

0802 Ms 2153

Long-term cost and effect on quality of life of osteoporosis-related fractures in Sweden

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Table 1. Average utilization of medical care resources per patient, 13–18 months after fracture

	Hip fracture (n = 283)		Vertebral fracture (n = 76)		Wrist fracture (n = 325)	
	Mean	95% CI	Mean	95% CI	Mean	95% CI
Inpatient care	(3%) ^a		(1%) ^a		(0%) ^a	
Hospitalizations	0.05	(0.02-0.11)	0.04	(0-0.25)	0	-
Mean days in hospital	0.27	(0.10-0.69)	0.22	(0-1.08)	0	-
Outpatient care						
Primary care visits	(10%) ^a		(16%) ^a		(4%) ^a	
Physician	0.11	(0.07–0.17)	0.20	(0.11-0.41)	0.06	(0.03-0.13)
Nurse	0.01	(0–0.05)	0	-	0.01	(0-0.02)
Hospital visits	(17%) ^a		(9%) ^a		(6%) ^a	
		(0.18–0.33				
Physician (orthopedics)	0.24	[osv]	0.11	(0.04-0.27)	0.08	(0.05-0.14)
Nurse (orthopedics)	0	-	0	-	0.01	(0-0.05)
Physician (emergency)	0.01	(0-0.03)	0.01	(0-0.08)	0	(0-0.02)
Nurse (emergency)	0	-	0	-	0	-
Physician (other)	0	(0-0.02)	0.03	(0-0.17)	0.01	(0-0.02)
Nurse (other)	0	-	0	-	0	-
Other visits	(7%) ^a		(11%) ^a		(3%) ^a	
Occupational therapist	0.05	(0.02-0.12)	0	0	0.02	(0-0.10)
Physiotherapist	0.77	(0.4-1.24)	0.75	(0.07-0.26)	0.11	(0.04-0.30)
Outpatient operations	(0%) ^a		(0%) ^a		(2%) ^a	
Number of operations	0	(0-0.02)	0	-	0.02	(0.01-0.03)
Radiographic examinations	(18%) ^a		(14%) ^a		(6%) ^a	
Number of examinations	0.24	(0.18-0.33)	0.24	(0.13-0.49)	0.08	(0.05-0.13)
Home visits	(5%) ^a		(11%) ^a		(0%) ^a	
Occupational therapist	0.04	(0.02-0.12)	0.11	(0.05-0.19)	0	-
Physiotherapist	0.05	(0.01-0.21)	0.07	(0-0.26)	0	-
Nurse	0.23	(0-1.8)	0	-	0	(0-0.02)
Telephone help	(4%) ^a		(3%) ^a		(1%) ^a	
Physician	0.05	(0.02-0.08)	0.03	(0-0.09)	0.01	(0-0.03)
Nurse	0	(0-0.02)	0	-	0	-
Other	0	-	0	-	0	-

Numbers in the table represent the average number of times patients in the sample used medical resources between 13 and 18 months after fracture.

^aProportion of the sample that used any resource within the group of resources indicated.

Table 2. Utilization of resources per patient regarding community care, informal care, and working status during the 4 weeks prior to interview at 18 months after fracture

		Hip fracture (n = 283)	Vert ebral fracture (n = 76)	Wrist fracture (n = 325)
		Mean (95% CI)	Mean (95% CI)	Mean (95% CI)
Community care and informal care	Proportion in special living accommodation	0.04 (0.02–0.07) [osv]	0.05 (0.01-0.13)	0
	Days in special living, past month	1.14 (0.62-1.9)	1.47 (0.39-3.65)	0
	Hours of home help per week	1.32 (1.0-1.70)	2.36 (1.51-3.71)	0.08 (0.04-0.19)
	Amount of transportation, past month (occasions)	1.07 (0.75-1.49)	2.37 (1.61-3.52)	0.20 (0.1-0.38)
	Hours of informal care per week	1.44 (0.83-3.3)	3.00 (1.38-10.44)	0.12 (0.07-0.21)
Work-related	Proportion working	0.014 (0.003-0.33)	0.066 (0.024-0.15)	0.22 (0.18-0.27)
	Proportion working full time	1.00 (1.00-1.00)	0.20 (0.00-1.00)	0.56 (0.44-0.66)
	Days sick, past month	0.10 (0-0.50)	0.20 (0-1.08)	0.30 (0.09-0.77)

