

Implant Summary Report for:

DePuy

Global Unite (Anatomic Total)

Comprising PRIMARY shoulders implanted up to:	06 September 2020
NJR Database extract:	05 November 2020
Produced on:	21 November 2020
Licensed for use until:	21 March 2021

Contents

Recorded Usage in NJR	2
Patient and Procedure Details	3
Revision and Survivorship	4
APPENDIX A – Component List	13

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 Unite (Anatomic Total), 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

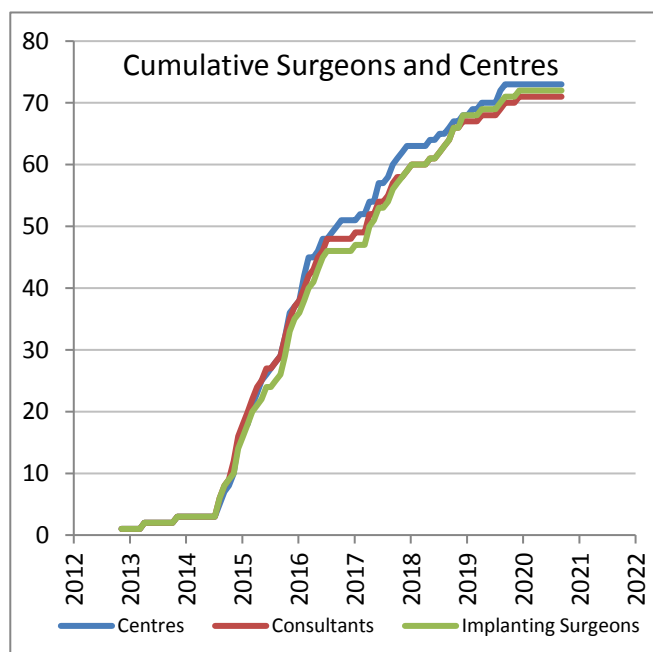
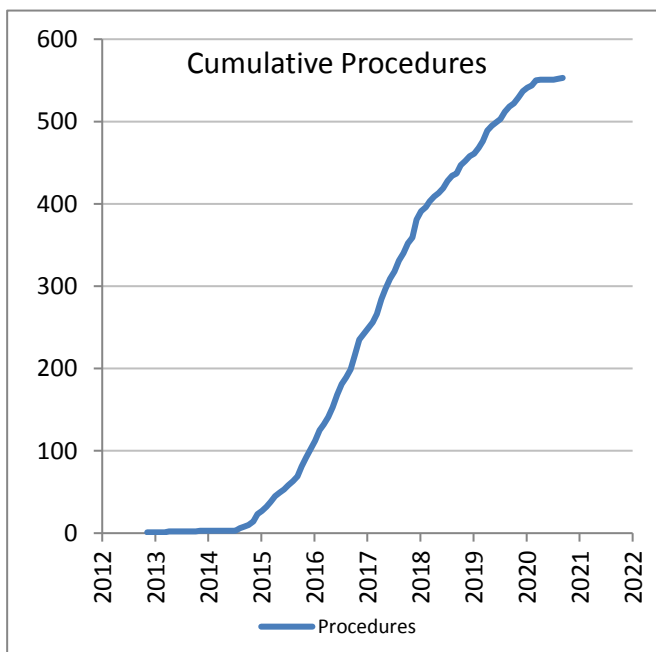
Date of first recorded usage in the NJR: **30 August 2012**

Date of last recorded usage in this dataset **18 August 2020**

Maximum implantation time: 8.0 years

Mean implantation time: 3.2 years

Totals Recorded in NJR	Cumulative Total
Procedures	553
Patients	523
Centres	73
Consultants	71
Implanting Surgeons	72



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	0	0	1	7	9	4	0	0	0	21	3.8%
Revised	0	0	0	0	0	1	1	2	5	8	1	0	0	18	3.3%
Unrevised	0	0	0	0	1	1	21	76	124	129	70	80	12	514	92.9%
Total	0	0	0	0	1	2	23	85	138	141	71	80	12	553	100%

