

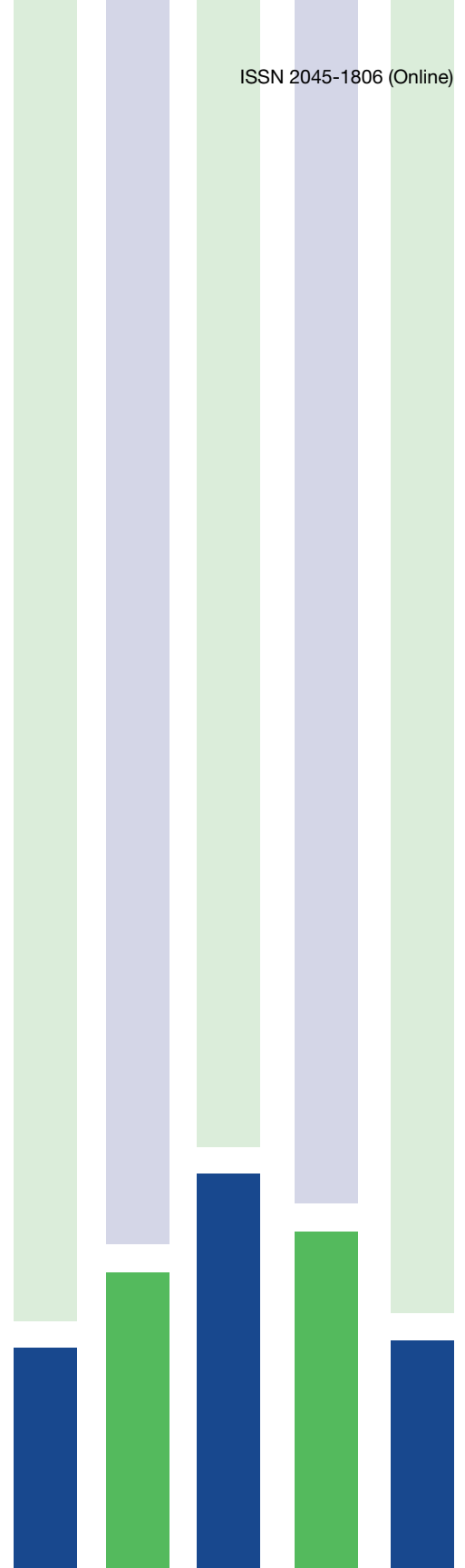


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Prostheses used in hip and knee replacement procedures, 2009



**National Joint Registry
for England and Wales**

7th Annual Report

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1 Prostheses used in hip procedures, 2009

1.1 Femoral head material and size

Table 1 shows the relative usage of different femoral heads. There has been a 5% decrease in the use of metallic heads and a 5% increase in the use of alumina heads compared with 2008.

Table 1 Frequency of material chosen for femoral heads in procedures performed in 2009.

Material	Number of procedures	Number of femoral heads used	%
	61,587	61,607	
metallic		41,718	68%
alumina		19,816	32%
zirconia		73	<1%

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Table 2 shows the frequency of the different femoral head sizes. The main changes compared with 2008 are a 6% increase in the use of large heads classified as 36mm+ size and a 4% increase in the use of 32mm heads for metal on metal articulations. Less than 1% of these 36mm+ sized heads were implanted with a resurfacing cup.

Table 2 Frequency of femoral head sizes for procedures performed in 2009.

Head size (mm)	Number of procedures	Number of femoral heads used	%
	61,587	61,620	
22		1,035	2%
26		1,616	3%
28		29,167	47%
32		12,984	21%
36+		16,818	27%

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Total components used is greater than the total number of procedures. This is likely to be due to two labels being handed to the data entry clerk for a procedure where two components were opened but only one used.

1.2 Brand sales of conventional total hips and resurfacing prostheses

Tables 3 to 8 show the most frequently used brands in England and Wales during 2009, as assessed by their rate of entry into the NJR. The level of assessment according to Orthopaedic Data Evaluation Panel (ODEP) criteria is given in the final column. The tables have been split into two to show brand usage in primary procedures and revision procedures separately.

Table 3(a) Cemented cup brands entered into the NJR during 2009 for primary hip procedures.

Manufacturer	Brand	Number of procedures	%	ODEP rating
		21,871		
Stryker Howmedica Osteonics	CONTEMPORARY	7,343	34%	5A
DePuy	ELITE PLUS OGEE	3,009	14%	10A
DePuy	ELITE PLUS CEMENTED CUP	1,782	8%	10A
Stryker Howmedica Osteonics	EXETER DURATION	1,477	7%	10A
Smith & Nephew	OPERA	1,289	6%	5B
Zimmer	ZCA	947	4%	10A
DePuy	MARATHON CUP	847	4%	Pre-entry
DePuy	CHARNLEY CEMENTED CUP	814	4%	10A
DePuy	CHARNLEY OGEE	804	4%	10A
Zimmer	LOW PROFILE MULLER	650	3%	Unclassified
Biomet	STANMORE-ARCOM	441	2%	10A
Corin	CENATOR CEMENTED CUP	372	2%	3A
Biomet	APOLLO	274	1%	Pre-entry
Mathys Orthopaedics Ltd	CCB MATHYS	220	1%	10A
DePuy	ULTIMA CEMENTED CUP	216	1%	Discontinued
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	203	1%	10B
Biomet	ARCOM SHP	184	1%	5A
Biomet	M2A CEMENTED CUP	145	1%	5B
DePuy	WROBLEWSKI GOLF BALL	130	1%	5B
Zimmer	ZIMMER CEMENTED CUP	116	1%	10A
Smith & Nephew	REFLECTION CEMENTED	97	<1%	7A
Waldemar Link	INTERPLANTA	83	<1%	Unclassified
Zimmer	Zimmer MULLER	59	<1%	Unclassified
B Braun / Aesculap	CHIRULEN	54	<1%	Unclassified
Smith & Nephew	PE-PLUS	44	<1%	10C
DePuy	ASR 300	37	<1%	Unclassified
Waldemar Link	LINK FLANGE CUP	34	<1%	Unclassified
Waldemar Link	SNAP FIT	31	<1%	Unclassified
Biomet	CMK CEMENTED CUP	29	<1%	Unclassified
Implants International	EDINBURGH CUP	27	<1%	Unclassified
Finsbury	SLF CEMENTED CUP (FINSBURY)	22	<1%	10C
Corin	HI-NEK CEMENTED CUP	19	<1%	Unclassified

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Manufacturer	Brand	Number of procedures	%	ODEP rating
Implants International	CCB	15	<1%	Unclassified
DePuy	WROBLEWSKI ANGLE BORE SOCKET	10	<1%	7B
Joint Replacement Instrumentation Ltd	JRI Cemented cup	9	<1%	Unclassified
Waldemar Link	SP II CEMENTED CUP	7	<1%	Unclassified
Biomet	BIOMET BI-POLAR CEMENTED CUP	5	<1%	Not ODEP rated product
Zimmer	METASUL-MULLER	4	<1%	Unclassified
DePuy	ELITE PLUS FLANGED	3	<1%	10A
Stryker Howmedica Osteonics	ODC	3	<1%	Unclassified
B Braun / Aesculap	ALFA CEMENTED CUP	2	<1%	Unclassified
Biomet	BIOMET MULLER	2	<1%	5B
Biomet	SCAN CEMENTED CUP	2	<1%	Unclassified
Surgicraft	CUSTOM HC	2	<1%	Not ODEP rated product
Zimmer	LONGEVITY	2	<1%	Unclassified
Amplitude	LUNA	1	<1%	Unclassified
Biomet	FREEDOM	1	<1%	Unclassified
Biomet	Hi-Wall	1	<1%	Unclassified
DePuy	CHARNLEY EVOLUTION CEMENTED CUP	1	<1%	Unclassified
Finsbury	FREEMAN CUP FINSBURY	1	<1%	Unclassified
Medacta UK Ltd	CONE CUP	1	<1%	Unclassified

Table 3(b) Cemented cup brands entered into the NJR during 2009 for revision hip procedures.

Manufacturer	Brand	Number of procedures	%
		1,277	
Stryker Howmedica Osteonics	CONTEMPORARY	382	30%
DePuy	ELITE PLUS OGEE	168	13%
DePuy	MARATHON CUP	147	12%
DePuy	ELITE PLUS CEMENTED CUP	132	10%
Smith & Nephew	OPERA	66	5%
Zimmer	ZCA	45	4%
Stryker Howmedica Osteonics	EXETER DURATION	40	3%
Corin	CENATOR CEMENTED CUP	32	3%
DePuy	CHARNLEY CEMENTED CUP	32	3%
DePuy	ULTIMA CEMENTED CUP	27	2%
Zimmer	LOW PROFILE MULLER	24	2%
DePuy	WROBLEWSKI GOLF BALL	21	2%
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	20	2%
DePuy	CHARNLEY OGEE	17	1%
Biomet	STANMORE-ARCOM	13	1%
Waldemar Link	SNAP FIT	13	1%
Smith & Nephew	REFLECTION CEMENTED	12	1%
Zimmer	ZIMMER CEMENTED CUP	11	1%
B Braun / Aesculap	CHIRULEN	10	1%
Waldemar Link	INTERPLANTA	9	1%
DePuy	WROBLEWSKI ANGLE BORE SOCKET	8	1%
Biomet	ARCOM SHP	7	1%
Joint Replacement Instrumentation Ltd	JRI CEMENTED CUP	7	1%
Biomet	APOLLO	6	<1%
Biomet	Hi-Wall	6	<1%
DePuy	ELITE PLUS FLANGED	3	<1%
Implants International	EDINBURGH CUP	3	<1%
Stryker Howmedica Osteonics	ODC	3	<1%
Corin	HI-NEK CEMENTED CUP	2	<1%
Mathys Orthopaedics Ltd	CCB MATHYS	2	<1%
Zimmer	METASUL-MULLER	2	<1%
B Braun / Aesculap	ALFA CEMENTED CUP	1	<1%
Corin	CTI CEMENTED CUP	1	<1%
DePuy	ASR 300	1	<1%

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Manufacturer	Brand	Number of procedures	%
DePuy	SOLUTION CEMENTED CUP	1	<1%
Exactech (UK) Ltd	EXACTECH ALL POLY	1	<1%
Finsbury	SLF CEMENTED CUP (FINSBURY)	1	<1%
Smith & Nephew	PE-PLUS	1	<1%

Table 4(a) Cementless cup brands entered into the NJR during 2009 for primary hip procedures.

Manufacturer	Brand	Number of procedures	%	ODEP Rating
		36,155		
DePuy	PINNACLE	12,072	33%	7A
Stryker Howmedica Osteonics	TRIDENT	7,612	21%	5A
Zimmer	TRILOGY	3,802	11%	7A
Joint Replacement Instrumentation Ltd	CSF PLUS	2,554	7%	Unclassified
Biomet	EXCEED	1,852	5%	5A
Joint Replacement Instrumentation Ltd	CSF	1,167	3%	10A
Smith & Nephew	EPF-PLUS	1,001	3%	3A
Smith & Nephew	REFLECTION CEMENTLESS	912	3%	7A
DePuy	DURALOC CEMENTLESS CUP	814	2%	10A
Zimmer	ALLOFIT	732	2%	5A
Wright Medical UK Ltd	PROCOTYL	509	1%	Pre-Entry
Zimmer	TRABECULAR METAL CEMENTLESS CUP	462	1%	5A
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	346	1%	5A
Smith & Nephew	POLAR CEMENTLESS CUP	254	1%	5A
Finsbury	DELTA MOTION	236	1%	Pre-Entry
Smith & Nephew	SP3 HA	233	1%	Unclassified
Stryker Howmedica Osteonics	ABG II CEMENTLESS CUP	216	1%	5A
Medacta UK Ltd	VERSAFIT	176	<1%	Unclassified
DePuy	DURALOC OPTION	146	<1%	10A
Smith & Nephew	BICON-PLUS	117	<1%	10A
Biomet	MALLORY-HEAD CEMENTLESS CUP	94	<1%	5A
Symbios SA	APRIL	94	<1%	Unclassified
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	78	<1%	10A
FH Newtech Ortho Ltd	ATLAS IIIP	74	<1%	Unclassified
Joint Replacement Instrumentation Ltd	FURLONG THREADED CUP	72	<1%	10A
Surgicraft	SPLIT CUP	54	<1%	Unclassified
Mathys Orthopaedics Ltd	SELEXYS TH	48	<1%	Pre-Entry
Stryker Howmedica Osteonics	TRITANIUM	46	<1%	Pre-Entry

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Manufacturer	Brand	Number of procedures	%	ODEP Rating
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	45	<1%	5A
Mathys Orthopaedics Ltd	SELEXYS PC	32	<1%	Pre-Entry
Wright Medical UK Ltd	ANCAFIT CEMENTLESS CUP	25	<1%	3A
Lima WG Healthcare	LIMA/WG revision cup	22	<1%	Unclassified
Zimmer	CONTINUUM	18	<1%	Pre-entry
Zimmer	FITMORE	18	<1%	7B
Biomet	REGENEREX CEMENTLESS	17	<1%	Unclassified
Orthodynamics	NOVAE STICK	17	<1%	10B
Stryker Howmedica Osteonics	Restoration GAP2	16	<1%	Unclassified
Zimmer	CLS CEMENTLESS CUP	16	<1%	10A
Corin	DC-FIT	15	<1%	Unclassified
Waldemar Link	TOP	15	<1%	Unclassified
Amplitude	SATURNE	13	<1%	3B
Biomet	UNIVERSAL II	13	<1%	5A
Implants International	RM CEMENTLESS CUP (IMPLANT INTERNATIONAL)	10	<1%	Unclassified
Wright Medical UK Ltd	LINEAGE	9	<1%	Pre-Entry
Mathys Orthopaedics Ltd	SELEXYS	8	<1%	Pre-Entry
Biomet	AVANTAGE	7	<1%	10C
Stryker Howmedica Osteonics	GAP RING	7	<1%	Unclassified
Corin	TRINITY	6	<1%	Pre-Entry
Zimmer	MMC CUP	6	<1%	Unclassified
DePuy	J-LOC	5	<1%	Unclassified
Orthodynamics	NOVAE SF	5	<1%	10B
Waldemar Link	PRESSFIT	5	<1%	Unclassified
Biomet	BIHAPRO	4	<1%	7B
Biomet	RANAWAT/BURSTEIN	4	<1%	Unclassified
Orthodynamics	NOVAE	4	<1%	10B
Waldemar Link	PROCOTYL	4	<1%	Unclassified
Zimmer	FM IT	3	<1%	Unclassified
Amplitude	HORIZON	2	<1%	3A
Smith & Nephew	R3	2	<1%	Pre-Entry
Wright Medical UK Ltd	CONSERVE-PLUS	2	<1%	Pre-Entry

Manufacturer	Brand	Number of procedures	%	ODEP Rating
Biomet	PAR 5 RINOWL CEMENTLESS CUP	1	<1%	Unclassified
Biomet	RINGLOC	1	<1%	Unclassified
Corin	CERAFIT CEMENTLESS CUP	1	<1%	Unclassified
Corin	SLF CEMENTLESS CUP (CORIN)	1	<1%	Unclassified
Exactech (UK) Ltd	NOVATION	1	<1%	Unclassified
Smith & Nephew	BOFOR	1	<1%	Unclassified
Surgicraft	CUSTOM	1	<1%	Not Applicable

Table 4(b) Cementless cup brands entered into the NJR during 2009 for revision hip procedures.

Manufacturer	Brand	Number of procedures	%
		3,891	
Zimmer	TRABECULAR METAL CEMENTLESS CUP	903	23%
DePuy	PINNACLE	764	20%
Stryker Howmedica Osteonics	TRIDENT	707	18%
Zimmer	TRILOGY	318	8%
Stryker Howmedica Osteonics	TRITANIUM	241	6%
Joint Replacement Instrumentation Ltd	CSF PLUS	146	4%
Smith & Nephew	REFLECTION CEMENTLESS	124	3%
Biomet	REGENEREX CEMENTLESS	103	3%
Biomet	EXCEED	58	1%
Orthodynamics	NOVAE STICK	46	1%
Biomet	MALLORY-HEAD CEMENTLESS CUP	45	1%
Stryker Howmedica Osteonics	Restoration GAP2	40	1%
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	35	1%
Smith & Nephew	POLAR CEMENTLESS CUP	35	1%
Joint Replacement Instrumentation Ltd	CSF	34	1%
Amplitude	SATURNE	29	1%
DePuy	DURALOC CEMENTLESS CUP	25	1%
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	25	1%
Finsbury	DELTA MOTION	22	1%
Smith & Nephew	EPF-PLUS	21	1%
Wright Medical UK Ltd	PROCOTYL	20	1%
Orthodynamics	NOVAE	17	<1%
Biomet	RANAWAT/BURSTEIN	16	<1%
Lima WG Healthcare	LIMA/WG REVISION CUP	14	<1%
Zimmer	ALLOFIT	14	<1%
Stryker Howmedica Osteonics	GAP RING	13	<1%
Joint Replacement Instrumentation Ltd	FURLONG THREADED CUP	8	<1%
DePuy	S-ROM CEMENTLESS CUP	7	<1%
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	7	<1%
FH Newtech Ortho Ltd	ATLAS IIIP	6	<1%
Medacta UK Ltd	VERSAFIT	6	<1%
Lima WG Healthcare	LIMA DELTA REVISION	5	<1%
Smith & Nephew	BOFOR	4	<1%

Manufacturer	Brand	Number of procedures	%
Biomet	AVANTAGE	3	<1%
Mathys Orthopaedics Ltd	SELEXYS PC	3	<1%
Corin	CERAFIT CEMENTLESS CUP	2	<1%
DePuy	DURALOC OPTION	2	<1%
Joint Replacement Instrumentation Ltd	CUSTOM	2	<1%
Orthodynamics	NOVAE SF	2	<1%
Smith & Nephew	R3	2	<1%
Stryker Howmedica Osteonics	ABG II CEMENTLESS CUP	2	<1%
Surgicraft	SPLIT CUP	2	<1%
Wright Medical UK Ltd	LINEAGE	2	<1%
Biomet	CUSTOM	1	<1%
Biomet	M2A CEMENTLESS CUP	1	<1%
Biomet	PAR 5 RINOWL CEMENTLESS CUP	1	<1%
Biomet	RINGLOC	1	<1%
DePuy	J-LOC	1	<1%
Implants International	RM CEMENTLESS CUP (IMPLANT INTERNATIONAL)	1	<1%
Orthodynamics	CUSTOM	1	<1%
Orthodynamics	NOVAE COPTOS	1	<1%
Smith & Nephew	MPF	1	<1%
Smith & Nephew	SP3 HA	1	<1%
Waldemar Link	MCMINN	1	<1%

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Table 5(a) Cemented stem brands entered into the NJR during 2009 for primary hip procedures.

