



Australian
Orthopaedic
Association
National
Joint
Replacement
Registry

Automated Industry Report 4156

Depuy Synthes Australia

Attune PS Total Knee

Report Generated: 6 May 2021

Data Period: 1 September 1999 - 4 May 2021

This report has been prepared by the Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR). The report provides information on the usage and outcomes of the Attune PS femoral compared to all other total knee replacements, based on data collected by the AOANJRR.

Disclaimer

The AOANJRR has taken every care to ensure that the data supplied are accurate but does not warrant that the data are error free and does not accept any liability for errors or omissions in the data.

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Catalogue Numbers of Attune PS Femoral Components included in this analysis

| Model | Catalogue Range | Range Description | No. of Primary Procedures |
|-----------|-----------------------|-----------------------------|---------------------------------|
| Attune PS | 150410101 - 150410210 | PS Femoral Component | 6957 |
| Attune PS | 150410123 - 150410226 | PS Narrow Femoral Component | 2232 |

The AOANJRR also reports these catalogue numbers as Attune PS Femoral Components. These are not included in the analysis.

| Model | Catalogue Range | Range Description |
|-----------|-----------------------|--------------------------------------|
| Attune PS | 150411103 - 150411209 | PS Femoral Component Porocoat |
| Attune PS | 150411123 - 150411226 | PS Narrow Femoral Component Porocoat |

Table 1: Revision Rates of Attune PS Primary Total Knee Replacement by Femoral Catalogue Number Range (All Diagnoses)

| Femoral Range | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|-----------------------|------------|-------------|--------------|------------------------------------|
| 150410101 - 150410210 | 129 | 6957 | 21522 | 0.60 (0.50, 0.71) |
| 150410123 - 150410226 | 33 | 2232 | 6676 | 0.49 (0.34, 0.69) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |

Table 2: Implant Usage of Attune PS in Primary Total Knee Replacement (All Diagnoses)

| | N |
|------------------------|---------------|
| Implant Usage | |
| Date First Used | 13 March 2013 |
| Date Last Used | 16 March 2021 |
| N Procedures | 9189 |
| N Patients | 7815 |
| N Hospitals Implanting | 126 |
| N Surgeons Implanting* | 192 |
| Outcome | |
| N Revised | 162 |
| N Deceased** | 278 |

*356 Attune PS procedures have unknown surgeon

**N Deceased' does not include patient deaths that occurred after the Attune PS implant was revised

Table 3: Follow Up Years of Attune PS in Primary Total Knee Replacement (All Diagnoses)

| Model | N | Minimum | Maximum | Median | Mean | Std Dev |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Attune PS | 9189 | 0.02 | 8.11 | 2.80 | 3.07 | 1.96 |
| TOTAL | 9189 | 0.02 | 8.11 | 2.80 | 3.07 | 1.96 |

Table 4: Age and Gender of Attune PS Primary Total Knee Replacement (All Diagnoses)

| Gender | Number | Percent | Minimum | Maximum | Median | Mean | Std Dev |
|--------------|-------------|---------------|-----------|-----------|-----------|-------------|------------|
| Male | 3848 | 41.9% | 31 | 95 | 68 | 68.3 | 9.0 |
| Female | 5341 | 58.1% | 33 | 97 | 69 | 69.0 | 9.2 |
| TOTAL | 9189 | 100.0% | 31 | 97 | 69 | 68.7 | 9.1 |

Table 5: Primary Total Knee Replacement by Model and Age (All Diagnoses)

| Age | Attune PS | | Other Total Knee | |
|--------------|-------------|--------------|------------------|--------------|
| | N | Col% | N | Col% |
| <55 | 596 | 6.5 | 51951 | 6.8 |
| 55-64 | 2292 | 24.9 | 203291 | 26.4 |
| 65-74 | 3786 | 41.2 | 304320 | 39.6 |
| ≥75 | 2515 | 27.4 | 209164 | 27.2 |
| TOTAL | 9189 | 100.0 | 768726 | 100.0 |

