

Australian Orthopaedic Association National Joint Replacement Registry

2025 SUPPLEMENTARY REPORT

Metal/Metal Bearing Surface in Total Conventional Hip Arthroplasty



Australian
Orthopaedic
Association
National
Joint
Replacement
Registry

Australian Orthopaedic Association National Joint Replacement Registry

**Metal/Metal Bearing Surface
in Total Conventional Hip Arthroplasty**

2025 Supplementary Report

Clinical Director:
Professor Paul Smith
E: admin@aoanjrr.org.au

Executive Manager:
Sophie Corfield (Acting)
Kathy Hill
Roz Hanson (Feb – August 2025)
E: executivesupport@aoanjrr.org.au

AOANJRR
SAHMRI Building
North Terrace
ADELAIDE SA 5000
T: +61 8 8128 4280

The AOANJRR is funded by the Australian Government Department of Health, Disability and Ageing

Cite this report

Lewis PL, Gill DR, McAuliffe MJ, Stoney JD, Vertullo CJ, Wall CJ, Corfield S, Esaian R, Moylan S, Du P, Holder C, Edwards S, Xu Q, Oakey H, Lorimer MF, Smith PN. Metal/Metal Bearing Surface in Total Conventional Hip Arthroplasty Supplementary Report in *Hip, Knee & Shoulder Arthroplasty: 2025 Annual Report*, Australian Orthopaedic Association National Joint Replacement Registry, AOA, Adelaide; 2025. <https://doi.org/10.25310/XWDY3281>

The use and/or reproduction of AOANJRR data provided in this report requires adherence to the AOANJRR Publications and Authorship Policy available at: <https://aoanjrr.sahmri.com/aoanjrr-data-publication-and-authorship>

www.aoa.org.au

© Australian Orthopaedic Association National Joint Replacement Registry 2025



**Australian Orthopaedic Association
National Joint Replacement Registry**

**Metal/Metal Bearing Surface in
Total Conventional Hip Arthroplasty**

2025 Supplementary Report

Contents

SUMMARY2
Outcome 3
Demographics 3

Summary

This report provides information on total conventional hip replacement procedures performed with metal/metal bearing surfaces.

All hip replacement procedures recorded by the Registry from the commencement date to 31 December 2024 have been included in this report.

Summary data on the use of metal/metal bearings are provided, along with outcomes (revision rate, reason for revision and type of revision) according to patient and implant characteristics (e.g. head size, age and gender).

The use of metal/metal conventional hip replacements peaked between 2006 and 2008 (when over 3,000 were implanted each year) and then rapidly declined, with no metal/metal THRs implanted since 2016.

The revision rate for metal/metal THRs is higher than for other bearing surfaces, but the high revision rate is mainly restricted to prostheses with head sizes >32mm.

The most common reason for revision of a primary metal/metal hip replacement is metal related pathology, followed by loosening and infection.

Metal/Metal

OUTCOME

Since 2008, metal/metal bearing surface has been shown to have a higher rate of revision compared to metal/polyethylene. In 2010, metal/metal bearing surfaces were identified as having a higher rate of revision compared to all other bearing surfaces. In the same year the important relationship between head size and revision of metal/metal prostheses was recognised.

To further evaluate the effect of head size with metal/metal bearing surface, an analysis was undertaken comparing two head size groups ($\leq 32\text{mm}$ and $>32\text{mm}$). Head sizes $>32\text{mm}$ are associated with an increased rate of revision compared to $\leq 32\text{mm}$ head sizes (Table MM2 and Figure MM2).

DEMOGRAPHICS

Metal/metal bearing surface has been used in 22,107 primary total conventional hip replacements (Table MM1 and Figure MM1).

There have been 4,992 revisions of metal/metal primary total conventional hip replacement; 600 revisions with $\leq 32\text{mm}$ and 4,392 revisions with $>32\text{mm}$ head sizes. The majority of revisions with head sizes $>32\text{mm}$ involve the acetabular component only (56.6%) followed by revision of both the femoral and acetabular components (19.1%). For metal/metal with head sizes $\leq 32\text{mm}$, revision of the femoral component is most common (29.2%), followed by revisions of the acetabular component (25.8%) (Table MM3).

The main reasons for revision of $>32\text{mm}$ head sizes are metal related pathology (46.7%), loosening (17.5%), infection (11.8%) and lysis (7.4%). The main reasons for revision of $\leq 32\text{mm}$ head sizes are loosening (26.2%), prosthesis dislocation/instability (17.0%), fracture (16.2%) and infection (13.8%) (Table MM4 and Figure MM3).

There is a relationship between age and head size. The rate of revision for head sizes $>32\text{mm}$ is higher than for head sizes $\leq 32\text{mm}$ regardless of age. For head sizes $>32\text{mm}$, patients aged <65 years have a higher rate of revision than patients aged ≥ 65 years after 4 years (Table MM5 and Figure MM4).

Both males and females have higher rates of revision when head size $>32\text{mm}$ are used, with

females having the highest rate. When head sizes $\leq 32\text{mm}$ are used, males have a lower rate of revision compared to females (Table MM6 and Figure MM5).

Regardless of head size, metal/metal has a higher rate of revision compared to metal/polyethylene. Metal/metal with $>32\text{mm}$ head sizes have a higher rate of revision compared to metal/metal with head size $\leq 32\text{mm}$ from 1 month onwards. When compared to metal/polyethylene $>32\text{mm}$ head sizes, metal/metal with $>32\text{mm}$ head sizes have a lower rate of revision from 2 weeks to 3 months followed by a higher rate of revision from 3 months onwards. Metal/metal with head size $\leq 32\text{mm}$ have a higher rate of revision compared to metal/polyethylene with head size $\leq 32\text{mm}$ (Table MM7 and Figure MM6).