Manufacturer	Brand	Number of procedures	%	ODEP Rating
		30,497		
Stryker Howmedica Osteonics	EXETER V40	19,086	63%	10A
Zimmer	CPT	2,962	10%	10A
DePuy	CHARNLEY CEMENTED STEM	1,579	5%	10A
DePuy	C-STEM CEMENTED STEM	1,187	4%	10B
DePuy	C-STEM AMT CEMENTED STEM	933	3%	3A
Biomet	STANMORE MODULAR	855	3%	10A
Zimmer	MS-30	507	2%	10B
Smith & Nephew	CPCS	506	2%	3A
Smith & Nephew	CPS-PLUS	453	1%	7A
Biomet	MULLER-BIOMET	333	1%	5B
Zimmer	MULLER STR STEM	234	1%	10A
Mathys Orthopaedics Ltd	CCA CEMENTED STEM	171	1%	10A
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	164	1%	10C
Waldemar Link	SP II CEMENTED STEM	156	1%	10A
Corin	TAPERFIT CEMENTED STEM	144	<1%	7B
DePuy	CHARNLEY MODULAR	134	<1%	7A
Smith & Nephew	SPECTRON	130	<1%	10A
Biomet	TAPERLOC CEMENTED STEM	115	<1%	Pre-entry
Biomet	OLYMPIA	102	<1%	5B
Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	64	<1%	Unclassified
Zimmer	VERSYS CEMENTED STEM	57	<1%	5A
Smith & Nephew	SL-PLUS CEMENTED STEM	54	<1%	Unclassified
Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	54	<1%	10A
Zimmer	P10 MULLER	45	<1%	10A
Finsbury	LIVERPOOL PROXIMAL CEMENTED	42	<1%	Unclassified
B Braun / Aesculap	CENTRAMENT	38	<1%	Unclassified
B Braun / Aesculap	EXCIA-CEMENTED	31	<1%	Unclassified
Biomet	CMK CEMENTED STEM	30	<1%	10C
Finsbury	ADEPT CEMENTED STEM	30	<1%	3A
Implants International	EDINBURGH	27	<1%	Unclassified
Zimmer	ZMR CEMENTED STEM	27	<1%	Unclassified

Manufacturer	Brand	Number of procedures	%	ODEP Rating
Biomet	BIMETRIC CEMENTED STEM	25	<1%	10A
Corin	HI-NEK CEMENTED STEM	21	<1%	Unclassified
DePuy	CORAIL CEMENTED	16	<1%	Pre-entry
DePuy	ULTIMA STRAIGHT STEM	16	<1%	Discontinued
Biomet	MONOBLOC STANMORE	14	<1%	10A
Zimmer	REVITAN CEMENTED STEM	14	<1%	Unclassified
Smith & Nephew	CPS	13	<1%	Unclassified
Waldemar Link	MP NECK CEMENTED STEM	11	<1%	Unclassified
Peter Brehm GmbH	PETER BREHM REVISION STEM	10	<1%	Unclassified
Corin	CTI CEMENTED STEM	9	<1%	Unclassified
Wright Medical UK Ltd	PROFEMUR CEMENTED STEM	8	<1%	Pre-entry
Joint Replacement Instrumentation Ltd	LOL CEMENTED	7	<1%	Unclassified
Zimmer	THRUST PLATE	7	<1%	Unacceptable
DePuy	SUMMIT CEMENTED STEM	6	<1%	3A
Smith & Nephew	SLR-PLUS CEMENTED STEM	6	<1%	Unclassified
Zimmer	VERSYS HERITAGE	6	<1%	Pre-entry
Corin	CENATOR CEMENTED STEM	5	<1%	Discontinued and removed from market
DePuy	ELITE PLUS CEMENTED STEM	5	<1%	10A
Stryker Howmedica Osteonics	EXETER	5	<1%	10A
B Braun / Aesculap	BICONTACT CEMENTED STEM	4	<1%	10C
Finsbury	FREEMAN CEMENTED FINSBURY	4	<1%	10C
Stryker Howmedica Osteonics	GMRS	4	<1%	Unclassified
Biomet	OXFORD UNIVERSAL HIP (BIOMET) CEMENTED STEM	3	<1%	Unclassified
Lima WG Healthcare	LIMA/WG REVISION STEM	3	<1%	Unclassified
Waldemar Link	WAGNER REVISION STEM	3	<1%	Unclassified
DePuy	LPS	2	<1%	Unclassified
Joint Replacement Instrumentation Ltd	FURLONG LOL	2	<1%	Unclassified
Medacta UK Ltd	CONE	2	<1%	Unclassified
Medacta UK Ltd	QUADRA CEMENTED	2	<1%	Unclassified
Amplitude	INITIALE CEMENTED STEM	1	<1%	Unclassified

Manufacturer	Brand	Number of procedures	%	ODEP Rating
B Braun / Aesculap	HUCKSTEP CEMENTED STEM	1	<1%	Unclassified
B Braun / Aesculap	PREVISION CEMENTED STEM	1	<1%	Unclassified
Biomet	SHP	1	<1%	Unclassified
Exactech (UK) Ltd	ACUMATCH M-SERIES	1	<1%	Unclassified
Implantcast GmbH	IMPLANTCAST CEMENTED STEM	1	<1%	Unclassified
Mathys Orthopaedics Ltd	MATHYS REVISION STEM	1	<1%	Unclassified
Smith & Nephew	ECHELON CEMENTED STEM	1	<1%	Unclassified
Stanmore Implants Worldwide	CUSTOM DEVICE	1	<1%	Not ODEP rated product
Stryker Howmedica Osteonics	GMRS	1	<1%	Unclassified
Symbios SA	ARCAD CEMENTED	1	<1%	Unclassified
Waldemar Link	MEGA SYSTEM	1	<1%	Unclassified
Zimmer	KINECTIV CEMENTED	1	<1%	Unclassified
Zimmer	MAYO CEMENTED STEM	1	<1%	Unclassified

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Table 5(b) Cemented stem brands entered into the NJR during 2009 for revision hip procedures.

Manufacturer	Brand	Number of procedures	%	Procedures using femoral bone graft
		3,044		297
Stryker Howmedica Osteonics	EXETER V40	1,207	40%	88
Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	592	19%	72
Zimmer	CPT	229	8%	7
DePuy	C-STEM CEMENTED STEM	196	6%	22
Zimmer	ZMR CEMENTED STEM	161	5%	35
Waldemar Link	MP NECK CEMENTED STEM	89	3%	11
Zimmer	REVITAN CEMENTED STEM	73	2%	6
DePuy	C-STEM AMT CEMENTED STEM	64	2%	3
Biomet	OXFORD UNIVERSAL HIP (BIOMET) CEMENTED STEM	51	2%	8
Peter Brehm GmbH	PETER BREHM REVISION STEM	33	1%	1
DePuy	CHARNLEY CEMENTED STEM	29	1%	0
Biomet	STANMORE MODULAR	26	1%	1
B Braun / Aesculap	PREVISION CEMENTED STEM	25	1%	10
Waldemar Link	SP II CEMENTED STEM	22	1%	0
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	21	1%	3
Biomet	MULLER-BIOMET	19	1%	0
Smith & Nephew	CPCS	18	1%	1
Corin	TAPERFIT CEMENTED STEM	14	<1%	2
DePuy	ELITE PLUS CEMENTED STEM	14	<1%	4
Corin	OXFORD UNIVERSAL HIP (CORIN) CEMENTED STEM	13	<1%	11
Lima WG Healthcare	LIMA/WG REVISION STEM	12	<1%	0
Smith & Nephew	CPS-PLUS	12	<1%	0
DePuy	WROBLEWSKI RESECTION	9	<1%	3
Biomet	TAPERLOC CEMENTED STEM	8	<1%	0
Zimmer	MS-30	7	<1%	1
B Braun / Aesculap	BICONTACT CEMENTED STEM	6	<1%	4
B Braun / Aesculap	EXCIA-CEMENTED	6	<1%	0
Biomet	KENT HIP	6	<1%	0
Biomet	MALLORY-HEAD CEMENTED STEM	6	<1%	1
DePuy	CHARNLEY MODULAR	6	<1%	0
DePuy	LPS	6	<1%	0

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Manufacturer	Brand	Number of procedures	%	Procedures using femoral bone graft
Smith & Nephew	SLR-PLUS CEMENTED STEM	5	<1%	0
Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	5	<1%	0
Stryker Howmedica Osteonics	GMRS	4	<1%	0
Zimmer	GMRS	4	<1%	0
Zimmer	MULLER STR STEM	4	<1%	1
Mathys Orthopaedics Ltd	MATHYS Revision stem	3	<1%	1
Smith & Nephew	SL-PLUS CEMENTED STEM	3	<1%	0
Smith & Nephew	SPECTRON	3	<1%	0
Biomet	BIMETRIC CEMENTED STEM	2	<1%	0
Corin	TRIFIT CEMENTED STEM	2	<1%	0
DePuy	CORAIL CEMENTED	2	<1%	0
Finsbury	FREEMAN CEMENTED FINSBURY	2	<1%	0
Finsbury	LIVERPOOL PROXIMAL CEMENTED	2	<1%	0
Implants International	EDINBURGH	2	<1%	0
Medacta UK Ltd	QUADRA CEMENTED	2	<1%	0
Smith & Nephew	ECHELON CEMENTED STEM	2	<1%	0
Zimmer	MEM	2	<1%	1
Biomet	AURA II CEMENTED STEM	1	<1%	0
Biomet	CMK CEMENTED STEM	1	<1%	0
Biomet	OLYMPIA	1	<1%	0
Corin	CTI CEMENTED STEM	1	<1%	0
Finsbury	ADEPT CEMENTED STEM	1	<1%	0
Implantcast GmbH	IMPLANTCAST CEMENTED STEM	1	<1%	0
Joint Replacement Instrumentation Ltd	FURLONG LOL	1	<1%	0
Mathys Orthopaedics Ltd	CCA CEMENTED STEM	1	<1%	0
Orthodynamics	CANNULOK CEMENTED STEM	1	<1%	0
Smith & Nephew	CPS	1	<1%	0
Smith & Nephew	SandN MODULAR	1	<1%	0
Stanmore Implants Worldwide	CUSTOM DEVICE	1	<1%	0
Waldemar Link	MEGA SYSTEM	1	<1%	0
Waldemar Link	WAGNER REVISION STEM	1	<1%	0
Zimmer	VERSYS CEMENTED STEM	1	<1%	0

Table 6(a) Cementless stem brands entered into the NJR during 2009 for primary hip procedures.

Manufacturer	Brand	Number of procedures	%	ODEP Rating
		28,923		
DePuy	CORAIL	13,420	46%	10A
Joint Replacement Instrumentation Ltd	FURLONG HAC	3,774	13%	10A
Stryker Howmedica Osteonics	ACCOLADE	2,951	10%	5A
Biomet	TAPERLOC CEMENTLESS STEM	1,911	7%	10A
Smith & Nephew	SL-PLUS CEMENTLESS STEM	1,018	4%	10A
Zimmer	CLS CEMENTLESS STEM	779	3%	10A
Smith & Nephew	SYNERGY CEMENTLESS STEM	698	2%	5A
Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	626	2%	Pre-entry
Biomet	BIMETRIC CEMENTLESS STEM	475	2%	10A
Zimmer	VERSYS CEMENTLESS STEM	337	1%	various
DePuy	S-ROM CEMENTLESS STEM	289	1%	10A
Stryker Howmedica Osteonics	ABG II CEMENTLESS STEM	273	1%	5B
Smith & Nephew	ANTHOLOGY	245	1%	Pre-entry
Finsbury	FINSBURY TYPE C	191	1%	Pre-entry
DePuy	SUMMIT CEMENTLESS STEM	183	1%	5A
Smith & Nephew	BIRMINGHAM HEAD RESECTION STEM	182	1%	Pre-entry
B Braun / Aesculap	EXCIA	158	1%	5A
Medacta UK Ltd	QUADRA CEMENTLESS	154	1%	Unclassified
Corin	METAFIX STEM	140	<1%	Pre-entry
DePuy	DEPUY PROXIMA	132	<1%	Pre-entry
Stryker Howmedica Osteonics	OMNIFIT CEMENTLESS STEM	122	<1%	10A
Wright Medical UK Ltd	ANCAFIT CEMENTLESS STEM	116	<1%	3A
Symbios SA	SPS	94	<1%	7B
Mathys Orthopaedics Ltd	TWINSYS CEMENTLESS STEM	92	<1%	Pre-entry
Zimmer	ZWEYMULLER	62	<1%	10A
Zimmer	TRABECULAR CEMENTLESS STEM	58	<1%	Pre-entry
B Braun / Aesculap	BICONTACT CEMENTLESS STEM	48	<1%	10A
Corin	MINIHIP	35	<1%	Pre-entry
DePuy	SILENT HIP	34	<1%	Pre-entry
DePuy	KAR	31	<1%	Unclassified
Smith & Nephew	POLAR CEMENTLESS STEM	26	<1%	Pre-entry
Mathys Orthopaedics Ltd	CBC	24	<1%	Pre-entry

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Manufacturer	Brand	Number of procedures	%	ODEP Rating
Zimmer	MMC	22	<1%	Unclassified
Finsbury	FREEMAN CEMENTLESS	20	<1%	10C
B Braun / Aesculap	METHA	18	<1%	3A
Zimmer	ALLOCLASSIC CEMENTLESS STEM	18	<1%	10A
Biomet	ASIAN CEMENTLESS STEM	15	<1%	Unclassified
Zimmer	FITMORE STEM	15	<1%	Unclassified
Corin	PANATOMIC CEMENTLESS STEM	14	<1%	Unclassified
Finsbury	FTS	14	<1%	Pre-entry
Lima WG Healthcare	LIMA SL	11	<1%	Unclassified
Orthodynamics	CANNULOK CEMENTLESS STEM	11	<1%	Unclassified
Waldemar Link	DAVIES CEMENTLESS STEM	11	<1%	Unclassified
Zimmer	WAGNER CONE	9	<1%	7B
Medacta UK Ltd	AMIS	8	<1%	Unclassified
Corin	PROXIMA	6	<1%	5A
ESKA/TriMed	QUADRA CEMENTLESS	6	<1%	Unclassified
DePuy	SOLUTION CEMENTLESS STEM	5	<1%	Unclassified
DePuy	TRILOCK BPS	5	<1%	Unclassified
Surgicraft	ESOP	5	<1%	Unclassified
Smith & Nephew	ECHELON CEMENTLESS STEM	4	<1%	Unclassified
DePuy	REEF	3	<1%	Unclassified
Waldemar Link	CFP	3	<1%	Unclassified
Zimmer	SYNERGY CEMENTLESS STEM	3	<1%	Unclassified
Corin	HI-NEK CEMENTLESS STEM	2	<1%	Unclassified
DePuy	AML	2	<1%	10A
DePuy	VISION	2	<1%	Unclassified
FH Newtech Ortho Ltd	FH MODULAR	2	<1%	Unclassified
Stryker Howmedica Osteonics	RESTORATION CEMENTLESS STEM	2	<1%	Unclassified
Zimmer	M/L TAPER CEMENTLESS	2	<1%	Pre-entry
Amplitude	INTEGRALE	1	<1%	Unclassified
Biomet	CONELock	1	<1%	Unclassified
Biomet	REACH	1	<1%	Unclassified
Corin	C FIT	1	<1%	Unclassified
DePuy	IPS	1	<1%	Unclassified
Exactech (UK) Ltd	NOVATION STEM	1	<1%	Pre-entry
Joint Replacement Instrumentation Ltd	SECURUS	1	<1%	Unclassified

Table 6(b) Cementless stem brands entered into the NJR during 2009 for revision hip procedures.

Manufacturer	Brand	Number of procedures	%	Procedures using femoral bone graft
		1,179		153
DePuy	CORAIL	204	17%	17
DePuy	KAR	184	16%	38
Joint Replacement Instrumentation Ltd	FURLONG HAC	137	12%	10
DePuy	REEF	94	8%	23
DePuy	S-ROM CEMENTLESS STEM	85	7%	5
Orthodynamics	CANNULOK CEMENTLESS STEM	60	5%	7
DePuy	SOLUTION CEMENTLESS STEM	59	5%	18
Smith & Nephew	ECHELON CEMENTLESS STEM	45	4%	3
Smith & Nephew	SYNERGY CEMENTLESS STEM	45	4%	2
Stryker Howmedica Osteonics	ACCOLADE	39	3%	2
Biomet	REACH	26	2%	10
Biomet	TAPERLOC CEMENTLESS STEM	21	2%	0
Finsbury	FINSBURY TYPE C	16	1%	2
Smith & Nephew	SL-PLUS CEMENTLESS STEM	15	1%	1
Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	15	1%	1
Zimmer	CLS CEMENTLESS STEM	14	1%	1
Smith & Nephew	ANTHOLOGY	13	1%	1
Biomet	BIMETRIC CEMENTLESS STEM	12	1%	3
Joint Replacement Instrumentation Ltd	SECURUS	12	1%	3
Corin	METAFIX STEM	11	1%	0
Mathys Orthopaedics Ltd	TWINSYS CEMENTLESS STEM	11	1%	1
Zimmer	VERSYS CEMENTLESS STEM	11	1%	2
Biomet	CONELock	9	1%	1
Stryker Howmedica Osteonics	RESTORATION CEMENTLESS STEM	9	1%	1
DePuy	SUMMIT CEMENTLESS STEM	7	1%	0
Corin	MINIHIP	5	<1%	0
Zimmer	ZWEYMULLER	4	<1%	0
B Braun / Aesculap	EXCIA	3	<1%	0
B Braun / Aesculap	BICONTACT CEMENTLESS STEM	2	<1%	1
Medacta UK Ltd	QUADRA CEMENTLESS	2	<1%	0
B Braun / Aesculap	HUCKSTEP CEMENTLESS STEM	1	<1%	0

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Manufacturer	Brand	Number of procedures	%	Procedures using femoral bone graft
DePuy	DEPUY PROXIMA	1	<1%	0
Finsbury	FTS	1	<1%	0
Mathys Orthopaedics Ltd	CBK	1	<1%	0
Waldemar Link	DAVIES CEMENTLESS STEM	1	<1%	0
Wright Medical UK Ltd	ANCAFIT CEMENTLESS STEM	1	<1%	0
Zimmer	ALLOCLASSIC CEMENTLESS STEM	1	<1%	0
Zimmer	TRABECULAR CEMENTLESS STEM	1	<1%	0
Zimmer	WAGNER CONE	1	<1%	0

Table 7 Brands of resurfacing heads entered into the NJR during 2009.

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Manufacturer	Brand	Number of procedures	%	ODEP rating
		4,103		
Smith & Nephew	BHR RESURFACING HEAD	1,993	49%	10A
Finsbury	ADEPT RESURFACING HEAD	633	15%	3A
Corin	CORMET 2000 RESURFACING HEAD	460	11%	5B
Biomet	RECAP RESURFACING HEAD	319	8%	3A
DePuy	ASR RESURFACING HEAD	213	5%	3A
Zimmer	DUROM RESURFACING HEAD	211	5%	Pre-entry
Wright Medical UK Ltd	CONSERVE	180	4%	5A
Implantcast GmbH	ACCIS RESURFACING HEAD	45	1%	Unclassified
Stryker Howmedica Osteonics	MITCH TRH	40	1%	Pre-entry
Joint Replacement Instrumentation Ltd	MIHR	9	<1%	Pre-entry

Table 8 provides a summary of procedures in which brands of resurfacing acetabular cups have been used in combination with a conventional stem and a large

diameter metal on metal femoral head. This represents a 56% decrease on last year.

Table 8 Procedures using a resurfacing cup with a conventional stem entered into the NJR during 2009.

Manufacturer	Brand	Number of procedures	%	ODEP rating
		2,494		
Biomet	RECAP RESURFACING CUP	663	27%	3A
Smith & Nephew	BHR RESURFACING CUP	564	23%	10A
DePuy	ASR RESURFACING CUP	351	14%	3A
Finsbury	ADEPT RESURFACING CUP	249	10%	3A
Zimmer	DUROM RESURFACING CUP	196	8%	Pre-entry
Stryker Howmedica Osteonics	MITCH TRH CUP	185	7%	Pre-entry
Corin	CORMET 2000 RESURFACING CUP	117	5%	5B
Joint Replacement Instrumentation Ltd	MIHR CUP	65	3%	Unclassified
Wright Medical UK Ltd	CONSERVE PLUS RESURFACING CUP	60	2%	5A
Implantcast GmbH	ACCIS RESURFACING CUP	31	1%	Unclassified
Symbios SA	SYMBIOS	12	<1%	Unclassified
Zimmer	MMC RESURFACING	1	<1%	Unclassified

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1.3 Combinations of cups and stems

For 57,578 primary hip replacement procedures in the 2009 data, both the cup and stem brand were known, and a total of 734 different combinations of cup and stem brands were recorded. This represents a 6% increase in cup-stem combinations used over 2008 primary hip procedures. The combinations entered into the NJR are listed in Tables 9(a) and (b). These tables show primary and revision cup-stem combinations. For revision hip procedures, 458 cup-stem combinations were used compared with 421 in 2008. The most common cup-stem combination was the Corail stem combined with the Pinnacle cup for primary procedures and the Exeter V40 stem

combined with the Trident cup for revision procedures. Tables 9(a) and 9(b) also detail which combinations have a different stem and cup manufacturer – a practice known as ‘mixing and matching’. Of the 57,578 primary procedures included in this chapter, 10,331 (18%) used ‘mixed and matched’ cup-stem combinations from different suppliers, approximately 1% fewer than in 2008.

Table 9(a) Cup-stem combinations entered into the NJR in 2009 for primary hip procedures.

