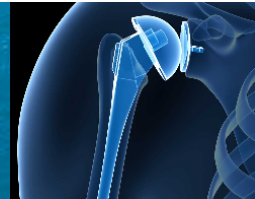


Shoulder Arthroplasty Registry

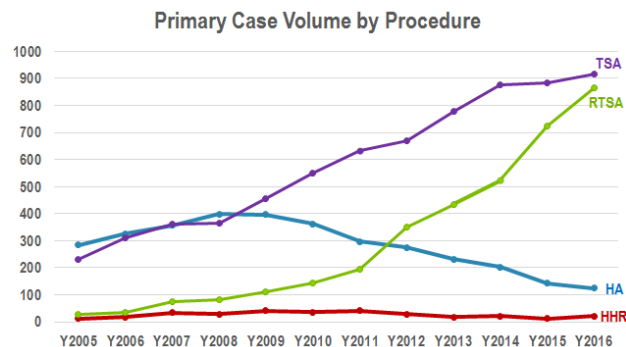


Introduction

The Shoulder Arthroplasty Registry (SAR) tracks patient characteristics, surgical techniques, implant types, outcomes and complications following all total shoulder arthroplasty (TSA), reverse total shoulder arthroplasty (RTSA), hemiarthroplasty (HA) and humeral head resurfacing (HHR) procedures. In addition to information collected from the administrative databases, the registry actively collects both paper and electronic operative forms from participating medical centers amongst the six Kaiser Permanente regions of NCAL, SCAL, CO, NW, MAS, and HI.

Volume

The total volume for primary procedures from 2005 to Q4 2016 is 14,301 with a total of 535 revision procedures that were captured by the registry. NCAL (43.3%) and SCAL (32.5%) have the highest total case volume with the other regions contributing: CO (12.1%), NW (7.2%), MAS (3.4%), and HI (1.4%).



Demographics and Diagnoses

Shoulder Arthroplasty patients were predominately white (79.7%) and female (56.4%), with an average age of 69.6 years, an ASA score of 2, and a BMI of 30 for both genders. The top three primary diagnoses included osteoarthritis (59.3%), rotator cuff arthropathy (19.6%), and acute proximal humerus fracture (13.6%).

Outcomes

Program-wide complication rates resulting from primary procedures for all four SAR procedures combined are illustrated below. The top three revision reasons for all procedures are instability/dislocation, infection and rotator cuff tear.

Region	Complications Resulting from Primaries for All Procedures							
	Deep Infection	DVT	PE	Total Cases	Revision Adjusted by Survival Years			Revision Density
					Revised Cases	Rev Rate (unadjusted)		
CO	0.4%	0.7%	0.5%	1736	46	2.65%	0.69 (0.51 , 0.92)	
HI	0.5%	0.5%	1.0%	204	4	1.96%	0.49 (0.18 , 1.31)	
MAS	0.4%	0.6%	0.2%	489	20	4.09%	1.08 (0.70 , 1.67)	
NCAL	0.8%	0.5%	0.6%	6187	256	4.14%	1.00 (0.88 , 1.13)	
NW	1.5%	1.2%	0.4%	1036	35	3.38%	0.85 (0.61 , 1.18)	
SCAL	1.1%	0.7%	0.5%	4649	174	3.74%	0.96 (0.83 , 1.11)	
ALL REGIONS	0.9%	0.7%	0.5%	14301	535	3.74%	0.93 (0.86 , 1.02)	