

## Supplementary tables and figures

Supplementary Table 1. Reoperations at 1 year and overall: Short- and long nails, IV-Analysis

|                 | <b>HRR* (95% CI)</b> | <b>P value*</b> | <b>HRR<sup>†</sup> (95% CI)</b> | <b>P value<sup>†</sup></b> |
|-----------------|----------------------|-----------------|---------------------------------|----------------------------|
| 1 yr            |                      |                 |                                 |                            |
| AO/OTA A1       | 2.68 (1.24-5.80)     | 0.012           | 2.53 (1.26-5.05)                | 0.009                      |
| AO/OTA A2       | 0.93 (0.58-1.50)     | 0.777           | 0.88 (0.58-1.33)                | 0.540                      |
| AO/OTA A3       | 0.64 (0.30-1.35)     | 0.240           | 1.04 (0.58-1.86)                | 0.892                      |
| Subtrochanteric | 1.55 (0.31-7.69)     | 0.594           | 1.24 (0.55-2.81)                | 0.608                      |
| Overall         |                      |                 |                                 |                            |
| AO/OTA A1       | 2.65 (1.27-5.53)     | 0.009           | 1.98 (1.02-3.82)                | 0.043                      |
| AO/OTA A2       | 0.90 (0.60-1.36)     | 0.626           | 0.89 (0.62-1.25)                | 0.482                      |
| AO/OTA A3       | 1.30 (0.63-2.68)     | 0.480           | 1.54 (0.89-2.64)                | 0.120                      |
| Subtrochanteric | 1.21 (0.41-3.58)     | 0.734           | 1.13 (0.57-2.24)                | 0.716                      |

\*IV-analysis using hospital as instrument. <sup>†</sup>IV-analysis using hospital and year of operation as instrument. SIMN is the reference

IV, Instrument variable; SIMN, Short Intramedullary Nail; LIMN, Long Intramedullary Nail; AO/OTA, AO Foundation/Orthopaedic Trauma Association.

Supplementary Table 2. Reoperations at 1 year: Short- and long nails using INTERTAN and Gamma3

|                 | Total No.<br>of Nails | SIMN<br>Reoperations (no.<br>[%]) | Total No.<br>of Nails | LIMN<br>Reoperations (no.<br>[%]) | HRR* (95% CI)    | P value* |
|-----------------|-----------------------|-----------------------------------|-----------------------|-----------------------------------|------------------|----------|
| Gamma3          |                       |                                   |                       |                                   |                  |          |
| AO/OTA A1       | 2,691                 | 61 (2.3)                          | 215                   | 8 (3.7)                           | 1.71 (0.82-3.56) | 0.156    |
| AO/OTA A2       | 3,045                 | 122 (4.0)                         | 1,365                 | 49 (3.6)                          | 0.94 (0.67-1.31) | 0.710    |
| AO/OTA A3       | 185                   | 10 (5.4)                          | 384                   | 26 (6.8)                          | 1.30 (0.62-2.69) | 0.490    |
| Subtrochanteric | 163                   | 4 (2.5)                           | 1,573                 | 58 (3.7)                          | 1.47 (0.54-4.06) | 0.454    |
| TRIGEN INTERTAN |                       |                                   |                       |                                   |                  |          |
| AO/OTA A1       | 1,252                 | 37 (3.0)                          | 174                   | 3 (1.7)                           | 0.69 (0.21-2.24) | 0.531    |
| AO/OTA A2       | 1,243                 | 63 (5.1)                          | 947                   | 37 (3.9)                          | 0.79 (0.52-1.18) | 0.248    |
| AO/OTA A3       | 128                   | 12 (9.4)                          | 359                   | 18 (5.0)                          | 0.51 (0.25-1.03) | 0.062    |
| Subtrochanteric | 79                    | 2 (2.5)                           | 993                   | 37 (3.7)                          | 1.31 (0.32-5.47) | 0.709    |

