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2020 Annual Report Patient Presentation for Surgeons

HIP REPLACEMENT



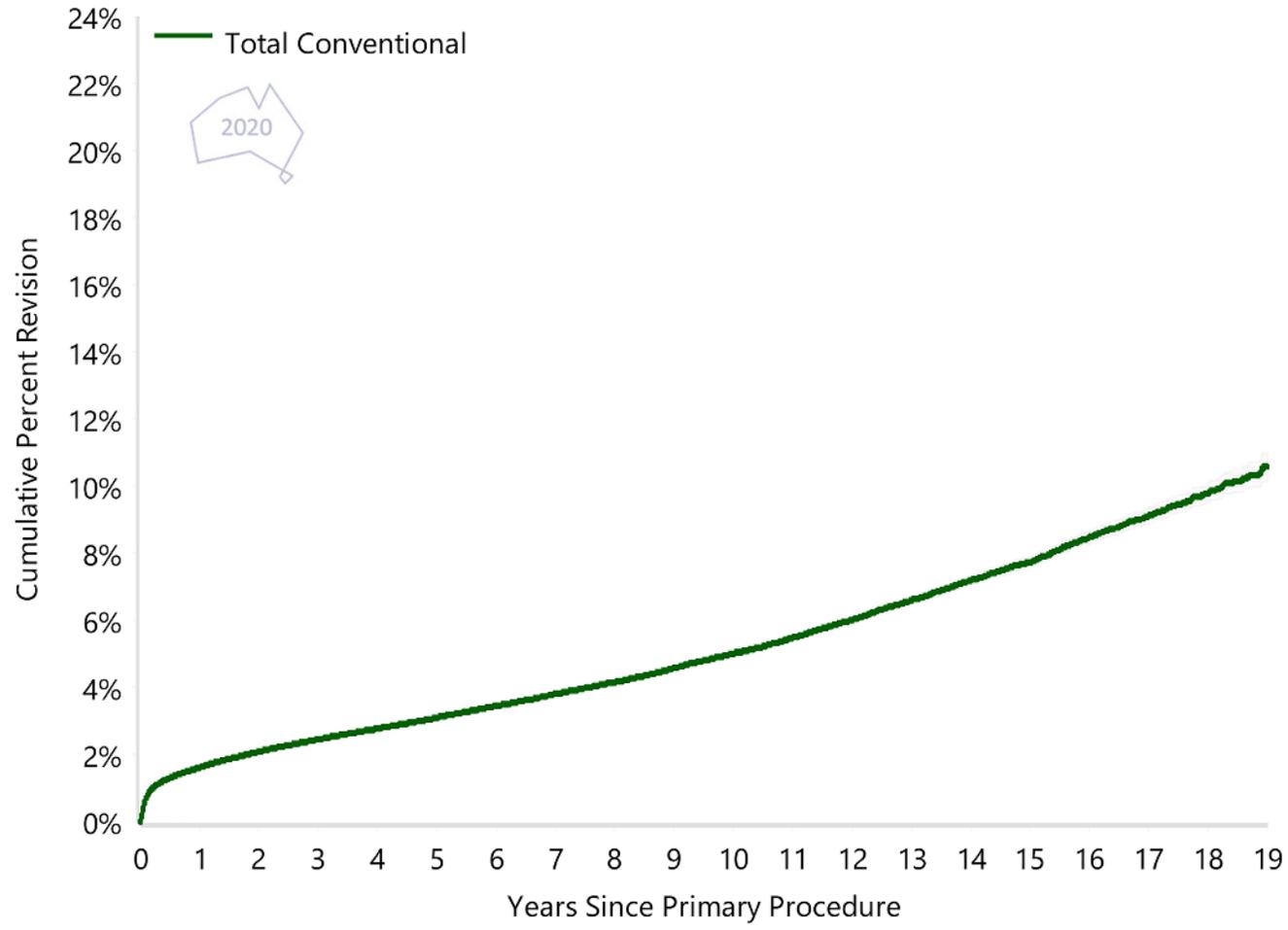
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Hip Replacement



Figure HT5 Cumulative Percent Revision of Primary Total Conventional Hip Replacement (Primary Diagnosis OA)



10.6% at 19 years

Note: All procedures using metal/metal have been excluded

Figure M5 Cumulative Percent Survival of Patients with Primary Total Conventional Hip Replacement by Class (Primary Diagnosis OA)

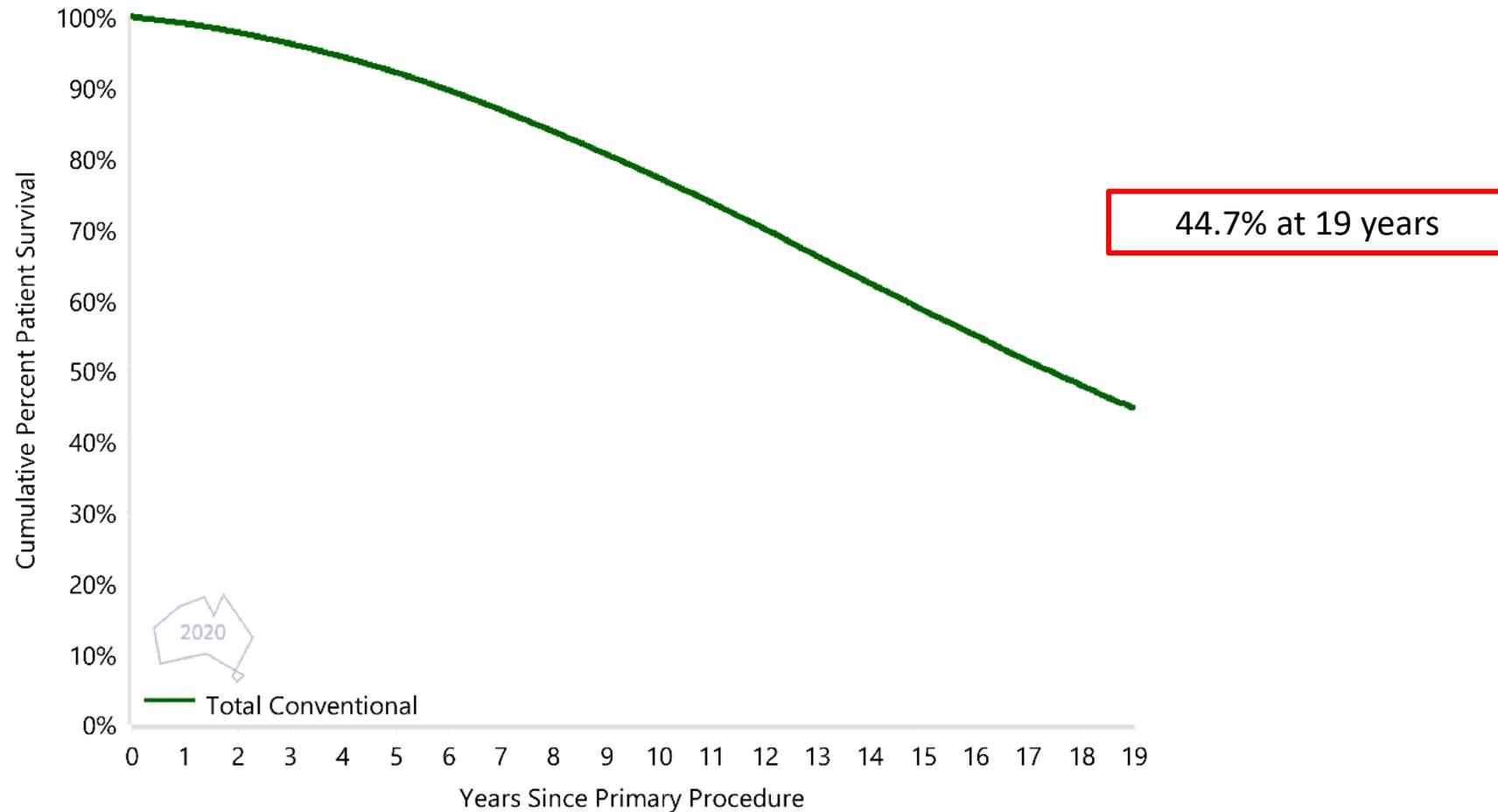
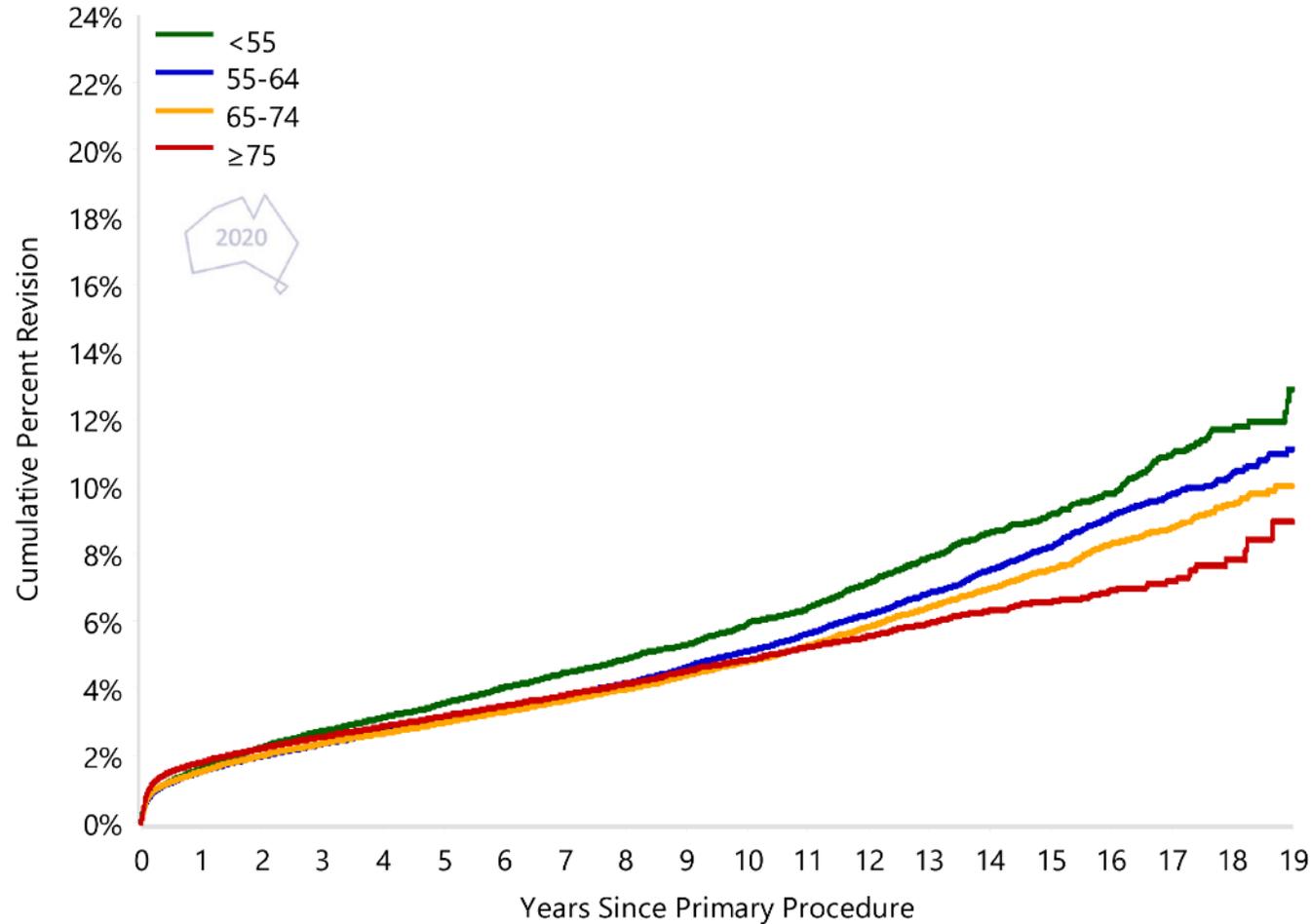


