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## Appendix 1 - Supplementary Material

### Fracture Outcomes Stratified by Stem Fixation

**Table 1: Revision Rates of Primary Partial Hip Replacement with Cementless Femoral Stem by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**

Hip Class	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
Unipolar Modular	85	6292	23902	0.36 (0.28, 0.44)
Bipolar	82	3694	14165	0.58 (0.46, 0.72)
<b>TOTAL</b>	<b>167</b>	<b>9986</b>	<b>38067</b>	<b>0.44 (0.37, 0.51)</b>

**Table 2: Yearly Cumulative Percent Revision of Primary Partial Hip Replacement with Cementless Femoral Stem by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**

CPR	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs
Unipolar Modular	0.8 (0.6, 1.0)	1.0 (0.8, 1.3)	1.1 (0.9, 1.5)	1.4 (1.1, 1.8)	1.6 (1.2, 2.0)	1.9 (1.4, 2.4)
Bipolar	1.2 (0.9, 1.6)	1.3 (1.0, 1.8)	1.6 (1.2, 2.1)	2.3 (1.7, 3.0)	2.5 (1.9, 3.2)	2.7 (2.0, 3.5)

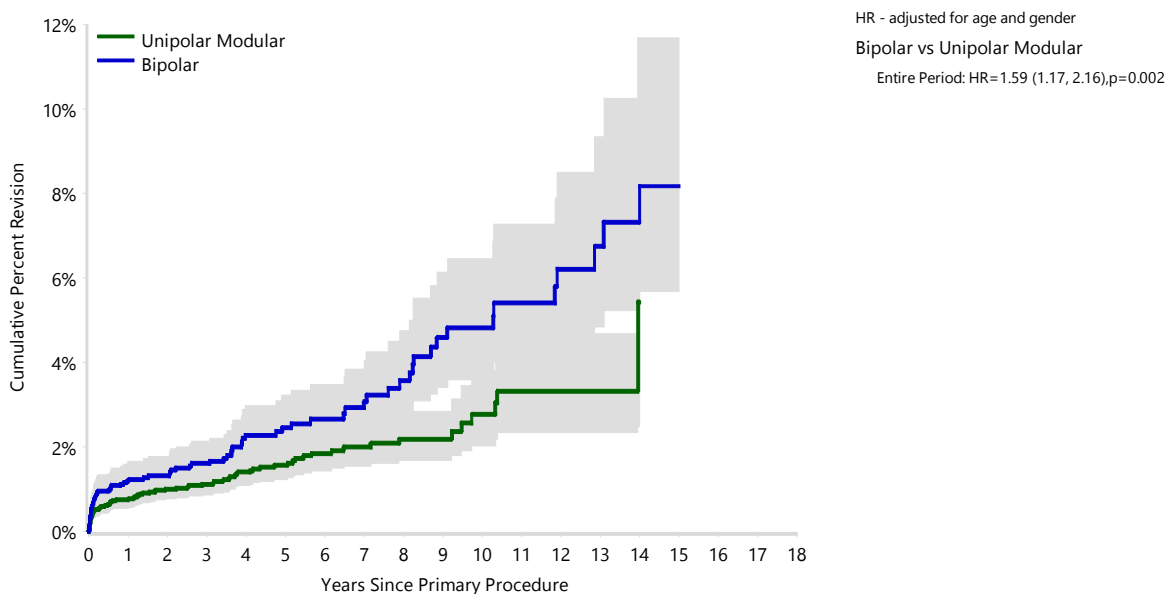
  

CPR	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 Yrs	12 Yrs
Unipolar Modular	2.0 (1.6, 2.6)	2.2 (1.7, 2.8)	2.2 (1.7, 2.8)	2.8 (2.0, 3.8)	3.3 (2.4, 4.7)	3.3 (2.4, 4.7)
Bipolar	2.9 (2.2, 3.8)	3.6 (2.7, 4.7)	4.6 (3.4, 6.1)	4.8 (3.6, 6.4)	5.4 (4.0, 7.3)	6.2 (4.5, 8.5)

CPR	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	3.3 (2.4, 4.7)	5.4 (2.5, 11.7)				
Bipolar	6.7 (4.9, 9.3)	7.3 (5.2, 10.2)	8.2 (5.7, 11.7)			

**Figure 1: Cumulative Percent Revision of Primary Partial Hip Replacement with Cementless Femoral Stem by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**



Number at Risk	0 Yr	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs	7 Yrs	8 Yrs
Unipolar Modular	6292	4636	3852	3149	2522	1937	1509	1155	859
Bipolar	3694	2649	2119	1717	1354	1054	846	654	532

Number at Risk	9 Yrs	10 Yrs	11 Yrs	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	610	399	261	153	76	45	19	7	2	0
Bipolar	420	338	282	227	164	110	56	25	8	4

**Table 3: Revision Rates of Primary Partial Hip Replacement with Cemented Femoral Stem by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**

Hip Class	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
Unipolar Modular	137	34802	105109	0.13 (0.11, 0.15)
Bipolar	104	17969	63587	0.16 (0.13, 0.20)
<b>TOTAL</b>	<b>241</b>	<b>52771</b>	<b>168697</b>	<b>0.14 (0.13, 0.16)</b>

**Table 4: Yearly Cumulative Percent Revision of Primary Partial Hip Replacement with Cemented Femoral Stem by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**

CPR	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs
Unipolar Modular	0.2 (0.2, 0.3)	0.3 (0.3, 0.4)	0.4 (0.3, 0.5)	0.5 (0.4, 0.6)	0.6 (0.5, 0.8)	0.7 (0.6, 0.9)
Bipolar	0.3 (0.2, 0.4)	0.4 (0.3, 0.6)	0.5 (0.4, 0.7)	0.6 (0.5, 0.8)	0.7 (0.5, 0.8)	0.7 (0.6, 0.9)

