



AN INTEGRATED CARE GUIDE TO RECOVERY

****TO BE GIVEN TO YOUR REHAB PROVIDER
AT YOUR FIRST REHAB VISIT****

Schroeder Arthritis Institute – Division of Orthopedics Bundled Care Post-Acute Rehab Toolkit

For any questions or inquiries:

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1.0 UHN INTEGRATED POST-ACUTE REHABILITATION OVERVIEW

Our UHN Integrated pathway for joint replacement surgery strongly supports outpatient rehab with a comprehensive home exercise program. Our approved rates can be found on page 3 of this toolkit.

If you require a referral with physician signature and billing number, or have any questions about supporting our patients with their post-acute recovery, please contact **our MSK bundle care team** within **UHN's Toronto Western Hospital, Schroeder Arthritis Institute – Division of Orthopedics (bundle holder)** at MSKBundledCare@uhn.ca.

The patient's rehabilitation program duration is dependent on achieving the discharge criteria outlined as part of our integrated care pathway. Once discharge criteria is met, the patient can be discharged from treatment with a comprehensive home exercise program. Patient goals above and beyond the discharge criteria will not be covered within the bundle; however, the patient may use extended health benefits or private funding.

To enable connected care, we encourage completion of a discharge summary for each patient, which should be sent along with an invoice from your facility using approved bundle fees. We appreciate submission of your invoice within 4-6 weeks of treatment completion to ensure processing.

Hip and Knee Bundled Care

If the patient is in the hip and knee arthroplasty bundled care program at UHN – Toronto Western Hospital - the clinical directive of the orthopedic surgeon is that the patient **should begin physiotherapy within 7 days of surgery for unilateral and bilateral total knee replacement and within 14 days following unilateral and bilateral total hip replacement.**

Outpatient rehabilitation: Our recommended integrated care treatment protocol and discharge criteria are enclosed for both unilateral and bilateral hip and knee joint replacement. Current bilateral fees are in line with peer hospitals and are based on literature indicating higher level of function at baseline intake. Consideration should be made for higher baseline pain in bilateral patients with inclusion of pain management strategies and education.

Homecare: For all services associated with hip and knee bundle patients, please notify our MSK Bundled Care team to request approval of homecare services and fees.

Inpatient rehab: A patient should be discharged from inpatient rehabilitation when medically stable and deemed safe to ambulate independently with a gait aid and perform transfers. Transition should be made to outpatient rehabilitation if the patient does not meet the discharge criteria enclosed at the time of discharge. Please email our MSK Bundled Care team for approved IP rehab fees. Please also notify our MSK Bundled Care team if the patient will be transitioning to outpatient rehab. Additional outpatient rehabilitation will be facilitated through UHN Altum Health and will be coordinated by us as the bundle holder.

Shoulder Bundled Care

If the patient is in the shoulder arthroplasty bundled care program at UHN – Toronto Western Hospital- the clinical directive of the orthopedic surgeon is that the patient **may attend physiotherapy in week 3 (standard) or week 5 (delayed) post-surgery depending on the procedure completed. Detailed post-surgical protocols are attached.**

Outpatient rehabilitation: Our approved rates can be found on page 3 of this toolkit. Our recommended integrated care treatment protocol and discharge criteria are enclosed for shoulder joint replacement. At initial assessment, the patient should be assigned to one of the 3 streams of care: standard, delayed, complex. Treatment frequency and structure for each stream are outlined on page 8.

Homecare physiotherapy and inpatient physiotherapy for this patient population is not encouraged. If you have any questions about supporting our patients with their post-acute recovery, please contact our MSK bundle care team.

2.0 INVOICING INSTRUCTIONS

For all invoice processing inquiries please email: MSKBundledCare@uhn.ca

To bill for bundle rehab services provided once the patient has completed all their visits, please scan and email the following documents to: MSKBundledCare@uhn.ca:

1. One Invoice per patient
2. One Discharge Summary form per patient

Your invoice MUST include the following information:

- ✓ Vendor Name and Address
- ✓ Invoice Number and Date of Invoice
- ✓ Tax (HST) Registration Number (if applicable)
- ✓ Sub-total amount
- ✓ Tax amount (if applicable)
- ✓ Total amount to pay
- ✓ Facility Number

Please also complete the NACRS Clinic Lite data reporting tool for this patient. More information is available: <https://www.cihi.ca/en/nacrs-clinic-lite>

