



SOCIETÀ ITALIANA
DI GERONTOLOGIA
E GERIATRIA

60° CONGRESSO NAZIONALE

NAPOLI 25-28 *Novembre* 2015

La frattura di femore nel grande anziano: criticità gestionali tra ospedale e territorio

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TABLE I—*Admission rates and durations of stay for fractures of femoral neck in 14 regions of England and in Wales in 1968 and 1977. Regions were regional hospital boards in 1968 but regional health authorities in 1977. Admission rates given by region of residence for both years*

Region	Admission rates/10 ¹ population		Mean duration of stay (days)	
	1968	1977	1968	1977
Northern	6.6	8.0	38.9	40.1
Yorkshire	4.7	8.3	43.8	35.8
Trent	5.1	6.9	43.0	38.1
East Anglian	4.4	8.6	28.5	35.2
North-west Thames ..	5.5	6.6	40.7	33.2
North-east Thames ..	3.7	7.8	47.7	52.7
South-east Thames ..	5.3	10.5	31.3	33.7
South-west Thames ..	6.4	11.5	41.1	35.7
Wessex	5.1	8.1	29.4	30.5
Oxford	5.0	5.9	50.3	23.0
South Western	5.2	11.0	42.9	43.7
West Midlands	4.9	7.3	38.0	32.3
Mersey	3.4	6.3	58.5	49.5
North Western	4.4	5.9	50.4	42.2
Wales	6.9	10.9	34.5	34.0
England and Wales	5.1	8.2	41.0	37.5

Fracture of neck of the femur:
changing incidence

A FENTON LEWIS

BRITISH MEDICAL JOURNAL
VOLUME 283 7 NOVEMBER 1981

1217- 1220

TABLE II—*Expectation of life in years showing change over 25 years (home population of England and Wales)*

Age (years)	Males			Females		
	1948-50	1973-5	increase over 25 years	1948-50	1973-5	increase over 25 years
0	66.3	69.5	4.8	71.0	75.7	6.6
65	12.2	12.4	1.6	14.6	16.4	12.3
75	7.2	7.4	2.8	8.5	9.8	15.3
85	4.2	4.6	9.5	4.8	5.6	16.7

Orthogeriatric rehabilitation ward in Nottingham: a preliminary report

In October 1978 an 18-bed orthogeriatric rehabilitation ward was opened in a hospital three miles away from the acute hospital. This orthogeriatric ward was a collaborative project between the orthopaedic and geriatric departments with combined ward rounds and a close working relationship. It was also an attempt to put the available resources of both departments to the most effective use.

Number of female patients admitted with fractured neck of femur to the orthogeriatric ward in 1979 compared with that for all the Nottingham hospitals in 1977

	1977		1979	
	No	%	No	%
Patients admitted	289		482	
Discharged				
Home	158	54.6	294	61.0
To part III accommodation	28	9.7	44	9.1
To permanent hospital care	31	10.7	47	9.8
Died	72	25.0	97	20.1
Average length of stay (days)	66		48	

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Neck of Femur Fractures in Patient's Aged More Than 85 Years—are They a Unique Subset?

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Geriatric Orthopaedic Surgery
& Rehabilitation

2(4) 123-127

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DOI: 10.1177/2151458511414562

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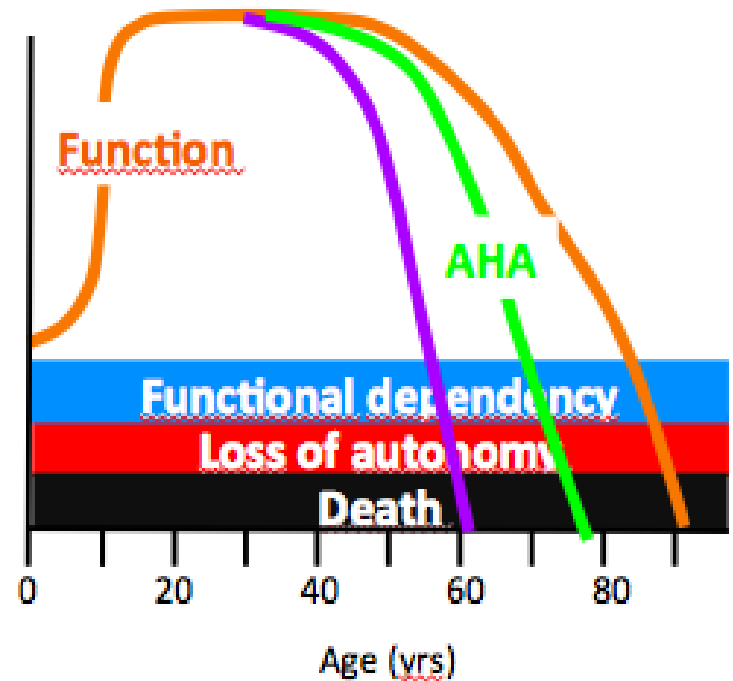