Table 6: Primary Total Knee Replacement by Model and Gender (All Diagnoses)

| Gender | Attune PS | | Other Total Knee | |
|--------------|-------------|--------------|------------------|--------------|
| | N | Col% | N | Col% |
| Male | 3848 | 41.9 | 336888 | 43.8 |
| Female | 5341 | 58.1 | 431838 | 56.2 |
| TOTAL | 9189 | 100.0 | 768726 | 100.0 |

Table 7: Primary Total Knee Replacement by Model and ASA Grade (All Diagnoses)

| ASA Grade | Attune PS | | Other Total Knee | |
|--------------|-------------|--------------|------------------|--------------|
| | N | Col% | N | Col% |
| 1 | 468 | 5.1 | 23411 | 5.8 |
| 2 | 5030 | 55.2 | 219505 | 54.7 |
| 3 | 3533 | 38.8 | 153648 | 38.3 |
| 4 | 83 | 0.9 | 4371 | 1.1 |
| 5 | . | . | 11 | 0.0 |
| TOTAL | 9114 | 100.0 | 400946 | 100.0 |

Note: The AOANJRR commenced collection of ASA data in 2013. 75 Attune PS procedures with no ASA Grade recorded are excluded from this table

Table 8: Primary Total Knee Replacement by Model and BMI (All Diagnoses)

| BMI | Attune PS | | Other Total Knee | |
|-------------------------------|-------------|--------------|------------------|--------------|
| | N | Col% | N | Col% |
| Underweight (<18.50) | 23 | 0.3 | 630 | 0.2 |
| Normal (18.50-24.99) | 907 | 11.9 | 32215 | 10.5 |
| Pre Obese (25.00-29.99) | 2444 | 32.2 | 95967 | 31.1 |
| Obese Class 1 (30.00-34.99) | 2226 | 29.3 | 95012 | 30.8 |
| Obese Class 2 (35.00-39.99) | 1214 | 16.0 | 52297 | 17.0 |
| Obese Class 3 (\geq 40.00) | 781 | 10.3 | 32052 | 10.4 |
| TOTAL | 7595 | 100.0 | 308173 | 100.0 |

Note: The AOANJRR commenced collection of BMI data in 2015. 1594 Attune PS procedures with no BMI recorded are excluded from this table

Table 9: Primary Total Knee Replacement by Model and Primary Diagnosis

| Primary Diagnosis | Attune PS | | Other Total Knee | |
|------------------------------|-------------|--------------|------------------|--------------|
| | N | Col% | N | Col% |
| Osteoarthritis | 9051 | 98.5 | 751289 | 97.7 |
| Rheumatoid Arthritis | 82 | 0.9 | 9389 | 1.2 |
| Other Inflammatory Arthritis | 23 | 0.3 | 3869 | 0.5 |
| Osteonecrosis | 22 | 0.2 | 2365 | 0.3 |
| Tumour | 1 | 0.0 | 945 | 0.1 |
| Fracture | 9 | 0.1 | 619 | 0.1 |
| Chondrocalcinosis | . | . | 18 | 0.0 |
| Osteochondritis Dissecans | . | . | 2 | 0.0 |
| Other | 1 | 0.0 | 230 | 0.0 |
| TOTAL | 9189 | 100.0 | 768726 | 100.0 |

