

Bespoke Implant Report for:

DePuy

C-Stem AMT - Pinnacle vs. All other Hybrid hips

Comprising PRIMARY hips implanted up to:
NJR Database extract:

07 March 2021
06 May 2021

Produced on:
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18 June 2021
18 June 2023

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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 DePuy C-Stem AMT - Pinnacle vs. All other Hybrid hips used in primary hips, based on data collected by the NJR and PROMs data collected by NHS Digital.

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Both groups exclude metal-on-metal and ceramic-on-metal bearings

Implant Usage

Totals Recorded in NJR	C-Stem AMT - Pinnacle	All other Hybrid hips
First usage in the NJR:	23-Jun-2005	01-Apr-2003
Last usage in this dataset:	07-Mar-2021	07-Mar-2021
Maximum implantation time (years):	15.7	17.9
Mean implantation time (years):	3.7	5.5
Procedures	21257	277160
Patients	19698	247753
Centres	184	463
Consultants	562	2644
Implanting Surgeons	912	4542

Group	Year of implantation													Total
	Pre-2010	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
C-Stem AMT - Pinnacle	646	286	445	655	864	1379	1753	2153	2586	3227	4160	2680	423	21257
All other Hybrid hips	46580	10972	12053	13240	16222	19921	22268	25539	27765	28979	31891	19144	2586	277160
Total	47226	11258	12498	13895	17086	21300	24021	27692	30351	32206	36051	21824	3009	298417

Patient / Procedure Details

Patient Details

	C-Stem AMT - Pinnacle	All other Hybrid hips
Total Procedures	21257	277160
Total Patients	19698	247753
Demographics		
Mean age	70.9	69.6
< 50	3.2%	4.7%
50 – 59	9.7%	11.8%
60 – 69	25.5%	28.5%
70 – 79	42.7%	37.1%
≥ 80	18.8%	17.9%
Median BMI	28	28
% BMI information available	71.1%	69.1%
Underweight (BMI < 18.5)	0.8%	1.0%
Normal (18.5 ≤ BMI < 25)	21.6%	21.7%
Overweight (25 ≤ BMI < 30)	39.8%	39.1%
Obese I (30 ≤ BMI < 35)	25.0%	25.2%
Obese II (35 ≤ BMI < 40)	10.0%	9.6%
Obese III (BMI ≥ 40)	2.9%	3.4%
% Male	37.7%	37.3%
ASA Grades		
P1 - Fit and healthy	9.0%	13.2%
P2 - Mild disease not incapacitating	71.7%	68.2%
P3 - Incapacitating systemic disease	18.8%	18.1%
P4 / P5	0.5%	0.6%
Indications		
Osteoarthritis	89.83%	88.66%
Rheumatoid Arthritis	1.27%	1.55%
Other Inflammatory Arthropathy	2.43%	2.95%
Previous Trauma	5.54%	5.79%
Avascular Necrosis	1.30%	1.85%
Other	1.58%	2.30%

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

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

Reason for Revision	C-Stem AMT - Pinnacle		All other Hybrid hips		p value
	Revised [†]	Expected*	Revised [†]	Expected*	
Unexplained Pain	8	11.23	365	361.77	0.446
Dislocation / Subluxation	80	83.48	1364	1360.52	0.735
Adverse Soft Tissue Reaction	4	4.51	116	115.49	1
Infection	58	76.19	1160	1141.81	0.033
Aseptic Loosening - Stem	11	13.09	388	385.91	0.673
Aseptic Loosening - Socket	7	14.66	384	376.34	0.044
Periprosthetic Fracture Stem	72	65.70	1172	1178.30	0.41
Periprosthetic Fracture Socket	6	10.63	153	148.37	0.2
Malalignment Stem	10	6.14	101	104.86	0.139
Malalignment Socket	15	13.85	273	274.15	0.68
Wear Of Acetabular Component	7	6.36	229	229.64	0.688
Lysis Stem	1	3.55	149	146.45	0.274
Lysis Socket	2	2.62	105	104.38	1
Implant Fracture Stem	1	4.07	138	134.93	0.198
Implant Fracture Socket	3	2.03	47	47.97	0.458
Implant Fracture Head	1	1.52	35	34.48	1
Dissociation of Liner	8	4.53	82	85.47	0.139
Other / reason not recorded	9	9.65	168	167.35	1
Total Revised	260	288.42	5212	5183.58	0.09