Results. A total of 699 patients with a median age of 78 in the 65 to 84 cohort were compared with 523 patients with a median age of 88 in the 85+ cohort. Despite a dedicated orthogeriatric service and no difference in time to surgery between the 2 groups, the 30-day and 1-year mortality rates were significantly higher in the 85+ cohort at 10% and 30%, respectively, compared with 5% and 19% in the younger patient group. In our 85+ group, 34% had evidence of significant measured cognitive impairment compared to only 19% in the 65 to 84 group ($P < .001$). The length of hospital inpatient stay was also longer in the 85+ cohort with a median of 20 days compared to 16 days in the younger cohort ($P = .001$). In the 85+ cohort, 60% of patients were discharged back to their usual (preinjury) place of residence compared to 72% in the 65 to 84 cohort ($P = .001$). **Conclusions.** Patients in 85+ group presenting with an NOF fracture represent a unique high-risk patient group. Despite adherence to published key principles of care, this group is at higher risk and as such merits focused clinical attention, with adequate patient and family member counseling with regard to prognosis and overall expectation.

Chronological age is not a precise indicator of functional decline

(Bergman,H.,Ferrucci,L.,Guralnik,et al. 2007,
Frailty: an emerging research and clinical
paradigm: issues and controversies.
J.Gerontol.A Biol.Sci.Med.Sci. 62, 731-737)

The changes that accompany aging depend on genetic and environmental factors, and are lifestyle and life event related (WHO, 1999). Therefore, while some may remain healthy and resilient in later life, others may become increasingly vulnerable to internal and external stressors.



J.Bousquet et al, Int J Nutr Ageing, in press

The latter refers to a state of frailty.

Tiago Coelho et al. Front. Aging Neurosci. 7:56. doi: 10.3389/fnagi.2015.00056, e pub 21 Apr 2015

RESEARCH ARTICLE

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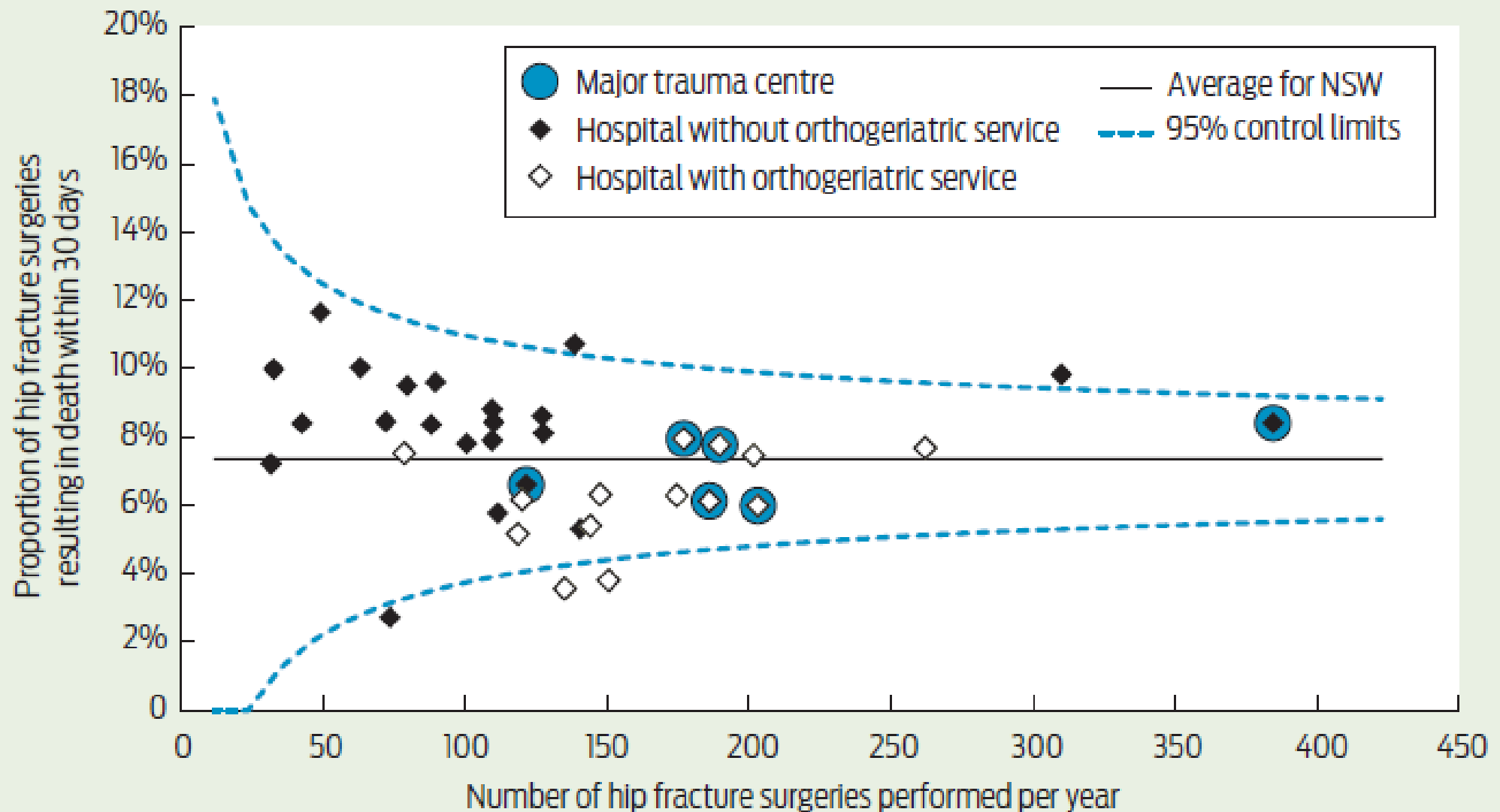
Older hip fracture patients: three groups with different needs