BUNDLE PROGRAM	Outpatient/Ambulatory Rehab Approved Fees
UNILATERAL HIP	\$312.00
UNILATERAL KNEE	\$312.00
BILATERAL HIP/KNEE	\$407.00
SHOULDER	\$486.00

Electronic Funds Transfer (EFT)

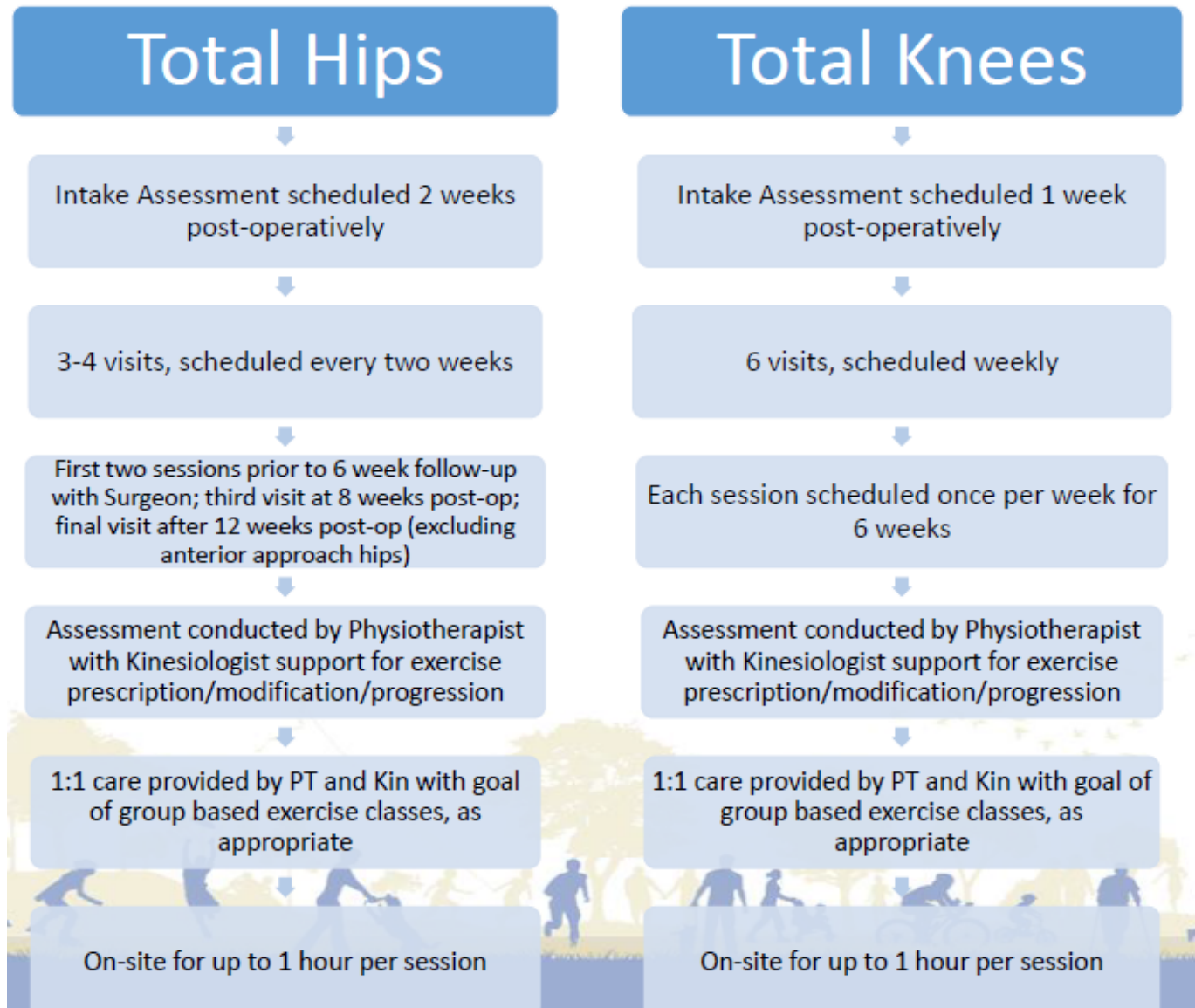
If you would like to use EFT instead of a mailed cheque, your invoice must meet the following criteria:

- invoice is payable in CAD funds
- vendor has CAD bank account
- complete the EFT authorization form (attached)
- provide a void cheque or a letter from vendor bank to confirm valid bank account information (e-mailed photo of void cheque is sufficient)

