Hip or Knee Arthroplasty Clinical Pathway

Site Applicability

Vancouver General Hospital

UBC Hospital

Pathway Patient Goals

Inclusion Criteria

Home Discharge Criteria

Eligible for discharge when discharge criteria ◆ **outcomes** met after Post-op Day 0.

Instructions

1. Review pathway once per shift for patient care goals and expected outcomes
2. Do not document on this pathway, complete documentation in the Electronic Health Record (Cerner) or paper chart as per policy

Day of Surgery (Post-op Day 0)	
Category	**Expected Outcomes**
Safety	• Beside safety checklist completed
Fall Risk	• Fall prevention care plan in place • Not at risk: reviewed & no concerns • At Risk Fall Protocol in place: reviewed and no change • Significant change in status: Risk assessed and Fall Care Plan revised/new plan completed
Pain	• Pain intensity assessed Q1 h until controlled & PRN & as per appropriate pain modality CPD • Ice or cryotherapy device applied continuously with barrier between the skin and the sleeve or ice pack • Patient education provided re: pain management; how to use the Pain Scale; communicating pain early. • Appropriate pain modality pamphlet given • **Patient reports pain rating at 3 or less** • **Patient reports pain or pain behaviors at an acceptable level with activity and rest ◆**
Anemia	• Review estimated blood loss and intra-operative fluid replacement given • As per MD order: suction drain left off 4 hours, then activated (document time), or suction drain to gravity • **No evidence of bleeding related to surgery or anticoagulant** • **Hgb within acceptable range (if BW ordered)** Notify NP/MD if hemoglobin drops by 20 g/L or more or if hemoglobin less than 70 g/L or hemoglobin less than 95 g/L for patients with cardiac disease. • **No symptoms of anemia ◆ (dizziness, hypotension, weak/rapid pulse, delirium, nausea or vomiting)**
PONV **Nutrition**	• PONV assessed Q1h until controlled then Q4H & PRN • Notify NP/MD for unresolved PONV • **Diet tolerated**. Document diet type. Advance to regular as soon as tolerated • **Patient states PONV is controlled ◆**

Infection, Wound and Skin	• Assessed for signs or symptoms of infection (urinary, chest, wound) q shift & PRN
	• Soft silicone foam (Mepilex) and honeycomb dressings changed Q7days or when 80% saturated with drainage
	• Surgical dressing remains dry and intact
	• Dressing changed PRN or as per MD orders
	• **Incision well approximated free of redness and drainage**
	• If increased drainage apply:
	  ○ **Knee:** 4x4's or abdominal pad with tensor (no tape or kling). Rewrap tensor BID or if patient states tensor is too tight or experiencing numbness or tingling
	  ○ **Hip:** 4x4's/abdominal pad, Mepore or other. If drainage has subsided, apply:
	  ▪ Soft silicone foam (Mepilex). Change Q7days or drainage 80% or greater or as per MD order
	• **No signs or symptoms of infection. WBC within normal limits**

	• **Temperature within normal limits. NP/MD notified if 39º C or greater. Turned and repositioned Q2-3 hrs. Skin free from redness/pressure areas**
Respiratory/ PE	• Deep breathing encouraged Q1H while awake, encourage coughing if secretions present • Respiratory assessment including O2 Sats completed minimum Q shift and PRN or as ordered by MD • Consult MD/NP for diminished respiratory status • **Clear breath sounds all lung fields (no respiratory complications identified)◆** • **O2 saturation at or above 94% or acceptable range for patient ◆**

Cardiovascular
DVT
	• Neurovascular assessment completed as per Orthopedic Neurovascular Assessment DST (D-00-12-30065)
	• VTE Prevention
	  ○ Anticoagulant ordered, or
	  ○ SCDs to both legs (hip arthroplasty)
	  ▪ Interrupt for skin care, assessments, toileting and ambulation
	  ▪ Apply continuously until anticoagulant prophylaxis starts or discharge
	• **Neurovascular status within normal limits ◆**
	• **DVT symptoms absent ◆** (leg swelling less than 2 times size of opposite leg, no calf pain, vein cording or phlebitis)
	• **Vital Signs within normal limits ◆**