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
				57,578		
DePuy	PINNACLE	DePuy	CORAIL	10,429	18%	No
Stryker Howmedica Osteonics	CONTEMPORARY	Stryker Howmedica Osteonics	EXETER V40	6,985	12%	No
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	EXETER V40	4,225	7%	No
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	ACCOLADE	2,875	5%	No
Joint Replacement Instrumentation Ltd	CSF PLUS	Joint Replacement Instrumentation Ltd	FURLONG HAC	2,400	4%	No
DePuy	ELITE PLUS OGEE	Stryker Howmedica Osteonics	EXETER V40	1,941	3%	Yes
Stryker Howmedica Osteonics	EXETER DURATION	Stryker Howmedica Osteonics	EXETER V40	1,482	3%	No
Biomet	EXCEED	Biomet	TAPERLOC CEMENTLESS STEM	1,300	2%	No
Zimmer	TRILOGY	Stryker Howmedica Osteonics	EXETER V40	1,293	2%	Yes
Zimmer	TRILOGY	Zimmer	CPT	1,135	2%	No
Joint Replacement Instrumentation Ltd	CSF	Joint Replacement Instrumentation Ltd	FURLONG HAC	1,038	2%	No
Zimmer	ZCA	Zimmer	CPT	869	2%	No
Smith & Nephew	EPF-PLUS	Smith & Nephew	SL-PLUS CEMENTLESS STEM	805	1%	No
DePuy	ELITE PLUS CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	765	1%	Yes
DePuy	CHARNLEY CEMENTED CUP	DePuy	CHARNLEY CEMENTED STEM	689	1%	No
DePuy	CHARNLEY OGEE	DePuy	CHARNLEY CEMENTED STEM	676	1%	No
Zimmer	TRILOGY	DePuy	CORAIL	496	1%	Yes
DePuy	DURALOC CEMENTLESS CUP	DePuy	CORAIL	493	1%	No
Biomet	STANMORE-ARCOM	Biomet	STANMORE MODULAR	442	1%	No
DePuy	ELITE PLUS CEMENTED CUP	DePuy	CORAIL	399	1%	No
Wright Medical UK Ltd	PROCOTYL	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	387	1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Zimmer	ALLOFIT	Zimmer	CLS CEMENTLESS STEM	370	1%	No
Zimmer	LOW PROFILE MULLER	Zimmer	MS-30	340	1%	No
DePuy	MARATHON	DePuy	CORAIL	334	1%	No
DePuy	PINNACLE	Stryker Howmedica Osteonics	EXETER V40	331	1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	SYNERGY CEMENTLESS STEM	295	1%	No
DePuy	ELITE PLUS CEMENTED CUP	DePuy	C-STEM AMT CEMENTED STEM	267	<1%	No
Smith & Nephew	OPERA	Stryker Howmedica Osteonics	EXETER V40	262	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Stryker Howmedica Osteonics	EXETER V40	262	<1%	Yes
Corin	CENATOR CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	260	<1%	Yes
Biomet	APOLLO	Biomet	MULLER-BIOMET	256	<1%	No
DePuy	MARATHON	DePuy	C-STEM CEMENTED STEM	248	<1%	No
Smith & Nephew	OPERA	DePuy	C-STEM CEMENTED STEM	247	<1%	Yes
DePuy	PINNACLE	DePuy	S-ROM CEMENTLESS STEM	246	<1%	No
DePuy	ELITE PLUS OGEE	DePuy	C-STEM CEMENTED STEM	236	<1%	No
DePuy	PINNACLE	DePuy	C-STEM AMT CEMENTED STEM	236	<1%	No
Smith & Nephew	OPERA	Smith & Nephew	CPCS	232	<1%	No
DePuy	ELITE PLUS OGEE	DePuy	C-STEM AMT CEMENTED STEM	229	<1%	No
DePuy	ELITE PLUS OGEE	DePuy	CORAIL	227	<1%	No
DePuy	ELITE PLUS OGEE	Zimmer	CPT	215	<1%	Yes
Biomet	EXCEED	Biomet	BIMETRIC CEMENTLESS STEM	210	<1%	No
Zimmer	TRILOGY	Zimmer	VERSYS CEMENTLESS STEM	206	<1%	No
Smith & Nephew	OPERA	Smith & Nephew	CPS-PLUS	198	<1%	No
Smith & Nephew	POLAR CEMENTLESS CUP	Smith & Nephew	CPCS	195	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	ABG II CEMENTLESS STEM	194	<1%	No
Biomet	EXCEED	Stryker Howmedica Osteonics	EXETER V40	188	<1%	Yes
DePuy	MARATHON	Stryker Howmedica Osteonics	EXETER V40	181	<1%	Yes
Smith & Nephew	OPERA	DePuy	CHARNLEY CEMENTED STEM	181	<1%	Yes
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	161	<1%	No
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	B Braun / Aesculap	EXCIA	155	<1%	No
Medacta UK Ltd	VERSAFIT	Medacta UK Ltd	QUADRA CEMENTLESS	155	<1%	No
Mathys Orthopaedics Ltd	CCB MATHYS	Mathys Orthopaedics Ltd	CCA CEMENTED STEM	149	<1%	No
DePuy	DURALOC OPTION	DePuy	CORAIL	146	<1%	No
Zimmer	LOW PROFILE MULLER	Zimmer	MULLER STR STEM	146	<1%	No
Zimmer	ALLOFIT	Zimmer	CPT	140	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	CPT	133	<1%	No
DePuy	PINNACLE	Zimmer	CPT	129	<1%	Yes
Stryker Howmedica Osteonics	ABG II CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	128	<1%	No
Zimmer	TRILOGY	Zimmer	CLS CEMENTLESS STEM	127	<1%	No
Finsbury	DELTA MOTION	Finsbury	FINSBURY TYPE C	126	<1%	No
Biomet	M2A CEMENTED CUP	Biomet	BIMETRIC CEMENTLESS STEM	122	<1%	No
DePuy	PINNACLE	DePuy	SUMMIT CEMENTLESS STEM	122	<1%	No
DePuy	PINNACLE	DePuy	DEPUY PROXIMA	121	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	ANTHOLOGY	120	<1%	No
Smith & Nephew	SP3 HA	Stryker Howmedica Osteonics	EXETER V40	112	<1%	Yes
DePuy	ULTIMA CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	111	<1%	Yes
Smith & Nephew	SP3 HA	Smith & Nephew	SYNERGY CEMENTLESS STEM	111	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Smith & Nephew	BICON-PLUS	Smith & Nephew	SL-PLUS CEMENTLESS STEM	109	<1%	No
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	OMNIFIT CEMENTLESS STEM	107	<1%	No
Stryker Howmedica Osteonics	CONTEMPORARY	DePuy	CORAIL	99	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Zimmer	CPT	98	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	SPECTRON	97	<1%	No
Zimmer	ALLOFIT	Zimmer	MS-30	95	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	95	<1%	Yes
DePuy	DURALOC CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	94	<1%	Yes
DePuy	WROBLEWSKI GOLF BALL	DePuy	C-STEM CEMENTED STEM	92	<1%	No
Biomet	ARCOM SHP	Biomet	STANMORE MODULAR	91	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	DePuy	C-STEM CEMENTED STEM	91	<1%	No
Wright Medical UK Ltd	PROCOTYL	Wright Medical UK Ltd	ANCAFIT CEMENTLESS STEM	90	<1%	No
Zimmer	TRILOGY	Joint Replacement Instrumentation Ltd	FURLONG HAC	87	<1%	Yes
DePuy	CHARNLEY CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	86	<1%	Yes
Symbios SA	APRIL	Symbios SA	SPS	86	<1%	No
Zimmer	TRILOGY	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	84	<1%	Yes
Smith & Nephew	EPF-PLUS	Smith & Nephew	CPS-PLUS	82	<1%	No
Stryker Howmedica Osteonics	ABG II CEMENTLESS CUP	Stryker Howmedica Osteonics	ABG II CEMENTLESS STEM	81	<1%	No
DePuy	PINNACLE	DePuy	C-STEM CEMENTED STEM	79	<1%	No
Waldemar Link	INTERPLANTA	Waldemar Link	SP II CEMENTED STEM	78	<1%	No
DePuy	CHARNLEY OGEE	Stryker Howmedica Osteonics	EXETER V40	75	<1%	Yes
DePuy	MARATHON	DePuy	C-STEM AMT CEMENTED STEM	74	<1%	No

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Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Joint Replacement Instrumentation Ltd	FURLONG THREADED CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	72	<1%	No
Corin	CENATOR CEMENTED CUP	Smith & Nephew	CPS-PLUS	71	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Biomet	STANMORE MODULAR	71	<1%	Yes
Zimmer	LOW PROFILE MULLER	Biomet	MULLER-BIOMET	69	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	DePuy	CORAIL	68	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	DePuy	CHARNLEY MODULAR	67	<1%	No
Joint Replacement Instrumentation Ltd	CSF PLUS	DePuy	CORAIL	64	<1%	Yes
Smith & Nephew	OPERA	DePuy	CORAIL	63	<1%	Yes
Mathys Orthopaedics Ltd	CCB MATHYS	DePuy	CORAIL	61	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	CORAIL	59	<1%	Yes
Zimmer	ALLOFIT	Zimmer	VERSYS CEMENTLESS STEM	58	<1%	No
Zimmer	Zimmer MULLER	Zimmer	MULLER STR STEM	58	<1%	No
Joint Replacement Instrumentation Ltd	CSF	DePuy	CORAIL	57	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	Stryker Howmedica Osteonics	EXETER V40	57	<1%	Yes
DePuy	DURALOC CEMENTLESS CUP	DePuy	C-STEM CEMENTED STEM	55	<1%	No
Biomet	EXCEED	Biomet	TAPERLOC CEMENTED STEM	52	<1%	No
DePuy	CHARNLEY OGEE	DePuy	C-STEM CEMENTED STEM	52	<1%	No
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	50	<1%	Yes
DePuy	ELITE PLUS OGEE	DePuy	SUMMIT CEMENTLESS STEM	50	<1%	No
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	B Braun / Aesculap	BICONACT CEMENTLESS STEM	49	<1%	No
Biomet	ARCOM SHP	Biomet	TAPERLOC CEMENTED STEM	48	<1%	No
Smith & Nephew	OPERA	DePuy	C-STEM AMT CEMENTED STEM	48	<1%	Yes

