MSH Same Day Discharge for Total Joint Replacement (TJR) Protocol

**Purpose:** To decrease cost, while maintaining the safety of post-operative care and reducing risk of patients experiencing hospital acquired adverse events, such as infection. To increase volume of hip and knee replacement patients without requiring a surgical inpatient bed.

**Goal:**

MSH will offer an outpatient option for a select group of patients that are scheduled for either Primary Total Hip Replacement (THR), Primary Total Knee Replacement (TKR), or Uni-Compartmental Knee Replacement (UKR). Patients must meet certain inclusion criteria.

Outpatient TJR (also known as Same Day Discharge for Total Joint Replacement) surgery is defined as a process where a patient will be discharged from the hospital the same day that the procedure is performed.

**Exclusion Criteria:**

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| **Absolute** | **Relative** |
| Medical   * Preoperative bleeding disorder * Liver cirrhosis * Renal disease > stage 2 | Medical   * Age > 80 years * Severe obstructive sleep apnea * Current, or history of, significant cardiac disease (e.g. ischemic heart disease, CHF, prior stroke) * Diabetes mellitus * Body Mass Index > 35 * Unilateral joint |
| Social   * Inability to participate in preoperative counselling (i.e. lack of mental capacity) * Lack of support system/availability post-discharge home | Social   * Lack of social support system |
|  | Physical   * Timed Up and Go Test >10 seconds * Mobilizing and performing ADLs independently |

*Adapted from Bodrogi, Dervin, and Beaule (2020)*

* Patients should be highly motivated to go home
* Patients may still be deemed eligible at the discretion of the surgeon and/or health care team.

**Institutional factors:**

* *Preoperative education*: Education may involve input from internal medicine, anesthesiology, nursing, and physiotherapy.
* *Perioperative pain management and anesthesia techniques*: This includes multimodal and preventive analgesia (potentially including preoperative medications), combinations of general and regional anesthesia, and the minimal use of narcotics. In particular, effective management of post-operative pain requires that there are no gaps in, or periods of, inadequate pain control.
* *Strict discharge criteria*: An assessment of discharge readiness after an outpatient TJA must include factors such as medical, functional, and wound status, while also ensuring that the regular standard-of-care discharge criteria of an institution are not compromised.
* *A multidisciplinary approach to post-operative management*: The focus is on avoiding the use of tubes and catheters, and providing deep vein thromboembolism prophylaxis, early feeding, and intensive physiotherapy for rapid mobilization.

**Key processes:**

1. The surgeon, patient and “support person” agree to an Outpatient Total Joint experience. A “support person” is typically a family member, significant other or friend. This person agrees to the expectations to support the patient for predetermined touchpoints (i.e. pre/during/and post hospital stay).
2. The patient will be instructed to watch the educational videos on the MSH website, but will also receive specific educational information that will provide an overview of their anticipated experiences including how to prepare for a same day discharge.
3. Patients will be scheduled, at minimum, two weeks in advance and will be the first and/or second case of the day.
4. There will be a maximum of 2 same day discharges per surgeon per room.
5. Patients will have met criteria as outlined above as determined by the surgeon.
6. Key members of the team will be identified in the care of the patients. Starting at the SAC appointment, admission team, surgical team, PACU team, Day surgery team, orthopaedic patient navigator, Physiotherapist, and Pharmacist.
7. In some instances, the Orthopaedic Patient Navigator may convert patients (from admitted to day surgery) should they meet the identified criteria and patient consents to being discharged the same day of surgery.
8. The anaesthesiologist team will design a protocol for outpatient joint replacement patients. This should include:
   1. Multimodal pre-operative medications
   2. Standardized blocks, including drug and concentration
   3. Standardized anaesthetics

**Pre-Hospital Process**:

Surgeon’s office/OJAC:

* + After the surgeon identifies a patient suitable for an outpatient TJR, surgeon or designee will provide educational material to patient and support person. Patient and healthcare partner must review this information.
  + Support person is aware that he/she must be present for all surgeon visits, hospital stay and at home with patient for, at least, 4 days after surgery.
  + Surgeon’s office will schedule case and complete booking sheet identifying patient as an “Outpatient THR/TKR/UKR”. The OR schedule will identify patient as DS (day surgery).

SAC Appointment:

* + The Anesthesiologist will make final decision if patient is medically appropriate for outpatient TJR. If it is determined that patient does not meet the criteria for outpatient TJR by the Navigator or Anesthesiologist, the navigator will notify surgeon. The surgeon will be responsible for discussing this outcome with the patient.