† multiple reasons may be listed for one revision procedure

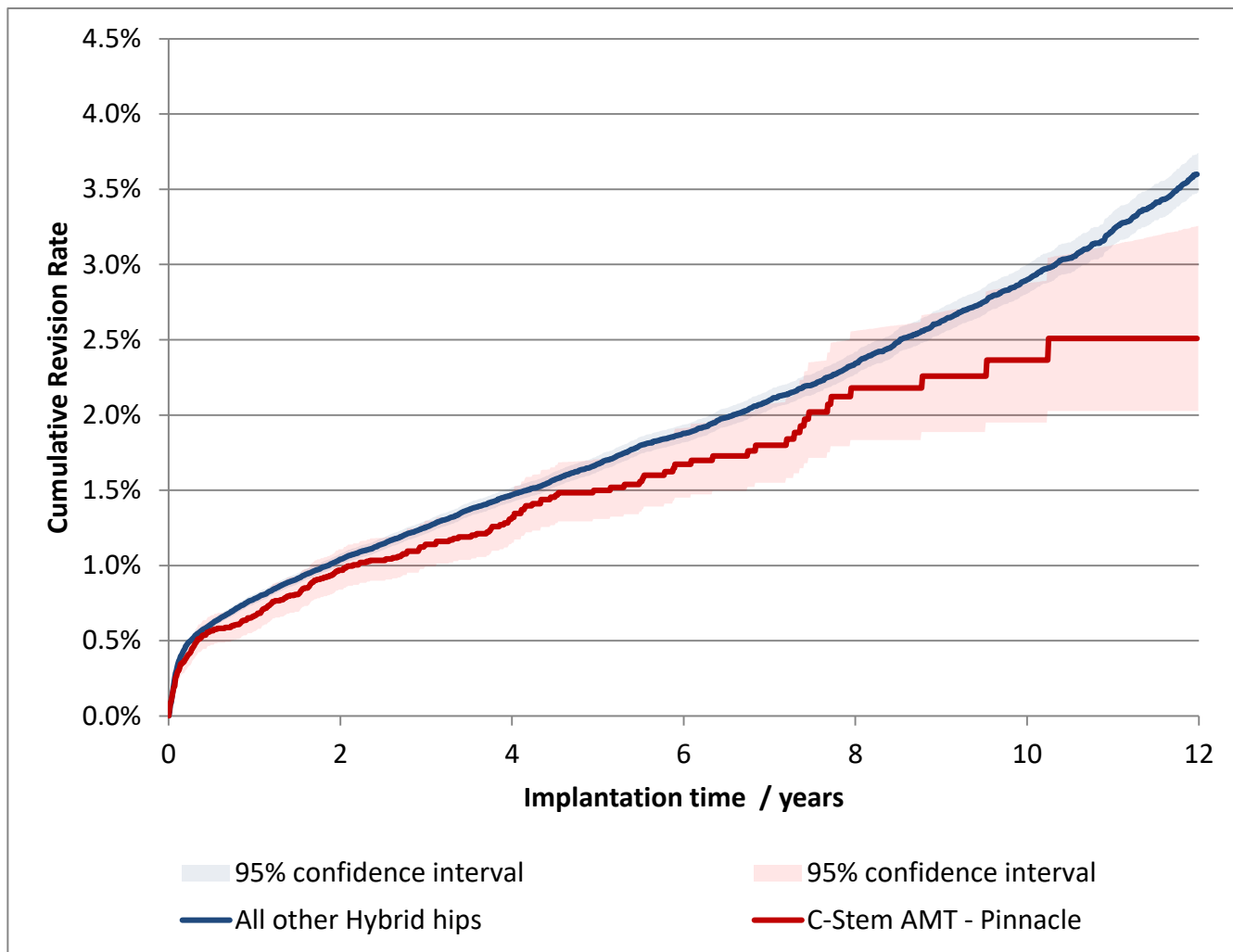
* Logrank comparison, adjusted for Patient Gender, Age Group, Implantation year, and Indications (OA/non-OA)

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

Components Revised	C-Stem AMT - Pinnacle		All other Hybrid hips	
Femoral only	91	35.0%	1564	30.0%
Acetabular only	45	17.3%	1019	19.6%
Both femoral and acetabular	78	30.0%	1927	37.0%
Neither femoral nor acetabular revision recorded *	46	17.7%	702	13.5%

* includes isolated head and/or liner exchange

Endpoint: Revision for any reason



Stratified Log-rank test, with observed and expected number of revisions

Adjustment	C-Stem AMT - Pinnacle		All other Hybrid hips		p-value
	Observed	Expected	Observed	Expected	
Unadjusted	260	295.7	5212	5176.3	0.034
Adjusted	260	288.4	5212	5183.6	0.090

Cox Proportional Hazards model for revision risk ratio of C-Stem AMT - Pinnacle / All other Hybrid hips

Adjustment	Hazard Ratio (95% CI)	p-value
Unadjusted	0.87 (0.77 - 0.99)	0.032
Adjusted	0.89 (0.79 - 1.01)	0.081

Adjustment includes Patient Gender, Age Group, Implantation year, and Indications (OA/non-OA)

Revision and Survivorship

Cumulative Revision Rate

Endpoint: Revision for any reason

Period /years	C-Stem AMT - Pinnacle		All other Hybrid hips	
	At Risk	Revision Rate	At Risk	Revision Rate
0	21,257	-	277,160	-
1	18,655	0.67% (0.56% - 0.78%)	255,673	0.78% (0.75% - 0.81%)
2	14,105	0.97% (0.84% - 1.11%)	219,930	1.04% (1.00% - 1.08%)
3	10,604	1.14% (0.99% - 1.30%)	186,819	1.26% (1.21% - 1.30%)
4	7,851	1.32% (1.15% - 1.50%)	156,493	1.47% (1.42% - 1.52%)
5	5,670	1.50% (1.31% - 1.71%)	128,594	1.67% (1.62% - 1.73%)
6	3,901	1.67% (1.45% - 1.91%)	104,721	1.88% (1.82% - 1.94%)
7	2,519	1.80% (1.55% - 2.07%)	84,305	2.10% (2.03% - 2.17%)
8	1,676	2.18% (1.83% - 2.56%)	67,410	2.34% (2.27% - 2.42%)
9	1,126	2.26% (1.89% - 2.68%)	54,069	2.62% (2.54% - 2.71%)
10	733	2.37% (1.95% - 2.87%)	42,781	2.90% (2.80% - 3.00%)
11	504	2.51% (2.03% - 3.13%)	33,145	3.23% (3.12% - 3.34%)
12	347	2.51% (2.03% - 3.26%)	24,877	3.61% (3.48% - 3.74%)
13	252	2.51% (2.03% - 3.38%)	17,795	3.89% (3.74% - 4.04%)
14	148	2.51% (2.03% - 3.65%)	11,764	4.20% (4.03% - 4.38%)
15		(-)	7,197	4.57% (4.36% - 4.78%)