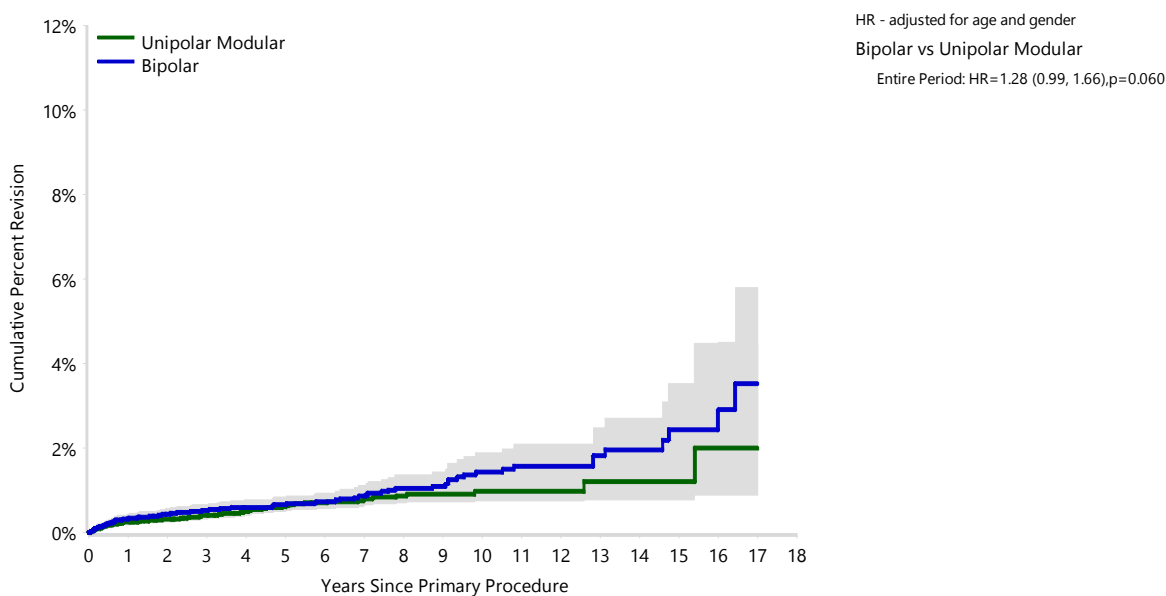
  

CPR	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 Yrs	12 Yrs
Unipolar Modular	0.8 (0.6, 1.0)	0.9 (0.7, 1.1)	0.9 (0.7, 1.1)	1.0 (0.8, 1.2)	1.0 (0.8, 1.2)	1.0 (0.8, 1.2)
Bipolar	0.9 (0.7, 1.1)	1.1 (0.8, 1.4)	1.1 (0.8, 1.4)	1.4 (1.1, 1.9)	1.6 (1.2, 2.1)	1.6 (1.2, 2.1)

CPR	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	1.2 (0.8, 1.8)	1.2 (0.8, 1.8)	1.2 (0.8, 1.8)	2.0 (0.9, 4.5)	2.0 (0.9, 4.5)	
Bipolar	1.8 (1.3, 2.5)	2.0 (1.4, 2.7)	2.4 (1.7, 3.5)	2.9 (1.9, 4.5)	3.5 (2.1, 5.8)	

**Figure 2: Cumulative Percent Revision of Primary Partial Hip Replacement with Cemented Femoral Stem by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**



Number at Risk	0 Yr	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs	7 Yrs	8 Yrs
Unipolar Modular	34802	23184	17879	13583	10155	7562	5490	3937	2759
Bipolar	17969	12250	9538	7333	5660	4503	3604	2945	2341

Number at Risk	9 Yrs	10 Yrs	11 Yrs	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	1967	1341	892	561	357	232	156	92	42	11
Bipolar	1917	1552	1247	989	744	530	360	208	89	28

**Table 5: Revision Rates of Exeter V40 Primary Partial Hip Replacement by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**

Hip Class	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
Unipolar Modular	65	17150	48198	0.13 (0.10, 0.17)
Bipolar	48	9309	33770	0.14 (0.10, 0.19)
<b>TOTAL</b>	<b>113</b>	<b>26459</b>	<b>81968</b>	<b>0.14 (0.11, 0.17)</b>

**Table 6: Yearly Cumulative Percent Revision of Exeter V40 Primary Partial Hip Replacement by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**

CPR	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs
Unipolar Modular	0.2 (0.1, 0.3)	0.3 (0.2, 0.4)	0.4 (0.3, 0.5)	0.5 (0.4, 0.7)	0.6 (0.5, 0.9)	0.8 (0.6, 1.1)
Bipolar	0.3 (0.2, 0.4)	0.4 (0.2, 0.5)	0.5 (0.3, 0.7)	0.6 (0.4, 0.9)	0.6 (0.4, 0.9)	0.7 (0.5, 1.0)