Figure HT7 Cumulative Percent Revision of Primary Total Conventional Hip Replacement by Age (Primary Diagnosis OA)

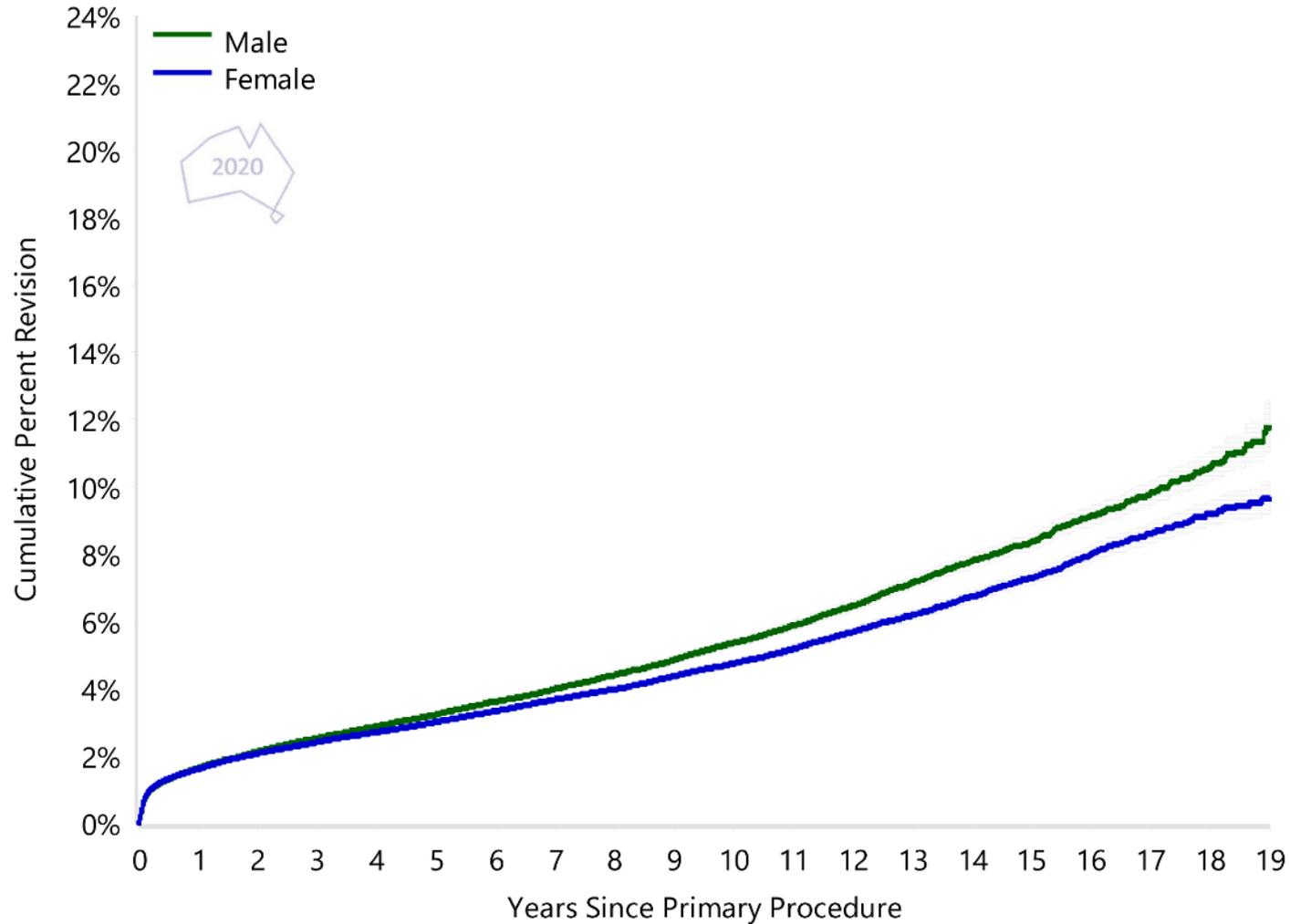
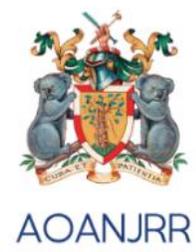


Patients aged ≥ 75 years have a lower rate of revision than patients aged:

- <55 years (after 6 months),
- 55-64 years (after 2 years),
- 65-74 years (after 11 years)

Note: All procedures using metal/metal have been excluded

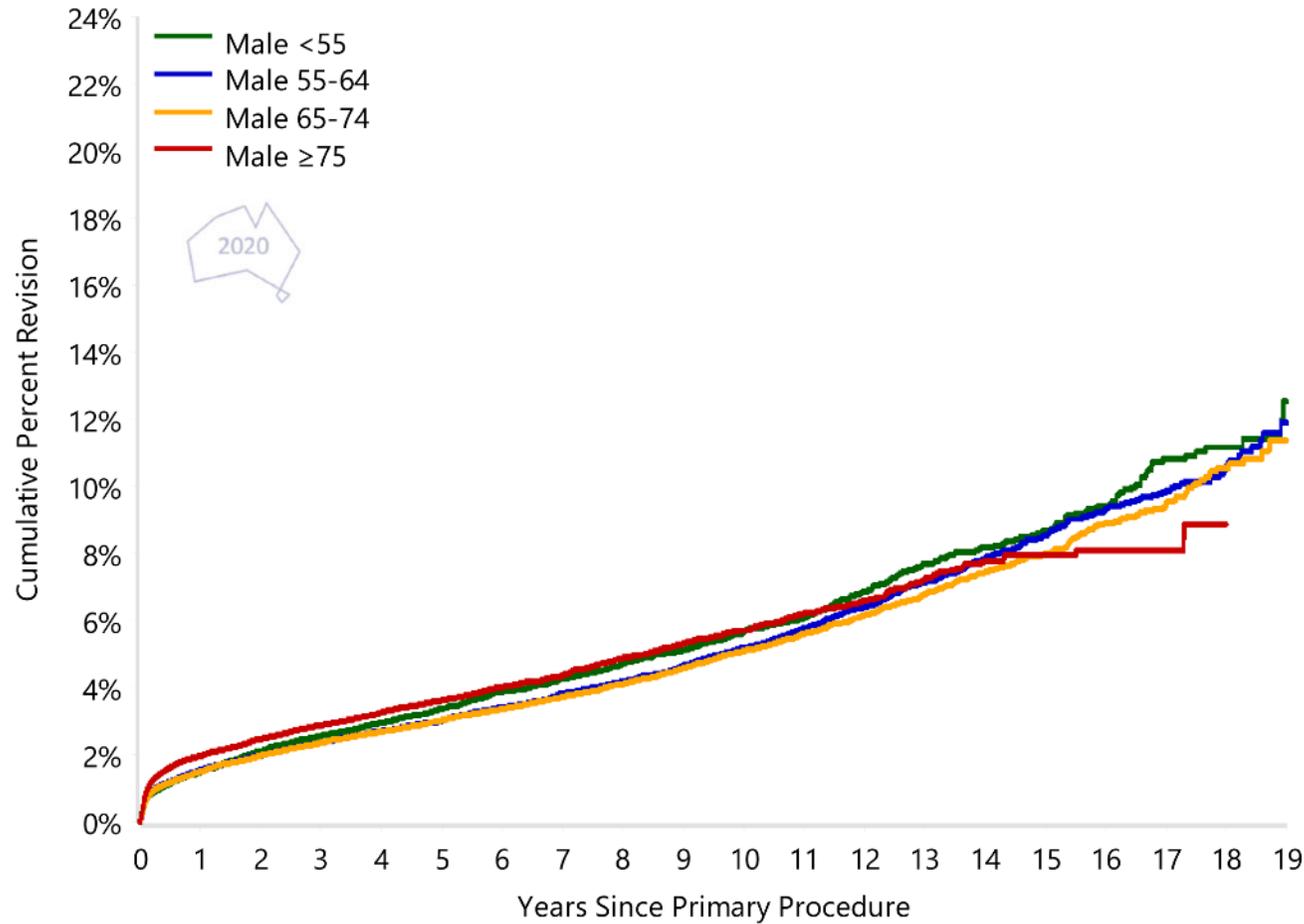
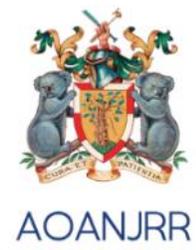
Figure HT8 Cumulative Percent Revision of Primary Total Conventional Hip Replacement by Gender (Primary Diagnosis OA)



There is a higher rate of revision for males than females after 1.5 years.