Fluids/Lytes **Elimination**	• IV assessed and maintained as ordered post op and per appropriate CPD ○ Note if Peripheral IV, Saline Lock, CVC, or PICC present • **IV site free from pain, redness, swelling** (document all IV /CVC care) • Note voiding frequency each shift (voided within 8 hours post op) • Foley catheter - Urinary output assessed Q6h and PRN and catheter care provided • Catheter removed at 0600 hours; if not, note reason • Notify MD/NP if urine output less than 180mls /6hrs (30cc's / hour) • **Output at or above 180mls/6hrs (30 cc's/hour) ◆** • Note date and size of last BM • **Electrolytes, CR and Urea within normal limits (if BW done).**
Delirium **Sleep**	• Assessed for the presence of delirium. Use Confusion Assessment Method (CAM) Tool Q shift • **Assessed and addressed risk factors for delirium using PRISME**: pain, retention, restraint, impaction, sensory impairment, meds, alcohol withdrawal, hypoxia, malnutrition, fluid/electrolytes, environment. • **Review Medication Reconciliation Orders to ensure routine medications are ordered.** • **No evidence of Delirium ◆; Notify MD/ NP if delirium present and CAM positive** • Continuous night sleep of at least 4 hours.
PT	• Consent obtained from patient/family for PT assessment and intervention • **PT Plan** • Confirmed equipment at home (by PT)

	• Note **Weight-bearing Status**: WBAT, PWB, FeWB(feather), NWB or other
	• **Precautions**: note standard and specific
	• **Transfers**
	  ○ Lying ←→ sitting (with/without assist)
	  ○ Sitting ←→ standing (with/without assist)
	  ○ **Dangle**, **stand,** stairs
	  ○ Ambulated (distance, with/without aid/assist)
	  ○ Seen by Rehab Assistant for assist with mobility and/or exercises
	• **Hip precautions reviewed, pillow between legs while in bed**
	• **Dislocation symptoms absent** (worsening pain with weight bearing, limb shortening, increased joint tenderness/swelling, severe external/internal rotation, restricted joint motion)
	• **No pillow under knee (may elevate entire limb)**
	• **Mobility safe for discharge** ◆

Nursing Mobility	• Note if up to chair (frequency and sitting tolerance) • Note ambulation (distance, frequency, with/without aid/assist)

PT/ROM/Muscle Strength	• **POD 0: Patient taught to do isometric foot, quad and gluteal exercises q 1 h while awake.** Instruct patient to start by pumping feet, then contracting quadriceps and then gluteal muscles x 5 q1h
	ROM/muscle strength as per Hip or Knee protocol
	• Assess the following for **ROM** and **Strength**, and indicate whether **Passive**, **Active-Assisted** or **Active**:
	  ○ Hip flexion, extension, and abduction (left, right)
	  ○ Knee flexion and extension (left, right)
	  ○ Strength: Quads and Hams
	• **Written home exercise program provided**

OT	• Consent obtained from patient/family for OT assessment and intervention
	• Pre-op Screen reviewed
	• Functional concerns identified re: Equipment needs, ADLs, dressings, transfers (tub, shower, care, toilet, bed, chair), discharge planning
	• OT Intervention
	  ○ Precautions reviewed
	  ○ Equipment recommendations provided
	  ○ Reviewed/practice ADLs: dressings, transfers (tub, shower, care, toilet, bed, chair)
	• With patient consent, referred to RA as needed
	• Discharged from OT as no further functional concerns identified at this time

Hygiene	• Note if bed bath, shower ○ total care, assisted care or independent • Note mouth care (frequency on each shift)
Discharge Planning	• **Patient understands discharge instructions** ◆ • **Discharge** ◆ **outcomes met** ○ **If no, document reason for variance**