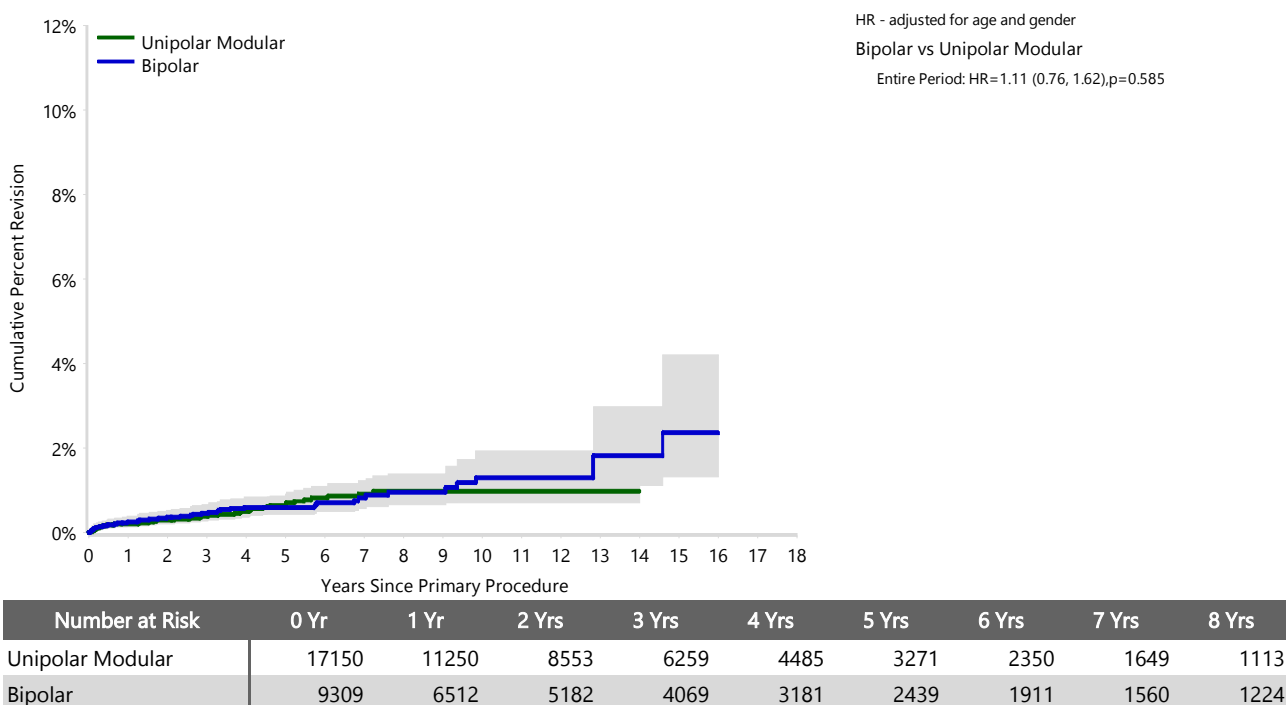
  

CPR	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 Yrs	12 Yrs
Unipolar Modular	0.9 (0.7, 1.2)	1.0 (0.7, 1.3)	1.0 (0.7, 1.3)	1.0 (0.7, 1.3)	1.0 (0.7, 1.3)	1.0 (0.7, 1.3)
Bipolar	0.8 (0.6, 1.2)	1.0 (0.7, 1.4)	1.0 (0.7, 1.4)	1.3 (0.9, 1.9)	1.3 (0.9, 1.9)	1.3 (0.9, 1.9)

CPR	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	1.0 (0.7, 1.3)	1.0 (0.7, 1.3)				
Bipolar	1.8 (1.1, 3.0)	1.8 (1.1, 3.0)	2.4 (1.3, 4.2)	2.4 (1.3, 4.2)		

**Figure 3: Cumulative Percent Revision of Exeter V40 Primary Partial Hip Replacement by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**



Number at Risk	9 Yrs	10 Yrs	11 Yrs	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	752	488	322	193	116	66	34	17	5	0
Bipolar	975	770	609	479	358	239	146	68	15	0

**Table 7: Revision Rates of CPT Primary Partial Hip Replacement by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**

Hip Class	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
Unipolar Modular	25	4749	16863	0.15 (0.10, 0.22)
Bipolar	17	2947	5806	0.29 (0.17, 0.47)
<b>TOTAL</b>	<b>42</b>	<b>7696</b>	<b>22669</b>	<b>0.19 (0.13, 0.25)</b>

**Table 8: Yearly Cumulative Percent Revision of CPT Primary Partial Hip Replacement by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**

CPR	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs
Unipolar Modular	0.4 (0.2, 0.6)	0.4 (0.2, 0.6)	0.5 (0.3, 0.9)	0.7 (0.5, 1.1)	0.7 (0.5, 1.1)	0.7 (0.5, 1.1)
Bipolar	0.5 (0.3, 0.9)	0.7 (0.4, 1.2)	0.8 (0.5, 1.3)	0.8 (0.5, 1.3)	0.8 (0.5, 1.3)	0.8 (0.5, 1.3)