The differences in the reasons for revision between metal/metal and metal/polyethylene are more evident in metal/metal prostheses with $>32\text{mm}$ head sizes (Figure MM7). Metal related pathology is largely confined to $>32\text{mm}$ head sizes. The cumulative incidence of metal related pathology at 15 years is 12.6% for head sizes $>32\text{mm}$ and 1.0% for head sizes $\leq 32\text{mm}$. The incidence of metal related pathology is potentially higher, as it is possible that undiagnosed metal related pathology contributes to the increased rate of loosening and infection reported in metal/metal prostheses with larger head sizes (Figure MM7).

In order to determine if the higher revision rate of metal/metal prostheses is prosthesis specific, all prosthesis head/acetabular combinations that have a head size $>32\text{mm}$ and have >200 procedures have been analysed. There are 13 combinations that meet these criteria. The cumulative percent revision ranges from 7.4% to 45.4% at 10 years. In comparison, there are 8 head/acetabular combinations that have head sizes $\leq 32\text{mm}$ and >50 procedures. The cumulative percent revision at 10 years ranges from 1.6% to 11.7% (Table MM8 and Table MM9).

Table MM1 Number of Revisions of Metal/Metal Primary Total Conventional Hip Replacement by Head Size and Year of Implant (All Diagnoses)

Year of Implant	≤32mm		>32mm	
	Number Revised	Total Number	Number Revised	Total Number
1999	0	7	7	12
2000	17	141	18	34
2001	60	662	43	113
2002	83	896	21	138
2003	68	653	66	421
2004	63	647	183	952
2005	74	643	472	1915
2006	49	493	823	2828
2007	48	471	927	3220
2008	44	419	1014	3282
2009	37	311	571	2078
2010	21	184	197	955
2011	15	94	45	298
2012	10	77	3	34
2013	5	40	2	14
2014	5	51	0	5
2015	1	18	0	1
2016				
2017				
2018				
2019				
2020				
2021				
2022				
2023				
2024				
TOTAL	600	5807	4392	16300

Note: The number of revisions refers to the revisions of primaries undertaken in that year

Figure MM1 Metal/Metal Primary Total Conventional Hip Replacement by Head Size (All Diagnoses)

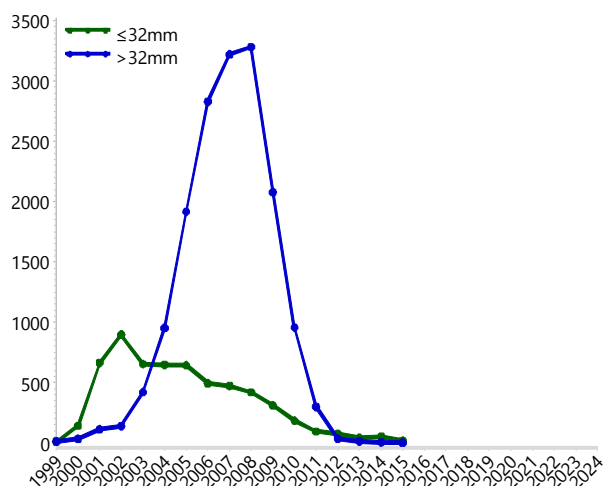
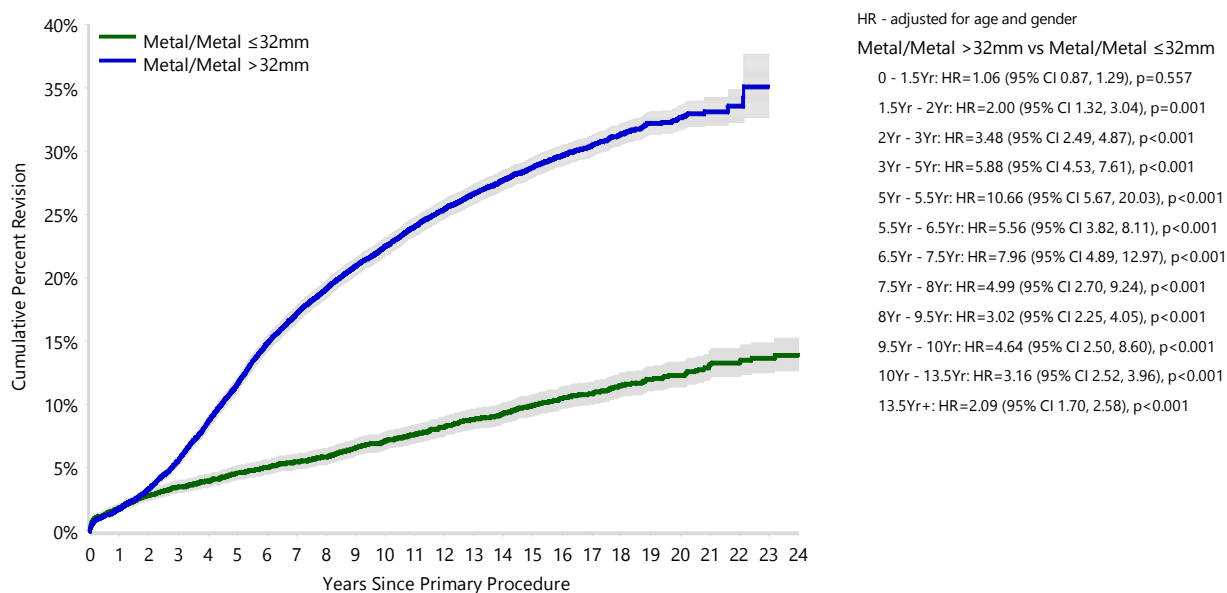


Table MM2 Cumulative Percent Revision of Metal/Metal Primary Total Conventional Hip Replacement by Head Size (All Diagnoses)

