# Outpatient Rehab Process Maps for Total Knee and Total Hip Replacements[1]

Separate process maps for Total Knee and Total Hip Replacements have been developed to schematically describe the rehabilitative care 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*

| Model of Outpatient Rehab following Total Knee Replacement | |
|---|---|
| For patients discharged home following Total Knee Replacement: | |
| • 90% of patients will require, on average:<br>» 1 assessment visit (1 hour)<br>» Up to 2 hour class, 2x per week for 6 weeks[2] [3]<br>» Class format, run by PT/PTA | • 10% patients discharged home will require:<br>» 1 assessment visit *and*<br>» 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) |
| Of the patients who first received Home and Community Care, 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

[1] This model has been updated in conjunction with a review of the Rehabilitative Care Alliance's *Rehabilitative Care Best Practice Framework for Patients with Primary Hip and Knee Replacements (March 2017/Rev Jan 2018)*, which can be accessed at:
http://rehabcarealliance.ca/quality-based-procedures-qbp

[2] The greatest improvement in knee flexion occurs within the first 6-7 weeks postoperatively. Ebert J, Munsie C, Joss B. Guidelines for the Early Restoration of Active Knee Flexion After Total Knee Arthroplasty: Implications for Rehabilitation and Early Intervention. Archives Of Phys Med & Rehab. June 2014;95(6):1135-1140 as cited in http://rehabcarealliance.ca/quality-based-procedures-qbp

[3] Rehabilitation for patients following knee replacement includes intensive exercise to achieve range of motion and function through the first 12 weeks post-surgery. Bone and Joint Canada (2011). Hip and Knee Replacement Toolkit. Accessed: http://boneandjointcanada.com/wp-content/uploads/2014/05/11-2821-RR_HipKnee_Replacement_Toolkit_V3.pdf as cited in http://rehabcarealliance.ca/quality-based-procedures-qbp

rigidly prescriptive in order to meet the varying post-acute rehab needs of patients and allow for application across settings.

## Model of Outpatient Rehab following Total Hip Replacement

For patients discharged home following Total Hip Replacement:

**Class or 1:1 Session:**

- Scheduled at approximately 2-6 weeks post-acute care discharge
- To assess patient, review education, help patient progress his/her home exercise program, and address any concerns.
- 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.

**Follow-up session(s) - Stream 1:**

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 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.

## *Triaging into Class Model versus Individual Treatment Session*

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.