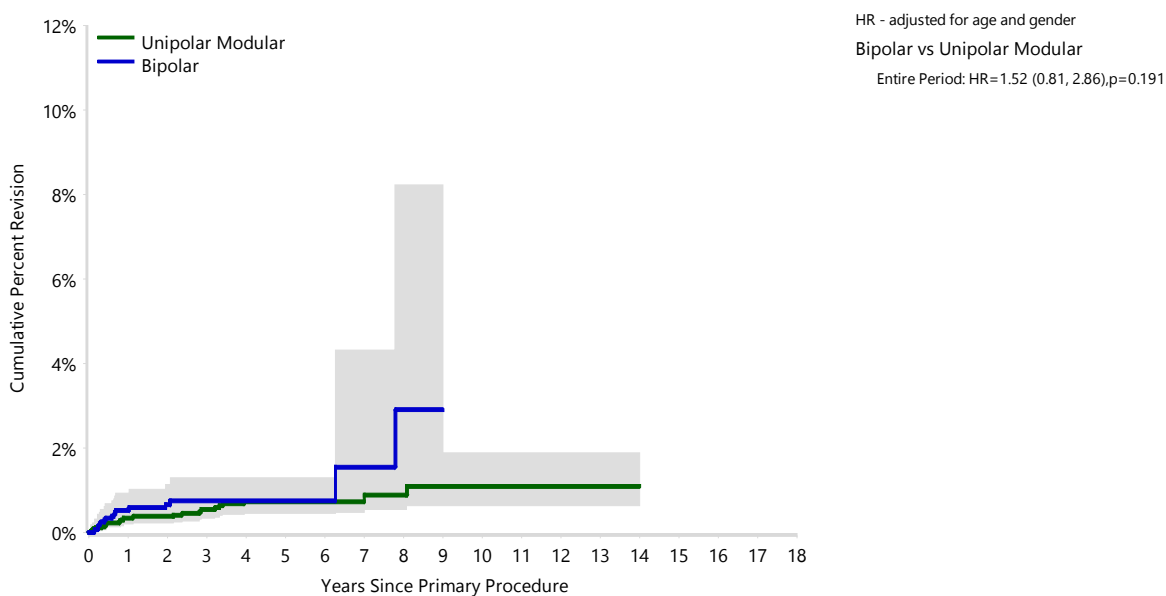
  

CPR	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 Yrs	12 Yrs
Unipolar Modular	0.7 (0.5, 1.1)	0.9 (0.5, 1.4)	1.1 (0.6, 1.9)	1.1 (0.6, 1.9)	1.1 (0.6, 1.9)	1.1 (0.6, 1.9)
Bipolar	1.6 (0.6, 4.3)	2.9 (1.0, 8.2)	2.9 (1.0, 8.2)			

CPR	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	1.1 (0.6, 1.9)	1.1 (0.6, 1.9)				
Bipolar						

**Figure 4: Cumulative Percent Revision of CPT Primary Partial Hip Replacement by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**



Number at Risk	0 Yr	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs	7 Yrs	8 Yrs
Unipolar Modular	4749	3412	2813	2272	1827	1364	974	680	470
Bipolar	2947	1788	1172	662	286	202	138	100	66

Number at Risk	9 Yrs	10 Yrs	11 Yrs	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	333	230	148	87	60	44	35	19	8	4
Bipolar	54	36	26	13	12	9	7	5	1	0



**Table 9: Revision Rates of CPCS Primary Partial Hip Replacement by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**

Hip Class	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
Unipolar Modular	20	5337	15078	0.13 (0.08, 0.20)
Bipolar	13	2013	6479	0.20 (0.11, 0.34)
<b>TOTAL</b>	<b>33</b>	<b>7350</b>	<b>21557</b>	<b>0.15 (0.11, 0.21)</b>

**Table 10: Yearly Cumulative Percent Revision of CPCS Primary Partial Hip Replacement by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**

CPR	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs
Unipolar Modular	0.3 (0.2, 0.6)	0.4 (0.3, 0.7)	0.4 (0.3, 0.7)	0.5 (0.3, 0.8)	0.6 (0.3, 0.9)	0.6 (0.3, 0.9)
Bipolar	0.4 (0.2, 0.8)	0.4 (0.2, 0.8)	0.5 (0.2, 1.0)	0.5 (0.2, 1.0)	1.1 (0.5, 2.1)	1.3 (0.6, 2.5)

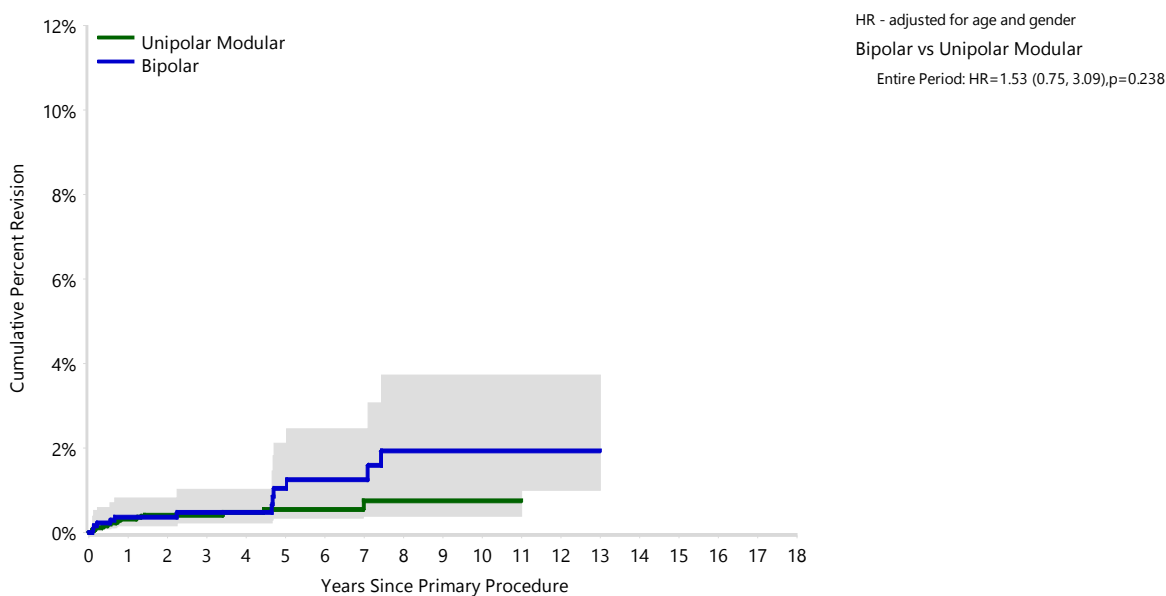
  

CPR	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 Yrs	12 Yrs
Unipolar Modular	0.8 (0.4, 1.5)	0.8 (0.4, 1.5)	0.8 (0.4, 1.5)	0.8 (0.4, 1.5)	0.8 (0.4, 1.5)	0.8 (0.4, 1.5)
Bipolar	1.3 (0.6, 2.5)	1.9 (1.0, 3.7)	1.9 (1.0, 3.7)	1.9 (1.0, 3.7)	1.9 (1.0, 3.7)	1.9 (1.0, 3.7)

CPR	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular						
Bipolar	1.9 (1.0, 3.7)					

**Figure 5: Cumulative Percent Revision of CPCS Primary Partial Hip Replacement by Class (Primary Diagnosis Fractured NOF, Revision for Fracture)**