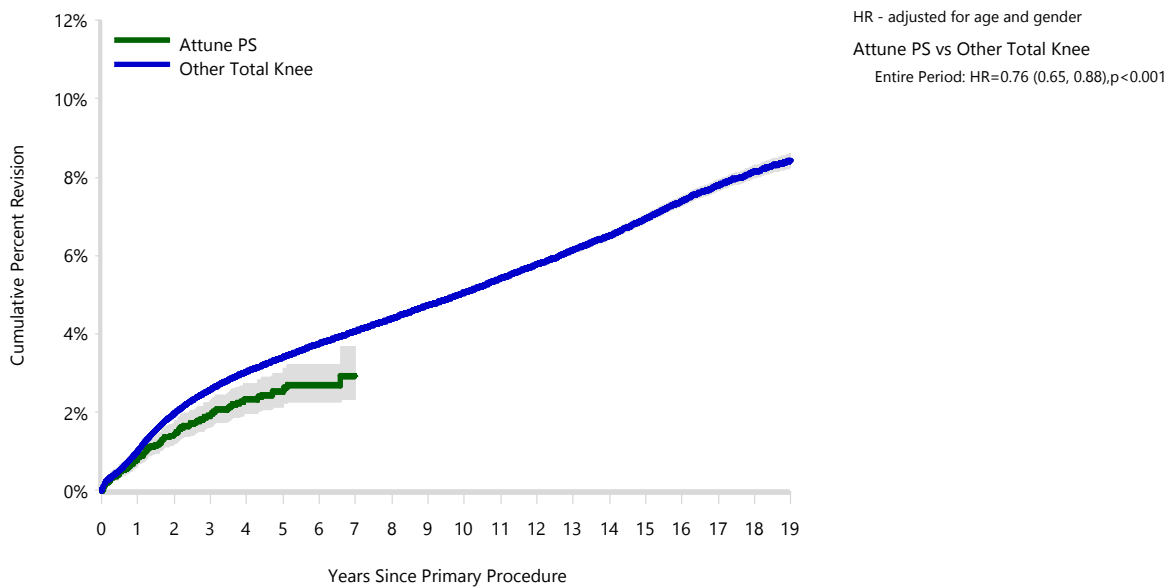
Table 10: Revision Rates of Primary Total Knee Replacement by Model (All Diagnoses)

| Model | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|------------------|--------------|---------------|----------------|---------------------------------|
| Attune PS | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |
| Other Total Knee | 31059 | 768726 | 5441317 | 0.57 (0.56, 0.58) |
| TOTAL | 31221 | 777915 | 5469515 | 0.57 (0.56, 0.58) |

Table 11: Yearly Cumulative Percent Revision of Primary Total Knee Replacement by Model (All Diagnoses)

| CPR | 1 Yr | 2 Yrs | 3 Yrs | 4 Yrs | 5 Yrs | 6 Yrs | |
|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Attune PS | 0.8 (0.6, 1.0) | 1.4 (1.2, 1.7) | 1.9 (1.6, 2.2) | 2.3 (2.0, 2.7) | 2.5 (2.1, 3.0) | 2.7 (2.3, 3.2) | |
| Other Total Knee | 1.0 (1.0, 1.0) | 2.0 (1.9, 2.0) | 2.6 (2.5, 2.6) | 3.0 (3.0, 3.1) | 3.4 (3.4, 3.4) | 3.8 (3.7, 3.8) | |
| CPR | 7 Yrs | 8 Yrs | 9 Yrs | 10 Yrs | 11 Yrs | 12 Yrs | |
| Attune PS | 2.9 (2.3, 3.7) | | | | | | |
| Other Total Knee | 4.1 (4.0, 4.1) | 4.4 (4.3, 4.4) | 4.7 (4.7, 4.8) | 5.0 (5.0, 5.1) | 5.4 (5.3, 5.5) | 5.8 (5.7, 5.9) | |
| CPR | 13 Yrs | 14 Yrs | 15 Yrs | 16 Yrs | 17 Yrs | 18 Yrs | 19 Yrs |
| Attune PS | | | | | | | |
| Other Total Knee | 6.1 (6.1, 6.2) | 6.5 (6.4, 6.6) | 6.9 (6.8, 7.0) | 7.4 (7.3, 7.5) | 7.8 (7.7, 7.9) | 8.1 (8.0, 8.3) | 8.4 (8.2, 8.6) |

Figure 1: Cumulative Percent Revision of Primary Total Knee Replacement by Model (All Diagnoses)



| Number at Risk | 0 Yr | 1 Yr | 2 Yrs | 3 Yrs | 4 Yrs | 5 Yrs | 6 Yrs | 7 Yrs | 8 Yrs | 9 Yrs |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Attune PS | 9189 | 7513 | 5796 | 4297 | 2957 | 1808 | 894 | 226 | 11 | 0 |
| Other Total Knee | 768726 | 710374 | 646776 | 582139 | 518530 | 457695 | 400005 | 345715 | 295623 | 249109 |
| Number at Risk | 10 Yrs | 11 Yrs | 12 Yrs | 13 Yrs | 14 Yrs | 15 Yrs | 16 Yrs | 17 Yrs | 18 Yrs | 19 Yrs |
| Attune PS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Total Knee | 205869 | 167362 | 133885 | 104854 | 80144 | 59135 | 41708 | 27449 | 16441 | 7861 |

TABLE 12

Reasons for Revision

This is reported in two ways: a percentage of primaries revised and as a percentage of all revision procedures.

