

Implant Bespoke Report for:

DePuy

Global Glenoid (APG)

Comprising PRIMARY shoulders implanted up to:	06 September 2020
NJR Database extract:	05 November 2020
Produced on:	13 November 2020
Licensed for use until:	13 November 2022

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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 Global Glenoid (APG), based on data collected by the NJR up to the specified date for the components listed in Appendix A. This report excludes all procedures where major components from mixed manufacturers have been implanted.

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NJR Recorded Usage

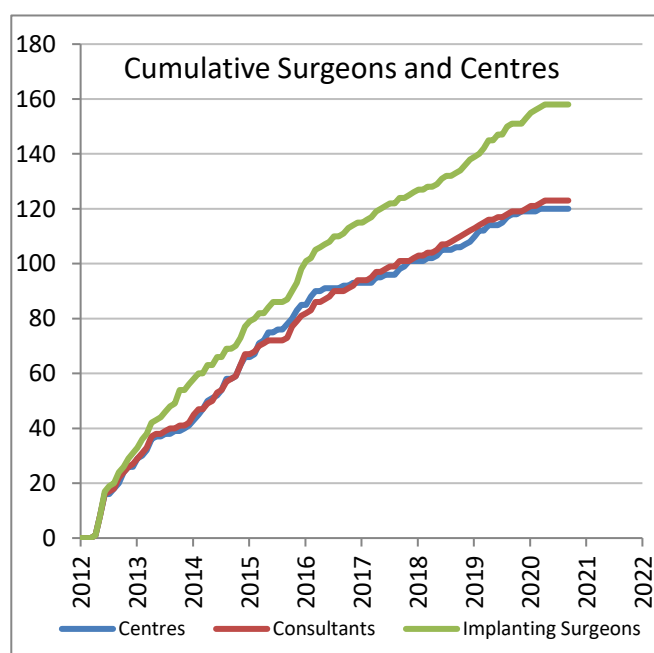
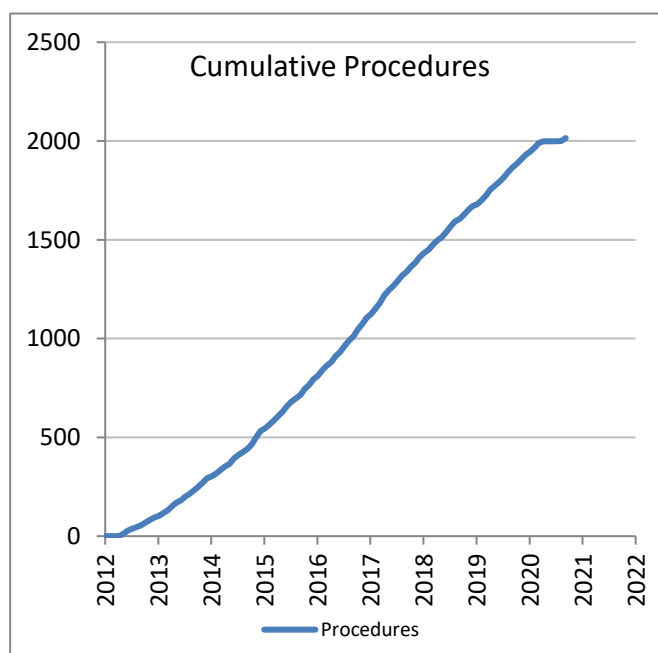
Implant Usage

Date of first recorded usage in the NJR: **05 April 2012**Date of last recorded usage in this dataset **28 August 2020**

Maximum implantation time: 8.4 years

Mean implantation time: 3.9 years

Totals Recorded in NJR	Cumulative Total
Procedures	2015
Patients	1877
Centres	120
Consultants	123
Implanting Surgeons	158



Current Outcome	Year of implantation														Total	%
	Pre-2009	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020			
Death	0	0	0	0	16	37	25	26	19	12	2	0	0	137	6.8%	
Revised	0	0	0	0	1	5	3	3	11	9	3	0	0	35	1.7%	
Unrevised	0	0	0	0	82	162	213	238	282	284	246	265	71	1843	91.5%	
Total	0	0	0	0	99	204	241	267	312	305	251	265	71	2015	100%	