Orthopaedic Patient Navigator:

* + Patient navigator will be notified by OR Scheduling clerk once surgery date is booked.
  + Contact the patient and review the following:
    - Ensure the patient is aware of the process and strict protocol to be discharged home the same day of surgery
    - Ensure all equipment will be arranged
    - Ensure support person will be available day of surgery
    - Discuss discharge planning (outpatient physiotherapy plan, transportation needs, etc.)
    - Prepare the patient for pain. Pain is normal after a joint replacement.
  + The patient navigator will be the primary contact for any other questions/needs the patient and/or support person may have during the process.

**Outpatient Day of Surgery:**

1. Pre-operative:

* Patients scheduled for outpatient TJR will be placed in the appropriate pre-op bay depending on the procedure scheduled.
* Patient will be prepared for surgery.
* Patients scheduled for outpatient TJR may ambulate to OR if all parties are in agreement (patient, surgeon, anesthesia, nurse).

1. Post-operative Intra-PACU Phase I:

* Patient will be placed in stretcher (not bed) after surgery.
* PACU RN will administer oral opioids (IV opioids should be avoided, wherever possible), acetaminophen, NSAIDS, and ondansetron
* Continue with IV hydration.
* PACU RN to apply ice and assess motor function of operated side.
* Once patients meets discharge criteria from PACU phase I patient will be moved to phase II or discharge phase.

1. Post-operative Phase II or Discharge Phase:

* Support person will be phoned by the SADU Nurse to come into the day surgery department.
* The Day Surgery nurse will have the patient sit on the edge of the bed to dangle the limb. Ideally, they will have them stand and sit. If unsuccessful, SADU nurse will continue to treat patient and re-try within 1 hour.
* Physiotherapist (PT) will be consulted when the patient is successful with standing. They will be contacted by day surgery and arrive in the day surgery area for assessment and treatment.
* PT will provide assessment including gait training, education, exercise review, and stair training.
* Day Surgery RN will provide light diet and begin reviewing discharge instruction with patient and support person. Reassure patient that pain is normal and expected. Continue reinforcing they are going home.
* Patient navigator will meet with patient and support person, answer questions, provide any relevant discharge instructions, and fax outpatient physiotherapy referral.
* Patient and support person will watch video regarding DVT Prophylaxis.
* Pharmacist will review discharge prescription and address any issues with the surgeon
* Pharmacist will print medication list for patient and tube to Day surgery. Patient navigator to review information with patient and support person.
* Pharmacist will be contacted to consult with patient and support person and provide information about the discharge prescription, upon request from the patient, nurse or surgeon, or as deemed necessary by the pharmacist.
* If there are concerns about pain post-operatively, SADU nurse to contact anaesthesiologist and/or surgeon for intervention.
* Once patient meets all discharge criteria, patient will be discharged home.
  + **Discharge Criteria** 
    - Acceptable Pain Control, including lack of nausea and vomiting
    - Able to void
    - Able to tolerate light diet
    - Meet PT criteria for discharge
    - Post void residual less than 400cc
* Support person is required to stay with patient, at least, the first 4 nights after surgery.
* Patient and support person will be given prescription, discharge instruction paperwork, and information for follow-up appointment in fracture clinic.
* Patient and support person will be instructed: “In the case of emergency, patients should go to the Emergency Department”. Day surgery RN will provide information to Post Surgical Wellness Clinic (PSWC).
* Patients that are in phase I or II for more than six hours with minimal to no realized improvements are unlikely to be discharged.
* If patients do not meet all discharge criteria, the care team (including Anesthesia, Surgeon and Nurse) will decide best plan for patient. Patient may require admission to the inpatient unit and plan for discharge home POD 1. Examples:
  + Severe pain unrelieved by anaesthesiologist intervention
  + Altered motor and/or sensory function preventing patient from ambulating
  + Unable to wean patient off oxygen
  + Presentation of any acute medical issue (e.g. chest pain, shortness of breath)
* When decision is made to admit patient, SADU nurse will call bed allocation to change admission status and coordinate transfer to inpatient unit. Surgeon or designee will enter inpatient admission orders.

**Night of Surgery and Day After**:

* Surgeon or designee will call their patient on the night of surgery.
* Orthopaedic patient navigator or designee will call the patient or support person the day after surgery to assess patient status and answer any questions.
* A Nurse Practitioner (NP) will be available to assess patients in the PSWC if need be within 30 days post-op.

**Reference**

Bodrogi, A., Dervin, G., & Beaule, P. (2020). Management of patients undergoing same-day discharge primary total hip and knee arthroplasty. *CMAJ, 192*, E34-39. doi:10.1503/cmaj.190182