Note: All procedures using metal/metal have been excluded

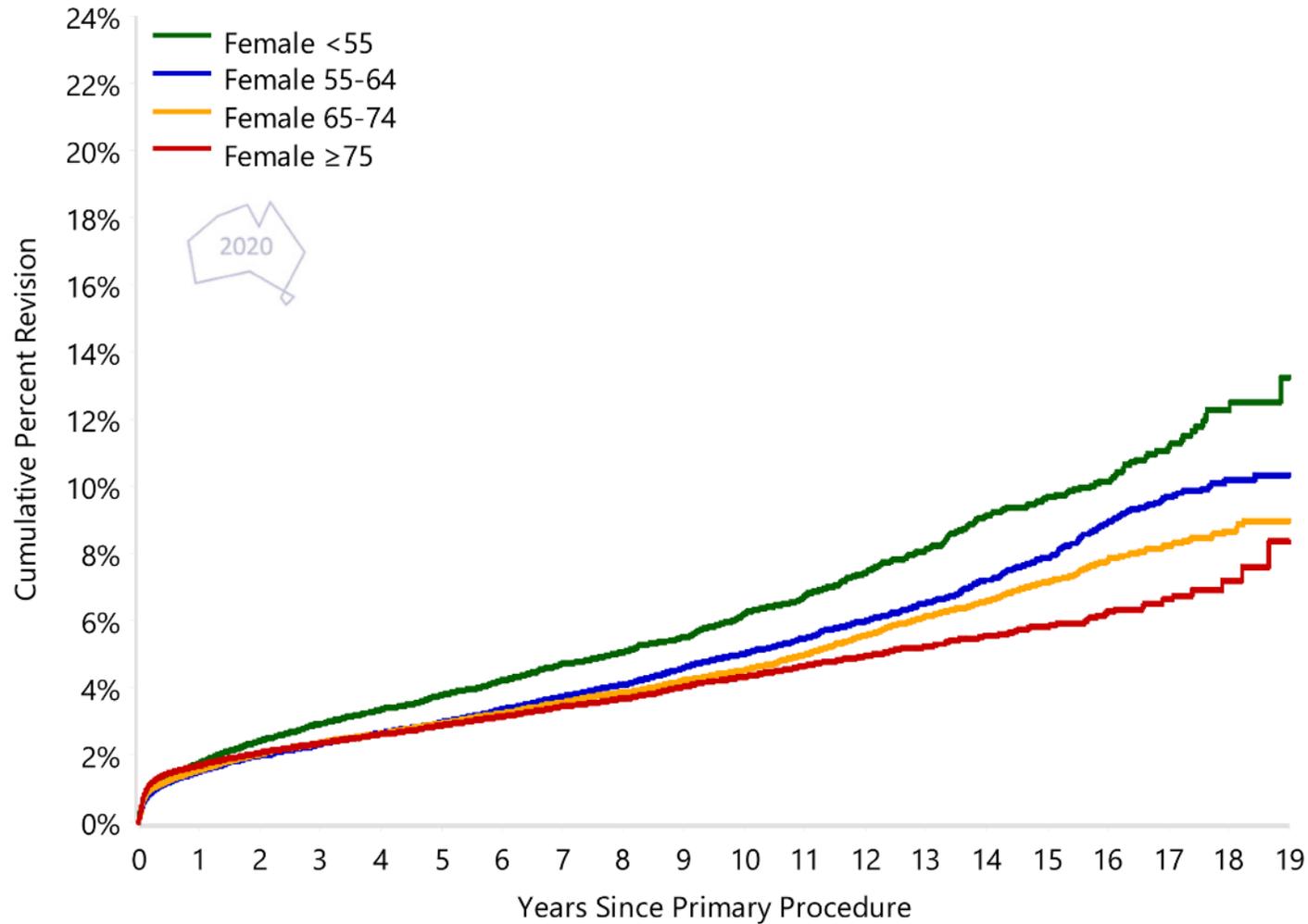
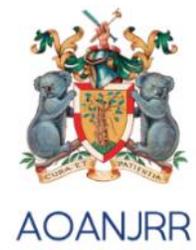
Figure HT9 Cumulative Percent Revision of Primary Total Conventional Hip Replacement in Males by Age (Primary Diagnosis OA)



The rate of revision decreases with increasing age as time progresses.

Note: All procedures using metal/metal have been excluded

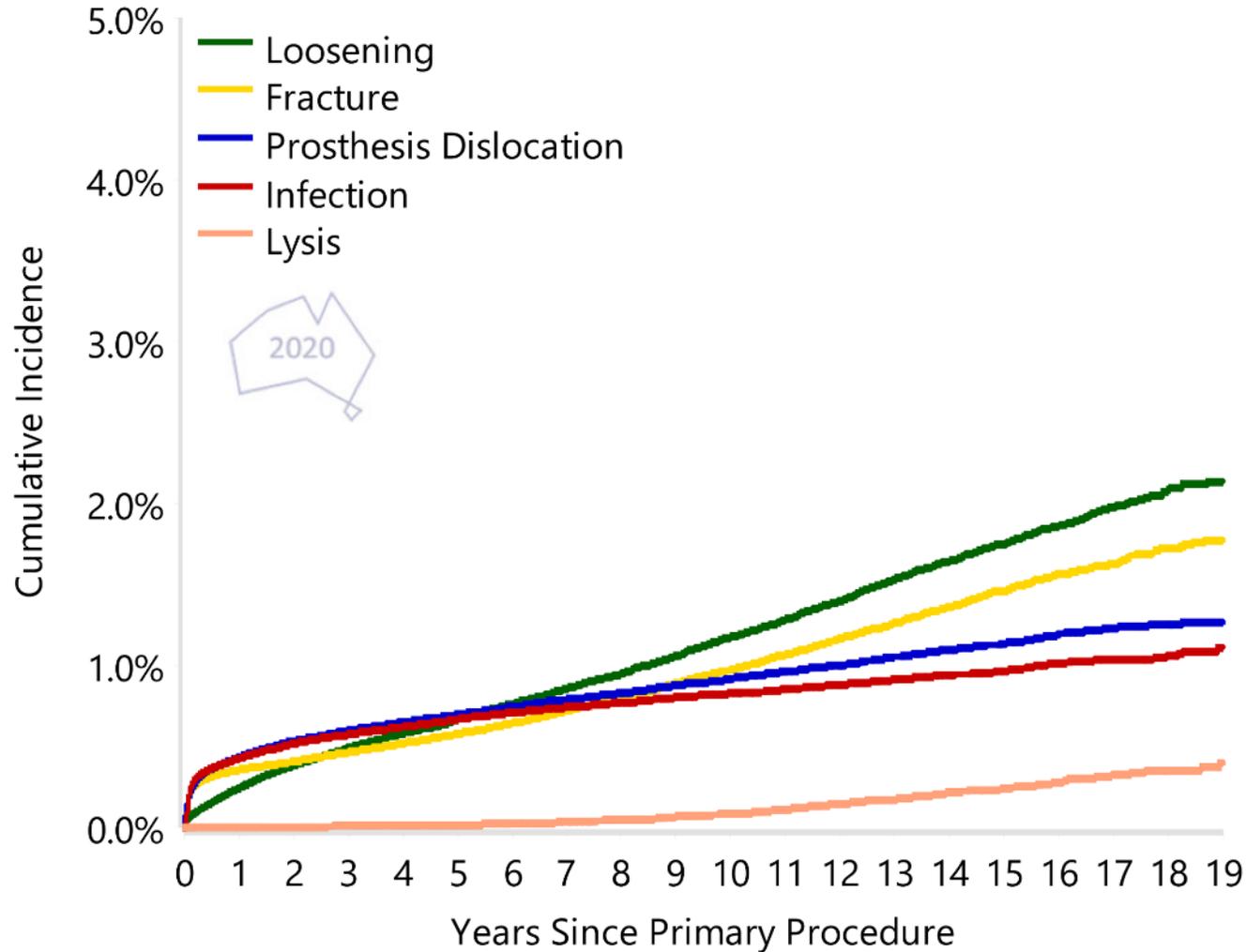
Figure HT10 Cumulative Percent Revision of Primary Total Conventional Hip Replacement in Females by Age (Primary Diagnosis OA)



The rate of revision decreases with increasing age.

Note: All procedures using metal/metal have been excluded

Figure HT6 Cumulative Incidence Revision Diagnosis of Primary Total Conventional Hip Replacement (Primary Diagnosis OA)

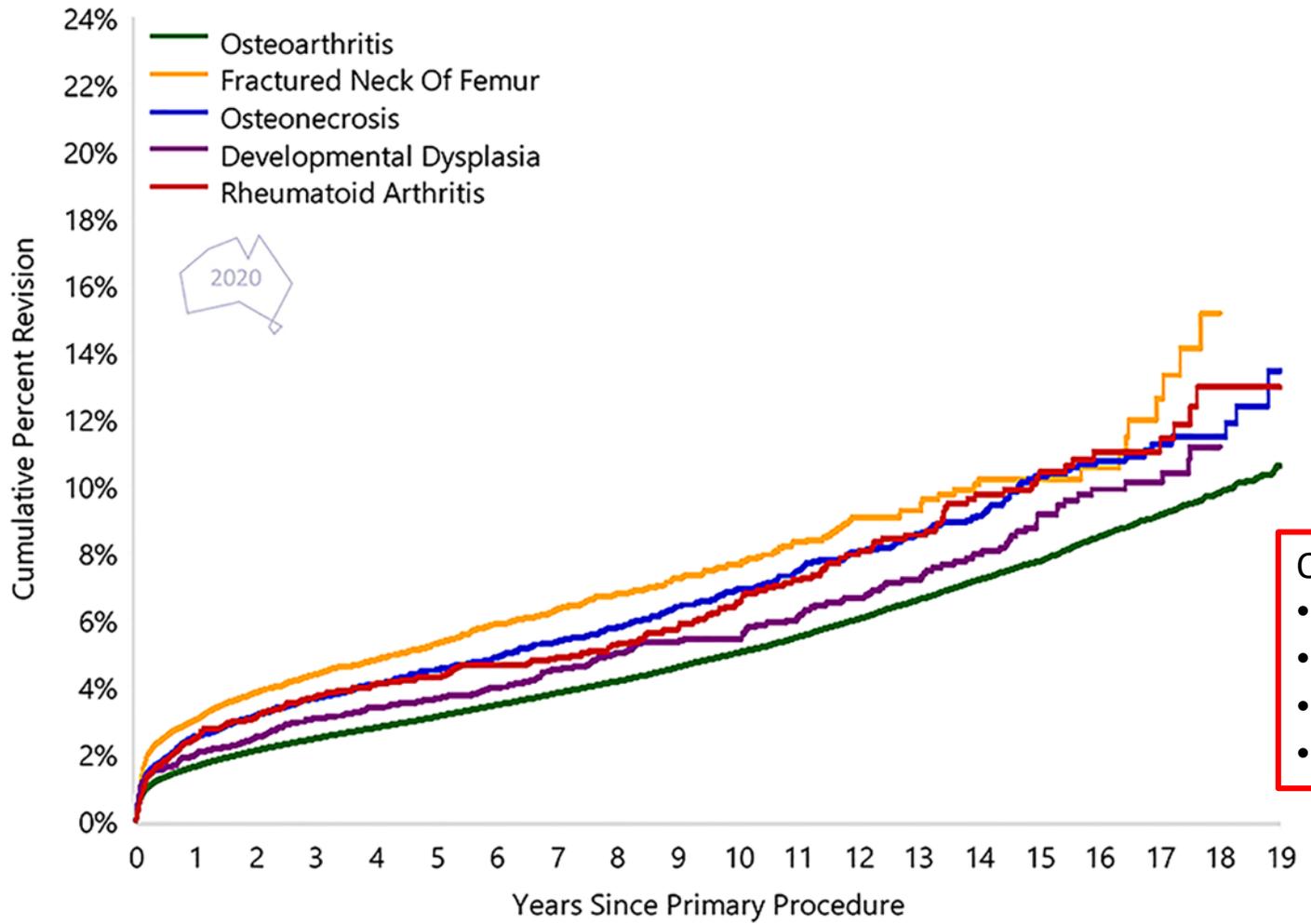


In the first 5 years, dislocation is the most frequent reason for revision.

After 7 years, loosening is the predominant reason for revision.

