

Anterior Cruciate Ligament Reconstruction Registry



Introduction

The ACLR registry was established in 2005 and tracks implants and outcomes of primary and revision ACLR cases.

Volume and Participation

As of December 31, 2016, there are 35,524 primary and 4,589 revision ACLRs registered. Program-wide participation was 90% from January 1, 2016 to December 31, 2016.

Demographics and Diagnoses

The average age for primary cases is 28 years (± 11.5) with the largest age category being 14-17 years old (21%) for primaries and 18-21 years old (16%) for revisions. 30% of primary ACLRs among females are in the 14-17 years age group. A total of 23,806 (67%) of the primary ACLRs and 2,640 (58%) of the revisions in the registry also have a meniscal injury and 26% of primary ACLRs and 44% of revisions have a cartilage injury.

Outcomes

	Overall	CO	HI	MAS	NCAL	NW	SCAL
Total N Cases ₁	35524	2897 (8.2%)	918 (2.6%)	1088 (3.1%)	14323 (40.3%)	1611 (4.5%)	14376 (40.5%)
Male	22096 (62.2%)	1503 (51.9%)	552 (60.1%)	695 (63.9%)	8815 (61.5%)	926 (57.5%)	9450 (65.7%)
Mean Age (SD)	28.4 (± 11.5)	31.6 (± 12.4)	27.9 (± 11.9)	27 (± 10.7)	29.0 (± 11.8)	29.8 (± 11.7)	27.7 (± 10.9)
Revised	1209 (3.4%)	114 (3.9%)	13 (1.4%)	29 (2.7%)	577 (4.0%)	47 (2.9%)	426 (3.0%)
Revisions/100 Yr F/U	0.9	1.2	0.4	1.1	1.1	0.9	0.8
Contralateral revisions	1238 (3.5%)	95 (3.3%)	24 (2.6%)	22 (2.0%)	493 (3.4%)	44 (2.7%)	560 (3.9%)
Re-operations (same or contralateral knee)	3762 (10.6%)	253 (8.7%)	62 (6.8%)	67 (6.2%)	1634 (11.4%)	132 (8.2%)	1614 (11.2%)
Re-ops/100 Yr F/U	2.8	2.6	1.8	2.4	3.0	2.4	2.9
Deep Infection	85 (0.2%)	8 (0.3%)	3 (0.3%)	4 (0.4%)	37 (0.3%)	5 (0.3%)	28 (0.2%)
Deep Vein Thrombosis	103 (0.3%)	20 (0.7%)	1 (0.1%)	7 (0.6%)	39 (0.3%)	3 (0.2%)	32 (0.2%)
Pulmonary Embolism	37 (0.1%)	2 (0.1%)	1 (0.1%)	1 (0.1%)	14 (0.1%)	2 (0.1%)	16 (0.1%)

1. Column totals and percents are based on the total number of primary ACLR cases.

Clinical Findings and Change of Practice

Allografts were shown to have a 3.0 times higher risk of revision than bone-patellar tendon-bone autografts². A nationwide effort to reduce their use in primary ACLRs was initiated. Allograft use in primary ACLRs declined from a high of 44% in 2010 down to 30% by the end of 2016, a 31% overall reduction. In patients age ≤ 21 , allograft use declined from a high of 26% in 2009 down to 8% in 2016, a 69% reduction.

2. Maletis GB, Inacio MC, Desmond JL, Funahashi TT. 2013. Reconstruction of the anterior cruciate ligament: association of graft choice with increased risk of early revision. Bone Joint J. 95:623-628