Patient / Procedure Details

Patient Details

	Global Unite (Anatomic Total)	All other Anatomic Totals in NJR
Total Procedures	553	13822
Total Patients	523	12719
Demographics		
Mean age	70.1	69.4
< 50	0.9%	3.9%
50 – 59	10.7%	11.1%
60 – 69	31.1%	30.5%
70 – 79	43.0%	41.3%
≥ 80	14.3%	13.2%
% Male	30.4%	31.7%
ASA Grades		
P1 - Fit and healthy	8.0%	9.6%
P2 - Mild disease not incapacitating	67.6%	68.5%
P3 - Incapacitating systemic disease	24.4%	21.5%
P4 / P5	0.0%	0.4%
Indications		
Osteoarthritis	93.85%	91.50%
Other Inflammatory Arthropathy	1.63%	3.75%
Cuff Tear Repair	0.54%	0.82%
Avascular Necrosis	2.89%	2.60%
Acute Trauma	1.27%	0.25%
Trauma Sequelae	1.99%	2.30%
Other	0.18%	1.27%

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

Procedure

	Global Unite (Anatomic Total)	All NJR Anatomic Total
Procedure Type		
Hemi-arthroplasty	0%	0%
Resurfacing Arthroplasty	0%	4%
Resurfacing Hemi-arthroplasty	0%	0%
Reverse-Polarity Total Prosthetic Replacement	0%	0%
Total Prosthetic Replacement	100%	96%

