



National Joint Registry

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HIPS



KNEES



ANKLES



ELBOWS



SHOULDERS



PROMs

# Prostheses used in hip, knee, ankle, elbow and shoulder replacement procedures 2016

14th Annual Report

# 2017

National Joint Registry  
for England, Wales,  
Northern Ireland and  
the Isle of Man

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# 1 Prostheses used in hip procedures 2016

This section reports the numbers of prostheses implanted and reported to the NJR between 1 January and 31 December 2016.

The procedure counts in this section of the report may vary from the procedure counts detailed elsewhere as this section will only count those procedures where the implants have been used. Therefore, if a procedure has been submitted with missing implant information this will cause numbers to differ.

## 1.1 Femoral head material and size

Table 1 shows the relative use of different modular heads. There has been no change in the ratio of femoral head composition compared with operations in 2015.

**Table 1** Frequency of material chosen for femoral heads in procedures performed in 2016.

Material	Number of procedures	Number of modular femoral heads used	Percentage
	101,065	99,744	
Ceramic		40,352	40%
Metal		59,392	60%

Table 2 shows the frequency of the different femoral head sizes. The main change compared with 2015 is the 2% increase in the use of 32mm heads at the expense of 28mm heads. There has been a 2% decrease in the use of ceramic on ceramic articulations compared with 2015 and a corresponding increase in the use of ceramic on polyethylene.

**Table 2** Frequency of femoral head sizes for procedures performed in 2016.

	Ceramic acetabulum articulation	Ceramic acetabulum articulation	Metal acetabulum articulation	Metal acetabulum articulation	Polyethylene acetabulum articulation	Polyethylene acetabulum articulation	Number of procedures with complete articulation	Percentage of procedures
Head size (mm)	Ceramic head	Metal head	Ceramic head	Metal head	Ceramic head	Metal head		
	10,896	11	41	820	28,622	57,659	98,049	
22.25	0%	0%	0%	<1%	<1%	2%	1,050	1%
26	0%	0%	0%	0%	0%	<1%	419	<1%
28	5%	18%	44%	3%	21%	36%	27,295	28%
30	0%	0%	0%	0%	0%	<1%	19	<1%
32	30%	18%	5%	<1%	46%	47%	43,380	44%
34	0%	0%	0%	0%	0%	0%	0	0%
36	61%	64%	7%	<1%	32%	15%	24,614	25%
38	0%	0%	2%	<1%	0%	0%	4	<1%
40	3%	0%	2%	<1%	<1%	<1%	412	<1%
42	0%	0%	7%	1%	0%	0%	15	<1%
44	<1%	0%	17%	2%	0%	<1%	62	<1%
46	0%	0%	7%	4%	0%	0%	35	<1%
48	<1%	0%	0%	9%	0%	0%	93	<1%
50	0%	0%	5%	37%	0%	0%	306	<1%
52	0%	0%	0%	19%	0%	0%	155	<1%
54+	0%	0%	2%	23%	0%	0%	190	<1%

## 1.2 Brand sales of conventional total hips and resurfacing prostheses

Tables 3 to 8 show the most frequently used brands in England, Wales, Northern Ireland and the Isle of Man during 2016, as assessed by their rate of entry into the NJR database.

**Table 3 (a)** Cemented cup brands for primary hip procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
		29,639	
Stryker	Exeter Contemporary Flanged	8,088	27%
DePuy	Marathon	5,819	20%
Stryker	Exeter X3 Rimfit	4,937	17%
Stryker	Exeter Contemporary Hooded	2,077	7%
Zimmer Biomet	ZCA	1,703	6%
DePuy	Elite Plus Ogee	1,695	6%

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**Table 3 (a) (continued)**

Manufacturer	Brand	Number of procedures	Percentage
DePuy	Charnley and Elite Plus LPW	1,015	3%
Zimmer Biomet	Original ME Muller Low Profile Cup	649	2%
Zimmer Biomet	Exceed ABT Cemented	456	2%
Stryker	Exeter Duration	402	1%
DePuy	Charnley Ogee	385	1%
DePuy	Elite Plus Cemented Cup	322	<1%
Zimmer Biomet	Stanmore-Arcos Cup	216	<1%
Dedienne Sante	ADES Cemented	211	<1%
B Braun / Aesculap	Chirulen	207	<1%
Serf	Nova Stick	187	<1%
Smith & Nephew	Reflection Cemented	178	<1%
Zimmer Biomet	Duracel	167	<1%
Mathys Orthopaedics Ltd	CCB Cup	130	<1%
JRI Orthopaedics Ltd	Aeon Cemented Acetabular Cup	127	<1%
Zimmer Biomet	Avantage Cemented Cup	108	<1%
Orthimo	OptiCup CEP	83	<1%
Stryker	Trident Constrained Cup	67	<1%
Zimmer Biomet	SHP Cup	63	<1%
Zimmer Biomet	Apollo	62	<1%
DePuy	Charnley Cemented Cup	50	<1%
DePuy	Wroblewski Golf Ball	40	<1%
JRI Orthopaedics Ltd	JRI Cemented Cup	39	<1%
Waldemar Link	Interplanta	28	<1%
Waldemar Link	Snap Fit	28	<1%
Smith & Nephew	Polarcup Cemented	27	<1%
Stryker	Restoration Gap2	22	<1%
Corin	Cenator Cemented Cup	15	<1%
Waldemar Link	Link Flange Cup	13	<1%
Zimmer Biomet	Zimmer Cemented Cup	6	<1%
Implantcast GmbH	EcoFit Cemented Cup	4	<1%
Corin	CTI Cemented Cup	2	<1%
MicroPort Orthopedics	A Class	2	<1%
Ortho-ID	Polarcup Cemented	2	<1%
United Orthopedic Corporation	XPE Cup	2	<1%
Zimmer Biomet	Centerpulse Muller	2	<1%
B Braun / Aesculap	BBraun Bipolar Cup	1	<1%
DePuy	Solution Cemented Cup	1	<1%
Finsbury	Freeman Cup Finsbury	1	<1%

**Table 3 (b)** Cemented cup brands for revision hip procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
		1,551	
DePuy	Marathon	313	21%
Stryker	Exeter X3 Rimfit	221	15%
Serf	Novae Stick	199	13%
Stryker	Exeter Contemporary Flanged	133	9%
Zimmer Biomet	Avantage Cemented Cup	106	7%
Dedienne Sante	ADES Cemented	105	7%
Stryker	Trident Constrained Cup	101	7%
DePuy	Elite Plus Ogee	47	3%
Zimmer Biomet	Exceed ABT Cemented	46	3%
Stryker	Exeter Contemporary Hooded	43	3%
Smith & Nephew	Polarcup Cemented	27	2%
Zimmer Biomet	ZCA	26	2%
DePuy	Elite Plus Cemented Cup	20	1%
Stryker	Restoration Gap2	19	1%
DePuy	Charnley Ogee	17	<1%
DePuy	Charnley and Elite Plus LPW	14	<1%
DePuy	Wroblewski Golf Ball	11	<1%
Zimmer Biomet	Original ME Muller Low Profile Cup	9	<1%
Smith & Nephew	Reflection Cemented	8	<1%
Waldemar Link	Snap Fit	7	<1%
Stryker	Exeter Duration	6	<1%
Zimmer Biomet	Freedom	6	<1%
Zimmer Biomet	Stanmore-Arcos Cup	6	<1%
Zimmer Biomet	Duracel	4	<1%
Implantcast GmbH	EcoFit Cemented Cup	3	<1%
Zimmer Biomet	SHP Cup	3	<1%
B Braun / Aesculap	Chirulen	2	<1%
JRI Orthopaedics Ltd	JRI Cemented Cup	2	<1%
Materialise	aMace	2	<1%
JRI Orthopaedics Ltd	Aeon Cemented Acetabular Cup	2	<1%
Corin	Cenator Cemented Cup	1	<1%
DePuy	Charnley Cemented Cup	1	<1%
Zimmer Biomet	Apollo	1	<1%

**Table 4 (a)** Cementless cup brands for primary hip procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
		62,504	
DePuy	Pinnacle	18,299	29%
Stryker	Trident	13,446	22%
Smith & Nephew	R3 Cementless	3,613	6%
Zimmer Biomet	Trilogy	3,479	6%
Zimmer Biomet	Exceed ABT	3,419	5%
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	3,004	5%
Corin	Trinity	2,888	5%
Zimmer Biomet	Trilogy IT	2,827	5%
Zimmer Biomet	Continuum	2,478	4%
DePuy	Pinnacle Gription	2,425	4%
Stryker	Titanium	941	2%
Zimmer Biomet	G7 Cementless Acetabular Component	535	<1%
Zimmer Biomet	Allofit	471	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	457	<1%
Medacta UK Ltd	Versafit CC Trio	342	<1%
MicroPort Orthopedics	Procotyl L	317	<1%
B Braun / Aesculap	Plasmacup SC	310	<1%
JRI Orthopaedics Ltd	CSF	269	<1%
Mathys Orthopaedics Ltd	RM Pressfit vitamys	255	<1%
Symbios SA	April - Ceramic	246	<1%
Smith & Nephew	EP-Fit Plus	233	<1%
B Braun / Aesculap	Plasmafit Cementless Cup	232	<1%
Stryker	XLFit Acetabular Cup	228	<1%
Lima	Delta TT	205	<1%
Dedienne Sante	ADES	147	<1%
Zimmer Biomet	Mallory-Head Cementless Cup	144	<1%
DePuy	DeltaMotion	137	<1%
Serf	Novae	134	<1%
Zimmer Biomet	Avantage Cementless Cup	118	<1%
FH Orthopedics	Atlas IIIp	117	<1%
Mathys Orthopaedics Ltd	RM Pressfit	115	<1%
Stryker	ABG II Cementless Cup	77	<1%
Zimmer Biomet	Allofit IT	73	<1%
Zimmer Biomet	Trabecular Metal Natural Cup	67	<1%
Lima	Delta One TT	66	<1%
Mathys Orthopaedics Ltd	RM Classic	59	<1%
Symbios SA	April - Polyethylene	50	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	41	<1%
Zimmer Biomet	CLS Cementless Cup	37	<1%
Stryker	Restoration ADM Cup	35	<1%

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**Table 4 (a) (continued)**

Manufacturer	Brand	Number of procedures	Percentage
Zimmer Biomet	Regenerex Ringloc+	28	<1%
Smith & Nephew	Polarcup Cementless	20	<1%
Evolutis	Captiv DM	18	<1%
Adler Ortho	Fixa Duplex	14	<1%
Medacta UK Ltd	MPACT	12	<1%
Mathys Orthopaedics Ltd	seleXys PC	10	<1%
Smith & Nephew	Reflection Cementless	10	<1%
Zimmer Biomet	Allofit-S IT	10	<1%
Zimmer Biomet	Maxera	10	<1%
FH Orthopedics	HipNGo	8	<1%
JRI Orthopaedics Ltd	Tribofit	7	<1%
United Orthopedic Corporation	U-Motion II	7	<1%
Adler Ortho	Fixa Ti-Por	4	<1%
Lima	Delta Revision TT	3	<1%
Adler Ortho	Polymax	1	<1%
Dedienne Sante	seleXys DS Cementless	1	<1%
Medacta UK Ltd	Versafit DM	1	<1%
Stryker	Secure Fit Cementless Cup	1	<1%
Symbios SA	Hilock	1	<1%
Zimmer Biomet	Biomex	1	<1%
Zimmer Biomet	Exceed	1	<1%

**Table 4 (b)** Cementless cup brands for revision hip procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
		4,011	
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	683	17%
DePuy	Pinnacle Gription	633	16%
Stryker	Titanium	504	13%
Zimmer Biomet	Continuum	411	10%
Stryker	Trident	335	8%
Zimmer Biomet	Trabecular Metal Revision Shell	278	7%
Lima	Delta One TT	235	6%
Lima	Delta TT	219	5%
DePuy	Pinnacle	104	3%
Smith & Nephew	R3 Cementless	81	2%
Zimmer Biomet	Regenerex Ringloc+	79	2%
Zimmer Biomet	Trilogy	62	2%
Corin	Trinity	55	1%
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	53	1%
Zimmer Biomet	Trilogy IT	47	1%
Zimmer Biomet	G7 Cementless Acetabular Component	33	<1%
Lima	Delta Revision TT	31	<1%
Zimmer Biomet	Exceed ABT	30	<1%
Serf	Novae	23	<1%
Mathys Orthopaedics Ltd	RM Pressfit vitamys	18	<1%
Zimmer Biomet	Avantage Cementless Cup	14	<1%
Stryker	Restoration ADM Cup	12	<1%
Dedienne Sante	ADES	10	<1%
Zimmer Biomet	Trabecular Metal Natural Cup	7	<1%
MicroPort Orthopedics	Procotyl L	6	<1%
Dedienne Sante	seleXys DS Cementless	5	<1%
Medacta UK Ltd	Versafit CC Trio	5	<1%
B Braun / Aesculap	Plasmacup SC	3	<1%
DePuy	DeltaMotion	3	<1%
Evolutis	Captiv DM	3	<1%
Mathys Orthopaedics Ltd	RM Pressfit	3	<1%
Peter Brehm GmbH	MRS Titan	3	<1%
Zimmer Biomet	Allofit	3	<1%
Zimmer Biomet	Mallory-Head Cementless Cup	3	<1%
B Braun / Aesculap	Plasmafit Cementless Cup	2	<1%
Exactech (UK) Ltd	Acumatch Cup	2	<1%
Smith & Nephew	EP-Fit Plus	2	<1%
Adler Ortho	Fixa Duplex	1	<1%

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**Table 4 (b) (continued)**

Manufacturer	Brand	Number of procedures	Percentage
FH Orthopedics	Atlas IIIP	1	<1%
Implantcast GmbH	Mutars Cup	1	<1%
JRI Orthopaedics Ltd	CSF	1	<1%
Mathys Orthopaedics Ltd	RM Classic	1	<1%
Medacta UK Ltd	MPACT	1	<1%
Smith & Nephew	Polarcup Cementless	1	<1%
Symbios SA	April - Ceramic	1	<1%
Zimmer Biomet	Allofit IT	1	<1%
Zimmer Biomet	Regenerex Revision	1	<1%
Zimmer Biomet	Zimmer Bipolar	1	<1%

**Table 5 (a)** Cemented stem brands for primary hip procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
			53,724
Stryker	Exeter V40	32,415	60%
Zimmer Biomet	CPT	9,141	17%
DePuy	C-Stem AMT Cemented Stem	4,604	9%
DePuy	C-Stem Cemented Stem	1,582	3%
Corin	Taperfit Cemented Stem	1,203	2%
Stryker	Exeter No.1 125mm stem Line Extension	511	<1%
Smith & Nephew	CPCS	478	<1%
DePuy	Charnley Cemented Stem	445	<1%
Zimmer Biomet	MS-30	433	<1%
Zimmer Biomet	Muller Straight Stem	397	<1%
Zimmer Biomet	Stanmore Modular Stem	337	<1%
B Braun / Aesculap	Excia Cemented	306	<1%
Zimmer Biomet	Taperloc Cemented Stem	269	<1%
DePuy	C-Stem AMT Line Extension	206	<1%
DePuy	Corail Cemented	194	<1%
Zimmer Biomet	Olympia	178	<1%
JRI Orthopaedics Ltd	Aeon Cemented Stem	140	<1%
Mathys Orthopaedics Ltd	CCA Cemented Stem	137	<1%
Orthimo	OptiStem	101	<1%
Waldemar Link	SP II Cemented Stem	69	<1%
MicroPort Orthopedics	Profemur Xm	66	<1%
Zimmer Biomet	Bimetric Cemented (Ti)	61	<1%
Zimmer Biomet	Sirius stem	57	<1%
JRI Orthopaedics Ltd	Furlong Cemented Stem	55	<1%
Medacta UK Ltd	XActa	45	<1%
B Braun / Aesculap	Trilliance	42	<1%
Smith & Nephew	Spectron	42	<1%
Medacta UK Ltd	AMIStem-C	36	<1%
Stryker	Exeter	34	<1%
DePuy	Summit Cemented Stem	29	<1%
JRI Orthopaedics Ltd	Furlong Cemented Hemiarthroplasty	13	<1%
Stryker	GMRS	13	<1%
Stanmore Implants Worldwide	METS Cemented	12	<1%
Zimmer Biomet	P10 Muller	11	<1%
United Orthopedic Corporation	UCP Stem	10	<1%
Waldemar Link	SP II Cemented Revision	9	<1%
DePuy	Charnley Modular	7	<1%
Zimmer Biomet	Bimetric Cemented (CoCr)	7	<1%

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**Table 5 (a) (continued)**

Manufacturer	Brand	Number of procedures	Percentage
Stryker	Restoration Cemented Stem	5	<1%
Zimmer Biomet	Segmental	5	<1%
Implantcast GmbH	Mutars	4	<1%
Smith & Nephew	Echelon Cemented Stem	4	<1%
Symbios SA	Arcad	4	<1%
Implantcast GmbH	EcoFit Cemented Stem	2	<1%
DePuy	Elite Plus Cemented Stem	1	<1%
Orthodynamics	Cannulok Cemented Stem	1	<1%
Smith & Nephew	SL-Plus Cementless Stem	1	<1%
Zimmer Biomet	VerSys Cemented Plus Stem	1	<1%
Zimmer Biomet	VerSys Heritage	1	<1%

**Table 5 (b)** Cemented stem brands for revision hip procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage	Procedures using femoral bone graft
		2,763		119
Stryker	Exeter V40	1,549	56%	68
Zimmer Biomet	CPT	441	16%	22
DePuy	C-Stem AMT Cemented Stem	185	7%	0
DePuy	C-Stem Cemented Stem	182	7%	17
DePuy	C-Stem AMT Line Extension	61	2%	3
Stryker	Exeter No.1 125mm stem Line Extension	56	2%	1
Stanmore Implants Worldwide	METS Cemented	52	2%	3
Corin	Taperfit Cemented Stem	45	2%	3
Zimmer Biomet	Stanmore Modular Stem	29	1%	1
Stryker	GMRS	25	<1%	0
Smith & Nephew	CPCS	14	<1%	0
Stryker	Restoration Cemented Stem	14	<1%	0
Zimmer Biomet	Segmental	12	<1%	0
Smith & Nephew	Echelon Cemented Stem	10	<1%	0
B Braun / Aesculap	Excia Cemented	8	<1%	0
DePuy	Corail Cemented	8	<1%	0
DePuy	Summit Cemented Stem	8	<1%	1
Zimmer Biomet	Taperloc Cemented Stem	8	<1%	0
Waldemar Link	SP II Cemented Revision	7	<1%	0
Zimmer Biomet	MS-30	7	<1%	0
Implantcast GmbH	Mutars	5	<1%	0
Zimmer Biomet	Sirius stem	5	<1%	0
DePuy	Charnley Modular	4	<1%	0
Zimmer Biomet	Bimetric Cemented (Ti)	4	<1%	0
JRI Orthopaedics Ltd	Furlong Cemented Stem	3	<1%	0
Zimmer Biomet	Bimetric Cemented (CoCr)	3	<1%	0
DePuy	Charnley Cemented Stem	2	<1%	0
Smith & Nephew	Spectron	2	<1%	0
Stryker	Exeter	2	<1%	0
Waldemar Link	SP II Cemented Stem	2	<1%	0
Zimmer Biomet	Muller Straight Stem	2	<1%	0
Medacta UK Ltd	XActa	1	<1%	0
MicroPort Orthopedics	Profemur Xm	1	<1%	0
Serf	Sagitta Cemented Stem	1	<1%	0
JRI Orthopaedics Ltd	Aeon Cemented Stem	1	<1%	0
Stryker	Accolade Cemented	1	<1%	0
Symbios SA	Arcad	1	<1%	0
Zimmer Biomet	Olympia	1	<1%	0
Zimmer Biomet	P10 Muller	1	<1%	0

**Table 6 (a)** Cementless stem brands for primary hip procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
38,675			
DePuy	Corail	19,460	50%
Zimmer Biomet	Taperloc Cementless Stem	2,341	6%
JRI Orthopaedics Ltd	Furlong HAC Stem	2,050	5%
Zimmer Biomet	M/L Taper Cementless	2,044	5%
Smith & Nephew	Polarstem Cementless	1,806	5%
Stryker	Accolade	1,441	4%
Zimmer Biomet	Taperloc Complete Cementless Stem	1,434	4%
Stryker	Accolade II	1,205	3%
Corin	Metafix Stem	924	2%
JRI Orthopaedics Ltd	Furlong Evolution Cementless	787	2%
Smith & Nephew	Anthology	678	2%
B Braun / Aesculap	Excia Cementless	383	<1%
DePuy	Trilock BPS	361	<1%
Corin	TriFit TS hip stem	358	<1%
Smith & Nephew	SL-Plus Cementless Stem	336	<1%
Smith & Nephew	Synergy Cementless Stem	336	<1%
DePuy	Summit Cementless Stem	256	<1%
MicroPort Orthopedics	Profemur Modular Neck	222	<1%
Corin	miniHip	218	<1%
Zimmer Biomet	CLS Cementless Stem	184	<1%
Zimmer Biomet	Bimetric Cementless Stem	182	<1%
Medacta UK Ltd	Quadra-H	172	<1%
Symbios SA	SPS Evolution	146	<1%
DePuy	S-Rom Cementless Stem	145	<1%
MicroPort Orthopedics	Profemur L Modular	126	<1%
Symbios SA	SPS Ha	110	<1%
MicroPort Orthopedics	Profemur L Classic	85	<1%
Mathys Orthopaedics Ltd	Twinsys Cementless Stem	83	<1%
Stryker	Restoration Cementless Stem	75	<1%
Lima	Master SL	70	<1%
Medacta UK Ltd	AMIStem-H	67	<1%
Implantcast GmbH	EcoFit Cementless Stem	65	<1%
JRI Orthopaedics Ltd	Furlong HAC Active Stem	45	<1%
Symbios SA	SPS Modular	43	<1%
Zimmer Biomet	Arcos Cone	42	<1%
Zimmer Biomet	Zweymuller	33	<1%
DePuy	Corail Revision Stem	28	<1%
MicroPort Orthopedics	Profemur TL	27	<1%
B Braun / Aesculap	Metha Monoblock Stem	24	<1%
Zimmer Biomet	Alloclassic Cementless Stem	24	<1%
B Braun / Aesculap	Bicontact Cementless Stem	21	<1%
Zimmer Biomet	Avenir Muller Cementless	20	<1%

Continued &gt;