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: 31 December 2019

Oxford Hip Score (0 - 48)	C-Stem AMT - Pinnacle	All other Hybrid hips
Paired Records	6,606	72,580
PreOp score	18.5 (18.3 - 18.7)	17.8 (17.7 - 17.8)
6 month score	40.9 (40.7 - 41.1)	40.0 (39.9 - 40.1)
6 month score (adjusted)	40.5 (40.3 - 40.6)	40.0 (40.0 - 40.1)
Health gain	22.4 (22.1 - 22.6)	22.2 (22.1 - 22.3)
Health gain (adjusted)	22.5 (22.3 - 22.7)	22.1 (22.0 - 22.1)
p value (adjusted health gain)	< 0.001	
Score Improved	97.9%	97.7%

EQ-5D Index (-0.59 - 1.00)	C-Stem AMT - Pinnacle	All other Hybrid hips
Paired Records	6,060	66,924
PreOp score	0.377 (0.369 - 0.385)	0.348 (0.346 - 0.351)
6 month score	0.824 (0.818 - 0.829)	0.804 (0.802 - 0.805)
6 month score (adjusted)	0.810 (0.805 - 0.816)	0.804 (0.803 - 0.806)
Health gain	0.446 (0.438 - 0.455)	0.455 (0.453 - 0.458)
Health gain (adjusted)	0.457 (0.452 - 0.462)	0.451 (0.449 - 0.453)
p value (adjusted health gain)	0.19	
Score Improved	90.4%	90.7%

EQ-VAS (0 - 100)	C-Stem AMT - Pinnacle	All other Hybrid hips
Paired Records	5,774	64,441
PreOp score	66.1 (65.6 - 66.7)	64.5 (64.3 - 64.7)
6 month score	78.9 (78.5 - 79.4)	77.5 (77.3 - 77.6)
6 month score (adjusted)	78.0 (77.6 - 78.4)	77.5 (77.4 - 77.6)
Health gain	12.8 (12.2 - 13.4)	13.0 (12.8 - 13.1)
Health gain (adjusted)	13.2 (12.8 - 13.6)	12.7 (12.6 - 12.9)
p value (adjusted health gain)	0.22	
Score Improved	68.1%	67.7%

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

Bespoke report on:

C-Stem AMT - Pinnacle vs. All other Hybrid hips

Responses are not case mix adjusted

Patient Reported Outcomes



Patient Reported Outcomes

Success

Response	C-Stem AMT - Pinnacle	All other Hybrid hips
Much better	6042	65372
A little better	481	5531
About the same	109	1450
A little worse	59	838
Much worse	49	554

Answer to 6-months general health question:

"Overall, how are your problems now, compared to before your operation?"

Satisfaction

Response	C-Stem AMT - Pinnacle	All other Hybrid hips
Excellent	3157	32815
Very Good	2270	25174
Good	928	11130
Fair	287	3542
Poor	83	950

Answer to 6-months general health question:

"How would you describe the results of your operation?"

