

## Cementless POLARSTEM<sup>®</sup> femoral system: excellent survival at 10 years

The first long-term results with this triple taper, hydroxyapatite-coated femoral stem also show it to have excellent functional outcomes approximately 12 years after total hip replacement (THR)



### Study design

- Between 2002 and 2005, three centres performed 502 THRs (502 patients; mean age, 68.7 years) with the cementless POLARSTEM femoral component and POLARCUP<sup>®</sup> acetabular component
- Records for all patients were reviewed for revisions, complications, and baseline Merle d'Aubigne (MDA) scores
- Those still living and not revised were invited for follow-up visit a minimum of 10 years after THR (mean, 11.9 years); 244 agreed to return, with the remaining 258 having chart follow up at 10 years



### Key results

- Cumulative 10-year survivorship was considered excellent (Figure)
  - There were four revisions of stem (all for fracture) and 15 of cup (13 for aseptic loosening, one secondary to femur fracture)
- At follow up, the mean WOMAC total, pain, stiffness, and function scores were 13.9 (range, 0-75), 2.3 (range, 0-14), 1.1 (range, 0-6), and 10.7 (range, 0-56), respectively
- Mean MDA scores improved from 9.9 (range, 6-15) at baseline to 17.0 (range, 10-18) at final follow up
- Radiographic analysis revealed no cases of stem subsidence or hypertrophy, one case of stem atrophy, and three cases of osteolysis around the stem

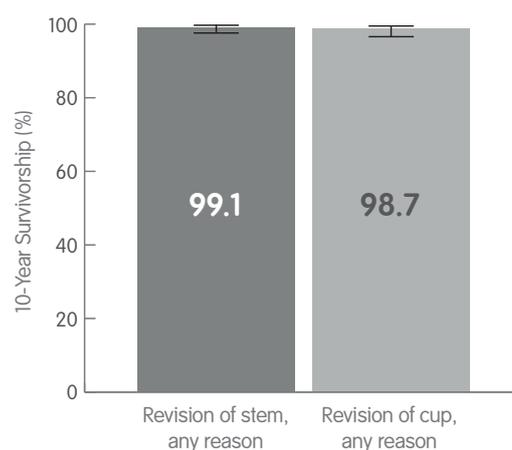


Figure. Survivorship at 10 years



### Conclusion

**This study, the first to report long-term results with the cementless POLARSTEM, confirms that it is associated with excellent long-term component survival and functional outcomes.**



### Study citation

\*Cypres A, Fiquet A, Girardin P, et al. Excellent long-term outcomes of a triple taper femoral stem for cementless total hip replacement. Poster presented at: *2nd World Arthroplasty Congress*; April 19-21, 2018; Rome, Italy.

Abbreviations: WOMAC = Western Ontario and McMaster Universities Osteoarthritis Index