Anette H Ranhoff^{1*}, Kristin Holvik², Mette I Martinsen², Kirsti Domaas², Ludvig F Solheim²

Table 3 Characteristics of community-dwelling patients

Characteristic	All community-dwelling (n = 769)	Community-dwelling who fell outdoors (n = 170)	Community-dwelling who fell indoors (n = 599)	p
Age, years, mean (range)	84.3 (65-100)	82.7 (66-100)	84.8 (65-100)	0.001
Gender, n (%) female	584 (75.9)	110 (64.7)	474 (79.1)	< 0.001
ASA score, n (%) ≥3	368 (47.9)	52 (30.6)	316 (52.8)	< 0.001
BMI, n (%) < 20 kg/m ² (n = 520) ¹	129 (24.8)	24 (19.4)	105(26.5)	0.11
Barthel Index pre-fracture < 19, n (%) (n = 493) ²	203 (41.2)	23 (22.3)	180 (46.2)	< 0.001
Barthel Index at discharge < 19, n (%) (n = 316) ³	265 (83.9)	40 (59.7)	225 (90.4)	< 0.001
Type of medical complication observed during the stay, n (%)				
Need for blood transfusion	207 (26.9)	34 (20.0)	173 (28.9)	0.021
Delirium (positive CAM)	169 (22.0)	31 (18.2)	138 (23.0)	0.18
Urinary tract infection	161 (20.9)	19 (11.2)	142 (23.7)	< 0.001
Pneumonia	88 (11.4)	12 (7.1)	76 (12.7)	0.042
Fall	59 (7.7)	12 (7.1)	47 (7.8)	0.73

3 Adjusted 30-day mortality rates after hip fracture surgery in public hospitals according to presence or absence of an orthogeriatric service and by major trauma centre status, New South Wales, July 2009 – June 2011*



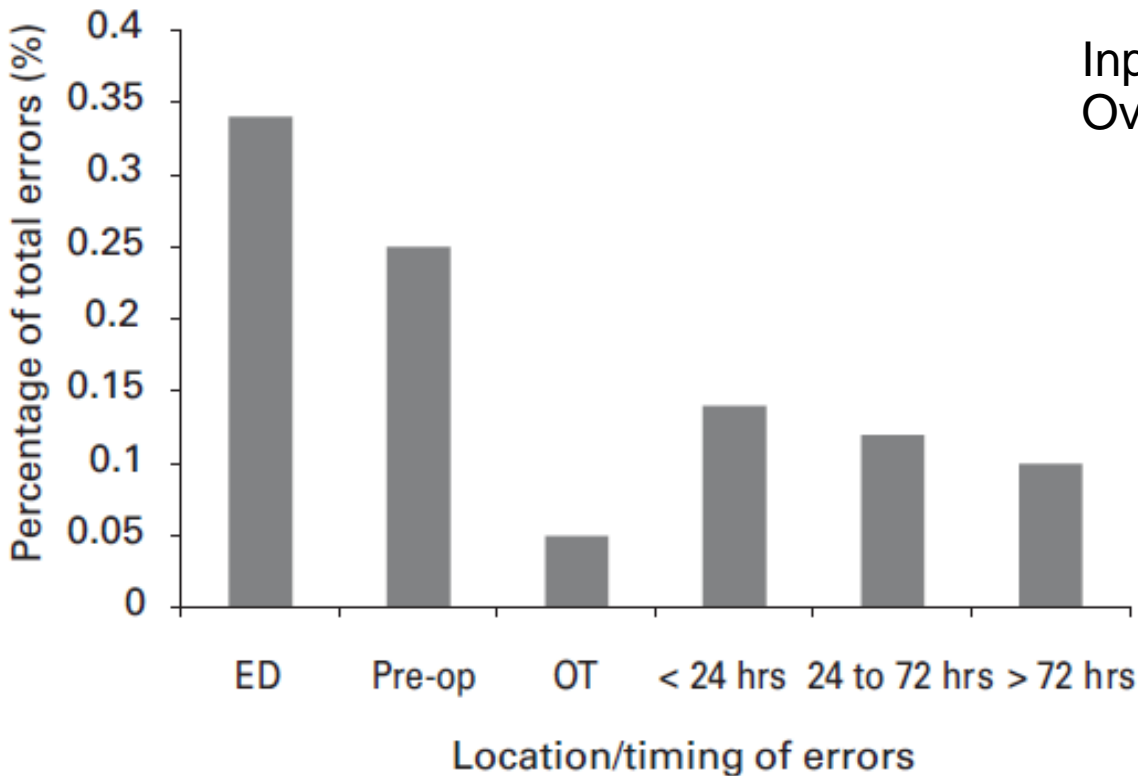
*One hospital without an orthogeriatric service was omitted from the analysis due to low number of surgeries.

