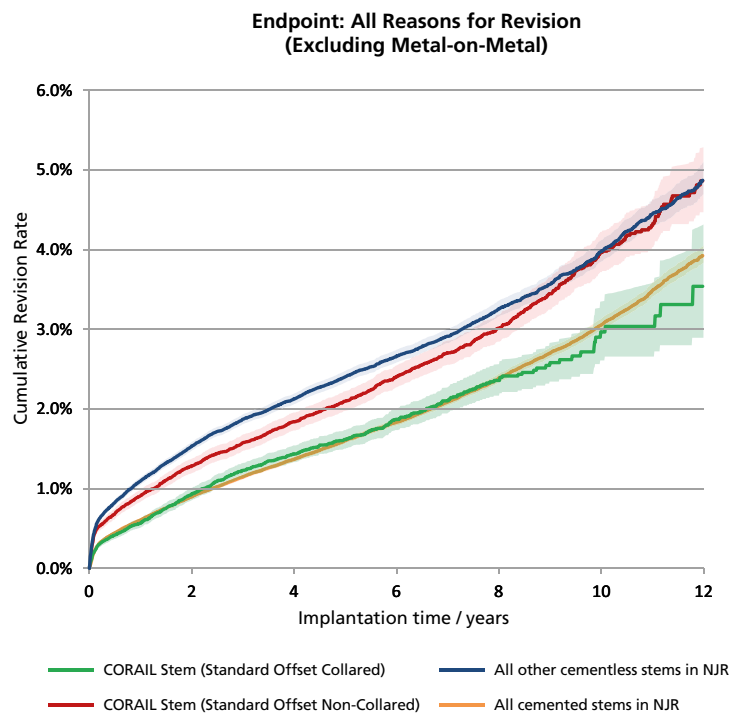


NJR Analysis of Collared and Collarless Total Hip Replacement Using the CORAIL® Femoral Stem

National Joint Registries provide valuable information on the revision rates and survivorship of orthopaedic implants. Typically they include large cohorts with data from all surgeons and from all centres, irrespective of surgeon experience level. The National Joint Registry for England, Wales, Northern Ireland and the Isle of Man (NJR) has been in operation since 2003 and in that time has collected data on over 990,000 primary total hip replacements (THR).¹

The standard CORAIL® Femoral Stem is available both with and without a collar. Proponents of the use of a collared prosthesis claim that it provides advantages in the early stability of the implant, allowing for earlier post-operative weight bearing, protection against subsidence, and a positive dispersion of the vertical forces via the collar into the medial calcar.²⁻³

The NJR has produced new reports analyzing the performance of the CORAIL Femoral Stem, specifically the CORAIL STD Collared stem and CORAIL STD Collarless stem.⁴⁻⁶ This analysis was commissioned by DePuy Synthes, but conducted and validated by the NJR. The reports detail 65,545 CORAIL STD Collared Implantations (mean age 67.8, 34.2% male) and 65,729 CORAIL STD Collarless Implantations (mean age 65.3, 36.9% male). In order to better understand the performance of the CORAIL STD Implants the reports provide comparison to two sets of class data; all other cementless stems on the NJR (n=395,274) and all cemented stems on the NJR (n=730,966). The cumulative revision rates (CRR) are presented on the chart below and the reports provide hazard ratios to compare the relative risk of revision. The hazard ratios presented below are adjusted for any differences in age, gender, diagnosis and year of implantation. All Metal-on-Metal was excluded. All reports can be accessed at <http://www.corailpinnacle.net/supporting-evidence/overview>



KEY MESSAGES

Patients receiving the CORAIL STD Collared Femoral Stem are **29% less likely** to be revised when compared to all other uncemented stems on the NJR (HR 0.71 (0.66, 0.76) P=<0.001)⁴

Patients receiving the CORAIL STD Collared Femoral Stem are **10% less likely** to be revised when compared to all cemented stems on the NJR (HR 0.90 (0.84, 0.97) P=0.004)⁷

References

1. National Joint Registry for England, Wales, Northern Ireland and the Isle of Man, 15th Annual Report, 2018. Table 3.3. Available from: www.njrreports.org.uk
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3. Demey G, Fary C, Lustig S, Neyret P, Ait si Selmi T. Does a Collar Improve the Immediate Stability of Uncemented Femoral Hip Stems in Total Hip Arthroplasty? A Bilateral Comparative Cadaver Study. *J Arthroplasty* 26 (2011), No.8, p. 1549
4. Bespoke Implant report Corail Stem (Standard Offset Collared) NJR, DSEM/JRC/0118/0999. Report can be accessed at <http://www.corailpinnacle.net/supporting-evidence/overview>
5. Bespoke Implant report Corail Stem (Standard Offset Non-Collared) NJR, DSEM/JRC/0218/1000. Report can be accessed at <http://www.corailpinnacle.net/supporting-evidence/overview>
6. Bespoke Implant report Corail Collared vs Collarless 05-06-2018 (ex MoM) NJR. Report can be accessed at <http://www.corailpinnacle.net/supporting-evidence/overview>
7. Bespoke Implant report Corail Stem (Standard Offset Collared vs Cemented) NJR. Report can be accessed at <http://www.corailpinnacle.net/supporting-evidence/overview>

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