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Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	48	<1%	No
DePuy	DURALOC CEMENTLESS CUP	Biomet	OLYMPIA	47	<1%	Yes
Biomet	EXCEED	Zimmer	CPT	46	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	DePuy	C-STEM AMT CEMENTED STEM	45	<1%	Yes
Biomet	EXCEED	Biomet	STANMORE MODULAR	43	<1%	No
Smith & Nephew	PE-PLUS	Smith & Nephew	CPS-PLUS	43	<1%	No
Zimmer	TRILOGY	DePuy	CHARNLEY MODULAR	43	<1%	Yes
Zimmer	LOW PROFILE MULLER	Zimmer	P10 MULLER	42	<1%	No
FH Newtech Ortho Ltd	ATLAS IIIP	Corin	TAPERFIT CEMENTED STEM	41	<1%	Yes
Smith & Nephew	REFLECTION CEMENTED	Smith & Nephew	CPS-PLUS	39	<1%	No
Smith & Nephew	EPF-PLUS	Stryker Howmedica Osteonics	EXETER V40	38	<1%	Yes
Zimmer	LOW PROFILE MULLER	Zimmer	CPT	38	<1%	No
Zimmer	TRILOGY	Biomet	OLYMPIA	38	<1%	Yes
DePuy	DURALOC CEMENTLESS CUP	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	37	<1%	Yes
DePuy	DURALOC CEMENTLESS CUP	Corin	METAFIX STEM	36	<1%	Yes
Zimmer	TRILOGY	Zimmer	TRABECULAR CEMENTLESS STEM	36	<1%	No
Zimmer	TRILOGY	Zimmer	VERSYS CEMENTED STEM	36	<1%	No
DePuy	CHARNLEY CEMENTED CUP	DePuy	C-STEM CEMENTED STEM	35	<1%	No
DePuy	PINNACLE	DePuy	SILENT	34	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	SL-PLUS CEMENTLESS STEM	34	<1%	No
DePuy	ASR 300	DePuy	CORAIL	33	<1%	No
Smith & Nephew	EPF-PLUS	Smith & Nephew	SL-PLUS CEMENTED STEM	33	<1%	No
DePuy	ULTIMA CEMENTED CUP	DePuy	CORAIL	32	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	WROBLEWSKI GOLF BALL	DePuy	CHARNLEY CEMENTED STEM	32	<1%	No
Zimmer	TRILOGY	Zimmer	ZWEYMULLER	32	<1%	No
Joint Replacement Instrumentation Ltd	CSF	Biomet	TAPERLOC CEMENTLESS STEM	31	<1%	Yes
Mathys Orthopaedics Ltd	SELEXYS TH	Mathys Orthopaedics Ltd	TWINSYS CEMENTLESS STEM	31	<1%	No
Zimmer	ZIMMER CEMENTED CUP	Corin	TAPERFIT CEMENTED STEM	31	<1%	Yes
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	30	<1%	Yes
Mathys Orthopaedics Ltd	SELEXYS PC	Mathys Orthopaedics Ltd	TWINSYS CEMENTLESS STEM	30	<1%	No
Zimmer	ZCA	Stryker Howmedica Osteonics	EXETER V40	30	<1%	Yes
Biomet	MALLORY-HEAD CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	29	<1%	Yes
DePuy	PINNACLE	Biomet	STANMORE MODULAR	29	<1%	Yes
Zimmer	TRILOGY	Zimmer	MS-30	29	<1%	No
Zimmer	ZIMMER CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	29	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	Stryker Howmedica Osteonics	EXETER V40	28	<1%	No
Biomet	ARCOM SHP	Biomet	TAPERLOC CEMENTLESS STEM	27	<1%	No
Biomet	CMK CEMENTED CUP	Biomet	CMK CEMENTED STEM	27	<1%	No
Finsbury	DELTA MOTION	Finsbury	LIVERPOOL PROXIMAL CEMENTED	27	<1%	No
Implants International	EDINBURGH CUP	Implants International	EDINBURGH	27	<1%	No
Smith & Nephew	POLAR CEMENTLESS CUP	Smith & Nephew	SL-PLUS CEMENTLESS STEM	27	<1%	No
DePuy	DURALOC CEMENTLESS CUP	DePuy	S-ROM CEMENTLESS STEM	26	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	POLAR CEMENTLESS STEM	26	<1%	No
Surgicraft	SPLIT CUP	Corin	TAPERFIT CEMENTED STEM	26	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Wright Medical UK Ltd	ANCAFIT CEMENTLESS CUP	Wright Medical UK Ltd	ANCAFIT CEMENTLESS STEM	26	<1%	No
Zimmer	TRILOGY	Stryker Howmedica Osteonics	ACCOLADE	25	<1%	Yes
B Braun / Aesculap	CHIRULEN	B Braun / Aesculap	EXCIA-CEMENTED	24	<1%	No
DePuy	PINNACLE	Biomet	TAPERLOC CEMENTLESS STEM	24	<1%	Yes
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	Smith & Nephew	SL-PLUS CEMENTLESS STEM	24	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	CPCS	24	<1%	No
B Braun / Aesculap	CHIRULEN	B Braun / Aesculap	CENTRAMENT	23	<1%	No
Corin	CENATOR CEMENTED CUP	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	23	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Stryker Howmedica Osteonics	ACCOLADE	23	<1%	No
Waldemar Link	SNAP FIT	Waldemar Link	SP II CEMENTED STEM	23	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	CLS CEMENTLESS STEM	22	<1%	No
Zimmer	TRILOGY	Biomet	STANMORE MODULAR	22	<1%	Yes
Zimmer	ZIMMER CEMENTED CUP	DePuy	CORAIL	22	<1%	Yes
DePuy	PINNACLE	DePuy	KAR	21	<1%	No
DePuy	ULTIMA CEMENTED CUP	DePuy	C-STEM AMT CEMENTED STEM	21	<1%	No
Smith & Nephew	OPERA	Zimmer	CPT	21	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Biomet	STANMORE MODULAR	21	<1%	Yes
Zimmer	ALLOFIT	Zimmer	THRUST PLATE	21	<1%	No
Biomet	M2A CEMENTED CUP	Biomet	TAPERLOC CEMENTLESS STEM	20	<1%	No
DePuy	ELITE PLUS OGEE	Biomet	STANMORE MODULAR	20	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Joint Replacement Instrumentation Ltd	FURLONG HAC	20	<1%	Yes
Zimmer	TRILOGY	DePuy	C-STEM CEMENTED STEM	20	<1%	Yes
Corin	HI-NEK CEMENTED CUP	Corin	HI-NEK CEMENTED STEM	19	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	DePuy	CORAIL	19	<1%	Yes
Waldemar Link	LINK FLANGE CUP	Stryker Howmedica Osteonics	EXETER V40	19	<1%	Yes
DePuy	ULTIMA CEMENTED CUP	Zimmer	CPT	18	<1%	Yes
Smith & Nephew	EPF-PLUS	Waldemar Link	SP II CEMENTED STEM	18	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Corin	METAFIX STEM	18	<1%	Yes
Zimmer	FITMORE	Zimmer	MS-30	18	<1%	No
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	17	<1%	Yes
Finsbury	DELTA MOTION	Finsbury	ADEPT CEMENTED STEM	17	<1%	No
Mathys Orthopaedics Ltd	SELEXYS TH	Mathys Orthopaedics Ltd	CBC	17	<1%	No
Smith & Nephew	EPF-PLUS	Smith & Nephew	GPCS	17	<1%	No
Smith & Nephew	REFLECTION CEMENTED	Corin	TAPERFIT CEMENTED STEM	17	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	17	<1%	No
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	B Braun / Aesculap	METHA	16	<1%	No
Implants International	CCB	Mathys Orthopaedics Ltd	CCA CEMENTED STEM	16	<1%	Yes
Smith & Nephew	EPF-PLUS	Smith & Nephew	SYNERGY CEMENTLESS STEM	16	<1%	No
Smith & Nephew	REFLECTION CEMENTED	Stryker Howmedica Osteonics	EXETER V40	16	<1%	Yes
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	B Braun / Aesculap	CENTRAMENT	15	<1%	No
Finsbury	SLF CEMENTED CUP (FINSBURY)	Finsbury	FREEMAN CEMENTLESS	15	<1%	No
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	Mathys Orthopaedics Ltd	TWINSYS CEMENTLESS STEM	15	<1%	No
Waldemar Link	LINK FLANGE CUP	Waldemar Link	SP II CEMENTED STEM	15	<1%	No
Zimmer	ALLOFIT	Zimmer	FITMORE STEM	15	<1%	No
Zimmer	CLS CEMENTLESS CUP	Zimmer	CLS CEMENTLESS STEM	15	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	VERSYS CEMENTLESS STEM	15	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	ZWEYMULLER	15	<1%	No
Corin	DC-FIT	Corin	PANATOMIC CEMENTLESS STEM	14	<1%	No
DePuy	DURALOC CEMENTLESS CUP	Zimmer	CPT	14	<1%	Yes
Smith & Nephew	POLAR CEMENTLESS CUP	Smith & Nephew	SYNERGY CEMENTLESS STEM	14	<1%	No
Zimmer	ZCA	Zimmer	VERSYS CEMENTED STEM	14	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	Biomet	TAPERLOC CEMENTLESS STEM	13	<1%	No
Biomet	UNIVERSAL II	Biomet	BIMETRIC CEMENTLESS STEM	13	<1%	No
DePuy	ULTIMA CEMENTED CUP	DePuy	ULTIMA STRAIGHT STEM	13	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	DePuy	CORAIL	13	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Zimmer	CPT	13	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Finsbury	FINSBURY TYPE C	12	<1%	Yes
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	12	<1%	No
Smith & Nephew	OPERA	Smith & Nephew	CPS	12	<1%	No
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	12	<1%	No
Surgicraft	SPLIT CUP	Stryker Howmedica Osteonics	EXETER V40	12	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	ZMR CEMENTED STEM	12	<1%	No
Zimmer	TRILOGY	Biomet	ASIAN CEMENTLESS STEM	12	<1%	Yes
Biomet	ARCOM SHP	Zimmer	CPT	11	<1%	Yes
Corin	CENATOR CEMENTED CUP	DePuy	CORAIL	11	<1%	Yes
DePuy	ULTIMA CEMENTED CUP	DePuy	C-STEM CEMENTED STEM	11	<1%	No
Joint Replacement Instrumentation Ltd	CSF	DePuy	CORAIL CEMENTED	11	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Lima WG Healthcare	LIMA/WG revision cup	Lima WG Healthcare	LIMA SL	11	<1%	No
Orthodynamics	NOVAE STICK	Stryker Howmedica Osteonics	EXETER V40	11	<1%	Yes
Smith & Nephew	OPERA	Smith & Nephew	SL-PLUS CEMENTLESS STEM	11	<1%	No
Stryker Howmedica Osteonics	Restoration GAP2	Stryker Howmedica Osteonics	EXETER V40	11	<1%	No
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Zimmer	CPT	11	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	C-STEM CEMENTED STEM	11	<1%	Yes
Zimmer	TRILOGY	Smith & Nephew	SYNERGY CEMENTLESS STEM	11	<1%	Yes
Biomet	APOLLO	Biomet	BIMETRIC CEMENTED STEM	10	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	Biomet	TAPERLOC CEMENTLESS STEM	10	<1%	Yes
DePuy	PINNACLE	Waldemar Link	DAVIES CEMENTLESS STEM	10	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	DePuy	S-ROM CEMENTLESS STEM	10	<1%	Yes
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	Stryker Howmedica Osteonics	EXETER V40	10	<1%	Yes
Smith & Nephew	REFLECTION CEMENTED	Smith & Nephew	CPCS	10	<1%	No
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	10	<1%	No
Stryker Howmedica Osteonics	TRIDENT	Corin	MINIHIP	10	<1%	Yes
Zimmer	TRILOGY	Zimmer	MULLER STR STEM	10	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	Biomet	BIMETRIC CEMENTLESS STEM	9	<1%	No
FH Newtech Ortho Ltd	ATLAS IIIP	Stryker Howmedica Osteonics	EXETER V40	9	<1%	Yes
Finsbury	DELTA MOTION	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	9	<1%	Yes
Smith & Nephew	POLAR CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	9	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	SL-PLUS CEMENTED STEM	9	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Stryker Howmedica Osteonics	OMNIFIT CEMENTLESS STEM	9	<1%	No
Wright Medical UK Ltd	LINEAGE	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	9	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	9	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	REVITAN CEMENTED STEM	9	<1%	No
Zimmer	TRILOGY	Smith & Nephew	SPECTRON	9	<1%	Yes
Zimmer	TRILOGY	Zimmer	ALLOCLASSIC CEMENTLESS STEM	9	<1%	No
Zimmer	ZCA	Biomet	OLYMPIA	9	<1%	Yes
Zimmer	ZIMMER CEMENTED CUP	DePuy	C-STEM CEMENTED STEM	9	<1%	Yes
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	B Braun / Aesculap	EXCIA-CEMENTED	8	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	Biomet	BIMETRIC CEMENTED STEM	8	<1%	No
DePuy	PINNACLE	Biomet	MULLER-BIOMET	8	<1%	Yes
Finsbury	DELTA MOTION	DePuy	CORAIL	8	<1%	Yes
Finsbury	DELTA MOTION	Finsbury	FTS	8	<1%	No
Medacta UK Ltd	VERSAFIT	Medacta UK Ltd	AMIS	8	<1%	No
Smith & Nephew	OPERA	Smith & Nephew	SPECTRON	8	<1%	No
Smith & Nephew	POLAR CEMENTLESS CUP	Smith & Nephew	CPS-PLUS	8	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	8	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	TRABECULAR CEMENTLESS STEM	8	<1%	No
Zimmer	TRILOGY	Zimmer	ZMR CEMENTED STEM	8	<1%	No
Zimmer	ZCA	DePuy	CORAIL	8	<1%	Yes
Zimmer	ZCA	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	8	<1%	Yes
Zimmer	ZIMMER CEMENTED CUP	Zimmer	CLS CEMENTLESS STEM	8	<1%	No
Amplitude	SATURNE	DePuy	DEPUY PROXIMA	7	<1%	Yes
Biomet	EXCEED	Smith & Nephew	ANTHOLOGY	7	<1%	Yes
DePuy	WROBLEWSKI GOLF BALL	DePuy	CHARNLEY MODULAR	7	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Joint Replacement Instrumentation Ltd	JRI Cemented cup	Zimmer	MULLER STR STEM	7	<1%	Yes
Lima WG Healthcare	LIMA/WG revision cup	DePuy	CORAIL	7	<1%	Yes
Smith & Nephew	REFLECTION CEMENTED	Smith & Nephew	SPECTRON	7	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	CPS-PLUS	7	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	ALLOCLASSIC CEMENTLESS STEM	7	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	DePuy	CORAIL	6	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Smith & Nephew	SL-PLUS CEMENTLESS STEM	6	<1%	Yes
DePuy	ELITE PLUS OGEE	DePuy	CHARNLEY MODULAR	6	<1%	No
DePuy	PINNACLE	DePuy	CHARNLEY MODULAR	6	<1%	No
DePuy	PINNACLE	Joint Replacement Instrumentation Ltd	FURLONG HAC	6	<1%	Yes
DePuy	WROBLEWSKI ANGLE BORE SOCKET	DePuy	CHARNLEY CEMENTED STEM	6	<1%	No
FH Newtech Ortho Ltd	ATLAS IIIP	Zimmer	CPT	6	<1%	Yes
Finsbury	DELTA MOTION	Zimmer	CLS CEMENTLESS STEM	6	<1%	Yes
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	Mathys Orthopaedics Ltd	CCA CEMENTED STEM	6	<1%	No
Mathys Orthopaedics Ltd	SELEXYS	Mathys Orthopaedics Ltd	CBC	6	<1%	No
Medacta UK Ltd	VERSAFIT	ESKA/TriMed	QUADRA CEMENTLESS	6	<1%	Yes
Smith & Nephew	SP3 HA	Smith & Nephew	ANTHOLOGY	6	<1%	No
Stryker Howmedica Osteonics	CONTEMPORARY	Stryker Howmedica Osteonics	OMNIFIT CEMENTLESS STEM	6	<1%	No
Surgicraft	SPLIT CUP	Surgicraft	ESOP	6	<1%	No
Wright Medical UK Ltd	PROCOTYL	Biomet	OLYMPIA	6	<1%	Yes
Zimmer	ALLOFIT	Zimmer	ZWEYMULLER	6	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Smith & Nephew	ANTHOLOGY	6	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Biomet	APOLLO	DePuy	CORAIL	5	<1%	Yes
Biomet	MALLORY-HEAD CEMENTLESS CUP	Biomet	STANMORE MODULAR	5	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	Zimmer	CPT	5	<1%	Yes
Corin	CENATOR CEMENTED CUP	Corin	CENATOR CEMENTED STEM	5	<1%	No
DePuy	DURALOC CEMENTLESS CUP	Peter Brehm GmbH	PETER BREHM REVISION STEM	5	<1%	Yes
DePuy	PINNACLE	DePuy	TRILOCK BPS	5	<1%	No
Finsbury	SLF CEMENTED CUP (FINSBURY)	Finsbury	LIVERPOOL PROXIMAL CEMENTED	5	<1%	No
Implants International	RM CEMENTLESS CUP (IMPLANT INTERNATIONAL)	DePuy	CORAIL	5	<1%	Yes
Implants International	RM CEMENTLESS CUP (IMPLANT INTERNATIONAL)	Mathys Orthopaedics Ltd	TWINSYS CEMENTLESS STEM	5	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	Stryker Howmedica Osteonics	EXETER V40	5	<1%	Yes
Smith & Nephew	SP3 HA	Smith & Nephew	SPECTRON	5	<1%	No
Stryker Howmedica Osteonics	ABG II CEMENTLESS CUP	Stryker Howmedica Osteonics	ACCOLADE	5	<1%	No
Stryker Howmedica Osteonics	CONTEMPORARY	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	5	<1%	No
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	5	<1%	No
Stryker Howmedica Osteonics	TRIDENT	Joint Replacement Instrumentation Ltd	FURLONG HAC	5	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	Stryker Howmedica Osteonics	ACCOLADE	5	<1%	No
Waldemar Link	SP II CEMENTED CUP	Waldemar Link	SP II CEMENTED STEM	5	<1%	No
Waldemar Link	TOP	Waldemar Link	SP II CEMENTED STEM	5	<1%	No
Wright Medical UK Ltd	PROCOTYL	DePuy	CORAIL	5	<1%	Yes
Wright Medical UK Ltd	PROCOTYL	Stryker Howmedica Osteonics	EXETER V40	5	<1%	Yes
Wright Medical UK Ltd	PROCOTYL	Wright Medical UK Ltd	PROFEMUR CEMENTED STEM	5	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Zimmer	ALLOFIT	Stryker Howmedica Osteonics	EXETER V40	5	<1%	Yes
Zimmer	CONTINUUM	DePuy	CORAIL	5	<1%	Yes
Zimmer	LOW PROFILE MULLER	Joint Replacement Instrumentation Ltd	FURLONG HAC	5	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	S-ROM CEMENTLESS STEM	5	<1%	Yes
Zimmer	TRILOGY	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	5	<1%	Yes
Zimmer	TRILOGY	Waldemar Link	SP II CEMENTED STEM	5	<1%	Yes
Biomet	ARCOM SHP	Biomet	BIMETRIC CEMENTED STEM	4	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	DePuy	C-STEM CEMENTED STEM	4	<1%	Yes
Biomet	REGENEREX CEMENTLESS	Biomet	STANMORE MODULAR	4	<1%	No
Biomet	REGENEREX CEMENTLESS	Biomet	TAPERLOC CEMENTLESS STEM	4	<1%	No
Biomet	REGENEREX CEMENTLESS	Zimmer	CPT	4	<1%	Yes
Biomet	STANMORE-ARCOM	Biomet	BIMETRIC CEMENTLESS STEM	4	<1%	No
Corin	CENATOR CEMENTED CUP	DePuy	CHARNLEY CEMENTED STEM	4	<1%	Yes
DePuy	CHARNLEY OGEE	DePuy	C-STEM AMT CEMENTED STEM	4	<1%	No
DePuy	DURALOC CEMENTLESS CUP	Corin	TAPERFIT CEMENTED STEM	4	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	4	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Smith & Nephew	SL-PLUS CEMENTED STEM	4	<1%	Yes
DePuy	ELITE PLUS OGEE	DePuy	S-ROM CEMENTLESS STEM	4	<1%	No
DePuy	ELITE PLUS OGEE	Smith & Nephew	CPS-PLUS	4	<1%	Yes
DePuy	PINNACLE	Corin	MINIHIP	4	<1%	Yes
DePuy	PINNACLE	DePuy	SOLUTION CEMENTLESS STEM	4	<1%	No
DePuy	PINNACLE	Waldemar Link	MP NECK CEMENTED STEM	4	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	WROBLEWSKI ANGLE BORE SOCKET	DePuy	C-STEM CEMENTED STEM	4	<1%	No
FH Newtech Ortho Ltd	ATLAS IIIP	Corin	MINIHIP	4	<1%	Yes
Finsbury	DELTA MOTION	DePuy	SUMMIT CEMENTLESS STEM	4	<1%	Yes
Finsbury	DELTA MOTION	Zimmer	CPT	4	<1%	Yes
Orthodynamics	NOVAE STICK	DePuy	C-STEM CEMENTED STEM	4	<1%	Yes
Smith & Nephew	REFLECTION CEMENTED	Smith & Nephew	SL-PLUS CEMENTLESS STEM	4	<1%	No
Stryker Howmedica Osteonics	TRIDENT	DePuy	LPS	4	<1%	Yes
Zimmer	METASUL-MULLER	Zimmer	MS-30	4	<1%	No
Zimmer	TRILOGY	Biomet	TAPERLOC CEMENTLESS STEM	4	<1%	Yes
Zimmer	TRILOGY	Zimmer	VERSYS HERITAGE	4	<1%	No
Zimmer	TRILOGY	Zimmer	WAGNER CONE	4	<1%	No
Zimmer	ZCA	Zimmer	MS-30	4	<1%	No
Zimmer	ZIMMER CEMENTED CUP	Zimmer	VERSYS CEMENTLESS STEM	4	<1%	No
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	B Braun / Aesculap	BICONTACT CEMENTED STEM	3	<1%	No
Biomet	EXCEED	Biomet	BIMETRIC CEMENTED STEM	3	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	DePuy	C-STEM AMT CEMENTED STEM	3	<1%	Yes
Biomet	RANAWAT/BURSTEIN	Biomet	STANMORE MODULAR	3	<1%	No
Corin	GENATOR CEMENTED CUP	Corin	TAPERFIT CEMENTED STEM	3	<1%	No
Corin	TRINITY	DePuy	CORAIL	3	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	DePuy	KAR	3	<1%	No
DePuy	ELITE PLUS OGEE	Biomet	OLYMPIA	3	<1%	Yes
DePuy	ELITE PLUS OGEE	Corin	TAPERFIT CEMENTED STEM	3	<1%	Yes
DePuy	MARATHON	DePuy	CHARNLEY MODULAR	3	<1%	No
DePuy	MARATHON	Zimmer	CPT	3	<1%	Yes