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	3	1.55	0.202
Instability	2	4.79	0.247
Cuff Insufficiency	13	9.51	0.244
Aseptic Loosening	0	0.45	1
Aseptic Loosening Humerus	0	0.00	1
Aseptic Loosening Glenoid	0	0.00	1
Periprosthetic Fracture	0	0.32	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	1	0.17	0.158
Conversion Total to Hemi	0	0.10	1
Other / Not recorded	1	5.15	0.069
Total Revisions	18	19.73	0.818

† 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 Unite (Anatomic Total)	All other Anatomic Totals in NJR
Humeral Only Revised	3	16.7%	29.0%
Glenoid Only Revised	1	5.6%	8.0%
Humeral and Glenoid Revised	12	66.7%	52.4%
Isolated Glenoid Conversion	0	0.0%	0.0%
Modular Exchange	2	11.1%	9.3%
Not Recorded	0	0.0%	1.3%
Total Revisions	18		

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

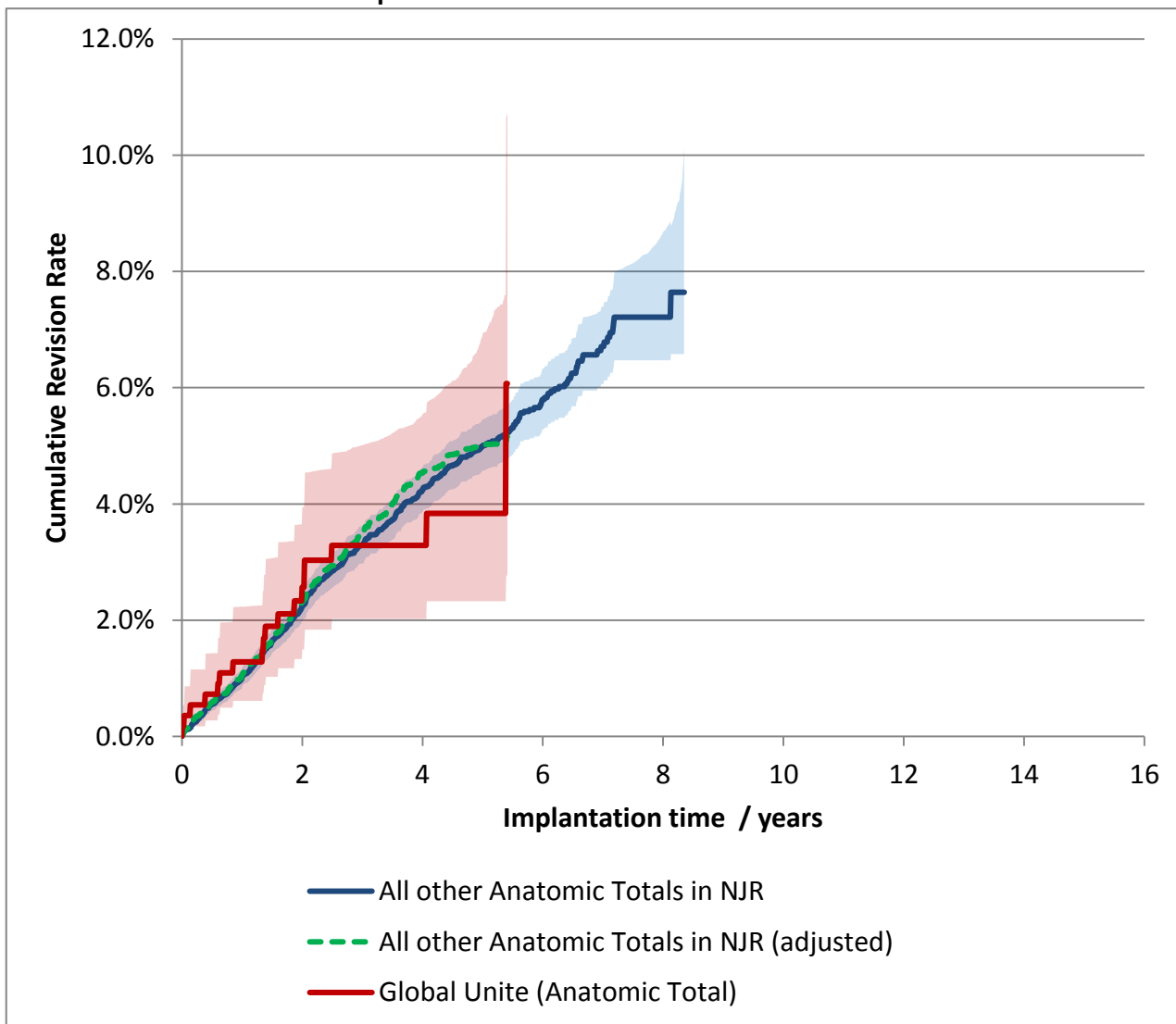
"Isolated Glenoid Conversion" represents conversion of hemi to total where the humeral component has not been revised.