**Table 6 (a) (continued)**

Manufacturer	Brand	Number of procedures	Percentage
Zimmer Biomet	ZMR Cementless Proximal Stem	18	<1%
Medacta UK Ltd	AMIStem HP	14	<1%
MicroPort Orthopedics	Profemur TL Classic	14	<1%
Symbios SA	Arcad Cementless	13	<1%
DePuy	RECLAIM	12	<1%
Medacta UK Ltd	SMS	12	<1%
Stryker	ABG II Monolithic Cementless Stem	12	<1%
Lima	H-Max S Monoblock Stem	10	<1%
ESKA	Quadra-H	9	<1%
MicroPort Orthopedics	Profemur Z	9	<1%
Smith & Nephew	Nanos	9	<1%
Lima	Lima Revision Stem	7	<1%
Stryker	Omnifit Cementless Stem	7	<1%
DePuy	LPS	6	<1%
Implantcast GmbH	Mutars Cementless	6	<1%
JRI Orthopaedics Ltd	Furlong HAC Revision Stem	6	<1%
Smith & Nephew	Echelon Cementless Stem	6	<1%
Zimmer Biomet	M/L Taper Kinectiv Cementless	6	<1%
Zimmer Biomet	Wagner Cone	5	<1%
Peter Brehm GmbH	Peter Brehm Revision Stem	4	<1%
Stanmore Implants Worldwide	METS Cementless	4	<1%
DePuy	Reef	3	<1%
Mathys Orthopaedics Ltd	CBC Evolution	3	<1%
Orthodynamics	Cannulok Cementless Stem	3	<1%
Waldemar Link	MP Revision	3	<1%
Zimmer Biomet	Revitan Cementless Stem	3	<1%
Zimmer Biomet	Fitmore Stem	2	<1%
Zimmer Biomet	Trabecular Cementless Stem	2	<1%
Zimmer Biomet	Versys Cementless Stem	2	<1%
Zimmer Biomet	Wagner Revision Stem	2	<1%
Lima	Modulus	1	<1%
Mathys Orthopaedics Ltd	Mathys Revision Stem	1	<1%
Medacta UK Ltd	Quadra-S	1	<1%
Waldemar Link	CFP	1	<1%
Waldemar Link	Mega C stem	1	<1%
Waldemar Link	MP Neck Cementless Stem	1	<1%

**Table 6 (b)** Cementless stem brands for revision hip procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage	Procedures using femoral bone graft
		2,087		163
Stryker	Restoration Cementless Stem	494	24%	27
Zimmer Biomet	Arcos Cone	423	20%	31
Zimmer Biomet	ZMR Cementless Proximal Stem	170	8%	19
DePuy	Corail	161	8%	5
DePuy	RECLAIM	142	7%	15
DePuy	Corail Revision Stem	74	4%	11
Zimmer Biomet	Revitan Cementless Stem	69	3%	10
Peter Brehm GmbH	Peter Brehm Revision Stem	66	3%	3
Waldemar Link	MP Revision	65	3%	8
Lima	Lima Revision Stem	50	2%	13
DePuy	S-Rom Cementless Stem	28	1%	1
DePuy	Reef	27	1%	1
Orthodynamics	Cannulok Cementless Stem	24	1%	2
Smith & Nephew	Echelon Cementless Stem	22	1%	0
Zimmer Biomet	M/L Taper Cementless	21	1%	0
Corin	Metafix Stem	20	<1%	2
Zimmer Biomet	Taperloc Cementless Stem	20	<1%	1
Zimmer Biomet	Taperloc Complete Cementless Stem	18	<1%	0
JRI Orthopaedics Ltd	Furlong HAC Stem	16	<1%	0
Smith & Nephew	Anthology	16	<1%	3
Smith & Nephew	Synergy Cementless Stem	15	<1%	0
MicroPort Orthopedics	Profemur Modular Neck	13	<1%	0
JRI Orthopaedics Ltd	Furlong HAC Revision Stem	12	<1%	0
Mathys Orthopaedics Ltd	Twinsys Cementless Stem	12	<1%	0
Smith & Nephew	Polarstem Cementless	11	<1%	2
Stryker	Accolade	11	<1%	0
JRI Orthopaedics Ltd	Furlong Evolution Cementless	9	<1%	1
Stryker	Accolade II	9	<1%	0
JRI Orthopaedics Ltd	Securus	7	<1%	2
Implantcast GmbH	Mutars Cementless	6	<1%	0
Corin	miniHip	5	<1%	1
DePuy	LPS	5	<1%	0
Stanmore Implants Worldwide	METS Cementless	5	<1%	1
Zimmer Biomet	Wagner Revision Stem	5	<1%	1
Implantcast GmbH	EcoFit Cementless Stem	3	<1%	0
Zimmer Biomet	Bimetric Cementless Stem	3	<1%	0
DePuy	Trilock BPS	2	<1%	1
Mathys Orthopaedics Ltd	Mathys Revision Stem	2	<1%	0

Continued &gt;

**Table 6 (b) (continued)**

Manufacturer	Brand	Number of procedures	Percentage	Procedures using femoral bone graft
MicroPort Orthopedics	Profemur L Classic	2	<1%	0
Symbios SA	SPS Ha	2	<1%	0
Zimmer Biomet	CLS Cementless Stem	2	<1%	0
Amplitude	Integrale	1	<1%	0
B Braun / Aesculap	Bicontact Cementless Stem	1	<1%	0
B Braun / Aesculap	Excia Cementless	1	<1%	0
B Braun / Aesculap	Prevision Cementless Revision Stem	1	<1%	1
Corin	TriFit TS hip stem	1	<1%	1
DePuy	Kar	1	<1%	0
DePuy	Solution Cementless Stem	1	<1%	0
ESKA	Quadra-H	1	<1%	0
Lima	H-Max S Monoblock Stem	1	<1%	0
Medacta UK Ltd	AMIStem-H	1	<1%	0
Medacta UK Ltd	Quadra-H	1	<1%	0
MicroPort Orthopedics	Profemur L Modular	1	<1%	0
MicroPort Orthopedics	Profemur TL	1	<1%	0
Smith & Nephew	MDF Modular	1	<1%	0
Smith & Nephew	Redapt Cementless	1	<1%	0
Stryker	Omnifit Cementless Stem	1	<1%	0
Symbios SA	SPS Evolution	1	<1%	0
Zimmer Biomet	Avenir Muller Cementless	1	<1%	0
Zimmer Biomet	Mallory-Head Cementless Stem	1	<1%	0
Zimmer Biomet	Versys Cementless Stem	1	<1%	0

**Table 7** Brands of resurfacing head for primary hip procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
		762	
Smith & Nephew	BHR Resurfacing Head	560	73%
International Orthopaedics Ltd	Icon	118	15%
MATOrtho Limited	Adept Resurfacing Head	58	8%
Implantcast GmbH	Accis Resurfacing Head	23	3%
MicroPort Orthopedics	Conserve	3	<1%

## 1.3 Combinations of cups and stems

Tables 8 (a) and 8 (b) detail the combinations of cup and stem brands used in primary and revision hip procedures respectively. Table 8 (a) also details which combinations have a different stem and cup manufacturer – a practice known as ‘mix and match’. For 92,207 hip primary replacement procedures in the 2016 data, both the cup and stem brand were known and a total of 851 different combinations of cup and stem brands were recorded.

The most common cup-stem combination for primary procedures was the Corail stem combined with the Pinnacle cup. Of the 92,207 primary procedures 9,127 (10%) used ‘mix and match’ cup-stem combinations from different suppliers, approximately 1% less than in 2015 and 5% less than 2013. Of the 3,425 revision hip procedures where both the cup and stem were replaced, 493 cup-stem combinations were used. The most common cup-stem combination for revision procedures was the Exeter V40 stem combined with the Titanium cup both from Stryker.

**Table 8 (a)** Cup-stem brand combinations for primary hip procedures performed during 2016.

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
				92,207		
DePuy	Pinnacle	DePuy	Corail	14,458	16%	No
Stryker	Trident	Stryker	Exeter V40	10,773	12%	No
Stryker	Exeter Contemporary Flanged	Stryker	Exeter V40	7,689	8%	No
Stryker	Exeter X3 Rimfit	Stryker	Exeter V40	4,689	5%	No
Zimmer Biomet	Trilogy	Zimmer Biomet	CPT	2,455	3%	No
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Taperloc Cementless Stem	2,161	2%	No
Stryker	Exeter Contemporary Hooded	Stryker	Exeter V40	2,005	2%	No
DePuy	Pinnacle	DePuy	C-Stem AMT Cemented Stem	1,954	2%	No
Smith & Nephew	R3 Cementless	Smith & Nephew	Polarstem Cementless	1,773	2%	No
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Furlong HAC Stem	1,772	2%	No
Zimmer Biomet	Trilogy IT	Zimmer Biomet	CPT	1,765	2%	No
DePuy	Pinnacle Gription	DePuy	Corail	1,764	2%	No
DePuy	Marathon	DePuy	Corail	1,693	2%	No
Zimmer Biomet	ZCA	Zimmer Biomet	CPT	1,672	2%	No
DePuy	Marathon	DePuy	C-Stem AMT Cemented Stem	1,669	2%	No
Zimmer Biomet	Continuum	Zimmer Biomet	CPT	1,412	2%	No

Continued >

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Stryker	Trident	Stryker	Accolade	1,358	1%	No
DePuy	Marathon	Stryker	Exeter V40	1,108	1%	Yes
DePuy	Marathon	DePuy	C-Stem Cemented Stem	1,087	1%	No
DePuy	Pinnacle	Stryker	Exeter V40	1,032	1%	Yes
Corin	Trinity	Corin	Taperfit Cemented Stem	1,005	1%	No
Corin	Trinity	Corin	Metafix Stem	873	<1%	No
Stryker	Trident	Stryker	Accolade II	871	<1%	No
DePuy	Elite Plus Ogee	Stryker	Exeter V40	842	<1%	Yes
Zimmer Biomet	Trilogy IT	Zimmer Biomet	M/L Taper Cementless	842	<1%	No
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Taperloc Complete Cementless Stem	820	<1%	No
Zimmer Biomet	Continuum	Zimmer Biomet	M/L Taper Cementless	808	<1%	No
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Furlong Evolution Cementless	757	<1%	No
Stryker	Tritanium	Stryker	Exeter V40	684	<1%	No
Zimmer Biomet	Trilogy	Stryker	Exeter V40	681	<1%	Yes
Smith & Nephew	R3 Cementless	Smith & Nephew	Anthology	668	<1%	No
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	Taperloc Complete Cementless Stem	431	<1%	No
DePuy	Charnley and Elite Plus LPW	Stryker	Exeter V40	409	<1%	Yes
Stryker	Exeter Duration	Stryker	Exeter V40	401	<1%	No
Smith & Nephew	R3 Cementless	Stryker	Exeter V40	382	<1%	Yes
DePuy	Elite Plus Ogee	DePuy	C-Stem AMT Cemented Stem	363	<1%	No
Corin	Trinity	Corin	TriFit TS hip stem	351	<1%	No
Smith & Nephew	R3 Cementless	Smith & Nephew	Synergy Cementless Stem	330	<1%	No
Smith & Nephew	R3 Cementless	Smith & Nephew	CPCS	325	<1%	No
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	CPT	287	<1%	No

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	CPT	247	<1%	No
Zimmer Biomet	Original ME Muller Low Profile Cup	Zimmer Biomet	CPT	245	<1%	No
JRI Orthopaedics Ltd	CSF	JRI Orthopaedics Ltd	Furlong HAC Stem	240	<1%	No
Zimmer Biomet	Original ME Muller Low Profile Cup	Zimmer Biomet	Muller Straight Stem	236	<1%	No
Smith & Nephew	EP-Fit Plus	Smith & Nephew	SL-Plus Cementless Stem	227	<1%	No
Corin	Trinity	Corin	miniHip	219	<1%	No
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur Modular Neck	213	<1%	No
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Taperloc Cemented Stem	207	<1%	No
B Braun / Aesculap	Plasmacup SC	B Braun / Aesculap	Excia Cementless	205	<1%	No
DePuy	Charnley and Elite Plus LPW	DePuy	Corail	202	<1%	No
Zimmer Biomet	Allofit	Zimmer Biomet	CPT	200	<1%	No
B Braun / Aesculap	Chirulen	B Braun / Aesculap	Excia Cemented	196	<1%	No
DePuy	Charnley Ogee	DePuy	Charnley Cemented Stem	194	<1%	No
Corin	Trinity	DePuy	Corail	188	<1%	Yes
DePuy	Pinnacle	DePuy	Summit Cementless Stem	184	<1%	No
Stryker	Trident	DePuy	Corail	183	<1%	Yes
DePuy	Elite Plus Cemented Cup	Stryker	Exeter V40	182	<1%	Yes
DePuy	Charnley and Elite Plus LPW	DePuy	C-Stem AMT Cemented Stem	180	<1%	No
DePuy	Pinnacle Gription	DePuy	Trilock BPS	177	<1%	No
DePuy	Elite Plus Ogee	DePuy	C-Stem Cemented Stem	174	<1%	No
Zimmer Biomet	Stanmore-Arcos Cup	Zimmer Biomet	Stanmore Modular Stem	173	<1%	No
Stryker	Titanium	Stryker	Accolade II	171	<1%	No
DePuy	Pinnacle Gription	DePuy	C-Stem AMT Cemented Stem	170	<1%	No
B Braun / Aesculap	Plasmafit Cementless Cup	B Braun / Aesculap	Excia Cementless	166	<1%	No
Medacta UK Ltd	Versafit CC Trio	Medacta UK Ltd	Quadra-H	160	<1%	No
DePuy	Charnley and Elite Plus LPW	DePuy	Charnley Cemented Stem	157	<1%	No
DePuy	Pinnacle	DePuy	Trilock BPS	156	<1%	No
Zimmer Biomet	Trilogy	Zimmer Biomet	M/L Taper Cementless	155	<1%	No

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**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Smith & Nephew	Reflection Cemented	Smith & Nephew	CPCS	150	<1%	No
Zimmer Biomet	Allofit	Zimmer Biomet	MS-30	149	<1%	No
Zimmer Biomet	Duracel	Zimmer Biomet	Muller Straight Stem	148	<1%	No
Dedienne Sante	ADES Cemented	Zimmer Biomet	CPT	147	<1%	Yes
Stryker	Exeter X3 Rimfit	Stryker	Exeter No.1 125mm stem Line Extension	145	<1%	No
Stryker	Trident	Stryker	Exeter No.1 125mm stem Line Extension	141	<1%	No
Zimmer Biomet	Original ME Muller Low Profile Cup	Zimmer Biomet	MS-30	141	<1%	No
DePuy	Charnley Ogee	DePuy	C-Stem Cemented Stem	139	<1%	No
Stryker	Exeter Contemporary Flanged	DePuy	Corail	139	<1%	Yes
DePuy	Pinnacle	DePuy	Corail Cemented	135	<1%	No
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	Stryker	Exeter V40	132	<1%	Yes
Dedienne Sante	ADES	Zimmer Biomet	CPT	129	<1%	Yes
Mathys Orthopaedics Ltd	CCB Cup	Mathys Orthopaedics Ltd	CCA Cemented Stem	124	<1%	No
Symbios SA	April - Ceramic	Symbios SA	SPS Evolution	123	<1%	No
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	Zimmer Biomet	CPT	122	<1%	Yes
JRI Orthopaedics Ltd	Aeon Cemented Acetabular Cup	JRI Orthopaedics Ltd	Aeon Cemented Stem	122	<1%	No
Stryker	Exeter Contemporary Flanged	Stryker	Exeter No.1 125mm stem Line Extension	121	<1%	No
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur L Modular	120	<1%	No
Stryker	XLFit Acetabular Cup	Stryker	Exeter V40	120	<1%	No
DePuy	Elite Plus Cemented Cup	DePuy	Corail	116	<1%	No
Zimmer Biomet	Trilogy	DePuy	Corail	116	<1%	Yes
DePuy	Elite Plus Ogee	DePuy	Corail	111	<1%	No
Zimmer Biomet	Exceed ABT	Stryker	Exeter V40	103	<1%	Yes
DePuy	Pinnacle Gription	Stryker	Exeter V40	102	<1%	Yes
Zimmer Biomet	Mallory-Head Cementless Cup	Zimmer Biomet	Bimetric Cementless Stem	102	<1%	No
Serf	Novaee Stick	Stryker	Exeter V40	94	<1%	Yes

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**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
DePuy	Pinnacle	DePuy	C-Stem AMT Line Extension	93	<1%	No
Stryker	XLFit Acetabular Cup	Stryker	Accolade II	92	<1%	No
Zimmer Biomet	Allofit	Zimmer Biomet	M/L Taper Cementless	90	<1%	No
Mathys Orthopaedics Ltd	RM Pressfit vitamys	DePuy	Corail	86	<1%	Yes
Corin	Trinity	Zimmer Biomet	Olympia	85	<1%	Yes
Symbios SA	April - Ceramic	Symbios SA	SPS Ha	84	<1%	No
Corin	Trinity	Zimmer Biomet	M/L Taper Cementless	82	<1%	Yes
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur L Classic	82	<1%	No
Orthimo	OptiCup CEP	Orthimo	OptiStem	82	<1%	No
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	DePuy	C-Stem AMT Cemented Stem	80	<1%	Yes
FH Orthopedics	Atlas IIIp	Corin	Taperfit Cemented Stem	75	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Stryker	Exeter V40	75	<1%	Yes
DePuy	DeltaMotion	DePuy	Corail	74	<1%	No
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Bimetric Cementless Stem	74	<1%	No
DePuy	Pinnacle	DePuy	C-Stem Cemented Stem	70	<1%	No
Lima	Delta TT	Lima	Master SL	70	<1%	No
Stryker	ABG II Cementless Cup	Stryker	Exeter V40	70	<1%	No
Medacta UK Ltd	Versafit CC Trio	Medacta UK Ltd	AMIStem-H	66	<1%	No
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Stanmore Modular Stem	65	<1%	No
DePuy	Marathon	DePuy	Charnley Cemented Stem	63	<1%	No
Smith & Nephew	R3 Cementless	Smith & Nephew	SL-Plus Cementless Stem	63	<1%	No
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur Xm	62	<1%	No

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**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stryker	Exeter V40	62	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	Corail	61	<1%	Yes
DePuy	Marathon	DePuy	C-Stem AMT Line Extension	60	<1%	No
DePuy	Elite Plus Ogee	DePuy	Summit Cementless Stem	58	<1%	No
DePuy	Pinnacle	DePuy	S-Rom Cementless Stem	55	<1%	No
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Mathys Orthopaedics Ltd	Twinsys Cementless Stem	55	<1%	No
Serf	Novae	Stryker	Exeter V40	55	<1%	Yes
Stryker	Trident Constrained Cup	Stryker	Exeter V40	55	<1%	No
DePuy	Pinnacle Gription	DePuy	S-Rom Cementless Stem	54	<1%	No
DePuy	Charnley Ogee	Stryker	Exeter V40	52	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit	Stryker	Exeter V40	52	<1%	Yes
Dedienne Sante	ADES Cemented	Stryker	Exeter V40	51	<1%	Yes
DePuy	Pinnacle Gription	Zimmer Biomet	CPT	51	<1%	Yes
Zimmer Biomet	Allofit IT	Zimmer Biomet	MS-30	51	<1%	No
Zimmer Biomet	Continuum	Zimmer Biomet	CLS Cementless Stem	50	<1%	No
Zimmer Biomet	Trabecular Metal Natural Cup	Corin	Taperfit Cemented Stem	49	<1%	Yes
Zimmer Biomet	Apollo	Zimmer Biomet	Taperloc Cementless Stem	48	<1%	No
Stryker	Exeter Contemporary Flanged	Zimmer Biomet	Taperloc Complete Cementless Stem	46	<1%	Yes
Zimmer Biomet	Trilogy IT	Zimmer Biomet	CLS Cementless Stem	46	<1%	No
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Furlong HAC Active Stem	45	<1%	No
Medacta UK Ltd	Versafit CC Trio	Medacta UK Ltd	XActa	45	<1%	No
Zimmer Biomet	Avantage Cemented Cup	Zimmer Biomet	CPT	44	<1%	No

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	Sirius stem	44	<1%	No
B Braun / Aesculap	Plasmafit Cementless Cup	B Braun / Aesculap	Excia Cemented	43	<1%	No
DePuy	Pinnacle Gritption	DePuy	C-Stem Cemented Stem	43	<1%	No
Lima	Delta TT	Stryker	Exeter V40	43	<1%	Yes
Zimmer Biomet	Exceed ABT Cemented	Stryker	Exeter V40	43	<1%	Yes
DePuy	Elite Plus Ogee	Zimmer Biomet	CPT	42	<1%	Yes
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Olympia	41	<1%	No
B Braun / Aesculap	Plasmacup SC	B Braun / Aesculap	Excia Cemented	40	<1%	No
Corin	Trinity	Stryker	Exeter V40	39	<1%	Yes
B Braun / Aesculap	Plasmacup SC	B Braun / Aesculap	Trilliance	38	<1%	No
Stryker	Titanium	Stryker	Accolade	38	<1%	No
Zimmer Biomet	Trilogy IT	Stryker	Exeter V40	38	<1%	Yes
Serf	Novae Stick	Zimmer Biomet	CPT	37	<1%	Yes
Medacta UK Ltd	Versafit CC Trio	Medacta UK Ltd	AMISstem-C	36	<1%	No
Zimmer Biomet	Avantage Cementless Cup	Stryker	Exeter V40	36	<1%	Yes
Zimmer Biomet	CLS Cementless Cup	Zimmer Biomet	CLS Cementless Stem	36	<1%	No
Zimmer Biomet	Continuum	Stryker	Exeter V40	36	<1%	Yes
Zimmer Biomet	Mallory-Head Cementless Cup	Zimmer Biomet	Bimetric Cemented (Ti)	36	<1%	No
DePuy	Wroblewski Golf Ball	DePuy	C-Stem Cemented Stem	35	<1%	No
Zimmer Biomet	Continuum	Zimmer Biomet	Olympia	35	<1%	No
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	CPT	35	<1%	No
DePuy	DeltaMotion	DePuy	C-Stem AMT Cemented Stem	34	<1%	No
DePuy	Elite Plus Ogee	Stryker	Exeter No.1 125mm stem Line Extension	34	<1%	Yes
Zimmer Biomet	Stanmore-Arcos Cup	Zimmer Biomet	Taperloc Cementless Stem	34	<1%	No

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**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Serf	Novae	Zimmer Biomet	CPT	32	<1%	Yes
Zimmer Biomet	Avantage Cementless Cup	Zimmer Biomet	Taperloc Complete Cementless Stem	32	<1%	No
JRI Orthopaedics Ltd	JRI Cemented Cup	JRI Orthopaedics Ltd	Furlong Cemented Stem	31	<1%	No
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	DePuy	Corail	30	<1%	Yes
Symbios SA	April - Ceramic	Symbios SA	SPS Modular	30	<1%	No
Zimmer Biomet	SHP Cup	Zimmer Biomet	Stanmore Modular Stem	30	<1%	No
Zimmer Biomet	Trilogy IT	Zimmer Biomet	Zweymuller	29	<1%	No
FH Orthopedics	Atlas IIIp	Implantcast GmbH	EcoFit Cementless Stem	28	<1%	Yes
Serf	Novae	DePuy	Corail	28	<1%	Yes
Waldemar Link	Interplanta	Waldemar Link	SP II Cemented Stem	28	<1%	No
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Stanmore Modular Stem	28	<1%	No
Zimmer Biomet	Trilogy	Zimmer Biomet	Taperloc Complete Cementless Stem	28	<1%	No
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur TL	27	<1%	No
Smith & Nephew	R3 Cementless	Smith & Nephew	Spectron	27	<1%	No
Zimmer Biomet	Trilogy IT	DePuy	Corail	27	<1%	Yes
DePuy	Charnley Cemented Cup	DePuy	Charnley Cemented Stem	26	<1%	No
DePuy	Pinnacle	DePuy	Summit Cemented Stem	26	<1%	No
Stryker	Trident	Stryker	Restoration Cementless Stem	26	<1%	No
Mathys Orthopaedics Ltd	RM Classic	DePuy	Corail	25	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit	Zimmer Biomet	MS-30	25	<1%	Yes
Waldemar Link	Snap Fit	Waldemar Link	SP II Cemented Stem	25	<1%	No
Zimmer Biomet	SHP Cup	Zimmer Biomet	Bimetric Cemented (Ti)	25	<1%	No