***Figure 1.1 Outpatient Rehab (OPR) Care: Process Map for Patients with Elective Knee Arthroplasty***

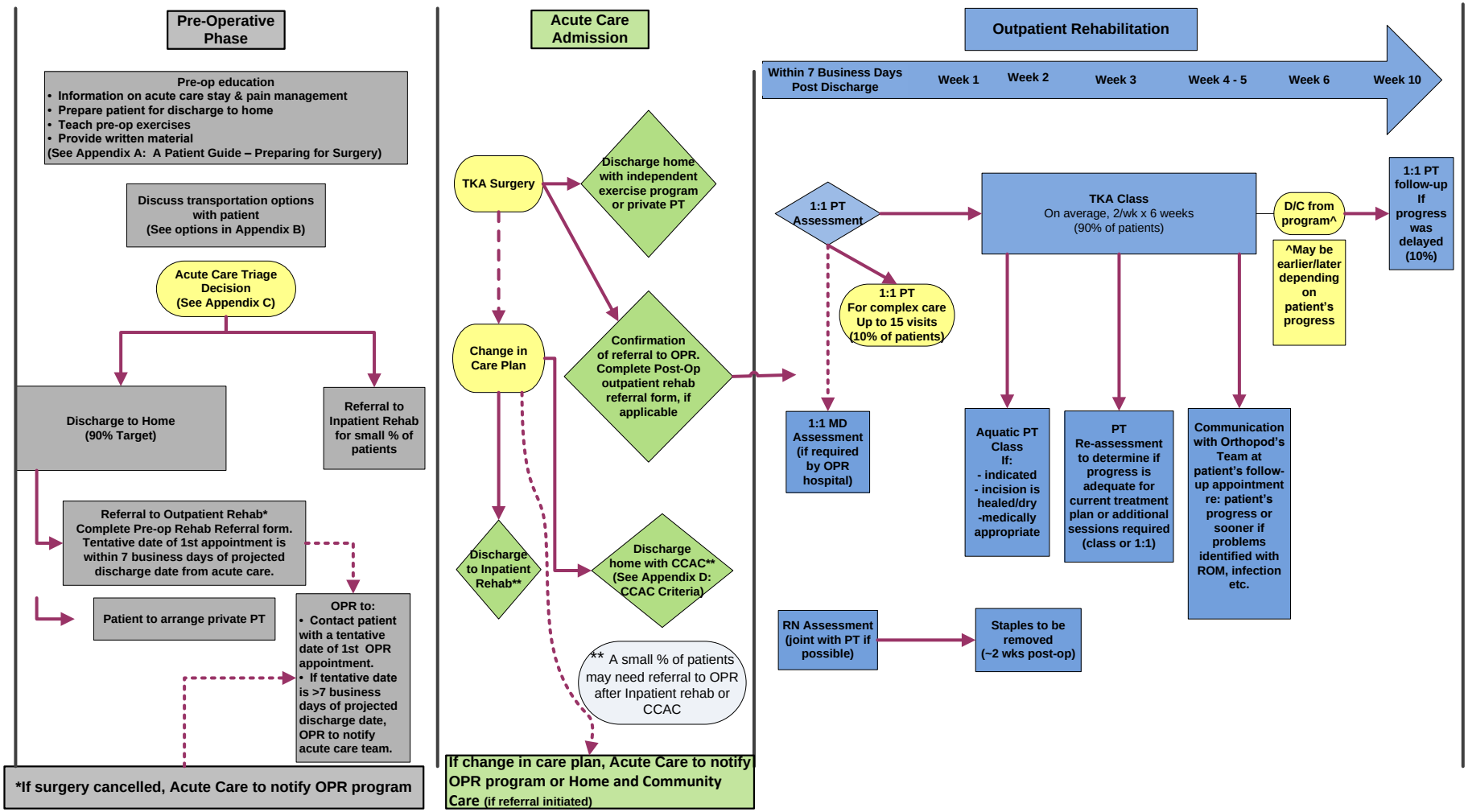
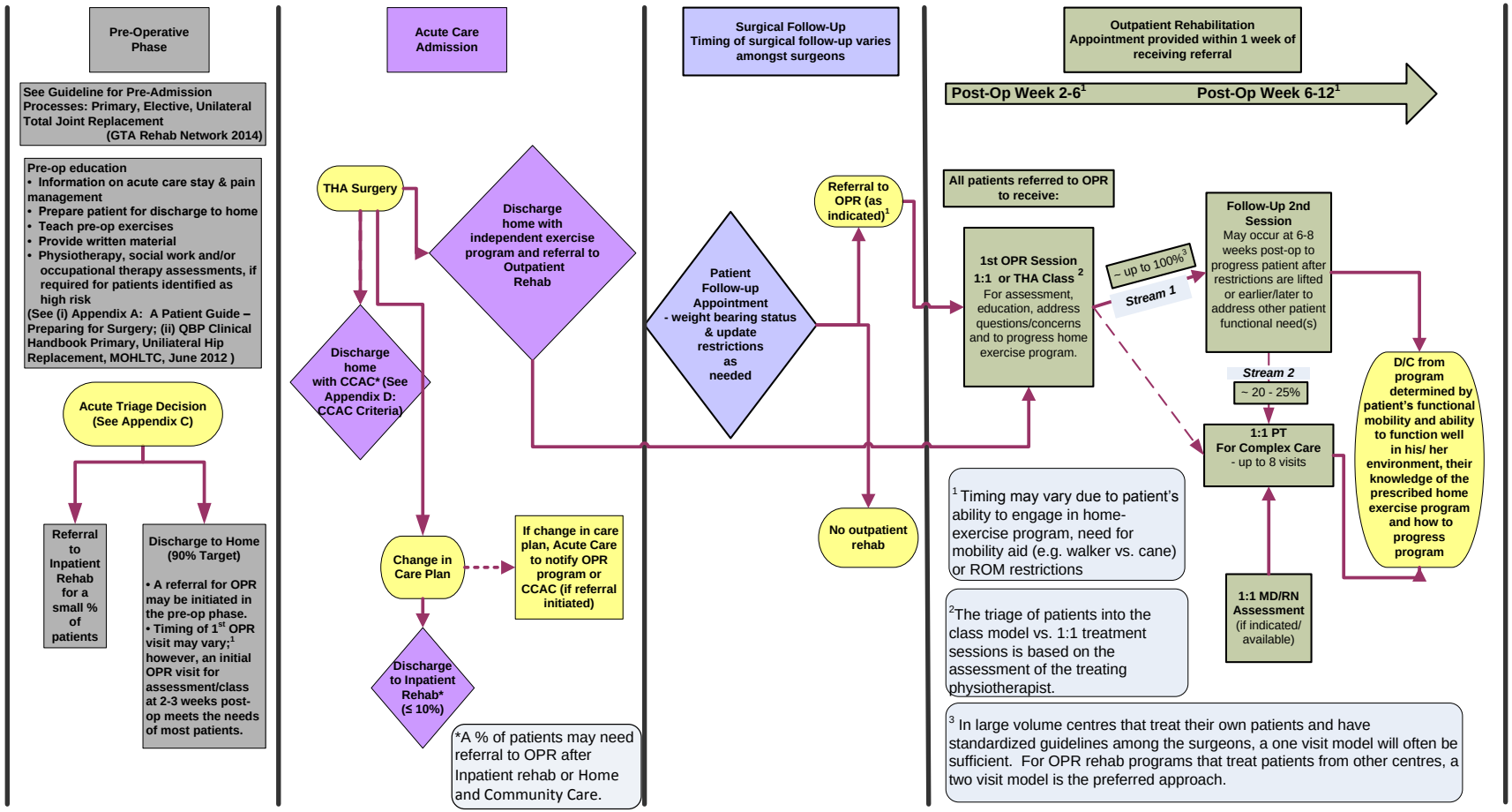


