The Need for a Central Intake and Optimization Clinic for Hip/ Knee Osteoarthritis

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Regional Head Surgery
Fraser Health Geography
Principle: Equitable and transparent access to consults and surgery
Patient Navigation
Complex, Inefficient and Site-Centric
Previous status Imbalanced
SURGICAL SERVICES PROGRAM
HIP AND KNEE REPLACEMENTS

- Central Intake and Assessment
- Interdisciplinary, Team-based care
- Non-surgical support
- Pre-surgical support
- Post-surgical support
- Surgical efficiency measures
- Evaluation
Overview

- Preliminary concept discussions 2013
- Pilot site
- Existing sites/visit or evaluation
- Service Volume Planning
- Infrastructure review
- Hip/ knee arthroplasty need to increase 5-8%/yr.
Process

- Central fax received
- Triage
- Information package sent to patient
- Nurse call - questions and discussion
- Appointment booked with surgeon in clinic or office
- Consult with surgeon and nurse
- Booking completed or alternatives discussed
- Education class led by PT/OT
- Additional tests or consults arranged
- Clinic Nurse provides support through pre-op
- Nurse practitioner provides in-patient support
# Burnaby Hospital Hip & Knee Arthroplasty Centre Referral

**Patient Name:** M F  
**DOB:**

<table>
<thead>
<tr>
<th>Patient Phone Home</th>
<th>Cell</th>
<th>Work</th>
<th>Speaks: □ English □ Other:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referring Practitioner Name:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone:</td>
<td></td>
<td>FAX</td>
<td></td>
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</tbody>
</table>

**COMPLETE ALL RELEVANT FIELDS. ATTACH MEDICAL HISTORY/MEDICATION LIST.**

**FAX TO 604-419-1418**

**INCOMPLETE REFERRAL WILL NOT BE PROCESSED.**

## Reason for referral:
- □ First available surgeon (recommended). Or □ Specify surgeon: ____________________________

## Affected joint(s):
- Knee: □ Right □ Left □ Bilateral
- Hip: □ Right □ Left □ Bilateral

**Attach X-rays as specified of the affected joint(s) (done within 3 months) □ Available on PACS**

- □ Hip: 1. AP Pelvis including proximal 1/3 of femurs  2. True lateral of affected hip

## Pain with walking:
- □ None/Mild □ Moderate □ Severe

**Loss of flexion, extension or joint stability**
- □ None/Mild □ Moderate □ Severe

## Walking tolerance without significant pain:
- □ Over 5 blocks
- □ 1 to 5 blocks
- □ Less than 1 block
- □ Household

**Mobility aids used:** □ Cane □ Crutches □ Walker  □ Wheelchair.

**□ *Unable to work, care for others or requires assistance with daily living related to affected joint.**

## Pain at rest (sitting, lying down, sleeping): How many nights a week is sleep disturbed? _________

## Concerns regarding an insitu arthroplasty. Specify:
- □ Has both ongoing pain with motion and at rest

## Height ___ Weight ___ BMI ___  
**Medical concerns:** □ None □ Mild or past significant problem
- □ Constant significant, difficult to control. 
- □ Mental health: □ Active Depression □ Other comments:

**Signature, Referring Practitioner:** ____________________________  
**Date:** DD/MM/YYYY

## For Burnaby Hip/Knee Centre USE ONLY
- □ * Requires urgent surgeon consult:

**Date** | **Time** | **Initials**
---|---|---

- □ Received referral from Referring Practitioner (RP)
- □ Surgeon appointment date _________ Patient notified.
- □ If surgeon specified, patient & RP notified of this consult date & first available date
- □ Not a surgical candidate. Care plan to patient. Letter/Care plan to RP
Central Intake & Optimization Clinic – BH Hip & Knee Arthroplasty  
EVALUATION