Type	Head Size	N Revised	N Total	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Metal/Metal	≤32mm	600	5807	1.8 (1.5, 2.2)	3.5 (3.1, 4.0)	4.6 (4.1, 5.2)	7.1 (6.5, 7.8)	9.9 (9.1, 10.8)	12.3 (11.4, 13.3)
	>32mm	4392	16300	1.8 (1.6, 2.0)	5.6 (5.3, 6.0)	11.6 (11.1, 12.1)	22.5 (21.8, 23.2)	28.7 (28.0, 29.5)	32.6 (31.7, 33.6)
TOTAL		4992	22107						

Figure MM2 Cumulative Percent Revision of Metal/Metal Primary Total Conventional Hip Replacement by Head Size (All Diagnoses)



Number at Risk	0 Yr	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Metal/Metal ≤32mm	5807	5648	5435	5219	4501	3422	1518
>32mm	16300	15828	14844	13429	10380	7165	707

Table MM3 Type of Revision of Metal/Metal Primary Total Conventional Hip Replacement by Head Size (All Diagnoses)

Type of Revision	≤32mm			>32mm		
	Number	% Primaries Revised	% Revisions	Number	% Primaries Revised	% Revisions
Acetabular Component	155	2.7	25.8	2487	15.3	56.6
THR (Femoral/Acetabular)	94	1.6	15.7	841	5.2	19.1
Head/Insert	108	1.9	18.0	398	2.4	9.1
Femoral Component	175	3.0	29.2	342	2.1	7.8
Cement Spacer	22	0.4	3.7	164	1.0	3.7
Head Only	22	0.4	3.7	80	0.5	1.8
Head/Neck/Insert	8	0.1	1.3	37	0.2	0.8
Minor Components	10	0.2	1.7	23	0.1	0.5
Removal of Prostheses	3	0.1	0.5	7	0.0	0.2
Head/Neck	2	0.0	0.3	4	0.0	0.1
Bipolar Head and Femoral				2	0.0	0.0
Bipolar Only				2	0.0	0.0
Insert Only	1	0.0	0.2	2	0.0	0.0
Neck Only				1	0.0	0.0
Reinsertion of Components				1	0.0	0.0
Saddle				1	0.0	0.0
N Revision	600	10.3	100.0	4392	26.9	100.0
N Primary	5807			16300		

Table MM4 Revision Diagnosis of Metal/Metal Primary Total Conventional Hip Replacement by Head Size (All Diagnoses)

Revision Diagnosis	Number	≤32mm		Number	>32mm	
		% Primaries Revised	% Revisions		% Primaries Revised	% Revisions
Metal Related Pathology	69	1.2	11.5	2052	12.6	46.7
Loosening	157	2.7	26.2	768	4.7	17.5
Infection	83	1.4	13.8	518	3.2	11.8
Lysis	36	0.6	6.0	324	2.0	7.4
Fracture	97	1.7	16.2	251	1.5	5.7
Prosthesis Dislocation/Instability	102	1.8	17.0	147	0.9	3.3
Pain	13	0.2	2.2	131	0.8	3.0
Implant Breakage Stem	5	0.1	0.8	65	0.4	1.5
Leg Length Discrepancy	7	0.1	1.2	21	0.1	0.5
Wear Acetabulum				19	0.1	0.4
Implant Breakage Acetabular	7	0.1	1.2	16	0.1	0.4
Incorrect Sizing	5	0.1	0.8	12	0.1	0.3
Malposition	4	0.1	0.7	11	0.1	0.3
Tumour				11	0.1	0.3
Wear Acetabular Insert	7	0.1	1.2	2	0.0	0.0
Synovitis	1	0.0	0.2	4	0.0	0.1
Implant Breakage Acetabular Insert	1	0.0	0.2	3	0.0	0.1
Osteonecrosis				3	0.0	0.1
Implant Breakage Head				2	0.0	0.0
Heterotopic Bone				1	0.0	0.0
Wear Head				1	0.0	0.0
Other	6	0.1	1.0	30	0.2	0.7
N Revision	600	10.3	100.0	4392	26.9	100.0
N Primary	5807			16300		