% Primaries Revised: This shows the proportional contribution of each revision diagnosis as a percentage of the total number of primaries. This percentage can be used to approximate the risk of being revised for that diagnosis. Differing percentages between groups, with the same distribution of follow up time, may identify problems of concern.

% Revisions: The number of revisions for each diagnosis is expressed as a percentage of the total number of revisions. This shows the distribution of reasons for revision within a group but cannot be used as a comparison between groups.

Table 12: Revision Diagnosis of Primary Total Knee Replacement by Model (All Diagnoses) (Follow-up Limited to 8.1 Years)

| Revision Diagnosis | Number | Attune PS | | Other Total Knee | | |
|--------------------------------|-------------|---------------------|--------------|------------------|---------------------|--------------|
| | | % Primaries Revised | % Revisions | Number | % Primaries Revised | % Revisions |
| Infection | 68 | 0.7 | 42.0 | 6870 | 0.9 | 25.9 |
| Loosening | 34 | 0.4 | 21.0 | 6207 | 0.8 | 23.4 |
| Patellofemoral Pain | 3 | 0.0 | 1.9 | 2455 | 0.3 | 9.3 |
| Instability | 18 | 0.2 | 11.1 | 2365 | 0.3 | 8.9 |
| Pain | 6 | 0.1 | 3.7 | 2207 | 0.3 | 8.3 |
| Patella Erosion | 1 | 0.0 | 0.6 | 1461 | 0.2 | 5.5 |
| Arthrofibrosis | 13 | 0.1 | 8.0 | 1044 | 0.1 | 3.9 |
| Fracture | 10 | 0.1 | 6.2 | 782 | 0.1 | 3.0 |
| Malalignment | 4 | 0.0 | 2.5 | 619 | 0.1 | 2.3 |
| Metal Related Pathology | | | | 324 | 0.0 | 1.2 |
| Lysis | | | | 309 | 0.0 | 1.2 |
| Incorrect Sizing | | | | 305 | 0.0 | 1.2 |
| Wear Tibial Insert | | | | 230 | 0.0 | 0.9 |
| Patella Maltracking | 1 | 0.0 | 0.6 | 203 | 0.0 | 0.8 |
| Bearing Dislocation | | | | 173 | 0.0 | 0.7 |
| Implant Breakage Patella | | | | 123 | 0.0 | 0.5 |
| Implant Breakage Tibial Insert | | | | 115 | 0.0 | 0.4 |
| Synovitis | 1 | 0.0 | 0.6 | 91 | 0.0 | 0.3 |
| Prosthesis Dislocation | | | | 77 | 0.0 | 0.3 |
| Osteonecrosis | 1 | 0.0 | 0.6 | 59 | 0.0 | 0.2 |
| Implant Breakage Tibial | | | | 45 | 0.0 | 0.2 |
| Implant Breakage Femoral | | | | 36 | 0.0 | 0.1 |
| Tumour | 1 | 0.0 | 0.6 | 28 | 0.0 | 0.1 |
| Wear Patella | | | | 21 | 0.0 | 0.1 |
| Heterotopic Bone | | | | 11 | 0.0 | 0.0 |
| Wear Tibial | | | | 7 | 0.0 | 0.0 |
| Wear Femoral | | | | 4 | 0.0 | 0.0 |
| Progression Of Disease | | | | 3 | 0.0 | 0.0 |
| Incorrect Side | | | | 2 | 0.0 | 0.0 |
| Osteoarthritis | | | | 1 | 0.0 | 0.0 |
| Patella Dislocation | | | | 1 | 0.0 | 0.0 |
| Post Operative Haematoma | | | | 1 | 0.0 | 0.0 |
| Other | 1 | 0.0 | 0.6 | 298 | 0.0 | 1.1 |
| N Revision | 162 | 1.8 | 100.0 | 26477 | 3.4 | 100.0 |
| N Primary | 9189 | | | 768726 | | |

Note: This table is restricted to revisions within 8.1 years for all groups to allow a time-matched comparison of revisions.