Patient / Procedure Details

Patient Details

	Global Glenoid (APG)	All other Anatomic Total in NJR
Total Procedures	2015	11778
Total Patients	1877	10887
Demographics		
Mean age	71.0	69.1
< 50	1.6%	4.1%
50 – 59	8.3%	11.4%
60 – 69	28.7%	31.0%
70 – 79	46.7%	40.4%
≥ 80	14.7%	13.0%
% Male	28.6%	32.3%
ASA Grades		
P1 - Fit and healthy	7.3%	9.8%
P2 - Mild disease not incapacitating	70.3%	68.1%
P3 - Incapacitating systemic disease	22.1%	21.7%
P4 / P5	0.3%	0.4%
Indications		
Osteoarthritis	95.04%	90.88%
Other Inflammatory Arthropathy	1.89%	3.92%
Cuff Tear Repair	0.20%	0.93%
Avascular Necrosis	2.48%	2.72%
Acute Trauma	0.15%	0.32%
Trauma Sequelae	1.44%	2.48%
Other	0.55%	1.34%

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

Procedure

	Global Glenoid (APG)	All NJR Anatomic Total
Procedure Type		
Hemi-arthroplasty	0%	0%
Resurfacing Arthroplasty	0%	0%
Resurfacing Hemi-arthroplasty	0%	0%
Reverse-Polarity Total Prosthetic Replacement	0%	0%
Total Prosthetic Replacement	100%	100%

Revision and Survivorship

Reasons for Revision

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

Reason for Revision	Number of procedures †	Expected Revisions *	p value
Infection	7	4.49	0.203
Instability	9	17.76	0.021
Cuff Insufficiency	15	31.53	<0.001
Aseptic Loosening	1	4.01	0.169
Aseptic Loosening Humerus	0	0.00	1
Aseptic Loosening Glenoid	0	0.00	1
Periprosthetic Fracture	1	1.80	1
Stiffness	0	0.00	1
Impingement	0	0.00	1
Component Dissociation	0	0.00	1
Glenoid Implant Wear	0	0.00	1
Native Glenoid Surface Erosion	0	0.00	1
Implant Fracture	0	0.00	1
Lysis Humerus	0	0.00	1
Lysis Glenoid	0	0.00	1
Dislocation Subluxation	0	0.00	1
Unexplained Pain	0	0.00	1
Conversion Hemi to Total	0	0.71	1
Conversion Total to Hemi	1	0.44	0.378
Other / Not recorded	7	15.38	0.019
Total Revisions	35	66.96	<0.001

† multiple reasons may be listed for one revision procedure

* Based on all other Anatomic Total, adjusted for agegroup, gender, indications, and implantation year

Significantly better, $p < 0.001$ Significantly better, $p < 0.05$ Significantly worse $p < 0.05$ Significantly worse $p < 0.001$ 

Revision and Survivorship

Components Revised

Components Revised	Number of procedures	Percentage of Revisions	
		Global Glenoid (APG)	All other Anatomic Total in NJR
Humeral Only Revised	7	20.0%	32.0%
Glenoid Only Revised	2	5.7%	8.8%
Humeral and Glenoid Revised	21	60.0%	48.2%
Isolated Glenoid Conversion	0	0.0%	0.0%
Modular Exchange	4	11.4%	9.9%
Not Recorded	1	2.9%	1.1%
Total Revisions	35		

Humeral Revised and Glenoid Revised only include procedures where a bone-interfacing component has been revised.