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
DePuy	Elite Plus Ogee	DePuy	Corail Cemented	24	<1%	No
Stryker	Exeter Contemporary Hooded	DePuy	Corail	24	<1%	Yes
Stryker	Exeter X3 Rimfit	Stryker	Accolade II	24	<1%	No
Zimmer Biomet	Avantage Cementless Cup	Zimmer Biomet	CPT	24	<1%	No
Zimmer Biomet	Trilogy IT	Zimmer Biomet	Alloclassic Cementless Stem	24	<1%	No
B Braun / Aesculap	Plasmafit Cementless Cup	B Braun / Aesculap	Metha Monoblock Stem	23	<1%	No
Mathys Orthopaedics Ltd	RM Pressfit	Mathys Orthopaedics Ltd	Twinsys Cementless Stem	23	<1%	No
Zimmer Biomet	Avantage Cemented Cup	DePuy	C-Stem AMT Cemented Stem	22	<1%	Yes
Zimmer Biomet	Avantage Cemented Cup	Stryker	Exeter V40	22	<1%	Yes
B Braun / Aesculap	Plasmacup SC	B Braun / Aesculap	Bicontact Cementless Stem	21	<1%	No
DePuy	Pinnacle	Zimmer Biomet	CPT	21	<1%	Yes
DePuy	Pinnacle	Zimmer Biomet	Taperloc Cementless Stem	21	<1%	Yes
Mathys Orthopaedics Ltd	RM Classic	Smith & Nephew	SL-Plus Cementless Stem	21	<1%	Yes
Symbios SA	April - Polyethylene	Symbios SA	SPS Evolution	21	<1%	No
Zimmer Biomet	Allofit	Zimmer Biomet	CLS Cementless Stem	21	<1%	No
Corin	Trinity	Stryker	Accolade II	20	<1%	Yes
Zimmer Biomet	Trilogy	Zimmer Biomet	CLS Cementless Stem	20	<1%	No
DePuy	Charnley and Elite Plus LPW	DePuy	Corail Cemented	19	<1%	No
Lima	Delta TT	DePuy	Corail	19	<1%	Yes
Zimmer Biomet	Continuum	DePuy	C-Stem AMT Cemented Stem	19	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	Trilogy IT	Corin	Metafix Stem	19	<1%	Yes
Corin	Trinity	Implantcast GmbH	EcoFit Cementless Stem	18	<1%	Yes
DePuy	Charnley and Elite Plus LPW	Zimmer Biomet	CPT	17	<1%	Yes
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Taperloc Cemented Stem	17	<1%	No
Zimmer Biomet	Trabecular Metal Revision Shell	Stryker	Exeter V40	17	<1%	Yes
DePuy	Marathon	Zimmer Biomet	CPT	16	<1%	Yes
Evolutis	Captiv DM	Corin	Taperfit Cemented Stem	16	<1%	Yes
JRI Orthopaedics Ltd	CSF	JRI Orthopaedics Ltd	Furlong Evolution Cementless	16	<1%	No
Lima	Delta TT	Zimmer Biomet	MS-30	16	<1%	Yes
Stryker	Restoration ADM Cup	DePuy	Corail	16	<1%	Yes
Stryker	Restoration Gap2	Stryker	Exeter V40	16	<1%	No
Zimmer Biomet	Continuum	Zimmer Biomet	Avenir Muller Cementless	16	<1%	No
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Taperloc Complete Cementless Stem	16	<1%	No
Lima	Delta One TT	DePuy	Corail	15	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Smith & Nephew	SL-Plus Cementless Stem	15	<1%	Yes
Stryker	Exeter Contemporary Hooded	Stryker	Exeter No.1 125mm stem Line Extension	15	<1%	No
Stryker	XLFit Acetabular Cup	Stryker	Accolade	15	<1%	No
Zimmer Biomet	Apollo	Zimmer Biomet	Taperloc Cemented Stem	15	<1%	No
Zimmer Biomet	Trabecular Metal Natural Cup	Implantcast GmbH	EcoFit Cementless Stem	15	<1%	Yes
DePuy	Charnley and Elite Plus LPW	DePuy	C-Stem Cemented Stem	14	<1%	No
DePuy	Pinnacle	Zimmer Biomet	MS-30	14	<1%	Yes
Medacta UK Ltd	Versafit CC Trio	Medacta UK Ltd	AMIStem HP	14	<1%	No
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur TL Classic	14	<1%	No
Stryker	Exeter Contemporary Flanged	Corin	Taperfit Cemented Stem	14	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Symbios SA	April - Polyethylene	Symbios SA	SPS Ha	14	<1%	No
Zimmer Biomet	Duracel	Zimmer Biomet	CPT	14	<1%	No
Adler Ortho	Fixa Duplex	Zimmer Biomet	CPT	13	<1%	Yes
DePuy	DeltaMotion	DePuy	Trilock BPS	13	<1%	No
DePuy	Elite Plus Ogee	B Braun / Aesculap	Excia Cemented	13	<1%	Yes
DePuy	Pinnacle Gription	DePuy	C-Stem AMT Line Extension	13	<1%	No
Mathys Orthopaedics Ltd	RM Pressfit	DePuy	Corail	13	<1%	Yes
Smith & Nephew	Reflection Cemented	Smith & Nephew	Spectron	13	<1%	No
Stryker	Trident	Stryker	Exeter	13	<1%	No
Symbios SA	April - Polyethylene	Symbios SA	SPS Modular	13	<1%	No
Waldemar Link	Link Flange Cup	Stryker	Exeter V40	13	<1%	Yes
Zimmer Biomet	Allofit IT	Zimmer Biomet	M/L Taper Cementless	13	<1%	No
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Taperloc Cementless Stem	13	<1%	No
Corin	Cenator Cemented Cup	Stryker	Exeter V40	12	<1%	Yes
DePuy	Charnley Cemented Cup	Stryker	Exeter V40	12	<1%	Yes
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	DePuy	S-Rom Cementless Stem	12	<1%	Yes
Stryker	Exeter X3 Rimfit	Stryker	Exeter	12	<1%	No
Zimmer Biomet	Trabecular Metal Revision Shell	Zimmer Biomet	CPT	12	<1%	No
Zimmer Biomet	Trilogy IT	Zimmer Biomet	Taperloc Complete Cementless Stem	12	<1%	No
B Braun / Aesculap	Chirulen	B Braun / Aesculap	Excia Cementless	11	<1%	No
DePuy	Marathon	Stryker	Exeter No.1 125mm stem Line Extension	11	<1%	Yes
DePuy	Pinnacle	DePuy	Corail Revision Stem	11	<1%	No
DePuy	Pinnacle Gription	Stryker	Exeter No.1 125mm stem Line Extension	11	<1%	Yes
JRI Orthopaedics Ltd	CSF	JRI Orthopaedics Ltd	Furlong Cemented Stem	11	<1%	No

Continued &gt;



**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Zimmer Biomet	MS-30	11	<1%	Yes
Medacta UK Ltd	Versafit CC Trio	Medacta UK Ltd	SMS	11	<1%	No
Stryker	Exeter X3 Rimfit	Zimmer Biomet	CPT	11	<1%	Yes
Stryker	Trident	Stryker	ABG II Monolithic Cementless Stem	11	<1%	No
Zimmer Biomet	Original ME Muller Low Profile Cup	Zimmer Biomet	P10 Muller	11	<1%	No
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Taperloc Cementless Stem	11	<1%	No
Zimmer Biomet	Trilogy IT	Zimmer Biomet	Taperloc Cementless Stem	11	<1%	No
DePuy	Charnley Cemented Cup	Zimmer Biomet	CPT	10	<1%	Yes
DePuy	Marathon	DePuy	Corail Cemented	10	<1%	No
DePuy	Marathon	DePuy	Summit Cementless Stem	10	<1%	No
DePuy	Marathon	Zimmer Biomet	Stanmore Modular Stem	10	<1%	Yes
FH Orthopedics	Atlas IIIp	Stryker	Exeter V40	10	<1%	Yes
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Furlong Cemented Stem	10	<1%	No
Mathys Orthopaedics Ltd	RM Classic	Mathys Orthopaedics Ltd	CCA Cemented Stem	10	<1%	No
Medacta UK Ltd	MPACT	Medacta UK Ltd	Quadra-H	10	<1%	No
Smith & Nephew	Polarcup Cementless	Stryker	Exeter V40	10	<1%	Yes
Stryker	Exeter Contemporary Flanged	Stryker	Accolade II	10	<1%	No
Stryker	Exeter X3 Rimfit	Stryker	Accolade	10	<1%	No
Stryker	Trident	Corin	Metafix Stem	10	<1%	Yes
Symbios SA	April - Ceramic	Symbios SA	Arcad Cementless	10	<1%	No
Zimmer Biomet	Continuum	Zimmer Biomet	Taperloc Complete Cementless Stem	10	<1%	No
Zimmer Biomet	Maxera	Zimmer Biomet	M/L Taper Cementless	10	<1%	No
Zimmer Biomet	ZCA	Zimmer Biomet	Taperloc Complete Cementless Stem	10	<1%	No
DePuy	Elite Plus Ogee	Waldemar Link	SP II Cemented Stem	9	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	Zimmer Biomet	MS-30	9	<1%	Yes
Lima	Delta TT	Lima	H-Max S Monoblock Stem	9	<1%	No
Medacta UK Ltd	Versafit CC Trio	ESKA	Quadra-H	9	<1%	Yes
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur Z	9	<1%	No
Smith & Nephew	R3 Cementless	Smith & Nephew	Nanos	9	<1%	No
Stryker	Exeter Contemporary Flanged	Zimmer Biomet	CPT	9	<1%	Yes
Stryker	Restoration ADM Cup	Stryker	Exeter V40	9	<1%	No
Stryker	Trident	Zimmer Biomet	CLS Cementless Stem	9	<1%	Yes
Stryker	Titanium	Stryker	Restoration Cementless Stem	9	<1%	No
Zimmer Biomet	Allofit-S IT	Zimmer Biomet	M/L Taper Cementless	9	<1%	No
Zimmer Biomet	Continuum	DePuy	Corail	9	<1%	Yes
Zimmer Biomet	Continuum	Zimmer Biomet	Taperloc Cementless Stem	9	<1%	No
DePuy	Marathon	DePuy	Corail Revision Stem	8	<1%	No
DePuy	Marathon	DePuy	Trilock BPS	8	<1%	No
DePuy	Pinnacle	Zimmer Biomet	Muller Straight Stem	8	<1%	Yes
FH Orthopedics	HipNGo	Corin	Taperfit Cemented Stem	8	<1%	Yes
Lima	Delta One TT	Stryker	Exeter V40	8	<1%	Yes
Lima	Delta One TT	Zimmer Biomet	M/L Taper Cementless	8	<1%	Yes
Lima	Delta TT	Zimmer Biomet	Taperloc Cemented Stem	8	<1%	Yes
Serf	Novae Stick	DePuy	C-Stem AMT Cemented Stem	8	<1%	Yes
Smith & Nephew	Polarcup Cementless	DePuy	Corail	8	<1%	Yes
Stryker	Exeter Contemporary Flanged	Orthimo	OptiStem	8	<1%	Yes
Stryker	Exeter Contemporary Flanged	Stryker	Accolade	8	<1%	No
Stryker	Exeter Contemporary Hooded	Stryker	Accolade	8	<1%	No

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Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Stryker	Exeter Contemporary Hooded	Zimmer Biomet	CPT	8	<1%	Yes
Stryker	Tritanium	DePuy	Corail	8	<1%	Yes
Zimmer Biomet	Avantage Cementless Cup	JRI Orthopaedics Ltd	Furlong Evolution Cementless	8	<1%	Yes
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Olympia	8	<1%	No
Zimmer Biomet	G7 Cementless Acetabular Component	JRI Orthopaedics Ltd	Furlong HAC Stem	8	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Corin	Taperfit Cemented Stem	8	<1%	Yes
DePuy	Charnley and Elite Plus LPW	JRI Orthopaedics Ltd	Aeon Cemented Stem	7	<1%	Yes
DePuy	Elite Plus Cemented Cup	DePuy	C-Stem AMT Cemented Stem	7	<1%	No
DePuy	Elite Plus Ogee	DePuy	C-Stem AMT Line Extension	7	<1%	No
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Furlong Cemented Hemiarthroplasty	7	<1%	No
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Aeon Cemented Stem	7	<1%	Yes
Lima	Delta One TT	Zimmer Biomet	CPT	7	<1%	Yes
Smith & Nephew	Polarcup Cemented	B Braun / Aesculap	Excia Cemented	7	<1%	Yes
Stryker	Exeter Contemporary Flanged	MicroPort Orthopedics	Profemur Modular Neck	7	<1%	Yes
Stryker	Exeter Contemporary Hooded	DePuy	C-Stem AMT Cemented Stem	7	<1%	Yes
United Orthopedic Corporation	U-Motion II	United Orthopedic Corporation	UCP Stem	7	<1%	No
Zimmer Biomet	Avantage Cementless Cup	DePuy	Corail	7	<1%	Yes
Zimmer Biomet	Continuum	DePuy	Charnley Modular	7	<1%	Yes
Zimmer Biomet	Continuum	DePuy	S-Rom Cementless Stem	7	<1%	Yes
Zimmer Biomet	Continuum	Zimmer Biomet	Arcos Cone	7	<1%	No

Continued &gt;

Table 8 (a) (continued)

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	Stanmore-Arcos Cup	Zimmer Biomet	Taperloc Cemented Stem	7	<1%	No
DePuy	DeltaMotion	Stryker	Accolade II	6	<1%	Yes
DePuy	Pinnacle	Stryker	Exeter No.1 125mm stem Line Extension	6	<1%	Yes
DePuy	Pinnacle	Stryker	Restoration Cementless Stem	6	<1%	Yes
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Furlong HAC Revision Stem	6	<1%	No
JRI Orthopaedics Ltd	Tribofit	JRI Orthopaedics Ltd	Furlong HAC Stem	6	<1%	No
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Smith & Nephew	Anthology	6	<1%	Yes
Serf	Novae Stick	DePuy	C-Stem Cemented Stem	6	<1%	Yes
Smith & Nephew	Polarcup Cemented	Stryker	Exeter V40	6	<1%	Yes
Smith & Nephew	Reflection Cemented	Corin	Taperfit Cemented Stem	6	<1%	Yes
Stryker	Exeter X3 Rimfit	DePuy	Corail	6	<1%	Yes
Stryker	Titanium	Zimmer Biomet	Taperloc Complete Cementless Stem	6	<1%	Yes
Zimmer Biomet	Continuum	Corin	Metafix Stem	6	<1%	Yes
Zimmer Biomet	Original ME Muller Low Profile Cup	Zimmer Biomet	M/L Taper Cementless	6	<1%	No
Zimmer Biomet	Zimmer Cemented Cup	Zimmer Biomet	CPT	6	<1%	No
Adler Ortho	Fixa Ti-Por	Stryker	Exeter V40	5	<1%	Yes
Corin	Trinity	Zimmer Biomet	CPT	5	<1%	Yes
DePuy	Marathon	JRI Orthopaedics Ltd	Furlong HAC Stem	5	<1%	Yes
DePuy	Marathon	Zimmer Biomet	Taperloc Cementless Stem	5	<1%	Yes
DePuy	Pinnacle	Symbios SA	SPS HA	5	<1%	Yes
Lima	Delta One TT	DePuy	C-Stem AMT Cemented Stem	5	<1%	Yes
Serf	Novae	DePuy	C-Stem AMT Cemented Stem	5	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Serf	Nova Stick	DePuy	Corail	5	<1%	Yes
Serf	Nova Stick	DePuy	C-Stem AMT Line Extension	5	<1%	Yes
Serf	Nova Stick	Zimmer Biomet	Taperloc Cemented Stem	5	<1%	Yes
JRI Orthopaedics Ltd	Aeon Cemented Acetabular Cup	Stryker	Exeter V40	5	<1%	Yes
Smith & Nephew	Polarcup Cementless	Smith & Nephew	Polarstem Cementless	5	<1%	No
Smith & Nephew	R3 Cementless	Stryker	Exeter No.1 125mm stem Line Extension	5	<1%	Yes
Stryker	ABG II Cementless Cup	Stryker	Accolade	5	<1%	No
Stryker	Exeter X3 Rimfit	Stryker	Restoration Cementless Stem	5	<1%	No
Stryker	Trident	Smith & Nephew	SL-Plus Cementless Stem	5	<1%	Yes
Stryker	Trident	Zimmer Biomet	Taperloc Cementless Stem	5	<1%	Yes
Zimmer Biomet	Continuum	Zimmer Biomet	M/L Taper Kinectiv Cementless	5	<1%	No
Zimmer Biomet	Continuum	Zimmer Biomet	ZMR Cementless Proximal Stem	5	<1%	No
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Sirius stem	5	<1%	No
Zimmer Biomet	Exceed ABT Cemented	DePuy	Corail	5	<1%	Yes
Zimmer Biomet	Original ME Muller Low Profile Cup	DePuy	Corail	5	<1%	Yes
Zimmer Biomet	Trilogy	JRI Orthopaedics Ltd	Furlong HAC Stem	5	<1%	Yes
Zimmer Biomet	Trilogy IT	Zimmer Biomet	Olympia	5	<1%	No
B Braun / Aesculap	Plasmacup SC	Stryker	Exeter V40	4	<1%	Yes
Corin	Trinity	Symbios SA	SPS HA	4	<1%	Yes
Dedienne Sante	ADES	DePuy	C-Stem AMT Cemented Stem	4	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Dedienne Sante	ADES Cemented	Zimmer Biomet	Segmental	4	<1%	Yes
DePuy	Charnley and Elite Plus LPW	DePuy	C-Stem AMT Line Extension	4	<1%	No
DePuy	DeltaMotion	Corin	TriFit TS hip stem	4	<1%	Yes
DePuy	Elite Plus Cemented Cup	DePuy	C-Stem Cemented Stem	4	<1%	No
DePuy	Marathon	Orthimo	OptiStem	4	<1%	Yes
DePuy	Marathon	Stryker	Accolade II	4	<1%	Yes
DePuy	Pinnacle Gription	DePuy	Corail Revision Stem	4	<1%	No
DePuy	Pinnacle Gription	Stanmore Implants Worldwide	METS Cemented	4	<1%	Yes
DePuy	Pinnacle Gription	Zimmer Biomet	MS-30	4	<1%	Yes
Implantcast GmbH	EcoFit Cemented Cup	Stryker	Exeter V40	4	<1%	Yes
Lima	Delta One TT	Zimmer Biomet	Taperloc Cemented Stem	4	<1%	Yes
Lima	Delta TT	Corin	Taperfit Cemented Stem	4	<1%	Yes
Lima	Delta TT	Zimmer Biomet	CPT	4	<1%	Yes
Lima	Delta TT	Zimmer Biomet	Taperloc Cementless Stem	4	<1%	Yes
Mathys Orthopaedics Ltd	seleXys PC	Mathys Orthopaedics Ltd	Twinsys Cementless Stem	4	<1%	No
Smith & Nephew	Polarcup Cemented	Zimmer Biomet	Stanmore Modular Stem	4	<1%	Yes
Smith & Nephew	R3 Cementless	Stryker	Restoration Cementless Stem	4	<1%	Yes
Smith & Nephew	Reflection Cementless	Smith & Nephew	Synergy Cementless Stem	4	<1%	No
Stryker	Exeter Contemporary Flanged	MicroPort Orthopedics	Profemur L Modular	4	<1%	Yes
Stryker	Exeter Contemporary Flanged	Stryker	Exeter	4	<1%	No
Stryker	Exeter X3 Rimfit	Corin	Taperfit Cemented Stem	4	<1%	Yes
Stryker	Exeter X3 Rimfit	Orthimo	OptiStem	4	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Stryker	Exeter X3 Rimfit	Zimmer Biomet	Taperloc Complete Cementless Stem	4	<1%	Yes
Stryker	Restoration ADM Cup	DePuy	RECLAIM	4	<1%	Yes
Stryker	Trident	Stryker	Omnifit Cementless Stem	4	<1%	No
Zimmer Biomet	Continuum	DePuy	C-Stem AMT Line Extension	4	<1%	Yes
Zimmer Biomet	Continuum	JRI Orthopaedics Ltd	Furlong HAC Stem	4	<1%	Yes
Zimmer Biomet	Continuum	Zimmer Biomet	Zweymuller	4	<1%	No
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Arcos Cone	4	<1%	No
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Stanmore Modular Stem	4	<1%	No
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	M/L Taper Cementless	4	<1%	No
Zimmer Biomet	Trilogy	Corin	Metafix Stem	4	<1%	Yes
Zimmer Biomet	Trilogy	Zimmer Biomet	Avenir Muller Cementless	4	<1%	No
Zimmer Biomet	ZCA	Stryker	Exeter V40	4	<1%	Yes
Zimmer Biomet	ZCA	Zimmer Biomet	Bimetric Cemented (CoCr)	4	<1%	No
Zimmer Biomet	ZCA	Zimmer Biomet	M/L Taper Cementless	4	<1%	No
Corin	Cenator Cemented Cup	Corin	Taperfit Cemented Stem	3	<1%	No
Dedienne Sante	ADES	DePuy	Corail	3	<1%	Yes
DePuy	Charnley and Elite Plus LPW	Zimmer Biomet	Taperloc Cementless Stem	3	<1%	Yes
DePuy	Elite Plus Cemented Cup	Orthimo	OptiStem	3	<1%	Yes
DePuy	Elite Plus Ogee	Stryker	Omnifit Cementless Stem	3	<1%	Yes
DePuy	Marathon	Smith & Nephew	Polarstem Cementless	3	<1%	Yes
DePuy	Marathon	Stryker	Restoration Cementless Stem	3	<1%	Yes
DePuy	Pinnacle	DePuy	RECLAIM	3	<1%	No