Disclaimer

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Appendix A1

Catalogue Number	Description	Number Implanted
121720044	PINN BANTAM CUP 44MM	44
121720046	PINN BANTAM CUP 46MM	140
121720048	PINNACLE SHELL MULTIHOLE 48mm	2
121720050	PINNACLE SHELL MULTIHOLE 50mm	5
121720052	PINNACLE SHELL MULTIHOLE 52mm	10
121720054	PINNACLE SHELL MULTIHOLE 54mm	4
121720056	PINNACLE SHELL MULTIHOLE 56mm	2
121720058	PINNACLE SHELL MULTIHOLE 58mm	3
121720060	PINNACLE SHELL MULTIHOLE 60mm	1
121722048	PINNACLE SHELL SECTOR 48mm	678
121722050	PINNACLE SHELL SECTOR 50mm	884
121722052	PINNACLE SHELL SECTOR 52mm	1232
121722054	PINNACLE SHELL SECTOR 54mm	875
121722056	PINNACLE SHELL SECTOR 56mm	537
121722058	PINNACLE SHELL SECTOR 58mm	245
121722060	PINNACLE SHELL SECTOR 60mm	111
121722062	PINNACLE SHELL SECTOR 62mm	48
121722064	PINNACLE SHELL SECTOR 64mm	14
121722066	PINNACLE SHELL SECTOR 66mm	4
121730044	PINNACLE BANTAM SHELL W/GRIPTION 44MM	4
121730046	PINNACLE BANTAM SHELL W/GRIPTION 46MM	2
121730048	PINNACLE MULTIHOLE SHELL W/GRIPTION 48MM	36
121730050	PINNACLE MULTIHOLE SHELL W/GRIPTION 50MM	30
121730052	PINNACLE MULTIHOLE SHELL W/GRIPTION 52MM	71
121730054	PINNACLE MULTIHOLE SHELL W/GRIPTION 54MM	52
121730056	PINNACLE MULTIHOLE SHELL W/GRIPTION 56MM	36
121730058	PINNACLE MULTIHOLE SHELL W/GRIPTION 58MM	17
121730060	PINNACLE MULTIHOLE SHELL W/GRIPTION 60MM	25
121730062	PINNACLE MULTIHOLE SHELL W/GRIPTION 62MM	9
121730064	PINNACLE MULTIHOLE SHELL W/GRIPTION 64MM	3
121730066	PINNACLE MULTIHOLE SHELL W/GRIPTION 66MM	4
121730068	PINNACLE MULTIHOLE SHELL W/GRIPTION 68MM	2
121730070	PINNACLE MULTIHOLE SHELL W/GRIPTION 70MM	1
121731044	PINNACLE 100 SHELL W/GRIPTION 44MM	5
121731046	PINNACLE 100 SHELL W/GRIPTION 46MM	41
121731048	PINNACLE 100 SHELL W/GRIPTION 48MM	50
121731050	PINNACLE 100 SHELL W/GRIPTION 50MM	68
121731052	PINNACLE 100 SHELL W/GRIPTION 52MM	113
121731054	PINNACLE 100 SHELL W/GRIPTION 54MM	94
121731056	PINNACLE 100 SHELL W/GRIPTION 56MM	94
121731058	PINNACLE 100 SHELL W/GRIPTION 58MM	38
121731060	PINNACLE 100 SHELL W/GRIPTION 60MM	21
121731062	PINNACLE 100 SHELL W/GRIPTION 62MM	6
121731064	PINNACLE 100 SHELL W/GRIPTION 64MM	1
121732048	PINNACLE SECTOR SHELL W/GRIPTION 48MM	210
121732050	PINNACLE SECTOR SHELL W/GRIPTION 50MM	331

Appendix A1

Catalogue Number	Description	Number Implanted
121732052	PINNACLE SECTOR SHELL W/GRIPTION 52MM	446
121732054	PINNACLE SECTOR SHELL W/GRIPTION 54MM	311
121732056	PINNACLE SECTOR SHELL W/GRIPTION 56MM	183
121732058	PINNACLE SECTOR SHELL W/GRIPTION 58MM	117
121732060	PINNACLE SECTOR SHELL W/GRIPTION 60MM	43
121732062	PINNACLE SECTOR SHELL W/GRIPTION 62MM	22
121732064	PINNACLE SECTOR SHELL W/GRIPTION 64MM	4
121732066	PINNACLE SECTOR SHELL W/GRIPTION 66MM	4
LINERS		
121828048	PINNACLE ENDURON PE LINER NEUTRAL 48X28mm	23
121828050	PINNACLE ENDURON PE LINER NEUTRAL 50X28mm	55
121828052	PINNACLE ENDURON PE LINER NEUTRAL 52X28mm	27
121828054	PINNACLE ENDURON PE LINER NEUTRAL 54X28mm	19
121828056	PINNACLE ENDURON PE LINER NEUTRAL 56X28mm	15
121828058	PINNACLE ENDURON PE LINER NEUTRAL 58X28mm	3
121828060	PINNACLE ENDURON PE LINER NEUTRAL 60X28mm	7
121828148	PINNACLE ENDURON PE LINER +4 10 DEGREE 48X28mm	3
121828150	PINNACLE ENDURON PE LINER +4 10 DEGREE 50X28mm	2
121828152	PINNACLE ENDURON PE LINER +4 10 DEGREE 52X28mm	3
121828154	PINNACLE ENDURON PE LINER +4 10 DEGREE 54X28mm	1
121828156	PINNACLE ENDURON PE LINER +4 10 DEGREE 56X28mm	4
121828160	PINNACLE ENDURON PE LINER +4 10 DEGREE 60X28mm	1
121828248	PINNACLE ENDURON PE LINER LIPPED 48X28mm	25
121828250	PINNACLE ENDURON PE LINER LIPPED 50X28mm	46
121828252	PINNACLE ENDURON PE LINER LIPPED 52X28mm	52
121828254	PINNACLE ENDURON PE LINER LIPPED 54X28mm	37
121828256	PINNACLE ENDURON PE LINER LIPPED 56X28mm	32
121828258	PINNACLE ENDURON PE LINER LIPPED 58X28mm	8
121828260	PINNACLE ENDURON PE LINER LIPPED 60X28mm	5
121828262	PINNACLE ENDURON PE LINER LIPPED 62X28mm	5
121828264	PINNACLE ENDURON PE LINER LIPPED 64X28mm	1
121828454	PINNACLE ENDURON PE LINER +4 NEUTRAL 54X28mm	1
121828648	Pinnacle ESConstrained 28mm +4 GVF Liner OD 48mm	17
121828650	Pinnacle ESConstrained 28mm +4 GVF Liner OD 50mm	13
121828748	Pinnacle ESConstrained 28mm +4/10 Degree GVF Liner OD 48mm	1
121828750	Pinnacle ESConstrained 28mm +4/10 Degree GVF Liner OD 50mm	2
121832052	PINNACLE ENDURON PE LINER NEUTRAL 52X32mm	12
121832054	PINNACLE ENDURON PE LINER NEUTRAL 54X32mm	20
121832056	PINNACLE ENDURON PE LINER NEUTRAL 56X32mm	7
121832058	PINNACLE ENDURON PE LINER NEUTRAL 58X32mm	5
121832060	PINNACLE ENDURON PE LINER NEUTRAL 60X32mm	1
121832062	PINNACLE ENDURON PE LINER NEUTRAL 62X32mm	1
121832252	PINNACLE ENDURON PE LINER LIPPED 52X32mm	11
121832254	PINNACLE ENDURON PE LINER LIPPED 54X32mm	7
121832256	PINNACLE ENDURON PE LINER LIPPED 56X32mm	4