Number at Risk	0 Yr	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs	7 Yrs	8 Yrs
Unipolar Modular	5337	3574	2745	2029	1464	1048	709	476	326
Bipolar	2013	1285	963	747	600	486	386	309	236

Number at Risk	9 Yrs	10 Yrs	11 Yrs	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	217	129	63	28	6	0	0	0	0	0
Bipolar	189	144	112	77	47	32	11	7	0	0

**Outcomes for Matt and Polished Stems**

**Table 11: Cemented Primary Partial Hip Replacement by Class and Stem Fixation Surface (Primary Diagnosis Fractured NOF)**

Fixation Surface	Unipolar Modular		Bipolar		TOTAL	
	N	CoI%	N	CoI%	N	CoI%
Matt	4400	12.6	1583	8.8	5983	11.3
Polished	30234	86.9	16300	90.7	46534	88.2
Unknown	168	0.5	86	0.5	254	0.5
<b>TOTAL</b>	<b>34802</b>	<b>100.0</b>	<b>17969</b>	<b>100.0</b>	<b>52771</b>	<b>100.0</b>

**Table 12: Revision Rates of Primary Partial Hip Replacement with Cemented Femoral Stem by Class and Fixation Surface (Primary Diagnosis Fractured NOF)**

Hip Class	Fixation Surface	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
Unipolar Modular	Matt	159	4400	18202	0.87 (0.74, 1.02)
	Polished	875	30234	86111	1.02 (0.95, 1.09)
Bipolar	Matt	73	1583	9016	0.81 (0.63, 1.02)
	Polished	478	16300	54128	0.88 (0.81, 0.97)
<b>TOTAL</b>		<b>1585</b>	<b>52517</b>	<b>167457</b>	<b>0.95 (0.90, 0.99)</b>

**Table 13: Yearly Cumulative Percent Revision of Primary Partial Hip Replacement with Cemented Femoral Stem by Class and Fixation Surface (Primary Diagnosis Fractured NOF)**

Hip Class	Fixation Surface	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs
Unipolar Modular	Matt	1.7 (1.4, 2.2)	2.6 (2.1, 3.1)	3.0 (2.5, 3.6)	3.6 (3.0, 4.3)	4.4 (3.7, 5.2)	5.2 (4.4, 6.2)
	Polished	1.8 (1.6, 2.0)	2.5 (2.3, 2.7)	3.1 (2.9, 3.4)	3.8 (3.6, 4.1)	4.4 (4.1, 4.7)	4.9 (4.5, 5.3)
Bipolar	Matt	1.8 (1.2, 2.6)	3.1 (2.3, 4.1)	4.0 (3.0, 5.2)	4.3 (3.3, 5.6)	5.0 (3.9, 6.4)	5.3 (4.1, 6.8)
	Polished	2.1 (1.9, 2.4)	2.8 (2.5, 3.1)	3.3 (3.0, 3.7)	3.6 (3.2, 3.9)	3.9 (3.5, 4.3)	4.1 (3.7, 4.6)

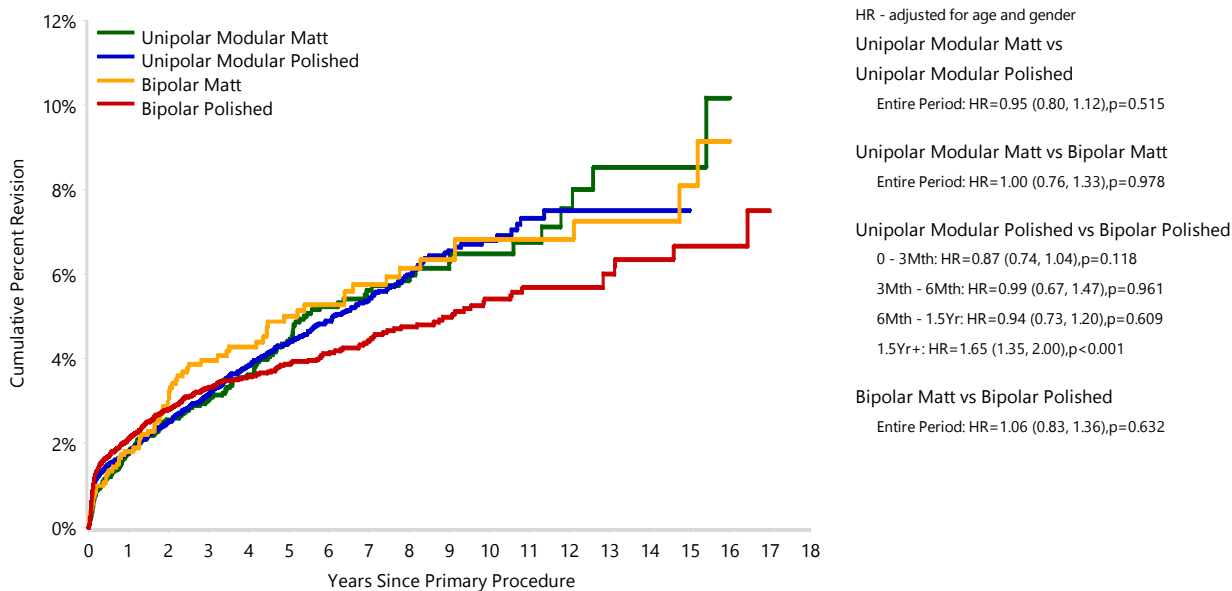
  

Hip Class	Fixation Surface	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 Yrs	12 Yrs
Unipolar Modular	Matt	5.6 (4.7, 6.7)	5.9 (4.9, 7.0)	6.3 (5.3, 7.5)	6.5 (5.4, 7.8)	6.8 (5.6, 8.2)	7.5 (6.0, 9.4)
	Polished	5.4 (5.0, 5.9)	6.0 (5.5, 6.5)	6.6 (6.0, 7.2)	6.8 (6.1, 7.5)	7.3 (6.5, 8.2)	7.5 (6.6, 8.5)
Bipolar	Matt	5.8 (4.5, 7.3)	6.1 (4.8, 7.8)	6.4 (5.0, 8.1)	6.8 (5.3, 8.7)	6.8 (5.3, 8.7)	6.8 (5.3, 8.7)
	Polished	4.4 (4.0, 4.9)	4.8 (4.3, 5.3)	5.0 (4.4, 5.6)	5.4 (4.8, 6.1)	5.7 (5.0, 6.4)	5.7 (5.0, 6.4)