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Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	PINNACLE	Corin	METAFIX STEM	3	<1%	Yes
DePuy	PINNACLE	DePuy	CORAIL CEMENTED	3	<1%	No
DePuy	PINNACLE	DePuy	ULTIMA STRAIGHT STEM	3	<1%	No
DePuy	PINNACLE	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	3	<1%	Yes
DePuy	PINNACLE	Zimmer	ZMR CEMENTED STEM	3	<1%	Yes
DePuy	ULTIMA CEMENTED CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	3	<1%	Yes
FH Newtech Ortho Ltd	ATLAS IIIP	Zimmer	VERSYS CEMENTLESS STEM	3	<1%	Yes
Finsbury	DELTA MOTION	DePuy	S-ROM CEMENTLESS STEM	3	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	Zimmer	MULLER STR STEM	3	<1%	Yes
Orthodynamics	NOVAE SF	Stryker Howmedica Osteonics	EXETER V40	3	<1%	Yes
Smith & Nephew	REFLECTION CEMENTED	Peter Brehm GmbH	PETER BREHM REVISION STEM	3	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Corin	METAFIX STEM	3	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	DePuy	C-STEM CEMENTED STEM	3	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Smith & Nephew	CPS-PLUS	3	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Zimmer	CLS CEMENTLESS STEM	3	<1%	Yes
Stryker Howmedica Osteonics	GAP RING	Stryker Howmedica Osteonics	EXETER V40	3	<1%	No
Stryker Howmedica Osteonics	ODC	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	3	<1%	No
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Biomet	TAPERLOC CEMENTLESS STEM	3	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	DePuy	C-STEM AMT CEMENTED STEM	3	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	EXETER	3	<1%	No
Stryker Howmedica Osteonics	TRIDENT	Waldemar Link	MP NECK CEMENTED STEM	3	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Stryker Howmedica Osteonics	TRIDENT	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	3	<1%	Yes
Wright Medical UK Ltd	PROCOTYL	Zimmer	CPT	3	<1%	Yes
Wright Medical UK Ltd	PROCOTYL	Zimmer	VERSYS CEMENTED STEM	3	<1%	Yes
Zimmer	ALLOFIT	Zimmer	MULLER STR STEM	3	<1%	No
Zimmer	ALLOFIT	Zimmer	P10 MULLER	3	<1%	No
Zimmer	ALLOFIT	Zimmer	SYNERGY CEMENTLESS STEM	3	<1%	No
Zimmer	CONTINUUM	Zimmer	CLS CEMENTLESS STEM	3	<1%	No
Zimmer	CONTINUUM	Zimmer	CPT	3	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Stryker Howmedica Osteonics	ACCOLADE	3	<1%	Yes
Zimmer	ZIMMER CEMENTED CUP	Zimmer	MULLER STR STEM	3	<1%	No
Amplitude	SATURNE	Biomet	TAPERLOC CEMENTLESS STEM	2	<1%	Yes
B Braun / Aesculap	ALFA CEMENTED CUP	Smith & Nephew	SL-PLUS CEMENTLESS STEM	2	<1%	Yes
B Braun / Aesculap	CHIRULEN	B Braun / Aesculap	EXCIA	2	<1%	No
Biomet	ARCOM SHP	Biomet	BIMETRIC CEMENTLESS STEM	2	<1%	No
Biomet	AVANTAGE	Biomet	TAPERLOC CEMENTLESS STEM	2	<1%	No
Biomet	AVANTAGE	Zimmer	VERSYS CEMENTLESS STEM	2	<1%	Yes
Biomet	EXCEED	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	2	<1%	Yes
Biomet	MALLORY-HEAD CEMENTLESS CUP	Smith & Nephew	CPCS	2	<1%	Yes
Biomet	PAR 5 RINOWL CEMENTLESS CUP	Biomet	TAPERLOC CEMENTLESS STEM	2	<1%	No
Biomet	REGENEREX CEMENTLESS	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes
Biomet	SCAN CEMENTED CUP	DePuy	VISION	2	<1%	Yes
Corin	TRINITY	Zimmer	VERSYS CEMENTLESS STEM	2	<1%	Yes
DePuy	DURALOC CEMENTLESS CUP	DePuy	KAR	2	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	DURALOC CEMENTLESS CUP	DePuy	SUMMIT CEMENTLESS STEM	2	<1%	No
DePuy	DURALOC CEMENTLESS CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	2	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Corin	METAFIX STEM	2	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Zimmer	CPT	2	<1%	Yes
DePuy	ELITE PLUS FLANGED	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes
DePuy	ELITE PLUS OGEE	Biomet	TAPERLOC CEMENTLESS STEM	2	<1%	Yes
DePuy	ELITE PLUS OGEE	DePuy	CORAIL CEMENTED	2	<1%	No
DePuy	ELITE PLUS OGEE	DePuy	ELITE PLUS CEMENTED STEM	2	<1%	No
DePuy	ELITE PLUS OGEE	Joint Replacement Instrumentation Ltd	FURLONG HAC	2	<1%	Yes
DePuy	ELITE PLUS OGEE	Orthodynamics	CANNULOK CEMENTLESS STEM	2	<1%	Yes
DePuy	ELITE PLUS OGEE	Smith & Nephew	SL-PLUS CEMENTED STEM	2	<1%	Yes
DePuy	ELITE PLUS OGEE	Smith & Nephew	SL-PLUS CEMENTLESS STEM	2	<1%	Yes
DePuy	ELITE PLUS OGEE	Smith & Nephew	SYNERGY CEMENTLESS STEM	2	<1%	Yes
DePuy	ELITE PLUS OGEE	Waldemar Link	SP II CEMENTED STEM	2	<1%	Yes
DePuy	MARATHON	Joint Replacement Instrumentation Ltd	LOL CEMENTED	2	<1%	Yes
DePuy	PINNACLE	DePuy	ELITE PLUS CEMENTED STEM	2	<1%	No
DePuy	PINNACLE	DePuy	LPS	2	<1%	No
DePuy	PINNACLE	Smith & Nephew	CPCS	2	<1%	Yes
DePuy	PINNACLE	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	2	<1%	Yes
DePuy	PINNACLE	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	2	<1%	Yes
DePuy	PINNACLE	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	2	<1%	Yes
DePuy	PINNACLE	Zimmer	CLS CEMENTLESS STEM	2	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	PINNACLE	Zimmer	REVITAN CEMENTED STEM	2	<1%	Yes
DePuy	PINNACLE	Zimmer	VERSYS CEMENTLESS STEM	2	<1%	Yes
DePuy	ULTIMA CEMENTED CUP	DePuy	SUMMIT CEMENTED STEM	2	<1%	No
DePuy	WROBLEWSKI GOLF BALL	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes
FH Newtech Ortho Ltd	ATLAS IIIP	FH Newtech Ortho Ltd	FH MODULAR	2	<1%	No
Finsbury	DELTA MOTION	Zimmer	VERSYS CEMENTLESS STEM	2	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	2	<1%	No
Joint Replacement Instrumentation Ltd	CSF PLUS	Biomet	TAPERLOC CEMENTLESS STEM	2	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	Joint Replacement Instrumentation Ltd	FURLONG LOL	2	<1%	No
Joint Replacement Instrumentation Ltd	CSF PLUS	Joint Replacement Instrumentation Ltd	LOL CEMENTED	2	<1%	No
Joint Replacement Instrumentation Ltd	CSF PLUS	Orthodynamics	CANNULOK CEMENTLESS STEM	2	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	Smith & Nephew	ANTHOLOGY	2	<1%	Yes
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	DePuy	CORAIL	2	<1%	Yes
Mathys Orthopaedics Ltd	CCB MATHYS	Smith & Nephew	SLR-PLUS CEMENTED STEM	2	<1%	Yes
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	Smith & Nephew	CPS-PLUS	2	<1%	Yes
Mathys Orthopaedics Ltd	SELEXYS	Mathys Orthopaedics Ltd	TWINSYS CEMENTLESS STEM	2	<1%	No
Mathys Orthopaedics Ltd	SELEXYS PC	Biomet	CMK CEMENTED STEM	2	<1%	Yes
Orthodynamics	NOVAE	DePuy	CORAIL	2	<1%	Yes
Orthodynamics	NOVAE	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes
Orthodynamics	NOVAE SF	Joint Replacement Instrumentation Ltd	FURLONG HAC	2	<1%	Yes
Smith & Nephew	EPF-PLUS	Corin	HI-NEK CEMENTED STEM	2	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Smith & Nephew	EPF-PLUS	Finsbury	ADEPT CEMENTED STEM	2	<1%	Yes
Smith & Nephew	EPF-PLUS	Smith & Nephew	ANTHOLOGY	2	<1%	No
Smith & Nephew	OPERA	Biomet	BIMETRIC CEMENTLESS STEM	2	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	DePuy	C-STEM AMT CEMENTED STEM	2	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Joint Replacement Instrumentation Ltd	FURLONG HAC	2	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	BIRMINGHAM HEAD RESECTION STEM	2	<1%	No
Smith & Nephew	SP3 HA	DePuy	CORAIL	2	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Biomet	TAPERLOC CEMENTED STEM	2	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	DePuy	SUMMIT CEMENTED STEM	2	<1%	Yes
Stryker Howmedica Osteonics	EXETER DURATION	Biomet	ASIAN CEMENTLESS STEM	2	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Orthodynamics	CANNULOK CEMENTLESS STEM	2	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	DePuy	CORAIL	2	<1%	Yes
Surgicraft	SPLIT CUP	Corin	MINIHIP	2	<1%	Yes
Surgicraft	SPLIT CUP	DePuy	CORAIL	2	<1%	Yes
Waldemar Link	PRESSFIT	Biomet	TAPERLOC CEMENTLESS STEM	2	<1%	Yes
Waldemar Link	PRESSFIT	Waldemar Link	CFP	2	<1%	No
Waldemar Link	PROCOTYL	Waldemar Link	SP II CEMENTED STEM	2	<1%	No
Waldemar Link	SNAP FIT	Biomet	MULLER-BIOMET	2	<1%	Yes
Waldemar Link	SNAP FIT	Waldemar Link	MP NECK CEMENTED STEM	2	<1%	No
Zimmer	ALLOFIT	Joint Replacement Instrumentation Ltd	FURLONG HAC	2	<1%	Yes
Zimmer	CONTINUUM	Zimmer	VERSYS CEMENTLESS STEM	2	<1%	No
Zimmer	CONTINUUM	Zimmer	VERSYS HERITAGE	2	<1%	No
Zimmer	FM IT	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Zimmer	LONGEVITY	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes
Zimmer	LOW PROFILE MULLER	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes
Zimmer	LOW PROFILE MULLER	Zimmer	CLS CEMENTLESS STEM	2	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Biomet	TAPERLOC CEMENTLESS STEM	2	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	2	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	MS-30	2	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	VERSYS CEMENTED STEM	2	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	WAGNER CONE	2	<1%	No
Zimmer	TRILOGY	Biomet	OXFORD UNIVERSAL HIP (BIOMET) CEMENTED STEM	2	<1%	Yes
Zimmer	TRILOGY	Corin	METAFIX STEM	2	<1%	Yes
Zimmer	TRILOGY	Corin	MINIHIP	2	<1%	Yes
Zimmer	ZCA	Biomet	STANMORE MODULAR	2	<1%	Yes
Zimmer	ZCA	Biomet	TAPERLOC CEMENTLESS STEM	2	<1%	Yes
Zimmer	ZCA	Zimmer	VERSYS CEMENTLESS STEM	2	<1%	No
Amplitude	HORIZON	Corin	METAFIX STEM	1	<1%	Yes
Amplitude	HORIZON	Corin	MINIHIP	1	<1%	Yes
Amplitude	SATURNE	Biomet	CONELock	1	<1%	Yes
Amplitude	SATURNE	DePuy	CORAIL	1	<1%	Yes
Amplitude	SATURNE	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	Yes
B Braun / Aesculap	CHIRULEN	B Braun / Aesculap	BICONTACT CEMENTED STEM	1	<1%	No
B Braun / Aesculap	CHIRULEN	B Braun / Aesculap	PREVISION CEMENTED STEM	1	<1%	No
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	DePuy	S-ROM CEMENTLESS STEM	1	<1%	Yes
Biomet	APOLLO	Biomet	TAPERLOC CEMENTLESS STEM	1	<1%	No
Biomet	APOLLO	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Biomet	APOLLO	Waldemar Link	SP II CEMENTED STEM	1	<1%	Yes
Biomet	APOLLO	Zimmer	MULLER STR STEM	1	<1%	Yes
Biomet	ARCOM SHP	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Biomet	ARCOM SHP	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	1	<1%	Yes
Biomet	AVANTAGE	Biomet	TAPERLOC CEMENTED STEM	1	<1%	No
Biomet	AVANTAGE	Stryker Howmedica Osteonics	ACCOLADE	1	<1%	Yes
Biomet	AVANTAGE	Zimmer	CPT	1	<1%	Yes
Biomet	BIHAPRO	Biomet	BIMETRIC CEMENTLESS STEM	1	<1%	No
Biomet	BIHAPRO	Biomet	STANMORE MODULAR	1	<1%	No
Biomet	BIHAPRO	Biomet	TAPERLOC CEMENTLESS STEM	1	<1%	No
Biomet	BIOMET BI-POLAR CEMENTED CUP	Stanmore Implants Worldwide	CUSTOM DEVICE	1	<1%	Yes
Biomet	BIOMET BI-POLAR CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Biomet	BIOMET MULLER	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Biomet	BIOMET MULLER	Zimmer	VERSYS CEMENTED STEM	1	<1%	Yes
Biomet	CMK CEMENTED CUP	Mathys Orthopaedics Ltd	TWINSYS CEMENTLESS STEM	1	<1%	Yes
Biomet	EXCEED	Biomet	SHP	1	<1%	No
Biomet	EXCEED	DePuy	CORAIL	1	<1%	Yes
Biomet	EXCEED	Stryker Howmedica Osteonics	EXETER	1	<1%	Yes
Biomet	EXCEED	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Biomet	EXCEED	Zimmer	VERSYS CEMENTLESS STEM	1	<1%	Yes
Biomet	FREEDOM	Zimmer	CPT	1	<1%	Yes
Biomet	Hi-Wall	Biomet	TAPERLOC CEMENTLESS STEM	1	<1%	No
Biomet	M2A CEMENTED CUP	Biomet	STANMORE MODULAR	1	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	Biomet	OXFORD UNIVERSAL HIP (BIOMET) CEMENTED STEM	1	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	Biomet	TAPERLOC CEMENTED STEM	1	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	DePuy	CHARNLEY CEMENTED STEM	1	<1%	Yes
Biomet	MALLORY-HEAD CEMENTLESS CUP	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	Yes
Biomet	MALLORY-HEAD CEMENTLESS CUP	Zimmer	CLS CEMENTLESS STEM	1	<1%	Yes
Biomet	REGENEREX CEMENTLESS	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	1	<1%	Yes
Biomet	RINGLOC	Zimmer	CPT	1	<1%	Yes
Biomet	STANMORE-ARCOM	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	1	<1%	Yes
Biomet	STANMORE-ARCOM	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Corin	CENATOR CEMENTED CUP	Corin	MINIHIP	1	<1%	No
Corin	CENATOR CEMENTED CUP	Smith & Nephew	CPS	1	<1%	Yes
Corin	CENATOR CEMENTED CUP	Zimmer	GMRS	1	<1%	Yes
Corin	CERAFIT CEMENTLESS CUP	Corin	MINIHIP	1	<1%	No
Corin	CERAFIT CEMENTLESS CUP	DePuy	CORAIL	1	<1%	Yes
Corin	SLF CEMENTLESS CUP (CORIN)	Corin	C FIT	1	<1%	No
Corin	SLF CEMENTLESS CUP (CORIN)	DePuy	VISION	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Corin	TRINITY	Corin	METAFIX STEM	1	<1%	No
DePuy	ASR 300	DePuy	S-ROM CEMENTLESS STEM	1	<1%	No
DePuy	ASR 300	DePuy	SUMMIT CEMENTED STEM	1	<1%	No
DePuy	CHARNLEY CEMENTED CUP	DePuy	CHARNLEY MODULAR	1	<1%	No
DePuy	CHARNLEY EVOLUTION CEMENTED CUP	DePuy	CHARNLEY CEMENTED STEM	1	<1%	No
DePuy	CHARNLEY OGEE	DePuy	CHARNLEY MODULAR	1	<1%	No
DePuy	CHARNLEY OGEE	DePuy	CORAIL	1	<1%	No
DePuy	CHARNLEY OGEE	Zimmer	CPT	1	<1%	Yes
DePuy	DURALOC OPTION	DePuy	AML	1	<1%	No
DePuy	DURALOC OPTION	DePuy	S-ROM CEMENTLESS STEM	1	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	B Braun / Aesculap	HUCKSTEP CEMENTED STEM	1	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Biomet	BIMETRIC CEMENTLESS STEM	1	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	DePuy	CHARNLEY CEMENTED STEM	1	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	DePuy	ELITE PLUS CEMENTED STEM	1	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	DePuy	REEF	1	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	Medacta UK Ltd	QUADRA CEMENTLESS	1	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Smith & Nephew	SYNERGY CEMENTLESS STEM	1	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Stryker Howmedica Osteonics	ACCOLADE	1	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Stryker Howmedica Osteonics	RESTORATION CEMENTLESS STEM	1	<1%	Yes
DePuy	ELITE PLUS FLANGED	DePuy	CORAIL	1	<1%	No
DePuy	ELITE PLUS OGEE	Amplitude	INITIALE CEMENTED STEM	1	<1%	Yes
DePuy	ELITE PLUS OGEE	Biomet	BIMETRIC CEMENTLESS STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	ELITE PLUS OGEE	Biomet	TAPERLOC CEMENTED STEM	1	<1%	Yes
DePuy	ELITE PLUS OGEE	DePuy	AML	1	<1%	No
DePuy	ELITE PLUS OGEE	DePuy	REEF	1	<1%	No
DePuy	ELITE PLUS OGEE	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	1	<1%	Yes
DePuy	ELITE PLUS OGEE	Joint Replacement Instrumentation Ltd	LOL CEMENTED	1	<1%	Yes
DePuy	ELITE PLUS OGEE	Smith & Nephew	ECHELON CEMENTLESS STEM	1	<1%	Yes
DePuy	ELITE PLUS OGEE	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	1	<1%	Yes
DePuy	ELITE PLUS OGEE	Zimmer	MS-30	1	<1%	Yes
DePuy	MARATHON	Biomet	STANMORE MODULAR	1	<1%	Yes
DePuy	MARATHON	DePuy	S-ROM CEMENTLESS STEM	1	<1%	No
DePuy	MARATHON	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
DePuy	MARATHON	Smith & Nephew	CPCS	1	<1%	Yes
DePuy	MARATHON	Waldemar Link	SP II CEMENTED STEM	1	<1%	Yes
DePuy	PINNACLE	Biomet	TAPERLOC CEMENTED STEM	1	<1%	Yes
DePuy	PINNACLE	DePuy	REEF	1	<1%	No
DePuy	PINNACLE	DePuy	SUMMIT CEMENTED STEM	1	<1%	No
DePuy	PINNACLE	Orthodynamics	CANNULOK CEMENTLESS STEM	1	<1%	Yes
DePuy	PINNACLE	Smith & Nephew	ECHELON CEMENTLESS STEM	1	<1%	Yes
DePuy	PINNACLE	Smith & Nephew	SYNERGY CEMENTLESS STEM	1	<1%	Yes
DePuy	PINNACLE	Waldemar Link	SP II CEMENTED STEM	1	<1%	Yes
DePuy	PINNACLE	Zimmer	MULLER STR STEM	1	<1%	Yes
DePuy	PINNACLE	Zimmer	WAGNER CONE	1	<1%	Yes
DePuy	ULTIMA CEMENTED CUP	Biomet	STANMORE MODULAR	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	ULTIMA CEMENTED CUP	Corin	METAFIX STEM	1	<1%	Yes
DePuy	ULTIMA CEMENTED CUP	Orthodynamics	CANNULOK CEMENTLESS STEM	1	<1%	Yes
Exactech (UK) Ltd	NOVATION	Exactech (UK) Ltd	NOVATION STEM	1	<1%	No
FH Newtech Ortho Ltd	ATLAS IIIP	DePuy	CORAIL	1	<1%	Yes
FH Newtech Ortho Ltd	ATLAS IIIP	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes
Finsbury	DELTA MOTION	Finsbury	FREEMAN CEMENTLESS	1	<1%	No
Finsbury	DELTA MOTION	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Finsbury	DELTA MOTION	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	Yes
Finsbury	DELTA MOTION	Wright Medical UK Ltd	ANCAFIT CEMENTLESS STEM	1	<1%	Yes
Finsbury	DELTA MOTION	Zimmer	WAGNER CONE	1	<1%	Yes
Finsbury	FREEMAN CUP FINSBURY	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Finsbury	SLF CEMENTED CUP (FINSBURY)	Finsbury	FREEMAN CEMENTED FINSBURY	1	<1%	No
Finsbury	SLF CEMENTED CUP (FINSBURY)	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	Biomet	TAPERLOC CEMENTED STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	DePuy	C-STEM CEMENTED STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	Waldemar Link	SP II CEMENTED STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	1	<1%	No
Joint Replacement Instrumentation Ltd	CSF PLUS	Stryker Howmedica Osteonics	ACCOLADE	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	Zimmer	CPT	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	Zimmer	ZMR CEMENTED STEM	1	<1%	Yes

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Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	DePuy	C-STEM CEMENTED STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	JRI Cemented cup	DePuy	CORAIL	1	<1%	Yes
Joint Replacement Instrumentation Ltd	JRI Cemented cup	Zimmer	MS-30	1	<1%	Yes
Lima WG Healthcare	LIMA/WG revision cup	DePuy	ELITE PLUS CEMENTED STEM	1	<1%	Yes
Lima WG Healthcare	LIMA/WG revision cup	Lima WG Healthcare	LIMA/WG REVISION STEM	1	<1%	No
Lima WG Healthcare	LIMA/WG revision cup	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Mathys Orthopaedics Ltd	CCB MATHYS	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Mathys Orthopaedics Ltd	CCB MATHYS	Mathys Orthopaedics Ltd	CBC	1	<1%	No
Mathys Orthopaedics Ltd	CCB MATHYS	Mathys Orthopaedics Ltd	MATHYS REVISION STEM	1	<1%	No
Mathys Orthopaedics Ltd	CCB MATHYS	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	Yes
Mathys Orthopaedics Ltd	CCB MATHYS	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	DePuy	C-STEM CEMENTED STEM	1	<1%	Yes
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	Smith & Nephew	SLR-PLUS CEMENTED STEM	1	<1%	Yes
Medacta UK Ltd	CONE CUP	Medacta UK Ltd	CONE	1	<1%	No
Medacta UK Ltd	VERSAFIT	Medacta UK Ltd	CONE	1	<1%	No
Medacta UK Ltd	VERSAFIT	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Orthodynamics	NOVAE STICK	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Orthodynamics	NOVAE STICK	Medacta UK Ltd	QUADRA CEMENTED	1	<1%	Yes
Smith & Nephew	BICON-PLUS	Mathys Orthopaedics Ltd	CCA CEMENTED STEM	1	<1%	Yes
Smith & Nephew	BICON-PLUS	Smith & Nephew	SLR-PLUS CEMENTED STEM	1	<1%	No
Smith & Nephew	BICON-PLUS	Zimmer	MS-30	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Smith & Nephew	BOFOR	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	No
Smith & Nephew	EPF-PLUS	Biomet	STANMORE MODULAR	1	<1%	Yes
Smith & Nephew	EPF-PLUS	DePuy	S-ROM CEMENTLESS STEM	1	<1%	Yes
Smith & Nephew	EPF-PLUS	Lima WG Healthcare	LIMA/WG REVISION STEM	1	<1%	Yes
Smith & Nephew	EPF-PLUS	Smith & Nephew	SLR-PLUS CEMENTED STEM	1	<1%	No
Smith & Nephew	OPERA	Corin	TAPERFIT CEMENTED STEM	1	<1%	Yes
Smith & Nephew	OPERA	Smith & Nephew	ECHELON CEMENTED STEM	1	<1%	No
Smith & Nephew	OPERA	Smith & Nephew	SL-PLUS CEMENTED STEM	1	<1%	No
Smith & Nephew	OPERA	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	1	<1%	Yes
Smith & Nephew	OPERA	Zimmer	VERSYS CEMENTLESS STEM	1	<1%	Yes
Smith & Nephew	PE-PLUS	Smith & Nephew	CPCS	1	<1%	No
Smith & Nephew	PE-PLUS	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	No
Smith & Nephew	POLAR CEMENTLESS CUP	Biomet	REACH	1	<1%	Yes
Smith & Nephew	POLAR CEMENTLESS CUP	DePuy	DEPUY PROXIMA	1	<1%	Yes
Smith & Nephew	R3	Smith & Nephew	ANTHOLOGY	1	<1%	No
Smith & Nephew	REFLECTION CEMENTED	DePuy	CORAIL	1	<1%	Yes
Smith & Nephew	REFLECTION CEMENTED	DePuy	C-STEM CEMENTED STEM	1	<1%	Yes
Smith & Nephew	REFLECTION CEMENTED	Smith & Nephew	SYNERGY CEMENTLESS STEM	1	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Exactech (UK) Ltd	ACUMATCH M-SERIES	1	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	ECHELON CEMENTLESS STEM	1	<1%	No
Smith & Nephew	SP3 HA	Biomet	BIMETRIC CEMENTLESS STEM	1	<1%	Yes

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Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Smith & Nephew	SP3 HA	Smith & Nephew	ECHELON CEMENTLESS STEM	1	<1%	No
Stryker Howmedica Osteonics	ABG II CEMENTLESS CUP	Biomet	TAPERLOC CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	ABG II CEMENTLESS CUP	DePuy	CORAIL	1	<1%	Yes
Stryker Howmedica Osteonics	ABG II CEMENTLESS CUP	Zimmer	CPT	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Amplitude	INTEGRALE	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Biomet	STANMORE MODULAR	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Biomet	TAPERLOC CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	DePuy	S-ROM CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Orthodynamics	CANNULOK CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Smith & Nephew	SL-PLUS CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Symbios SA	ARCAD CEMENTED	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Wright Medical UK Ltd	PROFEMUR CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	EXETER DURATION	Implants International	EDINBURGH	1	<1%	Yes
Stryker Howmedica Osteonics	EXETER DURATION	Orthodynamics	CANNULOK CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	EXETER DURATION	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	1	<1%	No
Stryker Howmedica Osteonics	EXETER DURATION	Stryker Howmedica Osteonics	OMNIFIT CEMENTLESS STEM	1	<1%	No
Stryker Howmedica Osteonics	EXETER DURATION	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	No
Stryker Howmedica Osteonics	GAP RING	DePuy	DEPUY PROXIMA	1	<1%	Yes
Stryker Howmedica Osteonics	GAP RING	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Stryker Howmedica Osteonics	GAP RING	Zimmer	VERSYS CEMENTED STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Stryker Howmedica Osteonics	Restoration GAP2	DePuy	CORAIL	1	<1%	Yes
Stryker Howmedica Osteonics	Restoration GAP2	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	No
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Corin	TAPERFIT CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Stryker Howmedica Osteonics	ACCOLADE	1	<1%	No
Stryker Howmedica Osteonics	TRIDENT	DePuy	S-ROM CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Joint Replacement Instrumentation Ltd	SECURUS	1	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Wright Medical UK Ltd	PROFEMUR CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Zimmer	MAYO CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Zimmer	VERSYS CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	Smith & Nephew	SYNERGY CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	No
Stryker Howmedica Osteonics	TRITANIUM	Stryker Howmedica Osteonics	RESTORATION CEMENTLESS STEM	1	<1%	No
Surgicraft	CUSTOM	Zimmer	VERSYS CEMENTLESS STEM	1	<1%	Yes
Surgicraft	CUSTOM HC	Corin	TAPERFIT CEMENTED STEM	1	<1%	Yes
Surgicraft	CUSTOM HC	Zimmer	CPT	1	<1%	Yes
Surgicraft	SPLIT CUP	Corin	METAFIX STEM	1	<1%	Yes
Surgicraft	SPLIT CUP	Zimmer	CPT	1	<1%	Yes
Waldemar Link	LINK FLANGE CUP	Biomet	TAPERLOC CEMENTED STEM	1	<1%	Yes
Waldemar Link	LINK FLANGE CUP	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	1	<1%	Yes
Waldemar Link	PROCOTYL	Waldemar Link	WAGNER REVISION STEM	1	<1%	No
Waldemar Link	SNAP FIT	Waldemar Link	WAGNER REVISION STEM	1	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Waldemar Link	SP II CEMENTED CUP	Waldemar Link	WAGNER REVISION STEM	1	<1%	No
Waldemar Link	TOP	Waldemar Link	CFP	1	<1%	No
Waldemar Link	TOP	Waldemar Link	MP NECK CEMENTED STEM	1	<1%	No
Wright Medical UK Ltd	PROCOTYL	Corin	TAPERFIT CEMENTED STEM	1	<1%	Yes
Zimmer	ALLOFIT	Corin	HI-NEK CEMENTED STEM	1	<1%	Yes
Zimmer	ALLOFIT	DePuy	CORAIL	1	<1%	Yes
Zimmer	ALLOFIT	Finsbury	FTS	1	<1%	Yes
Zimmer	ALLOFIT	Zimmer	MMC	1	<1%	No
Zimmer	ALLOFIT	Zimmer	WAGNER CONE	1	<1%	No
Zimmer	CLS CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Zimmer	CONTINUUM	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Zimmer	CONTINUUM	Zimmer	M/L TAPER CEMENTLESS	1	<1%	No
Zimmer	CONTINUUM	Zimmer	VERSYS CEMENTED STEM	1	<1%	No
Zimmer	FM IT	Zimmer	CPT	1	<1%	No
Zimmer	LOW PROFILE MULLER	DePuy	CORAIL	1	<1%	Yes
Zimmer	LOW PROFILE MULLER	DePuy	SOLUTION CEMENTLESS STEM	1	<1%	Yes
Zimmer	LOW PROFILE MULLER	Finsbury	FREEMAN CEMENTED FINSBURY	1	<1%	Yes
Zimmer	LOW PROFILE MULLER	Finsbury	FREEMAN CEMENTLESS	1	<1%	Yes
Zimmer	LOW PROFILE MULLER	Joint Replacement Instrumentation Ltd	LOL CEMENTED	1	<1%	Yes
Zimmer	LOW PROFILE MULLER	Waldemar Link	SP II CEMENTED STEM	1	<1%	Yes
Zimmer	MMC CUP	Zimmer	CLS CEMENTLESS STEM	1	<1%	No
Zimmer	MMC CUP	Zimmer	VERSYS CEMENTLESS STEM	1	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Biomet	BIMETRIC CEMENTED STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Corin	TAPERFIT CEMENTED STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	KAR	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Finsbury	FREEMAN CEMENTLESS	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Finsbury	FTS	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Joint Replacement Instrumentation Ltd	LOL CEMENTED	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Peter Brehm GmbH	PETER BREHM REVISION STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Smith & Nephew	SYNERGY CEMENTLESS STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Symbios SA	SPS	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Waldemar Link	SP II CEMENTED STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	GMRS	1	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	KINECTIV CEMENTED	1	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	M/L TAPER CEMENTLESS	1	<1%	No
Zimmer	TRILOGY	Corin	HI-NEK CEMENTLESS STEM	1	<1%	Yes
Zimmer	TRILOGY	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	Yes
Zimmer	TRILOGY	DePuy	KAR	1	<1%	Yes
Zimmer	TRILOGY	DePuy	S-ROM CEMENTLESS STEM	1	<1%	Yes
Zimmer	TRILOGY	Finsbury	FINSBURY TYPE C	1	<1%	Yes
Zimmer	TRILOGY	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	1	<1%	Yes
Zimmer	TRILOGY	Stryker Howmedica Osteonics	EXETER	1	<1%	Yes
Zimmer	TRILOGY	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Zimmer	TRILOGY	Wright Medical UK Ltd	PROFEMUR CEMENTED STEM	1	<1%	Yes
Zimmer	TRILOGY	Zimmer	REVITAN CEMENTED STEM	1	<1%	No
Zimmer	ZCA	Medacta UK Ltd	QUADRA CEMENTLESS	1	<1%	Yes
Zimmer	ZCA	Zimmer	CLS CEMENTLESS STEM	1	<1%	No
Zimmer	ZCA	Zimmer	MULLER STR STEM	1	<1%	No
Zimmer	ZIMMER CEMENTED CUP	Zimmer	ZMR CEMENTED STEM	1	<1%	No
Zimmer	Zimmer MULLER	Zimmer	MS-30	1	<1%	No