Appendix A1

Catalogue Number	Description	Number Implanted
121832258	PINNACLE ENDURON PE LINER LIPPED 58X32mm	2
121832262	PINNACLE ENDURON PE LINER LIPPED 62X32mm	1
121832652	Pinnacle ESConstrained 32mm +4 Neutral GVF Liner OD 52mm	24
121832654	Pinnacle ESConstrained 32mm +4 Neutral GVF Liner OD 54mm	14
121832752	Pinnacle ESConstrained 32mm +4/10 Degree GVF Liner OD 52mm	2
121836656	Pinnacle ESConstrained 36mm +4 Neutral GVF Liner OD 56mm	14
121836658	Pinnacle ESConstrained 36mm +4 Neutral GVF Liner OD 58mm	7
121836660	Pinnacle ESConstrained 36mm +4 Neutral GVF Liner OD 60mm	2
121840662	PINNACLE GVF LINER +4 62X40mm	1
121840666	PINNACLE GVF LINER +4 66X40mm	1
121840764	PINNACLE GVF LINER +4 10 DEGREE 64X40mm	1
121840766	PINNACLE GVF LINER +4 10 DEGREE 66X40mm	1
121881752	PINN DELTA CER INSRT 52ODX36ID	383
121881754	PINN DELTA CER INSRT 54ODX36ID	362
121881756	PINN DELTA CER INSRT 56ODX36ID	235
121881758	PINN DELTA CER INSRT 58ODX36ID	95
121881760	PINN DELTA CER INSRT 60ODX36ID	50
121881762	PINN DELTA CER INSRT 62ODX36ID	16
121881764	PINN DELTA CER INSRT 64ODX36ID	13
121881766	PINN DELTA CER INSRT 66ODX36ID	2
121882748	PINN DELTA CER INSERT 48ODX32ID	127
121882750	PINN DELTA CER INSERT 50ODX32ID	233
121882752	PINN DELTA CER INSRT 52ODX32ID	51
121883744	PINN DELTA CER INSRT 44ODX28ID	12
121883746	PINN DELTA CER INSRT 46ODX28ID	30
121883748	PINN DELTA CER INSRT 48ODX28ID	51
121883750	PINN DELTA CER INSRT 50ODX28ID	65
121883752	PINN DELTA CER INSRT 52ODX28ID	14
121883754	PINN DELTA CER INSRT 54ODX28ID	11
121883756	PINN DELTA CER INSRT 56ODX28ID	4
121883758	PINN DELTA CER INSRT 58ODX28ID	1
121887352	PINNACLE METAL LINER NEUTRAL 52X36mm	1
121922042	PINN MAR NEUT 42ODX22.225ID	1
121926046	PINN MAR NEUT 46ODX26ID	1
121928044	Pinnacle Marathon PE Liner Neutral 44mm x 28mm	27
121928046	PINN MAR NEUT 46ODX28ID	120
121928048	PINNACLE MARATHON PE LINER NEUTRAL 48X28mm	447
121928050	PINNACLE MARATHON PE LINER NEUTRAL 50X28mm	555
121928052	PINNACLE MARATHON PE LINER NEUTRAL 52X28mm	245
121928054	PINNACLE MARATHON PE LINER NEUTRAL 54X28mm	131
121928056	PINNACLE MARATHON PE LINER NEUTRAL 56X28mm	70
121928058	PINNACLE MARATHON PE LINER NEUTRAL 58X28mm	25
121928060	PINNACLE MARATHON PE LINER NEUTRAL 60X28mm	11
121928062	PINNACLE MARATHON PE LINER NEUTRAL 62X28mm	2
121928144	Pinnacle Marathon PE Liner +4 10D 44mm x 28mm	9
121928146	PINN MAR +4 10D 46ODX28ID	26