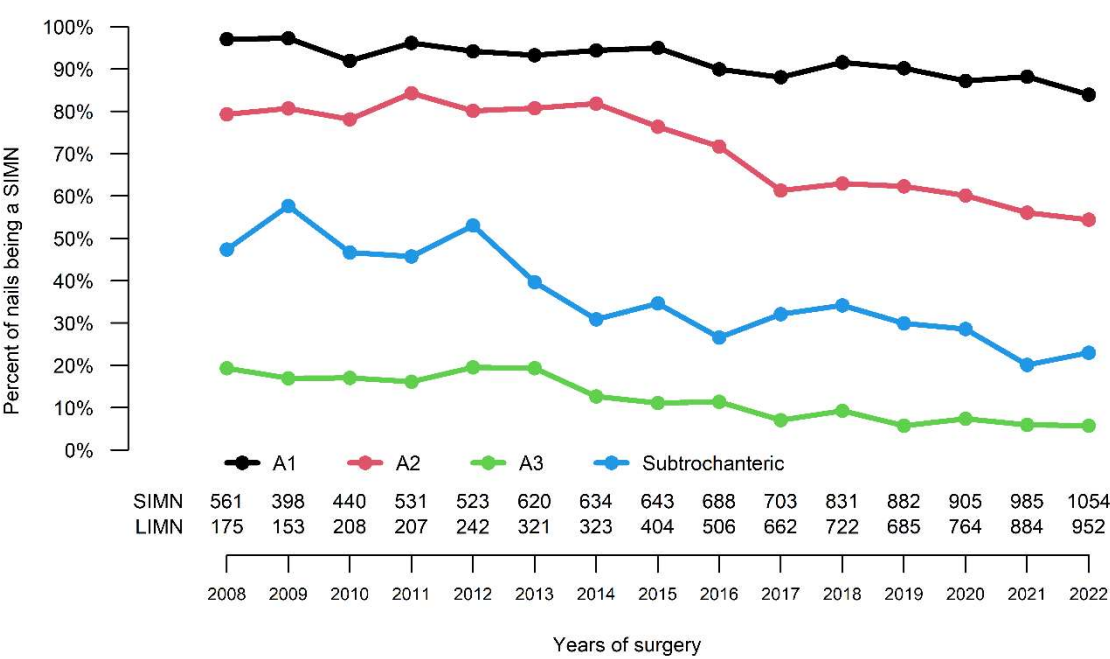
\*Cox analysis adjusted for sex, age, and ASA class. SIMN is the reference.

SIMN, Short Intramedullary Nail; LIMN, Long Intramedullary Nail; AO/OTA, AO Foundation/Orthopaedic Trauma Association.

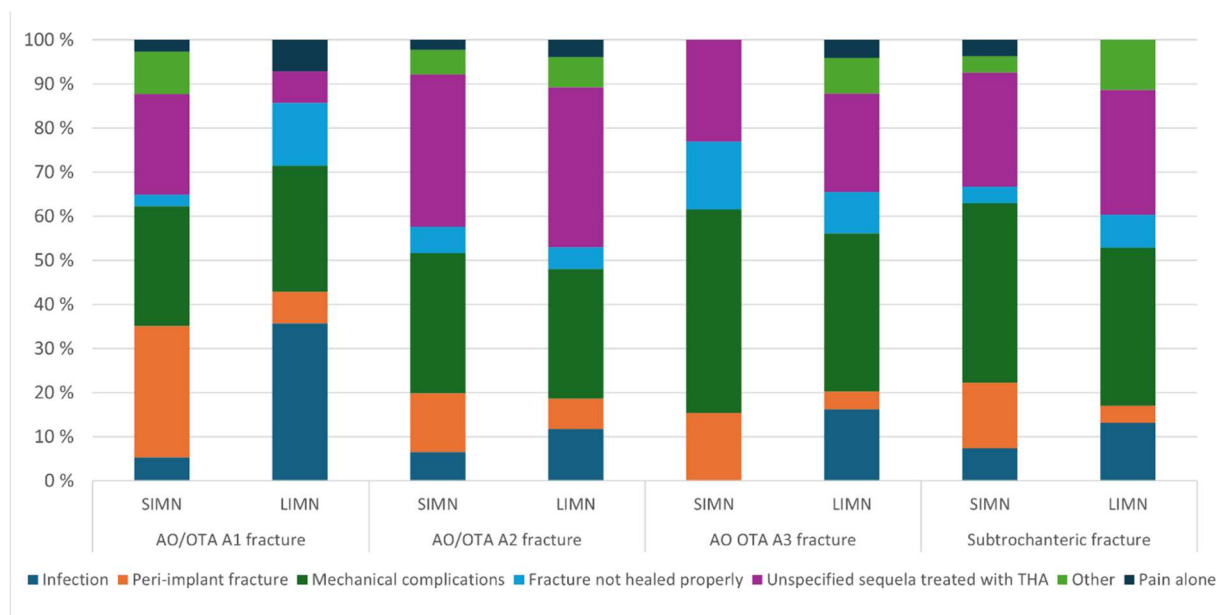
Supplementary fig 1. Use of short and long intramedullary nails by year

The line represents % of nails used being a SIMN in each respective fracture type.

Table represents number of SIMNs and LIMNs used in total for all fracture types for each year.



Supplementary fig. 2 Causes of reoperation the first year after treatment with short and long intramedullary nail for each fracture type



SIMN, Short Intramedullary Nail; LIMN, Long Intramedullary Nail; AO/OTA, AO Foundation/Orthopaedic Trauma Association.