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Total Resurfacing

The Recap resurfacing hip prosthesis has been newly identified this year. Although it was identified prior to 2010 it is regarded as a newly identified prostheses because it was not identified last year. This year, the three year cumulative percent revision is 6.0% (adj HR=2.17; 95%CI (1.25, 3.76), p=0.005).

Four resurfacing devices have previously been identified as having a higher than anticipated rate of revision. Two of these are still available on the market. They are the Durom and the Bionik resurfacing hip prostheses. Both continue to have a higher than anticipated rate of revision.

Table IP10: Revision Rate of Individual Total Resurfacing Hip identified as having a Higher than Anticipated Revision Rate

Resurfacing Head/Acetabular	N Total	Obs. Years	Revisions/100 Obs. Yrs	Hazard Ratio, P Value
Identified and no longer used				
ASR/ASR	1167	4932	2.09	Entire Period: HR=2.24 (1.81, 2.77), p<0.001
*Cormet 2000 HAP	95	627	2.07	Entire Period: HR=2.47 (1.43, 4.28), p=0.001
Re-Identified and still used				
Bionik/Bionik	192	495	3.64	Entire Period: HR=3.48 (2.17, 5.57), p<0.001
Durom/Durom	837	3723	1.56	Entire Period: HR=1.74 (1.32, 2.28), p<0.001
Newly Identified				
Recap/Recap	192	577	2.25	Entire Period: HR=2.17 (1.25, 3.76), p=0.005

Note: All Components have been compared to all other Total Resurfacing Hip components.
 * Resurfacing Head Component

Table IP11: Yearly Cumulative Percent Revision of Individual Total Resurfacing Hip identified as having a Higher than Anticipated Revision Rate

CPR	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Identified and no longer used					
ASR/ASR	3.3 (2.5, 4.5)	5.9 (4.7, 7.5)	10.5 (8.6, 12.7)	13.0 (9.3, 17.9)	
*Cormet 2000 HAP	6.3 (2.9, 13.5)	8.4 (4.3, 16.1)	9.5 (5.0, 17.4)	12.6 (7.4, 21.2)	
Re-Identified and still used					
Bionik/Bionik	3.8 (1.8, 7.7)	10.0 (6.1, 16.4)			
Durom/Durom	3.1 (2.2, 4.6)	5.4 (4.0, 7.2)	7.3 (5.6, 9.5)	9.6 (6.7, 13.7)	
Newly Identified					
Recap/Recap	4.3 (2.2, 8.4)	6.0 (3.4, 10.7)			

Table IP12: Yearly Usage of Individual Total Resurfacing Hip identified as having a Higher than Anticipated Revision Rate

Year of Implant	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Identified and no longer used												
ASR/ASR					43	165	302	257	176	133	91	
*Cormet 2000 HAP			1	17	38	39						
Re-Identified and still used												
Bionik/Bionik							12	33	33	45	54	15
Durom/Durom					58	166	207	143	105	88	46	24
Newly Identified												
Recap/Recap						27	14	9	42	46	38	16

Figure IP5: Cumulative Percent Revision of Individual Total Resurfacing Hip re-identified and still used