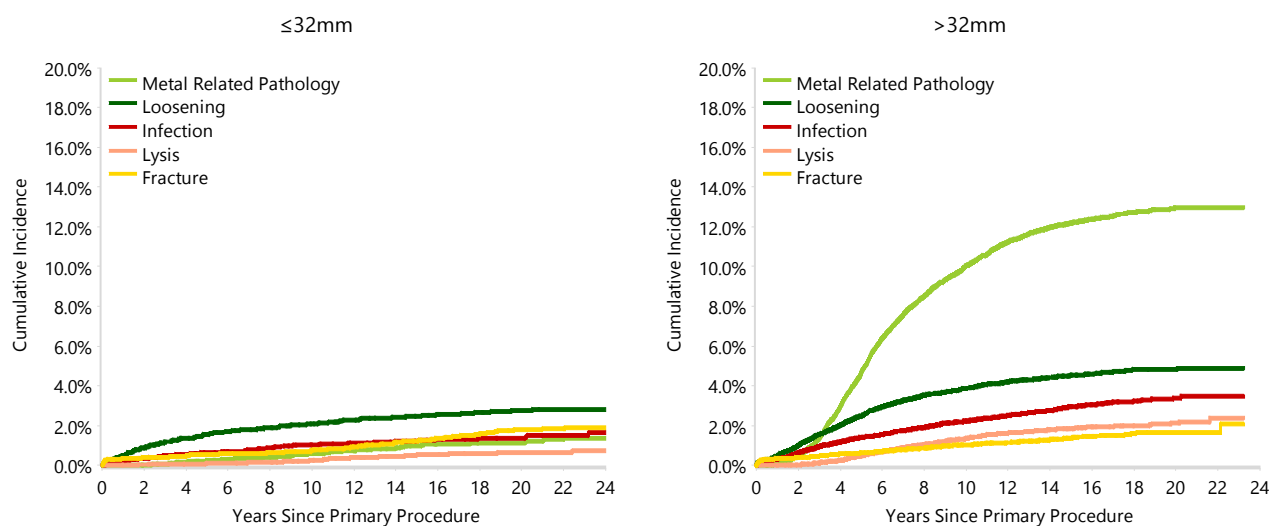
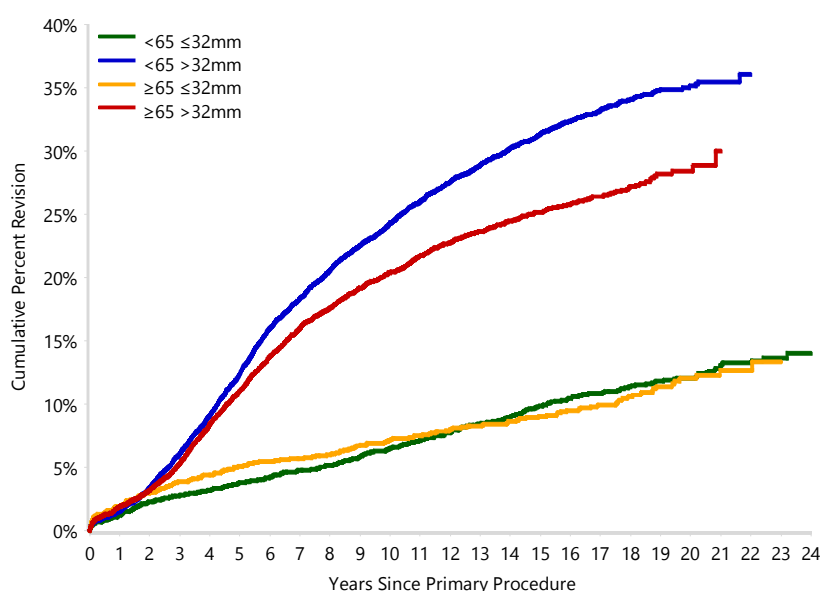
Figure MM3 Cumulative Incidence Revision Diagnosis of Metal/Metal Primary Total Conventional Hip Replacement by Head Size (All Diagnoses)

Table MM5 Cumulative Percent Revision of Metal/Metal Primary Total Conventional Hip Replacement by Age and Head Size (Primary Diagnosis OA)

Age	Head Size	N Revised	N Total	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
<65		2745	10348	1.5 (1.2, 1.7)	5.2 (4.8, 5.7)	10.2 (9.6, 10.8)	19.7 (18.9, 20.5)	25.8 (24.9, 26.7)	28.9 (28.0, 29.9)
	≤32mm	303	2698	1.3 (0.9, 1.8)	2.8 (2.3, 3.5)	3.8 (3.2, 4.6)	6.5 (5.6, 7.5)	9.8 (8.7, 11.1)	12.0 (10.8, 13.4)
	>32mm	2442	7650	1.5 (1.3, 1.8)	6.1 (5.5, 6.6)	12.4 (11.7, 13.2)	24.3 (23.4, 25.3)	31.3 (30.3, 32.4)	35.1 (33.9, 36.4)
≥65		1706	9219	1.9 (1.7, 2.2)	4.9 (4.5, 5.4)	9.5 (8.9, 10.1)	16.8 (16.0, 17.7)	20.8 (19.9, 21.8)	24.0 (22.8, 25.2)
	≤32mm	217	2445	1.9 (1.5, 2.6)	3.9 (3.2, 4.7)	5.1 (4.3, 6.0)	7.1 (6.2, 8.3)	9.0 (7.9, 10.4)	12.0 (10.4, 13.9)
	>32mm	1489	6774	1.9 (1.6, 2.3)	5.3 (4.8, 5.9)	11.1 (10.3, 11.8)	20.4 (19.4, 21.4)	25.2 (24.0, 26.3)	28.4 (26.9, 30.0)
TOTAL		4451	19567						

Figure MM4 Cumulative Percent Revision of Metal/Metal Primary Total Conventional Hip Replacement by Age and Head Size (Primary Diagnosis OA)



HR - adjusted for gender

<65 ≤32mm vs <65 >32mm

0 - 2Wk: HR=0.59 (95% CI 0.25, 1.37), p=0.219
 2Wk - 2Yr: HR=0.64 (95% CI 0.48, 0.85), p=0.002
 2Yr - 5Yr: HR=0.16 (95% CI 0.12, 0.22), p<0.001
 5Yr - 5.5Yr: HR=0.05 (95% CI 0.02, 0.16), p<0.001
 5.5Yr - 6Yr: HR=0.17 (95% CI 0.08, 0.34), p<0.001
 6Yr - 6.5Yr: HR=0.26 (95% CI 0.14, 0.50), p<0.001
 6.5Yr - 7.5Yr: HR=0.08 (95% CI 0.04, 0.19), p<0.001
 7.5Yr - 12Yr: HR=0.28 (95% CI 0.22, 0.36), p<0.001
 12Yr+: HR=0.43 (95% CI 0.35, 0.54), p<0.001

<65 ≤32mm vs ≥65 ≤32mm

0 - 5.5Yr: HR=0.72 (95% CI 0.56, 0.94), p=0.013
 5.5Yr+: HR=1.43 (95% CI 1.11, 1.84), p=0.005

<65 >32mm vs ≥65 >32mm

0 - 4Yr: HR=1.11 (95% CI 0.99, 1.24), p=0.063
 4Yr - 5.5Yr: HR=1.35 (95% CI 1.15, 1.58), p<0.001
 5.5Yr - 7.5Yr: HR=1.22 (95% CI 1.04, 1.43), p=0.014
 7.5Yr+: HR=1.53 (95% CI 1.37, 1.72), p<0.001