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
DePuy	Pinnacle	JRI Orthopaedics Ltd	Furlong HAC Stem	3	<1%	Yes
DePuy	Wroblewski Golf Ball	DePuy	Charnley Cemented Stem	3	<1%	No
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	DePuy	C-Stem AMT Line Extension	3	<1%	Yes
JRI Orthopaedics Ltd	JRI Cemented Cup	Zimmer Biomet	MS-30	3	<1%	Yes
Lima	Delta One TT	Zimmer Biomet	Taperloc Cementless Stem	3	<1%	Yes
Lima	Delta Revision TT	Stryker	Exeter V40	3	<1%	Yes
Lima	Delta TT	Implantcast GmbH	EcoFit Cementless Stem	3	<1%	Yes
Lima	Delta TT	Lima	Lima Revision Stem	3	<1%	No
Mathys Orthopaedics Ltd	CCB Cup	Smith & Nephew	SL-Plus Cementless Stem	3	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Stryker	Exeter No.1 125mm stem Line Extension	3	<1%	Yes
Mathys Orthopaedics Ltd	seleXys PC	Mathys Orthopaedics Ltd	CBC Evolution	3	<1%	No
Mathys Orthopaedics Ltd	seleXys PC	Mathys Orthopaedics Ltd	CCA Cemented Stem	3	<1%	No
Serf	Novae	Stryker	Exeter No.1 125mm stem Line Extension	3	<1%	Yes
Serf	Novae	Zimmer Biomet	Stanmore Modular Stem	3	<1%	Yes
Serf	Novae Stick	Stryker	GMRS	3	<1%	Yes
Smith & Nephew	Polarcup Cemented	Smith & Nephew	Polarstem Cementless	3	<1%	No
Smith & Nephew	Reflection Cemented	Stryker	Exeter V40	3	<1%	Yes
Smith & Nephew	Reflection Cementless	Stryker	Exeter V40	3	<1%	Yes
Stryker	Exeter Contemporary Flanged	MicroPort Orthopedics	Profemur L Classic	3	<1%	Yes
Stryker	Exeter Contemporary Flanged	MicroPort Orthopedics	Profemur Xm	3	<1%	Yes
Stryker	Exeter Contemporary Flanged	Smith & Nephew	Polarstem Cementless	3	<1%	Yes
Stryker	Exeter Contemporary Hooded	Stryker	Restoration Cementless Stem	3	<1%	No

Continued &gt;



**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Stryker	Exeter X3 Rimfit	DePuy	C-Stem Cemented Stem	3	<1%	Yes
Stryker	Exeter X3 Rimfit	Zimmer Biomet	Arcos Cone	3	<1%	Yes
Stryker	Trident	JRI Orthopaedics Ltd	Furlong HAC Stem	3	<1%	Yes
Stryker	Trident	Zimmer Biomet	Arcos Cone	3	<1%	Yes
Stryker	Trident	Zimmer Biomet	Taperloc Complete Cementless Stem	3	<1%	Yes
Stryker	Trident Constrained Cup	Smith & Nephew	Echelon Cemented Stem	3	<1%	Yes
Stryker	Trident Constrained Cup	Stryker	Restoration Cementless Stem	3	<1%	No
Stryker	Tritanium	DePuy	Trilock BPS	3	<1%	Yes
Stryker	Tritanium	Stryker	Exeter	3	<1%	No
Zimmer Biomet	Allofit IT	Zimmer Biomet	CPT	3	<1%	No
Zimmer Biomet	Continuum	Symbios SA	SPS HA	3	<1%	Yes
Zimmer Biomet	Duracel	DePuy	Corail	3	<1%	Yes
Zimmer Biomet	Exceed ABT	DePuy	S-Rom Cementless Stem	3	<1%	Yes
Zimmer Biomet	G7 Cementless Acetabular Component	DePuy	C-Stem AMT Cemented Stem	3	<1%	Yes
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	Taperloc Cemented Stem	3	<1%	No
Zimmer Biomet	SHP Cup	Zimmer Biomet	Taperloc Cemented Stem	3	<1%	No
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	C-Stem AMT Cemented Stem	3	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Arcos Cone	3	<1%	No
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Taperloc Complete Cementless Stem	3	<1%	No
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	ZMR Cementless Proximal Stem	3	<1%	No
Zimmer Biomet	Trilogy	Zimmer Biomet	ZMR Cementless Proximal Stem	3	<1%	No
Corin	Trinity	DePuy	Summit Cemented Stem	2	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Corin	Trinity	DePuy	Summit Cementless Stem	2	<1%	Yes
Dedienne Sante	ADES	Stryker	Exeter V40	2	<1%	Yes
Dedienne Sante	ADES	Zimmer Biomet	M/L Taper Cementless	2	<1%	Yes
Dedienne Sante	ADES	Zimmer Biomet	ZMR Cementless Proximal Stem	2	<1%	Yes
Dedienne Sante	ADES Cemented	DePuy	C-Stem Cemented Stem	2	<1%	Yes
Dedienne Sante	ADES Cemented	Stryker	GMRS	2	<1%	Yes
Dedienne Sante	ADES Cemented	Zimmer Biomet	M/L Taper Cementless	2	<1%	Yes
DePuy	Charnley and Elite Plus LPW	Stryker	Exeter No.1 125mm stem Line Extension	2	<1%	Yes
DePuy	Charnley Cemented Cup	DePuy	C-Stem Cemented Stem	2	<1%	No
DePuy	DeltaMotion	DePuy	C-Stem AMT Line Extension	2	<1%	No
DePuy	DeltaMotion	Zimmer Biomet	M/L Taper Cementless	2	<1%	Yes
DePuy	Elite Plus Cemented Cup	JRI Orthopaedics Ltd	Aeon Cemented Stem	2	<1%	Yes
DePuy	Elite Plus Ogee	Zimmer Biomet	Stanmore Modular Stem	2	<1%	Yes
DePuy	Marathon	B Braun / Aesculap	Excia Cemented	2	<1%	Yes
DePuy	Marathon	B Braun / Aesculap	Trilliance	2	<1%	Yes
DePuy	Marathon	Corin	Taperfit Cemented Stem	2	<1%	Yes
DePuy	Marathon	DePuy	S-Rom Cementless Stem	2	<1%	No
DePuy	Marathon	Smith & Nephew	SL-Plus Cementless Stem	2	<1%	Yes
DePuy	Pinnacle	Stanmore Implants Worldwide	METS Cemented	2	<1%	Yes
DePuy	Pinnacle	Zimmer Biomet	Arcos Cone	2	<1%	Yes
DePuy	Pinnacle	Zimmer Biomet	Olympia	2	<1%	Yes
DePuy	Pinnacle	Zimmer Biomet	Stanmore Modular Stem	2	<1%	Yes
DePuy	Pinnacle Gription	DePuy	Summit Cementless Stem	2	<1%	No
DePuy	Pinnacle Gription	Stryker	Restoration Cementless Stem	2	<1%	Yes
DePuy	Pinnacle Gription	Zimmer Biomet	M/L Taper Cementless	2	<1%	Yes
DePuy	Wroblewski Golf Ball	Zimmer Biomet	CPT	2	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
FH Orthopedics	Atlas IIIP	Corin	Metafix Stem	2	<1%	Yes
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	Peter Brehm GmbH	Peter Brehm Revision Stem	2	<1%	Yes
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	Zimmer Biomet	Taperloc Cementless Stem	2	<1%	Yes
JRI Orthopaedics Ltd	JRI Cemented Cup	DePuy	Corail Cemented	2	<1%	Yes
Lima	Delta One TT	Lima	Lima Revision Stem	2	<1%	No
Lima	Delta One TT	Stryker	Restoration Cementless Stem	2	<1%	Yes
Lima	Delta One TT	Zimmer Biomet	Arcos Cone	2	<1%	Yes
Lima	Delta TT	DePuy	C-Stem AMT Cemented Stem	2	<1%	Yes
Lima	Delta TT	DePuy	C-Stem AMT Line Extension	2	<1%	Yes
Lima	Delta TT	DePuy	S-Rom Cementless Stem	2	<1%	Yes
Lima	Delta TT	Smith & Nephew	Polarstem Cementless	2	<1%	Yes
Lima	Delta TT	Symbios SA	SPS HA	2	<1%	Yes
Lima	Delta TT	Zimmer Biomet	ZMR Cementless Proximal Stem	2	<1%	Yes
MicroPort Orthopedics	Procotyl L	DePuy	Corail	2	<1%	Yes
Serf	Novae	DePuy	Corail Revision Stem	2	<1%	Yes
Serf	Novae	Smith & Nephew	Anthology	2	<1%	Yes
Serf	Novae	Zimmer Biomet	MS-30	2	<1%	Yes
Serf	Novae Stick	Stryker	Exeter No.1 125mm stem Line Extension	2	<1%	Yes
Smith & Nephew	EP-Fit Plus	Smith & Nephew	Polarstem Cementless	2	<1%	No
Smith & Nephew	Polarcup Cemented	Smith & Nephew	CPCS	2	<1%	No
Smith & Nephew	R3 Cementless	DePuy	Corail	2	<1%	Yes
Smith & Nephew	R3 Cementless	DePuy	S-Rom Cementless Stem	2	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Smith & Nephew	R3 Cementless	Smith & Nephew	Echelon Cementless Stem	2	<1%	No
Smith & Nephew	R3 Cementless	Stryker	Accolade II	2	<1%	Yes
Smith & Nephew	Reflection Cemented	Smith & Nephew	Polarstem Cementless	2	<1%	No
Stryker	Exeter Contemporary Flanged	DePuy	Charnley Cemented Stem	2	<1%	Yes
Stryker	Exeter Contemporary Flanged	Smith & Nephew	Echelon Cementless Stem	2	<1%	Yes
Stryker	Exeter Contemporary Flanged	Zimmer Biomet	Arcos Cone	2	<1%	Yes
Stryker	Exeter X3 Rimfit	Waldemar Link	SP II Cemented Revision	2	<1%	Yes
Stryker	Restoration ADM Cup	Corin	Metafix Stem	2	<1%	Yes
Stryker	Restoration Gap2	DePuy	C-Stem AMT Cemented Stem	2	<1%	Yes
Stryker	Trident	DePuy	Reef	2	<1%	Yes
Stryker	Trident	DePuy	S-Rom Cementless Stem	2	<1%	Yes
Stryker	Trident	Orthodynamics	Cannulok Cementless Stem	2	<1%	Yes
Stryker	Trident	Stryker	GMRS	2	<1%	No
Stryker	Trident	Zimmer Biomet	CPT	2	<1%	Yes
Stryker	Titanium	DePuy	C-Stem Cemented Stem	2	<1%	Yes
Stryker	Titanium	Stryker	Exeter No.1 125mm stem Line Extension	2	<1%	No
Stryker	Titanium	Waldemar Link	SP II Cemented Stem	2	<1%	Yes
Stryker	Titanium	Zimmer Biomet	Arcos Cone	2	<1%	Yes
Stryker	Titanium	Zimmer Biomet	Bimetric Cemented (CoCr)	2	<1%	Yes
Symbios SA	Hilock	Symbios SA	SPS Ha	2	<1%	No
United Orthopedic Corporation	XPE Cup	United Orthopedic Corporation	UCP Stem	2	<1%	No
Waldemar Link	Snap Fit	Waldemar Link	SP II Cemented Revision	2	<1%	No
Zimmer Biomet	Allofit	Zimmer Biomet	Muller Straight Stem	2	<1%	No
Zimmer Biomet	Avantage Cemented Cup	DePuy	C-Stem Cemented Stem	2	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	Avantage Cemented Cup	DePuy	LPS	2	<1%	Yes
Zimmer Biomet	Avantage Cementless Cup	DePuy	C-Stem AMT Cemented Stem	2	<1%	Yes
Zimmer Biomet	Avantage Cementless Cup	JRI Orthopaedics Ltd	Furlong HAC Stem	2	<1%	Yes
Zimmer Biomet	Avantage Cementless Cup	Zimmer Biomet	Sirius stem	2	<1%	No
Zimmer Biomet	Centerpulse Muller	Zimmer Biomet	CPT	2	<1%	No
Zimmer Biomet	Continuum	Symbios SA	Arcad Cementless	2	<1%	Yes
Zimmer Biomet	Continuum	Zimmer Biomet	Revitan Cementless Stem	2	<1%	No
Zimmer Biomet	Continuum	Zimmer Biomet	Wagner Cone	2	<1%	No
Zimmer Biomet	Exceed ABT	Zimmer Biomet	CPT	2	<1%	No
Zimmer Biomet	Exceed ABT	Zimmer Biomet	M/L Taper Cementless	2	<1%	No
Zimmer Biomet	Exceed ABT Cemented	DePuy	C-Stem AMT Cemented Stem	2	<1%	Yes
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Arcos Cone	2	<1%	No
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Sirius stem	2	<1%	No
Zimmer Biomet	G7 Cementless Acetabular Component	DePuy	Trilock BPS	2	<1%	Yes
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	Bimetric Cementless Stem	2	<1%	No
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	Wagner Cone	2	<1%	No
Zimmer Biomet	Mallory-Head Cementless Cup	B Braun / Aesculap	Excia Cemented	2	<1%	Yes
Zimmer Biomet	Mallory-Head Cementless Cup	Stryker	Exeter V40	2	<1%	Yes
Zimmer Biomet	Original ME Muller Low Profile Cup	Stryker	Exeter V40	2	<1%	Yes
Zimmer Biomet	Regenerex Ringloc+	Corin	Taperfit Cemented Stem	2	<1%	Yes
Zimmer Biomet	Regenerex Ringloc+	DePuy	Corail	2	<1%	Yes
Zimmer Biomet	Regenerex Ringloc+	Stryker	Exeter V40	2	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Arcos Cone	2	<1%	No
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Taperloc Complete Cementless Stem	2	<1%	No
Zimmer Biomet	SHP Cup	Zimmer Biomet	Bimetric Cementless Stem	2	<1%	No
Zimmer Biomet	SHP Cup	Zimmer Biomet	Taperloc Cementless Stem	2	<1%	No
Zimmer Biomet	Stanmore-Arcos Cup	DePuy	C-Stem AMT Line Extension	2	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Smith & Nephew	Polarstem Cementless	2	<1%	Yes
Zimmer Biomet	Trabecular Metal Natural Cup	Corin	Metafix Stem	2	<1%	Yes
Zimmer Biomet	Trabecular Metal Revision Shell	DePuy	C-Stem AMT Cemented Stem	2	<1%	Yes
Zimmer Biomet	Trabecular Metal Revision Shell	Zimmer Biomet	M/L Taper Cementless	2	<1%	No
Zimmer Biomet	Trilogy	Zimmer Biomet	Sirius stem	2	<1%	No
Zimmer Biomet	Trilogy IT	Zimmer Biomet	Arcos Cone	2	<1%	No
Zimmer Biomet	ZCA	DePuy	Corail	2	<1%	Yes
Zimmer Biomet	ZCA	DePuy	C-Stem AMT Cemented Stem	2	<1%	Yes
Adler Ortho	Fixa Duplex	Zimmer Biomet	Arcos Cone	1	<1%	Yes
Adler Ortho	Polymax	Smith & Nephew	Polarstem Cementless	1	<1%	Yes
B Braun / Aesculap	BBraun Bipolar Cup	Stanmore Implants Worldwide	METS Cemented	1	<1%	Yes
B Braun / Aesculap	Plasmacup SC	Zimmer Biomet	Stanmore Modular Stem	1	<1%	Yes
Corin	Trinity	DePuy	C-Stem AMT Line Extension	1	<1%	Yes
Corin	Trinity	DePuy	Trilock BPS	1	<1%	Yes
Corin	Trinity	Implantcast GmbH	EcoFit Cemented Stem	1	<1%	Yes

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Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Corin	Trinity	Smith & Nephew	Polarstem Cementless	1	<1%	Yes
Corin	Trinity	Zimmer Biomet	VerSys Heritage	1	<1%	Yes
Dedienne Sante	ADES	Corin	Metafix Stem	1	<1%	Yes
Dedienne Sante	ADES	DePuy	C-Stem AMT Line Extension	1	<1%	Yes
Dedienne Sante	ADES	Zimmer Biomet	Olympia	1	<1%	Yes
Dedienne Sante	ADES	Zimmer Biomet	Wagner Revision Stem	1	<1%	Yes
Dedienne Sante	ADES Cemented	Stryker	Restoration Cemented Stem	1	<1%	Yes
Dedienne Sante	ADES Cemented	Zimmer Biomet	Stanmore Modular Stem	1	<1%	Yes
Dedienne Sante	seleXys DS Cementless	Zimmer Biomet	CPT	1	<1%	Yes
DePuy	Charnley Ogee	Stryker	Exeter	1	<1%	Yes
DePuy	DeltaMotion	DePuy	S-Rom Cementless Stem	1	<1%	No
DePuy	DeltaMotion	Stryker	Exeter V40	1	<1%	Yes
DePuy	Elite Plus Cemented Cup	B Braun / Aesculap	Trilliance	1	<1%	Yes
DePuy	Elite Plus Cemented Cup	Stryker	Accolade II	1	<1%	Yes
DePuy	Elite Plus Cemented Cup	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%	Yes
DePuy	Elite Plus Cemented Cup	Zimmer Biomet	CPT	1	<1%	Yes
DePuy	Elite Plus Cemented Cup	Zimmer Biomet	Stanmore Modular Stem	1	<1%	Yes
DePuy	Elite Plus Cemented Cup	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	Yes
DePuy	Elite Plus Ogee	B Braun / Aesculap	Excia Cementless	1	<1%	Yes
DePuy	Elite Plus Ogee	B Braun / Aesculap	Trilliance	1	<1%	Yes
DePuy	Elite Plus Ogee	Lima	Lima Revision Stem	1	<1%	Yes
DePuy	Elite Plus Ogee	Mathys Orthopaedics Ltd	Twinsys Cementless Stem	1	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
DePuy	Elite Plus Ogee	Smith & Nephew	SL-Plus Cementless Stem	1	<1%	Yes
DePuy	Elite Plus Ogee	Stryker	Accolade	1	<1%	Yes
DePuy	Elite Plus Ogee	Stryker	Accolade II	1	<1%	Yes
DePuy	Elite Plus Ogee	Stryker	Exeter	1	<1%	Yes
DePuy	Elite Plus Ogee	Stryker	Restoration Cementless Stem	1	<1%	Yes
DePuy	Elite Plus Ogee	Waldemar Link	SP II Cemented Revision	1	<1%	Yes
DePuy	Elite Plus Ogee	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	Yes
DePuy	Marathon	DePuy	Elite Plus Cemented Stem	1	<1%	No
DePuy	Marathon	DePuy	RECLAIM	1	<1%	No
DePuy	Marathon	DePuy	Summit Cemented Stem	1	<1%	No
DePuy	Marathon	Stanmore Implants Worldwide	METS Cemented	1	<1%	Yes
DePuy	Marathon	Waldemar Link	SP II Cemented Stem	1	<1%	Yes
DePuy	Marathon	Zimmer Biomet	Taperloc Complete Cementless Stem	1	<1%	Yes
DePuy	Pinnacle	Corin	Metafix Stem	1	<1%	Yes
DePuy	Pinnacle	Corin	Taperfit Cemented Stem	1	<1%	Yes
DePuy	Pinnacle	DePuy	LPS	1	<1%	No
DePuy	Pinnacle	JRI Orthopaedics Ltd	Furlong Cemented Stem	1	<1%	Yes
DePuy	Pinnacle	JRI Orthopaedics Ltd	Furlong Evolution Cementless	1	<1%	Yes
DePuy	Pinnacle	Lima	Lima Revision Stem	1	<1%	Yes
DePuy	Pinnacle	Smith & Nephew	Synergy Cementless Stem	1	<1%	Yes
DePuy	Pinnacle	Waldemar Link	CFP	1	<1%	Yes
DePuy	Pinnacle	Waldemar Link	SP II Cemented Revision	1	<1%	Yes

Continued &gt;



**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
DePuy	Pinnacle	Zimmer Biomet	CLS Cementless Stem	1	<1%	Yes
DePuy	Pinnacle	Zimmer Biomet	Taperloc Complete Cementless Stem	1	<1%	Yes
DePuy	Pinnacle	Zimmer Biomet	Versys Cementless Stem	1	<1%	Yes
DePuy	Pinnacle Gription	Corin	Metafix Stem	1	<1%	Yes
DePuy	Pinnacle Gription	Corin	Taperfit Cemented Stem	1	<1%	Yes
DePuy	Pinnacle Gription	DePuy	Corail Cemented	1	<1%	No
DePuy	Pinnacle Gription	DePuy	RECLAIM	1	<1%	No
DePuy	Pinnacle Gription	Orthodynamics	Cannulok Cementless Stem	1	<1%	Yes
DePuy	Pinnacle Gription	Zimmer Biomet	Bimetric Cemented (CoCr)	1	<1%	Yes
DePuy	Pinnacle Gription	Zimmer Biomet	Muller Straight Stem	1	<1%	Yes
DePuy	Pinnacle Gription	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	Yes
DePuy	Pinnacle Gription	Zimmer Biomet	Taperloc Complete Cementless Stem	1	<1%	Yes
DePuy	Solution Cemented Cup	Corin	Taperfit Cemented Stem	1	<1%	Yes
DePuy	Wroblewski Golf Ball	Stryker	Exeter V40	1	<1%	Yes
Evolutis	Captiv DM	Corin	Metafix Stem	1	<1%	Yes
Evolutis	Captiv DM	Implantcast GmbH	EcoFit Cementless Stem	1	<1%	Yes
FH Orthopedics	Atlas IIIP	Corin	miniHip	1	<1%	Yes
FH Orthopedics	Atlas IIIP	Implantcast GmbH	EcoFit Cemented Stem	1	<1%	Yes
Finsbury	Freeman Cup Finsbury	Zimmer Biomet	CPT	1	<1%	Yes
JRI Orthopaedics Ltd	CSF	DePuy	Corail	1	<1%	Yes
JRI Orthopaedics Ltd	CSF	DePuy	C-Stem AMT Cemented Stem	1	<1%	Yes
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	B Braun / Aesculap	Metha Monoblock Stem	1	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	Zimmer Biomet	Fitmore Stem	1	<1%	Yes
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	Zimmer Biomet	M/L Taper Cementless	1	<1%	Yes
JRI Orthopaedics Ltd	JRI Cemented Cup	DePuy	Corail	1	<1%	Yes
JRI Orthopaedics Ltd	JRI Cemented Cup	JRI Orthopaedics Ltd	Furlong HAC Stem	1	<1%	No
JRI Orthopaedics Ltd	JRI Cemented Cup	Zimmer Biomet	CPT	1	<1%	Yes
JRI Orthopaedics Ltd	Tribofit	JRI Orthopaedics Ltd	Furlong Evolution Cementless	1	<1%	No
Lima	Delta One TT	Corin	Taperfit Cemented Stem	1	<1%	Yes
Lima	Delta One TT	DePuy	Corail Revision Stem	1	<1%	Yes
Lima	Delta One TT	DePuy	S-Rom Cementless Stem	1	<1%	Yes
Lima	Delta One TT	JRI Orthopaedics Ltd	Furlong Evolution Cementless	1	<1%	Yes
Lima	Delta One TT	JRI Orthopaedics Ltd	Furlong HAC Stem	1	<1%	Yes
Lima	Delta One TT	Lima	H-Max S Monoblock Stem	1	<1%	No
Lima	Delta One TT	Symbios SA	SPS Evolution	1	<1%	Yes
Lima	Delta One TT	Waldemar Link	SP II Cemented Revision	1	<1%	Yes
Lima	Delta One TT	Zimmer Biomet	MS-30	1	<1%	Yes
Lima	Delta TT	B Braun / Aesculap	Excia Cemented	1	<1%	Yes
Lima	Delta TT	Lima	Modulus	1	<1%	No
Lima	Delta TT	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%	Yes
Lima	Delta TT	Stryker	Restoration Cementless Stem	1	<1%	Yes
Lima	Delta TT	Symbios SA	Arcad Cementless	1	<1%	Yes
Lima	Delta TT	Waldemar Link	MP Revision	1	<1%	Yes
Lima	Delta TT	Zimmer Biomet	M/L Taper Cementless	1	<1%	Yes