The EFT Form can be found online at: <https://www.uhn.ca/Arthritis/Orthopedics/Documents/EFT.pdf>

3.0 INTEGRATED BUNDLE CARE GUIDELINE

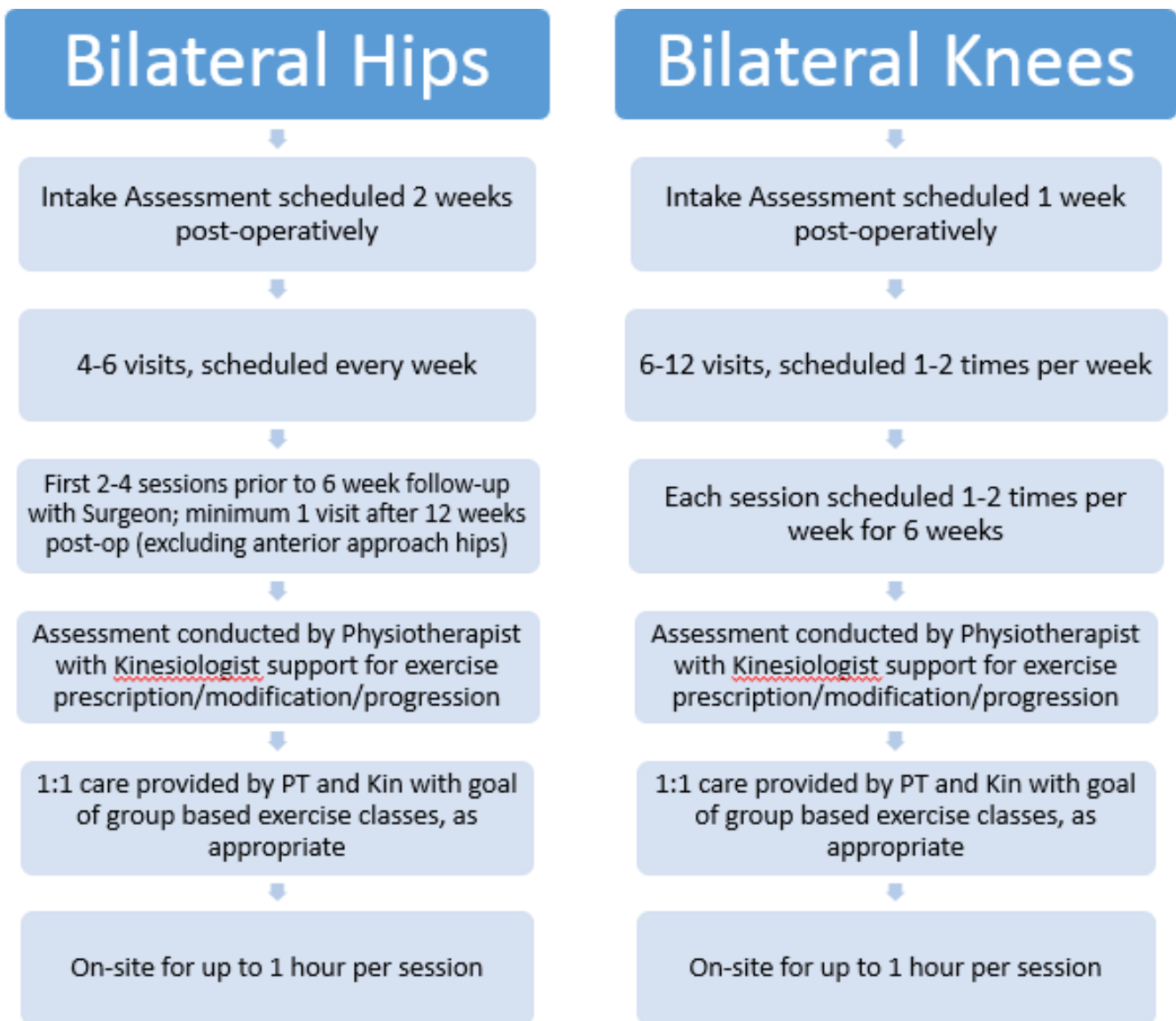
Unilateral Hip and Knee



References

1. Hip & Knee Bundled QBP Health System Quality and Funding Division Ministry of Health and Long-Term Care Overview <https://www.oha.com/Documents/Bundled%20Care%20Expansion%20Oct%2013,%202017.pdf>
2. Rehab Care Alliance- Rehabilitative Care Best Practices for Patients with Primary Hip & Knee Replacement March 2017 / Revised January 2018 http://www.rehabcarealliance.ca/uploads/File/Initiatives_and_Toolkits/QBP/UPDATED_January_2018_TJR_QBP_Rehabilitative_Best_Practices_Framework.pdf
3. GTA Network Outpatient Rehab Process Maps for Total Knee and Total Hip Replacements <https://drive.google.com/file/d/0By4k4zop-0eOYng4QINoVFBCCeK/view?pref=2&pli=1>
4. UHN TJR surgeons, Toronto Rehab Outpatient team, TWH APP, inpatient physiotherapy team.