Table 13: Yearly Cumulative Incidence Revision Diagnosis of Primary Total Knee Replacement by Model (All Diagnoses)

| Model | Event | N Events | 1 Yr | 2 Yrs | 3 Yrs | 5 Yrs | 10 Yrs | 15 Yrs |
|---------------------|---------------------|-------------|----------------|----------------|----------------|----------------|----------------------|----------------------|
| Attune PS | Loosening | 34 | 0.1 (0.0, 0.2) | 0.2 (0.1, 0.3) | 0.4 (0.3, 0.6) | 0.6 (0.4, 0.9) | | |
| | Infection | 68 | 0.4 (0.3, 0.6) | 0.7 (0.5, 0.9) | 0.8 (0.6, 1.0) | 0.9 (0.7, 1.2) | | |
| | Instability | 18 | 0.1 (0.1, 0.2) | 0.2 (0.1, 0.4) | 0.2 (0.1, 0.4) | 0.2 (0.1, 0.4) | | |
| | Patellofemoral Pain | 3 | 0.0 (0.0, 0.1) | 0.0 (0.0, 0.1) | 0.0 (0.0, 0.1) | 0.0 (0.0, 0.1) | | |
| | Pain | 6 | 0.0 (0.0, 0.1) | 0.0 (0.0, 0.1) | 0.1 (0.0, 0.2) | 0.1 (0.0, 0.2) | | |
| | Other | 33 | 0.1 (0.1, 0.3) | 0.2 (0.2, 0.4) | 0.3 (0.2, 0.5) | 0.6 (0.4, 0.8) | | |
| | Deceased | 278 | 0.5 (0.4, 0.7) | 1.4 (1.2, 1.7) | 2.6 (2.2, 3.0) | 5.2 (4.5, 5.9) | | |
| | All Revision | 162 | 0.8 (0.6, 1.0) | 1.4 (1.2, 1.7) | 1.9 (1.6, 2.2) | 2.5 (2.1, 2.9) | | |
| | Other Total Knee | Loosening | 7576 | 0.2 (0.1, 0.2) | 0.4 (0.4, 0.4) | 0.5 (0.5, 0.6) | 0.8 (0.7, 0.8) | 1.2 (1.1, 1.2) |
| Infection | | 7466 | 0.4 (0.4, 0.5) | 0.6 (0.6, 0.6) | 0.7 (0.7, 0.8) | 0.9 (0.9, 0.9) | 1.1 (1.1, 1.1) | 1.3 (1.2, 1.3) |
| Instability | | 2702 | 0.1 (0.1, 0.1) | 0.2 (0.2, 0.2) | 0.2 (0.2, 0.2) | 0.3 (0.3, 0.3) | 0.4 (0.4, 0.4) | 0.5 (0.5, 0.5) |
| Patellofemoral Pain | | 2679 | 0.1 (0.1, 0.1) | 0.2 (0.2, 0.2) | 0.2 (0.2, 0.3) | 0.3 (0.3, 0.3) | 0.4 (0.4, 0.4) | 0.5 (0.5, 0.5) |
| Pain | | 2475 | 0.0 (0.0, 0.1) | 0.1 (0.1, 0.2) | 0.2 (0.2, 0.2) | 0.3 (0.3, 0.3) | 0.4 (0.4, 0.4) | 0.5 (0.4, 0.5) |
| Other | | 8161 | 0.2 (0.2, 0.2) | 0.4 (0.4, 0.5) | 0.6 (0.6, 0.6) | 0.8 (0.8, 0.8) | 1.2 (1.2, 1.3) | 1.8 (1.7, 1.8) |
| Deceased | | 13341 3 | 0.7 (0.7, 0.7) | 1.7 (1.7, 1.8) | 3.0 (3.0, 3.1) | 6.5 (6.4, 6.5) | 20.1 (20.0, 20.2) | 38.4 (38.2, 38.6) |
| All Revision | | 31059 | 1.0 (1.0, 1.0) | 1.9 (1.9, 2.0) | 2.5 (2.5, 2.6) | 3.3 (3.3, 3.4) | 4.8 (4.7, 4.8) | 6.1 (6.0, 6.2) |