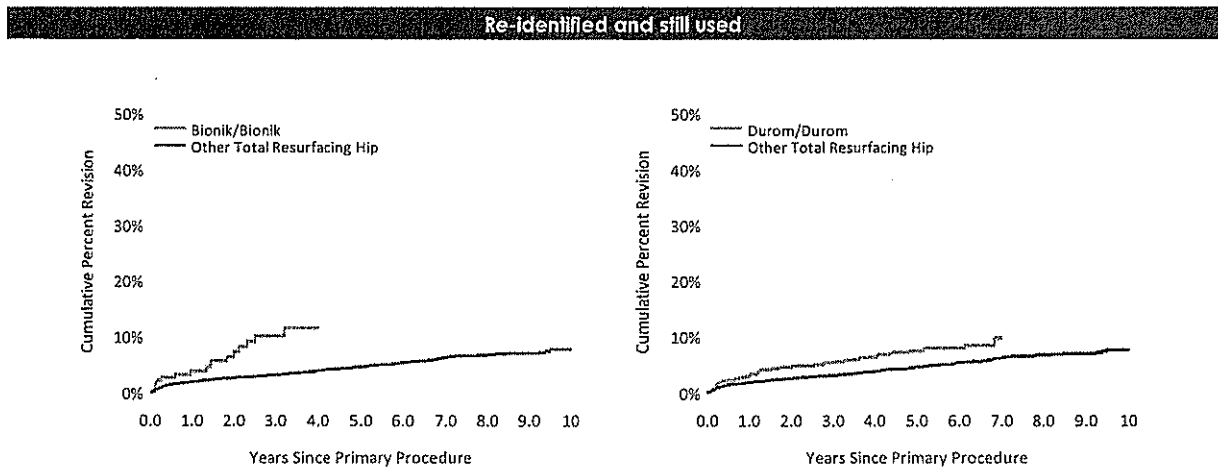
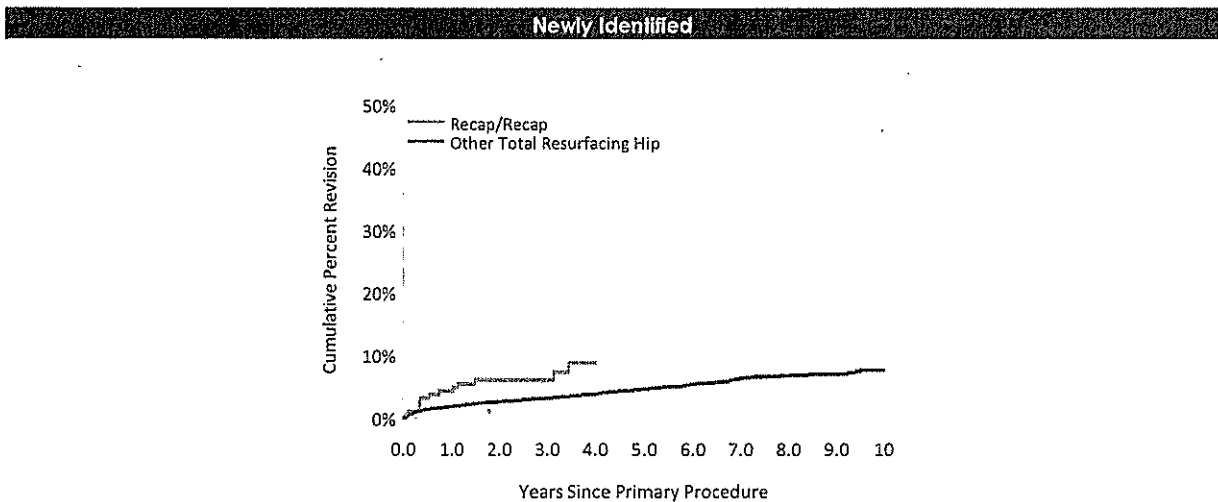


Figure IP6: Cumulative Percent Revision of Individual Total Resurfacing Hip newly identified



Bionik/Bionik Total Resurfacing Hip Investigation

This analysis compares the Bionik/Bionik Total Resurfacing Hip Combination with all Other Total Resurfacing Hip prostheses. This Combination has been identified as having a significantly higher revision rate.

For a detailed explanation of the process used by the Registry that results in identification of prostheses that have a higher than anticipated rate of revision please refer to the ' Prostheses with Higher than Anticipated Rates of Revision ' chapter of the most recent AOANJRR Annual Report, <http://www.dmac.adelaide.edu.au/aoanjrr/publications.jsp>.

TABLE 1

Revision Rate of Primary Total Resurfacing Hip Replacement

The **Revision Rate** of the Bionik/Bionik Total Resurfacing Hip Combination is compared to all Other Total Resurfacing Hip prostheses.

Table 1: Revision Rates of Primary Total Resurfacing Hip Replacement

Component	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
Bionik/Bionik	18	192	495	3.64 (2.16, 5.75)
Other Total Resurfacing Hip	642	14106	68178	0.94 (0.87, 1.02)
TOTAL	660	14298	68673	0.96 (0.89, 1.04)

TABLE 2

Yearly Cumulative Percent Revision of Primary Total Resurfacing Hip Replacement

The **Yearly Cumulative Percent Revision** of the Bionik/Bionik Total Resurfacing Hip Combination is compared to all Other Total Resurfacing Hip prostheses.

Table 2: Yearly Cumulative Percent Revision of Primary Total Resurfacing Hip Replacement

CPR	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Bionik/Bionik	3.8 (1.8, 7.7)	10.0 (6.1, 16.4)			
Other Total Resurfacing Hip	1.8 (1.6, 2.1)	3.1 (2.8, 3.4)	4.6 (4.2, 5.0)	6.2 (5.7, 6.8)	7.6 (6.7, 8.7)

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