≥65 ≤32mm vs ≥65 >32mm

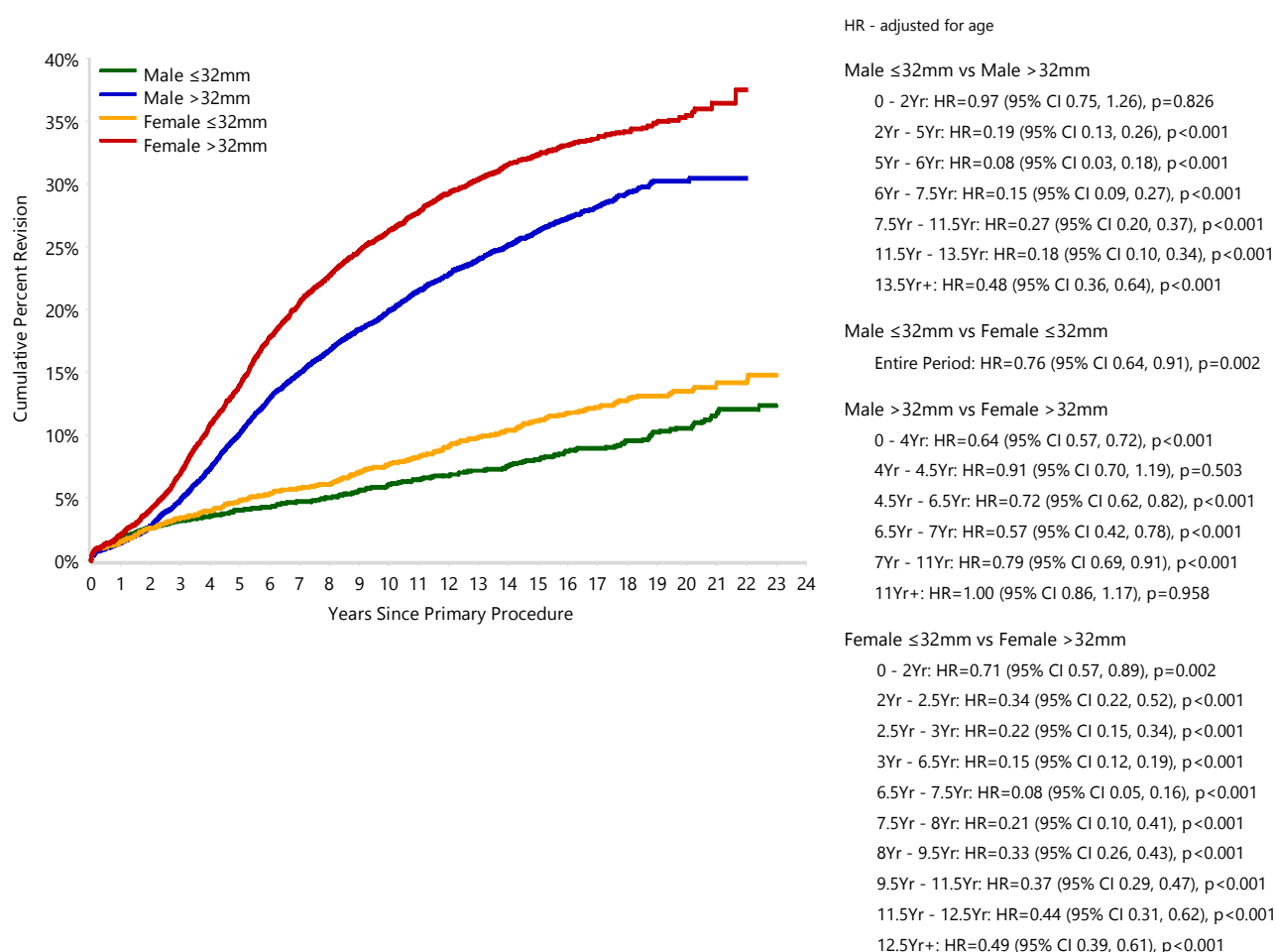
0 - 2Yr: HR=0.95 (95% CI 0.74, 1.21), p=0.664
 2Yr - 3Yr: HR=0.39 (95% CI 0.26, 0.57), p<0.001
 3Yr - 4Yr: HR=0.18 (95% CI 0.13, 0.25), p<0.001
 4Yr - 5.5Yr: HR=0.22 (95% CI 0.16, 0.30), p<0.001
 5.5Yr - 6Yr: HR=0.10 (95% CI 0.05, 0.21), p<0.001
 6Yr - 6.5Yr: HR=0.20 (95% CI 0.11, 0.36), p<0.001
 6.5Yr - 7Yr: HR=0.08 (95% CI 0.04, 0.19), p<0.001
 7Yr - 7.5Yr: HR=0.15 (95% CI 0.09, 0.25), p<0.001
 7.5Yr - 9Yr: HR=0.27 (95% CI 0.18, 0.39), p<0.001
 9Yr+: HR=0.40 (95% CI 0.31, 0.51), p<0.001

Number at Risk		0 Yr	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
<65	≤32mm	2698	2656	2579	2521	2332	1962	991
	>32mm	7650	7511	7099	6541	5433	4125	444
≥65	≤32mm	2445	2366	2262	2132	1688	1088	348
	>32mm	6774	6552	6113	5431	3865	2259	185

Table MM6 Cumulative Percent Revision of Metal/Metal Primary Total Conventional Hip Replacement by Gender and Head Size (Primary Diagnosis OA)

