

Implant Bespoke Report for:

Smith & Nephew

Polarstem Cementless (Oxinium / XLPE / R3 cup)

Comprising PRIMARY hips implanted up to:	02 June 2019
NJR Database extract:	01 August 2019
Produced on:	14 August 2019
Licenced for use until:	14 August 2021

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This report has been produced by the National Joint Registry of England, Wales and Northern Ireland (NJR). It summarises usage and outcomes associated with the Polarstem Cementless (Oxinium / XLPE / R3 cup) up to the specified dates. This analysis is based on data collected by the NJR and PROMs data collected by NHS Digital for the following combinations of products:

Femoral Components	Polarstem Cementless Stems
Femoral Heads	Oxinium Femoral Heads
Acetabular Liners	R3 XLPE Liners
Acetabular Shells	R3 Cementless Shells (excluding multihole shells)

Appendices A to D list details of all stems, heads, liners, and shells included in this report.

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NJR Recorded Usage

Implant Usage

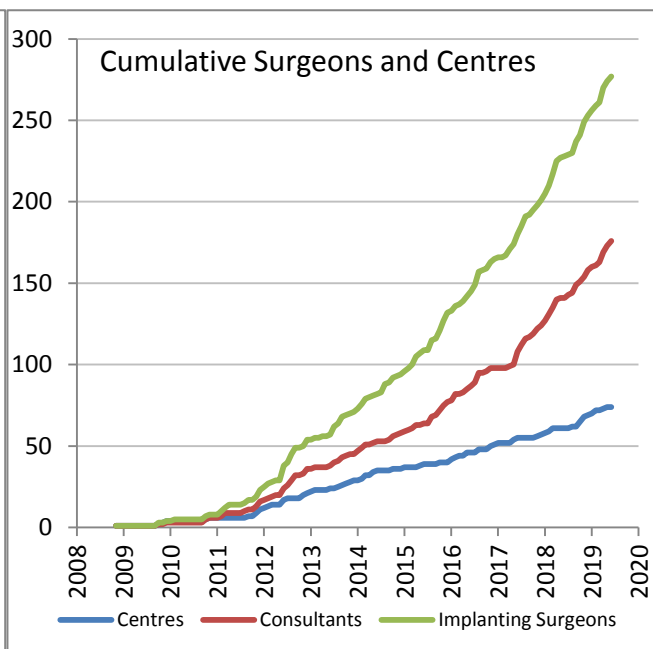
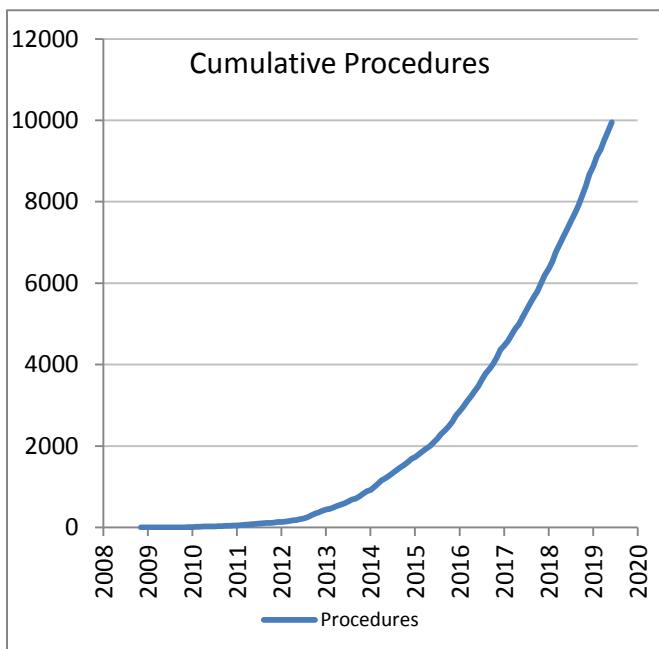
Date of first recorded usage in the NJR: **13 July 2008**

Date of last recorded usage in this dataset: **01 June 2019**

Maximum implantation time: 10.9 years

Mean implantation time: 2.4 years

Totals Recorded in NJR	Cumulative Total
Procedures	9,952
Patients	9,130
Centres	74
Consultants	176
Implanting Surgeons	277



Current Outcome	Year of implantation														Total	%
	Pre-2008	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019			
Death	0	0	5	16	23	41	44	50	40	41	24	8	0	292	2.9%	
Revised	0	0	0	0	3	4	6	8	18	14	19	11	8	91	0.9%	
Unrevised	0	1	5	21	64	256	433	748	1068	1558	1843	2497	1075	9569	96.2%	
Total	0	1	10	37	90	301	483	806	1126	1613	1886	2516	1083	9952	100%	

Patient / Procedure Details

Patient Details

	Polarstem Cementless (Oxinium / XLPE / R3 cup)	All NJR Cementless Stems	All NJR hip replacement
Total Procedures	9,952	466,730	1,149,364
Total Patients	9,130	403,603	974,007
Demographics			
Mean age	65.2	65.4	68.6
< 50	8.3%	8.4%	6.0%
50 – 59	20.4%	19.0%	13.8%
60 – 69	34.3%	34.9%	29.1%
70 – 79	28.6%	28.5%	34.6%
≥ 80	8.4%	9.2%	16.5%
Median BMI	28	28	28
% BMI information available	80.6%	63.2%	61.0%
Underweight (BMI < 18.5)	0.5%	0.7%	0.9%
Normal (18.5 ≤ BMI < 25)	17.3%	18.9%	20.7%
Overweight (25 ≤ BMI < 30)	40.5%	39.2%	39.7%
Obese I (30 ≤ BMI < 35)	27.3%	26.8%	25.8%
Obese II (35 ≤ BMI < 40)	10.9%	10.7%	9.7%
Obese III (BMI ≥ 40)	3.5%	3.7%	3.3%
% Male	45.9%	44.2%	40.2%
ASA Grades			
P1 - Fit and healthy	16.0%	18.3%	15.9%
P2 - Mild disease not incapacitating	67.7%	68.8%	67.6%
P3 - Incapacitating systemic disease	16.1%	12.5%	15.9%
P4 / P5	0.2%	0.4%	0.6%
Indications			
Osteoarthritis	92.82%	93.05%	91.58%
Rheumatoid Arthritis	2.26%	1.22%	1.32%
Avascular Necrosis	2.18%	2.57%	2.50%
Fractured Neck of Femur	1.91%	1.84%	3.36%
CDH/DDH	1.82%	2.05%	1.56%
Other	1.19%	1.80%	2.12%

Total of indications may exceed total number of implants, since more than one indication can be listed per case.