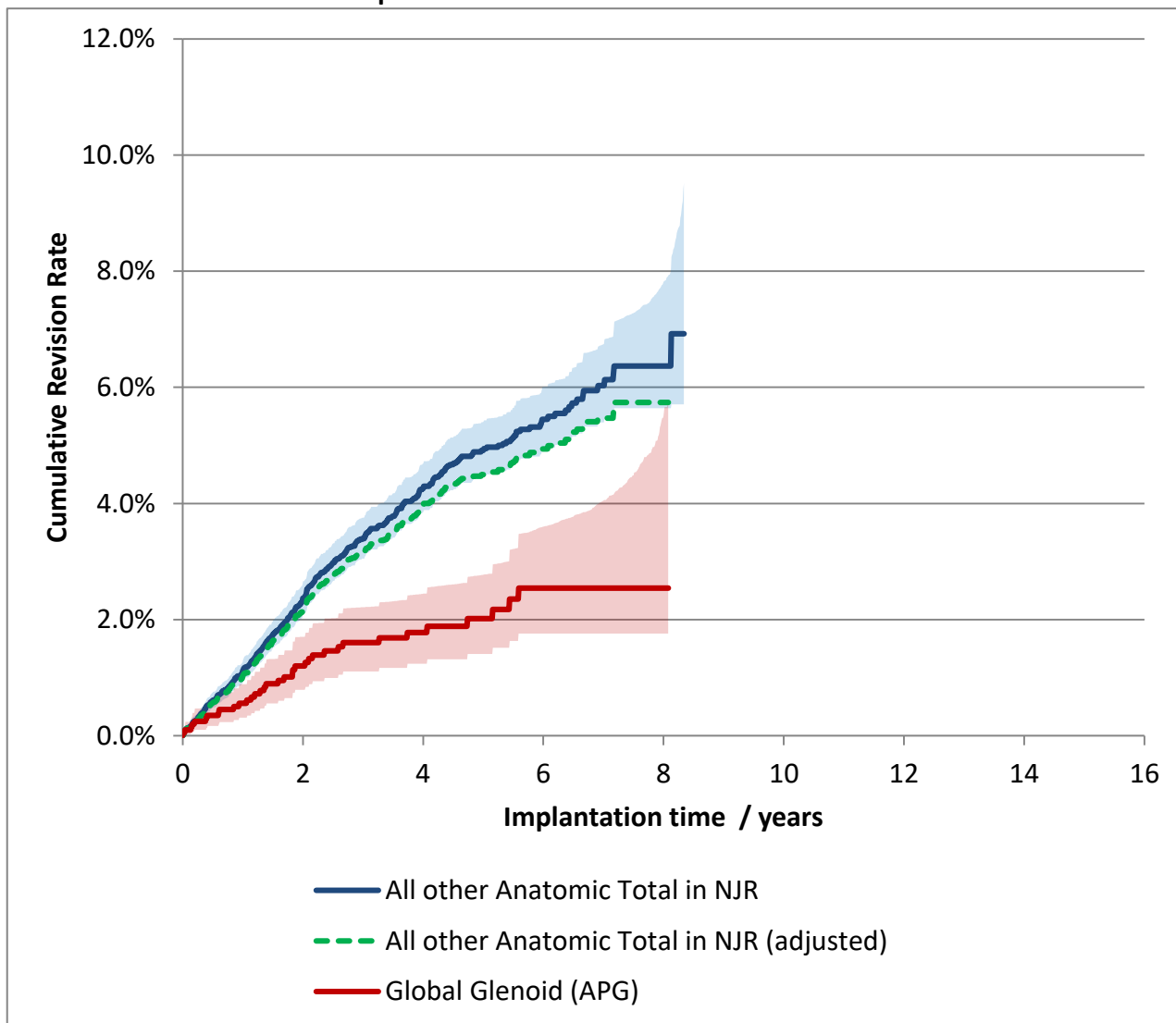
"Isolated Glenoid Conversion" represents conversion of hemi to total where the humeral component has not been revised.

"Modular Exchange" includes procedures where only components that are not bone-interfacing have been added or removed, e.g. humeral heads, humeral liners, glenoid liners, glenoid heads. Note that this number may be overstated if one or more revision components have been used but not recorded on the NJR form.