Bilateral Hip and Knee



References

1. Rehab Care Alliance- Rehabilitative Care Best Practices for Patients with Primary Hip & Knee Replacement March 2017 / Revised November 2019 http://www.rehabcarealliance.ca/uploads/File/Initiatives_and_Toolkits/Bundled_Care/TJR_Framework.pdf
2. UHN TJR surgeons, Toronto Rehab Outpatient team, TWH APP, inpatient physiotherapy team.

Shoulder Bundle

Stream 1 - Standard

- 10 Sessions
- 1 x per week from week 3-12
- PT intake, progress and discharge assessments
- 1:1 PT 15 min as needed for mobilization. Kin/PTA in clinic exercise program.
- +/- group based exercise oversight by Kin/PTA (as appropriate)
- Up to 1 hour in clinic

Stream 2 – Delayed (Rotator Cuff Involvement)

- 10-12 sessions
- 1-2 x per week from week 5-12
- PT intake, progress and discharge assessments
- 1:1 PT 15 min as needed for mobilization. Kin/PTA in clinic exercise program.
- +/- group based exercise oversight by Kin/PTA (as appropriate)
- Up to 1 hour in clinic

Stream 3 - Complex

- 12-20 sessions
- 1-2 x per wk from week 3-7
1 x per week from week 8-12
- PT intake, progress and discharge assessments
- 1:1 PT 15 min as needed for mobilization. Kin/PTA in clinic exercise program.
- +/- group based exercise oversight by Kin/PTA (as appropriate)
- Up to 1 hour in clinic

References

1. Rehab Care Alliance- Rehabilitative Care Best Practices Guidance for Patients post Shoulder Arthroplasty November 2019
http://www.rehabcarealliance.ca/uploads/File/Initiatives_and_Toolkits/Best_Practices/RCA-HQO_Shoulder_Arthroplasty_Rehab_Best_Practice_Guidance_-_November_2019.pdf
2. UHN TJR surgeons, UHN Altum Health, TWH APPs, inpatient physiotherapy team.

Total Shoulder Arthroplasty (Standard) Protocol

Patients with Subscapularis Detachment Only

WEEK 0 2	
	<ul style="list-style-type: none"> • Patient to do Home Exercises given post-op (pendulums, elbow ROM, wrist ROM, grip strengthening)
WEEKS 2 6	
	<ul style="list-style-type: none"> • Sling for 4-6 weeks • PROM → AAROM → AROM as tolerated, except... • No active IR/backwards extension for 6 weeks. The subscapularis tendon is taken down for the surgery and then repaired afterwards. It takes about 4-6 weeks for it to grown back into the humerus and regenerate a blood and nerve supply. • ROM goals: Week 1: 90° FF/20° ER at side; ABD max 75° without rotation • ROM goals: Week 2: 120° FF/40° ER at side; ABD max 75° without rotation • No resisted internal rotation/backward extension until 12 weeks post-op • Grip strengthening OK • Canes/pulleys OK if advancing from PROM • Scapular isometrics • Heat before PT, ice after PT
WEEKS 6 12	
	<ul style="list-style-type: none"> • Begin AAROM → AROM for internal rotation and backwards extension as tolerated, if not already begun. • Goals: Increase ROM as tolerated with gentle passive stretching at end ranges • Begin light resisted ER/FF/ABD: isometrics and bands, concentric motions only • No resisted internal rotation/backwards extension until 12 weeks post-op • No scapular retractions with bands yet
MONTH 3 12	
	<ul style="list-style-type: none"> • Begin resisted IR/BE (isometrics/bands): isometrics → light bands → weights • Advance strengthening as tolerated; 10 reps/1 set per exercise for rotator cuff, deltoid, and scapular stabilizers. • Increase ROM to full with passive stretching at end ranges • Begin eccentric motions, plyometrics, and closed chain exercises at 12 weeks.