Preventable mortality in geriatric hip fracture inpatients

John Hunter Hospital, Newcastle, Australia

Table I. Reviewer errors and death preventability (shown as mean values with ranges)

	Errors per control	Errors per death	Mortality preventability (n = 80)		
			Unpreventable	Potentially preventable	Probably preventable
Physician	0.55 (0 to 1)	0.85 (0 to 3)	11	6	3
Geriatrician	1.10 (0 to 3)	2.75 (0 to 5)	2	11	7
Anaesthetist	0.70 (0 to 4)	2.15 (0 to 4)	9	8	3
Orthopaedic Surgeon	0.55 (0 to 2)	1.85 (0 to 4)	13	7	0

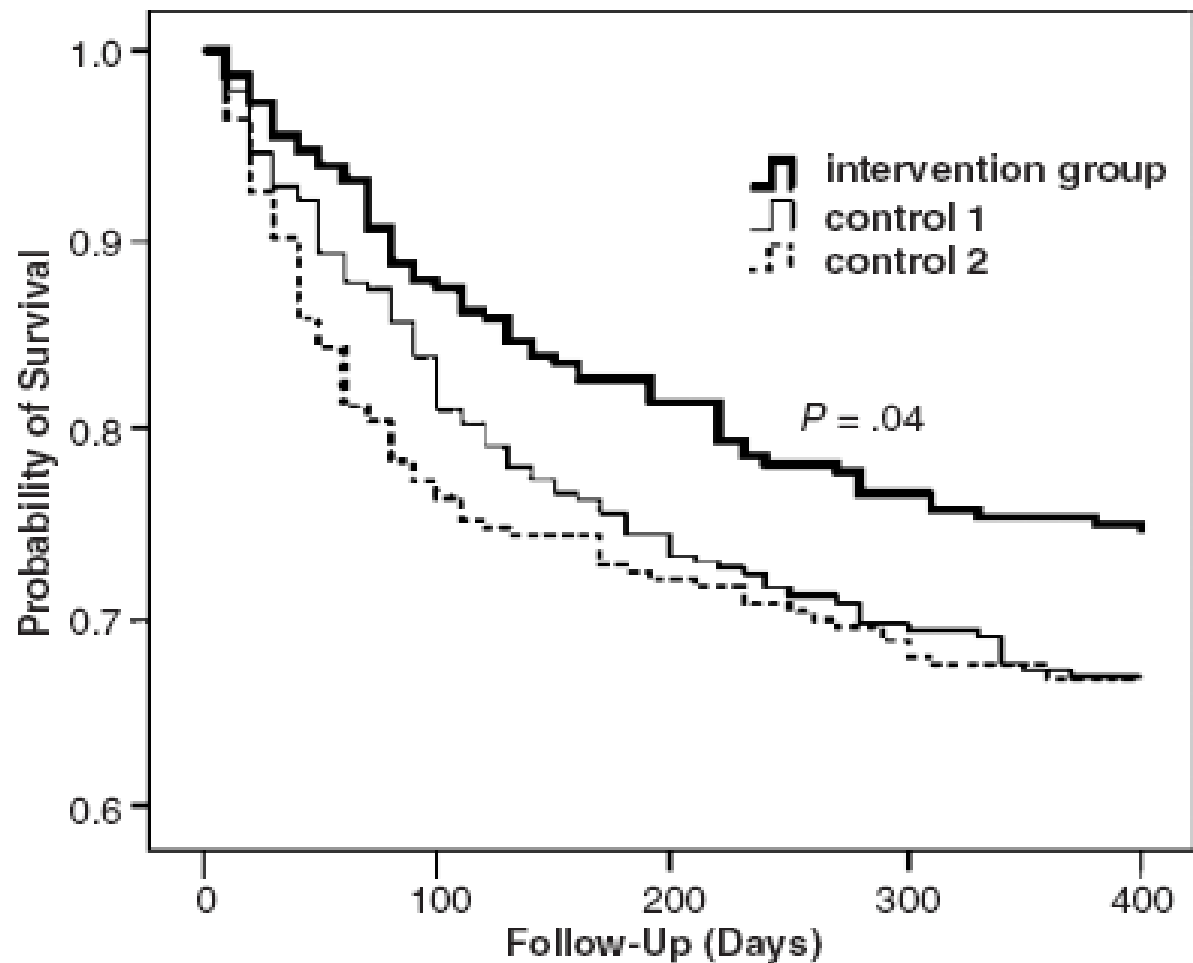


Inpatients death rate