Note: All procedures using metal/metal have been excluded

Figure HT4 Cumulative Percent Revision of Primary Total Conventional Hip Replacement by Primary Diagnosis

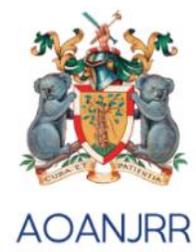


Osteoarthritis has a lower rate of revision compared to:

- Fractured NoF
- Osteonecrosis (for the first 9 years only)
- Rheumatoid arthritis
- Developmental dysplasia (for the first 2 weeks only)

Note: Only primary diagnoses with over 2,500 procedures have been listed

Table HT10 Cumulative Percent Revision of Primary Total Conventional Hip Replacement by Primary Diagnosis



Primary Diagnosis	N Revised	N Total	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	19 Yrs
Osteoarthritis	16369	421141	1.6 (1.6, 1.7)	2.5 (2.4, 2.5)	3.1 (3.1, 3.2)	5.0 (4.9, 5.1)	7.8 (7.6, 7.9)	10.6 (10.1, 11.0)
Fractured Neck of Femur	1127	22848	3.0 (2.8, 3.3)	4.4 (4.1, 4.7)	5.3 (5.0, 5.6)	7.7 (7.1, 8.2)	10.2 (9.2, 11.4)	
Osteonecrosis	820	15308	2.5 (2.3, 2.8)	3.6 (3.4, 4.0)	4.5 (4.2, 4.9)	6.9 (6.4, 7.5)	10.3 (9.4, 11.3)	13.4 (11.0, 16.4)
Developmental Dysplasia	295	6061	2.0 (1.6, 2.4)	3.1 (2.6, 3.5)	3.6 (3.2, 4.2)	5.4 (4.8, 6.2)	9.1 (7.9, 10.5)	
Rheumatoid Arthritis	259	4332	2.5 (2.1, 3.0)	3.7 (3.2, 4.3)	4.3 (3.7, 5.0)	6.5 (5.7, 7.5)	10.4 (9.0, 12.0)	12.9 (10.7, 15.7)
Tumour	151	2675	4.4 (3.6, 5.4)	7.6 (6.2, 9.1)	9.2 (7.6, 11.2)	13.6 (10.6, 17.4)		
Failed Internal Fixation	147	2051	4.6 (3.8, 5.6)	6.6 (5.5, 7.9)	7.8 (6.6, 9.2)	9.5 (7.8, 11.4)	14.2 (10.5, 19.1)	
Other Inflammatory Arthritis	102	2007	1.8 (1.3, 2.5)	2.9 (2.2, 3.8)	3.9 (3.0, 4.9)	6.6 (5.3, 8.3)	9.2 (7.2, 11.6)	
Other (3)	79	901	5.3 (4.0, 7.1)	7.6 (6.0, 9.7)	8.4 (6.6, 10.7)	12.7 (9.8, 16.3)	13.7 (10.4, 18.0)	
TOTAL	19349	477324						

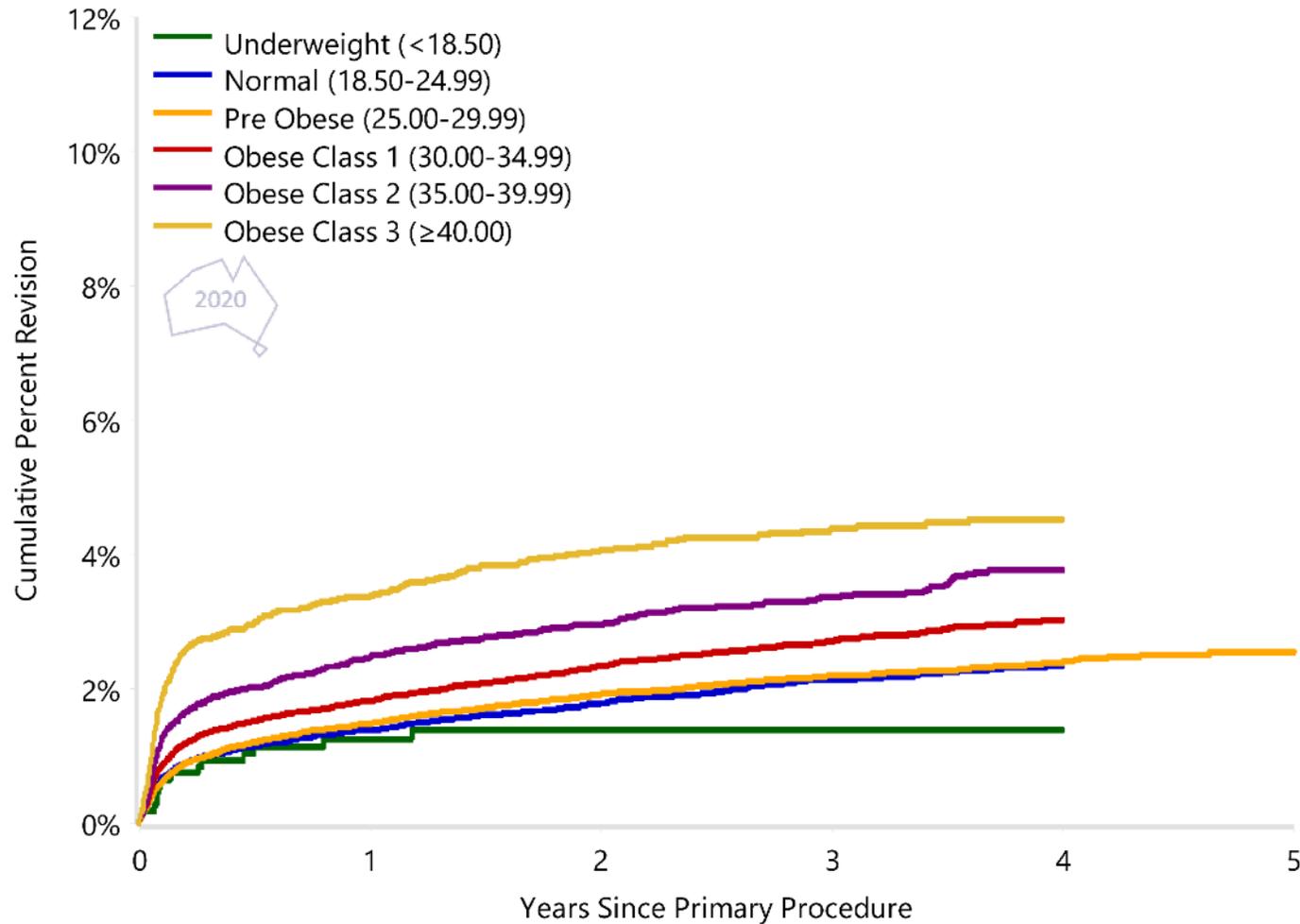
Note: All procedures using metal/metal have been excluded
Only prostheses with over 2,000 procedures have been included

Figure HT15 Cumulative Percent Revision of Primary Total Conventional Hip Replacement by BMI Category (OA)



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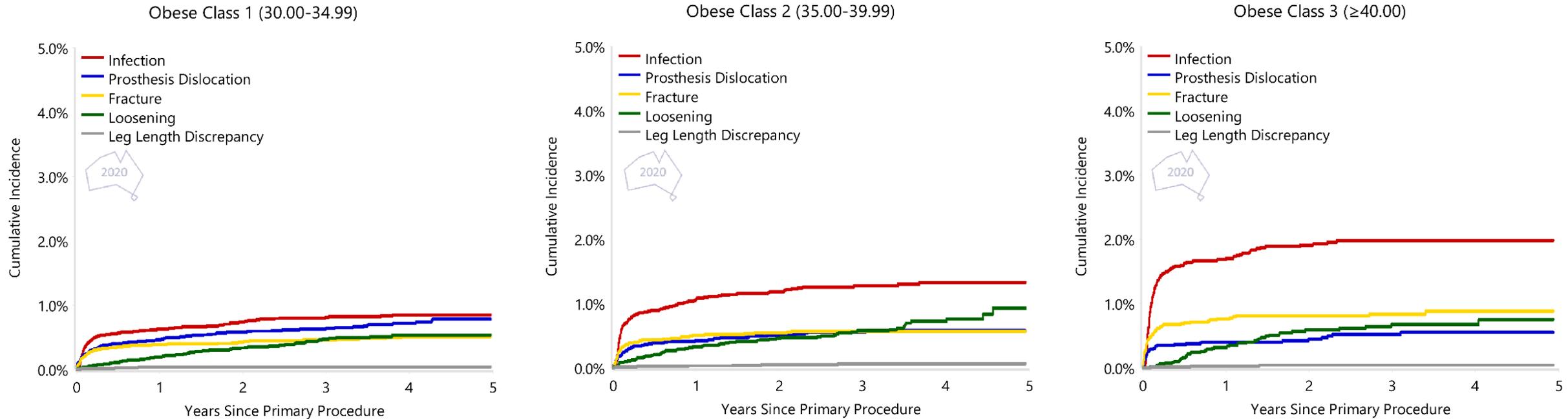
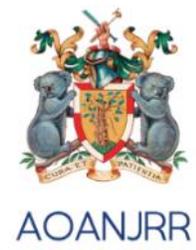


The rate of revision increases for

- Obese class 1
- Obese class 2
- Obese class 3

Note: All procedures using metal/metal have been excluded
BMI has not been presented for patients aged ≤19 years

Figure HT16 Cumulative Incidence Revision Diagnosis of Primary Total Conventional Hip Replacement by BMI Category (OA)



Note: All procedures using metal/metal prostheses have been excluded
BMI has not been presented for patients aged ≤ 19 years

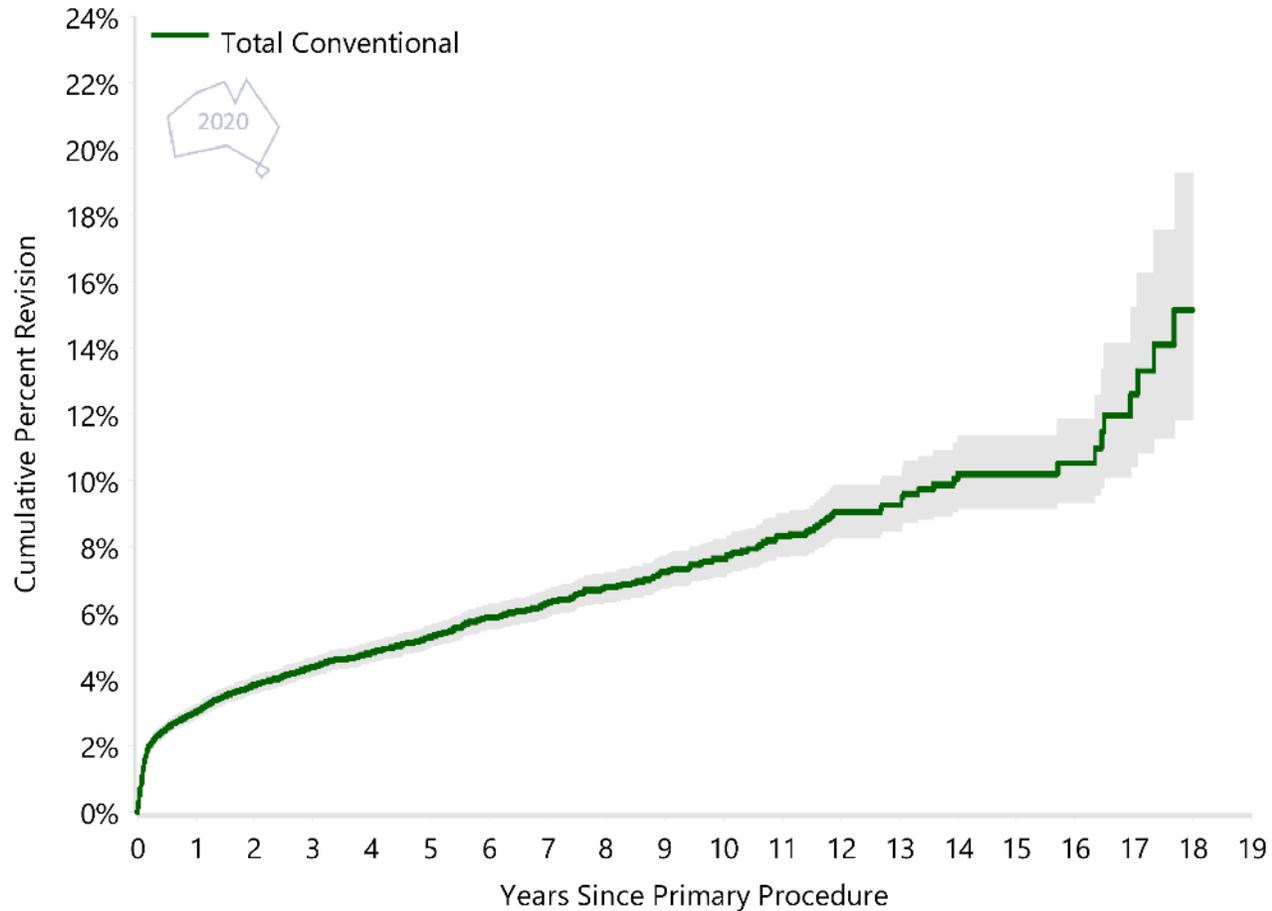
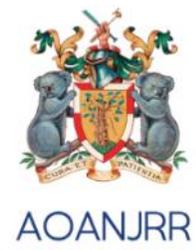