"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 Unite (Anatomic Total) / All other Anatomic Totals in NJR

Adjustment	Hazard Ratio (95% CI)	p-value
Unadjusted	0.94 (0.59 - 1.50)	0.788
Adjusted for age, gender, year cohort and implant type*	0.91 (0.56 - 1.46)	0.688

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

‡ Hazard ratio varies with time

Revision and Survivorship

Cumulative Revision Rate

Endpoint: All revisions

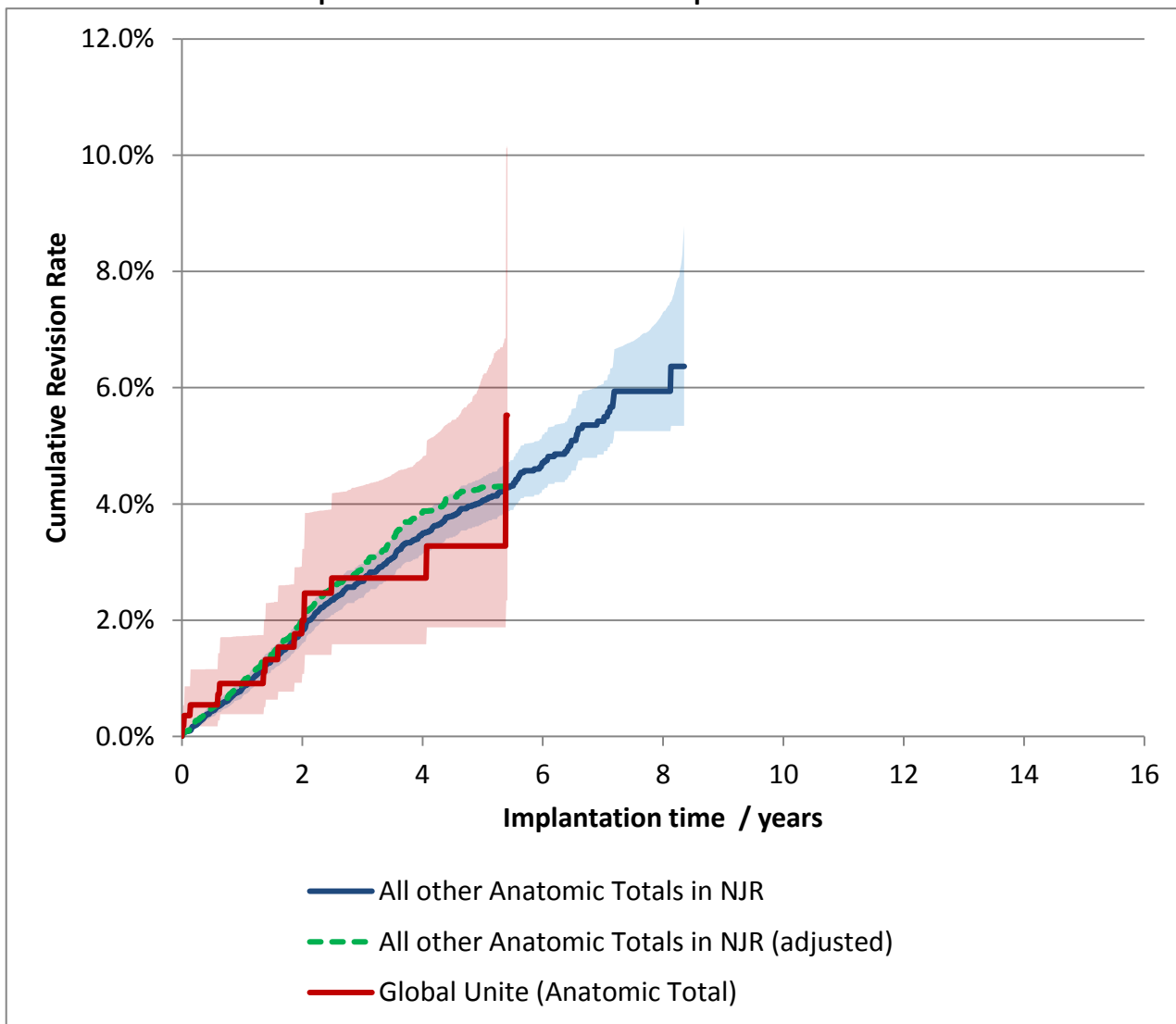
Period /years	At Risk	Global Unite (Anatomic Total)	All other Anatomic Totals in NJR
0	553	-	-
1	509	1.3% (0.6% - 2.2%)	1.0% (0.9% - 1.2%)
2	421	2.6% (1.5% - 3.9%)	2.2% (2.0% - 2.5%)
3	318	3.3% (2.0% - 5.0%)	3.3% (3.0% - 3.6%)
4	185	3.3% (2.0% - 5.5%)	4.2% (3.9% - 4.6%)
5	64	3.8% (2.3% - 6.9%)	5.0% (4.6% - 5.4%)
6		(-)	5.8% (5.3% - 6.3%)
7		(-)	6.7% (6.1% - 7.4%)
8		(-)	7.2% (6.5% - 8.7%)
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 Unite (Anatomic Total) / All other Anatomic Totals in NJR, with endpoint humeral revision