Overall death rate 30 days

4,6%

8,4%



PROGETTO ORTOGERIATRICO

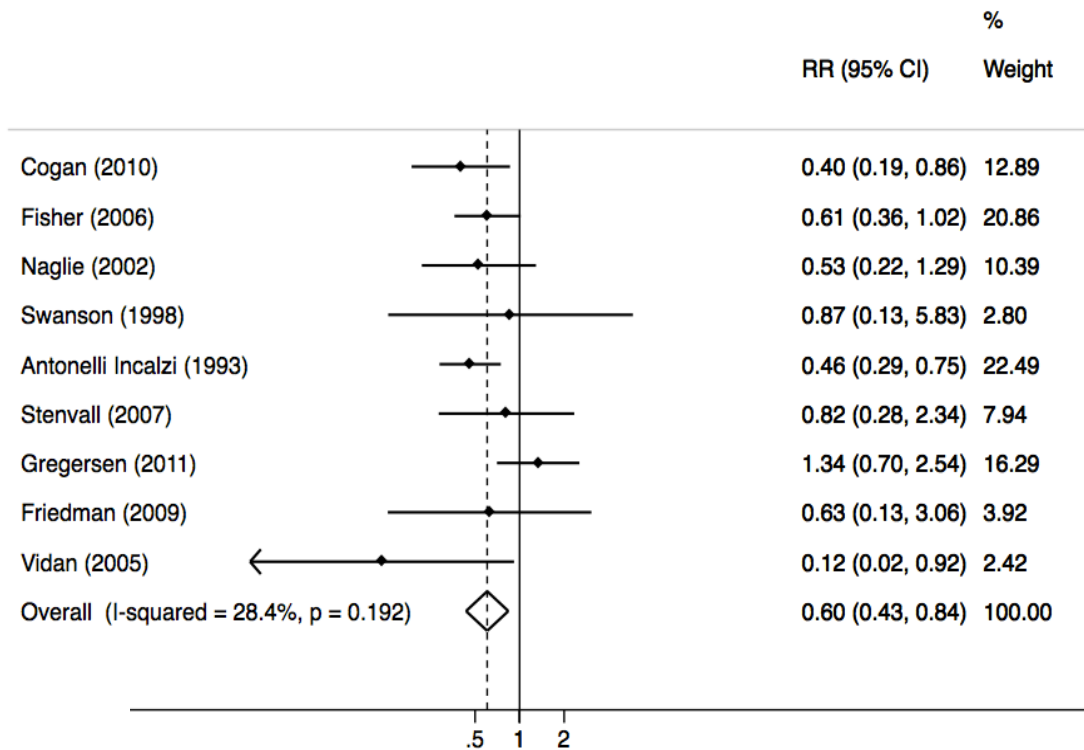
La curva di sopravvivenza

Figure 1. Survival curves of patients in the intervention group and the two control groups defined in the text. The P -value represents the global comparison of the three curves. Intervention group versus control 1, $P = .01$; intervention group versus control 2, $P = .04$; control 1 versus control 2, $P = .55$.

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Ortho-Geriatric Care Models and Outcomes in Hip Fracture Patients: A Systematic Review and Meta-Analysis