Continued &gt;



**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Lima	Delta TT	Zimmer Biomet	Muller Straight Stem	1	<1%	Yes
Lima	Delta TT	Zimmer Biomet	Stanmore Modular Stem	1	<1%	Yes
Mathys Orthopaedics Ltd	CCB Cup	Mathys Orthopaedics Ltd	Mathys Revision Stem	1	<1%	No
Mathys Orthopaedics Ltd	CCB Cup	Stryker	Exeter V40	1	<1%	Yes
Mathys Orthopaedics Ltd	RM Classic	DePuy	C-Stem AMT Line Extension	1	<1%	Yes
Mathys Orthopaedics Ltd	RM Classic	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%	Yes
Mathys Orthopaedics Ltd	RM Classic	Stryker	Exeter V40	1	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit	JRI Orthopaedics Ltd	Furlong Cemented Hemiarthroplasty	1	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit vitamys	DePuy	Corail Revision Stem	1	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Smith & Nephew	Polarstem Cementless	1	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Stryker	Accolade II	1	<1%	Yes
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Stryker	Restoration Cementless Stem	1	<1%	Yes
Medacta UK Ltd	MPACT	Medacta UK Ltd	AMIStem-H	1	<1%	No
Medacta UK Ltd	MPACT	Medacta UK Ltd	SMS	1	<1%	No
Medacta UK Ltd	Versafit DM	Medacta UK Ltd	Quadra-S	1	<1%	No
MicroPort Orthopedics	A Class	MicroPort Orthopedics	Profemur Modular Neck	1	<1%	No
MicroPort Orthopedics	A Class	MicroPort Orthopedics	Profemur Xm	1	<1%	No

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
MicroPort Orthopedics	A Class	Zimmer Biomet	Taperloc Complete Cementless Stem	1	<1%	Yes
MicroPort Orthopedics	Procotyl L	DePuy	C-Stem AMT Cemented Stem	1	<1%	Yes
MicroPort Orthopedics	Procotyl L	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%	Yes
Ortho-ID	Polarcup Cemented	Stryker	Exeter V40	1	<1%	Yes
Ortho-ID	Polarcup Cemented	Stryker	GMRS	1	<1%	Yes
Serf	Novae	DePuy	C-Stem AMT Line Extension	1	<1%	Yes
Serf	Novae	JRI Orthopaedics Ltd	Furlong HAC Stem	1	<1%	Yes
Serf	Novae Stick	Corin	Taperfit Cemented Stem	1	<1%	Yes
Serf	Novae Stick	DePuy	Charnley Cemented Stem	1	<1%	Yes
Serf	Novae Stick	DePuy	LPS	1	<1%	Yes
Serf	Novae Stick	JRI Orthopaedics Ltd	Aeon Cemented Stem	1	<1%	Yes
Serf	Novae Stick	Stryker	Restoration Cemented Stem	1	<1%	Yes
Serf	Novae Stick	Waldemar Link	MP Revision	1	<1%	Yes
Serf	Novae Stick	Zimmer Biomet	Arcos Cone	1	<1%	Yes
Serf	Novae Stick	Zimmer Biomet	Stanmore Modular Stem	1	<1%	Yes
Serf	Novae Stick	Zimmer Biomet	Taperloc Complete Cementless Stem	1	<1%	Yes
Serf	Novae Stick	Zimmer Biomet	ZMR Cementless Proximal Stem	1	<1%	Yes
Smith & Nephew	EP-Fit Plus	DePuy	Corail	1	<1%	Yes
Smith & Nephew	EP-Fit Plus	DePuy	C-Stem Cemented Stem	1	<1%	Yes
Smith & Nephew	EP-Fit Plus	Stryker	GMRS	1	<1%	Yes
Smith & Nephew	Polarcup Cemented	DePuy	Corail	1	<1%	Yes
Smith & Nephew	Polarcup Cemented	JRI Orthopaedics Ltd	Furlong Cemented Hemiarthroplasty	1	<1%	Yes
Smith & Nephew	Polarcup Cemented	Smith & Nephew	Spectron	1	<1%	No
Smith & Nephew	Polarcup Cemented	Zimmer Biomet	Arcos Cone	1	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Smith & Nephew	R3 Cementless	JRI Orthopaedics Ltd	Furlong Cemented Hemiarthroplasty	1	<1%	Yes
Smith & Nephew	R3 Cementless	JRI Orthopaedics Ltd	Furlong Evolution Cementless	1	<1%	Yes
Smith & Nephew	Reflection Cemented	DePuy	Corail	1	<1%	Yes
Smith & Nephew	Reflection Cemented	DePuy	C-Stem AMT Cemented Stem	1	<1%	Yes
Smith & Nephew	Reflection Cemented	Smith & Nephew	Anthology	1	<1%	No
Smith & Nephew	Reflection Cemented	Stryker	Restoration Cementless Stem	1	<1%	Yes
Stryker	ABG II Cementless Cup	Stryker	ABG II Monolithic Cementless Stem	1	<1%	No
Stryker	Exeter Contemporary Flanged	DePuy	C-Stem AMT Cemented Stem	1	<1%	Yes
Stryker	Exeter Contemporary Flanged	DePuy	RECLAIM	1	<1%	Yes
Stryker	Exeter Contemporary Flanged	DePuy	S-Rom Cementless Stem	1	<1%	Yes
Stryker	Exeter Contemporary Flanged	JRI Orthopaedics Ltd	Aeon Cemented Stem	1	<1%	Yes
Stryker	Exeter Contemporary Flanged	Smith & Nephew	Anthology	1	<1%	Yes
Stryker	Exeter Contemporary Flanged	Stryker	Restoration Cementless Stem	1	<1%	No
Stryker	Exeter Contemporary Flanged	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	Yes
Stryker	Exeter Contemporary Flanged	Zimmer Biomet	ZMR Cementless Proximal Stem	1	<1%	Yes
Stryker	Exeter Contemporary Hooded	DePuy	C-Stem Cemented Stem	1	<1%	Yes
Stryker	Exeter Contemporary Hooded	JRI Orthopaedics Ltd	Furlong HAC Stem	1	<1%	Yes
Stryker	Exeter Contemporary Hooded	Waldemar Link	SP II Cemented Revision	1	<1%	Yes
Stryker	Exeter Contemporary Hooded	Waldemar Link	SP II Cemented Stem	1	<1%	Yes
Stryker	Exeter Contemporary Hooded	Zimmer Biomet	Taperloc Cemented Stem	1	<1%	Yes

Continued &gt;

Table 8 (a) (continued)

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Stryker	Exeter Duration	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%	No
Stryker	Exeter X3 Rimfit	Corin	Metafix Stem	1	<1%	Yes
Stryker	Exeter X3 Rimfit	DePuy	Corail Cemented	1	<1%	Yes
Stryker	Exeter X3 Rimfit	DePuy	S-Rom Cementless Stem	1	<1%	Yes
Stryker	Exeter X3 Rimfit	MicroPort Orthopedics	Profemur L Modular	1	<1%	Yes
Stryker	Exeter X3 Rimfit	MicroPort Orthopedics	Profemur Modular Neck	1	<1%	Yes
Stryker	Exeter X3 Rimfit	Smith & Nephew	Echelon Cemented Stem	1	<1%	Yes
Stryker	Exeter X3 Rimfit	Smith & Nephew	Echelon Cementless Stem	1	<1%	Yes
Stryker	Exeter X3 Rimfit	Smith & Nephew	Polarstem Cementless	1	<1%	Yes
Stryker	Exeter X3 Rimfit	Stanmore Implants Worldwide	METS Cemented	1	<1%	Yes
Stryker	Exeter X3 Rimfit	Stryker	GMRS	1	<1%	No
Stryker	Exeter X3 Rimfit	Stryker	Restoration Cemented Stem	1	<1%	No
Stryker	Exeter X3 Rimfit	Waldemar Link	MP Revision	1	<1%	Yes
Stryker	Exeter X3 Rimfit	Zimmer Biomet	Olympia	1	<1%	Yes
Stryker	Exeter X3 Rimfit	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	Yes
Stryker	Restoration ADM Cup	DePuy	Trilock BPS	1	<1%	Yes
Stryker	Restoration ADM Cup	Stryker	Accolade II	1	<1%	No
Stryker	Restoration ADM Cup	Zimmer Biomet	Arcos Cone	1	<1%	Yes
Stryker	Restoration ADM Cup	Zimmer Biomet	M/L Taper Cementless	1	<1%	Yes
Stryker	Restoration Gap2	Stryker	Accolade II	1	<1%	No
Stryker	Restoration Gap2	Zimmer Biomet	MS-30	1	<1%	Yes
Stryker	Trident	Corin	TriFit TS hip stem	1	<1%	Yes
Stryker	Trident	DePuy	C-Stem AMT Cemented Stem	1	<1%	Yes
Stryker	Trident	JRI Orthopaedics Ltd	Furlong Evolution Cementless	1	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Stryker	Trident	MicroPort Orthopedics	Profemur Modular Neck	1	<1%	Yes
Stryker	Trident	MicroPort Orthopedics	Profemur Xm	1	<1%	Yes
Stryker	Trident	Smith & Nephew	Echelon Cementless Stem	1	<1%	Yes
Stryker	Trident	Zimmer Biomet	M/L Taper Cementless	1	<1%	Yes
Stryker	Trident	Zimmer Biomet	Segmental	1	<1%	Yes
Stryker	Trident	Zimmer Biomet	Stanmore Modular Stem	1	<1%	Yes
Stryker	Trident	Zimmer Biomet	Trabecular Cementless Stem	1	<1%	Yes
Stryker	Trident Constrained Cup	DePuy	Corail	1	<1%	Yes
Stryker	Trident Constrained Cup	DePuy	Corail Revision Stem	1	<1%	Yes
Stryker	Trident Constrained Cup	DePuy	Reef	1	<1%	Yes
Stryker	Trident Constrained Cup	Peter Brehm GmbH	Peter Brehm Revision Stem	1	<1%	Yes
Stryker	Trident Constrained Cup	Stammore Implants Worldwide	METS Cementless	1	<1%	Yes
Stryker	Trident Constrained Cup	Zimmer Biomet	ZMR Cementless Proximal Stem	1	<1%	Yes
Stryker	Titanium	DePuy	C-Stem AMT Cemented Stem	1	<1%	Yes
Stryker	Titanium	MicroPort Orthopedics	Profemur L Modular	1	<1%	Yes
Stryker	Titanium	MicroPort Orthopedics	Profemur Modular Neck	1	<1%	Yes
Stryker	Titanium	Stryker	GMRS	1	<1%	No
Stryker	Titanium	Stryker	Restoration Cemented Stem	1	<1%	No
Stryker	Titanium	Zimmer Biomet	CPT	1	<1%	Yes
Stryker	Titanium	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	Yes
Stryker	XLFit Acetabular Cup	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%	No
Symbios SA	April - Polyethylene	Stryker	Exeter V40	1	<1%	Yes
Symbios SA	April - Polyethylene	Symbios SA	Arcad Cementless	1	<1%	No
Waldemar Link	Snap Fit	Stryker	Exeter V40	1	<1%	Yes

Continued &gt;

Table 8 (a) (continued)

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	Allofit	DePuy	C-Stem AMT Cemented Stem	1	<1%	Yes
Zimmer Biomet	Allofit	Stryker	Accolade	1	<1%	Yes
Zimmer Biomet	Allofit	Stryker	Exeter V40	1	<1%	Yes
Zimmer Biomet	Allofit	Zimmer Biomet	Wagner Cone	1	<1%	No
Zimmer Biomet	Allofit-S IT	Zimmer Biomet	Muller Straight Stem	1	<1%	No
Zimmer Biomet	Avantage Cemented Cup	DePuy	Corail	1	<1%	Yes
Zimmer Biomet	Avantage Cemented Cup	DePuy	C-Stem AMT Line Extension	1	<1%	Yes
Zimmer Biomet	Avantage Cemented Cup	Implantcast GmbH	Mutars	1	<1%	Yes
Zimmer Biomet	Avantage Cemented Cup	Implantcast GmbH	Mutars Cementless	1	<1%	Yes
Zimmer Biomet	Avantage Cemented Cup	JRI Orthopaedics Ltd	Furlong Cemented Hemiarthroplasty	1	<1%	Yes
Zimmer Biomet	Avantage Cemented Cup	JRI Orthopaedics Ltd	Furlong Cemented Stem	1	<1%	Yes
Zimmer Biomet	Avantage Cemented Cup	Stanmore Implants Worldwide	METS Cemented	1	<1%	Yes
Zimmer Biomet	Avantage Cemented Cup	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%	Yes
Zimmer Biomet	Avantage Cemented Cup	Waldemar Link	Mega C stem	1	<1%	Yes
Zimmer Biomet	Avantage Cemented Cup	Zimmer Biomet	Arcos Cone	1	<1%	No
Zimmer Biomet	Avantage Cemented Cup	Zimmer Biomet	Stanmore Modular Stem	1	<1%	No
Zimmer Biomet	Avantage Cemented Cup	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	No
Zimmer Biomet	Avantage Cemented Cup	Zimmer Biomet	Taperloc Complete Cementless Stem	1	<1%	No
Zimmer Biomet	Avantage Cementless Cup	DePuy	LPS	1	<1%	Yes
Zimmer Biomet	Avantage Cementless Cup	DePuy	RECLAIM	1	<1%	Yes
Zimmer Biomet	Avantage Cementless Cup	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	No
Zimmer Biomet	Biomex	Zimmer Biomet	M/L Taper Cementless	1	<1%	No
Zimmer Biomet	CLS Cementless Cup	Zimmer Biomet	CPT	1	<1%	No
Zimmer Biomet	Continuum	Corin	miniHip	1	<1%	Yes

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	Continuum	JRI Orthopaedics Ltd	Furlong Cemented Hemiarthroplasty	1	<1%	Yes
Zimmer Biomet	Continuum	Smith & Nephew	Polarstem Cementless	1	<1%	Yes
Zimmer Biomet	Continuum	Symbios SA	SPS Evolution	1	<1%	Yes
Zimmer Biomet	Continuum	Zimmer Biomet	MS-30	1	<1%	No
Zimmer Biomet	Continuum	Zimmer Biomet	Trabecular Cementless Stem	1	<1%	No
Zimmer Biomet	Continuum	Zimmer Biomet	Versys Cementless Stem	1	<1%	No
Zimmer Biomet	Continuum	Zimmer Biomet	Wagner Revision Stem	1	<1%	No
Zimmer Biomet	Duracel	DePuy	C-Stem AMT Line Extension	1	<1%	Yes
Zimmer Biomet	Duracel	Stryker	Exeter V40	1	<1%	Yes
Zimmer Biomet	Exceed	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	No
Zimmer Biomet	Exceed ABT	Stryker	Accolade II	1	<1%	Yes
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Bimetric Cementless Stem	1	<1%	No
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	M/L Taper Cementless	1	<1%	No
Zimmer Biomet	G7 Cementless Acetabular Component	DePuy	Corail	1	<1%	Yes
Zimmer Biomet	G7 Cementless Acetabular Component	DePuy	S-Rom Cementless Stem	1	<1%	Yes
Zimmer Biomet	G7 Cementless Acetabular Component	JRI Orthopaedics Ltd	Furlong Evolution Cementless	1	<1%	Yes
Zimmer Biomet	G7 Cementless Acetabular Component	Peter Brehm GmbH	Peter Brehm Revision Stem	1	<1%	Yes
Zimmer Biomet	G7 Cementless Acetabular Component	Smith & Nephew	Synergy Cementless Stem	1	<1%	Yes
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	Arcos Cone	1	<1%	No
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	No
Zimmer Biomet	Mallory-Head Cementless Cup	DePuy	C-Stem AMT Cemented Stem	1	<1%	Yes
Zimmer Biomet	Mallory-Head Cementless Cup	Stanmore Implants Worldwide	METS Cementless	1	<1%	Yes
Zimmer Biomet	Original ME Muller Low Profile Cup	Waldemar Link	SP II Cemented Revision	1	<1%	Yes
Zimmer Biomet	Recap Magnum	Zimmer Biomet	CPT	1	<1%	No

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	Regenerex Ringloc+	B Braun / Aesculap	Excia Cementless	1	<1%	Yes
Zimmer Biomet	Regenerex Ringloc+	DePuy	C-Stem AMT Cemented Stem	1	<1%	Yes
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Sirius stem	1	<1%	No
Zimmer Biomet	SHP Cup	Zimmer Biomet	Taperloc Complete Cementless Stem	1	<1%	No
Zimmer Biomet	Stanmore-Arcos Cup	Stryker	Exeter V40	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	B Braun / Aesculap	Excia Cemented	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Corin	Metafix Stem	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Corin	TriFit TS hip stem	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	RECLAIM	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	S-Rom Cementless Stem	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	JRI Orthopaedics Ltd	Furlong HAC Stem	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Smith & Nephew	CPCS	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stanmore Implants Worldwide	METS Cementless	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stryker	Accolade	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stryker	Restoration Cementless Stem	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Waldemar Link	SP II Cemented Stem	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Fitmore Stem	1	<1%	No
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Revitan Cementless Stem	1	<1%	No

Continued &gt;

**Table 8 (a) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage	Mix and match
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Sirius stem	1	<1%	No
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Wagner Cone	1	<1%	No
Zimmer Biomet	Trabecular Metal Natural Cup	Corin	miniHip	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Revision Shell	Corin	Metafix Stem	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Revision Shell	DePuy	C-Stem AMT Line Extension	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Revision Shell	DePuy	C-Stem Cemented Stem	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Revision Shell	Smith & Nephew	Polarstem Cementless	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Revision Shell	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%	Yes
Zimmer Biomet	Trabecular Metal Revision Shell	Stryker	Restoration Cementless Stem	1	<1%	Yes
Zimmer Biomet	Trilogy	Corin	Taperfit Cemented Stem	1	<1%	Yes
Zimmer Biomet	Trilogy	Corin	TriFit TS hip stem	1	<1%	Yes
Zimmer Biomet	Trilogy	Medacta UK Ltd	Quadra-H	1	<1%	Yes
Zimmer Biomet	Trilogy	Smith & Nephew	Polarstem Cementless	1	<1%	Yes
Zimmer Biomet	Trilogy	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%	Yes
Zimmer Biomet	Trilogy	Zimmer Biomet	MS-30	1	<1%	No
Zimmer Biomet	Trilogy	Zimmer Biomet	Taperloc Cementless Stem	1	<1%	No
Zimmer Biomet	Trilogy IT	Waldemar Link	SP II Cemented Stem	1	<1%	Yes
Zimmer Biomet	Trilogy IT	Zimmer Biomet	Bimetric Cementless Stem	1	<1%	No
Zimmer Biomet	Trilogy IT	Zimmer Biomet	M/L Taper Kinectiv Cementless	1	<1%	No
Zimmer Biomet	Trilogy IT	Zimmer Biomet	VerSys Cemented Plus Stem	1	<1%	No
Zimmer Biomet	Trilogy IT	Zimmer Biomet	ZMR Cementless Proximal Stem	1	<1%	No
Zimmer Biomet	ZCA	DePuy	C-Stem Cemented Stem	1	<1%	Yes
Zimmer Biomet	ZCA	Zimmer Biomet	CLS Cementless Stem	1	<1%	No