Adjustment	Hazard Ratio (95% CI)	p-value
Unadjusted	0.96 (0.57 - 1.61)	0.876
Adjusted for age, gender, year cohort and implant type*	0.89 (0.53 - 1.49)	0.655

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

‡ Hazard ratio varies with time

Revision and Survivorship

Cumulative Revision Rate

Endpoint: Humeral revision

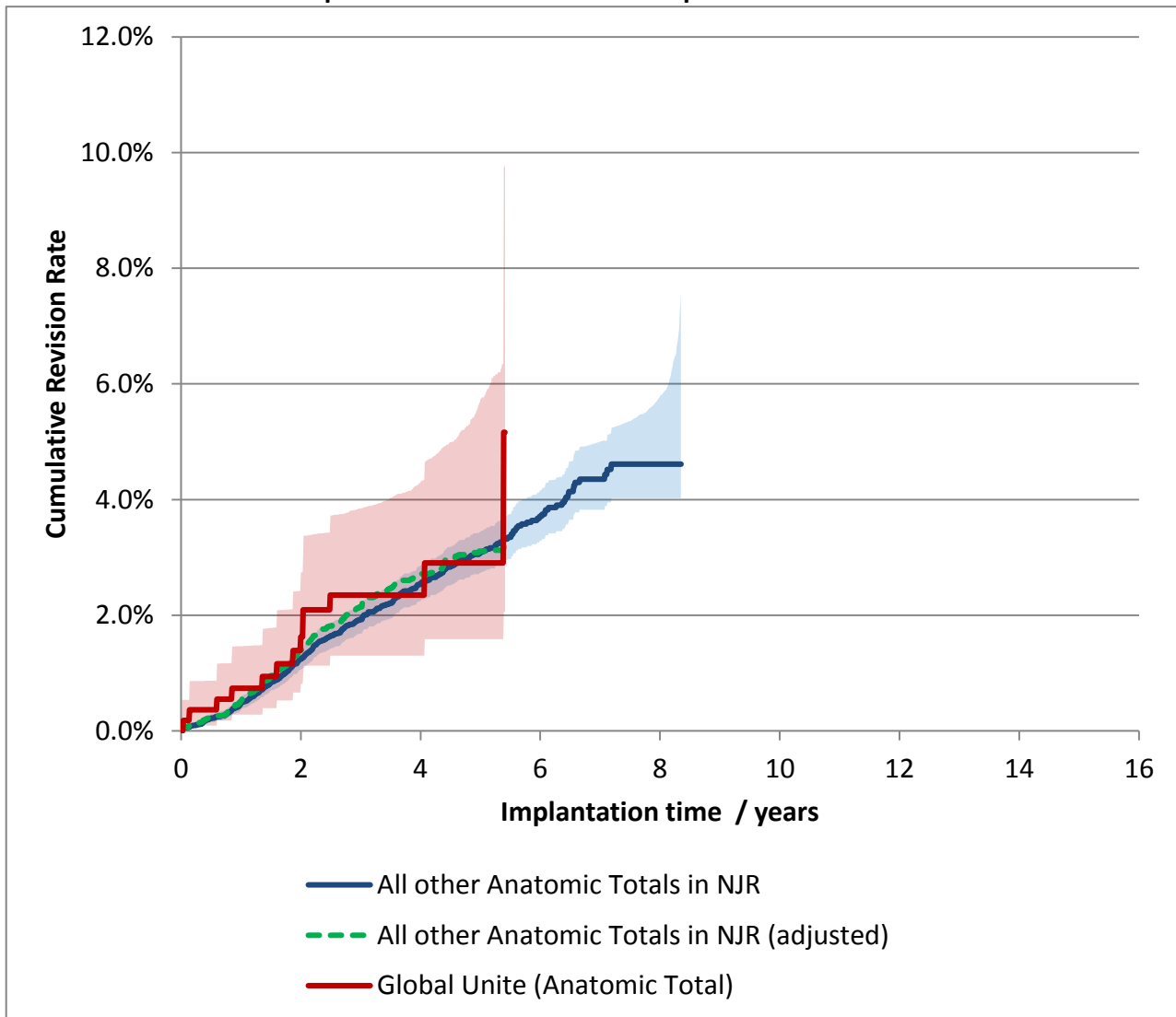
Period /years	At Risk	Global Unite (Anatomic Total)	All other Anatomic Totals in NJR
0	553	-	-
1	509	0.9% (0.4% - 1.7%)	0.8% (0.7% - 1.0%)
2	421	2.0% (1.1% - 3.2%)	1.8% (1.6% - 2.1%)
3	318	2.7% (1.6% - 4.3%)	2.7% (2.4% - 3.0%)
4	185	2.7% (1.6% - 4.8%)	3.5% (3.1% - 3.8%)
5	64	3.3% (1.9% - 6.2%)	4.0% (3.7% - 4.5%)
6		(-)	4.7% (4.2% - 5.2%)
7		(-)	5.4% (4.8% - 6.1%)
8		(-)	5.9% (5.3% - 7.3%)
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 Unite (Anatomic Total) / All other Anatomic Totals in NJR, with endpoint glenoid revision

Adjustment	Hazard Ratio (95% CI)	p-value
Unadjusted	1.15 (0.66 - 2.00)	0.625
Adjusted for age, gender, year cohort and implant type*	1.08 (0.62 - 1.89)	0.789