In-Hospital Mortality



Long-Term Mortality

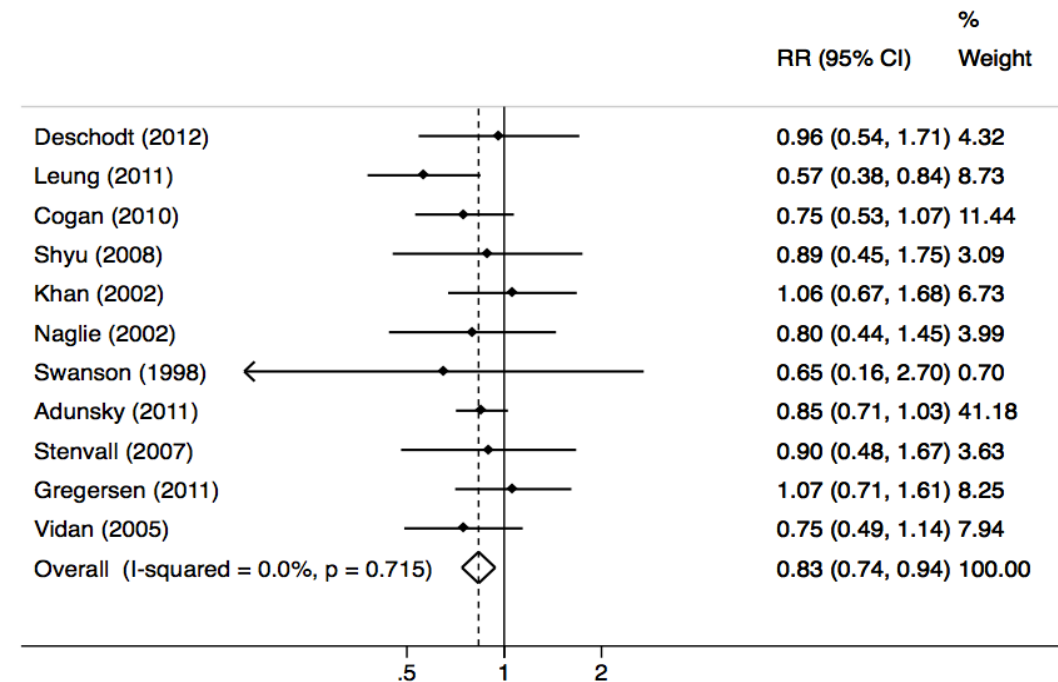


Table 2. Outcomes in the Geriatric Fracture Center (GFC) and Usual Care

Outcome	Unadjusted			Adjusted ^a	
	GFC (n=193)	Usual Care (n=121)	P Value	Coefficient ^b (95% Confidence Interval)	P Value
Time to surgery, mean (SD), h	24.1 (17.0)	37.4 (63.8)	.007	-12.93 (-2.19 to -23.68)	.02
Restraint use, %	0	14.1	<.001	... ^c	... ^c
Length of stay, mean (SD), d	4.6 (3.3)	8.3 (6.3)	<.001	-3.74 (-2.56 to -4.91)	<.001
In-hospital mortality, %	1.6	2.5	.68	0.17 (0.02 to 1.14)	.07
30-d Readmission rate, %	9.8	13.2	.35	0.52 (0.23 to 1.18)	.12
Complications overall, %	30.6	46.3	.005	0.26 (0.14 to 0.47)	<.001
Delirium, %	24.4	32.2	.13	0.27 (0.13 to 0.53)	<.001
Postoperative infection, % ^d	2.3	19.8	<.01	0.04 (0.01 to 0.13)	<.001
Renal insufficiency, %	6.2	7.4	.67	0.70 (0.25 to 1.97)	.50
Bleeding, % ^d	0	3.3	.02	... ^c	... ^c
Cardiac, % ^d	1.0	7.4	.004	0.15 (0.03 to 0.83)	.03
Hypoxia, %	6.7	14.1	.03	0.22 (0.09 to 0.55)	.001
Thromboembolism, %	0.5	5.0	.01	0.07 (0.01 to 0.77)	.03
Stroke, %	0.5	0	>.99	... ^c	... ^c

^a Outcomes are adjusted for age, race, sex, dementia, Charlson comorbidity score excluding dementia, and residence prior to admission (community vs not). Coefficients assess the GFC risk, with usual care as the reference. Continuous outcomes (time to surgery and length of stay) are evaluated via linear regression modeling. Dichotomous outcomes are evaluated via logistic regressions.

^b Coefficient denotes regression coefficients for linear regressions (outcomes of time to surgery and length of stay) and odds ratios for logistic regressions (all other outcomes).

^c Unstable due to one site not experiencing outcome

^d Postoperative infection included urinary tract infection, pneumonia, and surgical site infection. Bleeding included gastrointestinal, retroperitoneal, intracranial bleeding, hemorrhagic stroke, or wound hematoma. Cardiac included any new arrhythmia, acute myocardial infarction, or congestive heart failure.

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*

Lancet 2015; 385: 1623–33

Interpretation

Our trial showed that patients aged 70 years or more with hip fractures have significant and clinically important improvements in mobility, activities of daily living, and quality of life when they receive comprehensive geriatric assessment and care in a specialised orthogeriatric unit, compared with usual care on an orthopaedic trauma ward. Comprehensive geriatric care is also more cost effective than orthopaedic care. The strengths of the study were the size, the controlled design, and the care of the participants, and the main limitations are the absence of masking and the single-centre location.

To our knowledge this is the first time such an effect has been shown in a large, prospective, randomised, controlled trial. Our results are in accordance with findings from previous non-randomised studies of hip fractures and studies of acutely sick, frail, older patients without hip fractures, for which comprehensive geriatric assessment and care were implemented in dedicated geriatric wards.