Table 3. Fracture-related use of pharmaceuticals at 18 months after fracture

	Hip fracture (n = 283)	Vert ebral fracture (n = 76)	Wrist fracture (n = 325)
Proportion of patients on fracture-related medication [osv]	0.58 (0.52–0.63)	0.78 (0.68-0.86)	0.44 (0.39-0.49)
Number of different drugs per patient	0.99 (0.87-1.12)	1.72 (1.44-2.01)	0.70 (0.61-0.80)
Proportion on calcium and vitamin D	0.36 (0.30-0.42)	0.59 (0.48-0.70)	0.35 (0.30-0.40)
Proportion on estrogens	0.01 (0-0.03)	0.01 (0-0.10)	0.01 (0-0.02)
Proportion on bisphosphonates	0.15 (0.11-0.19)	0.30 (0.19-0.41)	0.17 (0.13-0.21)
Proportion on glucocorticoids	0.01 (0-0.03)	0.03 (0-0.09)	0.01 (0-0.03)
Proportion on pain-relief medication	0.33 (0.28-0.39)	0.55 (0.44-0.67)	0.14 (0.10-0.17)

Table 4. Update of the costs during the first year after fracture (€, 2005)

	Hip fracture (n = 283) Mean (95% CI)	Vert ebral fracture (n = 76) Mean (95% CI)	Wrist fracture (n = 325) Mean (95% CI)
Medical care			
Inpatient care	9,291 (8,453–11,078) [osv]	5,276 (4,119-6,915)	448 (280-890)
Outpatient care	951 (864-1,054)	729 (615-874)	1,257 (1,174-1,356)
Pharmaceuticals	202 (184 - 223)	335 (288-389)	132 (114-166)
Community care			
Special living	1,266 (720-2,273)	1,548 (636-3,657)	115 (0-603)
Other community care	2,226 (1,808-2,848)	3,518 (2,422-5,239)	148 (72-309)
Total direct costs	13,937 (12,633-15,786)	11,405 (8,969-14,906)	2,101 (1783-2912)
Indirect costs			
Informal care^a	90 (0-374) 334 (224-633)	0 495 (262-1,605)	183 (81-379) 33 (21-53)
Total cost, 12 months	14,360 (12,633-15,786)	11,901 (9,270-15,261)	2,316 (1,995-3,172)

^a costed using the value of lost leisure tim

Table 5 Linear regression analysis on (log) total costs 13–18 months after fracture

	All (n = 683)		Hip fracture (n = 282)		Vertebral fracture (n = 76)		Wrist fracture (n = 325)
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient
Quality of life before fracture (between 0 and 1)	-1.097	< 0.001	-1.681	0.001	-1.098	0.2	-0.128
Age at occurrence of fracture (years)	0.043	< 0.001	0.046	0.001	0.085	< 0.001	0.026
Sex (0 = men, 1 = women)	-0.724	0.001	-0.669	0.02	-1.059	0.1	-1.040
Prior fracture in the past 5 years (0 = no, 1 = yes)	-0.025	0.9	-0.013	1	-0.506	0.3	0.205
Vertebral fracture (0 = no, 1 = yes)	0.472	0.03	-	-	-	-	-
Wrist fracture (0 = no, 1 = yes)	-1.008	< 0.001	-	-	-	-	-
Constant	4.735	< 0.001	4.935	< 0.001	2.458	0.1	4.336
r ²	0.274		0.112		0.229		0.044

