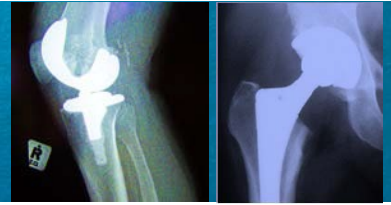


Total Joint Replacement Registry



Introduction

The Total Joint Replacement Registry (TJRR) was established in 2001 and collects demographic, surgical, and implant information to monitor outcomes, identify best practices, and identify patients in the case of a recall. The registry reports on revision, surgical site infection, 90-day deep vein thrombosis and pulmonary embolism, mortality, inpatient readmissions, and emergency visits.

Volume and Participation

There are 99,213 primary and 9,884 revision THA cases; 1,290 BHR; 185,302 primary and 11,229 revision TKA; and 5,939 UKA cases registered. Program-wide participation is greater than 90 percent.

Demographics and Diagnoses

THA: Females account for 57% of primaries and 56% of revisions. 55% of primaries and 60% of revisions are performed in patients \geq 65 years old. 21% of patients have a diagnosis of diabetes and 13% have a BMI \geq 35. Osteoarthritis (94%) is the most common diagnosis among primaries and instability (27%) among revisions.

TKA: Females account for 62% of primaries and 56% of revisions. 62% of primaries and 60% of revisions are performed in patients \geq 65 years old. 30% of patients have a diagnosis of diabetes and 21% have a BMI \geq 35. Osteoarthritis (98%) is the most common diagnosis among primaries and infection (31%) among revisions.

Implants and Surgical Technique

Primary THA: Metal on crosslink polyethylene is the most common bearing surface (57%), followed by ceramic on crosslink polyethylene (29%). The majority (81%) of cases use head sizes 28 to 36 mm. 88% of cases are uncemented.

Primary TKA: Depuy PFC Sigma (38%) and Zimmer Nexgen (33%) were the most commonly used implants for primaries. 94% of cases are cemented. General anesthesia, found by the registry to be associated with an increased risk of pulmonary embolism, was used in 26% of cases.

Outcomes (2017Q1 -2017Q4)

	Total Hip Arthroplasty							
	Deep Infection ¹	DVT ¹	PE ¹	90-Day Mortality	30-Day UNPLANNED Readmission ¹	30-Day Emergency Visit ¹	Cumulative Survival 5yrs ¹	Cumulative Survival 10yrs ¹
ALL	0.50%	0.40%	0.30%	0.40%	2.60%	7.80%	96.9(96.8,97)	95.1(94.9,95.3)
CO	0.10%	0.70%	0.70%	0.90%	N/A	N/A	96.3(95.7,96.8)	93.8(92.5,94.8)
GA	0.50%	0.90%	0.50%	0.40%	N/A	N/A	N/A	N/A
HI	0.40%	0.00%	0.40%	0.40%	2.00%	6.40%	96.4(95.2,97.4)	92.5(89.9,94.5)
MAS	0.80%	0.80%	0.20%	0.00%	N/A	N/A	97(96,97.8)	95.8(93.7,97.2)
NCAL	0.70%	0.30%	0.30%	0.40%	3.10%	9.00%	96.7(96.5,96.9)	94.8(94.5,95.1)
NW	1.00%	0.40%	0.30%	0.40%	2.50%	6.10%	97(96.5,97.4)	95.2(94.4,95.8)
SCAL	0.30%	0.50%	0.30%	0.50%	2.00%	6.50%	97.2(97,97.4)	95.7(95.4,96)
WA	0.70%	0.40%	0.00%	0.00%	N/A	N/A	97(94.6,98.3)	N/A

	Total Knee Arthroplasty							
	Deep Infection ¹	DVT ¹	PE ¹	90-Day Mortality	30-Day UNPLANNED Readmission ¹	30-Day Emergency Visit ¹	Cumulative Survival 5yrs ¹	Cumulative Survival 10yrs ¹
ALL	0.30%	0.60%	0.40%	0.20%	2.20%	10.20%	97.1(97,97.2)	95.7(95.6,95.9)
CO	0.40%	1.10%	1.10%	0.10%	N/A	N/A	97.8(97.4,98)	96.4(95.7,97)
GA	0.00%	0.70%	0.30%	0.00%	N/A	N/A	N/A	N/A
HI	0.20%	0.90%	0.80%	0.00%	0.019	0.08	97.3(96.6,97.9)	95.2(93.5,96.4)
MAS	0.30%	0.70%	0.50%	0.00%	N/A	N/A	97.6(97,98.1)	96.8(95.8,97.6)
NCAL	0.30%	0.50%	0.30%	0.40%	0.027	0.124	96.7(96.6,96.9)	95.2(94.9,95.4)
NW	0.60%	1.40%	0.30%	0.10%	0.033	0.086	97(96.6,97.3)	95.6(95,96.2)
SCAL	0.20%	0.50%	0.40%	0.20%	0.017	0.086	97.4(97.2,97.5)	96.1(95.9,96.3)
WA	0.10%	0.50%	0.00%	0.00%	N/A	N/A	98.6(97.8,99.1)	N/A

1. Primary cases only