Revision and Survivorship

Cumulative Revision Rate

Endpoint: All reasons for revision



Cox Proportional Hazards model for revision risk ratio of Global Glenoid (APG) / All other Anatomic Total in NJR

Adjustment	Hazard Ratio (95% CI)	p-value
Unadjusted	0.44 (0.31 - 0.62)	<0.001
Adjusted for age, gender, year cohort and implant type*	0.48 (0.34 - 0.68)	<0.001

* Implant type: Total Anatomic, Total Reverse, or Hemi (anatomic)

Cumulative Revision Rate

Endpoint: All revisions

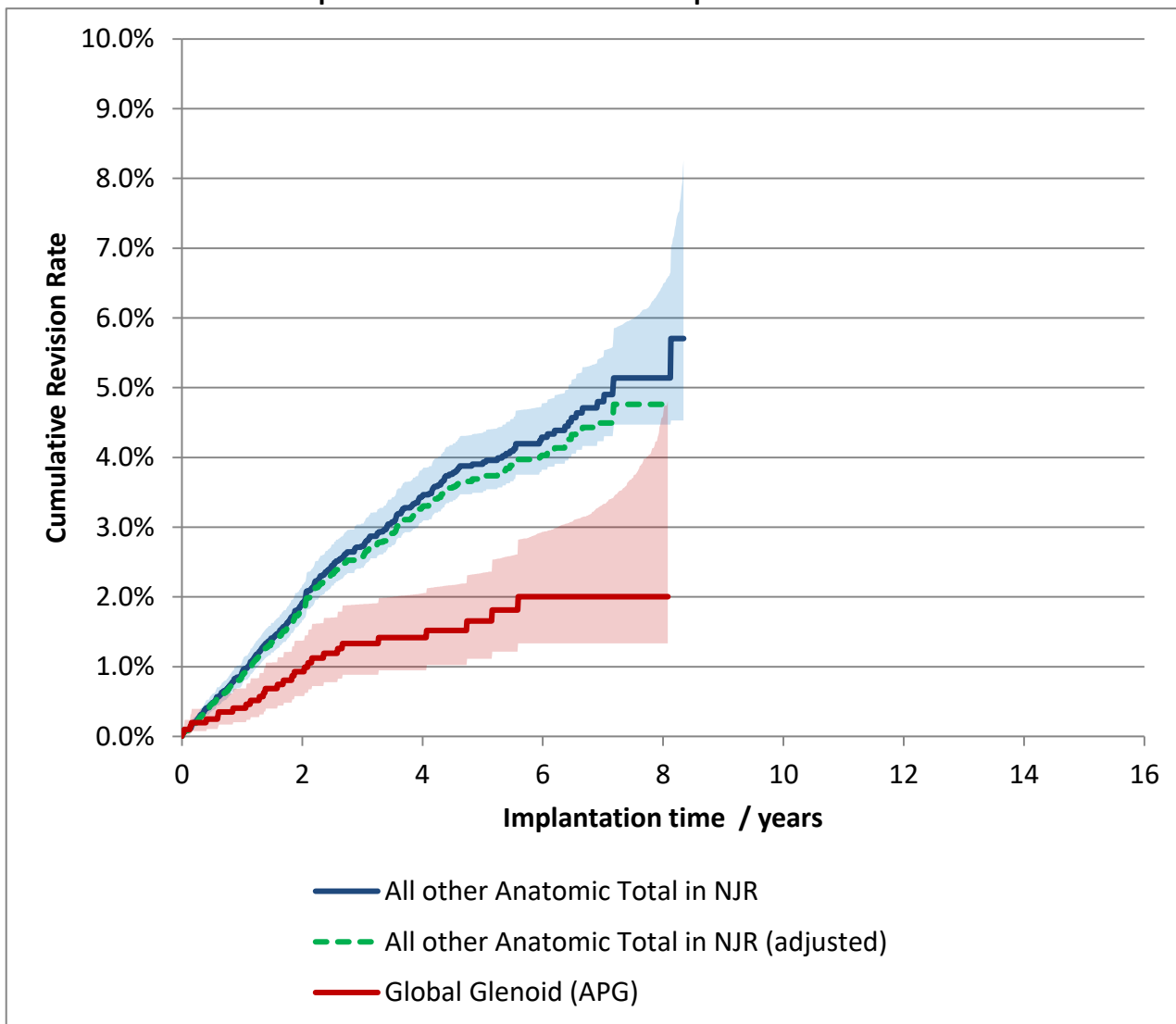
Period /years	At Risk	Global Glenoid (APG)	All other Anatomic Total in NJR
0	2015	-	-
1	1844	0.6% (0.3% - 0.9%)	1.1% (0.9% - 1.3%)
2	1557	1.2% (0.8% - 1.7%)	2.4% (2.1% - 2.7%)
3	1277	1.6% (1.1% - 2.2%)	3.4% (3.0% - 3.8%)
4	950	1.8% (1.2% - 2.4%)	4.3% (3.8% - 4.7%)
5	658	2.0% (1.4% - 2.8%)	4.9% (4.5% - 5.4%)
6	389	2.5% (1.8% - 3.6%)	5.5% (4.9% - 6.0%)
7	192	2.5% (1.8% - 4.0%)	6.0% (5.4% - 6.7%)
8	49	2.5% (1.8% - 5.5%)	6.4% (5.6% - 7.8%)
9		(-)	(-)
10		(-)	(-)