Figure 2: Cumulative Incidence Revision Diagnosis of Primary Total Knee Replacement by Model (All Diagnoses)

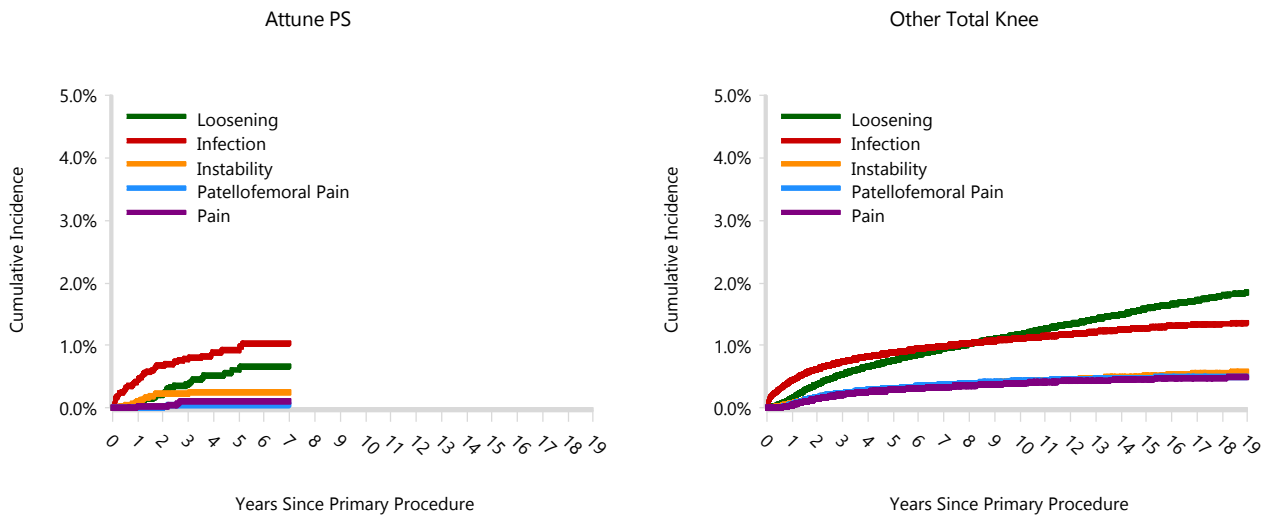


TABLE 14

Type of Revision

This is reported in two ways: a percentage of primary procedures revised and as a percentage of all revision procedures.

% Primaries Revised: This shows the proportional contribution of each type of revision as a percentage of the total number of primary procedures. This percentage can be used to approximate the risk of having that type of revision. Differing percentages between groups, with the same distribution of follow up time, may identify problems of concern.

% Revisions: The number of revisions for each type of revision is expressed as a percentage of the total number of revisions. This shows the distribution of types of revision within a group but cannot be used as a comparison between groups.

Table 14: Type of Revision of Primary Total Knee Replacement by Model (All Diagnoses) (Follow-up Limited to 8.1 Years)