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Hip Replacement for Fractured Neck of Femur

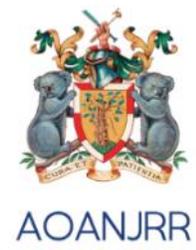
Figure HT64 Cumulative Percent Revision of Primary Total Conventional Hip Replacement (Primary Diagnosis Fractured NoF)



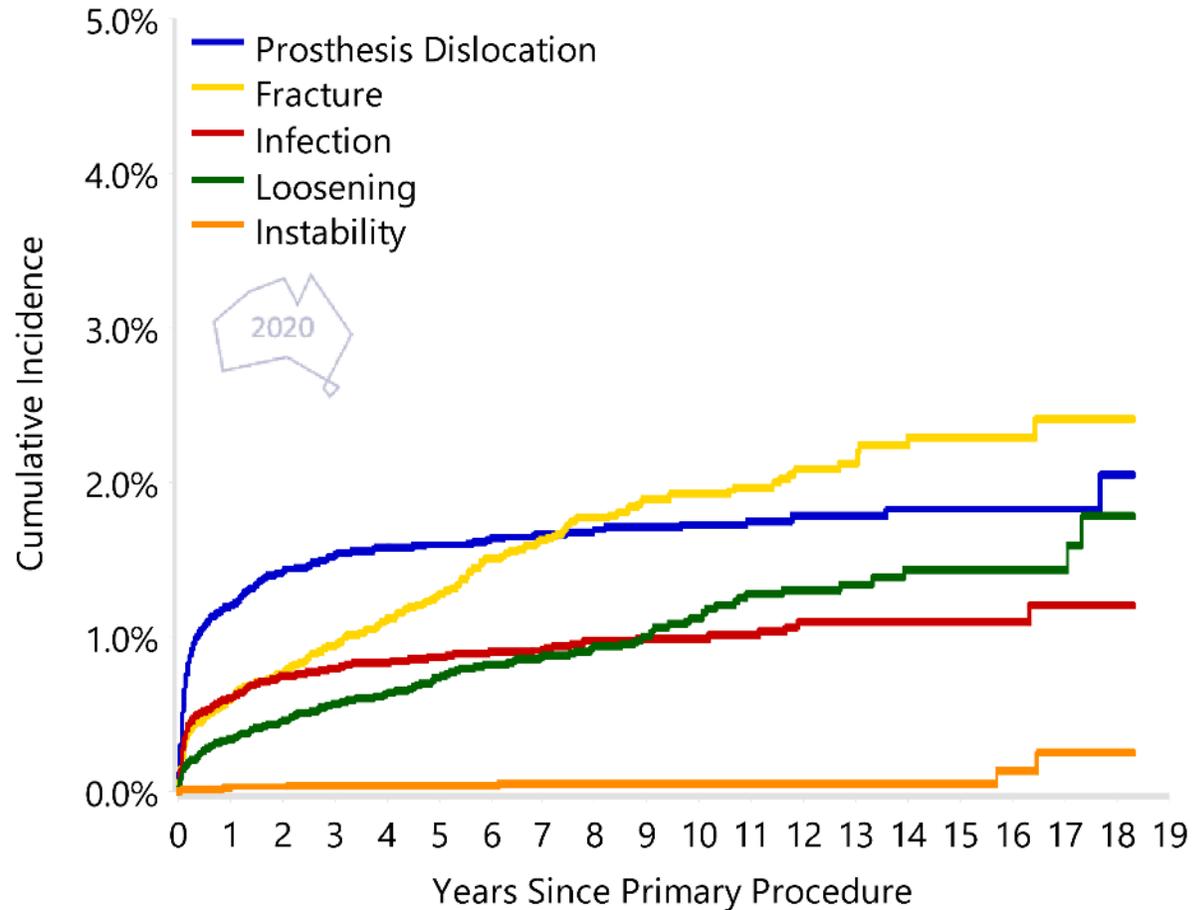
8.3% at 11 years

Note: All procedures using metal/metal have been excluded

Figure HT65 Cumulative Incidence Revision Diagnosis of Primary Total Conventional Hip Replacement (Primary Diagnosis Fractured NoF)

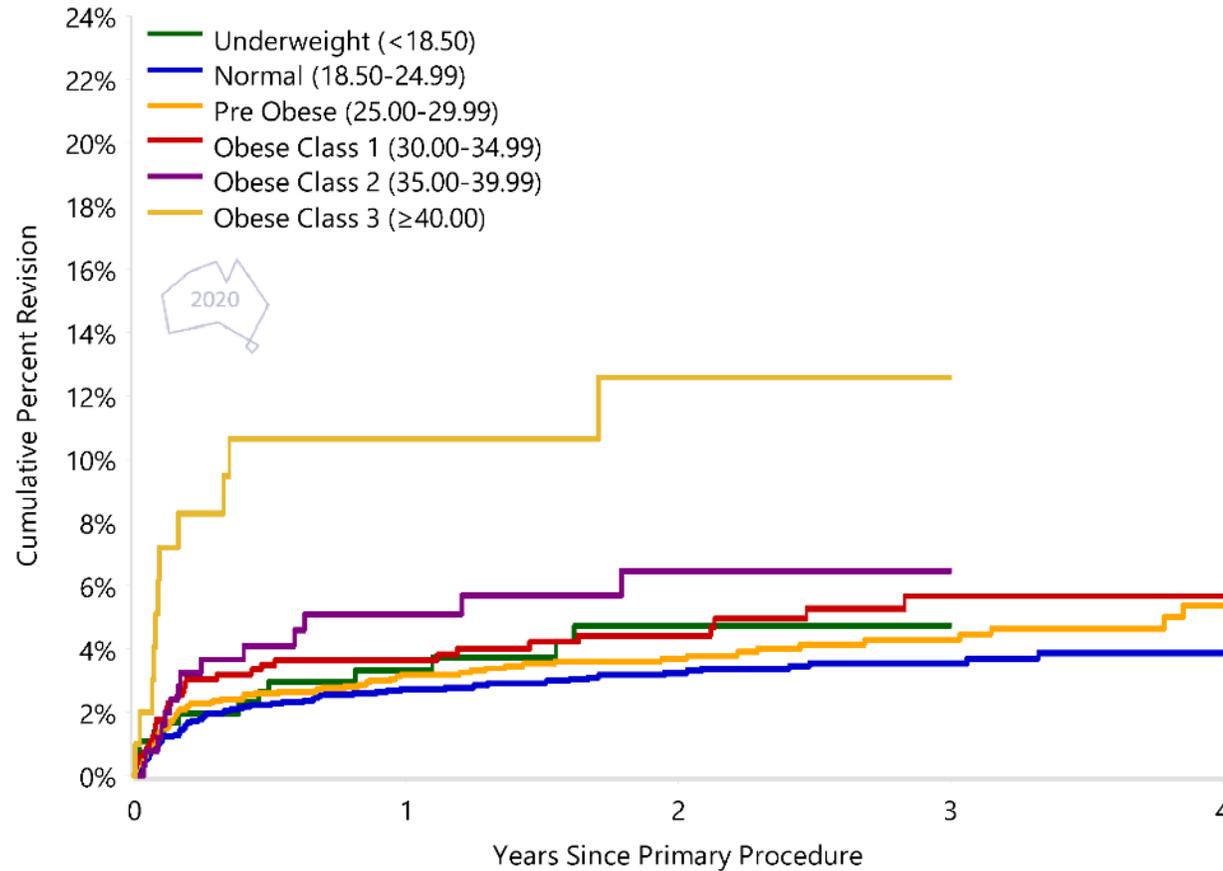
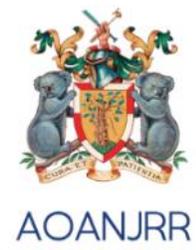


Total Conventional



Prosthesis dislocation and fracture are the most common reasons for revision.