Cumulative revision rate with 95% confidence intervals
Rate only reported for times where > 40 remain at risk

Revision and Survivorship

Cumulative Revision Rate

Endpoint: Humeral Component Revised



Cox Proportional Hazards model for revision risk ratio of Global Glenoid (APG) / All other Anatomic Total in NJR, with endpoint humeral revision

Adjustment	Hazard Ratio (95% CI)	p-value
Unadjusted	0.44 (0.30 - 0.64)	<0.001
Adjusted for age, gender, year cohort and implant type*	0.47 (0.32 - 0.69)	<0.001

* Implant type: Total Anatomic, Total Reverse, or Hemi (anatomic)

Cumulative Revision Rate

Endpoint: Humeral revision

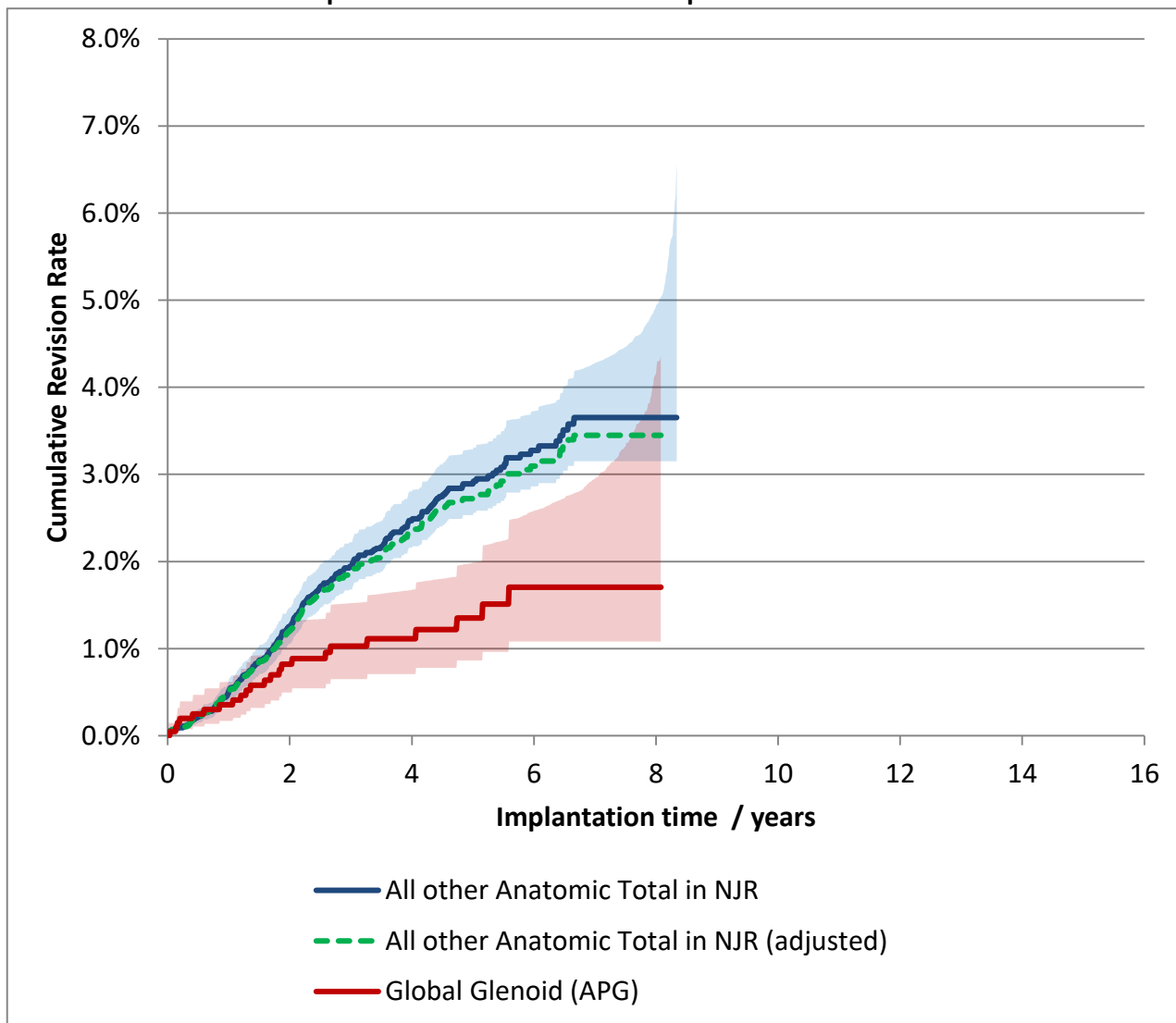
Period /years	At Risk	Global Glenoid (APG)	All other Anatomic Total in NJR
0	2015	-	-
1	1844	0.4% (0.2% - 0.7%)	0.9% (0.8% - 1.1%)
2	1557	0.9% (0.6% - 1.4%)	1.9% (1.7% - 2.2%)
3	1277	1.3% (0.9% - 1.9%)	2.7% (2.4% - 3.1%)
4	950	1.4% (0.9% - 2.1%)	3.4% (3.1% - 3.8%)
5	658	1.7% (1.1% - 2.3%)	3.9% (3.5% - 4.4%)
6	389	2.0% (1.3% - 2.9%)	4.3% (3.8% - 4.8%)
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9		(-)	(-)
10		(-)	(-)