Gender	Head Size	N Revised	N Total	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Male		2322	11059	1.5 (1.3, 1.7)	4.4 (4.1, 4.8)	8.7 (8.2, 9.2)	16.6 (15.9, 17.3)	21.9 (21.1, 22.8)	25.4 (24.5, 26.4)
	≤32mm	235	2673	1.7 (1.2, 2.2)	3.2 (2.6, 4.0)	4.0 (3.4, 4.9)	6.1 (5.2, 7.1)	8.1 (7.0, 9.3)	10.6 (9.3, 12.1)
	>32mm	2087	8386	1.4 (1.2, 1.7)	4.8 (4.4, 5.3)	10.2 (9.5, 10.8)	19.9 (19.0, 20.8)	26.3 (25.3, 27.3)	30.2 (29.0, 31.5)
Female		2129	8508	1.9 (1.6, 2.2)	5.9 (5.4, 6.5)	11.3 (10.7, 12.0)	20.8 (20.0, 21.7)	26.1 (25.1, 27.1)	28.8 (27.7, 29.9)
	≤32mm	285	2470	1.5 (1.1, 2.1)	3.4 (2.8, 4.2)	4.8 (4.0, 5.7)	7.6 (6.6, 8.8)	11.2 (9.9, 12.6)	13.5 (12.0, 15.1)
	>32mm	1844	6038	2.1 (1.7, 2.5)	7.0 (6.3, 7.6)	14.0 (13.2, 14.9)	26.3 (25.2, 27.5)	32.3 (31.1, 33.6)	35.5 (34.0, 37.0)
TOTAL		4451	19567						

Figure MM5 Cumulative Percent Revision of Metal/Metal Primary Total Conventional Hip Replacement by Gender and Head Size (Primary Diagnosis OA)

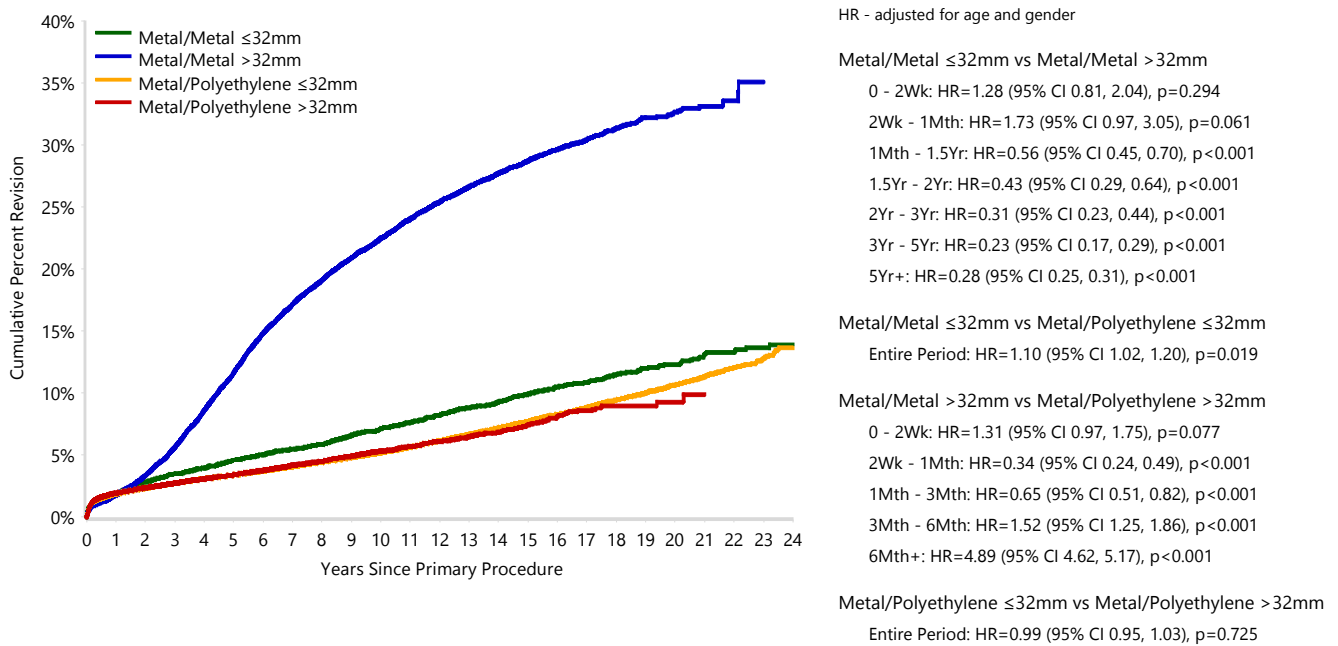


Number at Risk		0 Yr	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Male	≤32mm	2673	2603	2498	2403	2057	1540	724
	>32mm	8386	8189	7734	7067	5595	3813	324
Female	≤32mm	2470	2419	2343	2250	1963	1510	615
	>32mm	6038	5874	5478	4905	3703	2571	305

Table MM7 Cumulative Percent Revision of Metal/Metal and Metal/Polyethylene Primary Total Conventional Hip Replacement by Head Size (All Diagnoses)