Hip Class	Fixation Surface	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	Matt	8.5 (6.6, 11.0)	8.5 (6.6, 11.0)	8.5 (6.6, 11.0)	10.2 (7.0, 14.7)		
	Polished	7.5 (6.6, 8.5)	7.5 (6.6, 8.5)	7.5 (6.6, 8.5)			
Bipolar	Matt	7.2 (5.6, 9.4)	7.2 (5.6, 9.4)	8.1 (5.9, 11.0)	9.1 (6.4, 12.9)		
	Polished	6.0 (5.2, 6.9)	6.4 (5.4, 7.4)	6.7 (5.6, 7.9)	6.7 (5.6, 7.9)	7.5 (5.7, 9.8)	

**Figure 6: Cumulative Percent Revision of Primary Partial Hip Replacement with Cemented Femoral Stem by Class and Fixation Surface (Primary Diagnosis Fractured NOF)**



Number at Risk		0 Yr	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs	7 Yrs	8 Yrs
Unipolar Modular	Matt	4400	3263	2764	2330	1865	1477	1140	900	697
	Polished	30234	19801	15011	11165	8222	6025	4299	2996	2029
Bipolar	Matt	1583	1275	1101	957	835	746	637	541	454
	Polished	16300	10913	8382	6325	4777	3714	2933	2378	1866

Number at Risk		9 Yrs	10 Yrs	11 Yrs	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	Matt	541	393	288	208	146	101	70	43	22	6
	Polished	1394	920	582	335	198	119	74	39	14	4
Bipolar	Matt	396	333	271	232	179	134	100	61	28	8
	Polished	1505	1204	964	748	558	392	257	146	61	20

**Table 14: Revision Rates of Primary Partial Hip Replacement with Cemented Femoral Stem by Class and Fixation Surface (Primary Diagnosis Fractured NOF, Revision for Fracture)**

Hip Class	Fixation Surface	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
Unipolar Modular	Matt	11	4400	18202	0.06 (0.03, 0.11)
	Polished	126	30234	86111	0.15 (0.12, 0.17)
Bipolar	Matt	8	1583	9016	0.09 (0.04, 0.17)
	Polished	95	16300	54128	0.18 (0.14, 0.21)
<b>TOTAL</b>		<b>240</b>	<b>52517</b>	<b>167457</b>	<b>0.14 (0.13, 0.16)</b>

**Table 15: Yearly Cumulative Percent Revision of Primary Partial Hip Replacement with Cemented Femoral Stem by Class and Fixation Surface (Primary Diagnosis Fractured NOF, Revision for Fracture)**

Hip Class	Fixation Surface	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs
Unipolar Modular	Matt	0.1 (0.0, 0.2)	0.1 (0.0, 0.2)	0.1 (0.0, 0.3)	0.1 (0.0, 0.3)	0.3 (0.1, 0.6)	0.4 (0.2, 0.9)
	Polished	0.3 (0.2, 0.3)	0.4 (0.3, 0.4)	0.5 (0.4, 0.6)	0.6 (0.5, 0.7)	0.7 (0.5, 0.8)	0.8 (0.6, 0.9)
Bipolar	Matt	0.3 (0.1, 0.8)	0.4 (0.2, 0.9)	0.4 (0.2, 0.9)	0.4 (0.2, 0.9)	0.4 (0.2, 0.9)	0.4 (0.2, 0.9)
	Polished	0.3 (0.2, 0.4)	0.5 (0.3, 0.6)	0.5 (0.4, 0.7)	0.6 (0.5, 0.8)	0.7 (0.6, 0.9)	0.8 (0.6, 1.0)

