

Hip and Knee Measurement Framework

Release Date: 2024

The Hip and Knee Surgical Care Path and Measurement Framework represent the essence of better bone and joint health in Alberta. The integrated path has demonstrated that an evidence-based, collaborative, and integrated approach to surgical management has positive health system and patient outcomes. The encompassing performance indicators of the measurement framework are evidence-based and derived from clinical consensus.



Patient Population(s) Clinic & Hospital Environment: All Pts referred for Hip & Knee Replacement (Surgical & Non-Surgical)
 The Measurement Framework describes the KPIs and KCPIs required to provide a meaningful evaluation of the entire H&K Surgical continuum(s) of care as described in the Hip and Knee Surgical Care Path. This document should be read in complement with the H&K Surgical Care Path.

Health Quality Dimensions: Acceptability, Accessibility, Appropriateness, Effectiveness, Efficiency, Safety



Pre-referral and Referral

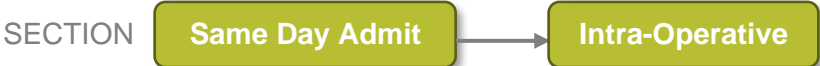
Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Accessibility		
Waiting time for referred Pts	Waiting Time for MSK Screening	N/A
	Waiting Time for Surgeon Consult	90% of Pts within 8 weeks

Hip and Knee Clinic Evaluation and Detailed Assessment – Non-Surgical Patient

Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Appropriateness		
Minimum care requirements for non-surgical Pts	% of Pts given the OA Self-Management Toolkit	100%
	% of Pts that were given a plan	100%
Pts assigned appropriately	% of total Pts assessed at first consult who are non-surgical	30%
	% of non-surgical patient re-referred within one year	0%



Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Accessibility		
Waiting time for surgical Pts	Waiting Time from Decision to Surgery	12 weeks (Stretch goal for Clinical Committee), 26 weeks (AHS Executive)
	% of planned surgery dates 12 weeks from surgical decision date	100%
	Waiting Time from Ready to Treat to Surgery	12 weeks (Stretch goal for Clinical Committee), 26 weeks (AHS Executive)
	% of surgeries completed within 12 weeks from surgical ready to treat date	100%
	% of surgeries completed on planned date	100%



Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Efficiency		
OR turnover time	Pt leaving the OR to next Pt entering	45 Minutes
OR case time	Time from incision to close	N/A
Cost difference	Avg. cost difference per case	N/A
Safety		
Mortality, morbidity, complication rates	Infection rate per 1000	Reduce from current
	In Hospital Medical Events	
	Mechanical Events – Hip & Knee	
Appropriateness		
Case compliance with surgery care path	% of Pts who received an intraoperative blood transfusion	Hip 0% Knee 0%

SECTION

Acute Post-Operative Care

Post Operative Days 0-3

Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Appropriateness		
Case compliance with inpatient care path	% of Pts mobilized 10 steps or more on day of surgery	90%
	% of Pts discharged to appropriate discharge location	100%
Efficiency		
Length of stay	Time from admission to hospital to discharge from hospital (in hours)	Average of <48 hours
	Day surgery Pts are those that stay less than 18 hours	N/A (at this time)
	% of Pts discharged within LOS benchmark	90% within LOS Benchmark from above
	% of Pts appropriately transferred to subacute	100%

SECTION

Recovery

Recovery Optimization

Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Acceptability		
Patient 'experience' satisfaction scores	Patient satisfaction score(s)	>80% Satisfied or Very Satisfied
	% Pts reporting staff treated them with respect	>80% Satisfied or Very Satisfied
	% Pts reporting post-op nausea and vomiting	10%
	% Pts reporting pain well controlled	90%
Appropriateness		
Case compliance with surgery care path	% of Pts who received spinal anesthesia	90%
Safety		
Readmission	30 day readmission rate	Reduce from current
	30 day ER visit rate	
Mortality, morbidity, complication rates	Number of procedure-related post-discharge complications	Reduce from current
Primary elective procedures captured for Canadian Joint Replacement Registry submission	% of primary elective TJA procedures electronically captured for CJRR Submission	100%