Table 9(b) Cup-stem combinations entered into the NJR in 2009 for hip revision procedures where both were implanted during the revision.

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
				3,494		
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	EXETER V40	285	8%	No
Stryker Howmedica Osteonics	CONTEMPORARY	Stryker Howmedica Osteonics	EXETER V40	220	6%	No
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	186	5%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	138	4%	Yes
DePuy	PINNACLE	DePuy	CORAIL	136	4%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	94	3%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	ZMR CEMENTED STEM	88	3%	No
DePuy	PINNACLE	DePuy	KAR	81	2%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	CPT	80	2%	No
Stryker Howmedica Osteonics	TRITANIUM	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	79	2%	No
Joint Replacement Instrumentation Ltd	CSF PLUS	Joint Replacement Instrumentation Ltd	FURLONG HAC	73	2%	No
Stryker Howmedica Osteonics	TRITANIUM	Stryker Howmedica Osteonics	EXETER V40	61	2%	No
Zimmer	TRILOGY	Stryker Howmedica Osteonics	EXETER V40	58	2%	Yes
DePuy	ELITE PLUS OGEE	Stryker Howmedica Osteonics	EXETER V40	54	2%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	49	1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	REVITAN CEMENTED STEM	41	1%	No
DePuy	MARATHON	DePuy	C-STEM CEMENTED STEM	40	1%	No
DePuy	PINNACLE	DePuy	C-STEM CEMENTED STEM	39	1%	No
DePuy	PINNACLE	DePuy	S-ROM CEMENTLESS STEM	39	1%	No
DePuy	PINNACLE	Stryker Howmedica Osteonics	EXETER V40	39	1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	PINNACLE	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	31	1%	Yes
DePuy	PINNACLE	DePuy	SOLUTION CEMENTLESS STEM	30	1%	No
Zimmer	TRILOGY	Zimmer	CPT	30	1%	No
Zimmer	TRILOGY	Zimmer	ZMR CEMENTED STEM	29	1%	No
Zimmer	ZCA	Zimmer	CPT	29	1%	No
Smith & Nephew	OPERA	DePuy	C-STEM CEMENTED STEM	28	1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	ACCOLADE	28	1%	No
DePuy	PINNACLE	DePuy	C-STEM AMT CEMENTED STEM	27	1%	No
Amplitude	SATURNE	Peter Brehm GmbH	PETER BREHM REVISION STEM	26	1%	Yes
Zimmer	TRILOGY	Biomet	OXFORD UNIVERSAL HIP (BIOMET) CEMENTED STEM	26	1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	25	1%	No
DePuy	PINNACLE	DePuy	REEF	22	1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	SYNERGY CEMENTLESS STEM	22	1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	KAR	22	1%	Yes
Zimmer	TRILOGY	Corin	OXFORD UNIVERSAL HIP (CORIN) CEMENTED STEM	22	1%	Yes
DePuy	ELITE PLUS OGEE	DePuy	C-STEM CEMENTED STEM	21	1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Stryker Howmedica Osteonics	EXETER V40	21	1%	Yes
Stryker Howmedica Osteonics	EXETER DURATION	Stryker Howmedica Osteonics	EXETER V40	20	1%	No
DePuy	MARATHON	Stryker Howmedica Osteonics	EXETER V40	19	1%	Yes
DePuy	MARATHON	DePuy	KAR	18	1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Waldemar Link	MP NECK CEMENTED STEM	17	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Corin	CENATOR CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	15	<1%	Yes
Smith & Nephew	OPERA	Stryker Howmedica Osteonics	EXETER V40	15	<1%	Yes
Biomet	REGENEREX CEMENTLESS	Peter Brehm GmbH	PETER BREHM REVISION STEM	14	<1%	Yes
Biomet	REGENEREX CEMENTLESS	Zimmer	CPT	13	<1%	Yes
DePuy	PINNACLE	Waldemar Link	MP NECK CEMENTED STEM	13	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	REEF	13	<1%	Yes
DePuy	WROBLEWSKI GOLF BALL	DePuy	C-STEM CEMENTED STEM	12	<1%	No
Finsbury	DELTA MOTION	Finsbury	FINSBURY TYPE C	12	<1%	No
Orthodynamics	NOVAE STICK	Stryker Howmedica Osteonics	EXETER V40	12	<1%	Yes
Zimmer	TRILOGY	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	12	<1%	Yes
Biomet	EXCEED	Stryker Howmedica Osteonics	EXETER V40	11	<1%	Yes
DePuy	MARATHON	DePuy	C-STEM AMT CEMENTED STEM	11	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	ECHELON CEMENTLESS STEM	11	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	11	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	CORAIL	11	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	S-ROM CEMENTLESS STEM	11	<1%	Yes
DePuy	CHARNLEY CEMENTED CUP	DePuy	CHARNLEY CEMENTED STEM	10	<1%	No
DePuy	DURALOC CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	10	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Waldemar Link	MP NECK CEMENTED STEM	10	<1%	Yes
Zimmer	TRILOGY	Smith & Nephew	ECHELON CEMENTLESS STEM	10	<1%	Yes
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	B Braun / Aesculap	PREVISION CEMENTED STEM	9	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Biomet	EXCEED	Biomet	TAPERLOC CEMENTLESS STEM	9	<1%	No
DePuy	PINNACLE	Biomet	MULLER-BIOMET	9	<1%	Yes
DePuy	PINNACLE	DePuy	LPS	9	<1%	No
DePuy	ULTIMA CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	9	<1%	Yes
Orthodynamics	NOVAE STICK	DePuy	C-STEM CEMENTED STEM	9	<1%	Yes
Biomet	MALLORY-HEAD CEMENTLESS CUP	Biomet	REACH	8	<1%	No
Biomet	REGENEREX CEMENTLESS	Stryker Howmedica Osteonics	EXETER V40	8	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	Stryker Howmedica Osteonics	EXETER V40	8	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Orthodynamics	CANNULOK CEMENTLESS STEM	8	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	Stryker Howmedica Osteonics	ACCOLADE	8	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Biomet	OXFORD UNIVERSAL HIP (BIOMET) CEMENTED STEM	8	<1%	Yes
DePuy	MARATHON	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	7	<1%	Yes
DePuy	PINNACLE	Waldemar Link	SP II CEMENTED STEM	7	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Waldemar Link	MP NECK CEMENTED STEM	7	<1%	Yes
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	DePuy	SOLUTION CEMENTLESS STEM	6	<1%	Yes
Biomet	REGENEREX CEMENTLESS	Biomet	REACH	6	<1%	No
Biomet	REGENEREX CEMENTLESS	Biomet	STANMORE MODULAR	6	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	DePuy	SOLUTION CEMENTLESS STEM	6	<1%	No
DePuy	ELITE PLUS OGEE	Zimmer	ZMR CEMENTED STEM	6	<1%	Yes
DePuy	PINNACLE	Orthodynamics	CANNULOK CEMENTLESS STEM	6	<1%	Yes
DePuy	PINNACLE	Zimmer	CPT	6	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	Joint Replacement Instrumentation Ltd	SECURUS	6	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	6	<1%	No
Lima WG Healthcare	LIMA/WG revision cup	Lima WG Healthcare	LIMA/WG REVISION STEM	6	<1%	No
Smith & Nephew	EPF-PLUS	Smith & Nephew	SL-PLUS CEMENTLESS STEM	6	<1%	No
Stryker Howmedica Osteonics	Restoration GAP2	Stryker Howmedica Osteonics	EXETER V40	6	<1%	No
Waldemar Link	SNAP FIT	Waldemar Link	SP II CEMENTED STEM	6	<1%	No
Wright Medical UK Ltd	PROCOTYL	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	6	<1%	No
Zimmer	TRILOGY	DePuy	S-ROM CEMENTLESS STEM	6	<1%	Yes
Zimmer	TRILOGY	Zimmer	REVITAN CEMENTED STEM	6	<1%	No
Amplitude	SATURNE	Biomet	CONELOCK	5	<1%	Yes
Biomet	EXCEED	Biomet	REACH	5	<1%	No
Biomet	REGENEREX CEMENTLESS	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	5	<1%	Yes
DePuy	ELITE PLUS OGEE	B Braun / Aesculap	PREVISION CEMENTED STEM	5	<1%	Yes
DePuy	MARATHON	DePuy	CORAIL	5	<1%	No
DePuy	PINNACLE	DePuy	ELITE PLUS CEMENTED STEM	5	<1%	No
Joint Replacement Instrumentation Ltd	CSF	Joint Replacement Instrumentation Ltd	FURLONG HAC	5	<1%	No
Smith & Nephew	OPERA	DePuy	CHARNLEY CEMENTED STEM	5	<1%	Yes
Smith & Nephew	OPERA	DePuy	KAR	5	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Orthodynamics	CANNULOK CEMENTLESS STEM	5	<1%	Yes
Zimmer	LOW PROFILE MULLER	Biomet	MULLER-BIOMET	5	<1%	Yes
B Braun / Aesculap	CHIRULEN	B Braun / Aesculap	EXCIA-CEMENTED	4	<1%	No
Biomet	EXCEED	Zimmer	CPT	4	<1%	Yes
Biomet	MALLORY-HEAD CEMENTLESS CUP	Biomet	STANMORE MODULAR	4	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	4	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	4	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	ELITE PLUS OGEE	DePuy	C-STEM AMT CEMENTED STEM	4	<1%	No
DePuy	ELITE PLUS OGEE	DePuy	KAR	4	<1%	No
DePuy	ELITE PLUS OGEE	DePuy	LPS	4	<1%	No
DePuy	ELITE PLUS OGEE	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	4	<1%	Yes
DePuy	MARATHON	DePuy	WROBLEWSKI RESECTION	4	<1%	No
DePuy	PINNACLE	Zimmer	REVITAN CEMENTED STEM	4	<1%	Yes
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	4	<1%	No
Joint Replacement Instrumentation Ltd	FURLONG THREADED CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	4	<1%	No
Orthodynamics	NOVAE	DePuy	KAR	4	<1%	Yes
Smith & Nephew	EPF-PLUS	Smith & Nephew	SLR-PLUS CEMENTED STEM	4	<1%	No
Smith & Nephew	POLAR CEMENTLESS CUP	Smith & Nephew	CPS-PLUS	4	<1%	No
Smith & Nephew	REFLECTION CEMENTED	Corin	TAPERFIT CEMENTED STEM	4	<1%	Yes
Smith & Nephew	REFLECTION CEMENTED	Stryker Howmedica Osteonics	EXETER V40	4	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	ANTHOLOGY	4	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	CPCS	4	<1%	No
Stryker Howmedica Osteonics	CONTEMPORARY	Waldemar Link	MP NECK CEMENTED STEM	4	<1%	Yes
Stryker Howmedica Osteonics	Restoration GAP2	Peter Brehm GmbH	PETER BREHM REVISION STEM	4	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	DePuy	LPS	4	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Joint Replacement Instrumentation Ltd	FURLONG HAC	4	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Waldemar Link	SP II CEMENTED STEM	4	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	VERSYS CEMENTLESS STEM	4	<1%	No
B Braun / Aesculap	CHIRULEN	B Braun / Aesculap	PREVISION CEMENTED STEM	3	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Biomet	APOLLO	DePuy	SOLUTION CEMENTLESS STEM	3	<1%	Yes
Biomet	EXCEED	Waldemar Link	MP NECK CEMENTED STEM	3	<1%	Yes
Biomet	REGENEREX CEMENTLESS	Waldemar Link	MP NECK CEMENTED STEM	3	<1%	Yes
Biomet	STANMORE-ARCOM	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	3	<1%	Yes
Corin	CENATOR CEMENTED CUP	Corin	TAPERFIT CEMENTED STEM	3	<1%	No
DePuy	CHARNLEY CEMENTED CUP	Stryker Howmedica Osteonics	EXETER V40	3	<1%	Yes
DePuy	DURALOC CEMENTLESS CUP	DePuy	CORAIL	3	<1%	No
DePuy	DURALOC CEMENTLESS CUP	Peter Brehm GmbH	PETER BREHM REVISION STEM	3	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	DePuy	G-STEM CEMENTED STEM	3	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	DePuy	ELITE PLUS CEMENTED STEM	3	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	DePuy	KAR	3	<1%	No
DePuy	ELITE PLUS OGEE	DePuy	REEF	3	<1%	No
DePuy	ELITE PLUS OGEE	DePuy	S-ROM CEMENTLESS STEM	3	<1%	No
DePuy	ELITE PLUS OGEE	Zimmer	CPT	3	<1%	Yes
DePuy	MARATHON	DePuy	REEF	3	<1%	No
DePuy	PINNACLE	DePuy	SUMMIT CEMENTLESS STEM	3	<1%	No
DePuy	WROBLEWSKI ANGLE BORE SOCKET	DePuy	CHARNLEY CEMENTED STEM	3	<1%	No
Joint Replacement Instrumentation Ltd	CSF	Peter Brehm GmbH	PETER BREHM REVISION STEM	3	<1%	Yes
Smith & Nephew	EPF-PLUS	Smith & Nephew	CPS-PLUS	3	<1%	No
Smith & Nephew	POLAR CEMENTLESS CUP	Zimmer	CPT	3	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	DePuy	REEF	3	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	DePuy	S-ROM CEMENTLESS STEM	3	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Stryker Howmedica Osteonics	CONTEMPORARY	Peter Brehm GmbH	PETER BREHM REVISION STEM	3	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Zimmer	ZMR CEMENTED STEM	3	<1%	Yes
Stryker Howmedica Osteonics	GAP RING	DePuy	C-STEM AMT CEMENTED STEM	3	<1%	Yes
Stryker Howmedica Osteonics	GAP RING	Peter Brehm GmbH	PETER BREHM REVISION STEM	3	<1%	Yes
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	3	<1%	No
Stryker Howmedica Osteonics	TRIDENT	Biomet	STANMORE MODULAR	3	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Zimmer	ZMR CEMENTED STEM	3	<1%	Yes
Zimmer	ALLOFIT	Zimmer	CLS CEMENTLESS STEM	3	<1%	No
Zimmer	ALLOFIT	Zimmer	MS-30	3	<1%	No
Zimmer	LOW PROFILE MULLER	Peter Brehm GmbH	PETER BREHM REVISION STEM	3	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	C-STEM CEMENTED STEM	3	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	SOLUTION CEMENTLESS STEM	3	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Peter Brehm GmbH	PETER BREHM REVISION STEM	3	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	3	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	CLS CEMENTLESS STEM	3	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	ZWEYMULLER	3	<1%	No
Zimmer	TRILOGY	DePuy	KAR	3	<1%	Yes
Zimmer	TRILOGY	Orthodynamics	CANNULOK CEMENTLESS STEM	3	<1%	Yes
Zimmer	ZIMMER CEMENTED CUP	Zimmer	ZMR CEMENTED STEM	3	<1%	No
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	B Braun / Aesculap	BICONTACT CEMENTED STEM	2	<1%	No
Biomet	APOLLO	Biomet	MULLER-BIOMET	2	<1%	No
Biomet	EXCEED	Biomet	BIMETRIC CEMENTLESS STEM	2	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Biomet	MALLORY-HEAD CEMENTLESS CUP	Biomet	MALLORY-HEAD CEMENTED STEM	2	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	Biomet	TAPERLOC CEMENTED STEM	2	<1%	No
Biomet	MALLORY-HEAD CEMENTLESS CUP	DePuy	CORAIL	2	<1%	Yes
Biomet	PAR 5 RINOWL CEMENTLESS CUP	Waldemar Link	MP NECK CEMENTED STEM	2	<1%	Yes
Biomet	RANAWAT/BURSTEIN	Biomet	STANMORE MODULAR	2	<1%	No
Biomet	REGENEREX CEMENTLESS	Biomet	TAPERLOC CEMENTLESS STEM	2	<1%	No
Biomet	REGENEREX CEMENTLESS	DePuy	KAR	2	<1%	Yes
Biomet	REGENEREX CEMENTLESS	DePuy	REEF	2	<1%	Yes
Corin	GENATOR CEMENTED CUP	Zimmer	REVITAN CEMENTED STEM	2	<1%	Yes
DePuy	CHARNLEY CEMENTED CUP	DePuy	C-STEM CEMENTED STEM	2	<1%	No
DePuy	CHARNLEY OGEE	DePuy	CHARNLEY CEMENTED STEM	2	<1%	No
DePuy	DURALOC CEMENTLESS CUP	DePuy	REEF	2	<1%	No
DePuy	DURALOC CEMENTLESS CUP	Orthodynamics	CANNULOK CEMENTLESS STEM	2	<1%	Yes
DePuy	ELITE PLUS CEMENTED CUP	DePuy	CORAIL	2	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	DePuy	REEF	2	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	Peter Brehm GmbH	PETER BREHM REVISION STEM	2	<1%	Yes
DePuy	ELITE PLUS OGEE	Biomet	TAPERLOC CEMENTLESS STEM	2	<1%	Yes
DePuy	ELITE PLUS OGEE	DePuy	CORAIL	2	<1%	No
DePuy	MARATHON	Zimmer	CPT	2	<1%	Yes
DePuy	PINNACLE	Joint Replacement Instrumentation Ltd	FURLONG HAC	2	<1%	Yes
DePuy	PINNACLE	Zimmer	MULLER STR STEM	2	<1%	Yes
DePuy	S-ROM CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	ULTIMA CEMENTED CUP	DePuy	C-STEM CEMENTED STEM	2	<1%	No
FH Newtech Ortho Ltd	ATLAS IIIP	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	2	<1%	Yes
Finsbury	DELTA MOTION	Finsbury	LIVERPOOL PROXIMAL CEMENTED	2	<1%	No
Finsbury	SLF CEMENTED CUP (FINSBURY)	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes
Implants International	EDINBURGH CUP	Implants International	EDINBURGH	2	<1%	No
Joint Replacement Instrumentation Ltd	CSF	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	2	<1%	No
Joint Replacement Instrumentation Ltd	JRI Cemented cup	DePuy	C-STEM AMT CEMENTED STEM	2	<1%	Yes
Lima WG Healthcare	LIMA DELTA REVISION	Lima WG Healthcare	LIMA/WG REVISION STEM	2	<1%	No
Lima WG Healthcare	LIMA/WG revision cup	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	Mathys Orthopaedics Ltd	TWINSYS CEMENTLESS STEM	2	<1%	No
Medacta UK Ltd	VERSAFIT	Medacta UK Ltd	QUADRA CEMENTED	2	<1%	No
Medacta UK Ltd	VERSAFIT	Medacta UK Ltd	QUADRA CEMENTLESS	2	<1%	No
Orthodynamics	NOVAE STICK	Orthodynamics	CANNULOK CEMENTLESS STEM	2	<1%	No
Smith & Nephew	EPF-PLUS	Corin	METAFIX STEM	2	<1%	Yes
Smith & Nephew	OPERA	DePuy	C-STEM AMT CEMENTED STEM	2	<1%	Yes
Smith & Nephew	POLAR CEMENTLESS CUP	B Braun / Aesculap	PREVISION CEMENTED STEM	2	<1%	Yes
Smith & Nephew	POLAR CEMENTLESS CUP	Orthodynamics	CANNULOK CEMENTLESS STEM	2	<1%	Yes
Smith & Nephew	POLAR CEMENTLESS CUP	Zimmer	CPT	2	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	DePuy	CORAIL	2	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Zimmer	CPT	2	<1%	Yes
Stryker Howmedica Osteonics	ABG II CEMENTLESS CUP	Stryker Howmedica Osteonics	EXETER V40	2	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Stryker Howmedica Osteonics	CONTEMPORARY	Biomet	OXFORD UNIVERSAL HIP (BIOMET) CEMENTED STEM	2	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	DePuy	C-STEM AMT CEMENTED STEM	2	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	DePuy	KAR	2	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Zimmer	CPT	2	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Zimmer	REVITAN CEMENTED STEM	2	<1%	Yes
Stryker Howmedica Osteonics	GAP RING	Stryker Howmedica Osteonics	EXETER V40	2	<1%	No
Stryker Howmedica Osteonics	ODC	Stryker Howmedica Osteonics	RESTORATION CEMENTLESS STEM	2	<1%	No
Stryker Howmedica Osteonics	Restoration GAP2	Joint Replacement Instrumentation Ltd	FURLONG HAC	2	<1%	Yes
Stryker Howmedica Osteonics	Restoration GAP2	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	2	<1%	No
Stryker Howmedica Osteonics	TRIDENT	Biomet	OXFORD UNIVERSAL HIP (BIOMET) CEMENTED STEM	2	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	DePuy	KAR	2	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	DePuy	REEF	2	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	RESTORATION CEMENTLESS STEM	2	<1%	No
Stryker Howmedica Osteonics	TRITANIUM	DePuy	C-STEM AMT CEMENTED STEM	2	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	Waldemar Link	MP NECK CEMENTED STEM	2	<1%	Yes
Waldemar Link	SNAP FIT	Biomet	MULLER-BIOMET	2	<1%	Yes
Wright Medical UK Ltd	PROCOTYL	Corin	TAPERFIT CEMENTED STEM	2	<1%	Yes
Wright Medical UK Ltd	PROCOTYL	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes
Zimmer	ALLOFIT	Zimmer	CPT	2	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	C-STEM AMT CEMENTED STEM	2	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	2	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Smith & Nephew	CPCS	2	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Stryker Howmedica Osteonics	ACCOLADE	2	<1%	Yes
Zimmer	TRILOGY	DePuy	REEF	2	<1%	Yes
Zimmer	TRILOGY	Waldemar Link	MP NECK CEMENTED STEM	2	<1%	Yes
Zimmer	ZCA	Stryker Howmedica Osteonics	EXETER V40	2	<1%	Yes
Zimmer	ZCA	Zimmer	REVITAN CEMENTED STEM	2	<1%	No
Amplitude	SATURNE	DePuy	S-ROM CEMENTLESS STEM	1	<1%	Yes
Amplitude	SATURNE	Zimmer	CPT	1	<1%	Yes
B Braun / Aesculap	ALFA CEMENTED CUP	Zimmer	CPT	1	<1%	Yes
B Braun / Aesculap	CHIRULEN	B Braun / Aesculap	BICONTACT CEMENTED STEM	1	<1%	No
B Braun / Aesculap	PLASMACUP CEMENTLESS CUP	B Braun / Aesculap	EXCIA-CEMENTED	1	<1%	No
Biomet	ARCOM SHP	Biomet	REACH	1	<1%	No
Biomet	ARCOM SHP	Biomet	STANMORE MODULAR	1	<1%	No
Biomet	ARCOM SHP	Biomet	TAPERLOC CEMENTED STEM	1	<1%	No
Biomet	ARCOM SHP	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Biomet	AVANTAGE	Biomet	BIMETRIC CEMENTLESS STEM	1	<1%	No
Biomet	AVANTAGE	Biomet	TAPERLOC CEMENTED STEM	1	<1%	No
Biomet	CUSTOM	Zimmer	CPT	1	<1%	Yes
Biomet	EXCEED	Biomet	MALLORY-HEAD CEMENTED STEM	1	<1%	No
Biomet	EXCEED	Biomet	TAPERLOC CEMENTED STEM	1	<1%	No
Biomet	EXCEED	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Biomet	EXCEED	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes
Biomet	Hi-Wall	Biomet	REACH	1	<1%	No