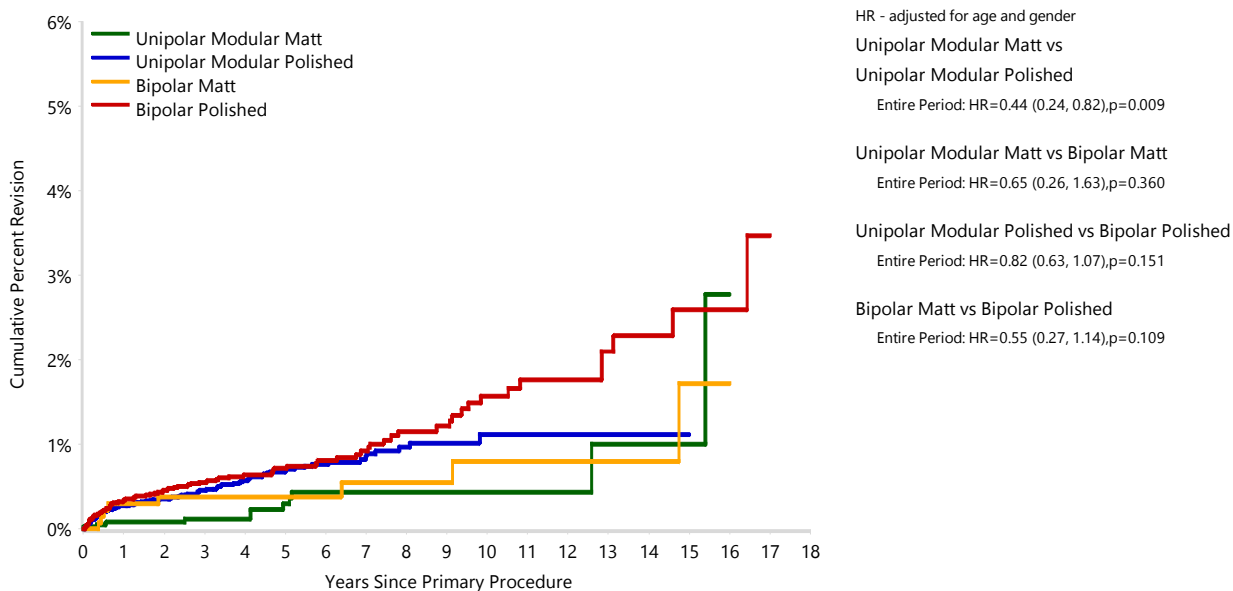
  

Hip Class	Fixation Surface	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 Yrs	12 Yrs
Unipolar Modular	Matt	0.4 (0.2, 0.9)	0.4 (0.2, 0.9)	0.4 (0.2, 0.9)	0.4 (0.2, 0.9)	0.4 (0.2, 0.9)	0.4 (0.2, 0.9)
	Polished	0.9 (0.7, 1.1)	1.0 (0.8, 1.2)	1.0 (0.8, 1.3)	1.1 (0.8, 1.5)	1.1 (0.8, 1.5)	1.1 (0.8, 1.5)
Bipolar	Matt	0.5 (0.2, 1.3)	0.5 (0.2, 1.3)	0.5 (0.2, 1.3)	0.8 (0.3, 1.9)	0.8 (0.3, 1.9)	0.8 (0.3, 1.9)
	Polished	0.9 (0.7, 1.2)	1.2 (0.9, 1.5)	1.2 (0.9, 1.6)	1.6 (1.2, 2.1)	1.8 (1.3, 2.4)	1.8 (1.3, 2.4)

Hip Class	Fixation Surface	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular	Matt	1.0 (0.3, 3.2)	1.0 (0.3, 3.2)	1.0 (0.3, 3.2)	2.8 (0.7, 10.0)		
	Polished	1.1 (0.8, 1.5)	1.1 (0.8, 1.5)	1.1 (0.8, 1.5)			
Bipolar	Matt	0.8 (0.3, 1.9)	0.8 (0.3, 1.9)	1.7 (0.6, 5.2)	1.7 (0.6, 5.2)		
	Polished	2.1 (1.5, 2.9)	2.3 (1.6, 3.2)	2.6 (1.8, 3.8)	2.6 (1.8, 3.8)	3.5 (2.0, 6.1)	

**Figure 7: Cumulative Percent Revision of Primary Partial Hip Replacement with Cemented Femoral Stem by Class and Fixation Surface (Primary Diagnosis Fractured NOF, Revision for Fracture)**



Number at Risk	0 Yr	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs	7 Yrs	8 Yrs
Unipolar Modular Matt	4400	3263	2764	2330	1865	1477	1140	900	697
Unipolar Modular Polished	30234	19801	15011	11165	8222	6025	4299	2996	2029
Bipolar Matt	1583	1275	1101	957	835	746	637	541	454
Bipolar Polished	16300	10913	8382	6325	4777	3714	2933	2378	1866

Number at Risk	9 Yrs	10 Yrs	11 Yrs	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
Unipolar Modular Matt	541	393	288	208	146	101	70	43	22	6
Unipolar Modular Polished	1394	920	582	335	198	119	74	39	14	4
Bipolar Matt	396	333	271	232	179	134	100	61	28	8
Bipolar Polished	1505	1204	964	748	558	392	257	146	61	20

**Note: Approximately 200 stems have unknown fixation surface – listed in table below. Data managers may be able to classify these if requested.**

**Table 16: Revision Rates of Primary Unipolar Modular Hip Replacement with Cemented Femoral Stem by Fixation Surface and Model (Primary Diagnosis Fractured NOF, Revision for Fracture)**

Fixation Surface	Femoral Stem	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)	
Matt	Basis	4	564	2400	0.17 (0.05, 0.43)	
	CCA	0	346	1804	0.00 (0.00, 0.20)	
	Definition	0	2	20	0.00 (0.00, 18.40)	
	Echelon	0	44	70	0.00 (0.00, 5.24)	
	Elite Plus	1	75	314	0.32 (0.01, 1.78)	
	Excia	0	2	0	0.00 (0.00, 1925)	
	Fullfix	2	213	1134	0.18 (0.02, 0.64)	
	Integral	0	3	11	0.00 (0.00, 32.75)	
	Lubinus SP II	0	5	14	0.00 (0.00, 25.83)	
	Omnifit	0	213	779	0.00 (0.00, 0.47)	
	PLM	0	2	4	0.00 (0.00, 83.38)	
	R120	0	10	20	0.00 (0.00, 18.26)	
	Spectron EF	4	2818	11355	0.04 (0.01, 0.09)	
	Summit	0	16	57	0.00 (0.00, 6.47)	
	VerSys	0	87	219	0.00 (0.00, 1.69)	
	Polished	Absolut	0	505	404	0.00 (0.00, 0.91)
		C-Stem	0	56	358	0.00 (0.00, 1.03)
		C-Stem AMT	6	1120	1495	0.40 (0.15, 0.87)
CPCS		20	5337	15078	0.13 (0.08, 0.20)	
CPS-Plus		0	1	4	0.00 (0.00, 87.26)	
CPT		25	4749	16863	0.15 (0.10, 0.22)	
E2		0	314	917	0.00 (0.00, 0.40)	
Edinburgh		0	2	19	0.00 (0.00, 19.72)	
Evolve		1	86	92	1.08 (0.03, 6.04)	
Exeter V40		65	17150	48198	0.13 (0.10, 0.17)	
Friendly Hip		1	43	118	0.85 (0.02, 4.72)	
H-Max		0	18	43	0.00 (0.00, 8.54)	
MS 30		1	133	503	0.20 (0.01, 1.11)	
Matrix		0	1	6	0.00 (0.00, 66.08)	
Matrix-Practica		0	4	25	0.00 (0.00, 15.03)	
Profemur XM		0	52	184	0.00 (0.00, 2.00)	
Quadra-C		0	11	14	0.00 (0.00, 26.63)	
Short Exeter V40		0	137	173	0.00 (0.00, 2.13)	
Sirius		1	65	83	1.21 (0.03, 6.74)	
Taper Fit		3	348	1347	0.22 (0.05, 0.65)	
VerSys Heritage		0	22	116	0.00 (0.00, 3.18)	
X-Acta		0	8	7	0.00 (0.00, 56.59)	
twinSys		3	72	64	4.72 (0.97, 13.80)	
Unknown		Custom Made (Eska)	0	1	3	0.00 (0.00, 131.8)
		Evolve	0	11	11	0.00 (0.00, 34.93)
		GTH	0	4	13	0.00 (0.00, 28.85)
		Generic Stem	0	8	38	0.00 (0.00, 9.78)