<table>
<thead>
<tr>
<th>Metric</th>
<th>Baseline Data(^1)</th>
<th>Jan 9-Aug 11, 2017 (8 months)</th>
<th>Sept 1- Dec 31 2018 (4 months)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # referrals</td>
<td>2015 - knees 298, hips 190 2016 - knees 490, hips 255</td>
<td>726</td>
<td>275</td>
<td>-</td>
</tr>
<tr>
<td>% referrals from Fraser North</td>
<td>n/a</td>
<td>70%</td>
<td>67%</td>
<td>-</td>
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<tr>
<td>% decline prior to assessment</td>
<td>n/a</td>
<td>18%</td>
<td>24.74%</td>
<td>-</td>
</tr>
<tr>
<td>% decline post assessment</td>
<td>n/a</td>
<td>43%</td>
<td>26.9%(^2)</td>
<td>-</td>
</tr>
<tr>
<td>Avg time from referral to triage</td>
<td>n/a</td>
<td>71 days (range 1-537)</td>
<td>16 days (2-183 days)</td>
<td>-</td>
</tr>
<tr>
<td>Avg T1 wait time (referral to assessment)</td>
<td>n/a</td>
<td>87 days (range 5-543)</td>
<td>36 days (7-202 days)</td>
<td>6 weeks</td>
</tr>
<tr>
<td>Avg. T2 wait time (assessment to OR date)</td>
<td>n/a</td>
<td>122 days (range 16-225)</td>
<td>70 days (27-120 days)</td>
<td>&lt;26 weeks</td>
</tr>
<tr>
<td>Overall wait time (T1 + T2) (consult to decision)</td>
<td>Hips</td>
<td>2015 – 278 days (39.7 weeks) 2016 – 223 days (31.8 weeks)</td>
<td>209 days (29.9 weeks)</td>
<td>106 days (15.14 weeks)</td>
</tr>
<tr>
<td></td>
<td>Knees</td>
<td>2015 – 320 days (45.7 weeks) 2016 – 271 days (38.7 weeks)</td>
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<tr>
<td>First available surgeon</td>
<td>-</td>
<td>21%</td>
<td>57.09%</td>
<td>-</td>
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<tr>
<td>Referral to internal medicine</td>
<td>-</td>
<td>56%</td>
<td>21.45%</td>
<td>-</td>
</tr>
<tr>
<td>Referral to anaesthesia</td>
<td>-</td>
<td>16%</td>
<td>8%(^3)</td>
<td>-</td>
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<tr>
<td>ALOS - Hip Arthroplasty</td>
<td>2015 – 4.7 days 2016 – 8.1 days</td>
<td>2017 – 7.0 days</td>
<td>1.88 days (April- Sept 2018)</td>
<td>Hip ELOS - 3 days</td>
</tr>
<tr>
<td>ALOS - Knee Arthroplasty</td>
<td>2015 – 4.2 days 2016 – 4.4 days</td>
<td>2017 – 3.4 days</td>
<td>2.32 days (Apr- Sept 2018)</td>
<td>Knee ELOS - 4 days</td>
</tr>
</tbody>
</table>

\(^1\) Baseline Data for January 2015 - August 2016 only captured patients who proceeded with surgery. This is not true referral #, but # case completed.  
\(^2\) 11.66% were blank as some surgeons are sending patients for diagnostic injections with follow up in the clinic  
\(^3\) this is changing as anesthesia is now wanting to see most of the Arthroplasty patients pre-op
WHAT HAPPENED

- Approval for assessment -83%
- First available surgeon
  - Initial- 18%
  - Now- 57%, continues to increase
  - Immediate approval for surgery- 64%
  - Decline rate multifactorial
    - Not fit, not wanting surgery within 6 months, wanting alternative treatments
- Referral to triage-16 days
- Referral to assessment-36 days. Assessment to OR-70 days (total 106 days-15 weeks)
Performance Comparison

- 2012/13
  - 399
- 2017/18
  - 804
  - 327 hips, 477 knees
- 2018/19 > 1000 joints
Post-Implementation

- A
- B
- C
- D
- E

Central-intake
Quality & Performance Measures

- Time to Hip Replacement Surgery
- Time to Knee Replacement Surgery
- Readmission Rates, LOS, SSI
- PREMS (DASH MD)
- NSQIP
Burnaby Hospital
Value Added Aspects

- Anaesthesia- APS and block program, multimodal pain strategy, medication consideration intra-op/post-op.
- OSA-pre-op flag and sleep studies, post-op ward monitoring.
- Decreased wait times - less duplication including lab tests, x-rays, PAC visits, IM
- Day-care THR-SDC recovery, NP’s
- Improved FIFO metrics
Central Intake and Optimization aligns with BC Strategic Priorities

Patient Experience

Central Intake-one stop shopping
Standard care pathways → LOS/Risks
Discharge planning/rehab
For Patients-Optimization of experience and outcomes

- Improved Access
- Continuity of Care
- Clinical Outcomes
- Satisfaction
- Optimization
For Providers-Standardized pathways and practices

- Improved Surgical candidate selection
- Standardized care pathways
- Standardized best practices
- Increased Provider collaboration
- Effectiveness /health care utilization
Thank You!

Your Questions!