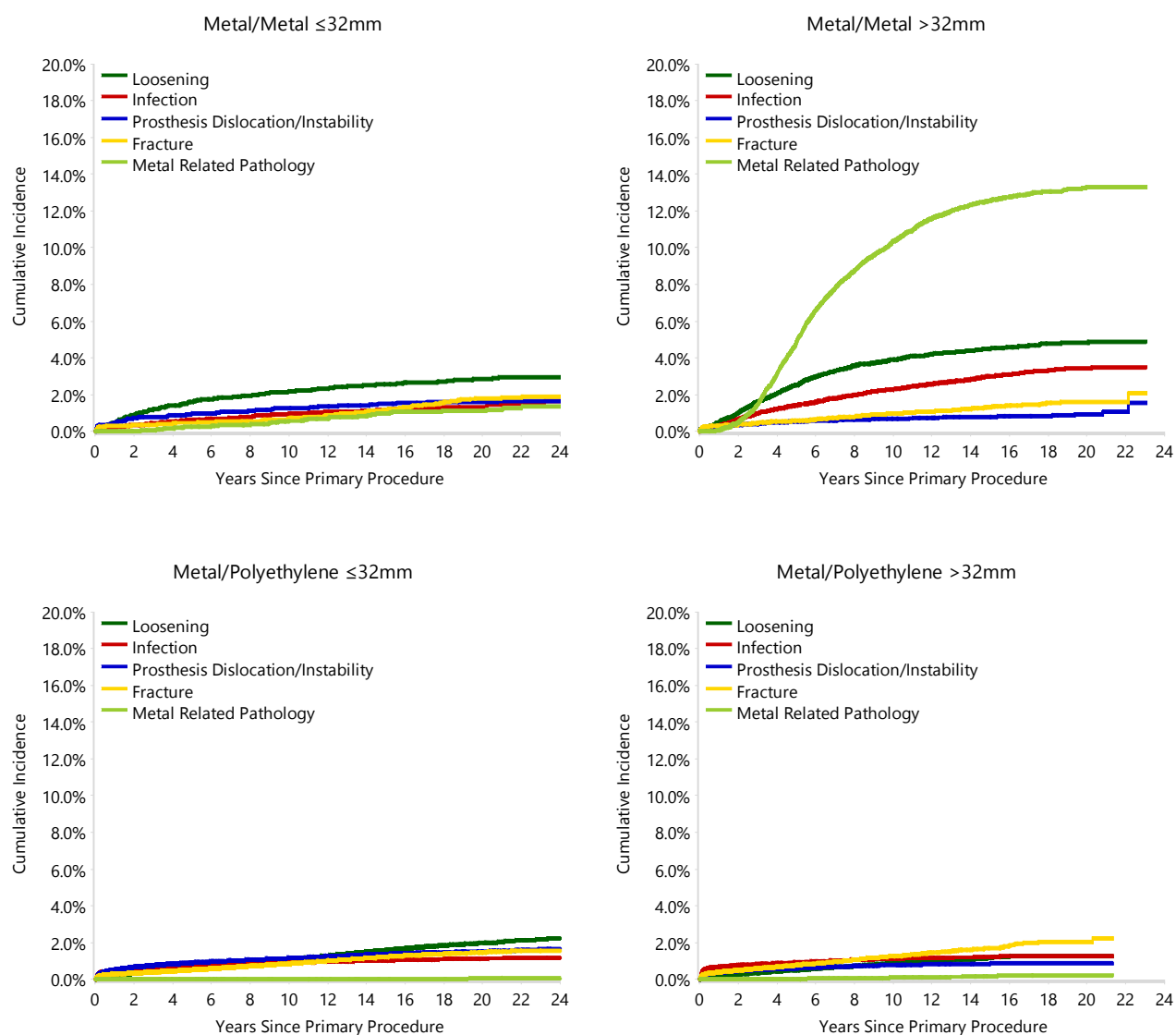
Type	Head Size	N Revised	N Total	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Metal/Metal	≤32mm	600	5807	1.8 (1.5, 2.2)	3.5 (3.1, 4.0)	4.6 (4.1, 5.2)	7.1 (6.5, 7.8)	9.9 (9.1, 10.8)	12.3 (11.4, 13.3)
	>32mm	4392	16300	1.8 (1.6, 2.0)	5.6 (5.3, 6.0)	11.6 (11.1, 12.1)	22.5 (21.8, 23.2)	28.7 (28.0, 29.5)	32.6 (31.7, 33.6)
Metal/Polyethylene	≤32mm	11448	220691	1.8 (1.8, 1.9)	2.7 (2.7, 2.8)	3.4 (3.3, 3.5)	5.2 (5.1, 5.3)	7.7 (7.5, 7.9)	10.7 (10.4, 10.9)
	>32mm	3330	83042	1.9 (1.8, 2.0)	2.7 (2.6, 2.8)	3.4 (3.3, 3.5)	5.3 (5.1, 5.5)	7.4 (7.1, 7.8)	9.3 (8.4, 10.2)
TOTAL		19770	325840						

Figure MM6 Cumulative Percent Revision of Metal/Metal and Metal/Polyethylene Primary Total Conventional Hip Replacement by Head Size (All Diagnoses)



Number at Risk		0 Yr	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Metal/Metal	≤32mm	5807	5648	5435	5219	4501	3422	1518
	>32mm	16300	15828	14844	13429	10380	7165	707
Metal/Polyethylene	≤32mm	220691	204061	177935	151937	85122	35725	10139
	>32mm	83042	74165	58774	45290	18078	3879	194

Figure MM7 Cumulative Incidence Revision Diagnosis of Metal/Metal and Metal/Polyethylene Primary Total Conventional Hip Replacement by Head Size (Primary Diagnosis OA)



Note: Metal/Polyethylene includes both non cross-linked and cross-linked polyethylene

Table MM8 Cumulative Percent Revision of Metal/Metal Primary Total Conventional Hip Replacement using Head Size ≤32mm by Head and Acetabular Surface (Primary Diagnosis OA)