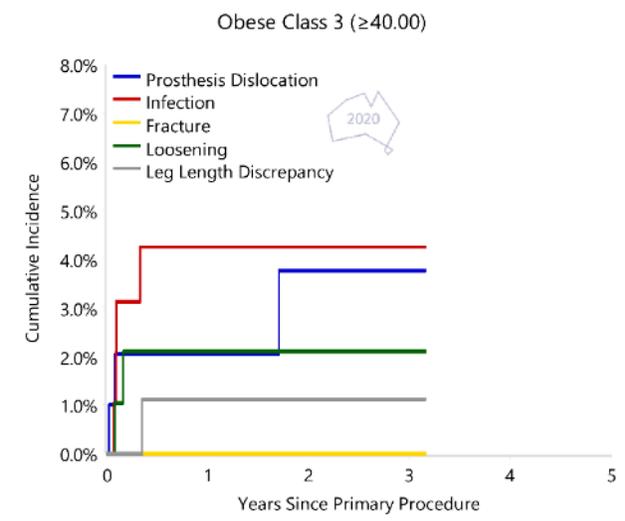
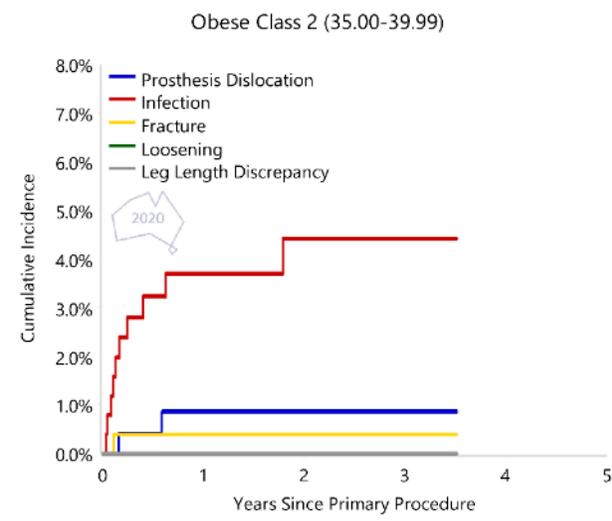
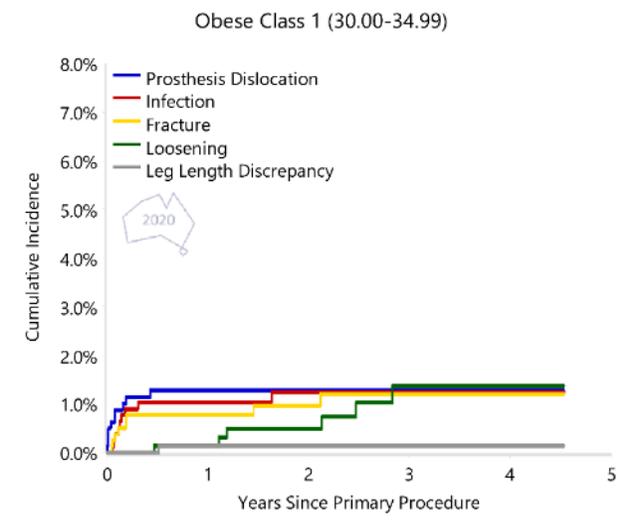
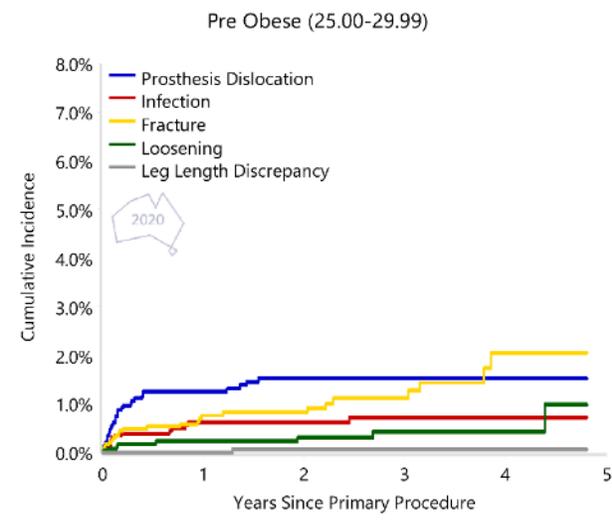
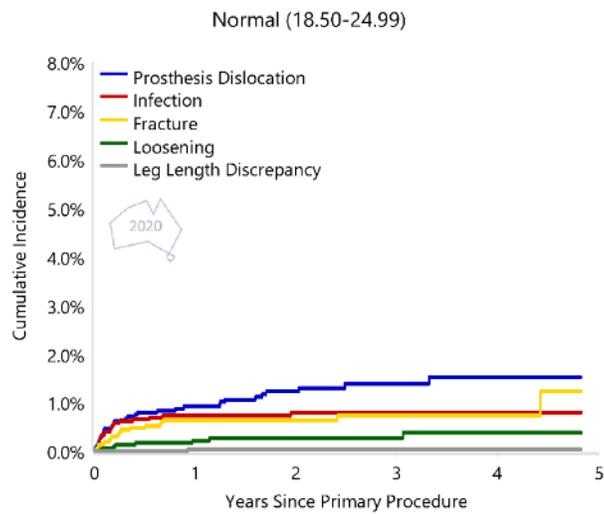
Figure HT68 Cumulative Percent Revision of Primary Total Conventional Hip Replacement by BMI Category (Primary Diagnosis Fractured NoF)



Patients in Obese Class 3 have a higher rate of revision than patients with a normal BMI.

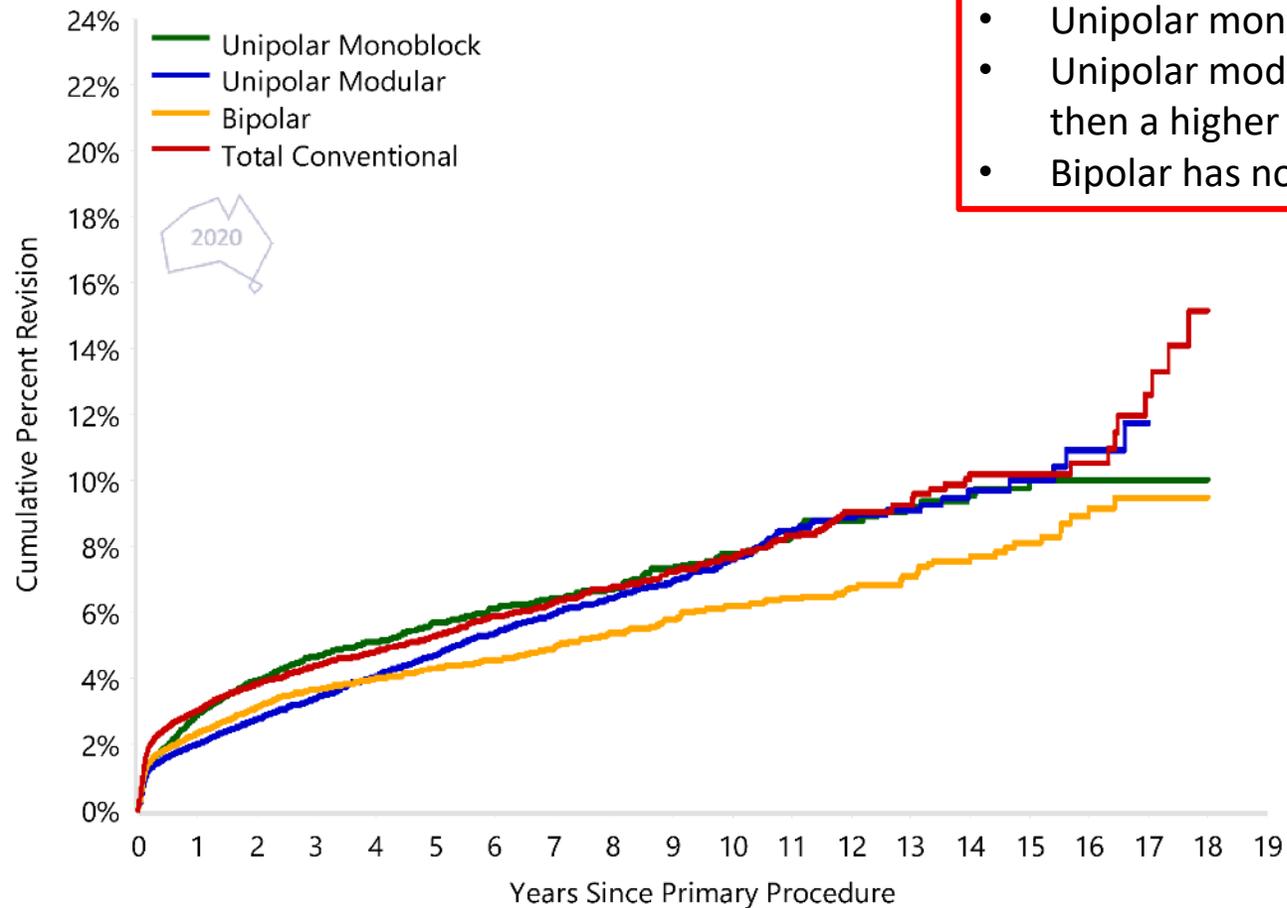
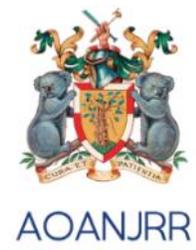
Note: All procedures using metal/metal have been excluded
BMI has not been presented for patients aged ≤19 years

Figure HT69 Cumulative Incidence Revision Diagnosis of Primary Total Conventional Hip Replacement by BMI Category (Primary Diagnosis Fractured NoF)



Note: All procedures using metal/metal have been excluded
 BMI has not been presented for patients aged ≤19 years

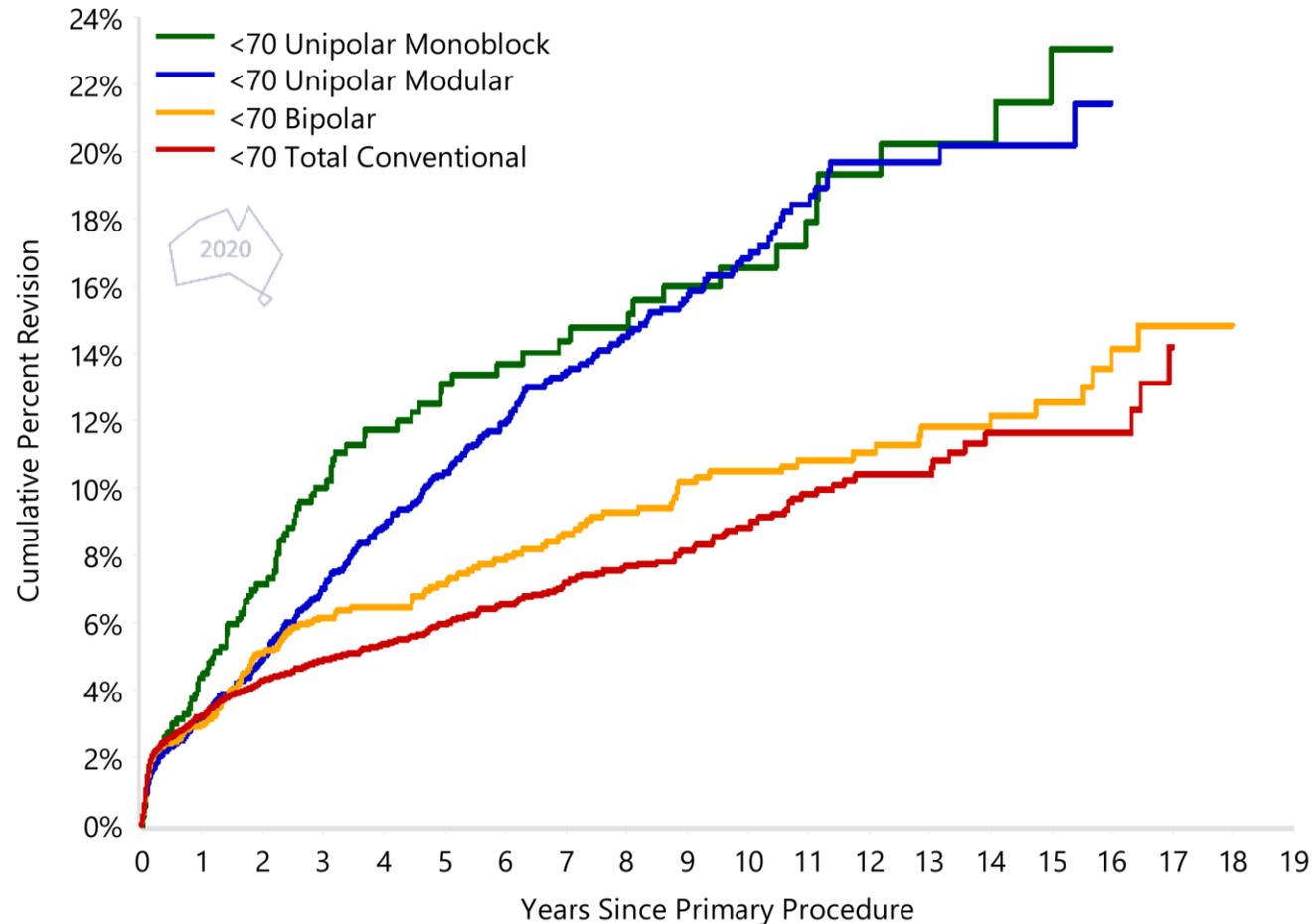
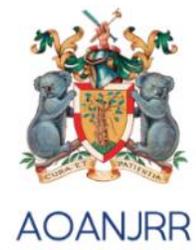
Figure HT76 Cumulative Percent Revision of Primary Hip Replacement by Class
(Primary Diagnosis Fractured NoF)



- Compared to total conventional hip replacement:
- Unipolar monoblock has a higher revision rate (after 3 months).
 - Unipolar modular has a lower revision rate (in the first month) then a higher revision rate (after 1.5 years).
 - Bipolar has no difference.

