Outpatient Rehab Process Maps for Total Knee and Total Hip Replacements

Separate process maps for Total Knee and Total Hip Replacements have been developed to schematically describe the processes that are recommended to occur in the Pre-Operative Phase, Acute Admission Phase and the Outpatient Rehab phase. (See Figure 1.1 and 1.2)

**Components of Outpatient Rehab following Total Knee Replacement**

<table>
<thead>
<tr>
<th>Model of Outpatient Rehab following Total Knee Replacement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For patients discharged home following Total Knee Replacement:</strong></td>
</tr>
<tr>
<td>• 90% of patients will require:</td>
</tr>
<tr>
<td>» 1 assessment visit (1 hour)</td>
</tr>
<tr>
<td>» 2 hour class, 2x per week for 6 weeks</td>
</tr>
<tr>
<td>» Class format, run by PT/PTA</td>
</tr>
<tr>
<td>• 10% patients discharged home will require:</td>
</tr>
<tr>
<td>» 1 assessment visit <em>and</em></td>
</tr>
<tr>
<td>» 1:1 treatments instead of a class format and will need, on average, up to 15 treatment visits (30 minute treatment visit plus 15 minute documentation time)</td>
</tr>
</tbody>
</table>

Of the patients who first received CCAC, some may require additional outpatient treatment

**Components of Outpatient Rehab following Total Hip Replacement**

Given differences in surgical practices, patient profiles and other environmental factors (e.g. degree of familiarity with the patient in the Outpatient Rehab setting; patient’s geographical proximity for surgical follow-up etc.), flexibility has been built into this guideline regarding how and when outpatient rehab should be provided following elective, primary total hip replacement. The guideline is intentionally not rigidly prescriptive in order to meet the varying post-acute rehab needs of patients and allow for application across settings.

<table>
<thead>
<tr>
<th>Model of Outpatient Rehab following Total Hip Replacement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For patients discharged home following Total Hip Replacement:</strong></td>
</tr>
<tr>
<td><strong>Class or 1:1 Session:</strong></td>
</tr>
<tr>
<td>» Scheduled at approximately 2-6 weeks post acute care discharge</td>
</tr>
<tr>
<td>» To assess patient, review education, help patient progress his/her home exercise program, and address any concerns.</td>
</tr>
<tr>
<td>» Class format: 60 – 90 minutes (education and treatment); class size of 4-6 patients; class run by PT/PTA. The length of time for an individual session will vary based on patient need and whether additional sessions are recommended.</td>
</tr>
<tr>
<td><strong>Follow-up session(s) - Stream 1:</strong></td>
</tr>
<tr>
<td>In large volume centres that treat their own patients and have standardized guidelines among the</td>
</tr>
</tbody>
</table>
### Model of Outpatient Rehab following Total Hip Replacement

Surgeons, a one visit model will often be sufficient. For outpatient rehab programs that treat patients from other centres, a two visit (or more) model is the preferred approach. The length of these subsequent sessions will vary depending on patient needs.

- Scheduled after restrictions are lifted [6-12 weeks post-THR] or at an earlier/later time based on the physiotherapist’s first assessment of the patient’s needs
- The 2nd session will address helping the patient to progress his/her exercise program, assessing the need for gait aid(s) and other functional needs.

**1:1 Treatment - Stream 2:** Approximately 20 - 25% of the patients referred to outpatient rehabilitation may require 1:1 treatment, up to 8 sessions after the initial class/session or 2nd follow-up session. These sessions are provided to support progression of the patient’s exercise program, provide re-checks, and to assess the need for gait aid(s) and other functional needs.

