WR, Andres R, Bierman EL, Blass JP "Principles of Geriatric Medicine and Gerontology", 2nd edition

IMPLICAZIONI CLINICHE DELLA FRAGILITA' IN PAZIENTI ANZIANI RICOVERATI IN REPARTO PER ACUTI E IN OSPEDALIZZAZIONE A DOMICILIO

	TOTALE (113)	REPARTO (84)	OAD (29)	P value
ETA'	86 (81-90)	86 (80-89)	87 (81-91)	0.218
Femmine	64 (56.6%)	47 (55.9%)	17 (58.6%)	0.803
BRASS =>20	5 (4.4%)	1 (1.2%)	**4 (13.8%**	**<0.001**
ESS	16 (14-18)	16 (14-19)	**16 (11-15)**	**<0.001**
ADL Katz *mediana*	1 (0-4)	0.5 (0-2)	**4 (0-5)**	**<0.001**
IADL *mediana*	3 (1-6) 3.3±2.7	4 (2-6) 4±2.7	**1 (0-2) 1.4±1.6**	**<0.001**
CFS *mediana*	6 (4-6)	5 (4-6)	**7 (6-7)**	**<0.001**
MPI rischio alto	30 (26.8%)	11 (13.2%)	**19 (65.5%)**	**<0.001**
Durata ricovero	10 (7-19)	10 (7-17)	15 (10-23)	0.007
Outcome composito*	37 (32.7%)	32 (38.1%)	**5 (17.2%)**	**0.039**

***decesso, delirium, cadute, LDD, infezioni**

Quindi miglior cura a minori costi nei pazienti «fragili»