**Table 8 (b)** Cup-stem brand combinations for revision hip procedures performed during 2016.

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
					3,425
Stryker	Titanium	Stryker	Exeter V40	197	6%
Stryker	Trident	Stryker	Exeter V40	164	5%
Stryker	Exeter X3 Rimfit	Stryker	Exeter V40	131	4%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stryker	Exeter V40	112	3%
Zimmer Biomet	Continuum	Zimmer Biomet	CPT	102	3%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	CPT	93	3%
Stryker	Exeter Contemporary Flanged	Stryker	Exeter V40	78	2%
Stryker	Titanium	Stryker	Restoration Cementless Stem	78	2%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Arcos Cone	76	2%
DePuy	Marathon	DePuy	C-Stem Cemented Stem	72	2%
DePuy	Pinnacle Gription	Stryker	Exeter V40	62	2%
DePuy	Pinnacle Gription	DePuy	Corail	58	2%
Zimmer Biomet	Trabecular Metal Revision Shell	Stryker	Exeter V40	58	2%
DePuy	Pinnacle Gription	DePuy	RECLAIM	57	2%
DePuy	Pinnacle Gription	DePuy	C-Stem AMT Cemented Stem	53	2%
Zimmer Biomet	Continuum	Stryker	Exeter V40	51	1%
DePuy	Marathon	Stryker	Exeter V40	48	1%
Serf	Novae Stick	Stryker	Exeter V40	42	1%
Stryker	Trident	Stryker	Restoration Cementless Stem	41	1%
DePuy	Marathon	DePuy	C-Stem AMT Cemented Stem	36	1%
Lima	Delta TT	Stryker	Exeter V40	36	1%
Zimmer Biomet	Continuum	Zimmer Biomet	Arcos Cone	36	1%
Lima	Delta One TT	Stryker	Exeter V40	33	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	ZMR Cementless Proximal Stem	33	<1%
DePuy	Elite Plus Ogee	Stryker	Exeter V40	31	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stryker	Restoration Cementless Stem	31	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Stryker	Restoration Cementless Stem	31	<1%
Stryker	Trident Constrained Cup	Stryker	Exeter V40	29	<1%
DePuy	Pinnacle Gription	DePuy	Corail Revision Stem	27	<1%
Stryker	Exeter Contemporary Hooded	Stryker	Exeter V40	26	<1%
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Arcos Cone	24	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Zimmer Biomet	CPT	24	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
DePuy	Pinnacle	DePuy	Corail	23	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Zimmer Biomet	Arcos Cone	22	<1%
DePuy	Pinnacle Gription	DePuy	C-Stem Cemented Stem	20	<1%
Zimmer Biomet	Continuum	Zimmer Biomet	ZMR Cementless Proximal Stem	19	<1%
DePuy	Pinnacle Gription	DePuy	C-Stem AMT Line Extension	18	<1%
Stryker	Exeter X3 Rimfit	Stryker	Restoration Cementless Stem	18	<1%
Zimmer Biomet	Trilogy IT	Zimmer Biomet	CPT	17	<1%
Corin	Trinity	Corin	Taperfit Cemented Stem	16	<1%
DePuy	Pinnacle Gription	Zimmer Biomet	Arcos Cone	16	<1%
Zimmer Biomet	Avantage Cemented Cup	Stryker	Exeter V40	16	<1%
Dedienne Sante	ADES Cemented	Stryker	Exeter V40	15	<1%
Lima	Delta TT	Stryker	Restoration Cementless Stem	15	<1%
Zimmer Biomet	Trilogy	Zimmer Biomet	CPT	15	<1%
Dedienne Sante	ADES Cemented	Zimmer Biomet	CPT	14	<1%
Lima	Delta TT	DePuy	Corail	14	<1%
Serf	Novae Stick	Zimmer Biomet	CPT	14	<1%
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	CPT	14	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Zimmer Biomet	ZMR Cementless Proximal Stem	14	<1%
DePuy	Pinnacle Gription	Waldemar Link	MP Revision	13	<1%
Smith & Nephew	R3 Cementless	Smith & Nephew	Anthology	13	<1%
Zimmer Biomet	ZCA	Zimmer Biomet	CPT	13	<1%
Zimmer Biomet	Continuum	Zimmer Biomet	M/L Taper Cementless	12	<1%
Zimmer Biomet	Continuum	Zimmer Biomet	Revitan Cementless Stem	12	<1%
DePuy	Marathon	Stryker	Restoration Cementless Stem	11	<1%
DePuy	Pinnacle	DePuy	C-Stem Cemented Stem	11	<1%
DePuy	Pinnacle	Stryker	Exeter V40	11	<1%
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Mathys Orthopaedics Ltd	Twinsys Cementless Stem	11	<1%
Serf	Novae Stick	DePuy	C-Stem Cemented Stem	11	<1%
Smith & Nephew	R3 Cementless	Stryker	Exeter V40	11	<1%
Stryker	Trident	Zimmer Biomet	Arcos Cone	11	<1%
DePuy	Marathon	DePuy	Corail Revision Stem	10	<1%
DePuy	Pinnacle Gription	DePuy	S-Rom Cementless Stem	10	<1%
DePuy	Pinnacle Gription	Stryker	Restoration Cementless Stem	10	<1%
Serf	Novae Stick	Stryker	Restoration Cementless Stem	10	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Smith & Nephew	R3 Cementless	Smith & Nephew	Polarstem Cementless	10	<1%
Smith & Nephew	R3 Cementless	Smith & Nephew	Synergy Cementless Stem	10	<1%
Stryker	Tritanium	Zimmer Biomet	Arcos Cone	10	<1%
Zimmer Biomet	Trilogy	Zimmer Biomet	ZMR Cementless Proximal Stem	10	<1%
Dedienne Sante	ADES Cemented	Zimmer Biomet	ZMR Cementless Proximal Stem	9	<1%
DePuy	Marathon	Zimmer Biomet	Arcos Cone	9	<1%
Lima	Delta TT	JRI Orthopaedics Ltd	Furlong HAC Stem	9	<1%
Lima	Delta TT	Waldemar Link	MP Revision	9	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Peter Brehm GmbH	Peter Brehm Revision Stem	9	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Revitan Cementless Stem	9	<1%
Corin	Trinity	Corin	Metafix Stem	8	<1%
Corin	Trinity	DePuy	Corail	8	<1%
DePuy	Marathon	DePuy	Corail	8	<1%
DePuy	Marathon	DePuy	C-Stem AMT Line Extension	8	<1%
DePuy	Marathon	DePuy	RECLAIM	8	<1%
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Furlong HAC Revision Stem	8	<1%
Lima	Delta One TT	Lima	Lima Revision Stem	8	<1%
Lima	Delta One TT	Stryker	Restoration Cementless Stem	8	<1%
Lima	Delta One TT	Zimmer Biomet	CPT	8	<1%
Stryker	Trident Constrained Cup	Stryker	Restoration Cementless Stem	8	<1%
Stryker	Titanium	Stryker	Exeter No.1 125mm stem Line Extension	8	<1%
Zimmer Biomet	Continuum	Peter Brehm GmbH	Peter Brehm Revision Stem	8	<1%
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Taperloc Cementless Stem	8	<1%
Zimmer Biomet	Trilogy	Stryker	Exeter V40	8	<1%
DePuy	Charnley Ogee	DePuy	C-Stem Cemented Stem	7	<1%
DePuy	Elite Plus Cemented Cup	Stryker	Exeter V40	7	<1%
DePuy	Pinnacle	DePuy	C-Stem AMT Cemented Stem	7	<1%
Serf	Novae Stick	Stanmore Implants Worldwide	METS Cemented	7	<1%
Stryker	Trident	Stryker	Exeter No.1 125mm stem Line Extension	7	<1%
Zimmer Biomet	Avantage Cemented Cup	Zimmer Biomet	CPT	7	<1%
Zimmer Biomet	Exceed ABT Cemented	Stryker	Exeter V40	7	<1%
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Arcos Cone	7	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	C-Stem AMT Cemented Stem	7	<1%
DePuy	Charnley and Elite Plus LPW	Stryker	Exeter V40	6	<1%
DePuy	Pinnacle Gription	DePuy	Summit Cemented Stem	6	<1%
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Furlong Evolution Cementless	6	<1%
Lima	Delta Revision TT	Stryker	Exeter V40	6	<1%
Serf	Novae	Stryker	Exeter V40	6	<1%
Serf	Novae Stick	Stryker	GMRS	6	<1%
Stryker	Restoration Gap2	Stryker	Exeter V40	6	<1%
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	CPT	6	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Corin	Taperfit Cemented Stem	6	<1%
Lima	Delta One TT	DePuy	Corail	5	<1%
Lima	Delta One TT	Zimmer Biomet	Arcos Cone	5	<1%
Lima	Delta TT	Lima	Lima Revision Stem	5	<1%
Lima	Delta TT	Zimmer Biomet	Arcos Cone	5	<1%
Smith & Nephew	R3 Cementless	DePuy	RECLAIM	5	<1%
Stryker	Exeter X3 Rimfit	Stryker	Exeter No.1 125mm stem Line Extension	5	<1%
Stryker	Trident Constrained Cup	Smith & Nephew	Echelon Cemented Stem	5	<1%
Zimmer Biomet	Avantage Cemented Cup	Zimmer Biomet	Arcos Cone	5	<1%
Zimmer Biomet	Continuum	Stryker	Restoration Cementless Stem	5	<1%
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	Arcos Cone	5	<1%
Zimmer Biomet	Regenerex Ringloc+	Stryker	Exeter V40	5	<1%
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Taperloc Complete Cementless Stem	5	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	Corail	5	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Taperloc Complete Cementless Stem	5	<1%
Zimmer Biomet	Trilogy IT	Zimmer Biomet	Arcos Cone	5	<1%
Corin	Trinity	Corin	miniHip	4	<1%
Dedienne Sante	ADES	Zimmer Biomet	CPT	4	<1%
DePuy	Pinnacle Gription	Stanmore Implants Worldwide	METS Cemented	4	<1%
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	Peter Brehm GmbH	Peter Brehm Revision Stem	4	<1%
Lima	Delta One TT	Peter Brehm GmbH	Peter Brehm Revision Stem	4	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Lima	Delta Revision TT	Zimmer Biomet	CPT	4	<1%
Lima	Delta TT	DePuy	C-Stem Cemented Stem	4	<1%
Lima	Delta TT	Zimmer Biomet	CPT	4	<1%
Smith & Nephew	Polarcup Cemented	Zimmer Biomet	Stanmore Modular Stem	4	<1%
Smith & Nephew	R3 Cementless	Stryker	Restoration Cementless Stem	4	<1%
Stryker	Trident	DePuy	Corail	4	<1%
Stryker	Trident	Stryker	Accolade	4	<1%
Stryker	Titanium	DePuy	RECLAIM	4	<1%
Stryker	Titanium	Stanmore Implants Worldwide	METS Cemented	4	<1%
Stryker	Titanium	Zimmer Biomet	CPT	4	<1%
Zimmer Biomet	Continuum	Stryker	Exeter No.1 125mm stem Line Extension	4	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	RECLAIM	4	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Smith & Nephew	Echelon Cementless Stem	4	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	DePuy	C-Stem AMT Cemented Stem	4	<1%
Corin	Trinity	Stryker	Exeter V40	3	<1%
Corin	Trinity	Stryker	Restoration Cementless Stem	3	<1%
DePuy	DeltaMotion	DePuy	C-Stem AMT Cemented Stem	3	<1%
DePuy	Marathon	Waldemar Link	MP Revision	3	<1%
DePuy	Marathon	Zimmer Biomet	CPT	3	<1%
DePuy	Pinnacle	Waldemar Link	MP Revision	3	<1%
DePuy	Pinnacle Gription	Smith & Nephew	CPCS	3	<1%
DePuy	Pinnacle Gription	Zimmer Biomet	CPT	3	<1%
DePuy	Pinnacle Gription	Zimmer Biomet	Stanmore Modular Stem	3	<1%
DePuy	Wroblewski Golf Ball	DePuy	C-Stem Cemented Stem	3	<1%
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Furlong HAC Stem	3	<1%
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	Stryker	Exeter V40	3	<1%
Lima	Delta One TT	DePuy	C-Stem AMT Cemented Stem	3	<1%
Lima	Delta One TT	Zimmer Biomet	Stanmore Modular Stem	3	<1%
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur Modular Neck	3	<1%
Serf	Novae Stick	Stryker	Exeter No.1 125mm stem Line Extension	3	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Stryker	Exeter Contemporary Flanged	Corin	Taperfit Cemented Stem	3	<1%
Stryker	Exeter Contemporary Flanged	Stryker	Restoration Cementless Stem	3	<1%
Stryker	Exeter Duration	Stryker	Exeter V40	3	<1%
Stryker	Exeter X3 Rimfit	DePuy	RECLAIM	3	<1%
Stryker	Restoration ADM Cup	DePuy	RECLAIM	3	<1%
Stryker	Trident	Smith & Nephew	Echelon Cementless Stem	3	<1%
Stryker	Titanium	DePuy	Corail	3	<1%
Stryker	Titanium	Orthodynamics	Cannulok Cementless Stem	3	<1%
Stryker	Titanium	Smith & Nephew	Echelon Cementless Stem	3	<1%
Stryker	Titanium	Stryker	Accolade II	3	<1%
Zimmer Biomet	Avantage Cemented Cup	Stryker	Exeter No.1 125mm stem Line Extension	3	<1%
Zimmer Biomet	Avantage Cementless Cup	Stryker	Exeter V40	3	<1%
Zimmer Biomet	Continuum	Corin	Taperfit Cemented Stem	3	<1%
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Taperloc Cemented Stem	3	<1%
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Stanmore Modular Stem	3	<1%
Zimmer Biomet	Regenerex Ringloc+	Corin	Taperfit Cemented Stem	3	<1%
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Stanmore Modular Stem	3	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	Corail Revision Stem	3	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stryker	Accolade	3	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Stryker	GMRS	3	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Zimmer Biomet	Segmental	3	<1%
Zimmer Biomet	Trilogy IT	Stryker	Exeter V40	3	<1%
B Braun / Aesculap	Chirulen	B Braun / Aesculap	Excia Cemented	2	<1%
B Braun / Aesculap	Plasmafit Cementless Cup	B Braun / Aesculap	Excia Cemented	2	<1%
Corin	Trinity	Implantcast GmbH	EcoFit Cementless Stem	2	<1%
Dedienne Sante	ADES Cemented	Stryker	Restoration Cementless Stem	2	<1%
Dedienne Sante	ADES Cemented	Zimmer Biomet	Arcos Cone	2	<1%
DePuy	Elite Plus Cemented Cup	Waldemar Link	MP Revision	2	<1%
DePuy	Elite Plus Ogee	DePuy	C-Stem AMT Cemented Stem	2	<1%
DePuy	Elite Plus Ogee	DePuy	C-Stem Cemented Stem	2	<1%
DePuy	Elite Plus Ogee	Zimmer Biomet	CPT	2	<1%
DePuy	Marathon	Stanmore Implants Worldwide	METS Cemented	2	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
DePuy	Marathon	Stanmore Implants Worldwide	METS Cementless	2	<1%
DePuy	Pinnacle	DePuy	C-Stem AMT Line Extension	2	<1%
DePuy	Pinnacle	Stryker	Restoration Cementless Stem	2	<1%
DePuy	Pinnacle Gription	DePuy	Charnley Modular	2	<1%
DePuy	Pinnacle Gription	DePuy	Corail Cemented	2	<1%
DePuy	Pinnacle Gription	DePuy	LPS	2	<1%
DePuy	Pinnacle Gription	DePuy	Trilock BPS	2	<1%
DePuy	Pinnacle Gription	Zimmer Biomet	Revitan Cementless Stem	2	<1%
Lima	Delta One TT	Waldemar Link	MP Revision	2	<1%
Lima	Delta One TT	Zimmer Biomet	ZMR Cementless Proximal Stem	2	<1%
Lima	Delta Revision TT	Lima	Lima Revision Stem	2	<1%
Lima	Delta Revision TT	Stryker	Restoration Cementless Stem	2	<1%
Lima	Delta TT	DePuy	C-Stem AMT Cemented Stem	2	<1%
Lima	Delta TT	Stryker	Exeter No.1 125mm stem Line Extension	2	<1%
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Stryker	Restoration Cementless Stem	2	<1%
Serf	Novae	Zimmer Biomet	Arcos Cone	2	<1%
Serf	Novae Stick	DePuy	C-Stem AMT Line Extension	2	<1%
Serf	Novae Stick	Stryker	Restoration Cemented Stem	2	<1%
Serf	Novae Stick	Zimmer Biomet	Arcos Cone	2	<1%
Smith & Nephew	Reflection Cemented	Stryker	Exeter V40	2	<1%
Stryker	Exeter Contemporary Flanged	Stryker	Exeter No.1 125mm stem Line Extension	2	<1%
Stryker	Exeter Contemporary Hooded	Stryker	Restoration Cementless Stem	2	<1%
Stryker	Exeter X3 Rimfit	Smith & Nephew	Echelon Cementless Stem	2	<1%
Stryker	Exeter X3 Rimfit	Stryker	Accolade	2	<1%
Stryker	Exeter X3 Rimfit	Waldemar Link	MP Revision	2	<1%
Stryker	Exeter X3 Rimfit	Zimmer Biomet	Stanmore Modular Stem	2	<1%
Stryker	Trident	DePuy	Reef	2	<1%
Stryker	Trident Constrained Cup	Waldemar Link	MP Revision	2	<1%
Stryker	Trident Constrained Cup	Zimmer Biomet	Arcos Cone	2	<1%
Stryker	Titanium	Corin	Metafix Stem	2	<1%
Stryker	Titanium	DePuy	Corail Revision Stem	2	<1%
Stryker	Titanium	DePuy	Reef	2	<1%
Stryker	Titanium	Peter Brehm GmbH	Peter Brehm Revision Stem	2	<1%
Stryker	Titanium	Stryker	Accolade	2	<1%

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**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Zimmer Biomet	Allofit	Stryker	Exeter V40	2	<1%
Zimmer Biomet	Avantage Cemented Cup	Stanmore Implants Worldwide	METS Cemented	2	<1%
Zimmer Biomet	Avantage Cemented Cup	Waldemar Link	MP Revision	2	<1%
Zimmer Biomet	Continuum	Corin	Metafix Stem	2	<1%
Zimmer Biomet	Continuum	Orthodynamics	Cannulok Cementless Stem	2	<1%
Zimmer Biomet	Continuum	Waldemar Link	MP Revision	2	<1%
Zimmer Biomet	Continuum	Zimmer Biomet	Wagner Revision Stem	2	<1%
Zimmer Biomet	Exceed ABT	Stryker	Exeter V40	2	<1%
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Arcos Cone	2	<1%
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Taperloc Complete Cementless Stem	2	<1%
Zimmer Biomet	Freedom	Zimmer Biomet	CPT	2	<1%
Zimmer Biomet	G7 Cementless Acetabular Component	Peter Brehm GmbH	Peter Brehm Revision Stem	2	<1%
Zimmer Biomet	SHP Cup	Zimmer Biomet	CPT	2	<1%
Zimmer Biomet	Stanmore-Arcos Cup	Zimmer Biomet	Stanmore Modular Stem	2	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Corin	Metafix Stem	2	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	LPS	2	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	MicroPort Orthopedics	Profemur Modular Neck	2	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stanmore Implants Worldwide	METS Cemented	2	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stryker	Exeter No.1 125mm stem Line Extension	2	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	CLS Cementless Stem	2	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	M/L Taper Cementless	2	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Segmental	2	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Stanmore Modular Stem	2	<1%
Zimmer Biomet	Trabecular Metal Natural Cup	Corin	Taperfit Cemented Stem	2	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Waldemar Link	MP Revision	2	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Zimmer Biomet	Revitan Cementless Stem	2	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Zimmer Biomet	Wagner Revision Stem	2	<1%
Zimmer Biomet	Trilogy	Zimmer Biomet	M/L Taper Cementless	2	<1%
Zimmer Biomet	Trilogy IT	Zimmer Biomet	M/L Taper Cementless	2	<1%
Zimmer Biomet	ZCA	Stryker	Exeter V40	2	<1%

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**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Zimmer Biomet	ZCA	Zimmer Biomet	ZMR Cementless Proximal Stem	2	<1%
B Braun / Aesculap	Plasmacup SC	B Braun / Aesculap	Bicontact Cementless Stem	1	<1%
Corin	Cenator Cemented Cup	Stryker	Exeter V40	1	<1%
Corin	Trinity	Corin	TriFit TS hip stem	1	<1%
Corin	Trinity	Stryker	Accolade II	1	<1%
Corin	Trinity	Waldemar Link	MP Revision	1	<1%
Corin	Trinity	Zimmer Biomet	Arcos Cone	1	<1%
Dedienne Sante	ADES	DePuy	C-Stem Cemented Stem	1	<1%
Dedienne Sante	ADES	Zimmer Biomet	Segmental	1	<1%
Dedienne Sante	ADES	Zimmer Biomet	ZMR Cementless Proximal Stem	1	<1%
Dedienne Sante	ADES Cemented	DePuy	C-Stem AMT Cemented Stem	1	<1%
Dedienne Sante	ADES Cemented	Stryker	GMRS	1	<1%
Dedienne Sante	ADES Cemented	Stryker	Restoration Cemented Stem	1	<1%
Dedienne Sante	ADES Cemented	Zimmer Biomet	Revitan Cementless Stem	1	<1%
Dedienne Sante	ADES Cemented	Zimmer Biomet	Segmental	1	<1%
Dedienne Sante	seleXys DS Cementless	Corin	Metafix Stem	1	<1%
Dedienne Sante	seleXys DS Cementless	Zimmer Biomet	Arcos Cone	1	<1%
DePuy	Charnley and Elite Plus LPW	DePuy	C-Stem AMT Cemented Stem	1	<1%
DePuy	Charnley and Elite Plus LPW	Zimmer Biomet	CPT	1	<1%
DePuy	Charnley Ogee	Stryker	Exeter V40	1	<1%
DePuy	Elite Plus Cemented Cup	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%
DePuy	Elite Plus Cemented Cup	Zimmer Biomet	CPT	1	<1%
DePuy	Elite Plus Ogee	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%
DePuy	Elite Plus Ogee	Stryker	Restoration Cementless Stem	1	<1%
DePuy	Elite Plus Ogee	Waldemar Link	SP II Cemented Revision	1	<1%
DePuy	Elite Plus Ogee	Zimmer Biomet	Arcos Cone	1	<1%
DePuy	Elite Plus Ogee	Zimmer Biomet	Stanmore Modular Stem	1	<1%
DePuy	Marathon	DePuy	Charnley Modular	1	<1%
DePuy	Marathon	Stryker	Exeter	1	<1%
DePuy	Marathon	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%
DePuy	Marathon	Zimmer Biomet	Bimetric Cemented (CoCr)	1	<1%
DePuy	Marathon	Zimmer Biomet	Revitan Cementless Stem	1	<1%
DePuy	Marathon	Zimmer Biomet	Taperloc Cementless Stem	1	<1%
DePuy	Pinnacle	DePuy	Corail Cemented	1	<1%

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**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
DePuy	Pinnacle	DePuy	LPS	1	<1%
DePuy	Pinnacle	DePuy	RECLAIM	1	<1%
DePuy	Pinnacle	DePuy	Reef	1	<1%
DePuy	Pinnacle	MicroPort Orthopedics	Profemur Modular Neck	1	<1%
DePuy	Pinnacle	Zimmer Biomet	Revitan Cementless Stem	1	<1%
DePuy	Pinnacle Gription	Corin	Taperfit Cemented Stem	1	<1%
DePuy	Pinnacle Gription	DePuy	Kar	1	<1%
DePuy	Pinnacle Gription	DePuy	Reef	1	<1%
DePuy	Pinnacle Gription	MicroPort Orthopedics	Profemur Modular Neck	1	<1%
DePuy	Pinnacle Gription	Orthodynamics	Cannulok Cementless Stem	1	<1%
DePuy	Pinnacle Gription	Smith & Nephew	Anthology	1	<1%
DePuy	Pinnacle Gription	Smith & Nephew	Synergy Cementless Stem	1	<1%
DePuy	Pinnacle Gription	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%
DePuy	Pinnacle Gription	Zimmer Biomet	Muller Straight Stem	1	<1%
DePuy	Wroblewski Golf Ball	Stryker	Exeter V40	1	<1%
Evolutis	Captiv DM	Zimmer Biomet	Arcos Cone	1	<1%
Exactech (UK) Ltd	Acumatch Cup	Lima	Lima Revision Stem	1	<1%
Implantcast GmbH	EcoFit Cemented Cup	Implantcast GmbH	Mutars	1	<1%
Implantcast GmbH	EcoFit Cemented Cup	Stryker	Exeter V40	1	<1%
Implantcast GmbH	Mutars Cup	Stryker	Restoration Cementless Stem	1	<1%
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	JRI Orthopaedics Ltd	Securus	1	<1%
JRI Orthopaedics Ltd	Furlong HAC CSF Plus	Zimmer Biomet	CPT	1	<1%
JRI Orthopaedics Ltd	JRI Cemented Cup	JRI Orthopaedics Ltd	Furlong Cemented Stem	1	<1%
Lima	Delta One TT	DePuy	Corail Revision Stem	1	<1%
Lima	Delta One TT	DePuy	C-Stem Cemented Stem	1	<1%
Lima	Delta One TT	DePuy	Reef	1	<1%
Lima	Delta One TT	JRI Orthopaedics Ltd	Furlong HAC Revision Stem	1	<1%
Lima	Delta One TT	JRI Orthopaedics Ltd	Furlong HAC Stem	1	<1%
Lima	Delta One TT	Lima	H-Max S Monoblock Stem	1	<1%
Lima	Delta One TT	Smith & Nephew	CPCS	1	<1%
Lima	Delta One TT	Waldemar Link	SP II Cemented Revision	1	<1%
Lima	Delta One TT	Zimmer Biomet	Taperloc Cemented Stem	1	<1%