Cumulative revision rate with 95% confidence intervals
Rate only reported for times where > 40 remain at risk

Revision and Survivorship

Cumulative Revision Rate

Endpoint: Glenoid Component Revised



Cox Proportional Hazards model for revision risk ratio of Global Glenoid (APG) / All other Anatomic Total in NJR, with endpoint glenoid revision

Adjustment	Hazard Ratio (95% CI)	p-value
Unadjusted	0.50 (0.33 - 0.77)	0.002
Adjusted for age, gender, year cohort and implant type*	0.54 (0.35 - 0.82)	0.004

* Implant type: Total Anatomic, Total Reverse, or Hemi (anatomic)

Revision and Survivorship

Cumulative Revision Rate

Endpoint: Glenoid revision

Period /years	At Risk	Global Glenoid (APG)	All other Anatomic Total in NJR
0	2015	-	-
1	1844	0.4% (0.2% - 0.6%)	0.5% (0.4% - 0.6%)
2	1557	0.8% (0.5% - 1.2%)	1.3% (1.1% - 1.5%)
3	1277	1.0% (0.6% - 1.5%)	1.9% (1.7% - 2.2%)
4	950	1.1% (0.7% - 1.7%)	2.5% (2.2% - 2.8%)
5	658	1.4% (0.9% - 2.0%)	2.9% (2.5% - 3.3%)
6	389	1.7% (1.1% - 2.6%)	3.3% (2.9% - 3.7%)
7	192	1.7% (1.1% - 3.0%)	3.7% (3.2% - 4.3%)
8	49	1.7% (1.1% - 4.2%)	3.7% (3.2% - 4.9%)
9		(-)	(-)
10		(-)	(-)