Appendix A1

Catalogue Number	Description	Number Implanted
121928148	PINNACLE MARATHON PE LINER +4 10 DEGREE 48X28mm	39
121928150	PINNACLE MARATHON PE LINER +4 10 DEGREE 50X28mm	48
121928152	PINNACLE MARATHON PE LINER +4 10 DEGREE 52X28mm	15
121928154	PINNACLE MARATHON PE LINER +4 10 DEGREE 54X28mm	9
121928156	PINNACLE MARATHON PE LINER +4 10 DEGREE 56X28mm	3
121928248	PINNACLE MARATHON PE LINER LIPPED 48X28mm	837
121928250	PINNACLE MARATHON PE LINER LIPPED 50X28mm	1067
121928252	PINNACLE MARATHON PE LINER LIPPED 52X28mm	258
121928254	PINNACLE MARATHON PE LINER LIPPED 54X28mm	128
121928256	PINNACLE MARATHON PE LINER LIPPED 56X28mm	99
121928258	PINNACLE MARATHON PE LINER LIPPED 58X28mm	47
121928260	PINNACLE MARATHON PE LINER LIPPED 60X28mm	12
121928262	PINNACLE MARATHON PE LINER LIPPED 62X28mm	5
121928264	PINNACLE MARATHON PE LINER LIPPED 64X28mm	1
121928448	PINNACLE MARATHON PE LINER +4 NEUTRAL 48X28mm	8
121928450	PINNACLE MARATHON PE LINER +4 NEUTRAL 50X28mm	15
121928452	PINNACLE MARATHON PE LINER +4 NEUTRAL 52X28mm	3
121928454	PINNACLE MARATHON PE LINER +4 NEUTRAL 54X28mm	3
121928456	PINNACLE MARATHON PE LINER +4 NEUTRAL 56X28mm	3
121928460	PINNACLE MARATHON PE LINER +4 NEUTRAL 60X28mm	1
121932052	PINNACLE MARATHON PE LINER NEUTRAL 52X32mm	1042
121932054	PINNACLE MARATHON PE LINER NEUTRAL 54X32mm	620
121932056	PINNACLE MARATHON PE LINER NEUTRAL 56X32mm	331
121932058	PINNACLE MARATHON PE LINER NEUTRAL 58X32mm	184
121932060	PINNACLE MARATHON PE LINER NEUTRAL 60X32mm	58
121932062	PINNACLE MARATHON PE LINER NEUTRAL 62X32mm	22
121932064	PINNACLE MARATHON PE LINER NEUTRAL 64X32mm	8
121932148	Pinnacle Marathon PE Liner + 4 Neutral 32x48mm	18
121932150	Pinnacle Marathon PE Liner +4 10D 50mm x 32mm	41
121932152	PINNACLE MARATHON PE LINER +4 10 DEGREE 52X32mm	19
121932154	PINNACLE MARATHON PE LINER +4 10 DEGREE 54X32mm	26
121932156	PINNACLE MARATHON PE LINER +4 10 DEGREE 56X32mm	14
121932158	PINNACLE MARATHON PE LINER +4 10 DEGREE 58X32mm	12
121932160	PINNACLE MARATHON PE LINER +4 10 DEGREE 60X32mm	7
121932162	PINNACLE MARATHON PE LINER +4 10 DEGREE 62X32mm	1
121932252	PINNACLE MARATHON PE LINER LIPPED 52X32mm	1585
121932254	PINNACLE MARATHON PE LINER LIPPED 54X32mm	1211
121932256	PINNACLE MARATHON PE LINER LIPPED 56X32mm	755
121932258	PINNACLE MARATHON PE LINER LIPPED 58X32mm	393
121932260	PINNACLE MARATHON PE LINER LIPPED 60X32mm	144
121932262	PINNACLE MARATHON PE LINER LIPPED 62X32mm	59
121932264	PINNACLE MARATHON PE LINER LIPPED 64X32mm	10
121932266	PINNACLE MARATHON PE LINER LIPPED 66X32mm	8
121932268	Pinnacle Marathon PE Liner Lipped 68mm x 32mm	1
121932448	PINNACLE MARATHON PE Liner +4 NEUTRAL 48/32mm	5
121932450	32MM MARATHON +4 NEUTRAL ES LINER OD 50MM	9

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Catalogue Number	Description	Number Implanted
121932452	PINNACLE MARATHON PE LINER +4 NEUTRAL 52X32mm	11
121932454	PINNACLE MARATHON PE LINER +4NEUTRAL 54X32mm	16
121932456	PINNACLE MARATHON PE LINER +4 NEUTRAL 56X32mm	19
121932458	PINNACLE MARATHON PE LINER +4 NEUTRAL 58X32mm	5
121932460	PINNACLE MARATHON PE LINER +4 NEUTRAL 60X32mm	8
121932464	PINNACLE MARATHON PE LINER +4 NEUTRAL 64X32mm	2
121936056	PINNACLE MARATHON PE LINER NEUTRAL 56X36mm	518
121936058	PINNACLE MARATHON PE LINER NEUTRAL 58X36mm	276
121936060	PINNACLE MARATHON PE LINER NEUTRAL 60X36mm	129
121936062	PINNACLE MARATHON PE LINER NEUTRAL 62X36mm	34
121936064	PINNACLE MARATHON PE LINER NEUTRAL 64X36mm	10
121936066	PINNACLE MARATHON PE LINER NEUTRAL 66X36mm	4
121936068	Pinnacle Marathon PE Liner Neutral 68mm x 36mm	1
121936070	Pinnacle Marathon PE Liner Neutral 70mm x 36mm	1
121936152	PINNACLE MARATHON PE LINER +4 10 DEGREE 52X36mm	92
121936154	PINNACLE MARATHON PE LINER +4 10 DEGREE 54X36mm	125
121936156	PINNACLE MARATHON PE LINER +4 10 DEGREE 56X36mm	116
121936158	PINNACLE MARATHON PE LINER +4 10 DEGREE 58X36mm	65
121936160	PINNACLE MARATHON PE LINER +4 10 DEGREE 60X36mm	29
121936162	PINNACLE MARATHON PE LINER +4 10 DEGREE 62X36mm	21
121936164	PINNACLE MARATHON PE LINER +4 10 DEGREE 64X36mm	4
121936166	PINNACLE MARATHON PE LINER +4 10 DEGREE 66X36mm	2
121936452	PINNACLE MARATHON PE LINER +4 NEUTRAL 52X36mm	24
121936454	PINNACLE MARATHON PE LINER +4 NEUTRAL 54X36mm	35
121936456	PINNACLE MARATHON PE LINER +4 NEUTRAL 56X36mm	23
121936458	PINNACLE MARATHON PE LINER +4 NEUTRAL 58X36mm	13
121936460	PINNACLE MARATHON PE LINER +4 NEUTRAL 60X36mm	4
121936462	PINNACLE MARATHON PE LINER +4 NEUTRAL 62X36mm	4
121936464	PINNACLE MARATHON PE LINER +4 NEUTRAL 64X36mm	1
122128044	Pinnacle AltrX polyethylene liner neutral 28x44mm	5
122128046	Pinnacle AltrX polyethylene liner neutral 28x46mm	5
122128048	Pinnacle AltrX polyethylene liner neutral 28x48mm	4
122128050	Pinnacle AltrX polyethylene liner neutral 28x50mm	4
122128052	Pinnacle AltrX polyethylene liner neutral 28x52mm	1
122128248	Pinnacle AltrX polyethylene liner lipped 28x48mm	2
122132048	Pinnacle AltrX polyethylene liner neutral 32x48mm	898
122132050	Pinnacle AltrX polyethylene liner neutral 32x50mm	1721
122132052	Pinnacle AltrX polyethylene liner neutral 32x52mm	403
122132054	Pinnacle AltrX polyethylene liner neutral 32x54mm	268
122132056	Pinnacle AltrX polyethylene liner neutral 32x56mm	159
122132058	Pinnacle AltrX polyethylene liner neutral 32x58mm	79
122132060	Pinnacle AltrX polyethylene liner neutral 32x60mm	7
122132062	Pinnacle AltrX polyethylene liner neutral 32x68mm	3
122132064	Pinnacle AltrX polyethylene liner neutral 32x64mm	1
122132148	Pinnacle AltrX polyethylene liner +4 10deg 32x48mm	17
122132150	Pinnacle AltrX polyethylene liner +4 10deg 32x50mm	39