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Total Shoulder Arthroplasty (Delayed) Protocol

Patients with Rotator Cuff Involvement

WEEK 0 4	
	<ul style="list-style-type: none"> • Patient to do Home Exercises given post-op (pendulums, elbow ROM, wrist ROM, grip strengthening)
WEEKS 5 6	
	<ul style="list-style-type: none"> • Sling for 4-6 weeks • PROM → AAROM → AROM as tolerated, except... • No active IR/backwards extension for 6 weeks. The subscapularis tendon is taken down for the surgery and then repaired afterwards. It takes about 4-6 weeks for it to grown back into the humerus and regenerate a blood and nerve supply. • ROM goals: Week 1: 90° FF/20° ER at side; ABD max 75° without rotation • ROM goals: Week 2: 120° FF/40° ER at side; ABD max 75° without rotation • No resisted internal rotation/backward extension until 12 weeks post-op • Grip strengthening OK • Canes/pulleys OK if advancing from PROM • Scapular isometrics • Heat before PT, ice after PT
WEEKS 6 12	
	<ul style="list-style-type: none"> • Begin AAROM → AROM for internal rotation and backwards extension as tolerated, if not already begun. • Goals: Increase ROM as tolerated with gentle passive stretching at end ranges • Begin light resisted ER/FF/ABD: isometrics and bands, concentric motions only • No resisted internal rotation/backwards extension until 12 weeks post-op • No scapular retractions with bands yet
MONTH 3 12	
	<ul style="list-style-type: none"> • Begin resisted IR/BE (isometrics/bands): isometrics → light bands → weights • Advance strengthening as tolerated; 10 reps/1 set per exercise for rotator cuff, deltoid, and scapular stabilizers. • Increase ROM to full with passive stretching at end ranges • Begin eccentric motions, plyometrics, and closed chain exercises at 12 weeks.



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Reverse Shoulder Arthroplasty Protocol

WEEK 0 2	
	<ul style="list-style-type: none"> • Patient to do Home Exercises given post-op (pendulums, elbow ROM, wrist ROM, grip strengthening) • NOTE: Always AVOID Internal rotation + Extension against resistance
WEEKS 2 6	
	<ul style="list-style-type: none"> • Sling for 4-6 weeks • PROM → AAROM → AROM as tolerated, except... • No active IR/backwards extension for 6 weeks. The subscapularis tendon is taken down for the surgery and then repaired afterwards. It takes about 4-6 weeks for it to grown back into the humerus and regenerate a blood and nerve supply. • ROM goals: Week 1: 90° FF/20° ER at side; ABD max 75° without rotation • ROM goals: Week 2: 120° FF/40° ER at side; ABD max 75° without rotation • No resisted internal rotation/backward extension until 12 weeks post-op • Grip strengthening OK • Canes/pulleys OK if advancing from PROM • Scapular isometrics • Heat before PT, ice after PT
WEEKS 6 12	
	<ul style="list-style-type: none"> • Begin AAROM → AROM for internal rotation and backwards extension as tolerated, if not already begun. • Goals: Increase ROM as tolerated with gentle passive stretching at end ranges • Begin light resisted ER/FF/ABD: isometrics and bands, concentric motions only • No resisted internal rotation/backwards extension until 12 weeks post-op • No scapular retractions with bands yet
MONTH 3 12	
	<ul style="list-style-type: none"> • Begin resisted IR/BE (isometrics/bands): isometrics → light bands → weights • Advance strengthening as tolerated; 10 reps/1 set per exercise for rotator cuff, deltoid, and scapular stabilizers. • Increase ROM to full with passive stretching at end ranges • Begin eccentric motions, plyometrics, and closed chain exercises at 12 weeks.



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4.0 DISCHARGE SUMMARY FORM

Hip and Knee Bundled Care

To **enable connected care for our bundled patients**, we encourage you to complete the clinical outcome summary below to support follow-up care. Please email the completed summary, along with the invoice to MSKBundledCare@uhn.ca.