Note: All procedures using metal/metal have been excluded

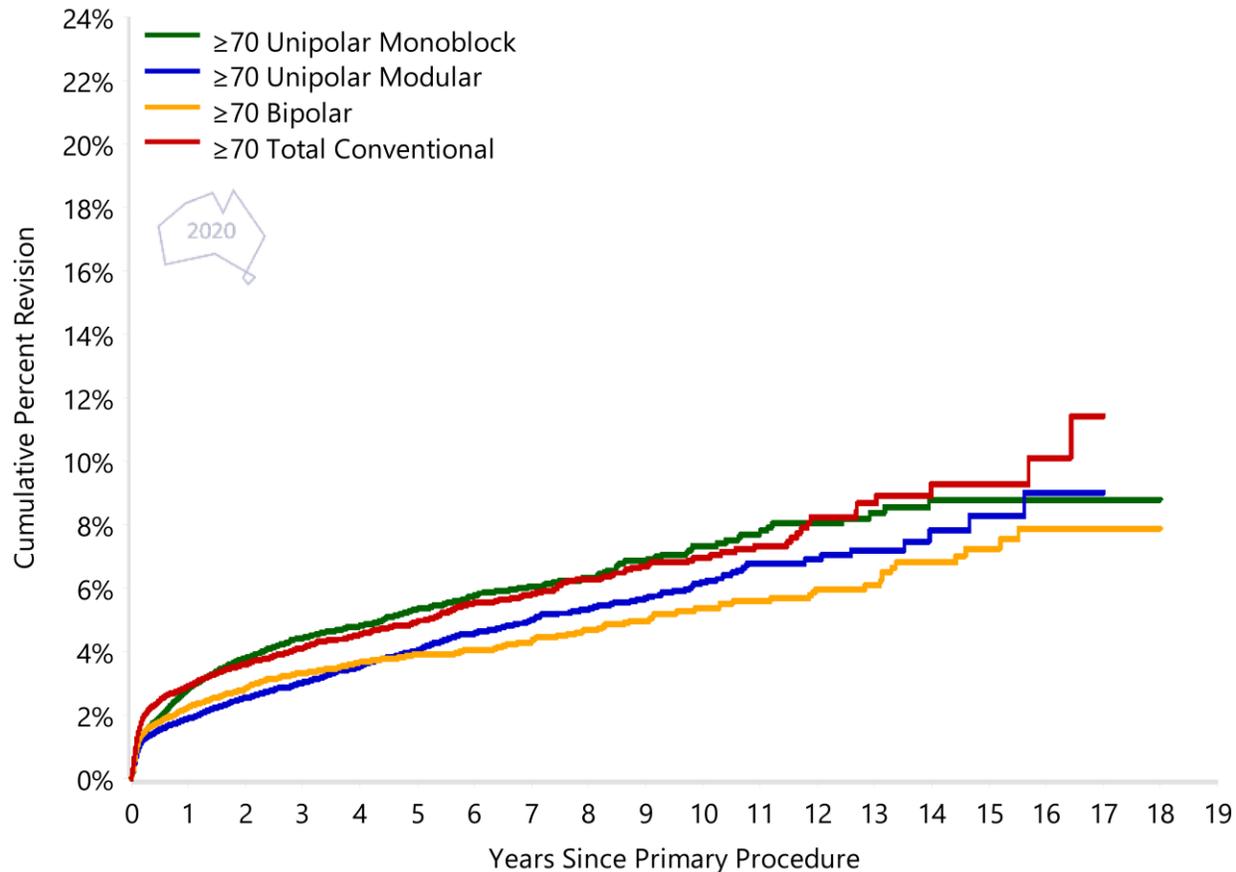
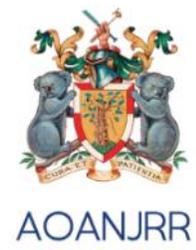
Figure HT77 Cumulative Percent Revision of Primary Hip Replacement in Patients Aged <70 Years by Class (Primary Diagnosis Fractured NoF)



Patients aged <70 years with a unipolar monoblock and unipolar modular have higher rates of revision compared to total conventional.

Note: All procedures using metal/metal have been excluded

Figure HT78 Cumulative Percent Revision of Primary Hip Replacement in Patients Aged ≥ 70 Years by Class (Primary Diagnosis Fractured NoF)

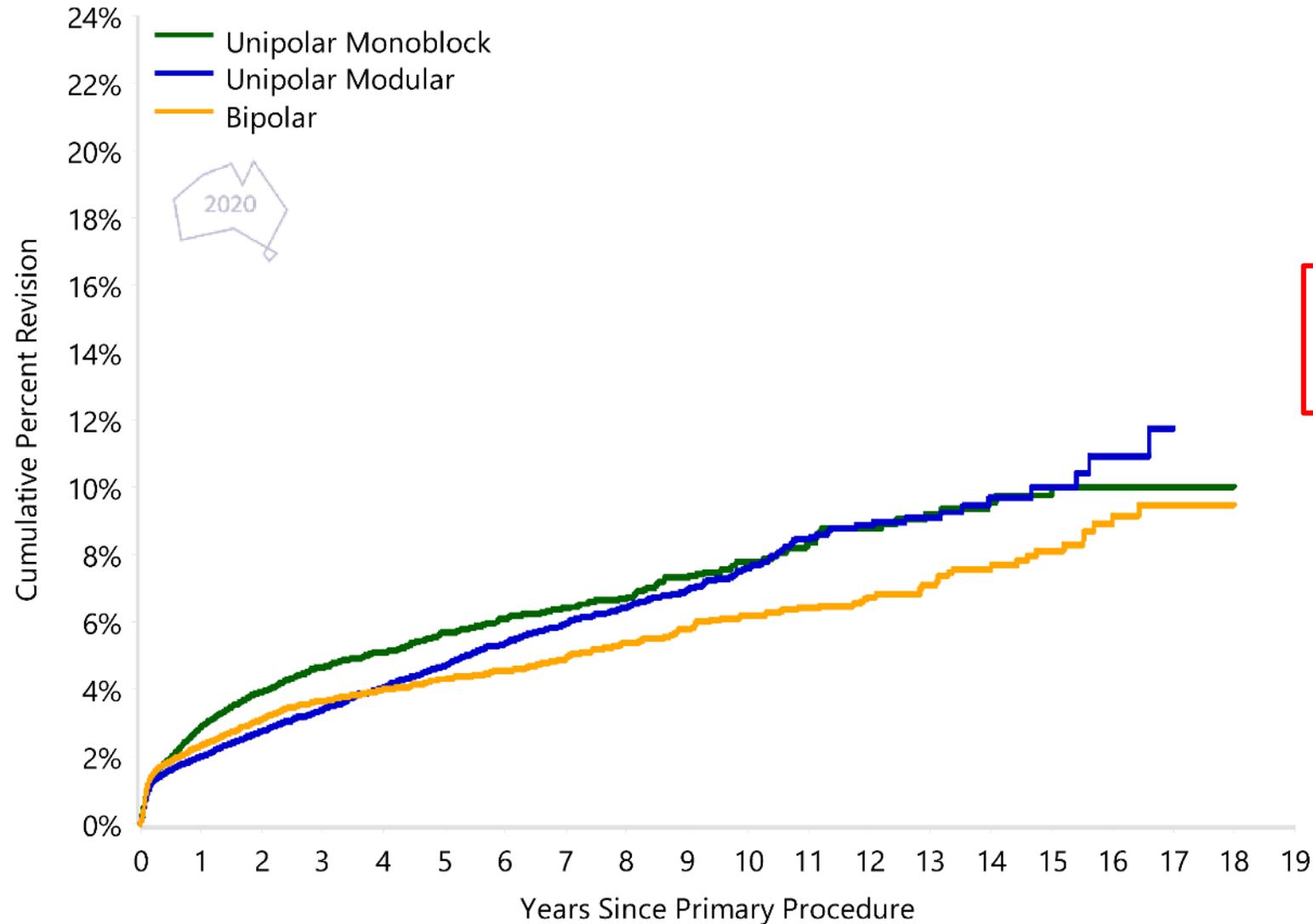
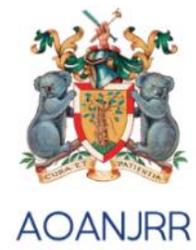


Patients aged ≥ 70 years with a unipolar modular have lower rate of revision (in the first 1.5 years).

Bipolar hip replacement has a lower rate of revision than total conventional hip replacement for the entire period.

Note: All procedures using metal/metal have been excluded

Figure HP2 Cumulative Percent Revision of Primary Partial Hip Replacement by Class (Fractured NoF)



At 10 years
bipolar has the lowest CPR
for fractured neck of femur.