Revision and Survivorship

Reasons for Revision - All bearing types

Reasons for revision of primary procedures in which the implant was used.

Reason for Revision	Revised [†]	Expected Revisions [*]	p value
Unexplained Pain	6	20.43	<0.001
Dislocation / Subluxation	24	32.30	0.156
Adverse Soft Tissue Reaction	3	11.06	0.01
Infection	16	26.08	0.048
Aseptic Loosening - Stem	9	23.03	0.002
Aseptic Loosening - Socket	4	12.43	0.01
Periprosthetic Fracture Stem	26	22.14	0.391
Periprosthetic Fracture Socket	2	2.93	1
Malalignment Stem	2	6.23	0.103
Malalignment Socket	3	9.54	0.032
Wear Of Acetabular Component	2	5.05	0.257
Lysis Stem	1	2.18	0.731
Lysis Socket	1	1.79	1
Implant Fracture Stem	2	2.14	1
Implant Fracture Socket	0	2.98	0.131
Implant Fracture Head	0	0.64	1
Dissociation of Liner	1	3.17	0.387
Other / reason not recorded	5	10.07	0.149
Total Revised	91	155.27	<0.001

* Based on All NJR Cementless Stems adjusted for agegroup, gender, and indications

† multiple reasons may be listed for one revision procedure

Significantly better, $p < 0.001$

Significantly better, $p < 0.05$

Significantly worse $p < 0.05$

Significantly worse $p < 0.001$



Components Revised	Number of procedures	Polarstem Cementless (Oxinium / XLPE / R3 cup)	All other Cementless Stems in NJR
Femoral only	38	42%	23%
Acetabular only	14	15%	34%
Both femoral and acetabular	18	20%	32%
Neither femoral nor acetabular revision recorded *	21	23%	12%

* includes isolated head and/or liner exchange

Revision and Survivorship

Reasons for Revision - excluding Metal on Metal

Reasons for revision of non-MoM primary procedures in which the implant was used.

Reason for Revision	Revised [†]	Expected Revisions [*]	p value
Unexplained Pain	6	15.22	0.013
Dislocation / Subluxation	24	32.14	0.181
Adverse Soft Tissue Reaction	3	3.24	1
Infection	16	25.11	0.069
Aseptic Loosening - Stem	9	21.72	0.003
Aseptic Loosening - Socket	4	10.00	0.055
Periprosthetic Fracture Stem	26	22.19	0.391
Periprosthetic Fracture Socket	2	2.93	1
Malalignment Stem	2	6.01	0.143
Malalignment Socket	3	8.84	0.042
Wear Of Acetabular Component	2	4.80	0.254
Lysis Stem	1	1.61	1
Lysis Socket	1	1.11	1
Implant Fracture Stem	2	2.03	1
Implant Fracture Socket	0	3.15	0.083
Implant Fracture Head	0	0.69	1
Dissociation of Liner	1	3.25	0.391
Other / reason not recorded	5	8.23	0.375
Total Revised	91	139.73	<0.001

* Based on All NJR Cementless Stems (excluding metal on metal), adjusted for agegroup, gender, and indications

† multiple reasons may be listed for one revision procedure

Significantly better, $p < 0.001$

Significantly better, $p < 0.05$

Significantly worse $p < 0.05$

Significantly worse $p < 0.001$

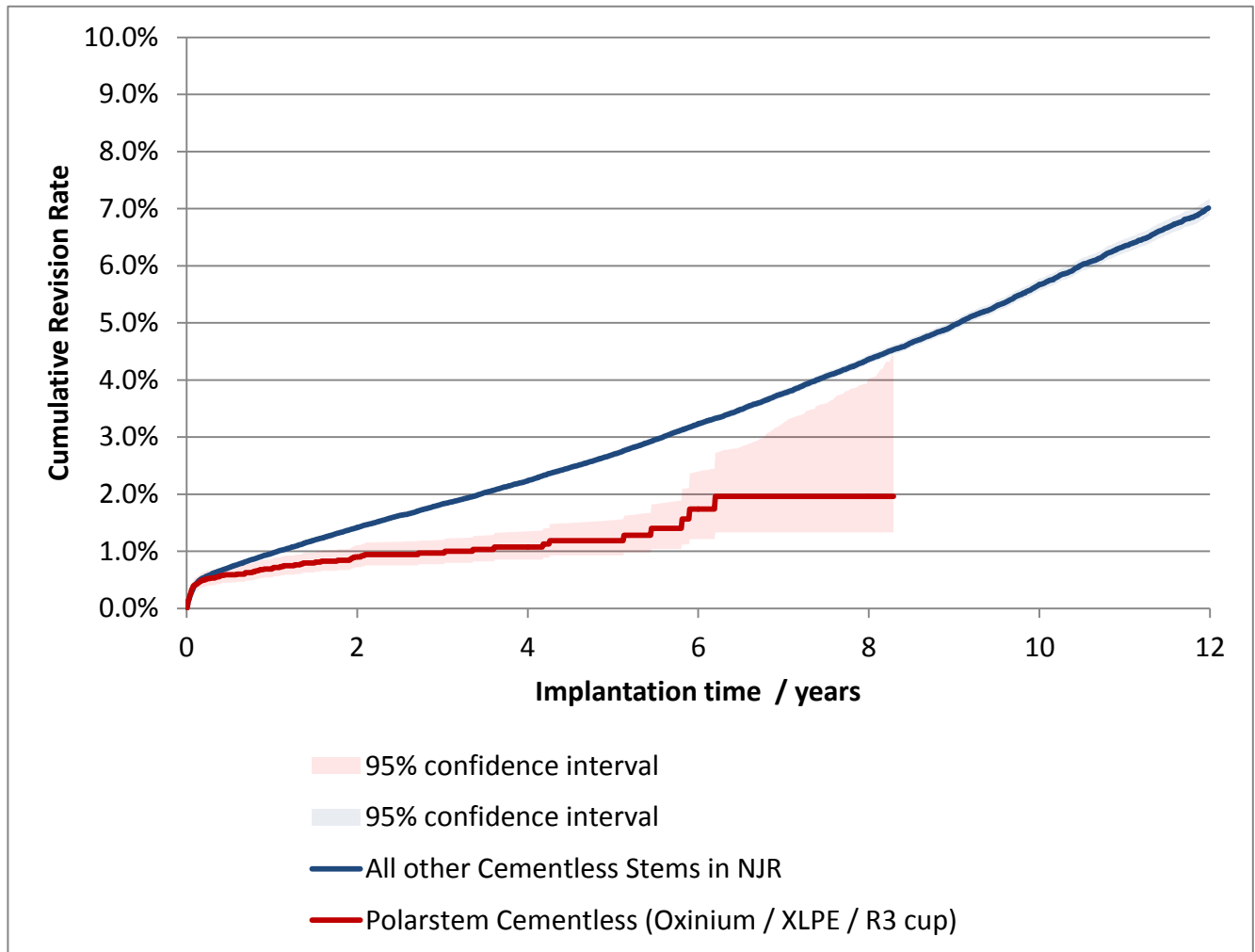


Components Revised	Number of procedures	Polarstem Cementless (Oxinium / XLPE / R3 cup)	All other Cementless Stems in NJR
Femoral only	38	42%	31%
Acetabular only	14	15%	26%
Both femoral and acetabular	18	20%	31%
Neither femoral nor acetabular revision recorded *	21	23%	12%