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Biomet	Hi-Wall	Biomet	STANMORE MODULAR	1	<1%	No
Biomet	Hi-Wall	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Biomet	Hi-Wall	Zimmer	CPT	1	<1%	Yes
Biomet	MALLORY-HEAD CEMENTLESS CUP	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	Yes
Biomet	MALLORY-HEAD CEMENTLESS CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Biomet	MALLORY-HEAD CEMENTLESS CUP	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes
Biomet	RANAWAT/BURSTEIN	Biomet	BIMETRIC CEMENTLESS STEM	1	<1%	No
Biomet	RANAWAT/BURSTEIN	Biomet	CONELock	1	<1%	No
Biomet	RANAWAT/BURSTEIN	DePuy	REEF	1	<1%	Yes
Biomet	RANAWAT/BURSTEIN	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Biomet	REGENEREX CEMENTLESS	Biomet	BIMETRIC CEMENTLESS STEM	1	<1%	No
Biomet	REGENEREX CEMENTLESS	Biomet	TAPERLOC CEMENTED STEM	1	<1%	No
Biomet	REGENEREX CEMENTLESS	DePuy	CHARNLEY MODULAR	1	<1%	Yes
Biomet	REGENEREX CEMENTLESS	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	Yes
Biomet	REGENEREX CEMENTLESS	Smith & Nephew	CPCS	1	<1%	Yes
Biomet	REGENEREX CEMENTLESS	Smith & Nephew	ECHOLON CEMENTLESS STEM	1	<1%	Yes
Biomet	REGENEREX CEMENTLESS	Stryker Howmedica Osteonics	RESTORATION CEMENTLESS STEM	1	<1%	Yes
Biomet	STANMORE-ARCOM	Biomet	BIMETRIC CEMENTLESS STEM	1	<1%	No
Biomet	STANMORE-ARCOM	Biomet	STANMORE MODULAR	1	<1%	No
Biomet	STANMORE-ARCOM	Zimmer	CLS CEMENTLESS STEM	1	<1%	Yes
Corin	CENATOR CEMENTED CUP	Corin	MINIHIP	1	<1%	No
Corin	CERAFIT CEMENTLESS CUP	Waldemar Link	MP NECK CEMENTED STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Corin	CTI CEMENTED CUP	Corin	CTI CEMENTED STEM	1	<1%	No
DePuy	ASR 300	DePuy	S-ROM CEMENTLESS STEM	1	<1%	No
DePuy	CHARNLEY CEMENTED CUP	Zimmer	CPT	1	<1%	Yes
DePuy	CHARNLEY OGEE	DePuy	CORAIL	1	<1%	No
DePuy	CHARNLEY OGEE	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
DePuy	DURALOC CEMENTLESS CUP	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes
DePuy	DURALOC OPTION	DePuy	CORAIL	1	<1%	No
DePuy	DURALOC OPTION	DePuy	KAR	1	<1%	No
DePuy	ELITE PLUS CEMENTED CUP	DePuy	CHARNLEY MODULAR	1	<1%	No
DePuy	ELITE PLUS FLANGED	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	No
DePuy	ELITE PLUS FLANGED	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
DePuy	ELITE PLUS OGEE	Biomet	BIMETRIC CEMENTED STEM	1	<1%	Yes
DePuy	ELITE PLUS OGEE	DePuy	SOLUTION CEMENTLESS STEM	1	<1%	No
DePuy	ELITE PLUS OGEE	DePuy	WROBLEWSKI RESECTION	1	<1%	No
DePuy	ELITE PLUS OGEE	Smith & Nephew	ECHELON CEMENTLESS STEM	1	<1%	Yes
DePuy	ELITE PLUS OGEE	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	Yes
DePuy	ELITE PLUS OGEE	Stryker Howmedica Osteonics	RESTORATION CEMENTLESS STEM	1	<1%	Yes
DePuy	ELITE PLUS OGEE	Waldemar Link	MP NECK CEMENTED STEM	1	<1%	Yes
DePuy	ELITE PLUS OGEE	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	1	<1%	Yes
DePuy	MARATHON	Biomet	KENT HIP	1	<1%	Yes
DePuy	MARATHON	DePuy	CHARNLEY MODULAR	1	<1%	No
DePuy	MARATHON	DePuy	S-ROM CEMENTLESS STEM	1	<1%	No
DePuy	MARATHON	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	MARATHON	Waldemar Link	MP NECK CEMENTED STEM	1	<1%	Yes
DePuy	MARATHON	Zimmer	ZMR CEMENTED STEM	1	<1%	Yes
DePuy	PINNACLE	B Braun / Aesculap	BICONTACT CEMENTED STEM	1	<1%	Yes
DePuy	PINNACLE	B Braun / Aesculap	PREVISION CEMENTED STEM	1	<1%	Yes
DePuy	PINNACLE	Biomet	AURA II CEMENTED STEM	1	<1%	Yes
DePuy	PINNACLE	Biomet	KENT HIP	1	<1%	Yes
DePuy	PINNACLE	Corin	MINIHIP	1	<1%	Yes
DePuy	PINNACLE	DePuy	CHARNLEY MODULAR	1	<1%	No
DePuy	PINNACLE	DePuy	DEPUY PROXIMA	1	<1%	No
DePuy	PINNACLE	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	1	<1%	Yes
DePuy	PINNACLE	Lima WG Healthcare	LIMA/WG REVISION STEM	1	<1%	Yes
DePuy	PINNACLE	Smith & Nephew	SYNERGY CEMENTLESS STEM	1	<1%	Yes
DePuy	PINNACLE	Stryker Howmedica Osteonics	GMRS	1	<1%	Yes
DePuy	PINNACLE	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	1	<1%	Yes
DePuy	PINNACLE	Stryker Howmedica Osteonics	RESTORATION CEMENTLESS STEM	1	<1%	Yes
DePuy	PINNACLE	Waldemar Link	DAVIES CEMENTLESS STEM	1	<1%	Yes
DePuy	PINNACLE	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	1	<1%	Yes
DePuy	PINNACLE	Zimmer	GMRS	1	<1%	Yes
DePuy	PINNACLE	Zimmer	ZMR CEMENTED STEM	1	<1%	Yes
DePuy	SOLUTION CEMENTED CUP	Zimmer	CPT	1	<1%	Yes
DePuy	S-ROM CEMENTLESS CUP	DePuy	REEF	1	<1%	No
DePuy	S-ROM CEMENTLESS CUP	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
DePuy	ULTIMA CEMENTED CUP	DePuy	CHARNLEY MODULAR	1	<1%	No
DePuy	ULTIMA CEMENTED CUP	DePuy	REEF	1	<1%	No
DePuy	ULTIMA CEMENTED CUP	DePuy	WROBLEWSKI RESECTION	1	<1%	No
DePuy	ULTIMA CEMENTED CUP	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes
DePuy	WROBLEWSKI GOLF BALL	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
FH Newtech Ortho Ltd	ATLAS IIIP	Corin	TAPERFIT CEMENTED STEM	1	<1%	Yes
FH Newtech Ortho Ltd	ATLAS IIIP	Zimmer	CPT	1	<1%	Yes
Finsbury	DELTA MOTION	DePuy	CORAIL	1	<1%	Yes
Finsbury	DELTA MOTION	Finsbury	FTS	1	<1%	No
Finsbury	DELTA MOTION	Mathys Orthopaedics Ltd	TWINSYS CEMENTLESS STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	DePuy	REEF	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	Orthodynamics	CANNULOK CEMENTLESS STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF	Zimmer	ZMR CEMENTED STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	DePuy	CORAIL	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	DePuy	KAR	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	DePuy	S-ROM CEMENTLESS STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CSF PLUS	Orthodynamics	CANNULOK CEMENTLESS STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	CUSTOM	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	No
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	DePuy	C-STEM AMT CEMENTED STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Joint Replacement Instrumentation Ltd	FURLONG CEMENTED CUP	DePuy	SOLUTION CEMENTLESS STEM	1	<1%	Yes
Joint Replacement Instrumentation Ltd	JRI Cemented cup	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	1	<1%	No
Joint Replacement Instrumentation Ltd	JRI Cemented cup	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	No
Joint Replacement Instrumentation Ltd	JRI Cemented cup	Zimmer	MS-30	1	<1%	Yes
Joint Replacement Instrumentation Ltd	JRI Cemented cup	Zimmer	MULLER STR STEM	1	<1%	Yes
Mathys Orthopaedics Ltd	CCB MATHYS	Mathys Orthopaedics Ltd	CCA CEMENTED STEM	1	<1%	No
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	Mathys Orthopaedics Ltd	MATHYS REVISION STEM	1	<1%	No
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	Smith & Nephew	SLR-PLUS CEMENTED STEM	1	<1%	Yes
Mathys Orthopaedics Ltd	RM CEMENTLESS CUP (MATHYS)	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Mathys Orthopaedics Ltd	SELEXYS PC	Mathys Orthopaedics Ltd	MATHYS REVISION STEM	1	<1%	No
Mathys Orthopaedics Ltd	SELEXYS PC	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Orthodynamics	NOVAE	DePuy	CORAIL	1	<1%	Yes
Orthodynamics	NOVAE	Orthodynamics	CANNULOK CEMENTLESS STEM	1	<1%	No
Orthodynamics	NOVAE STICK	DePuy	CHARNLEY CEMENTED STEM	1	<1%	Yes
Smith & Nephew	BOFOR	Smith & Nephew	CPS-PLUS	1	<1%	No
Smith & Nephew	EPF-PLUS	Biomet	STANMORE MODULAR	1	<1%	Yes
Smith & Nephew	EPF-PLUS	DePuy	C-STEM CEMENTED STEM	1	<1%	Yes
Smith & Nephew	EPF-PLUS	Smith & Nephew	SL-PLUS CEMENTED STEM	1	<1%	No
Smith & Nephew	EPF-PLUS	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Smith & Nephew	EPF-PLUS	Waldemar Link	MP NECK CEMENTED STEM	1	<1%	Yes
Smith & Nephew	MPF	DePuy	REEF	1	<1%	Yes
Smith & Nephew	OPERA	DePuy	CORAIL	1	<1%	Yes
Smith & Nephew	OPERA	DePuy	SOLUTION CEMENTLESS STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Smith & Nephew	OPERA	Smith & Nephew	CPCS	1	<1%	No
Smith & Nephew	OPERA	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes
Smith & Nephew	OPERA	Zimmer	CPT	1	<1%	Yes
Smith & Nephew	PE-PLUS	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	No
Smith & Nephew	POLAR CEMENTLESS CUP	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	No
Smith & Nephew	POLAR CEMENTLESS CUP	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes
Smith & Nephew	R3	Smith & Nephew	ECHELON CEMENTLESS STEM	1	<1%	No
Smith & Nephew	R3	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Smith & Nephew	REFLECTION CEMENTED	Zimmer	REVITAN CEMENTED STEM	1	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Peter Brehm GmbH	PETER BREHM REVISION STEM	1	<1%	Yes
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	ECHELON CEMENTED STEM	1	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Smith & Nephew	SPECTRON	1	<1%	No
Smith & Nephew	REFLECTION CEMENTLESS	Zimmer	ZMR CEMENTED STEM	1	<1%	Yes
Smith & Nephew	SP3 HA	Smith & Nephew	SYNERGY CEMENTLESS STEM	1	<1%	No
Stryker Howmedica Osteonics	CONTEMPORARY	Biomet	KENT HIP	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Biomet	REACH	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	DePuy	SOLUTION CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Mathys Orthopaedics Ltd	MATHYS REVISION STEM	1	<1%	Yes
Stryker Howmedica Osteonics	CONTEMPORARY	Waldemar Link	SP II CEMENTED STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Stryker Howmedica Osteonics	EXETER DURATION	DePuy	CORAIL	1	<1%	Yes
Stryker Howmedica Osteonics	EXETER DURATION	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Stryker Howmedica Osteonics	EXETER DURATION	Waldemar Link	MP NECK CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	GAP RING	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Stryker Howmedica Osteonics	GAP RING	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	No
Stryker Howmedica Osteonics	ODC	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	No
Stryker Howmedica Osteonics	Restoration GAP2	Biomet	CONELock	1	<1%	Yes
Stryker Howmedica Osteonics	Restoration GAP2	Biomet	OLYMPIA	1	<1%	Yes
Stryker Howmedica Osteonics	Restoration GAP2	DePuy	SOLUTION CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	Restoration GAP2	Waldemar Link	MP NECK CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	Restoration GAP2	Zimmer	MS-30	1	<1%	Yes
Stryker Howmedica Osteonics	Restoration GAP2	Zimmer	ZMR CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Biomet	MALLORY-HEAD CEMENTED STEM	1	<1%	Yes
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Stryker Howmedica Osteonics	ACCOLADE	1	<1%	No
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	No
Stryker Howmedica Osteonics	SECURE FIT CEMENTLESS CUP	Zimmer	GPT	1	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Corin	MINIHIP	1	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	DePuy	CORAIL	1	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	DePuy	S-ROM CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	TRIDENT	Orthodynamics	CANNULOK CEMENTED STEM	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Stryker Howmedica Osteonics	TRIDENT	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	1	<1%	No
Stryker Howmedica Osteonics	TRIDENT	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	DePuy	KAR	1	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	Orthodynamics	CANNULOK CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	Smith & Nephew	ECHELON CEMENTLESS STEM	1	<1%	Yes
Stryker Howmedica Osteonics	TRITANIUM	Zimmer	CPT	1	<1%	Yes
Surgicraft	SPLIT CUP	Corin	TAPERFIT CEMENTED STEM	1	<1%	Yes
Waldemar Link	INTERPLANTA	Waldemar Link	SP II CEMENTED STEM	1	<1%	No
Waldemar Link	SNAP FIT	Waldemar Link	MP NECK CEMENTED STEM	1	<1%	No
Wright Medical UK Ltd	LINEAGE	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes
Wright Medical UK Ltd	LINEAGE	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	1	<1%	No
Wright Medical UK Ltd	PROCOTYL	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Wright Medical UK Ltd	PROCOTYL	Stryker Howmedica Osteonics	RESTORATION CEMENTED STEM	1	<1%	Yes
Wright Medical UK Ltd	PROCOTYL	Wright Medical UK Ltd	ANCAFIT CEMENTLESS STEM	1	<1%	No
Zimmer	ALLOFIT	Stryker Howmedica Osteonics	EXETER V40	1	<1%	Yes
Zimmer	ALLOFIT	Zimmer	VERSYS CEMENTLESS STEM	1	<1%	No
Zimmer	LOW PROFILE MULLER	DePuy	SOLUTION CEMENTLESS STEM	1	<1%	Yes
Zimmer	LOW PROFILE MULLER	Zimmer	CPT	1	<1%	No
Zimmer	LOW PROFILE MULLER	Zimmer	MEM	1	<1%	No
Zimmer	METASUL-MULLER	Zimmer	MS-30	1	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Biomet	BIMETRIC CEMENTLESS STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Biomet	STANMORE MODULAR	1	<1%	Yes

Cup manufacturer	Cup brand	Stem manufacturer	Stem brand	Number of procedures	%	Mix and match
Zimmer	TRABECULAR METAL CEMENTLESS CUP	DePuy	SUMMIT CEMENTLESS STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Orthodynamics	CANNULOK CEMENTLESS STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Smith & Nephew	SL-PLUS CEMENTLESS STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Stryker Howmedica Osteonics	OMNIFIT CEMENTED STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Waldemar Link	MEGA SYSTEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Waldemar Link	WAGNER REVISION STEM	1	<1%	Yes
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	ALLOCLASSIC CEMENTLESS STEM	1	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	MEM	1	<1%	No
Zimmer	TRABECULAR METAL CEMENTLESS CUP	Zimmer	WAGNER CONE	1	<1%	No
Zimmer	TRILOGY	Biomet	KENT HIP	1	<1%	Yes
Zimmer	TRILOGY	DePuy	CORAIL	1	<1%	Yes
Zimmer	TRILOGY	DePuy	C-STEM CEMENTED STEM	1	<1%	Yes
Zimmer	TRILOGY	DePuy	ELITE PLUS CEMENTED STEM	1	<1%	Yes
Zimmer	TRILOGY	Joint Replacement Instrumentation Ltd	FURLONG CEMENTED STEM	1	<1%	Yes
Zimmer	TRILOGY	Joint Replacement Instrumentation Ltd	FURLONG HAC	1	<1%	Yes
Zimmer	TRILOGY	Joint Replacement Instrumentation Ltd	FURLONG LOL	1	<1%	Yes
Zimmer	TRILOGY	Wright Medical UK Ltd	PROFEMUR CEMENTLESS STEM	1	<1%	Yes
Zimmer	TRILOGY	Zimmer	TRABECULAR CEMENTLESS STEM	1	<1%	No
Zimmer	ZCA	Zimmer	VERSYS CEMENTED STEM	1	<1%	No
Zimmer	ZCA	Zimmer	ZMR CEMENTED STEM	1	<1%	No
Zimmer	ZIMMER CEMENTED CUP	Zimmer	VERSYS CEMENTLESS STEM	1	<1%	No

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1.4 Summary

There were 126 brands of acetabular cups used in 2009, which shows a continued decrease since 2006 (155 in 2006 and 136 in 2008). There were 151 brands of femoral stems used in 2009, which is an increase on 2008 (101 in 2004, 129 in 2005, 176 in 2006 and 137 in 2008).