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National Hip Fracture Database

National report 2013

Standard	2009	2010	2011	2012	2013
1. Admission to orthopaedic ward within 4 hours	N/A	55%	56%	52%	50%
2. Surgery within 48 hours and during working hours	75%	80%	87%	83%	86%
3. Patients developing pressure ulcers	N/A	6%	3.7%	3.7%	3.5%
4. Pre-operative assessment by an orthogeriatrician	24%	31%	37%	43%	49%
5. Discharged on bone protection medication	N/A	57%	66%	69%	69%
6. Received a falls assessment prior to discharge	44%	63%	81%	92%	94%



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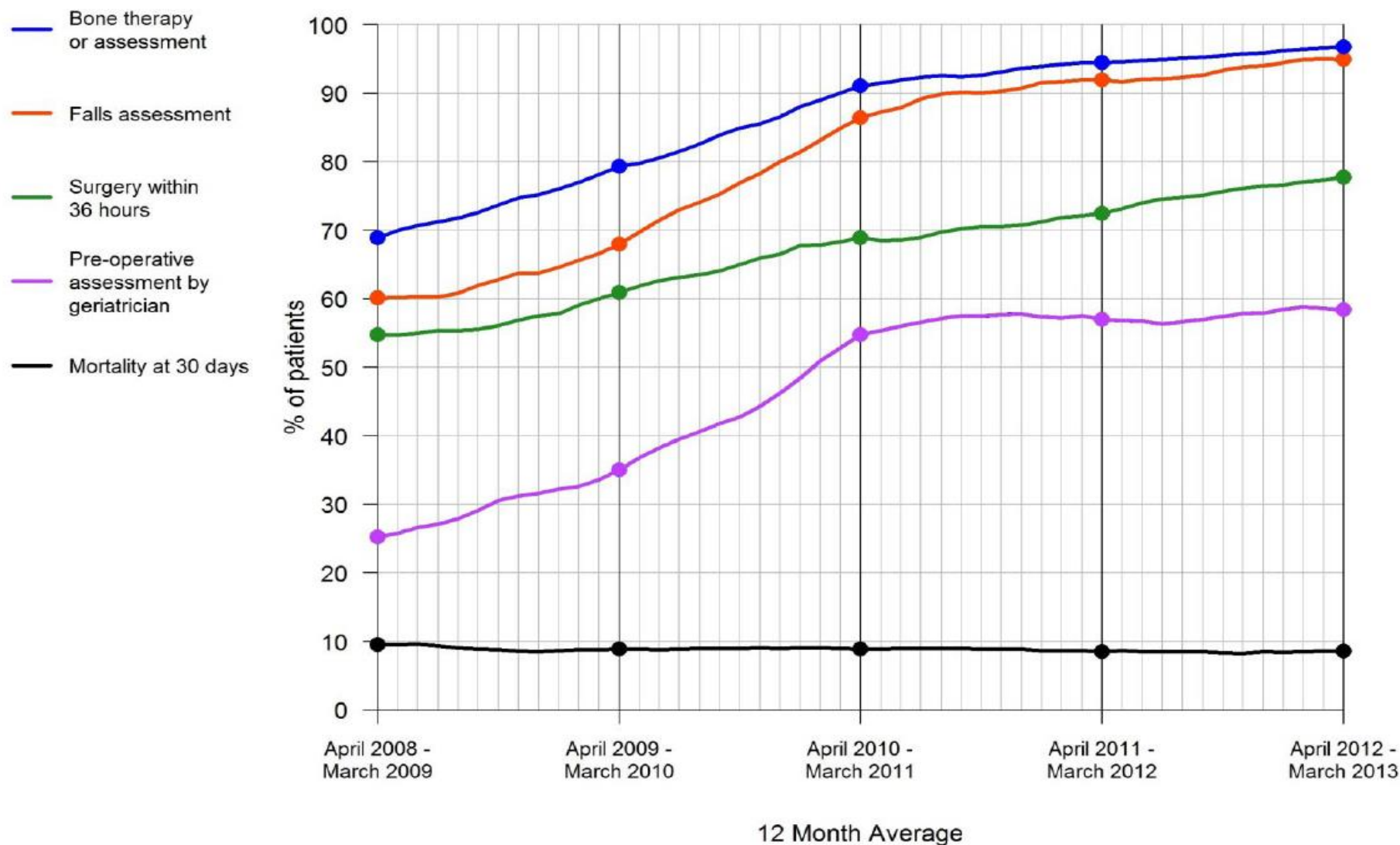


Healthcare Quality
Improvement Partnership

National Hip Fracture Database

National report 2013

Trends in care, secondary prevention and mortality: April 2008 to March 2013



Data taken from 46794 patients from 27 hospitals with good data completion and case ascertainment over the period 1st April 2008 - 31st March 2013



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National Hip Fracture Database

National report 2013

Best Practice Tariff (BPT)

The NHFD – with its extensive coverage and detailed documentation of casemix, care and outcomes – prompted the selection of hip fracture as a topic for the Department of Health's BPT initiative, which applies only in England. BPT offers additional payment for cases the care of which meets agreed

standards (surgery within 36 hours; shared care by surgeon and geriatrician; care protocol agreed by geriatrician, surgeon and anaesthetist; pre/post operative cognitive function assessment; perioperative assessment by geriatrician; geriatrician-led multi-disciplinary rehabilitation; secondary prevention including falls and bone health assessment) that are monitored by the NHFD.