Head Surface	Acetabular Surface	N Revised	N Total	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Articul/Eze	PINNACLE	17	105	1.0 (0.1, 6.6)	3.8 (1.5, 9.9)	4.8 (2.0, 11.2)	8.0 (4.1, 15.4)	12.9 (7.5, 21.6)	
Metamys	CBF Cup	9	84	0.0 (0.0, 0.0)	2.4 (0.6, 9.3)	3.6 (1.2, 10.8)	6.1 (2.6, 14.1)	10.5 (5.4, 20.0)	12.2 (6.5, 22.4)
Metasul	Armor	20	312	0.6 (0.2, 2.5)	1.6 (0.7, 3.8)	1.9 (0.9, 4.3)	2.7 (1.3, 5.3)	5.5 (3.3, 9.0)	7.5 (4.8, 11.6)
	Metasul	390	4014	1.6 (1.2, 2.0)	3.3 (2.8, 3.9)	4.5 (3.9, 5.2)	6.9 (6.1, 7.7)	9.4 (8.5, 10.4)	11.8 (10.6, 13.0)
S-Rom	S-Rom	6	129	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	1.6 (0.4, 6.2)	2.5 (0.8, 7.4)	3.4 (1.3, 8.9)
Stanmore	Ringloc	15	90	1.1 (0.2, 7.6)	4.5 (1.7, 11.5)	4.5 (1.7, 11.5)	10.4 (5.6, 19.1)	13.1 (7.4, 22.4)	17.5 (10.7, 27.9)
Taperloc	M2a	4	54	0.0 (0.0, 0.0)	1.9 (0.3, 12.4)	3.7 (0.9, 14.0)	5.7 (1.9, 16.6)	7.8 (3.0, 19.4)	7.8 (3.0, 19.4)
Transcend	Lineage	12	96	5.2 (2.2, 12.1)	6.4 (2.9, 13.6)	7.5 (3.6, 15.1)	8.7 (4.4, 16.6)	14.4 (8.4, 24.2)	14.4 (8.4, 24.2)
Other (31)		47	259	3.5 (1.8, 6.6)	5.8 (3.6, 9.5)	7.0 (4.5, 10.9)	11.7 (8.3, 16.4)	16.4 (12.2, 21.8)	21.2 (16.0, 27.8)
TOTAL		520	5143						

Note: Only prostheses with over 50 procedures have been listed

Table MM9 Cumulative Percent Revision of Metal/Metal Primary Total Conventional Hip Replacement using Head Size >32mm by Head and Acetabular Surface (Primary Diagnosis OA)

Head Surface	Acetabular Surface	N Revised	N Total	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
ASR	ASR	1917	3982	1.8 (1.4, 2.2)	9.8 (8.9, 10.7)	24.9 (23.6, 26.3)	45.4 (43.8, 47.0)	51.9 (50.2, 53.6)	
Articul/Eze	PINNACLE	238	1627	1.9 (1.3, 2.6)	3.0 (2.3, 4.0)	4.9 (3.9, 6.1)	10.6 (9.1, 12.3)	14.8 (13.1, 16.8)	19.2 (16.7, 22.0)
BHR	BHR	457	2223	1.0 (0.7, 1.5)	3.3 (2.6, 4.1)	6.2 (5.2, 7.3)	14.6 (13.1, 16.2)	21.7 (19.9, 23.7)	26.8 (24.5, 29.3)
	R3	161	535	2.3 (1.3, 3.9)	7.4 (5.5, 10.0)	11.7 (9.2, 14.8)	21.7 (18.4, 25.6)	32.2 (28.1, 36.7)	
BMHR	BHR	48	279	1.8 (0.7, 4.3)	3.9 (2.2, 7.0)	5.7 (3.6, 9.2)	12.4 (9.0, 16.9)	19.0 (14.5, 24.7)	
Bionik	Bionik	100	377	3.7 (2.2, 6.2)	8.1 (5.8, 11.4)	15.3 (11.9, 19.4)	25.2 (21.0, 30.2)	30.1 (25.3, 35.5)	
Icon	Icon	102	341	2.4 (1.2, 4.7)	7.2 (4.9, 10.6)	12.5 (9.4, 16.6)	24.7 (20.3, 29.9)	33.0 (28.0, 38.8)	
M2a	M2a	123	780	1.8 (1.1, 3.0)	4.3 (3.1, 5.9)	6.5 (5.0, 8.5)	11.4 (9.3, 13.9)	15.9 (13.4, 18.8)	18.0 (15.2, 21.2)
M2a Magnum	Recap	111	924	1.5 (0.9, 2.6)	2.5 (1.7, 3.8)	4.3 (3.2, 5.9)	8.5 (6.8, 10.5)	12.1 (10.0, 14.5)	
Metasul	Durom	194	1100	1.2 (0.7, 2.0)	3.9 (2.9, 5.2)	5.6 (4.4, 7.2)	13.3 (11.4, 15.6)	18.3 (16.0, 20.8)	
Mitch TRH	Mitch TRH	163	648	1.7 (0.9, 3.0)	5.1 (3.7, 7.1)	8.5 (6.6, 10.9)	16.2 (13.5, 19.4)	27.0 (23.5, 30.9)	
Optimom	Cormet	141	702	1.4 (0.8, 2.6)	3.6 (2.4, 5.3)	5.1 (3.7, 7.0)	13.1 (10.7, 15.9)	20.6 (17.5, 24.1)	
S-Rom	PINNACLE	28	284	2.1 (1.0, 4.6)	3.5 (1.9, 6.5)	3.9 (2.2, 6.9)	7.4 (4.9, 11.3)	9.6 (6.6, 13.9)	11.4 (7.9, 16.1)
Other (23)		148	622	2.6 (1.6, 4.2)	6.4 (4.7, 8.6)	9.6 (7.5, 12.2)	16.4 (13.6, 19.7)	23.5 (20.2, 27.4)	29.2 (24.9, 34.0)
TOTAL		3931	14424						

Note: Only prostheses with over 200 procedures have been listed



Australian
Orthopaedic
Association
National
Joint
Replacement
Registry

AOANJRR
SAHMRI Building
North Terrace, Adelaide SA 5000
T: +61 8 8128 4280
aoanjrr.sahmri.com
aoa.org.au

The AOANJRR is funded by the Australian Government Department of Health, Disability and Ageing