Cumulative revision rate with 95% confidence intervals
Rate only reported for times where > 40 remain at risk

Disclaimer

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Appendix A: Component List

Catalogue Number	Description	Number Implanted
110044610	GLOBAL UNITE HEAD 44X18 ECCENTRIC	60
110044620	GLOBAL UNITE HEAD 44X21 ECCENTRIC	6
110048500	GLOBAL UNITE HEAD 48X15 STANDARD	25
110048510	GLOBAL UNITE HEAD 48X18 STANDARD	34
110048520	GLOBAL UNITE HEAD 48X21 STANDARD	7
110048600	GLOBAL UNITE HEAD 48X15 ECCENTRIC	85
110048610	GLOBAL UNITE HEAD 48X18 ECCENTRIC	65
110048620	GLOBAL UNITE HEAD 48X21 ECCENTRIC	15
110052500	GLOBAL UNITE HEAD 52X15 STANDARD	4
110052510	GLOBAL UNITE HEAD 52X18 STANDARD	11
110052520	GLOBAL UNITE HEAD 52X21 STANDARD	8
110052600	GLOBAL UNITE HEAD 52X15 ECCENTRIC	28
110052610	GLOBAL UNITE HEAD 52X18 ECCENTRIC	23
110052620	GLOBAL UNITE HEAD 52X21 ECCENTRIC	14
110056510	GLOBAL UNITE HEAD 56X18 STANDARD	5
110056520	GLOBAL UNITE HEAD 56X21 STANDARD	2
110056610	GLOBAL UNITE HEAD 56X18 ECCENTRIC	17
110056620	GLOBAL UNITE HEAD 56X21 ECCENTRIC	5
112840000	GLOBAL ADVANTAGE HUM HEAD 40X15	8
112840010	GLOBAL ADVANTAGE HUM HEAD 40X18	2
112840020	GLOBAL ADVANTAGE HUM HEAD 40X21	3
112844000	GLOBAL ADVANTAGE HUM HEAD 44X15	24
112844010	GLOBAL ADVANTAGE HUM HEAD 44X18	14
112844020	GLOBAL ADVANTAGE HUM HEAD 44X21	1
112844110	GLOBAL ADVANTAGE ECC HEAD 44X18	34
112844120	GLOBAL ADVANTAGE ECC HEAD 44X21	3
112848000	GLOBAL ADVANTAGE HUM HEAD 48X15	2
112848010	GLOBAL ADVANTAGE HUM HEAD 48X18	9
112848020	GLOBAL ADVANTAGE HUM HEAD 48X21	2
112848110	GLOBAL ADVANTAGE ECC HEAD 48X18	28
112848120	GLOBAL ADVANTAGE ECC HEAD 48X21	6
112852000	GLOBAL ADVANTAGE HUM HEAD 52X15	2
112852010	GLOBAL ADVANTAGE HUM HEAD 52X18	5
112852020	GLOBAL ADVANTAGE HUM HEAD 52X21	3
112852110	GLOBAL ADVANTAGE ECC HEAD 52X18	9
112852120	GLOBAL ADVANTAGE ECC HEAD 52X21	2
112856000	GLOBAL ADVANTAGE HUM HEAD 56X15	1
112856010	GLOBAL ADVANTAGE HUM HEAD 56X18	2
112856110	GLOBAL ADVANTAGE ECC HEAD 56X18	2
112856120	GLOBAL ADVANTAGE ECC HEAD 56X21	11
113040500	Global AP Humeral Head 40x15	5
113040510	Global AP Humeral Head 40x18	2
113040600	Global AP Humeral Head 40x15 E	52
113040610	Global AP Humeral Head 40x18 E	23
113044500	Global AP Humeral Head 44x15	26
113044510	Global AP Humeral Head 44x18	29