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

‡ Hazard ratio varies with time

Revision and Survivorship

Cumulative Revision Rate

Endpoint: Glenoid revision

Period /years	At Risk	Global Unite (Anatomic Total)	All other Anatomic Totals in NJR
0	553	-	-
1	509	0.7% (0.3% - 1.5%)	0.5% (0.4% - 0.6%)
2	421	1.6% (0.8% - 2.7%)	1.2% (1.1% - 1.4%)
3	318	2.3% (1.3% - 3.8%)	1.9% (1.7% - 2.2%)
4	185	2.3% (1.3% - 4.3%)	2.5% (2.2% - 2.9%)
5	64	2.9% (1.6% - 5.7%)	3.1% (2.7% - 3.4%)
6		(-)	3.7% (3.3% - 4.2%)
7		(-)	4.4% (3.8% - 5.0%)
8		(-)	4.6% (4.0% - 5.8%)
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
Humeral Stem		
110006100	GLOBAL UNITE STANDARD STEM SZ 6	10
110008100	GLOBAL UNITE STANDARD STEM SZ 8	73
110010100	GLOBAL UNITE STANDARD STEM SZ 10	219
110010600	GLOBAL UNITE REVISION STEM SZ 10	1
110012100	GLOBAL UNITE STANDARD STEM SZ 12	198
110014100	GLOBAL UNITE STANDARD STEM SZ 14	47
110016100	GLOBAL UNITE STANDARD STEM SZ 16	5
Humeral Head		
110040500	GLOBAL UNITE HEAD 40X15 STANDARD	11
110040510	GLOBAL UNITE HEAD 40X18 STANDARD	9
110040600	GLOBAL UNITE HEAD 40X15 ECCENTRIC	25
110040610	GLOBAL UNITE HEAD 40X18 ECCENTRIC	5
110044500	GLOBAL UNITE HEAD 44X15 STANDARD	36
110044510	GLOBAL UNITE HEAD 44X18 STANDARD	26
110044520	GLOBAL UNITE HEAD 44X21 STANDARD	6
110044600	GLOBAL UNITE HEAD 44X15 ECCENTRIC	88
110044610	GLOBAL UNITE HEAD 44X18 ECCENTRIC	46
110044620	GLOBAL UNITE HEAD 44X21 ECCENTRIC	4
110048500	GLOBAL UNITE HEAD 48X15 STANDARD	21
110048510	GLOBAL UNITE HEAD 48X18 STANDARD	33
110048520	GLOBAL UNITE HEAD 48X21 STANDARD	5
110048600	GLOBAL UNITE HEAD 48X15 ECCENTRIC	67
110048610	GLOBAL UNITE HEAD 48X18 ECCENTRIC	57
110048620	GLOBAL UNITE HEAD 48X21 ECCENTRIC	12
110052500	GLOBAL UNITE HEAD 52X15 STANDARD	4
110052510	GLOBAL UNITE HEAD 52X18 STANDARD	13
110052520	GLOBAL UNITE HEAD 52X21 STANDARD	6
110052600	GLOBAL UNITE HEAD 52X15 ECCENTRIC	21
110052610	GLOBAL UNITE HEAD 52X18 ECCENTRIC	22
110052620	GLOBAL UNITE HEAD 52X21 ECCENTRIC	12
110056510	GLOBAL UNITE HEAD 56X18 STANDARD	4
110056520	GLOBAL UNITE HEAD 56X21 STANDARD	2
110056610	GLOBAL UNITE HEAD 56X18 ECCENTRIC	13
110056620	GLOBAL UNITE HEAD 56X21 ECCENTRIC	2
113044600	Global AP Humeral Head 44x15 E	1
Humeral Proximal		
1100-20-000	GL UNITE ANT BODY 135 SZ 6/8	75
1100-20-010	GLUNITEANT BODY 128 SZ6/8	1
1100-40-000	Global Unite Anatomic Proximal Body 135 degree Size 12 porocoat	188
1100-50-000	GLOBAL- ANATOMIC PROXIMAL BODY 135 DEGREE SIZE 14 POROCOAT	39
110020020	GL UNITE ANT BODY 142 SZ 6/8	1
110030000	Anatomic Proximal Body 135 SZ 10	196
110030010	Anatomic Proximal Body 128 SZ 10	5
110030100	GLOBAL UNITE BODY SZ 10 -5	4
110030110	GLOBAL UNITE BODY SZ 10 0	6

Appendix A: Component List

Catalogue Number	Description	Number Implanted
110040100	GLOBAL UNITE BODY SZ 12 -5	1
110040110	GLOBAL UNITE BODY SZ 12 0	2
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	78
113641025	GLOBAL ANCHOR PEG GLENOID 44MM	2
113641026	GLOBAL X Link Anchor Peg Glenoid 44mm	212
113641028	GLOBAL X Link Anchor Peg Glenoid 44mm	3
113642026	GLOBAL X Link Anchor Peg Glenoid 48mm	144
113643026	GLOBAL X Link Anchor Peg Glenoid 52mm	62
113644026	GLOBAL X Link Anchor Peg Glenoid 56mm	7
113784025	GLOBAL SHOULDER END PEG GLENOID 40	8
113785025	GLOBAL SHOULDER END PEG GLENOID 44	19
113786025	GLOBAL SHOULDER END PEG GLENOID 48	5
113787025	GLOBAL SHOULDER END PEG GLENOID 52	2
113795026	GLOBAL SHOULDER CROSSLINK FINNED GLENOID 44	1
113796026	GLOBAL SHOULDER CROSSLINK FINNED GLENOID 48	2
Glenoid Plate		
130760000	DELTA XTEND METAGLENE	1