The triage of patients into the class model vs. 1:1 treatment sessions is based on the assessment of the treating physiotherapist with consideration of the following factors:

- **Pre-surgical status:**
  - Longstanding contractures or muscle imbalances (e.g. hip dysplasia, severity of postural/muscle compensations);
  - Co-morbidities/other conditions (e.g. polio, CP, stroke, severe back pathology, RA, Alzheimer, dementia);
- **Surgical complexity:**
  - Fractures during surgery, compromised abductors (excised, repositioned);
  - Osteotomy (femoral shortening/lengthening; extended trochanteric osteotomy, acetabular cup repositioning);
  - Bone graft reconstruction of femur/acetabulum with extra restrictions;
  - Delayed follow-up secondary to continued restrictions beyond 6 weeks;
- **Social/Cultural Factors** (e.g. language barriers; difficulty following instructions)

**Discharge from Outpatient Rehab:**

Discharge from an outpatient rehab program is determined by the patient’s functional mobility and ability to function safely in his/ her environment, his/her knowledge of the prescribed home exercise program and how to progress his/her prescribed home exercise program.
Pre-Operative Phase

- Information on acute care stay & pain management
- Prepare patient for discharge to home
- Teach pre-op exercises
- Provide written material (See Appendix A: A Patient Guide – Preparing for Surgery)

Acute Care Admission

- TKA Surgery
- Discharge home with independent exercise program or private PT
- Confirmation of referral to OPR, Complete Post-Op outpatient rehab referral form, if applicable

Outpatient Rehabilitation

Within 7 Business Days Post Discharge

1:1 PT Assessment

TKA Class 2/wk x 6 weeks (90% of patients)

Discharge to Home (90% Target)

- Discuss transportation options with patient (See options in Appendix B)

Change in Care Plan

- Discharge home with independent exercise program or private PT

TKA Surgery

- 1:1 PT Assessment (if required by OPR hospital)

If change in care plan, Acute Care to notify OPR program or CCAC (if referral initiated)

*If surgery cancelled, Acute Care to notify OPR program

OPR to:
- Contact patient with a tentative date of 1st OPR appointment.
- If tentative date is >7 business days of projected discharge date, OPR to notify acute care team.

Patient to arrange private PT

Stop to Inpatient Rehab for small % of patients

Discharge to Inpatient Rehab**

- Complete Pre-op Rehab Referral form. Tentative date of 1st appointment is within 7 business days of projected discharge date from acute care.

- Patient to arrange private PT

Communication with Orthopedic Team at patient’s follow-up appointment re: patient’s progress or sooner if problems identified with ROM, infection etc.

- Discharge home with CCAC*** (See Appendix D: CCAC Criteria)

- RN Assessment (joint with PT if possible)

- Staples to be removed (~2 wks post-op)

- If change in care plan, Acute Care to notify OPR program or CCAC (if referral initiated)

Ongoing

1:1 PT follow-up if progress was delayed (10%)

Figure 1.1 Outpatient Rehab (OPR) Care: Process Map for Patients with Elective Knee Arthroplasty
Pre-op education
- Information on acute care stay & pain management
- Prepare patient for discharge to home
- Teach pre-op exercises
- Provide written material
- Physiotherapy, social work and/or occupational therapy assessments, if required for patients identified as high risk

(See (i) Appendix A: A Patient Guide – Preparing for Surgery; (ii) QBP Clinical Handbook Primary, Unilateral Hip Replacement, MOHLTC, June 2012)

Referral to Inpatient Rehab for a small % of patients

Discharge to Home (90% Target)
- A referral for OPR may be initiated in the pre-op phase.
- Timing of 1st OPR visit may vary; however, an initial OPR visit for assessment/class at 2-3 weeks post-op meets the needs of most patients.

Discharge from Inpatient Rehab

If change in care plan, Acute Care to notify OPR program or CCAC (if referral initiated)

Discharge from Inpatient Rehab
(50%)

A % of patients may need referral to OPR after Inpatient rehab or CCAC

THA Surgery

Discharge home with independent exercise program and referral to Outpatient Rehab

THA Surgery

Discharge home with independent exercise program and referral to Outpatient Rehab

Pre-Operative Phase

See Guideline for Pre-Admission Processes: Primary, Elective, Unilateral Total Joint Replacement (GTA Rehab Network 2014)

Acute Triage Decision
(See Appendix C)

Change in Care Plan

Referral to Inpatient Rehab

Discharge to Home with CCAC C (See Appendix D: CCAC Criteria)

Discharge from Inpatient Rehab

No outpatient rehab

Surgical Follow-Up
Timing of surgical follow-up varies amongst surgeons

Patient Follow-up Appointment
- weight bearing status & update restrictions as needed

Referral to OPR (as indicated)

Figures 1.2 Outpatient Rehab (OPR) Care: Process Map for Patients with Elective Hip Arthroplasty

Post-Op Week 2-6

Follow-Up 2nd Session
May occur at 6-8 weeks post-op to progress patient after restrictions are lifted or earlier/later to address other patient functional need(s)

All patients referred to OPR to receive:

1st OPR Session
1:1 or THA Class
- For assessment, education, address questions/concerns and to progress home exercise program.

