

## **Supplementary Material**

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**Table i.** Descriptive statistics for patients who lived in their own home at baseline and were alive but with no information on residence within 90 to 180 days after surgery, and who were therefore not included in the analysis for ability to return to their own home.

Characteristic	SHS	IMN	p-value
Number of patients (%)	2,803 (40)	4,125 (60)	
Female sex, n (%)	2,004 (71)	3,011 (73)	0.171*
Median age, yrs (IQR)	84 (79 to	84 (79 to	0.462†
	89)	89)	
ASA grade, n (%)‡			0.371*
	123 (4)	158 (4)	
II	1,077 (39)	1,505 (38)	
III	1,454 (52)	2,103 (53)	
IV	129 (5)	215 (5)	
Known dementia, n (%)	288 (10)	508 (12)	0.009*
Trochanteric two-fragment fracture, n (%)	1,769 (63)	1,272 (31)	<
			0.001*
Median time to surgery, hrs (IQR)	19 (12 to	19 (12 to	0.284†
	26)	25)	
Cohabitating before fracture (from the dwelling register), n	1,137 (41)	1,583 (38)	0.066*
(%)§			
Baseline walking ability pre-fracture, n (%)			0.215*
High walking ability	1,472 (53)	2,254 (55)	
Medium walking ability	1,285 (46)	1,804 (44)	
Not able to walk	46 (2)	67 (2)	

<sup>\*</sup>Pearson's chi-squared test.

ASA, American Society of Anesthesiologists; IMN, intramedullary nailing; SHS, sliding hip screw.

<sup>†</sup>Mann-Whitney U test.

<sup>‡</sup>Missing ASA grad: 164 (2%).

<sup>§</sup>Missing cohabitation status: 9 (0%).

**Table ii.** Age-adjusted hazard ratios and 95% Cls for death within 120 days after surgery among those aged 70 to 84 years estimated with Cox proportional hazards regression, stratified by fracture type.

Type of surgery	Deaths, n (%)	Age 70 to 84 yrs, two-fragmented fractures (n = 5,685)	Type of surgery	Deaths, n (%)	Age 70 to 84 yrs, multifragmented fractures (n = 6,294)
SHS (n = 3,565)	393 (11)	Ref	SHS (n = 1,808)	196 (11)	Ref
IMN (n = 2,120)	237 (11)	1 (0.85 to 1.18)	IMN (n = 4,486)	476 (11)	0.98 (0.83 to 1.16)

IMN, intramedullary nailing; SHS, sliding hip screw.

**Table iii.** Age-adjusted hazard ratios and 95% Cls for death within 120 days after surgery among those aged ≥ 85 years estimated with Cox proportional hazards regression, stratified by fracture type.

Type of surgery	Deaths, n (%)	Age 85+ yrs, two- fragmented fractures (n = 7,057)	Type of surgery	Deaths, n (%)	Age 85+ yrs, multifragmented fractures (n = 8,494)
SHS (n = 4,385)	1,025 (23)	Ref	SHS (n = 2,380)	557 (23)	Ref
IMN (n = 2,672)	568 (21)	0.91 (0.82-1.01)	IMN (n = 6,114)	1,423 (23)	1 (0.91 to 1.1)

IMN, intramedullary nailing; SHS, sliding hip screw.

**Table iv.** Age-adjusted hazard ratios and 95% Cls for death within 120 days after surgery estimated with Cox proportional hazards regression, stratified by sex.

Type of surgery	Deaths, n (%)	Women (n	= 19,529)	Type of surgery	Deaths, n (%)	Men (n = 8	,001)
SHS (n = 8,433)	1,324 (16)	Ref	Ref	SHS (n = 3,705)	847 (23)	Ref	Ref
IMN (n = 11,096)	1,709 (15)	0.97 (0.91 to 1.05)	0.96 (0.89 to 1.03)*	IMN (n = 4,296)	995 (23)	1.02 (0.93 to 1.12)	1 (0.91 to 1.1)*

<sup>\*</sup>Adjusted for fracture type.

IMN, intramedullary nailing; SHS, sliding hip screw.

**Table v.** Age-adjusted odds ratios and 95% CI for return to independent living estimated with logistic regression, stratified by fracture type (age 70 to 84 years).

Type of surgery	Returned to independent living, n (%)	Age 70 to 84 yrs, two-fragmented fractures (n = 2,768)	Type of surgery	Returned to independent living, n (%)	Age 70 to 84 yrs, multifragmented fractures (n = 3,011)
SHS (n =	1,441 (79)	Ref	SHS (n =	717 (78)	Ref
1,816)			922)		
IMN (n =	716 (75)	0.79 (0.66 to	IMN (n =	1,598 (77)	0.93 (0.78 to 1.12)
952)		0.95)	2,089)		

IMN, intramedullary nailing; SHS, sliding hip screw.

**Table vi.** Age-adjusted odds ratios and 95% Cls for return to independent living estimated with logistic regression, stratified by fracture type (age ≥ 85 years).

Type of surgery	Returned to independent living, n (%)	Age 85+ yrs, two- fragmented fractures (n = 2,905)	Type of surgery	Returned to independent living, n (%)	Age 85+ yrs, multifragmented fractures (n = 3,357)
SHS (n = 1,864)	1,043 (56)	Ref	SHS (n = 997)	513 (51)	Ref
IMN (n = 1,041)	577 (55)	0.95 (0.81 to 1.11)	IMN (n = 2,360)	1,256 (53)	1.06 (0.91 to 1.23)

IMN, intramedullary nailing; SHS, sliding hip screw.

**Table vii.** Age-adjusted odds ratios and 95% Cls for return to independent living estimated with logistic regression, stratified by sex.

Type of surgery	Returned to independent living, n (%)	Women 8,400)	•		Men (n	len (n = 3,641)	
SHS (n = 3,810)	2,592 (68)	Ref	Ref	SHS (n = 1,789)	1,122 (63)	Ref	Ref
IMN (n = 4,590)	3,060 (67)	0.95 (0.86 to 1.05)	0.99 (0.88 to 1.1)*	IMN (n = 1,852)	1,087 (59)	0.83 (0.72 to 0.95)	0.83 (0.71 to 0.96)*

<sup>\*</sup>Adjusted for fracture type.

IMN, intramedullary nailing; SHS, sliding hip screw.