Post-op Day 1 and Onward	
Category	**Expected Outcomes**
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Anemia	• Notify NP/MD if hemoglobin drops by 20 g/L or more or if hemoglobin less than 70 g/L or hemoglobin less than 95 g/L for patients with a cardiac history • **No evidence of bleeding related to surgery or anticoagulant** • **Hgb within acceptable range ◆** • **No symptoms of anemia ◆** (no dizziness, hypotension, weak/rapid pulse, delirium, nausea or vomiting)
PONV **Nutrition**	• **Tolerating 75% of diet** • **Patient states PONV is controlled ◆**
Infection, Wound and Skin	• Assessed for signs or symptoms of infection (urinary, chest, wound) q shift & PRN • Surgical Dressing: ○ Dressing changed PRN ○ Incision well approximated and free of redness If drainage has subsided: ○ Soft silicone foam (Mepilex) and honeycomb dressings changed Q7days or drainage 80% or greater PRN Otherwise until drainage subsides: ○ **Knee:** 4x4's or abdominal pad with tensor, no tape or kling. Rewrap tensor BID or if patient states tensor is too tight or experiencing numbness or tingling ○ **Hip:** 4x4's/abdominal pad, Mepore or other. If drainage has subsided, apply: • Surgical site dressing remains dry and intact • **IV site free from redness and intact** • **Temperature within normal limits. NP/MD notified if 39º C or greater. Turned and repositioned Q2-3 hrs. Skin free from redness/pressure areas ◆**

Respiratory/ PE	• **O2 saturation at or above 94% or acceptable range for patient ◆** • **Clear breath sounds all lung fields ◆** • **No sudden onset shortness of breath/ low/drop in O2 sat/ tachycardia/ pain on inspiration ◆**

Cardiovascular
DVT
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	• VTE Prevention
	  ○ Anticoagulant ordered, or
	  ○ SCDs to both legs (hip arthroplasty)
	  ▪ Interrupt for skin care, assessments, toileting and ambulation
	  ▪ Apply continuously until anticoagulant prophylaxis starts or discharge
	• **Neurovascular status within normal limits**
	• **DVT symptoms absent** (leg swelling less than 2 times size of opposite leg, no calf pain, vein cording or phlebitis)
	• **Vital Signs within normal limits**

Fluids/Lytes **Elimination**	• **Voiding within normal limits (350 – 400 cc q 4-8 hours) ◆** • **Up to bathroom regularly without difficulty** • **Note date and size of last BM**
Delirium **Sleep**	• Assessed for the presence of delirium. Use Confusion Assessment Method (CAM) Tool Q shift • **Assessed and addressed risk factors for delirium using PRISME**: pain, retention, restraint, impaction, sensory impairment, meds, alcohol withdrawal, hypoxia, malnutrition, fluid/electrolytes, environment. • **No evidence of Delirium ◆** • **Continuous night sleep of at least 4 hours.**

PT	• Consent obtained from patient/family for PT assessment and intervention
	• **PT Plan**
	• Confirmed equipment at home (by PT)
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	  ○ Seen by Rehab Assistant for assist with mobility and/or exercises
	• **Hip precautions reviewed, pillow between legs while in bed**
	• **Dislocation symptoms absent** (worsening pain with weight bearing, limb shortening, increased joint tenderness/swelling, severe external/internal rotation, restricted joint motion)
	• **No pillow under knee (may elevate entire limb)**

Nursing Mobility	• Note if up to chair (frequency and sitting tolerance) • Note ambulation (distance, frequency, with/without aid/assist)
PT/ROM/Muscle Strength	• ROM/muscle strength as per Hip or Knee protocol

	• Assess the following for **ROM** and **Strength**, and indicate whether **Passive**, **Active-Assisted** or **Active**:
	  ○ Hip flexion, extension, and abduction (left, right)
	  ○ Knee flexion and extension (left, right)
	  ○ Strength: Quads and Hams
	• **Written home exercise program provided**

OT	• Consent obtained from patient/family for OT assessment and intervention • Confirmed equipment at home • Review tub/shower/car transfer, dressing, assistive devices • Practice tub/shower/car transfer, dressing, assistive devices • **Confirm OT Plan**
Hygiene	• Note if bed bath, shower ○ total care, assisted care or independent • Note mouth care (frequency on each shift)

Discharge Planning	• **Confirm discharge teaching as per Discharge Teaching Checklist**
	  ○ Identify if home care PT required
	  ○ Ensure discharge summary is faxed
	• **No concerns regarding support at home for meeting target discharge date**
	  ○ PSC notified if concerns about discharge

Developed By

Effective Date:	
Posted Date:	
Last Revised:	
Last Reviewed:	
Approved By:	
	Endorsed By: **Final Sign Off:**
Owners:	VCH
	Developer Lead(s): • Clinical Nurse Educator, Orthopaedics and Trauma, VGH • Clinical Nurse Educator, High Acuity Unit, UBCH