In addition to conventional hip resurfacing procedures, there were 2,494 procedures entered into the NJR where a resurfacing cup has been used in conjunction with a large diameter modular head and a conventional modular stem.

Material selection for femoral heads used between 2003 and 2007 has remained unchanged (76% metal and 24% ceramic). However, since 2008 there has been an increase in the use of ceramic heads and these are now used in 8% more procedures compared with earlier years. The size of femoral heads used shows an increase in the larger head sizes (greater than 32mm).

2 Prostheses used in knee procedures, 2009

2.1 Prostheses entered into the NJR

56 brands of total condylar knee prostheses were used in primary procedures and 35 used in revision procedures. In addition, there were 17 brands of unicondylar prostheses, 9 brands of patello-femoral

replacement implants and 14 brands of hinged knee prostheses. The number of brands for each prosthesis type is similar to 2008, with the exception of total condylar knee prostheses, for which there has been a slight decrease in the brands used.

Table 10(a) and 10(b) show the brands of primary and revision total condylar knee replacement prostheses recorded most frequently for TKR and hybrid procedures.

Table 10(a) Total condylar knee brands entered into the NJR in 2009 for primary total knee procedures.

Manufacturer	Brand	Number of procedures	%
		64,104	
DePuy	PFC SIGMA KNEE	23,209	36%
Zimmer	NEXGEN	9,169	14%
Biomet	AGC	6,850	11%
Smith & Nephew	GENESIS 2	4,602	7%
Stryker Howmedica Osteonics	SCORPIO	4,274	7%
Stryker Howmedica Osteonics	TRIATHLON	3,782	6%
DePuy	LCS COMPLETE	2,462	4%
Endo Plus (UK) Limited	ENDOPLUS BICONDYLAR KNEE	2,095	3%
Biomet	VANGUARD	1,520	2%
Finsbury	MRK	1,055	2%
Wright Medical UK Ltd	ADVANCE BICONDYLAR KNEE	805	1%
B Braun / Aesculap	COLUMBUS	687	1%
Smith & Nephew	PROFIX	589	1%
Stryker Howmedica Osteonics	KINEMAX	540	1%
Exactech (UK) Ltd	OPTETRAK	321	1%
Centerpulse	NK2 BICONDYLAR KNEE	267	<1%
B Braun / Aesculap	E-MOTION BICONDYLAR KNEE	252	<1%
Biomet	MAXIM	189	<1%
Smith & Nephew	JOURNEY	164	<1%
Implantcast GmbH	ACS	160	<1%
Wright Medical UK Ltd	AMP STATURE	141	<1%

Manufacturer	Brand	Number of procedures	%
Corin	ROTAGLIDE	139	<1%
Corin	ROTAGLIDE +	132	<1%
Centerpulse	FS	96	<1%
Mathys Orthopaedics Ltd	MATHYS BICONDYLAR KNEE	93	<1%
Wright Medical UK Ltd	INSALL-BURSTEIN 2	79	<1%
Jointmedica Limited	JOINT MEDICA BICONDYLAR	72	<1%
Zimmer	INNEX	66	<1%
Biomet	ALPINA	65	<1%
Smith & Nephew	TC PLUS	40	<1%
Medacta UK Ltd	GMK	34	<1%
Smith & Nephew	DEUCE BICONDYLAR	23	<1%
Smith & Nephew	LEGION	22	<1%
Sovereign Medical	CCI	13	<1%
Wright Medical UK Ltd	ADVANTIM	12	<1%
Corin	AMC	10	<1%
Implants International	ST LEGER	10	<1%
DJO Surgical	3D	8	<1%
Waldemar Link	GEMINI	8	<1%
Biomet	COLUMBUS	7	<1%
Zimmer	CR FLEX	7	<1%
Finsbury	SAIPH	6	<1%
ASDM	ASDM TCK	4	<1%
Finsbury	DBK	4	<1%
Medacta UK Ltd	MEDACTA BICONDYLAR	4	<1%
Zimmer	INSALL-BURSTEIN 2	3	<1%
DePuy	LCS	2	<1%
DePuy	LCS COMPLETE REVISION	2	<1%
DePuy	PFC BICONDYLAR KNEE	2	<1%
Zimmer	NATURAL KNEE	2	<1%
Biomet	OXFORD TMK	1	<1%
Centerpulse	SAL	1	<1%
DePuy	AMK	1	<1%
Forth Medical	ST LEGER	1	<1%
Joint Replacement Instrumentation Ltd	JRI BICONDYLAR KNEE	1	<1%
Van Straten Medical	CCI	1	<1%

Table 10(b) Total condylar knee brands entered into the NJR in 2009 for revision knee procedures.

Manufacturer	Brand	Number of procedures	%
		2,352	
DePuy	PFC SIGMA KNEE	855	36%
Zimmer	NEXGEN	398	17%
Biomet	AGC	186	8%
Smith & Nephew	LEGION	162	7%
Stryker Howmedica Osteonics	SCORPIO	160	7%
Stryker Howmedica Osteonics	TRIATHLON	149	6%
Smith & Nephew	GENESIS 2	120	5%
Biomet	MAXIM	82	3%
Biomet	VANGUARD	48	2%
Wright Medical UK Ltd	ADVANCE BICONDYLAR KNEE	27	1%
Smith & Nephew	PROFIX	26	1%
Stryker Howmedica Osteonics	KINEMAX	23	1%
Finsbury	MRK	21	1%
Exactech (UK) Ltd	OPTETRAK	14	1%
Centerpulse	NK2 BICONDYLAR KNEE	12	1%
Corin	ROTAGLIDE +	11	<1%
B Braun / Aesculap	COLUMBUS	9	<1%
DePuy	LCS COMPLETE	7	<1%
Endo Plus (UK) Limited	TC PLUS	7	<1%
Centerpulse	FS	5	<1%
DePuy	LCS	5	<1%
Endo Plus (UK) Limited	ENDOPLUS BICONDYLAR KNEE	5	<1%
DePuy	LCS COMPLETE REVISION	4	<1%
Corin	ROTAGLIDE	3	<1%
B Braun / Aesculap	E-MOTION BICONDYLAR KNEE	2	<1%
Smith & Nephew	JOURNEY	2	<1%
Biomet	OXFORD TMK	1	<1%
Centerpulse	SAL	1	<1%
Corin	AMC	1	<1%
DePuy	AMK	1	<1%
Implantcast GmbH	ACS	1	<1%
Smith & Nephew	TC PLUS	1	<1%
Wright Medical UK Ltd	AMP STATURE	1	<1%
Wright Medical UK Ltd	INSALL-BURSTEIN 2	1	<1%
Zimmer	INSALL-BURSTEIN 2	1	<1%

Brands of unicondylar prostheses are shown in Table 11. Nine brands of patello-femoral joint replacements were entered into the NJR in 2009 (Table 12). Brands

of hinged knee prostheses entered into the NJR are shown in Table 13.

Table 11 Total condylar knee brands entered into the NJR in 2009 for unicondylar knee procedures.

Manufacturer	Brand	Number of procedures	%
		6,562	
Biomet	OXFORD PARTIAL KNEE	4,716	72%
Zimmer	MG UNI	761	12%
Corin	AMC/UNIGLIDE	326	5%
DePuy	SIGMA HP	187	3%
Waldemar Link	SLED	148	2%
DePuy	PRESERVATION	143	2%
Smith & Nephew	GENESIS UNI	100	2%
Mathys Orthopaedics Ltd	MATHYS UNICONDYLAR KNEE	65	1%
Endo Plus (UK) Limited	UC-PLUS	29	<1%
Stryker Howmedica Osteonics	TRIATHLON UNI	26	<1%
Smith & Nephew	JOURNEY UNI	19	<1%
Stryker Howmedica Osteonics	EIUS	17	<1%
Biomet	REPICCI	9	<1%
Smith & Nephew	DEUCE	8	<1%
Tornier	HLS EVOLUTION	5	<1%
DePuy	LCS UNI	2	<1%
Medacta UK Ltd	GMK UNI	1	<1%

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Table 12 Patello-femoral joint brands entered into the NJR in 2009 for patello-femoral joint procedures.

Manufacturer	Brand	Number of procedures	%
		1,037	
Stryker Howmedica Osteonics	AVON	482	46%
Wright Medical UK Ltd	FPV	242	23%
Smith & Nephew	JOURNEY COMPETITOR	192	19%
Zimmer	GENDER PF	76	7%
DePuy	LCS PATELLOFEMORAL	24	2%
DePuy	GCK	17	2%
Biomet	VANGUARD PFR	2	<1%
Corin	LEICESTER	1	<1%
Waldemar Link	LUBINUS PF	1	<1%

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Table 13 Fixed and rotating hinged knee brands entered into the NJR in 2009.

Manufacturer	Brand	Number of procedures	%
		952	
Waldemar Link	ENDO ROTATING HINGE	314	33%
Zimmer	NEXGEN HINGE TYPE	239	25%
Stryker Howmedica Osteonics	MRH	121	13%
DePuy	NOILES	107	11%
Biomet	BIRMINGHAM ROT HINGE	61	6%
Endo Plus (UK) Limited	RT PLUS	57	6%
Waldemar Link	ENDO HINGE	15	2%
Biomet	OSS	8	1%
Waldemar Link	MEGA SYSTEM C	8	1%
Stryker Howmedica Osteonics	GMRS	7	1%
Biomet	STANMORE HINGE	6	1%
Wright Medical UK Ltd	GUARDIAN HINGED/LINKED KNEE	6	1%
Smith & Nephew	RT PLUS	2	<1%
Stanmore Implants Worldwide	SMILES HINGED/LINKED KNEE	1	<1%

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2.2 Usage of fixed versus mobile bearing tibial inserts

Total condylar knee arthroplasties involving tibial inserts grew by 2% on 2008 and were predominantly fixed bearing inserts, as shown in Table 14.

Table 14 Tibial insert type, 2009.

Tibial insert type	Knee procedures	%
	66,445	
Fixed bearing	59,745	90%
Mobile bearing	6,700	10%

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3 Cement use

The majority (95%) of procedures involving cement used antibiotic-loaded rather than non-antibiotic cement (Table 15). This represents an increase of 2% since 2008. Manufacturers of antibiotic-loaded cement and non-antibiotic cement are given in Tables 16 and 17.

Table 15 Type of cement used in hip and knee procedures entered into the NJR in 2009.

Category	Number of hip procedures	%	Number of knee procedures	%	All	%
	40,109		70,112		110,221	
Antibiotic	36,820	92%	67,456	96%	104,276	95%
Non-antibiotic	3,289	8%	2,656	4%	5,945	5%

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Table 16(a) Brands of regular or high viscosity antibiotic bone cement used in hip procedures entered into the NJR in 2009

Manufacturer	Brand	Number of procedures	%
		38,111	
Heraeus Medical	PALACOS ANTIBIOTIC	18,802	49%
Stryker Howmedica Osteonics	SIMPLEX ANTIBIOTIC	7,591	20%
Schering-Plough	PALACOS ANTIBIOTIC	3,173	8%
Biomet	BIOMET REFOBACIN	2,569	7%
DePuy	CMW1 ANTIBIOTIC LOADED CEMENT	1,998	5%
DePuy	CMW2 ANTIBIOTIC LOADED CEMENT	1,971	5%
DePuy	SMARTSET HV ANTIBIOTIC LOADED CEMENT	949	2%
Biomet	PALACOS ANTIBIOTIC	870	2%
Biomet	OPTIPAC	65	<1%
Heraeus Medical	COPAL ANTIBIOTIC LOADED	52	<1%
Biomet	BIOMET REFOBACIN REVISION	44	<1%
Heraeus Medical	PALAMED ANTIBIOTIC	15	<1%
Smith & Nephew	VERSABOND ab	11	<1%
Biomet	COPAL ANTIBIOTIC LOADED	1	<1%

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Table 16(b) Brands of regular or high viscosity antibiotic bone cement used in knee procedures entered into the NJR in 2009

Manufacturer	Brand	Number of procedures	%
		67,491	
Heraeus Medical	PALACOS ANTIBIOTIC	42,938	64%
Schering-Plough	PALACOS ANTIBIOTIC	6,017	9%
Biomet	BIOMET REFOBACIN	5,473	8%
DePuy	CMW1 ANTIBIOTIC LOADED CEMENT	3,123	5%
DePuy	SMARTSET HV ANTIBIOTIC LOADED CEMENT	3,016	4%
Stryker Howmedica Osteonics	SIMPLEX ANTIBIOTIC	2,823	4%
Biomet	PALACOS ANTIBIOTIC	1,810	3%
DePuy	CMW2 ANTIBIOTIC LOADED CEMENT	1,522	2%
Biomet	OPTIPAC	596	1%
Biomet	BIOMET REFOBACIN REVISION	73	<1%
Heraeus Medical	COPAL ANTIBIOTIC LOADED	59	<1%
Heraeus Medical	PALAMED ANTIBIOTIC	31	<1%
Biomet	COPAL ANTIBIOTIC LOADED	4	<1%
Smith & Nephew	VERSABOND ab	4	<1%
Biomet	BIOMET REFOBACIN PLUS	2	<1%

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Table 16(c) Brands of low viscosity antibiotic bone cement used in hip procedures entered into the NJR in 2009.

Manufacturer	Brand	Number of procedures	%
		1,267	
Heraeus Medical	PALACOS ANTIBIOTIC	713	56%
DePuy	CMW3 ANTIBIOTIC LOADED CEMENT	359	28%
Schering-Plough	PALACOS ANTIBIOTIC	76	6%
DePuy	SMARTSET ENDURANCE ANTIBIOTIC LOADED CEMENT	62	5%
Biomet	OSTEOPAL ANTIBIOTIC	55	4%
Biomet	BIOMET REFOBACIN	2	<1%

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Table 16(d) Brands of low viscosity antibiotic bone cement used in knee procedures entered into the NJR in 2009.

Manufacturer	Brand	Number of procedures	%
		483	
Heraeus Medical	PALACOS ANTIBIOTIC	310	64%
Biomet	OSTEOPAL ANTIBIOTIC	83	17%
DePuy	CMW3 ANTIBIOTIC LOADED CEMENT	59	12%
Schering-Plough	PALACOS ANTIBIOTIC	17	4%
DePuy	SMARTSET ENDURANCE ANTIBIOTIC LOADED CEMENT	12	2%
DePuy	SMARTSET MV ANTIBIOTIC LOADED CEMENT	2	<1%

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Table 17(a) Brands of regular or high viscosity non-antibiotic bone cement used in hip procedures entered into the NJR in 2009.

Manufacturer	Brand	Number of procedures	%
		3,207	
Stryker Howmedica Osteonics	SIMPLEX	1,338	42%
DePuy	CMW2 PLAIN CEMENT	761	24%
Biomet	PALACOS	319	10%
Schering-Plough	PALACOS	310	10%
Heraeus Medical	PALACOS	266	8%
DePuy	CMW1 PLAIN CEMENT	170	5%
DePuy	SMARTSET HV PLAIN CEMENT	43	1%

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Table 17(b) Brands of regular or high viscosity non-antibiotic bone cement used in knee procedures entered into the NJR in 2009.

Manufacturer	Brand	Number of procedures	%
		2,629	
Schering-Plough	PALACOS	1,002	38%
Biomet	PALACOS	539	21%
Heraeus Medical	PALACOS	537	20%
Stryker Howmedica Osteonics	SIMPLEX	266	10%
DePuy	CMW2 PLAIN CEMENT	125	5%
DePuy	CMW1 PLAIN CEMENT	106	4%
DePuy	SMARTSET HV PLAIN CEMENT	53	2%
Biomet	BIOMET BONE CEMENT	1	<1%

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Table 17(c) Brands of low viscosity non-antibiotic bone cement used in hip procedures entered into the NJR in 2009.

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Manufacturer	Brand	Number of procedures	%
		112	
DePuy	CMW3 PLAIN CEMENT	57	51%
Corin	CORIPLAST	37	33%
DePuy	SMARTSET ENDURANCE PLAIN CEMENT	12	11%
Heraeus Medical	PALACOS	4	4%
Biomet	OSTEOPAL	2	2%

Table 17(d) Brands of low viscosity non-antibiotic bone cement used in knee procedures entered into the NJR in 2009.

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Manufacturer	Brand	Number of procedures	%
		27	
DePuy	SMARTSET ENDURANCE PLAIN CEMENT	20	74%
Heraeus Medical	PALACOS	4	15%
DePuy	CMW3 PLAIN CEMENT	2	7%
Biomet	OSTEOPAL	1	4%

4 Bone substitute use

Table 18 lists the manufacturers of bone substitutes for hip and knee procedures in 2009. The use of synthetic bone substitute remained relatively low, such products were reported as being used in 287 procedures during 2009, a decrease of 19% compared with 2008.

Table 18 Brands of synthetic bone substitute entered into the NJR in 2009.

Manufacturer	Brand	Number of procedures	%
		287	
Stryker Howmedica Osteonics	BONESAVE	68	24%
Synthes	DBX	49	17%
Surgicraft	SURGICRAFT	38	13%
Biocomposites	BIOCOMPOSITES	31	11%
Wright Medical UK Ltd	OSTEOSET	31	11%
ApaTech Products	APATECH BONE SUBSTITUTE	16	6%
Exactech (UK) Ltd	OPTEFORM	10	3%
Synthes	SYNTHES BONE SUBSTITUTE	9	3%
DePuy	GRAFTON	8	3%
Joint Replacement Instrumentation Ltd	REPROS	7	2%
Corin	BIOFUSE	5	2%
DePuy	CONDUIT	5	2%
Quadrant Medical Ltd	VITOSS	4	1%
Endo Plus (UK) Limited	ALLOGRAN (ENDOPLUS)	3	1%
Joint Replacement Instrumentation Ltd	JRI BONE SUBSTITUTE	2	1%
Endo Plus (UK) Limited	ENDOPLUS BONE SUBSTITUTE	1	<1%