2 Week – 1 Year Post-Operative Follow-

Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Accessibility		
Follow up timelines	Time from surgery to 2 week follow up appointment at clinic	2 weeks
	Time from surgery to 6 week follow up appointment	6 weeks
	Time from surgery to 12 week follow up appointment	12 weeks
	Time from surgery to 1 year follow up appointment	1 year
Effectiveness		
Change in patient reported outcomes	Point change on WOMAC & EQ5D-5L from Baseline to 12-week follow-up	Median Point Change Primary Hip- WOMAC Pain: 45.0 WOMAC Stiffness: 37.5 WOMAC Function: 40.5 EQ5D-5L: 0.40 Primary Knee- WOMAC Pain: 35.0 WOMAC Stiffness: 25.0 WOMAC Function: 30.9 EQ5D-5L: 0.40 Hip Resurfacing- WOMAC Pain: 40.0 WOMAC Stiffness: 25.0 WOMAC Function: 33.0 EQ5D-5L: 0.40
	Point change on WOMAC and EQ5D-5L from Baseline to 1 year follow-up	WOMAC: Meet or exceed 90 points EQ5D-5L: Meet or exceed 0.40
	% of Pts achieving clinically significant improvement (+17%) on WOMAC at 3 months, 12 months	85%

Beyond Follow-Up

Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Appropriateness		
% of Pts requiring a revision	% of surgeries that require a revision within 12 months	<10% of primary cases

Additional Principles

Referral → Assessment → Optimization		
Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Accessibility		
Referral processing	% of referrals received with complete information	100%
	% of complete referrals received and screened (accepted or denied) within 2 working days	100%
	% of accepted screened referrals with offered first consult date within 40 working days	100%
	% of actual first consult date completed as scheduled	100%
Appropriateness		
Case compliance with pre-surgery care path Benchmark: 100%	% of Pts who were given a Surgical Patient Agreement	100%
	% of Pts who adhered to a Surgical Patient Agreement	100%
	% of Pts who were appropriately referred and seen for a medical clearance consult	100%
	% of Pts who appropriately received an anesthesia clearance consult	100%
	% of Pts who received complete lab work	100%
	% of Pts accompanied by a buddy	100%
	% of Pts who attended an education session	100%
	% of Pts with appropriately planned discharge location	100%
	% of Pts who were <i>medically</i> and <i>functionally</i> optimized	100%

Consultations	% of Pts who appropriately received a nutrition consult	100%
	% of Pts who appropriately attended PT visit	100%
	% of Pts who appropriately attended OT visit	100%
	% of Pts who appropriately received blood conservation consult	100%
	% of Pts who appropriately received a home assessment	100%
Pts assigned appropriately	% of total Pts assessed at first consult who are surgical Pts that are optimized (within 14wks)	65%
	% of total Pts assessed at first consult who are long term surgical optimization Pts (optimization >20wks)	5%
	% of long term optimization Pts re-referred within one year	100%
	% of surgical Pts who become non-surgical or long term optimization	0%
	Long term optimization (>20 weeks) % of Pts that were given a plan	100%

Same Day Admit → Intra-Operative		
Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Appropriateness		
Case compliance with surgery care path	% of Pts who appropriately received antibiotic prophylaxis pre-surgery	100%
	% of patient who appropriately received hair removal pre-surgery	100%
	% of Pts who received drains	0%
	% of Pts with appropriate use of TXA	100%

Acute Post-Operative Care		
Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Appropriateness		
Case compliance with inpatient care path	% of Pts who received medications appropriately	100%

Recovery & Clinic Post-Operative Care		
Key Composite Performance Indicator	Key Performance Indicator	Benchmark
Appropriateness		
Case compliance with recovery care path	% of Pts who received post-surgery imaging	One within 12 weeks of surgery
	% of Pts who completed anticoagulation prophylaxis	100%
	% of Pts who appropriately received PT	100%
	% of Pts who appropriately received homecare	100%