Revision and Survivorship

Cumulative Revision Rate

Endpoint: All reasons for revision. All Bearing types



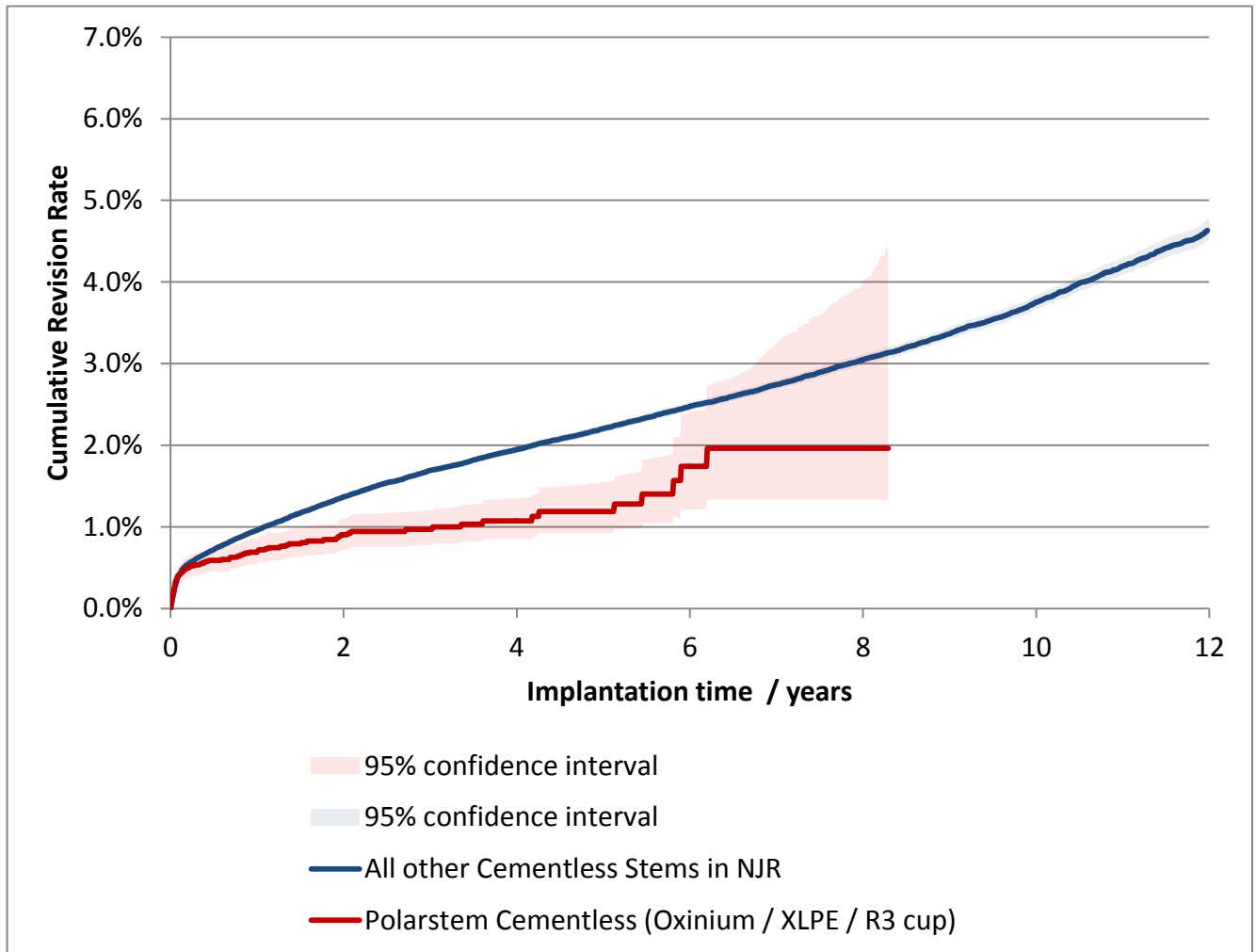
Cox Proportional Hazards model for revision risk ratio of Polarstem Cementless (Oxinium / XLPE / R3 cup) / All other Cementless Stems in NJR, with endpoint as any revision.

Adjustment	Hazard Ratio (95% CI)	p-value
All bearings. Unadjusted.	0.57 (0.47 - 0.71)	<0.001
All bearings. Adjusted for age, gender, year cohort and indications.	0.72 (0.59 - 0.89)	0.002