| Type of Revision | Number | Attune PS | | Other Total Knee | | |
|---------------------------|-------------|---------------------|--------------|------------------|---------------------|--------------|
| | | % Primaries Revised | % Revisions | Number | % Primaries Revised | % Revisions |
| Insert Only | 80 | 0.9 | 49.4 | 6783 | 0.9 | 25.6 |
| TKR (Tibial/Femoral) | 44 | 0.5 | 27.2 | 6381 | 0.8 | 24.1 |
| Patella Only | 8 | 0.1 | 4.9 | 5266 | 0.7 | 19.9 |
| Insert/Patella | 2 | 0.0 | 1.2 | 2401 | 0.3 | 9.1 |
| Tibial Component | 13 | 0.1 | 8.0 | 2341 | 0.3 | 8.8 |
| Femoral Component | 8 | 0.1 | 4.9 | 1545 | 0.2 | 5.8 |
| Cement Spacer | 6 | 0.1 | 3.7 | 1478 | 0.2 | 5.6 |
| Removal of Prostheses | | | | 173 | 0.0 | 0.7 |
| Minor Components | 1 | 0.0 | 0.6 | 66 | 0.0 | 0.2 |
| Cement Only | | | | 16 | 0.0 | 0.1 |
| Total Femoral | | | | 14 | 0.0 | 0.1 |
| Reinsertion of Components | | | | 13 | 0.0 | 0.0 |
| N Revision | 162 | 1.8 | 100.0 | 26477 | 3.4 | 100.0 |
| N Primary | 9189 | | | 768726 | | |

Note: This table is restricted to revisions within 8.1 years for all groups to allow a time-matched comparison of revisions.

Table 15: Revision Rates of Attune PS Primary Total Knee Replacement by Fixation (All Diagnoses)

| Fixation | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|----------------------------|------------|-------------|--------------|------------------------------------|
| Cemented | 162 | 9102 | 28167 | 0.58 (0.49, 0.67) |
| Hybrid (Tibial Cementless) | 0 | 87 | 31 | 0.00 (0.00, 11.84) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |

Table 16: Revision Rates of Attune PS Primary Total Knee Replacement by Polyethylene Type (All Diagnoses)

| Polyethylene Type | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|--------------------|------------|-------------|--------------|------------------------------------|
| XLPE | 0 | 1 | 1 | 0.00 (0.00, 491.7) |
| XLPE + Antioxidant | 162 | 9188 | 28197 | 0.57 (0.49, 0.67) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |

Table 17: Revision Rates of Attune PS Primary Total Knee Replacement by Bearing Mobility (All Diagnoses)

| Bearing Mobility | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|------------------|------------|-------------|--------------|------------------------------------|
| Fixed | 86 | 4213 | 16072 | 0.54 (0.43, 0.66) |
| Rotating | 76 | 4976 | 12126 | 0.63 (0.49, 0.78) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |

Table 18: Revision Rates of Attune PS Primary Total Knee Replacement by Stability (All Diagnoses)

| Stability | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|----------------------|------------|-------------|--------------|------------------------------------|
| Minimally Stabilised | 0 | 5 | 14 | 0.00 (0.00, 25.50) |
| Posterior Stabilised | 162 | 9184 | 28183 | 0.57 (0.49, 0.67) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |

Table 19: Revision Rates of Attune PS Primary Total Knee Replacement by Patella Usage (All Diagnoses)

| Patella Usage | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|---------------|------------|-------------|--------------|------------------------------------|
| Patella Used | 143 | 8798 | 26553 | 0.54 (0.45, 0.63) |
| No Patella | 19 | 391 | 1644 | 1.16 (0.70, 1.80) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |

Table 20: Revision Rates of Attune PS Primary Total Knee Replacement by Computer Navigation (All Diagnoses)

| Computer Navigation | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|---------------------|------------|-------------|--------------|------------------------------------|
| Computer Navigated | 50 | 3700 | 9560 | 0.52 (0.39, 0.69) |
| Non-Navigated | 112 | 5489 | 18638 | 0.60 (0.49, 0.72) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |

Table 21: Revision Rates of Attune PS Primary Total Knee Replacement by IDI Usage (All Diagnoses)

| IDI Usage | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|--------------|------------|-------------|--------------|------------------------------------|
| IDI Used | 2 | 94 | 274 | 0.73 (0.09, 2.63) |
| IDI Not Used | 160 | 9095 | 27924 | 0.57 (0.49, 0.67) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |

Table 22: Revision Rates of Attune PS Primary Total Knee Replacement by Robotic Assistance (All Diagnoses)

| Robotic Assistance | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|----------------------|------------|-------------|--------------|------------------------------------|
| Robotically Assisted | 0 | 3 | 3 | 0.00 (0.00, 113.5) |
| Non-Robotic | 162 | 9186 | 28195 | 0.57 (0.49, 0.67) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |

Table 23: Number of Revisions of Attune PS Primary Total Knee Replacement by Year of Implant (All Diagnoses)

| Year of Implant | Number Revised | Total Number |
|-----------------|----------------|--------------|
| 2013 | 2 | 154 |
| 2014 | 8 | 564 |
| 2015 | 29 | 931 |
| 2016 | 21 | 1048 |
| 2017 | 38 | 1353 |
| 2018 | 33 | 1365 |
| 2019 | 23 | 1777 |
| 2020 | 8 | 1688 |
| 2021 | 0 | 309 |
| TOTAL | 162 | 9189 |

Table 24: Revision Rates of Attune PS Primary Total Knee Replacement by Tibial Component (All Diagnoses)

| Tibial | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|--------------------------|------------|-------------|--------------|------------------------------------|
| Attune | 162 | 9188 | 28197 | 0.57 (0.49, 0.67) |
| Other Tibial Components* | 0 | 1 | 1 | 0.00 (0.00, 491.7) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |

*denotes tibial components distributed by other companies

Table 25: Revision Rates of Attune PS Primary Total Knee Replacement by Femoral Catalogue Number (All Diagnoses)

| Femoral Catalogue Number | N Revised | N Total | Obs. Years | Revisions/100 Obs. Yrs (95% CI) |
|--------------------------|------------|-------------|--------------|---------------------------------|
| 150410101 | 0 | 1 | 0 | 0.00 (0.00, 2246) |
| 150410102 | 0 | 8 | 23 | 0.00 (0.00, 16.27) |
| 150410103 | 1 | 120 | 449 | 0.22 (0.01, 1.24) |
| 150410104 | 10 | 394 | 1344 | 0.74 (0.36, 1.37) |
| 150410105 | 5 | 617 | 1970 | 0.25 (0.08, 0.59) |
| 150410106 | 10 | 723 | 2298 | 0.44 (0.21, 0.80) |
| 150410107 | 15 | 752 | 2294 | 0.65 (0.37, 1.08) |
| 150410108 | 10 | 466 | 1299 | 0.77 (0.37, 1.42) |
| 150410109 | 2 | 150 | 409 | 0.49 (0.06, 1.77) |
| 150410110 | 1 | 22 | 63 | 1.59 (0.04, 8.85) |
| 150410123 | 0 | 20 | 62 | 0.00 (0.00, 5.96) |
| 150410124 | 3 | 178 | 558 | 0.54 (0.11, 1.57) |
| 150410125 | 5 | 414 | 1266 | 0.39 (0.13, 0.92) |
| 150410126 | 9 | 436 | 1231 | 0.73 (0.33, 1.39) |
| 150410201 | 0 | 2 | 7 | 0.00 (0.00, 54.33) |
| 150410202 | 0 | 7 | 19 | 0.00 (0.00, 19.25) |
| 150410203 | 2 | 134 | 466 | 0.43 (0.05, 1.55) |
| 150410204 | 5 | 443 | 1437 | 0.35 (0.11, 0.81) |
| 150410205 | 13 | 728 | 2331 | 0.56 (0.30, 0.95) |
| 150410206 | 18 | 767 | 2493 | 0.72 (0.43, 1.14) |
| 150410207 | 18 | 899 | 2597 | 0.69 (0.41, 1.10) |
| 150410208 | 11 | 542 | 1528 | 0.72 (0.36, 1.29) |
| 150410209 | 6 | 153 | 417 | 1.44 (0.53, 3.13) |
| 150410210 | 2 | 29 | 79 | 2.54 (0.31, 9.17) |
| 150410223 | 0 | 26 | 82 | 0.00 (0.00, 4.48) |
| 150410224 | 2 | 168 | 574 | 0.35 (0.04, 1.26) |
| 150410225 | 8 | 510 | 1556 | 0.51 (0.22, 1.01) |
| 150410226 | 6 | 480 | 1347 | 0.45 (0.16, 0.97) |
| TOTAL | 162 | 9189 | 28198 | 0.57 (0.49, 0.67) |