No outpatient rehab

Follow-Up 2nd Session
- up to 8 visits

Follow-Up 2nd Session
- 6-8 weeks post-op

Follow-Up 2nd Session
- 6-8 weeks post-op

1 Timing may vary due to patient’s ability to engage in home-exercise program, need for mobility aid (e.g. walker vs. cane) or ROM restrictions

2 The triage of patients into the class model vs. 1:1 treatment sessions is based on the assessment of the treating physiotherapist.

3 In large volume centres that treat their own patients and have standardized guidelines among the surgeons, a one visit model will often be sufficient. For OPR rehab programs that treat patients from other centres, a two visit model is the preferred approach.

Discharge from Inpatient Rehab

Outpatient Rehabilitation Appointment provided within 1 week of receiving referral

Post-Op Week 6-12

D/C from program determined by patient’s functional mobility and ability to function well in his/her environment, their knowledge of the prescribed home exercise program and how to progress program

1:1 PF
- For Complex Care

Discharge to Inpatient Rehab

≤ 10%

* A % of patients may need referral to OPR after Inpatient rehab or CCAC

Discharge to Home with independent exercise program and referral to Outpatient Rehab

Outpatient Rehabilitation Appointment provided within 1 week of receiving referral

Figure 1.2 Outpatient Rehab (OPR) Care: Process Map for Patients with Elective Hip Arthroplasty

Post-Op Week 2-6

Follow-Up 2nd Session
May occur at 6-8 weeks post-op to progress patient after restrictions are lifted or earlier/later to address other patient functional need(s)

All patients referred to OPR to receive:

1st OPR Session
1:1 or THA Class
- For assessment, education, address questions/concerns and to progress home exercise program.

No outpatient rehab

Follow-Up 2nd Session
- up to 8 visits

Follow-Up 2nd Session
- 6-8 weeks post-op

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1:1 PF
- For Complex Care

Discharge to Inpatient Rehab

≤ 10%

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Discharge to Home with independent exercise program and referral to Outpatient Rehab

Outpatient Rehabilitation Appointment provided within 1 week of receiving referral

Post-Op Week 2-6

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3 In large volume centres that treat their own patients and have standardized guidelines among the surgeons, a one visit model will often be sufficient. For OPR rehab programs that treat patients from other centres, a two visit model is the preferred approach.
Acute Care & Outpatient Rehab Responsibilities in the Referral Process for Outpatient Rehab