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Catalogue Number	Description	Number Implanted
122132152	Pinnacle AltrX polyethylene liner +4 10deg 32x52mm	2
122132154	Pinnacle AltrX polyethylene liner +4 10deg 32x54mm	2
122132252	Pinnacle AltrX polyethylene liner lipped 32x52mm	319
122132254	Pinnacle AltrX polyethylene liner lipped 32x54mm	208
122132256	Pinnacle AltrX polyethylene liner lipped 32x56mm	137
122132258	Pinnacle AltrX polyethylene liner lipped 32x58mm	60
122132260	Pinnacle AltrX polyethylene liner lipped 32x60mm	23
122132262	Pinnacle AltrX polyethylene liner lipped 32x62mm	9
122132264	Pinnacle AltrX polyethylene liner lipped 32x64mm	4
122132450	Pinnacle AltrX polyethylene liner +4 32x50mm	3
122132452	Pinnacle AltrX polyethylene liner +4 32x52mm	1
122136052	Pinnacle AltrX polyethylene liner neutral 36x52mm	771
122136054	Pinnacle AltrX polyethylene liner neutral 36x54mm	832
122136056	Pinnacle AltrX polyethylene liner neutral 36x56mm	164
122136058	Pinnacle AltrX polyethylene liner neutral 36x58mm	71
122136060	Pinnacle AltrX polyethylene liner neutral 36x60mm	30
122136062	Pinnacle AltrX polyethylene liner neutral 36x62mm	17
122136064	Pinnacle AltrX polyethylene liner neutral 36x64mm	4
122136152	Pinnacle AltrX polyethylene liner +4 10deg 36x52mm	17
122136154	Pinnacle AltrX polyethylene liner +4 10deg 36x54mm	17
122136156	Pinnacle AltrX polyethylene liner +4 10deg 36x56mm	7
122136158	Pinnacle AltrX polyethylene liner +4 10deg 36x58mm	2
122136160	Pinnacle AltrX polyethylene liner +4 10deg 36x60mm	6
122136162	Pinnacle AltrX polyethylene liner +4 10deg 36x62mm	1
122136164	Pinnacle AltrX polyethylene liner +4 10deg 36x64mm	1
122136256	Pinnacle AltrX polyethylene liner lipped 36x56mm	61
122136258	Pinnacle AltrX polyethylene liner lipped 36x58mm	30
122136260	Pinnacle AltrX polyethylene liner lipped 36x60mm	15
122136262	Pinnacle AltrX polyethylene liner lipped 36x62mm	2
122136264	Pinnacle AltrX polyethylene liner lipped 36x64mm	3
122136452	Pinnacle AltrX polyethylene liner +4 36x52mm	1
122136454	Pinnacle AltrX polyethylene liner +4 36x54mm	1
122136456	Pinnacle AltrX polyethylene liner +4 36x56mm	1
122136458	Pinnacle AltrX polyethylene liner +4 36x58mm	1
122140056	Pinnacle AltrX polyethylene liner 40x56mm	1
122140456	Pinnacle AltrX polyethylene liner LD +4 40x56mm	1
HEADS		
136503000	26mm ARTICUL/EZE HEAD COBALT CHROME +10	1
136505000	ARTICUL/EZE M 40mm HEAD +1.5	3
136506000	ARTICUL/EZE M 40mm HEAD +5	2
136511000	28mm ARTICUL/EZE HEAD COBALT CHROME +1.5	961
136511500	ARTICUL/EZE ULTAMET 28mm HEAD +1.5	10
136512000	28mm ARTICUL/EZE HEAD COBALT CHROME +5	1612
136512500	ARTICUL/EZE ULTAMET 28mm HEAD +5	19
136513000	28mm ARTICUL/EZE HEAD COBALT CHROME +8.5	617