Fixation Surface	Femoral Stem	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
	LPS	0	1	10	0.00 (0.00, 36.13)
	Modular Endo	0	16	17	0.00 (0.00, 21.41)
	Oss	0	2	6	0.00 (0.00, 64.25)
	Thompson Modular Stem	0	125	699	0.00 (0.00, 0.53)
<b>TOTAL</b>		<b>137</b>	<b>34802</b>	<b>105109</b>	<b>0.13 (0.11, 0.15)</b>

**Table 17: Revision Rates of Primary Bipolar Hip Replacement with Cemented Femoral Stem by Fixation Surface and Model (Primary Diagnosis Fractured NOF, Revision for Fracture)**

Fixation Surface	Femoral Stem	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
Matt	Adapter	0	7	24	0.00 (0.00, 15.27)
	Basis	0	148	692	0.00 (0.00, 0.53)
	Bi-Metric	0	1	1	0.00 (0.00, 549.9)
	CCA	1	88	620	0.16 (0.00, 0.90)
	Charnley	0	32	134	0.00 (0.00, 2.74)
	Definition	0	29	182	0.00 (0.00, 2.02)
	Echelon	1	16	28	3.59 (0.09, 19.98)
	Elite Plus	4	487	3112	0.13 (0.04, 0.33)
	Excia	0	8	16	0.00 (0.00, 23.69)
	Fullfix	0	27	214	0.00 (0.00, 1.72)
	H Moos	0	4	26	0.00 (0.00, 14.22)
	HNR	0	2	8	0.00 (0.00, 45.92)
	Integral	0	1	6	0.00 (0.00, 57.02)
	Lubinus SP II	0	12	47	0.00 (0.00, 7.91)
	Omnifit	1	288	1825	0.05 (0.00, 0.31)
	R120	0	3	4	0.00 (0.00, 89.82)
	Spectron EF	1	286	1420	0.07 (0.00, 0.39)
	Stanmore	0	14	82	0.00 (0.00, 4.50)
	Summit	0	3	27	0.00 (0.00, 13.44)
	VerSys	0	127	546	0.00 (0.00, 0.68)
Polished	Absolut	0	23	16	0.00 (0.00, 23.34)
	C-Stem	1	298	1687	0.06 (0.00, 0.33)
	C-Stem AMT	2	270	339	0.59 (0.07, 2.13)
	CPCS	13	2013	6479	0.20 (0.11, 0.34)
	CPS-Plus	0	1	1	0.00 (0.00, 479.5)
	CPT	17	2947	5806	0.29 (0.17, 0.47)
	Edinburgh	0	11	41	0.00 (0.00, 9.06)
	Evolve	0	2	3	0.00 (0.00, 143.9)
	Exeter	5	354	2771	0.18 (0.06, 0.42)
	Exeter V40	48	9309	33770	0.14 (0.10, 0.19)
	Friendly Hip	1	35	136	0.73 (0.02, 4.09)
	H-Max	1	71	106	0.94 (0.02, 5.25)
	LYDERIC II	0	22	138	0.00 (0.00, 2.67)
	MS 30	0	134	549	0.00 (0.00, 0.67)
	Olympia	0	1	17	0.00 (0.00, 22.32)
	Profemur XM	0	5	25	0.00 (0.00, 14.63)
	Quadra-C	2	322	569	0.35 (0.04, 1.27)
	Short Exeter V40	0	52	50	0.00 (0.00, 7.32)
	Sirius	0	21	45	0.00 (0.00, 8.20)
	Standard C	0	6	22	0.00 (0.00, 16.78)
	Taper Fit	1	34	147	0.68 (0.02, 3.80)
	VerSys Heritage	2	268	1237	0.16 (0.02, 0.58)
	X-Acta	1	96	167	0.60 (0.02, 3.34)
	twinSys	1	5	9	11.62 (0.29, 64.73)
Unknown	Charnley	1	64	378	0.26 (0.01, 1.47)

Fixation Surface	Femoral Stem	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
	GMRS	0	9	11	0.00 (0.00, 32.19)
	GTH	0	2	9	0.00 (0.00, 39.47)
	Generic Stem	0	4	17	0.00 (0.00, 22.20)
	Mutars	0	2	0	0.00 (0.00, 898.2)
	Thompson Modular Stem	0	4	23	0.00 (0.00, 16.00)
	Wroblewski Resection Stem	0	1	4	0.00 (0.00, 82.71)
<b>TOTAL</b>		<b>104</b>	<b>17969</b>	<b>63587</b>	<b>0.16 (0.13, 0.20)</b>