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**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Lima	Delta One TT	Zimmer Biomet	Taperloc Cementless Stem	1	<1%
Lima	Delta Revision TT	DePuy	C-Stem AMT Cemented Stem	1	<1%
Lima	Delta Revision TT	DePuy	C-Stem AMT Line Extension	1	<1%
Lima	Delta Revision TT	DePuy	C-Stem Cemented Stem	1	<1%
Lima	Delta Revision TT	Peter Brehm GmbH	Peter Brehm Revision Stem	1	<1%
Lima	Delta Revision TT	Smith & Nephew	CPCS	1	<1%
Lima	Delta Revision TT	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%
Lima	Delta TT	B Braun / Aesculap	Excia Cemented	1	<1%
Lima	Delta TT	DePuy	RECLAIM	1	<1%
Lima	Delta TT	Peter Brehm GmbH	Peter Brehm Revision Stem	1	<1%
Lima	Delta TT	Smith & Nephew	Spectron	1	<1%
Lima	Delta TT	Stanmore Implants Worldwide	METS Cemented	1	<1%
Lima	Delta TT	Symbios SA	SPS Evolution	1	<1%
Lima	Delta TT	Zimmer Biomet	M/L Taper Cementless	1	<1%
Lima	Delta TT	Zimmer Biomet	Taperloc Cemented Stem	1	<1%
Mathys Orthopaedics Ltd	RM Pressfit	Stryker	Exeter V40	1	<1%
Mathys Orthopaedics Ltd	RM Pressfit vitamys	DePuy	Corail	1	<1%
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Stryker	Exeter V40	1	<1%
Mathys Orthopaedics Ltd	RM Pressfit vitamys	Zimmer Biomet	MS-30	1	<1%
Medacta UK Ltd	MPACT	Medacta UK Ltd	Quadra-H	1	<1%
Medacta UK Ltd	Versafit CC Trio	ESKA	Quadra-H	1	<1%
Medacta UK Ltd	Versafit CC Trio	Medacta UK Ltd	XActa	1	<1%
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur L Classic	1	<1%
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur L Modular	1	<1%
MicroPort Orthopedics	Procotyl L	MicroPort Orthopedics	Profemur TL	1	<1%
Peter Brehm GmbH	MRS Titan	Zimmer Biomet	Arcos Cone	1	<1%
Serf	Novae	DePuy	Corail	1	<1%
Serf	Novae	DePuy	C-Stem AMT Cemented Stem	1	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Serf	Novae	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%
Serf	Novae Stick	Corin	Taperfit Cemented Stem	1	<1%
Serf	Novae Stick	DePuy	C-Stem AMT Cemented Stem	1	<1%
Serf	Novae Stick	DePuy	RECLAIM	1	<1%
Serf	Novae Stick	DePuy	Reef	1	<1%
Serf	Novae Stick	Implantcast GmbH	Mutars	1	<1%
Serf	Novae Stick	Implantcast GmbH	Mutars Cementless	1	<1%
Serf	Novae Stick	JRI Orthopaedics Ltd	Securus	1	<1%
Serf	Novae Stick	Stanmore Implants Worldwide	METS Cementless	1	<1%
Serf	Novae Stick	Stryker	Exeter	1	<1%
Serf	Novae Stick	Zimmer Biomet	Segmental	1	<1%
Serf	Novae Stick	Zimmer Biomet	ZMR Cementless Proximal Stem	1	<1%
JRI Orthopaedics Ltd	Aeon Cemented Acetabular Cup	JRI Orthopaedics Ltd	Aeon Cemented Stem	1	<1%
JRI Orthopaedics Ltd	Aeon Cemented Acetabular Cup	Stryker	Exeter V40	1	<1%
Smith & Nephew	Polarcup Cemented	B Braun / Aesculap	Excia Cemented	1	<1%
Smith & Nephew	Polarcup Cemented	DePuy	Corail Revision Stem	1	<1%
Smith & Nephew	Polarcup Cemented	DePuy	RECLAIM	1	<1%
Smith & Nephew	Polarcup Cemented	Smith & Nephew	CPCS	1	<1%
Smith & Nephew	Polarcup Cemented	Stryker	Exeter V40	1	<1%
Smith & Nephew	Polarcup Cemented	Zimmer Biomet	Revitan Cementless Stem	1	<1%
Smith & Nephew	R3 Cementless	Lima	Lima Revision Stem	1	<1%
Smith & Nephew	R3 Cementless	Smith & Nephew	CPCS	1	<1%
Smith & Nephew	R3 Cementless	Smith & Nephew	MDF Modular	1	<1%
Smith & Nephew	R3 Cementless	Smith & Nephew	Spectron	1	<1%
Smith & Nephew	R3 Cementless	Zimmer Biomet	Arcos Cone	1	<1%
Smith & Nephew	Reflection Cemented	DePuy	RECLAIM	1	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Stryker	Exeter Contemporary Flanged	DePuy	Corail	1	<1%
Stryker	Exeter Contemporary Flanged	DePuy	Corail Revision Stem	1	<1%
Stryker	Exeter Contemporary Flanged	DePuy	S-Rom Cementless Stem	1	<1%
Stryker	Exeter Contemporary Flanged	MicroPort Orthopedics	Profemur Modular Neck	1	<1%
Stryker	Exeter Contemporary Flanged	Orthodynamics	Cannulok Cementless Stem	1	<1%
Stryker	Exeter Contemporary Flanged	Stryker	Accolade II	1	<1%
Stryker	Exeter Contemporary Flanged	Zimmer Biomet	Arcos Cone	1	<1%
Stryker	Exeter Contemporary Flanged	Zimmer Biomet	CPT	1	<1%
Stryker	Exeter Contemporary Hooded	JRI Orthopaedics Ltd	Securus	1	<1%
Stryker	Exeter Contemporary Hooded	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%
Stryker	Exeter X3 Rimfit	Corin	Taperfit Cemented Stem	1	<1%
Stryker	Exeter X3 Rimfit	DePuy	S-Rom Cementless Stem	1	<1%
Stryker	Exeter X3 Rimfit	Peter Brehm GmbH	Peter Brehm Revision Stem	1	<1%
Stryker	Exeter X3 Rimfit	Stanmore Implants Worldwide	METS Cemented	1	<1%
Stryker	Exeter X3 Rimfit	Stryker	GMRS	1	<1%
Stryker	Exeter X3 Rimfit	Stryker	Restoration Cemented Stem	1	<1%
Stryker	Exeter X3 Rimfit	Zimmer Biomet	CPT	1	<1%
Stryker	Restoration ADM Cup	DePuy	Corail	1	<1%
Stryker	Restoration ADM Cup	DePuy	C-Stem AMT Cemented Stem	1	<1%
Stryker	Restoration Gap2	DePuy	C-Stem AMT Cemented Stem	1	<1%
Stryker	Restoration Gap2	JRI Orthopaedics Ltd	Securus	1	<1%
Stryker	Restoration Gap2	Stryker	Restoration Cementless Stem	1	<1%
Stryker	Trident	DePuy	C-Stem Cemented Stem	1	<1%
Stryker	Trident	Stanmore Implants Worldwide	METS Cementless	1	<1%
Stryker	Trident	Stryker	Accolade II	1	<1%
Stryker	Trident	Waldemar Link	MP Revision	1	<1%
Stryker	Trident Constrained Cup	DePuy	C-Stem AMT Cemented Stem	1	<1%
Stryker	Trident Constrained Cup	DePuy	C-Stem AMT Line Extension	1	<1%
Stryker	Trident Constrained Cup	Peter Brehm GmbH	Peter Brehm Revision Stem	1	<1%
Stryker	Trident Constrained Cup	Smith & Nephew	Echelon Cementless Stem	1	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Stryker	Trident Constrained Cup	Stanmore Implants Worldwide	METS Cemented	1	<1%
Stryker	Titanium	DePuy	C-Stem AMT Cemented Stem	1	<1%
Stryker	Titanium	JRI Orthopaedics Ltd	Securus	1	<1%
Stryker	Titanium	MicroPort Orthopedics	Profemur Modular Neck	1	<1%
Stryker	Titanium	Symbios SA	SPS HA	1	<1%
Symbios SA	April - Ceramic	Symbios SA	SPS HA	1	<1%
Waldemar Link	Snap Fit	Stryker	Exeter V40	1	<1%
Waldemar Link	Snap Fit	Waldemar Link	MP Revision	1	<1%
Waldemar Link	Snap Fit	Waldemar Link	SP II Cemented Revision	1	<1%
Zimmer Biomet	Allofit IT	Zimmer Biomet	MS-30	1	<1%
Zimmer Biomet	Avantage Cemented Cup	Corin	Taperfit Cemented Stem	1	<1%
Zimmer Biomet	Avantage Cemented Cup	Implantcast GmbH	Mutars	1	<1%
Zimmer Biomet	Avantage Cemented Cup	JRI Orthopaedics Ltd	Furlong Evolution Cementless	1	<1%
Zimmer Biomet	Avantage Cemented Cup	Stryker	Restoration Cementless Stem	1	<1%
Zimmer Biomet	Avantage Cemented Cup	Zimmer Biomet	Bimetric Cemented (CoCr)	1	<1%
Zimmer Biomet	Avantage Cemented Cup	Zimmer Biomet	Stanmore Modular Stem	1	<1%
Zimmer Biomet	Avantage Cemented Cup	Zimmer Biomet	ZMR Cementless Proximal Stem	1	<1%
Zimmer Biomet	Avantage Cementless Cup	Peter Brehm GmbH	Peter Brehm Revision Stem	1	<1%
Zimmer Biomet	Avantage Cementless Cup	Zimmer Biomet	Taperloc Complete Cementless Stem	1	<1%
Zimmer Biomet	Continuum	DePuy	Corail Revision Stem	1	<1%
Zimmer Biomet	Continuum	DePuy	RECLAIM	1	<1%
Zimmer Biomet	Continuum	DePuy	Reef	1	<1%
Zimmer Biomet	Continuum	JRI Orthopaedics Ltd	Furlong HAC Revision Stem	1	<1%
Zimmer Biomet	Continuum	JRI Orthopaedics Ltd	Securus	1	<1%
Zimmer Biomet	Continuum	Smith & Nephew	CPCS	1	<1%
Zimmer Biomet	Continuum	Zimmer Biomet	Segmental	1	<1%
Zimmer Biomet	Continuum	Zimmer Biomet	Taperloc Cementless Stem	1	<1%
Zimmer Biomet	Duracel	DePuy	Charnley Modular	1	<1%
Zimmer Biomet	Duracel	Stryker	Exeter V40	1	<1%
Zimmer Biomet	Duracel	Zimmer Biomet	CPT	1	<1%
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Bimetric Cementless Stem	1	<1%
Zimmer Biomet	Exceed ABT	Zimmer Biomet	Sirius stem	1	<1%
Zimmer Biomet	Exceed ABT Cemented	Zimmer Biomet	Sirius stem	1	<1%
Zimmer Biomet	Freedom	Zimmer Biomet	Sirius stem	1	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Zimmer Biomet	G7 Cementless Acetabular Component	Stanmore Implants Worldwide	METS Cemented	1	<1%
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	Bimetric Cemented (CoCr)	1	<1%
Zimmer Biomet	G7 Cementless Acetabular Component	Zimmer Biomet	Taperloc Complete Cementless Stem	1	<1%
Zimmer Biomet	Mallory-Head Cementless Cup	B Braun / Aesculap	Excia Cemented	1	<1%
Zimmer Biomet	Mallory-Head Cementless Cup	B Braun / Aesculap	Prevision Cementless Revision Stem	1	<1%
Zimmer Biomet	Mallory-Head Cementless Cup	Zimmer Biomet	CPT	1	<1%
Zimmer Biomet	Original ME Muller Low Profile Cup	Waldemar Link	MP Revision	1	<1%
Zimmer Biomet	Original ME Muller Low Profile Cup	Zimmer Biomet	MS-30	1	<1%
Zimmer Biomet	Original ME Muller Low Profile Cup	Zimmer Biomet	P10 Muller	1	<1%
Zimmer Biomet	Recap Magnum	Zimmer Biomet	CPT	1	<1%
Zimmer Biomet	Regenerex Ringloc+	Implantcast GmbH	EcoFit Cementless Stem	1	<1%
Zimmer Biomet	Regenerex Ringloc+	JRI Orthopaedics Ltd	Furlong HAC Stem	1	<1%
Zimmer Biomet	Regenerex Ringloc+	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Bimetric Cementless Stem	1	<1%
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Taperloc Cemented Stem	1	<1%
Zimmer Biomet	Regenerex Ringloc+	Zimmer Biomet	Taperloc Cementless Stem	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	B Braun / Aesculap	Excia Cementless	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	C-Stem Cemented Stem	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	DePuy	Reef	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	JRI Orthopaedics Ltd	Furlong Evolution Cementless	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Lima	Lima Revision Stem	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Smith & Nephew	Synergy Cementless Stem	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stanmore Implants Worldwide	METS Cementless	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Stryker	GMRS	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Waldemar Link	SP II Cemented Stem	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Avenir Muller Cementless	1	<1%

Continued &gt;

**Table 8 (b) (continued)**

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	Percentage
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Sirius stem	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Taperloc Cemented Stem	1	<1%
Zimmer Biomet	Trabecular Metal Modular Cementless Cup	Zimmer Biomet	Taperloc Cementless Stem	1	<1%
Zimmer Biomet	Trabecular Metal Natural Cup	Corin	miniHip	1	<1%
Zimmer Biomet	Trabecular Metal Natural Cup	Zimmer Biomet	Arcos Cone	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	B Braun / Aesculap	Excia Cemented	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Corin	Metafix Stem	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Corin	Taperfit Cemented Stem	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	DePuy	C-Stem AMT Line Extension	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	DePuy	C-Stem Cemented Stem	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	JRI Orthopaedics Ltd	Furlong Evolution Cementless	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Lima	Lima Revision Stem	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Smith & Nephew	Anthology	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Stryker	Exeter No.1 125mm stem Line Extension	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Stryker	Restoration Cemented Stem	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Zimmer Biomet	Bimetric Cemented (Ti)	1	<1%
Zimmer Biomet	Trabecular Metal Revision Shell	Zimmer Biomet	Bimetric Cementless Stem	1	<1%
Zimmer Biomet	Trilogy	Amplitude	Integrale	1	<1%
Zimmer Biomet	Trilogy	Corin	Taperfit Cemented Stem	1	<1%
Zimmer Biomet	Trilogy	MicroPort Orthopedics	Profemur Modular Neck	1	<1%
Zimmer Biomet	Trilogy	Stanmore Implants Worldwide	METS Cemented	1	<1%
Zimmer Biomet	Trilogy	Zimmer Biomet	Revitan Cementless Stem	1	<1%
Zimmer Biomet	Trilogy IT	Corin	Metafix Stem	1	<1%
Zimmer Biomet	Trilogy IT	DePuy	Corail Revision Stem	1	<1%
Zimmer Biomet	Trilogy IT	DePuy	Reef	1	<1%
Zimmer Biomet	Trilogy IT	Zimmer Biomet	Taperloc Cementless Stem	1	<1%
Zimmer Biomet	Trilogy IT	Zimmer Biomet	ZMR Cementless Proximal Stem	1	<1%
Zimmer Biomet	ZCA	Stryker	Restoration Cementless Stem	1	<1%



## 1.4 Summary

The total number of brands of acetabular cups and femoral stems used in procedures recorded in the NJR has increased significantly since its inception. There were 110 brands of acetabular cups (excluding resurfacing cups) used in 2016, an increase of seven from 2015 when 103 brands were used. There were 133 brands of femoral stems used in 2016, a decrease of eight from 2015 when 141 were used. There were no procedures where a resurfacing cup was used in conjunction with a large

diameter modular head and a conventional modular stem. Whilst material selection for femoral heads used between 2003 and 2007 remained constant (76% metal and 24% ceramic) by 2016, 40% of modular heads used were ceramic. There has been an increase in the use of polyethylene acetabulaum articulation with ceramic head. The percentage of 32mm modular heads used in procedures has been steadily increasing and now accounts for 44% of procedures whereas 28mm heads have been steadily decreasing and are now used in 28% of procedures

# 2 Prostheses used in knee procedures 2016

This section reports the numbers of prostheses implanted and reported to the NJR between 1 January and 31 December 2016.

The procedure counts in this section of the report may vary from the procedure counts detailed elsewhere as this section will only count those procedures where the implants have been used.

## 2.1 Prostheses entered into the NJR

A total of 60 brands of total condylar knee prostheses were used in primary procedures and 43 were used in revision procedures. In addition, there were 18 brands of unicompartmental prostheses, 9 brands of patellofemoral replacements and 17 brands of hinged knees.

Table 9 (a) and 9 (b) show the brands of primary and revision total condylar knee replacement prosthesis recorded in the NJR for 2016.

**Table 9 (a)** Brands for total condylar knee primary procedures performed during 2016.

Manufacturer	Brand	Number of procedures	
		91,258	Percentage
DePuy	PFC Sigma Bicondylar Knee	25,047	27%
Zimmer Biomet	Nexgen	15,666	17%
Stryker	Triathlon	14,558	16%
Zimmer Biomet	Vanguard	9,199	10%
Smith & Nephew	Genesis 2	7,613	8%
DePuy	Attune	5,346	6%
DePuy	LCS Complete	2,406	3%
B Braun / Aesculap	Columbus	2,011	2%
Zimmer Biomet	AGC	1,720	2%
MATOrtho Limited	MRK	1,388	2%
Smith & Nephew	Genesis 2 Oxinium	999	1%
MicroPort Orthopedics	Advance MP	554	<1%
Stryker	NRG	527	<1%
Smith & Nephew	Journey II BCS Oxinium	434	<1%
Corin	Unity Knee	422	<1%
Zimmer Biomet	Persona CR	328	<1%
Smith & Nephew	TC Plus	267	<1%
Implantcast GmbH	ACS	211	<1%
MicroPort Orthopedics	EvolutionMP	205	<1%
Zimmer Biomet	Persona PS	201	<1%

**Table 9 (a) (continued)**

Manufacturer	Brand	Number of procedures	Percentage
MATOrtho Limited	Saiph	188	<1%
B Braun / Aesculap	E-Motion Bicondylar Knee	186	<1%
Smith & Nephew	Legion	183	<1%
Stryker	Scorpio NRG	161	<1%
Medacta UK Ltd	sphere	137	<1%
FH Orthopedics	FHK	121	<1%
MicroPort Orthopedics	Advance MP Stature	109	<1%
ConforMIS	iTotal G2 XE	106	<1%
Jointmedica Limited	Birmingham Knee Replacement	104	<1%
Corin	Rotaglide	98	<1%
Zimmer Biomet	Nexgen LCCK	98	<1%
Stanmore Implants Worldwide	Smiles Bicondylar	72	<1%
Symbios SA	First	72	<1%
MicroPort Orthopedics	Advance PS	71	<1%
Exactech (UK) Ltd	Logic	70	<1%
ConforMIS	iTotal G2	69	<1%
Smith & Nephew	Legion Oxinium	49	<1%
Lima	Physica Knee System	45	<1%
Zimmer Biomet	LPS Knee	45	<1%
MicroPort Orthopedics	Advance Bicondylar Knee	39	<1%
Zimmer Biomet	Vanguard XP	37	<1%
JRI Orthopaedics Ltd	Trecking Knee	29	<1%
Mathys Orthopaedics Ltd	balanSys CR cemented	28	<1%
Smith & Nephew	Journey II CR Oxinium	12	<1%
DePuy	LPS Knee	9	<1%
Medacta UK Ltd	GMK	3	<1%
Implantcast GmbH	Mutars Knee	2	<1%
B Braun / Aesculap	E.Motion Revision Knee	1	<1%
DePuy	AMK	1	<1%
DePuy	LCS	1	<1%
DePuy	PFC Bicondylar Knee	1	<1%
JRI Orthopaedics Ltd	JRI Bicondylar Knee	1	<1%
Lima	Physica CR	1	<1%
Mathys Orthopaedics Ltd	balanSys	1	<1%
Mathys Orthopaedics Ltd	balanSys Revision	1	<1%
Smith & Nephew	Journey Oxinium	1	<1%
United Orthopedic Corporation	U2 Knee System	1	<1%
Zimmer Biomet	CR Flex	1	<1%
Zimmer Biomet	Maxim	1	<1%
Zimmer Biomet	Natural Knee II	1	<1%

**Table 9 (b)** Brands for total condylar knee revision procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
			3,275
DePuy	PFC Sigma Bicondylar Knee	1,112	34%
Stryker	Triathlon	423	13%
Zimmer Biomet	Nexgen LCCK	351	11%
Zimmer Biomet	Vanguard	350	11%
Smith & Nephew	Legion Oxinium	244	7%
Zimmer Biomet	Nexgen	211	6%
Smith & Nephew	Genesis 2	119	4%
Stanmore Implants Worldwide	Smiles Bicondylar	113	3%
DePuy	Attune	59	2%
Smith & Nephew	Legion	33	1%
DePuy	LPS Knee	32	<1%
MATOrtho Limited	MRK	29	<1%
Zimmer Biomet	AGC	29	<1%
Smith & Nephew	Genesis 2 Oxinium	27	<1%
DePuy	LCS Complete	24	<1%
B Braun / Aesculap	Columbus	14	<1%
Medacta UK Ltd	sphere	9	<1%
MicroPort Orthopedics	Advance MP	9	<1%
Smith & Nephew	Journey II BCS Oxinium	9	<1%
Implantcast GmbH	ACS	7	<1%
Implantcast GmbH	Mutars Knee	7	<1%
MicroPort Orthopedics	Advance CCK	7	<1%
Stryker	Scorpio	7	<1%
Corin	Rotaglide	5	<1%
MATOrtho Limited	Saijh	4	<1%
Medacta UK Ltd	GMK	4	<1%
MicroPort Orthopedics	Advance Stemmed	4	<1%
Stryker	NRG	4	<1%
Symbios SA	First	4	<1%
DePuy	LCS Complete Revision	3	<1%
FH Orthopedics	FHK	3	<1%
Zimmer Biomet	Persona CR	3	<1%
Zimmer Biomet	Persona PS	3	<1%
B Braun / Aesculap	E-Motion Bicondylar Knee	2	<1%
Corin	Unity Knee	2	<1%
MicroPort Orthopedics	Advance MP Stature	2	<1%
B Braun / Aesculap	E.Motion Revision Knee	1	<1%
Jointmedica Limited	Birmingham Knee Replacement	1	<1%

Continued &gt;

**Table 9 (b) (continued)**

Manufacturer	Brand	Number of procedures	Percentage
Mathys Orthopaedics Ltd	balanSys Revision	1	<1%
MicroPort Orthopedics	EvolutionMP	1	<1%
Smith & Nephew	TC Plus	1	<1%
Zimmer Biomet	LPS Knee	1	<1%
Zimmer Biomet	Vanguard XP	1	<1%

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**Table 10** Brands for primary and revision unicondylar knee replacement procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
			9,656
Zimmer Biomet	Oxford Partial Knee	5,529	57%
Lima	Physica ZUK	2,003	21%
DePuy	Sigma HP	1,425	15%
Smith & Nephew	Journey Uni Oxinium	203	2%
Stryker	Triathlon Uni	145	2%
Corin	AMC/Uniglide	114	1%
Waldemar Link	Sled	55	<1%
B Braun / Aesculap	Univation	54	<1%
Smith & Nephew	Genesis Uni Oxinium	53	<1%
Stryker	Restoris	27	<1%
Arthrex	iBalance Unicondylar	13	<1%
ConforMIS	iUni G2	11	<1%
Implantcast GmbH	ACS Uni	8	<1%
Adler Ortho	Genus	5	<1%
Mathys Orthopaedics Ltd	BalanSys UNI Fixed	4	<1%
Medacta UK Ltd	GMK Unicondylar	3	<1%
Arthrosurface	UniCAP	2	<1%
Smith & Nephew	Genesis Uni	2	<1%

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**Table 11** Brands for primary and revision patellofemoral joint replacement procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
<b>1,150</b>			
Stryker	Avon	432	38%
Zimmer Biomet	Zimmer PFJ	345	30%
DePuy	Sigma HP	167	15%
Smith & Nephew	Journey PFJ Oxinium	128	11%
MicroPort Orthopedics	FPV	44	4%
Arthrosurface	HemiCAP Patello-femoral	22	2%
Zimmer Biomet	Vanguard PF	10	<1%
Arthrex	iBalance PFJ	1	<1%
Arthrex	Gender PF	1	<1%

**Table 12** Fixed and rotating hinged knee brands for primary and revision knee procedures performed during 2016.

Manufacturer	Brand	Number of procedures	Percentage
<b>1,068</b>			
Waldemar Link	Endo Rotating Hinge	304	28%
Zimmer Biomet	Nexgen Hinge Type	235	22%
DePuy	Noiles	191	18%
Stanmore Implants Worldwide	Smiles Hinged Knee	88	8%
Zimmer Biomet	RHK	78	7%
Stryker	MRH	59	6%
Smith & Nephew	RT-Plus	28	3%
Zimmer Biomet	Zimmer Segmental System	27	3%
Zimmer Biomet	OSS	22	2%
Waldemar Link	Mega System C	12	1%
Implantcast GmbH	Mutars MoM	8	<1%
B Braun / Aesculap	EnduRo Hinge	7	<1%
Waldemar Link	Endo Hinge	5	<1%
Sovereign Medical	Mutars MoM	1	<1%
Stanmore Implants Worldwide	Mets Hinged/Linked Knee	1	<1%
United Orthopedic Corporation	PSA	1	<1%
Zimmer Biomet	Stanmore Hinge	1	<1%

## 2.2 Usage of fixed versus mobile bearing tibial inserts

Total condylar knee arthroplasties involving tibial inserts predominantly used fixed bearing inserts as shown in Table 13.