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Catalogue Number	Description	Number Implanted
136513500	ARTICUL/EZE ULTAMET 28mm HEAD +8.5	13
136514000	28mm ARTICUL/EZE HEAD COBALT CHROME +12	70
136515000	28mm ARTICUL/EZE HEAD COBALT CHROME +15.5	3
136521000	32mm ARTICUL/EZE HEAD COBALT CHROME +1	1294
136522000	32mm ARTICUL/EZE HEAD COBALT CHROME +5	3296
136523000	32mm ARTICUL/EZE HEAD COBALT CHROME +9	1389
136524000	32mm ARTICUL/EZE HEAD COBALT CHROME +13	156
136525000	32mm ARTICUL/EZE HEAD COBALT CHROME +17	1
136528130	9/10 DELTA CERAMIC 28MM +3	2
136528210	SROM DELTA CERAMIC 28MM +0	1
136528230	SROM DELTA CERAMIC 28MM +6	2
136528310	ARTIC DELTA CERAMIC 28MM +1.5	384
136528320	ARTIC DELTA CERAMIC 28MM +5.0	846
136528330	ARTIC DELTA CERAMIC 28MM +8.5	310
136528710	DELTA TAPER SLEEVE CERAMIC HEAD 12/14 28MM +1.5	1
136530000	22.225mm ARTICUL/EZE HEAD COBALT CHROME +7	1
136532000	S-ROM ULTAMET 36mm HEAD +3	4
136532230	SROM DELTA CERAMIC 32MM +6	1
136532310	ARTIC DELTA CERAMIC 32MM +1	867
136532320	ARTIC DELTA CERAMIC 32MM +5	3190
136532330	ARTIC DELTA CERAMIC 32MM +9	1326
136532710	DELTA TAPER SLEEVE CERAMIC HEAD 12/14 32MM +1	1
136532730	DELTA TAPER SLEEVE CERAMIC HEAD 12/14 32MM +9	1
136533000	S-ROM ULTAMET 36mm HEAD +6	1
136536310	ARTIC DELTA CERAMIC 36MM +1.5	589
136536320	ARTIC DELTA CERAMIC 36MM +5.0	1640
136536330	ARTIC DELTA CERAMIC 36MM +8.5	678
136536340	ARTIC DELTA CERAMIC 36MM +12.0	104
136536710	DELTA TAPER SLEEVE CERAMIC HEAD 12/14 36MM +1.5	1
136536730	DELTA TAPER SLEEVE CERAMIC HEAD 12/14 36MM +8.5	1
136550000	ARTICUL/EZE ULTAMET 36mm HEAD -2	30
136551000	ARTICUL/EZE ULTAMET 36mm HEAD +1.5	344
136552000	ARTICUL/EZE ULTAMET 36mm HEAD +5	875
136553000	ARTICUL/EZE ULTAMET 36mm HEAD +8.5	438
136554000	ARTICUL/EZE M 36MM +12	64
167132F	Delta Modular Head 32mm	1
9111121	HIP BA BIO 28MM 12/14 + 1.5	4
9111122	HIP BA BIO 28MM 12/14 + 5	17
9111123	HIP BA BIO 28MM 12/14 + 8.5	7
911112300	28mm ARTICUL/EZE HEAD ALUMINA CERAMIC +8.5	2
9111131	HIP BALL BIOLOX 32 +1 12/14	1
9111132	HIP BALL BIOLOX 32 +5 12/14	6
9111133	HIP BALL BIOLOX 32 +9 12/14	3
962701100	9/10 ULTAMET 28mm HEAD +0	1
962747000	28mm ELITE PLUS MODULAR HEAD +6	1
HM50028	BioBall DELTA Ceramic Head Ø28 mm sterile	1

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Catalogue Number	Description	Number Implanted
L84000	28mm COBALT CHROME MODULAR HEAD -3.5	1
STEMS		
157004070	C-STEM AMT Std Offset Size 1	3156
157004085	C-STEM AMT Std Offset Size 2	4212
157004090	C-STEM AMT Std Offset Size 3	2315
157004100	C-STEM AMT Std Offset Size 4	818
157004110	C-STEM AMT Std Offset Size 5	196
157004120	C-STEM AMT Std Offset Size 6	43
157004135	C-STEM AMT Std Offset Size 7	15
157004150	C-STEM AMT Std Offset Size 8	10
157014070	C-STEM AMT High Offset Size 1	1936
157014085	C-STEM AMT High Offset Size 2	3426
157014090	C-STEM AMT High Offset Size 3	3181
157014100	C-STEM AMT High Offset Size 4	1376
157014110	C-STEM AMT High Offset Size 5	390
157014120	C-STEM AMT High Offset Size 6	125
157014135	C-STEM AMT High Offset Size 7	41
157014150	C-STEM AMT High Offset Size 8	13
157024060	C-STEM AMT RSA Std Offset Size 2	1
157024090	C-STEM AMT RSA Std Offset Size 5	1
157024100	C-STEM AMT RSA High Offset Size 3	2

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