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<tr>
<th>Phase of Care</th>
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<th>Responsibilities: Outpatient Rehab</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-Operative Phase</strong>&lt;br&gt;(Also see Guideline for Pre-Operative TJR Processes)</td>
<td>• Meet with patient pre-operatively for pre-op education, medical workup, discharge planning and to initiate referral to Outpatient Rehab&lt;br&gt;• Use Discharge Triage Considerations to determine most appropriate post-acute referral:&lt;br&gt;  » Outpatient Rehab&lt;br&gt;  » Independent Home Exercise Program&lt;br&gt;  » Inpatient Rehab&lt;br&gt;  » CCAC&lt;br&gt;• For the small minority of patients (i.e. &lt; 10%)(^1) who may require inpatient rehab, the &quot;Rehab Pre-Admission Form: Elective Hip and Knee Surgery “ can be completed to provide an initial notification to an inpatient rehab program of a potential need for admission of a patient from acute care due to the complexity of a patient’s needs. The use of this form does not reserve an inpatient bed for the patient.&lt;br&gt;• Confirm patient has transportation arranged for outpatient rehab&lt;br&gt;• Complete GTA Rehab Network’s Outpatient Rehab Referral Form – Elective Knee or Hip Replacement (if referring to a Rehab/CCC hospital) and fax to outpatient rehab hospital prior to patient’s surgery.&lt;br&gt;  » Acute Care will have a communication mechanism in place to ensure that the inpatient acute care team is aware of the referral to outpatient rehab.&lt;br&gt;• If patient’s surgery is cancelled, notify Outpatient Rehab Program</td>
<td>• Schedule and hold an initial outpatient rehab appointment within recommended guidelines for the TJR patient following receipt of the GTA Rehab Outpatient Rehab Referral Form – Elective Knee or Hip Replacement from acute care&lt;br&gt;  » Outpatient rehab appointment to be scheduled according to recommendations within the model of care (i.e. for TKR within 7 business days of anticipated discharge from acute care and at 2-3 weeks post-operatively for most THR patients)&lt;br&gt;• Communicate the date/details of the tentative first outpatient rehab appointment to the patient&lt;br&gt;• Send an appointment confirmation letter to the patient&lt;br&gt;• Notify acute care contact/team as soon as possible if the tentative date of the first outpatient rehab appointment cannot be scheduled within the recommended timeline as per the TJR model of care.</td>
</tr>
<tr>
<td><strong>Acute Care Admission</strong>&lt;br&gt;After patient’s surgery and prior to patient’s acute care discharge:</td>
<td>• For patients discharged to home, send to outpatient rehab program: a discharge summary note that includes relevant post-op information (PT and/or MD note) and discharge date; treatment restrictions; a discharge medication list (preferred) and date of follow-up appointment.&lt;br&gt;• For the small minority of patients discharged to inpatient rehab due to patient complexity: complete the GTA Rehab Network Integrated Referral Form.</td>
<td>• If the referral to outpatient rehab is initiated during/after the acute care admission, notify acute care contact/team as soon as possible if the date of the first outpatient rehab appointment cannot be scheduled within recommended timeline within model of care,&lt;br&gt;• Follow-up with the patient if the date of the 1st appointment (already communicated to the patient in the pre-operative phase via a letter from the OPR program) is changed because of a change in the patient’s status/discharge date.</td>
</tr>
</tbody>
</table>

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\(^1\) Based on targets for discharge disposition identified by identified by the Orthopaedic Expert Panel. See Ministry of Health and Long-Term Care. Quality-Based Procedures Clinical Handbooks for Primary Unilateral Total Knee and Total Hip Replacement. June 2012.
<table>
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<tr>
<th>Phase of Care</th>
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<th>Responsibilities: Outpatient Rehab</th>
</tr>
</thead>
</table>
| Acute Care to Inpatient Rehab/CCC Referral Form (paper-based or via RMR) and send it to the inpatient rehab program(s) to which the patient is being referred. | *Educate patient re: discharge destination and confirm the outpatient rehab appointment date/details and whom to contact re: cancellations*  
» Discharge patient with date for scheduled follow-up appointment with surgeon  
*If there is a change in the patient’s care plan* (i.e. patient re-routed to inpatient rehab or discharge date delayed), notify Outpatient Rehab Program or CCAC (if referral initiated) |
| **Outpatient Rehab** |  
*Outpatient rehab program to incorporate the GTA Rehab Network’s TJR Outpatient Rehab Model of Care, including groups/classes as per process map*  
*Outpatient rehab team will fax any necessary progress note/treatment updates to referring MD/surgeon/family MD as requested/indicated*  
*The treating physiotherapist may opt to use the TJR Follow-Up Form on an “as needed” basis at his/her discretion to communicate with the patient’s surgeon on the patient’s progress at the time of the patient’s 1st post-surgical follow up visit (i.e. to report on the client’s progress for cases that are more complex; to ask the surgeon for comment on a particular question).*  
*Outpatient rehab team will fax outpatient rehab discharge summary to referring MD/surgeon/family MD*  
*Outpatient rehab team will liaise with key stakeholders should patient be deemed not appropriate for outpatient rehab (i.e., CCAC, inpatient rehab)* |