**Table 13** Tibial insert type for primary and revision knee procedures performed during 2016.

Constraint	Number of procedures	Percentage
	95,672	
Unconstrained, fixed	65,826	69%
Posterior stabilised, fixed	21,519	22%
Unconstrained, mobile	4,482	5%
Constrained condylar	3,146	3%
Posterior stabilised, mobile	699	<1%

# 3 Prostheses used in ankle procedures 2016

This section reports the numbers of prostheses implanted and reported to the NJR between 1 January and 31 December 2016.

Table 14 (a) lists the 10 different brands used in total ankle primary procedures. Table 14 (b) shows 6

different brands used in revision procedures. Only the talar component is given a brand name in the NJR and therefore the procedures where the talar component is replaced will be included in these counts. There were 27 conversion procedures performed in 2016.

**Table 14 (a)** Brands for primary ankle procedures performed in 2016.

Manufacturer	Brand	Number of procedures	Percentage
		695	
Wright Medical UK Ltd	Infinity	213	31%
MATOrtho Limited	Box	125	18%
Corin	Zenith	111	16%
Stryker	Star	70	10%
Wright Medical UK Ltd	Inbone	57	8%
Tornier	Salto	51	7%
Integra	Hintegra	39	6%
Zimmer Biomet	Rebalance	13	2%
Iceram	Akile	8	1%
SBi	Star	8	1%

**Table 14 (b)** Brands for revision ankle procedures performed in 2016.

Manufacturer	Brand	Number of procedures	Percentage
		38	
Wright Medical UK Ltd	Inbone	21	55%
Tornier	Salto	7	18%
Corin	Zenith	4	11%
Integra	Hintegra	3	8%
MATOrtho Limited	Box	2	5%
Wright Medical UK Ltd	Invision	1	3%

# 4 Prostheses used in elbow procedures 2016

This section reports the numbers of prostheses implanted and reported to the NJR between 1 January and 31 December 2016.

**Table 15** Brands for humeral elbow primary and revision procedures performed in 2016.

Manufacturer	Brand	Number of procedures	Percentage
		506	
Zimmer Biomet	Coonrad Morrey	292	58%
Zimmer Biomet	Discovery	108	21%
Tornier	Latitude Humeral	96	19%
Implantcast GmbH	Mutars Elbow	5	<1%
Zimmer Biomet	GSB 111	3	<1%
SBi	UNI-Elbow Radio Capitellum System	1	<1%
Zimmer Biomet	Comprehensive Segmental Revision System	1	<1%

**Table 16** Brands for radial head elbow primary and revision procedures performed in 2016.

Manufacturer	Brand	Number of procedures	Percentage
		123	
Acumed	Anatomic Radial head	61	50%
Wright Medical UK Ltd	evolve	24	20%
Integra	ascension	10	8%
Corin	Corin radial head	8	7%
Zimmer Biomet	Explor	8	7%
Tornier	RHS	5	4%
SBi	Uni Radial Elbow	3	2%
Tornier	Latitude	2	2%
Tornier	MoPyC	2	2%

# 5 Prostheses used in shoulder procedures 2016

This section reports the numbers of prostheses implanted and reported to the NJR between 1 January and 31 December 2016.

**Table 17** Brands used for primary shoulder resurfacing procedures performed in 2016.

Manufacturer	Brand	Number of procedures	Percentage
			485
Zimmer Biomet	Copeland	172	35%
DePuy	Global CAP	100	21%
Synthes	EPOCA Resurfacing	87	18%
Tornier	Aequalis Head	43	9%
Lima	Lima SMR Head	36	7%
JRI Orthopaedics Ltd	Vaios Head	27	6%
Exactech (UK) Ltd	Equinoxe Humeral Head	12	2%
FH Orthopedics	Arrow Resurfacing Head	6	1%
Arthrosurface	HemiCAP	1	<1%
Zimmer Biomet	Sidus	1	<1%

No revision shoulder resurfacing procedures performed in 2016 were submitted to the NJR.

**Table 18 (a)** Shoulder humeral stem brands used for primary shoulder procedures performed in 2016.

Manufacturer	Brand	Number of procedures	Percentage
			5,459
DePuy	Delta Xtend	903	17%
Zimmer Biomet	Comprehensive	581	11%
Tornier	Aequalis Ascend Flex	500	9%
Exactech (UK) Ltd	Equinoxe	472	9%
Lima	Lima SMR Stem	435	8%
Mathys Orthopaedics Ltd	Affinis Short	360	7%
Zimmer Biomet	Anatomical Shoulder	263	5%
DePuy	Global AP humeral stem	207	4%
DePuy	Global Unite	202	4%
Tornier	Aequalis Reversed II	186	3%
Mathys Orthopaedics Ltd	Affini Inverse	125	2%
Zimmer Biomet	TM reverse	125	2%
Arthrex	Eclipse Stem	120	2%
DePuy	Global Advantage Stem	116	2%
Tornier	Simpliciti	110	2%
Innovative Design Orthopaedics	Verso	108	2%
Synthes	EPOCA	104	2%
JRI Orthopaedics Ltd	Vaios stem	80	1%
Exactech (UK) Ltd	Equinoxe Fracture	78	1%
Tornier	Aequalis Reversed	73	1%
Tornier	Aequalis Stem	66	1%
FH Orthopedics	Arrow	59	1%
DJO Surgical	RSP	50	<1%
Mathys Orthopaedics Ltd	Affinis Fracture	46	<1%
Mathys Orthopaedics Ltd	Affinis Stem	28	<1%
DePuy	Global FX	19	<1%
Zimmer Biomet	B/F	14	<1%
Arthrex	Univers Reverse	13	<1%
Corin	Oxford Modular	12	<1%
Stanmore Implants Worldwide	METS Shoulder	3	<1%
Tornier	Aequalis Ascend	1	<1%

**Table 18 (b)** Shoulder humeral stem brands used for revision shoulder procedures performed in 2016.

Manufacturer	Brand	Number of procedures	Percentage
			<b>396</b>
DePuy	Delta Xtend	82	21%
Zimmer Biomet	Comprehensive	53	13%
Lima	Lima SMR Stem	50	13%
DJO Surgical	RSP	28	7%
Tornier	Aequalis Ascend Flex	22	6%
Exactech (UK) Ltd	Equinoxe	21	5%
Zimmer Biomet	Anatomical Shoulder	17	4%
Mathys Orthopaedics Ltd	Affinis Short	15	4%
Tornier	Aequalis Reversed II	15	4%
Mathys Orthopaedics Ltd	Affini Inverse	14	4%
Zimmer Biomet	TM reverse	10	3%
FH Orthopedics	Arrow	9	2%
Innovative Design Orthopaedics	Verso	9	2%
DePuy	Global Unite	7	2%
JRI Orthopaedics Ltd	Vaios stem	7	2%
Synthes	EPOCA	7	2%
DePuy	Global AP humeral stem	6	2%
DePuy	Global Advantage Stem	5	1%
Stanmore Implants Worldwide	METS Shoulder	4	1%
Mathys Orthopaedics Ltd	Affinis Stem	3	<1%
Tornier	Aequalis Reversed	3	<1%
Arthrex	Eclipse Stem	2	<1%
Lima	SMR	2	<1%
Arthrex	Univers Reverse	1	<1%
Corin	Oxford Modular	1	<1%
Implantcast GmbH	Mutars Humeral Stem	1	<1%
Tornier	Aequalis Stem	1	<1%
Tornier	Simpliciti	1	<1%

# 6 Cement use 2016

The majority of procedures involving cement used antibiotic-loaded rather than non-antibiotic cement. A total of 97% of hip procedures and 99% of knee procedures and all ankle procedures using cement

used antibiotic-loaded cements. Tables 20 (a) to (e) show brands of cement used in hip, knee, ankle, elbow and shoulder procedures respectively.

**Table 19** Type of cement used in hip, knee, ankle, elbow and shoulder replacement procedures performed in 2016.

Cement type	Number of procedures	Percentage
	166,830	
<b>Ankle</b>	115	
Antibiotic-loaded high viscosity	87	76%
Antibiotic-loaded medium viscosity	28	24%
<b>Elbow</b>	538	
Antibiotic-loaded high viscosity	359	67%
Antibiotic-loaded medium viscosity	118	22%
Antibiotic-loaded low viscosity	31	6%
Medium viscosity	27	5%
High viscosity	3	<1%
<b>Hip</b>	62,643	
Antibiotic-loaded high viscosity	51,776	83%
Antibiotic-loaded medium viscosity	8,894	14%
High viscosity	905	1%
Medium viscosity	659	1%
Antibiotic-loaded low viscosity	399	<1%
Low viscosity	10	<1%
<b>Knee</b>	100,439	
Antibiotic-loaded high viscosity	95,623	95%
Antibiotic-loaded medium viscosity	4,212	4%
Medium viscosity	339	<1%
High viscosity	260	<1%
Antibiotic-loaded low viscosity	5	<1%
<b>Shoulder</b>	3,095	
Antibiotic-loaded high viscosity	2,808	91%
Antibiotic-loaded medium viscosity	235	8%
Medium viscosity	19	<1%
Antibiotic-loaded low viscosity	18	1%
High viscosity	15	<1%

**Table 20 (a)** Brands of cement used in hip procedures performed in 2016.

Manufacturer	Brand	Cement type	Number of procedures using brand	Percentage
			<b>66,645</b>	
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded high viscosity	41,887	63%
Stryker	Simplex Antibiotic	Antibiotic-loaded medium viscosity	8,650	13%
DePuy	CMW2 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	5,882	9%
Zimmer Biomet	Biomet Optipac Refobacin	Antibiotic-loaded high viscosity	2,243	3%
Zimmer Biomet	Biomet Refobacin	Antibiotic-loaded high viscosity	2,212	3%
DePuy	CMW2 Plain Cement	High viscosity	750	1%
DePuy	Smartset HV Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	740	1%
Zimmer Biomet	Biomet Optipac Refobacin Plus	Antibiotic-loaded high viscosity	679	1%
Heraeus Medical	Copal G+C	Antibiotic-loaded high viscosity	678	1%
Heraeus Medical	Palacos Fast Setting	Antibiotic-loaded high viscosity	608	<1%
Stryker	Simplex	Medium viscosity	497	<1%
DePuy	CMW1 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	466	<1%
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded low viscosity	398	<1%
Heraeus Medical	Palacos	Medium viscosity	162	<1%
Heraeus Medical	Copal G+V	Antibiotic-loaded high viscosity	145	<1%
Zimmer Biomet	Biomet Optipac Refobacin	Antibiotic-loaded medium viscosity	141	<1%
Zimmer Biomet	Biomet Refobacin Revision	Antibiotic-loaded high viscosity	141	<1%
Heraeus Medical	Palacos	High viscosity	85	<1%
Zimmer Biomet	Biomet Optipac Refobacin Revision	Antibiotic-loaded high viscosity	84	<1%
DePuy	Smartset Endurance Antibiotic Loaded Cement	Antibiotic-loaded medium viscosity	78	<1%
Orthodynamics	VancogenX	High viscosity	40	<1%
Zimmer Biomet	Biomet Optipac Refobacin Revision	High viscosity	21	<1%
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded medium viscosity	16	<1%
Heraeus Medical	Palacos	Low viscosity	10	<1%
DePuy	CMW3 Antibiotic Loaded Cement	Antibiotic-loaded medium viscosity	9	<1%
Heraeus Medical	Copal	High viscosity	9	<1%
Zimmer Biomet	Biomet Refobacin Plus	Antibiotic-loaded high viscosity	7	<1%
Tecres Medical	Cemex Antibiotic Loaded	Antibiotic-loaded high viscosity	4	<1%
DePuy	CMW2000 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	1	<1%
Heraeus Medical	Palamed Antibiotic	Antibiotic-loaded medium viscosity	1	<1%
Zimmer Biomet	Biomet Refobacin	Antibiotic-loaded low viscosity	1	<1%

**Table 20 (b)** Brands of cement used in knee procedures performed in 2015.

Manufacturer	Brand	Cement type	Number of procedures using brand	Percentage
			<b>100,620</b>	
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded high viscosity	77,836	77%
Zimmer Biomet	Biomet Optipac Refobacin	Antibiotic-loaded high viscosity	5,664	6%
Zimmer Biomet	Biomet Refobacin	Antibiotic-loaded high viscosity	4,645	5%
Stryker	Simplex Antibiotic	Antibiotic-loaded medium viscosity	3,940	4%
DePuy	Smartset HV Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	3,445	3%
DePuy	CMW2 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	2,557	3%
Heraeus Medical	Copal G+C	Antibiotic-loaded high viscosity	406	<1%
Heraeus Medical	Palacos Fast Setting	Antibiotic-loaded high viscosity	318	<1%
DePuy	CMW1 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	302	<1%
Heraeus Medical	Palacos	Medium viscosity	268	<1%
Zimmer Biomet	Biomet Optipac Refobacin	Antibiotic-loaded medium viscosity	214	<1%
Zimmer Biomet	Biomet Refobacin Revision	Antibiotic-loaded high viscosity	197	<1%
Heraeus Medical	Copal G+V	Antibiotic-loaded high viscosity	174	<1%
Zimmer Biomet	Biomet Optipac Refobacin Plus	Antibiotic-loaded high viscosity	135	<1%
Heraeus Medical	Palacos	High viscosity	128	<1%
Zimmer Biomet	Biomet Optipac Refobacin Revision	Antibiotic-loaded high viscosity	111	<1%
DePuy	CMW2 Plain Cement	High viscosity	86	<1%
Stryker	Simplex	Medium viscosity	71	<1%
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded medium viscosity	42	<1%
Orthodynamics	VancogenX	High viscosity	29	<1%
Zimmer Biomet	Biomet Optipac Refobacin Revision	High viscosity	13	<1%
DePuy	Smartset Endurance Antibiotic Loaded Cement	Antibiotic-loaded medium viscosity	10	<1%
Zimmer Biomet	Biomet Refobacin Plus	Antibiotic-loaded high viscosity	6	<1%
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded low viscosity	5	<1%
Zimmer Biomet	Optipac	Antibiotic-loaded high viscosity	5	<1%
DePuy	CMW3 Antibiotic Loaded Cement	Antibiotic-loaded medium viscosity	3	<1%
Heraeus Medical	Palamed Antibiotic	Antibiotic-loaded medium viscosity	3	<1%
Tecres Medical	Cemex Antibiotic Loaded	Antibiotic-loaded high viscosity	2	<1%
Zimmer Biomet	Biomet Bone Cement	High viscosity	2	<1%
DePuy	CMW1 Plain Cement	High viscosity	1	<1%
DePuy	CMW2000 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	1	<1%
Heraeus Medical	Copal	High viscosity	1	<1%

**Table 20 (c)** Brands of cement used in ankle procedures performed in 2016.

Manufacturer	Brand	Cement type	Number of procedures using brand	Percentage
			115	
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded high viscosity	77	67%
Stryker	Simplex Antibiotic	Antibiotic-loaded medium viscosity	28	24%
Zimmer Biomet	Biomet Optipac Refobacin	Antibiotic-loaded high viscosity	3	3%
DePuy	Smartset HV Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	2	2%
Zimmer Biomet	Biomet Refobacin	Antibiotic-loaded high viscosity	2	2%
DePuy	CMW2 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	1	<1%
Heraeus Medical	Copal G+C	Antibiotic-loaded high viscosity	1	<1%
Zimmer Biomet	Biomet Refobacin Revision	Antibiotic-loaded high viscosity	1	<1%

**Table 20 (d)** Brands of cement used in elbow procedures performed in 2016.

Manufacturer	Brand	Cement type	Number of procedures using brand	Percentage
			538	
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded high viscosity	250	46%
Stryker	Simplex Antibiotic	Antibiotic-loaded medium viscosity	104	19%
Zimmer Biomet	Biomet Optipac Refobacin	Antibiotic-loaded high viscosity	37	7%
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded low viscosity	23	4%
DePuy	Smartset HV Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	22	4%
Heraeus Medical	Palacos	Medium viscosity	17	3%
Zimmer Biomet	Biomet Refobacin	Antibiotic-loaded high viscosity	17	3%
Heraeus Medical	Copal G+C	Antibiotic-loaded high viscosity	16	3%
DePuy	CMW3 Antibiotic Loaded Cement	Antibiotic-loaded medium viscosity	11	2%
Stryker	Simplex	Medium viscosity	10	2%
DePuy	CMW1 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	8	1%
Zimmer Biomet	Biomet Refobacin	Antibiotic-loaded low viscosity	8	1%
Zimmer Biomet	Biomet Optipac Refobacin Revision	Antibiotic-loaded high viscosity	3	<1%
Heraeus Medical	Copal G+V	Antibiotic-loaded high viscosity	2	<1%
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded medium viscosity	2	<1%
Orthodynamics	VancogenX	High viscosity	2	<1%
Zimmer Biomet	Biomet Refobacin Revision	Antibiotic-loaded high viscosity	2	<1%
DePuy	CMW2 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	1	<1%
DePuy	Smartset Endurance Antibiotic Loaded Cement	Antibiotic-loaded medium viscosity	1	<1%
Zimmer Biomet	Biomet Optipac Refobacin Plus	Antibiotic-loaded high viscosity	1	<1%
Zimmer Biomet	Biomet Plus Bone Cement	High viscosity	1	<1%

**Table 20 (e)** Brands of cement used in shoulder procedures performed in 2016.

Manufacturer	Brand	Cement type	Number of procedures using brand	Percentage
			3,100	
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded high viscosity	2,205	71%
Zimmer Biomet	Biomet Optipac Refobacin	Antibiotic-loaded high viscosity	267	9%
Stryker	Simplex Antibiotic	Antibiotic-loaded medium viscosity	207	7%
Zimmer Biomet	Biomet Refobacin	Antibiotic-loaded high viscosity	157	5%
DePuy	CMW2 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	52	2%
DePuy	Smartset HV Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	41	1%
Heraeus Medical	Copal G+C	Antibiotic-loaded high viscosity	33	1%
DePuy	CMW1 Antibiotic Loaded Cement	Antibiotic-loaded high viscosity	24	<1%
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded low viscosity	18	<1%
Heraeus Medical	Palacos Antibiotic	Antibiotic-loaded medium viscosity	18	<1%
Heraeus Medical	Palacos	Medium viscosity	15	<1%
DePuy	CMW2 Plain Cement	High viscosity	14	<1%
Zimmer Biomet	Biomet Optipac Refobacin Revision	Antibiotic-loaded high viscosity	14	<1%
DePuy	Smartset Endurance Antibiotic Loaded Cement	Antibiotic-loaded medium viscosity	9	<1%
Zimmer Biomet	Biomet Refobacin Revision	Antibiotic-loaded high viscosity	7	<1%
Zimmer Biomet	Biomet Optipac Refobacin Plus	Antibiotic-loaded high viscosity	6	<1%
Heraeus Medical	Palacos Fast Setting	Antibiotic-loaded high viscosity	4	<1%
Stryker	Simplex	Medium viscosity	4	<1%
Heraeus Medical	Copal G+V	Antibiotic-loaded high viscosity	3	<1%
Orthodynamics	VancogenX	High viscosity	1	<1%
Zimmer Biomet	Biomet Optipac Refobacin	Antibiotic-loaded medium viscosity	1	<1%

# 7 Bone substitute use 2016

Tables 21 (a) to (e) report the brand usage of bone substitute used in hip, knee, ankle, elbow and shoulder replacement procedures during 2016. The vast majority of bone substitute is used in hip procedures.

**Table 21 (a)** Brands of synthetic bone substitute used in hip procedures during 2016.

Manufacturer	Brand	Number of procedures	Percentage
		92	
Wright Medical UK Ltd	Osteoset	18	20%
Finceramica	Regenoss	17	18%
Stryker	Vitoss	12	13%
Musculoskeletal Transplant Foundation	DBX	9	10%
DePuy	Grafton	8	9%
ApaTech Products	Actifuse	5	5%
JRI Orthopaedics Ltd	Repros	4	4%
FH Orthopedics	Surgicraft	3	3%
Quadrant Medical Ltd	Vitoss	3	3%
Synthes	Chronos TCP	3	3%
Wright Medical UK Ltd	Pro-Dense	3	3%
Finceramica	Engipore	2	2%
Stryker	Bonesave	2	2%
Biocomposites	Stimulan-Biocomposites	1	1%
BoneSupport	Cerament G	1	1%
Exactech (UK) Ltd	Optiform	1	1%

**Table 21 (b)** Brands of synthetic bone substitute used in knee procedures during 2016.

Manufacturer	Brand	Number of procedures	Percentage
		11	
DePuy	Grafton	3	27%
Musculoskeletal Transplant Foundation	DBX	3	27%
ApaTech Products	Actifuse	1	9%
Biocomposites	GeneX	1	9%
JRI Orthopaedics Ltd	Repros	1	9%
Stryker	Vitoss	1	9%
Zimmer Biomet	Calcibon	1	9%

**Table 21 (c)** Brands of synthetic bone substitute used in ankle procedures during 2016.

Manufacturer	Brand	Number of procedures	Percentage
		6	
Wright Medical UK Ltd	Pro-Dense	5	83%
Wright Medical UK Ltd	Osteoset	1	17%

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**Table 21 (d)** Brands of synthetic bone substitute used in elbow procedures during 2016.

Manufacturer	Brand	Number of procedures	Percentage
		3	
ApaTech Products	Actifuse	1	33%
Biocomposites	Stimulan-Biocomposites	1	33%
Endo Plus (UK) Limited	Stimulan (Endoplus)	1	33%

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**Table 21 (e)** Brands of synthetic bone substitute used in shoulder procedures during 2016.

Manufacturer	Brand	Number of procedures	Percentage
		7	
ApaTech Products	Actifuse	3	43%
Finceramica	Engipore	1	14%
Finceramica	Regenoss	1	14%
Wright Medical UK Ltd	Osteoset	1	14%
Zimmer Biomet	Calcibon	1	14%

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