2010/11	Eligible hospitals	Hospitals achieving BPT	Number of pts submitted	Number of pts achieving BPT
Qtr 1	162	92 (57%)	9455	2303 (24%)
Qtr 2	165	105 (64%)	11839	3328 (28%)
Qtr 3	163	111 (68%)	13136	4502 (34%)
Qtr 4	167	118 (71%)	12680	4671 (37%)

2011/12

Qtr 1	170	131 (77%)	13070	5210 (40%)
Qtr 2	166	133 (80%)	13221	6170 (47%)
Qtr 3	166	138 (82%)	14116	7193 (51%)
Qtr 4	168	147 (87%)	14046	7654 (55%)

2012/13

Qtr 1	166	149 (90%)	13998	6833 (49%)
Qtr 2	166	150 (91%)	13753	7168 (52%)
Qtr 3	166	154 (93%)	14158	8373 (59%)
Qtr 4	166	156 (94%)	14317	8553 (60%)

Evaluation of a hub and spoke multidisciplinary team model of care for orthogeriatric inpatients – A before and after study of adherence to clinical practice guidelines

Tracey Drabsch *Aust. J. Rural Health* (2015) 23, 80–86

TABLE 2: Medical record audit questions

Orthogeriatric guideline-based care questions

1. Was the patient resting in bed on an alternating air mattress within 6 hours from admission?
2. Did the patient receive nutrition support?
3. Was the indwelling catheter (IDC) managed prior to admission and followed up appropriately?
4. Did the patient receive at least two types of regular analgesia with differing analgesic mechanisms?
5. Did the patient have a completed bowel chart?

Orthogeriatric guideline-based care questions

6. Was a comprehensive multidisciplinary written handover received from the regional hospital?
7. Was the patient treated for osteoporosis?
8. Was the patients’ prescribed weight bearing status (as per orthopaedic surgeon) documented and adhered to within the facility?
9. Was the patient referred for follow-up to prevent further falls?
10. Was there documented evidence of discussion regarding any aspect of the patient’s care with the patient and/or carers?

TABLE 2: *Medical record audit questions*

Orthogeriatric guideline-based care questions	Associated documented information to determine definitive (yes/no)
1. Was the patient resting in bed on an alternating air mattress within 6 hours from admission?	Date and time of patient resting on air mattress compared with admission date and time
2. Did the patient receive nutrition support?	Evidence of the patient receiving any one of the following: A. High-energy high-protein or high-protein diet B. Nourishing mid meals or six small meals diet C. Resource 2.O Fibre™ or Resource Protein™ in medication chart D. Enteral or TPN feeding

TABLE 4: Number of ‘yes’ responses, ordered by the odds ratios, for guideline-based care questions for inpatients in rural facilities admitted pre and post the Sub-Acute Care Team (SCT) introduction

Guideline-based care questions	Pre-SCT (<i>n</i> = 42) <i>n</i> (%)	Post-SCT (<i>n</i> = 35) <i>n</i> (%)	P-value	Odds ratio§ (95% confidence interval)
Bladder management	33 (79)	34 (97)	0.02‡†	9.3 (1.1–77.3)
Weight bearing status	34 (81)	33 (94)	0.1†	3.9 (0.8–19.7)
Falls prevention	11 (26)	20 (57)	0.01‡	3.8 (1.4–9.8)
Nutrition support	15 (36)	23 (66)	0.01‡	3.5 (1.3–8.8)
Pressure injury prevention	2 (5)	5 (14)	0.23†	3.3 (0.6–18.4)
Osteoporosis management	18 (43)	22 (63)	0.08‡	2.3 (0.9–5.7)
Patient/carers discussion	40 (95)	34 (97)	1†	1.7 (0.1–19.6)
Analgesia	17 (41)	14 (40)	0.97‡	1.0 (0.4–2.4)
Bowel management	5 (12)	4 (11)	1†	1.0 (0.2–3.9)
Handover	0 (0)	29 (83)	<0.001†	NA
Guideline-based care in more than five areas	5 (12)	24 (69)	<0.001‡	16.1 (5–52.3)

†Fisher’s exact test; ‡chi-square test; §odds ratio is the odds of the guideline being adhered to post-SCT compared with pre-SCT.



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NAPOLI 25-28 Novembre 2015

Grazie per l'attenzione

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