

## INTERTAN<sup>®</sup> results in significantly less limb shortening in treated geriatric hip fractures as compared with a sliding hip screw (SHS)

Results from this randomized, multi-centre trial also indicated that in a subgroup of high-functioning patients, INTERTAN showed trends towards improved functionality compared with SHS at up to one-year follow up



### Study design

- A prospective, randomized, multi-centre trial of patients older than 55 years of age with intertrochanteric fractures followed for up to 12 months after receiving either INTERTAN integrated compression screws (123 patients; mean age, 80.6 years) or SHS (126 patients; mean age, 81.0 years)
- A subgroup analysis compared results in patients with a high-functioning preinjury status: 36 receiving SHS and 34 INTERTAN



### Key results

- Fewer patients who received INTERTAN had limb shortening of more than 1 or 2 cm, when compared with SHS (Figure 1)
- A higher proportion of patients who received INTERTAN achieved complete union at one year postoperatively than those who received SHS (85.3% vs 69.4%;  $p < 0.05$ )
- In the subgroup of high-functioning patients, INTERTAN showed trends towards improved locomotor performance over SHS (Figure 2)

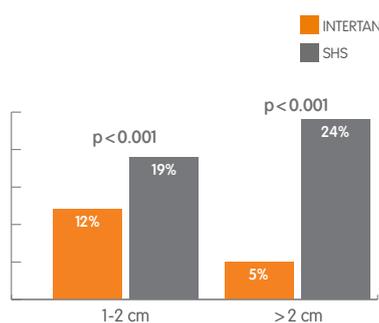


Figure 1. Percentage of patients with limb shortening

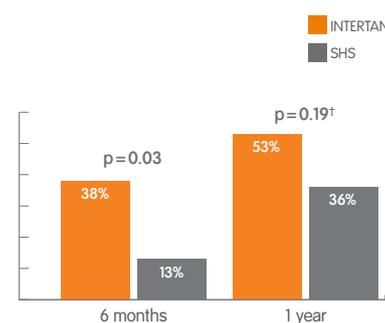


Figure 2. Percentage of patients who returned to walking

\*Lack of statistical significance at one year likely due to small sample size



### Conclusion

Results from this randomized, controlled trial indicate that treatment with INTERTAN led to significantly higher percentage of patients who achieved complete union at 1 year and a lower percentage of limb shortening, when compared with SHS. The significant discrepancy in shortening of > 2 cm in favor of INTERTAN was considered noteworthy by the authors, as shortening of > 2 cm is known to adversely affect locomotor function in otherwise active individuals. There was also a trend towards improved locomotor performance for the INTERTAN group in the high-function subgroup.



### Study citation

\*Sanders D, Bryant D, Tieszer C, et al. A multicenter randomized control trial comparing a novel intramedullary device (InterTAN) versus conventional treatment (sliding hip screw) of geriatric hip fractures. *J Orthop Trauma*. 2017;31:1-8.