Revision and Survivorship

Cumulative Revision Rate

Endpoint: All reasons for revision. Excluding Metal-on-Metal



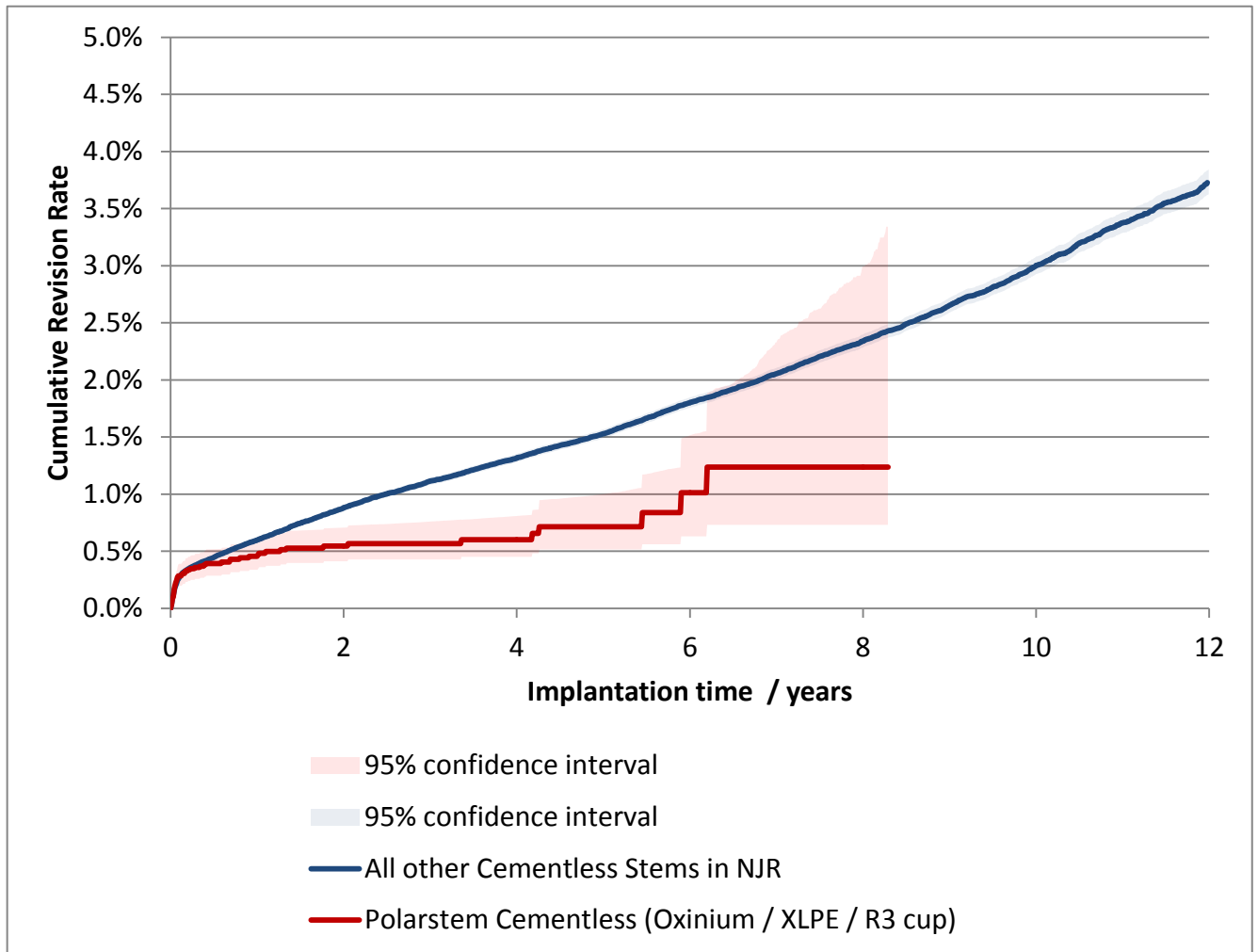
Cox Proportional Hazards model for revision risk ratio of Polarstem Cementless (Oxinium / XLPE / R3 cup) / All other Cementless Stems in NJR, with endpoint as any revision.

Adjustment	Hazard Ratio (95% CI)	p-value
Excluding MoM, Unadjusted.	0.65 (0.52 - 0.79)	<0.001
Excluding MoM. Adjusted for age, gender, year cohort and indications.	0.72 (0.59 - 0.89)	0.002

Revision and Survivorship

Cumulative Revision Rate

Endpoint: Femoral Revision. All Bearing types



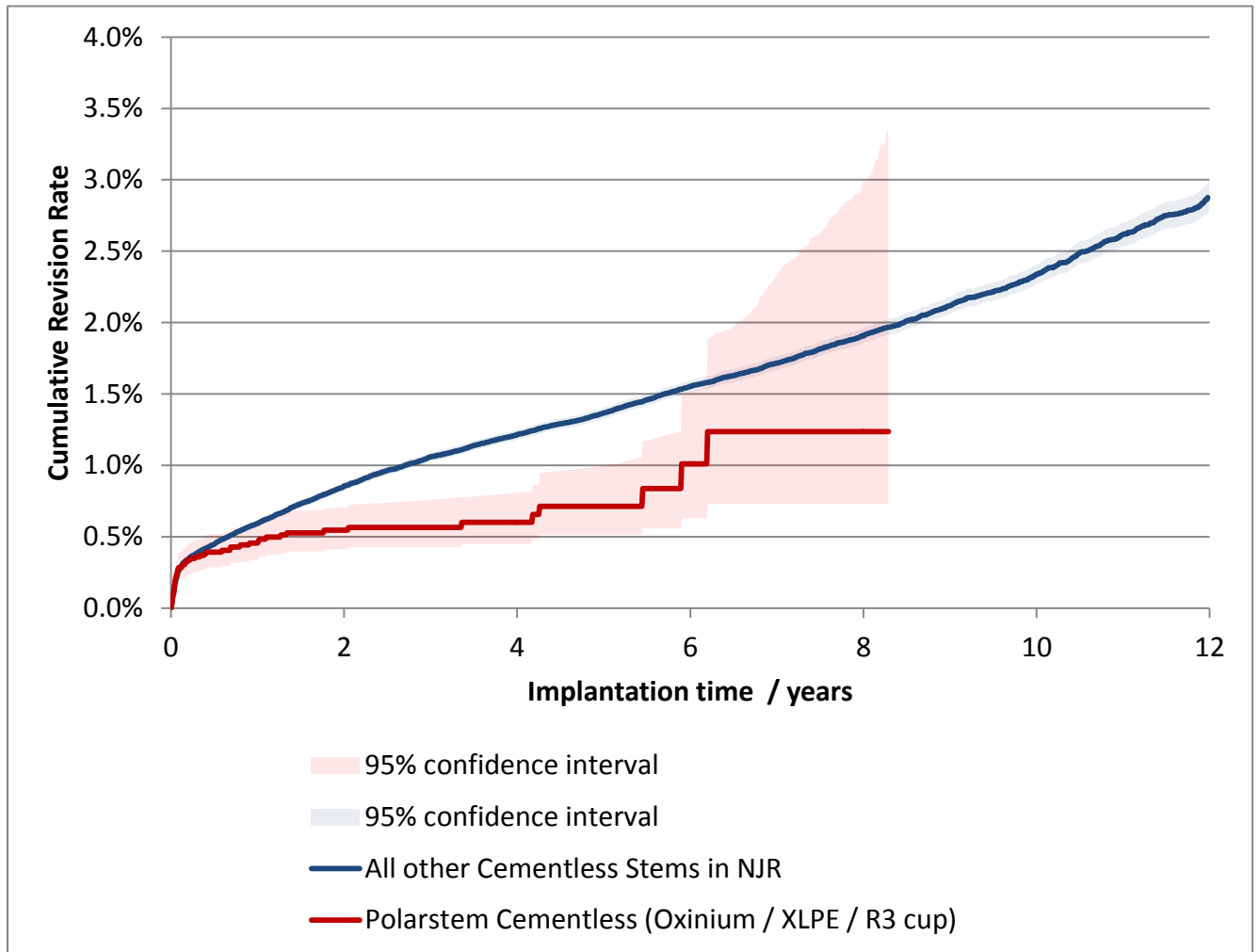
Cox Proportional Hazards model for revision risk ratio of Polarstem Cementless (Oxinium / XLPE / R3 cup) / all other All other Cementless Stems in NJR, with endpoint as Femoral revision.