Appendix A: Component List

Catalogue Number	Description	Number Implanted
113044520	Global AP Humeral Head 44x21	3
113044600	Global AP Humeral Head 44x15 E	168
113044610	Global AP Humeral Head 44x18 E	153
113044620	Global AP Humeral Head 44x21 E	22
113048500	Global AP Humeral Head 48x15	29
113048510	Global AP Humeral Head 48x18	23
113048520	Global AP Humeral Head 48x21	6
113048600	Global AP Humeral Head 48x15 E	107
113048610	Global AP Humeral Head 48x18 E	146
113048620	Global AP Humeral Head 48x21 E	37
113052500	Global AP Humeral Head 52x15	11
113052510	Global AP Humeral Head 52x18	14
113052520	Global AP Humeral Head 52x21	3
113052600	Global AP Humeral Head 52x15 E	27
113052610	Global AP Humeral Head 52x18 E	60
113052620	Global AP Humeral Head 52x21 E	26
113056510	Global AP Humeral Head 56x18	3
113056520	Global AP Humeral Head 56x21	4
113056610	Global AP Humeral Head 56x18 E	18
113056620	Global AP Humeral Head 56x21 E	3
1140-20-040	GLOBAL ICON Humeral Head Size 40	11
1140-20-042	GLOBAL ICON Humeral Head Size 42	10
1140-20-044	GLOBAL ICON Humeral Head Size 44	28
1140-20-046	GLOBAL ICON Humeral Head Size 46	20
1140-20-048	GLOBAL ICON Humeral Head Size 48	24
1140-20-050	GLOBAL ICON Humeral Head Size 50	21
1140-20-052	GLOBAL ICON Humeral Head Size 52	16
1140-20-054	GLOBAL ICON Humeral Head Size 54	9
1140-20-056	GLOBAL ICON Humeral Head Size 56	3
1140-20-340	GLOBAL ICON Humeral Head Size 40 +3mm	2
1140-20-342	GLOBAL ICON Humeral Head Size 42 +3mm	6
1140-20-344	GLOBAL ICON Humeral Head Size 44 +3mm	22
1140-20-346	GLOBAL ICON Humeral Head Size 46 +3mm	15
1140-20-348	GLOBAL ICON Humeral Head Size 48 +3mm	16
1140-20-350	GLOBAL ICON Humeral Head Size 50 +3mm	3
1140-20-352	GLOBAL ICON Humeral Head Size 52 +3mm	6
1140-20-354	GLOBAL ICON Humeral Head Size 54 +3mm	1
5311-46/17	H Epoca 46 mm height 17.25 mm Stainless Steel	1
Humeral Proximal		
1100-20-000	GL UNITE ANT BODY 135 SZ 6/8	62
1100-20-010	GLUNITEANT BODY 128 SZ6/8	1
1100-40-000	Global Unite Anatomic Proximal Body 135 degree Size 12 porocoat	179
1100-50-000	GLOBAL- ANATOMIC PROXIMAL BODY 135 DEGREE SIZE 14 POROCOAT	36
110020020	GL UNITE ANT BODY 142 SZ 6/8	1
110030000	Anatomic Proximal Body 135 SZ 10	184
110030010	Anatomic Proximal Body 128 SZ 10	5

Appendix A: Component List

Catalogue Number	Description	Number Implanted
110030100	GLOBAL UNITE BODY SZ 10 -5	2
110030110	GLOBAL UNITE BODY SZ 10 0	3
110040110	GLOBAL UNITE BODY SZ 12 0	1
110040120	GLOBAL UNITE BODY SZ 12 +5	1
110050110	GLOBAL UNITE BODY SZ 14 0	2
110060000	GLOBAL UNITE BODY SZ 16	1
Glenoid Standard		
113640026	GLOBAL X Link Anchor Peg Glenoid 40mm	352
113641026	GLOBAL X Link Anchor Peg Glenoid 44mm	836
113642026	GLOBAL X Link Anchor Peg Glenoid 48mm	562
113643026	GLOBAL X Link Anchor Peg Glenoid 52mm	236
113644026	GLOBAL X Link Anchor Peg Glenoid 56mm	29