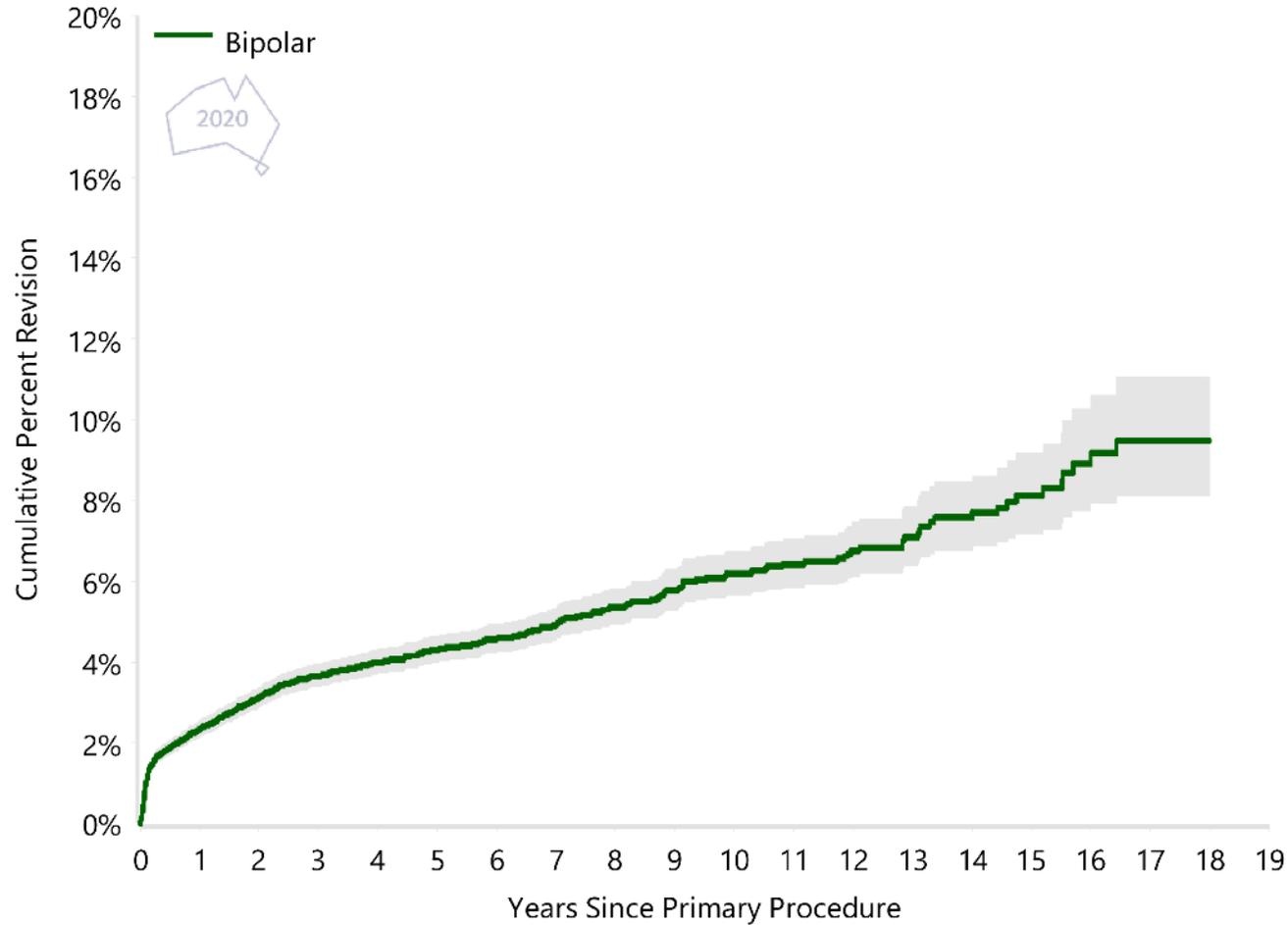
Table HP3 Cumulative Percent Mortality of Primary Partial Hip Replacement by Class (Fractured NoF)

Bipolar has the lowest mortality rate at 10 years.

Hip Class	N Deceased	N Total	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Unipolar Monoblock	24705	27593	36.9 (36.4, 37.5)	50.0 (49.4, 50.6)	60.8 (60.2, 61.4)	76.8 (76.3, 77.3)	86.1 (85.6, 86.5)	93.2 (92.9, 93.6)
Unipolar Modular	28126	42795	25.6 (25.2, 26.0)	36.4 (35.9, 36.9)	46.0 (45.5, 46.5)	61.9 (61.3, 62.4)	73.3 (72.8, 73.8)	83.6 (83.1, 84.1)
Bipolar	14528	23655	22.7 (22.2, 23.3)	32.8 (32.2, 33.5)	41.7 (41.0, 42.4)	56.4 (55.7, 57.1)	67.5 (66.7, 68.2)	78.9 (78.1, 79.6)
TOTAL	67359	94043						

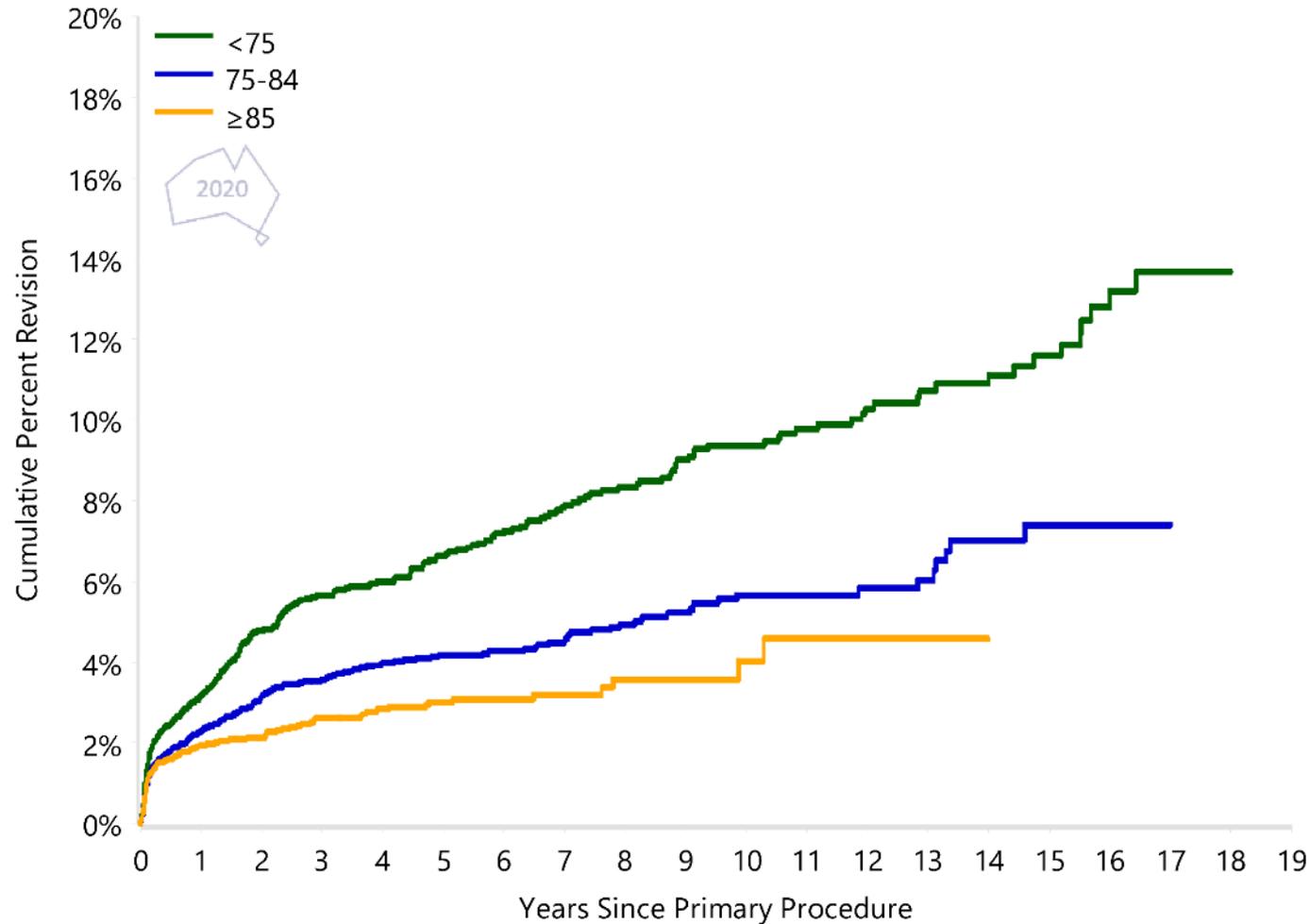
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Figure SHP20 Cumulative Percent Revision of Primary Bipolar Hip Replacement (Fractured NoF)



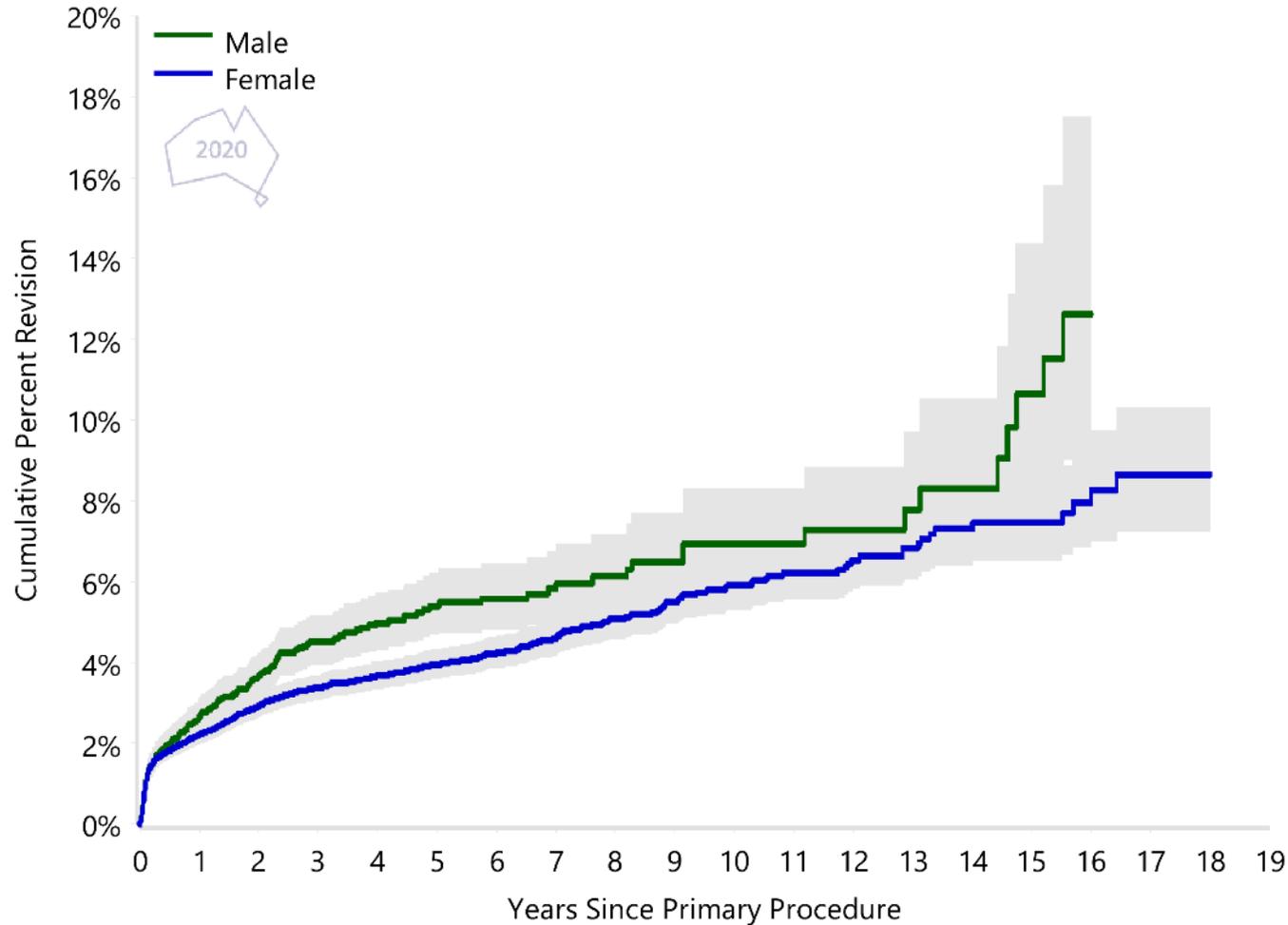
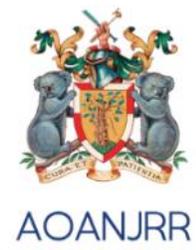
6.2% at 10 years

Figure SHP21 Cumulative Percent Revision of Primary Bipolar Hip Replacement by Age (Fractured NoF)



Patients aged <75 years with a primary diagnosis of fractured NoF have a higher rate of revision.

Figure SHP22 Cumulative Percent Revision of Primary Bipolar Hip Replacement by Gender (Fractured NoF)



Males with a primary diagnosis of fractured NoF have a higher rate of revision.