Adjustment	Hazard Ratio (95% CI)	p-value
All bearings. Unadjusted.	0.60 (0.46 - 0.77)	<0.001
All bearings. Adjusted for age, gender, year cohort and indications.	0.72 (0.56 - 0.94)	0.017

Revision and Survivorship

Cumulative Revision Rate

Endpoint: Femoral Revision. Excluding Metal-on-Metal



Cox Proportional Hazards model for revision risk ratio of Polarstem Cementless (Oxinium / XLPE / R3 cup) / All other Cementless Stems in NJR, with endpoint as Femoral revision.

Adjustment	Hazard Ratio (95% CI)	p-value
Excluding MoM, Unadjusted	0.64 (0.49 - 0.83)	<0.001
Excluding MoM. Adjusted for age, gender, year cohort and indications.	0.73 (0.56 - 0.95)	0.018

Revision and Survivorship

Cumulative Revision Rate

Endpoint: All revisions

Period /years	All Bearing types				Excluding Metal on Metal Bearings			
	At Risk	Polarstem Cementless (Oxinium / XLPE / R3 cup)	All NJR Cementless Stems	All THR	At Risk	Polarstem Cementless (Oxinium / XLPE / R3 cup)	All NJR Cementless Stems	All THR
0	9,952	-	-	-	9,952	-	-	-
1	7,222	0.7% (0.5% - 0.9%)	1.0% (0.9% - 1.0%)	0.8% (0.8% - 0.8%)	7,222	0.7% (0.5% - 0.9%)	1.0% (0.9% - 1.0%)	0.8% (0.8% - 0.8%)
2	5,012	0.9% (0.7% - 1.1%)	1.4% (1.4% - 1.4%)	1.2% (1.1% - 1.2%)	5,012	0.9% (0.7% - 1.1%)	1.4% (1.3% - 1.4%)	1.1% (1.1% - 1.1%)
3	3,310	1.0% (0.8% - 1.2%)	1.8% (1.8% - 1.8%)	1.5% (1.5% - 1.5%)	3,310	1.0% (0.8% - 1.2%)	1.7% (1.6% - 1.7%)	1.4% (1.4% - 1.4%)
4	1,963	1.1% (0.9% - 1.4%)	2.2% (2.2% - 2.3%)	1.9% (1.8% - 1.9%)	1,963	1.1% (0.9% - 1.4%)	1.9% (1.9% - 2.0%)	1.6% (1.6% - 1.6%)
5	1,138	1.2% (0.9% - 1.5%)	2.7% (2.6% - 2.7%)	2.2% (2.2% - 2.3%)	1,138	1.2% (0.9% - 1.5%)	2.2% (2.1% - 2.2%)	1.9% (1.8% - 1.9%)
6	507	1.7% (1.2% - 2.4%)	3.2% (3.1% - 3.3%)	2.7% (2.7% - 2.7%)	507	1.7% (1.2% - 2.4%)	2.5% (2.4% - 2.5%)	2.1% (2.1% - 2.1%)
7	153	2.0% (1.3% - 3.2%)	3.7% (3.7% - 3.8%)	3.1% (3.1% - 3.2%)	153	2.0% (1.3% - 3.2%)	2.7% (2.7% - 2.8%)	2.4% (2.3% - 2.4%)
8	58	2.0% (1.3% - 4.0%)	4.3% (4.3% - 4.4%)	3.6% (3.6% - 3.7%)	58	2.0% (1.3% - 4.0%)	3.0% (3.0% - 3.1%)	2.7% (2.6% - 2.7%)
9		(-)	4.9% (4.8% - 5.0%)	4.1% (4.1% - 4.2%)		(-)	3.3% (3.3% - 3.4%)	3.0% (3.0% - 3.0%)
10		(-)	5.6% (5.5% - 5.7%)	4.7% (4.6% - 4.7%)		(-)	3.7% (3.6% - 3.8%)	3.4% (3.3% - 3.4%)
11		(-)	6.3% (6.2% - 6.4%)	5.3% (5.2% - 5.3%)		(-)	4.2% (4.1% - 4.3%)	3.8% (3.7% - 3.9%)
12		(-)	7.0% (6.9% - 7.2%)	5.9% (5.8% - 6.0%)		(-)	4.6% (4.5% - 4.8%)	4.3% (4.2% - 4.3%)
13		(-)	7.6% (7.4% - 7.8%)	6.4% (6.3% - 6.5%)		(-)	5.1% (5.0% - 5.3%)	4.7% (4.6% - 4.8%)
14		(-)	8.3% (8.1% - 8.5%)	7.0% (6.9% - 7.1%)		(-)	5.7% (5.5% - 6.0%)	5.2% (5.1% - 5.3%)
15		(-)	8.9% (8.6% - 9.3%)	7.7% (7.5% - 7.8%)		(-)	6.4% (6.0% - 6.7%)	5.8% (5.7% - 6.0%)