***Figure 1.2 Outpatient Rehab (OPR) Care: Process Map for Patients with Elective Hip Arthroplasty***

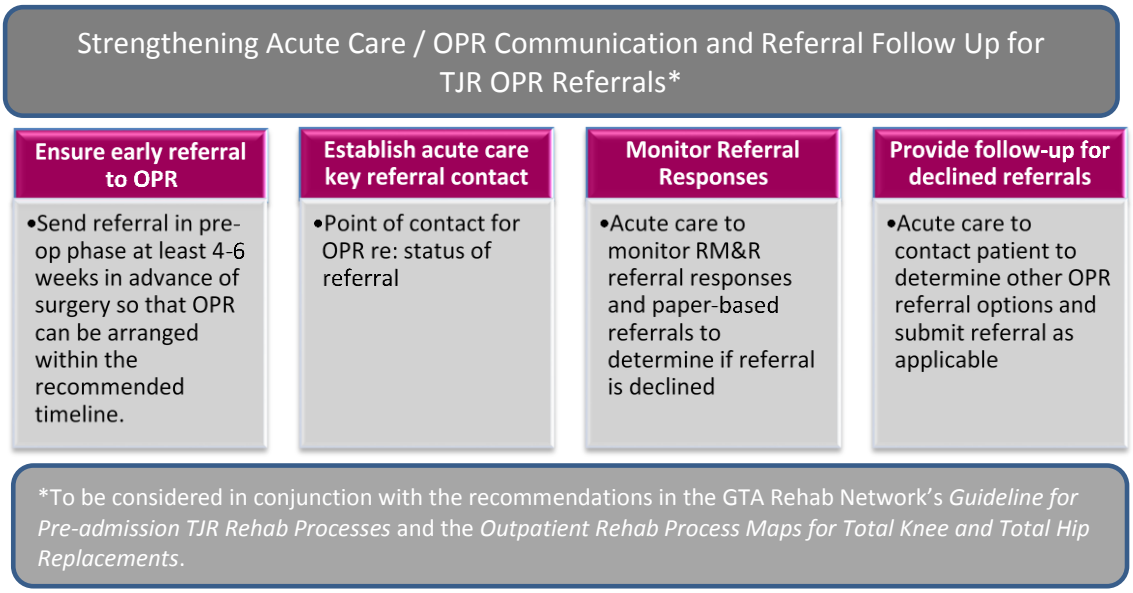


## *Acute Care Rehab Responsibilities in the Referral Process for Outpatient Rehab*

| Phase of Care | Responsibilities: Acute Care |
|---|---|
| **Pre-Operative Phase**<br><br>(Also see Guideline for Pre-Operative TJR Processes) | • **Meet with patient pre-operatively** for pre-op education, medical workup, discharge planning and to initiate referral to Outpatient Rehab<br>• **Use Discharge Triage Considerations** to determine most appropriate post-acute referral:<br>» Outpatient Rehab<br>» Independent Home Exercise Program<br>» Inpatient Rehab<br>» Home and Community Care<br>• For the small minority of patients (i.e. < 10%)[4] who may require inpatient rehab, the *"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.<br>• **Confirm patient has transportation arranged for outpatient rehab**<br>• **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.<br>» 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.<br>• **If patient's surgery is cancelled, notify Outpatient Rehab Program** |
| **Acute Care Admission** | After patient's surgery and prior to patient's acute care discharge:<br>• **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.<br>• **For the small minority of patients discharged to inpatient rehab due to patient complexity:** complete the GTA Rehab Network Integrated 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.<br>• **Educate patient** re: discharge destination and confirm the outpatient rehab appointment date/details and whom to contact re: cancellations<br>» Discharge patient with date for scheduled follow-up appointment with surgeon<br>• **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 Home and Community Care (if referral initiated) |

[4] Based on targets for discharge disposition identified by identified by the Orthopaedic Expert Panel. Health Quality Ontario; Ministry of Health and Long-Term Care. Quality-based procedures: Clinical handbook for Primary Hip and Knee replacement. Toronto: Health Quality Ontario; 2014 February. 95 p. Available from: http://www.hqontario.ca/evidence/publications-and-ohtac-recommendations/clinical-handbooks

The following schematic outlines key components to support the referral process and reduce the risk of a breakdown in the referral process:




## *Outpatient Rehab Responsibilities in the Referral Process for Outpatient Rehab*

| Phase of Care | Responsibilities: Outpatient Rehab |
|---|---|
| **Pre-Operative Phase**<br><br>(Also see Guideline for Pre-Operative TJR Processes) | • **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<br>» 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)<br>• **Communicate the date/details** of the tentative first outpatient rehab appointment to the patient<br>• **Send an appointment confirmation letter** to the patient<br>• **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. |
| **Acute Care Admission** | • 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, |

| Phase of Care | Responsibilities: Outpatient Rehab |
|---|---|
| | • **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. |
| **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<br>• Outpatient rehab team will send any necessary progress note/treatment updates to referring MD/surgeon/family MD as requested/indicated<br>• The treating physiotherapist may opt to use the GTA Rehab Network's 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).<br>• Outpatient rehab team will send outpatient rehab discharge summary to referring MD/surgeon/family MD<br>• Outpatient rehab team will liaise with key stakeholders should patient be deemed not appropriate for outpatient rehab (i.e., Home and Community Care, inpatient rehab) |