DATE OF PROCEDURE: _____

PROCEDURE PERFORMED: Hip (L) Hip (R) Hip (Bilateral)
 Knee (L) Knee (R) Knee (Bilateral)

NAME OF FACILITY/PROVIDER: _____

ADDRESS OF FACILITY/PROVIDER: _____

DATE OF INITIAL ASSESSMENT: _____ DATE OF DISCHARGE: _____

NUMBER OF COMPLETED SESSIONS: _____

FORMAT OF SESSIONS: GROUP BASED 1:1 Homecare Inpatient Rehabilitation

DISCHARGE CRITERIA	
<p>TOTAL KNEE *Please check box if criteria was met.</p> <p>Functional active ROM (consider pre-op status) <input type="checkbox"/> 0-5 degrees Knee Extension <input type="checkbox"/> 110 degrees Knee Flexion</p> <p>Functional Strength (consider pre-op status) <input type="checkbox"/> Knee: Grade 4/5 or functional control of the knee <input type="checkbox"/> Quadriceps strength without lag in straight leg raise (SLR) and short arch quadriceps (SAQ) (sitting)</p> <p>Pain (consider pre-op status and co-morbidities) <input type="checkbox"/> Manageable pain with functional activities of daily living <input type="checkbox"/> Swelling resolved or self-managed; wound healed or self-managed</p> <p>ADLs <input type="checkbox"/> Independent ambulation (indoors and outdoors, with/without ambulation aid as required – consider pre-op status) <input type="checkbox"/> Normal, reciprocal gait pattern (consider pre-op status and comorbidities) <input type="checkbox"/> Safe transfers as required (home, vehicle) <input type="checkbox"/> Safe use of stairs if required</p> <p><input type="checkbox"/> Discharged with home exercise program</p> <p><input type="checkbox"/> Notes/Other Considerations:</p>	<p>TOTAL HIP *Please check box if criteria was met.</p> <p>Functional active ROM <input type="checkbox"/> Flexion minimum 90 degrees (hip)</p> <p>Functional Strength <input type="checkbox"/> Hip: Grade 4/5 hip flexion and extension <input type="checkbox"/> Grade 4/5 hip abduction</p> <p>Pain (consider pre-op status and co-morbidities) <input type="checkbox"/> Manageable pain with functional activities of daily living <input type="checkbox"/> Swelling resolved or self-managed; wound healed or self-managed; pain self-managed</p> <p>ADLs <input type="checkbox"/> Independent ambulation (indoors and outdoors, with/without ambulation aid as required – consider pre-op status). <input type="checkbox"/> Normal reciprocal gait pattern (consider pre-op status and comorbidities) <input type="checkbox"/> Safe transfers as required (home, vehicle) <input type="checkbox"/> Safe use of stairs if required</p> <p><input type="checkbox"/> Discharged with home exercise program</p> <p><input type="checkbox"/> Notes/Other Considerations:</p>

Shoulder Bundled Care

To **enable connected care for our bundled patients**, we encourage you to complete the clinical outcome summary below to support follow-up care. Please email the completed summary, along with the invoice to MSKBundledCare@uhn.ca.

PROCEDURE PERFORMED: Total/Hemi Arthroplasty Reverse Total Shoulder
 (R) (L)

NAME OF FACILITY/PROVIDER: _____

ADDRESS OF FACILITY/PROVIDER: _____

DATE OF INITIAL ASSESSMENT: _____ **DATE OF DISCHARGE:** _____

NUMBER OF COMPLETED SESSIONS: _____

FORMAT OF SESSIONS: GROUP BASED 1:1

DISCHARGE CRITERIA	
<p>Functional active ROM (consider pre-op status)</p> <ul style="list-style-type: none"> <input type="checkbox"/> 120-140° shoulder flexion <input type="checkbox"/> 120-140° abduction/scaption <input type="checkbox"/> 45-60° external rotation <input type="checkbox"/> L1 hand behind back <input type="checkbox"/> C7 hand behind head <p>Pain (consider pre-op status and co-morbidities)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Manageable pain with functional activities of daily living <input type="checkbox"/> Swelling resolved or self-managed; wound healed or self-managed <input type="checkbox"/> Discharged with home exercise program <input type="checkbox"/> Notes/Other Considerations: <p><i>(i.e. TSA secondary to RA/RC arthroplasty/fracture vs OA, pre-op status, comorbidities)</i></p>	<p>Functional Strength</p> <ul style="list-style-type: none"> <input type="checkbox"/> Able to actively forward elevate arm to 100-120° with good scapular mechanics <input type="checkbox"/> Grade 4/5 scaption (rotator cuff/empty can) at 90° <input type="checkbox"/> Grade 4/5 external rotation in neutral <p>ADLs</p> <ul style="list-style-type: none"> <input type="checkbox"/> Able to perform self care (dressing, showering, shaving), feeding <input type="checkbox"/> Able to return to driving (if applicable)