Cumulative revision rate with 95% confidence intervals

Rate is only reported for times where more than 40 remain at risk

Revision and Survivorship

Cumulative Revision Rate

Endpoint: Femoral Revision

Period /years	All Bearing types				Excluding Metal on Metal Bearings			
	At Risk	Polarstem Cementless (Oxinium / XLPE / R3 cup)	All NJR Cementless Stems	All THR	At Risk	Polarstem Cementless (Oxinium / XLPE / R3 cup)	All NJR Cementless Stems	All THR
0	9,952	-	-	-	9,952	-	-	-
1	7,222	0.5% (0.3% - 0.6%)	0.6% (0.6% - 0.6%)	0.5% (0.5% - 0.5%)	7,222	0.5% (0.3% - 0.6%)	0.6% (0.6% - 0.6%)	0.5% (0.5% - 0.5%)
2	5,012	0.5% (0.4% - 0.7%)	0.9% (0.8% - 0.9%)	0.8% (0.7% - 0.8%)	5,012	0.5% (0.4% - 0.7%)	0.8% (0.8% - 0.9%)	0.7% (0.7% - 0.7%)
3	3,310	0.6% (0.4% - 0.8%)	1.1% (1.1% - 1.1%)	1.0% (1.0% - 1.0%)	3,310	0.6% (0.4% - 0.8%)	1.0% (1.0% - 1.1%)	0.9% (0.9% - 0.9%)
4	1,963	0.6% (0.5% - 0.8%)	1.3% (1.3% - 1.3%)	1.2% (1.2% - 1.2%)	1,963	0.6% (0.5% - 0.8%)	1.2% (1.2% - 1.2%)	1.0% (1.0% - 1.1%)
5	1,138	0.7% (0.5% - 1.0%)	1.5% (1.5% - 1.6%)	1.5% (1.4% - 1.5%)	1,138	0.7% (0.5% - 1.0%)	1.4% (1.3% - 1.4%)	1.2% (1.2% - 1.2%)
6	507	1.0% (0.6% - 1.5%)	1.8% (1.7% - 1.8%)	1.8% (1.7% - 1.8%)	507	1.0% (0.6% - 1.5%)	1.5% (1.5% - 1.6%)	1.4% (1.4% - 1.4%)
7	153	1.2% (0.7% - 2.3%)	2.0% (2.0% - 2.1%)	2.0% (2.0% - 2.1%)	153	1.2% (0.7% - 2.3%)	1.7% (1.7% - 1.7%)	1.6% (1.5% - 1.6%)
8	58	1.2% (0.7% - 3.0%)	2.3% (2.3% - 2.4%)	2.4% (2.3% - 2.4%)	58	1.2% (0.7% - 3.0%)	1.9% (1.8% - 1.9%)	1.8% (1.7% - 1.8%)
9		(-)	2.6% (2.6% - 2.7%)	2.7% (2.7% - 2.8%)		(-)	2.1% (2.0% - 2.2%)	2.0% (2.0% - 2.0%)
10		(-)	3.0% (2.9% - 3.1%)	3.1% (3.0% - 3.1%)		(-)	2.3% (2.3% - 2.4%)	2.2% (2.2% - 2.3%)
11		(-)	3.4% (3.3% - 3.4%)	3.5% (3.4% - 3.5%)		(-)	2.6% (2.5% - 2.7%)	2.5% (2.5% - 2.6%)
12		(-)	3.7% (3.6% - 3.8%)	3.9% (3.9% - 4.0%)		(-)	2.9% (2.8% - 3.0%)	2.9% (2.8% - 2.9%)
13		(-)	4.1% (3.9% - 4.2%)	4.3% (4.3% - 4.4%)		(-)	3.2% (3.1% - 3.3%)	3.2% (3.1% - 3.3%)
14		(-)	4.4% (4.2% - 4.6%)	4.8% (4.7% - 4.9%)		(-)	3.5% (3.3% - 3.6%)	3.5% (3.4% - 3.6%)
15		(-)	4.7% (4.5% - 4.9%)	5.2% (5.1% - 5.4%)		(-)	3.8% (3.6% - 4.0%)	3.9% (3.7% - 4.0%)

Cumulative revision rate with 95% confidence intervals

Rate is only reported for times where more than 40 remain at risk

Patient Reported Outcomes

PROMs Analysis

Comprising PROMs data up to and including: 29/03/2018

Oxford Hip Score (0 - 48)	Polarstem Cementless (Oxinium / XLPE / R3 cup)	All NJR Cementless Stems	All THR in NJR
Paired Records	2,736	128,710	290,986
PreOp score	17.8 (17.5 - 18.2)	18.5 (18.4 - 18.5)	18.0 (18.0 - 18.0)
6 month score	41.1 (40.8 - 41.4)	39.9 (39.8 - 39.9)	39.3 (39.3 - 39.4)
6 month score (adjusted)	41.0 (40.7 - 41.3)	39.5 (39.4 - 39.5)	39.3 (39.3 - 39.4)
Health gain	23.3 (22.9 - 23.7)	21.4 (21.3 - 21.4)	21.3 (21.3 - 21.4)
Health gain (adjusted)	23.0 (22.7 - 23.2)	21.4 (21.4 - 21.5)	21.3 (21.3 - 21.4)
p value (adjusted health gain)	< 0.001		
Score Improved	98.1%	97.1%	97.2%

EQ-5D Index (-0.59 - 1.00)	Polarstem Cementless (Oxinium / XLPE / R3 cup)	All NJR Cementless Stems	All THR in NJR
Paired Records	2,570	118,922	267,601
PreOp score	0.357 (0.345 - 0.369)	0.371 (0.369 - 0.372)	0.355 (0.354 - 0.356)
6 month score	0.824 (0.815 - 0.834)	0.801 (0.800 - 0.802)	0.792 (0.791 - 0.792)
6 month score (adjusted)	0.823 (0.814 - 0.831)	0.794 (0.793 - 0.795)	0.792 (0.791 - 0.792)
Health gain	0.467 (0.454 - 0.481)	0.430 (0.428 - 0.432)	0.437 (0.435 - 0.438)
Health gain (adjusted)	0.468 (0.459 - 0.476)	0.439 (0.438 - 0.440)	0.437 (0.436 - 0.437)
p value (adjusted health gain)	< 0.001		
Score Improved	91.4%	89.4%	89.4%

EQ-VAS (0 - 100)	Polarstem Cementless (Oxinium / XLPE / R3 cup)	All NJR Cementless Stems	All THR in NJR
Paired Records	2,457	114,380	256,601
PreOp score	63.3 (62.4 - 64.2)	65.4 (65.3 - 65.6)	65.0 (64.9 - 65.1)
6 month score	79.7 (79.0 - 80.3)	77.6 (77.5 - 77.7)	76.8 (76.7 - 76.9)
6 month score (adjusted)	79.6 (79.0 - 80.2)	76.9 (76.8 - 77.0)	76.8 (76.7 - 76.8)
Health gain	16.3 (15.4 - 17.3)	12.2 (12.0 - 12.3)	11.8 (11.7 - 11.9)
Health gain (adjusted)	14.6 (13.9 - 15.2)	11.9 (11.8 - 12.0)	11.8 (11.7 - 11.8)
p value (adjusted health gain)	< 0.001		
Score Improved	72.7%	66.7%	65.6%

Adjusted scores correspond to the NHS Digital version 3 casemix-adjustment model. This includes patient variables from PROMs, HES, and IMD data.

Bespoke Report for:

Polarstem Cementless (Oxinium / XLPE / R3 cup)

Responses are not case mix adjusted

Patient Reported Outcomes



Disclaimer

Disclaimer

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Appendix A: Femoral Stems

Catalogue Number	Description	Number Implanted
11000331	PLUS POLARSTEM Titanium Stem Std Ti.HA 3	1
11000332	PLUS POLARSTEM Titanium Stem Std Ti.HA 4	4
75002069	PLUS POLARSTEM Titanium Stem Std Ti.HA 0	2
75002070	PLUS POLARSTEM Titanium Stem Std Ti.HA 1	7
75002071	PLUS POLARSTEM Titanium Stem Std Ti.HA 2	11
75002072	PLUS POLARSTEM Titanium Stem Std Ti.HA 3	12
75002073	PLUS POLARSTEM Titanium Stem Std Ti.HA 4	17
75002074	PLUS POLARSTEM Titanium Stem Std Ti.HA 5	11
75002075	PLUS POLARSTEM Titanium Stem Std Ti.HA 6	6
75002076	PLUS POLARSTEM Titanium Stem Std Ti.HA 7	5
75002078	PLUS POLARSTEM Titanium Stem Lat Ti.HA 1	2
75002080	PLUS POLARSTEM Titanium Stem Lat Ti.HA 3	1
75002081	PLUS POLARSTEM Titanium Stem Lat Ti.HA 4	3
75002082	PLUS POLARSTEM Titanium Stem Lat Ti.HA 5	1
75018112	PLUS POLARSTEM Titanium Stem Std Ti.HA 9	1
75018399	POLARSTEM Collar standard Ti/HA 01	9
75018400	POLARSTEM Collar standard Ti/HA 0	48
75018401	POLARSTEM Collar standard Ti/HA 1	80
75018402	POLARSTEM Collar standard Ti/HA 2	109
75018403	POLARSTEM Collar standard Ti/HA 3	101
75018404	POLARSTEM Collar standard Ti/HA 4	41
75018405	POLARSTEM Collar standard Ti/HA 5	30
75018406	POLARSTEM Collar standard Ti/HA 6	25
75018407	POLARSTEM Collar standard Ti/HA 7	13
75018408	POLARSTEM Collar standard Ti/HA 8	2
75018409	POLARSTEM Collar standard Ti/HA 9	2
75018412	POLARSTEM Collar lateral Ti/HA 1	14
75018413	POLARSTEM Collar lateral Ti/HA 2	25
75018414	POLARSTEM Collar lateral Ti/HA 3	17
75018415	POLARSTEM Collar lateral Ti/HA 4	17
75018416	POLARSTEM Collar lateral Ti/HA 5	12
75018417	POLARSTEM Collar lateral Ti/HA 6	5
75018418	POLARSTEM Collar lateral Ti/HA 7	4
75100462	POLARSTEM Cementless Stem Std Ti.HA 01	204
75100463	POLARSTEM Cementless Std Stem Ti/HA 0	587
75100464	POLARSTEM Cementless Stem Std Ti.HA 1	1,310
75100465	POLARSTEM Cementless Stem Std Ti.HA 2	1,693
75100466	POLARSTEM Cementless Stem Std Ti.HA 3	1,383
75100467	POLARSTEM Cementless Stem Std Ti.HA 4	816
75100468	POLARSTEM Cementless Stem Std Ti.HA 5	453
75100469	POLARSTEM Cementless Stem Std Ti.HA 6	283
75100470	POLARSTEM Cementless Stem Std Ti.HA 7	175
75100471	POLARSTEM Cementless Stem Std Ti.HA 8	103
75100472	POLARSTEM Cementless Stem Std Ti.HA 9	37
75100473	POLARSTEM Cementless Stem Std Ti.HA10	5
75100474	POLARSTEM Cementless Stem Lat Ti.HA 1	390

Appendix A: Femoral Stems

Catalogue Number	Description	Number Implanted
75100475	POLARSTEM Cementless Stem Lat Ti.HA 2	513
75100476	POLARSTEM Cementless Stem Lat Ti.HA 3	541
75100477	POLARSTEM Cementless Stem Lat Ti.HA 4	321
75100478	POLARSTEM Cementless Stem Lat Ti.HA 5	192
75100479	POLARSTEM lateral with Ti.HA 6	161
75100480	POLARSTEM Cementless Stem Lat Ti.HA 7	99
75100481	POLARSTEM Cementless Stem Lat Ti.HA 8	33
75100482	POLARSTEM Cementless Stem Lat Ti.HA 9	13
75102074	POLARSTEM VALGUS TI/HA SIZE 2	1
75102210	POLARSTEM Collar lateral Ti/HA 10	1

Appendix B: Femoral Heads

Catalogue Number	Description	Number Implanted
71342200	OXI FEM HEAD 12/14 TPR 22MM +0	5
71342204	OXI FEM HEAD 12/14 TPR 22MM +4	4
71342340	40MM OXINIUM MODULAR HEAD	106
71342344	44MM OXINIUM MODULAR HEAD	17
71342800	OXI FEM HEAD 12/14 TPR 28MM +0	845
71342803	OXI FEM HEAD 12/14 TPR 28MM -3	233
71342804	OXI FEM HEAD 12/14 TPR 28MM +4	516
71342808	OXI FEM HEAD 12/14 TPR 28MM +8	78
71342812	OXI FEM HEAD 12/14 TPR 28MM +1	7
71343200	OXI FEM HEAD 12/14 TPR 32mm +0	4,026
71343203	OXI FEM HEAD 12/14 TPR 32mm -3	1,776
71343204	OXI FEM HEAD 12/14 TPR 32mm +4	2,441
71343208	OXI FEM HEAD 12/14 TPR 32mm +8	437
71343212	OXI FEM HEAD 12/14 TPR 32mm +1	36
71343216	OXI FEM HEAD 12/14 TPR 32mm +1	1
71343600	OXI FEM HEAD 12/14 TPR 36mm +0	3,029
71343603	OXI FEM HEAD 12/14 TPR 36mm -3	1,468
71343604	OXI FEM HEAD 12/14 TPR 36mm +4	1,783
71343608	OXI FEM HEAD 12/14 TPR 36mm +8	445
71343612	OXI FEM HEAD 12/14 TPR 36mm +1	88

Appendix C: Acetabular Liners

Catalogue Number	Description	Number Implanted
71330766	R3 0DEG XLPE ACET LNR 36 X 66/70	3
71331106	R3 20 DEG XLPE LNR 44MM ID X 60 OD	17
71332752	R3 0 DEG XLPE ACET LNR 36MM X 52MM	993
71332754	R3 0 DEG XLPE ACET LNR 36MM X 54MM	764
71332756	R3 0 DEG XLPE ACET LNR 36MM X MM56	633
71332758	R3 0 DEG XLPE ACET LNR 36MM X 58MM	349
71332760	R3 0 DEG XLPE ACET LNR 36MM X 60MM	186
71332762	R3 0 DEG XLPE ACET LNR 36MM X 62MM	85
71332764	R3 0 DEG XLPE ACET LNR 36MM X 64MM	25
71332766	R3 0 DEG XLPE ACET LNR 36MM X 66/68MM	3
71334844	R3 0 DEG XLPE ACET LNR 22MM X 44MM	1
71334944	R3 20 DEG XLPE ACET LNR 22MM X 44MM	8
71334946	R3 20 DEG XLPE ACET LNR 28MM X 46MM	282
71334948	R3 20 DEG XLPE ACET LNR 28MM X 48MM	214
71334950	R3 20 DEG XLPE ACET LNR 28MM X 50MM	369
71334952	R3 20 DEG XLPE ACET LNR 28MM X 52MM	268
71334954	R3 20 DEG XLPE ACET LNR 28MM X 54MM	112
71334956	R3 20 DEG XLPE ACET LNR 28MM X 56MM	80
71334958	R3 20 DEG XLPE ACET LNR 28MM X 58MM	28
71334960	R3 20 DEG XLPE ACET LNR 28MM X 60MM	7
71335752	R3 20 DEG XLPE ACET LNR 36MM X 52MM	1,211
71335754	R3 20 DEG XLPE ACET LNR 36MM X 54MM	989
71335756	R3 20 DEG XLPE ACET LNR 36MM X 56MM	750
71335758	R3 20 DEG XLPE ACET LNR 36MM X 58MM	491
71335760	R3 20 DEG XLPE ACET LNR 36MM X 60MM	219
71335762	R3 20 DEG XLPE ACET LNR 36MM X 62MM	74
71335764	R3 20 DEG XLPE ACET LNR 36MM X 64MM	36
71335766	R3 20 DEG XLPE ACET LNR 36MM X 66/68MM	2
71337546	R3 0 DEG XLPE ACET LNR 28MM X 46MM	102
71337548	R3 0 DEG XLPE ACET LNR 28MM X 48MM	56
71337550	R3 0 DEG XLPE ACET LNR 28MM X 50MM	68
71337552	R3 0 DEG XLPE ACET LNR 28MM X 52MM	55
71337554	R3 0 DEG XLPE ACET LNR 28MM X 54MM	23
71337556	R3 0 DEG XLPE ACET LNR 28MM X 56MM	14
71337648	R3 20 DEG XLPE ACET LNR 32MM X 48MM	1,160
71337650	R3 20 DEG XLPE ACET LNR 32MM X 50MM	1,882
71337652	R3 20 DEG XLPE ACET LNR 32MM X 52MM	1,347
71337654	R3 20 DEG XLPE ACET LNR 32MM X 54MM	979
71337656	R3 20 DEG XLPE ACET LNR 32MM X 56MM	682
71337658	R3 20 DEG XLPE ACET LNR 32MM X 58MM	343
71337660	R3 20 DEG XLPE ACET LNR 32MM X 60MM	113
71337662	R3 20 DEG XLPE ACET LNR 32MM X 62MM	31
71338687	R3 20 DEG XLPE LNR 40MM ID X 56OD	98
71338688	R3 20 DEG XLPE LNR 40MM ID X 58OD	8
71339548	R3 0 DEG XLPE ACET LNR 32MM X 48MM	459
71339550	R3 0 DEG XLPE ACET LNR 32MM X 50MM	903

Appendix C: Acetabular Liners

Catalogue Number	Description	Number Implanted
71339552	R3 0 DEG XLPE ACET LNR 32MM X 52MM	418
71339554	R3 0 DEGREE XLPE LNR 32MM X 54MM	213
71339556	R3 0 DEG XLPE ACET LNR 32MM X 56MM	129
71339558	R3 0 DEG XLPE ACET LNR 32MM X 58MM	37
71339560	R3 0 DEG XLPE ACET LNR 32MM X 60MM	13
71339562	R3 0 DEG XLPE ACET LNR 32MM X 62MM	9

Appendix D: Acetabular Shells

Catalogue Number	Description	Number Implanted
71331940	R3 3 HOLE HA CTD ACET SHELL 40MM	1
71331944	R3 3 HOLE HA CTD ACET SHELL 44MM	9
71331946	R3 3 HOLE HA CTD ACET SHELL 46MM	345
71331948	R3 3 HOLE HA CTD ACET SHELL 48MM	1,675
71331950	R3 3 HOLE HA CTD ACET SHELL 50MM	2,772
71331952	R3 3 HOLE HA CTD ACET SHELL 52MM	3,674
71331954	R3 3 HOLE HA CTD ACET SHELL 54MM	2,683
71331956	R3 3 HOLE HA CTD ACET SHELL 56MM	1,997
71331958	R3 3 HOLE HA CTD ACET SHELL 58MM	1,062
71331960	R3 3 HOLE HA CTD ACET SHELL 60MM	467
71331962	R3 3 HOLE HA CTD ACET SHELL 62MM	170
71331964	R3 3 HOLE HA CTD ACET SHELL 64MM	58
71331966	R3 3 HOLE HA CTD ACET SHELL 66MM	7
71331968	R3 3 HOLE HA CTD ACET SHELL 68MM	1
71332246	R3 0 HOLE HA CTD ACET SHELL 46MM	37
71332248	R3 0 HOLE HA CTD ACET SHELL 48MM	214
71332250	R3 0 HOLE HA CTD ACET SHELL 50MM	438
71332252	R3 0 HOLE HA CTD ACET SHELL 52MM	615
71332254	R3 0 HOLE HA CTD ACET SHELL 54MM	400
71332256	R3 0 HOLE HA CTD ACET SHELL 56MM	389
71332258	R3 0 HOLE HA CTD ACET SHELL 58MM	195
71332260	R3 0 HOLE HA CTD ACET SHELL 60MM	89
71332262	R3 0 HOLE HA CTD ACET SHELL 62MM	29
71332264	R3 0 HOLE HA CTD ACET SHELL 64MM	2
71335548	R3 3 HOLE ACET SHELL MM48	2
71335550	R3 3 HOLE ACET SHELL 50MM	10