

# Clinical Pathway

## Total Hip and Knee Replacement

Procedure:  THR  TKR    SIDE:  RIGHT  LEFT    DISCHARGE DESTINATION:  HOME  INPATIENT  
 REHAB

<b>PREADMISSION</b>	TARGET DISCHARGE DATE _____
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	Interventions	Outcomes
<b>1. Assessment</b>	Preadmission assessment completed Consult: anesthesia or internal medicine (if requested) Additional assessment: WOMAC/TUG/other (as per protocol)	<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ WOMAC _____ TUG _____ Other _____
<b>2. Tests</b>	Blood work (as per protocol) X-ray of index joint (as per protocol) Chest x-ray (as per protocol) ECG (age >45)	<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
<b>3. Treatments</b>	Ed: blood conservation strategies (eg. autologous) Bone donation protocol (as per protocol)	<input type="checkbox"/> _____ patient verbalize understanding <input type="checkbox"/> _____ patient verbalize understanding
<b>4. Medication</b>	Obtain medication profile Ed: post op pain management (as per protocol) Ed: post op DVT prophylaxis (as per protocol) Ed: antibiotic prophylaxis (as per protocol) Ed: Chlorohexidene 4% (as per protocol)	<input type="checkbox"/> _____ <input type="checkbox"/> _____ verbalize understanding <input type="checkbox"/> _____ verbalize understanding <input type="checkbox"/> _____ verbalize understanding <input type="checkbox"/> _____ verbalize understanding
<b>5. Fluid Nutrition Elimination</b>	Ed: NPO status Ed: post op bowel routine (as per protocol)	<input type="checkbox"/> _____ verbalize understanding <input type="checkbox"/> _____ verbalize understanding
<b>6. Activity / Mobility</b>	Ed: post op PT protocol Ed: post op THR precautions Ed: pre-op exercises	<input type="checkbox"/> _____ verbalize understanding <input type="checkbox"/> _____ verbalize understanding <input type="checkbox"/> _____ verbalize understanding
<b>7. Client / Family Perspective</b>	Ed: Overall clinical pathway Provide education materials Ed: Discharge destination Ed: Preparation for home Concerns / questions addressed	<input type="checkbox"/> _____ verbalize understanding <input type="checkbox"/> _____ <input type="checkbox"/> _____ verbalize understanding <input type="checkbox"/> _____ comfortable with process
<b>8. Discharge Planning</b>	Patient discharge screening completed and planning made	<input type="checkbox"/> _____ Verbalize understanding of discharge destination: _____ home _____ inpatient rehab

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## Total Hip and Knee Replacement

### Day of Surgery - PACU Day - 0

	Interventions	Outcomes
<b>1. Assessment</b>	Assessment of VS, level of consciousness / airway, SaO <sub>2</sub> , CSM, Dressings	<input type="checkbox"/> _____ stable upon transfer to unit
<b>2. Tests</b>	Blood work: CBC (if requested) X-ray: AP hip or AP/Lat Knee (per protocol)	<input type="checkbox"/> _____ <input type="checkbox"/> _____
<b>3. Treatments</b>	O <sub>2</sub> to keep SaO <sub>2</sub> > 94% Blood transfusion	<input type="checkbox"/> _____ <input type="checkbox"/> _____
<b>4. Medication</b>	Post op pain management per protocol	<input type="checkbox"/> _____ pain , 4/10 or manageable
<b>5. Fluid Nutrition Elimination</b>	NPO IV fluids as per protocol Monitor urine output	<input type="checkbox"/> _____ <input type="checkbox"/> _____ hemodynamic stable <input type="checkbox"/> _____
<b>6. Activity / Mobility</b>		
<b>7. Client / Family Perspective</b>	Family informed of patients status	<input type="checkbox"/> _____
<b>8. Discharge Planning</b>	Patient transferred to unit when stable	<input type="checkbox"/> _____

# Clinical Pathway

## Total Hip and Knee Replacement

<b>Day of Surgery – Inpatient Unit</b>	<b>Day - 0</b>
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	Interventions	Outcomes
<b>1. Assessment</b>	Assessment as per protocol: VS / LOC eg. q1h x 4, then q4h if stable CSM eg. q1h x4 then q8h SaO <sub>2</sub> eg. q1h x 4 then q4h Dressings eg. q8h Pain eg. q4h Asses output from wound drain (if applicable)	<input type="checkbox"/> ___ stable <input type="checkbox"/> ___ stable <input type="checkbox"/> ___ stable <input type="checkbox"/> ___ dressings intact <input type="checkbox"/> ___ pain < 4/10 or manageable <input type="checkbox"/> ___ call MD if > 500ml/8 hours
<b>2. Tests</b>		
<b>3. Treatments</b>	Titrate O <sub>2</sub> to keep SaO <sub>2</sub> > 94%	<input type="checkbox"/> ___ call MD if pt. Requires > 4L/min O <sub>2</sub>
<b>4. Medication</b>	Post op pain management: eg. PCA, etc (as per protocol) Antibiotic (as per protocol) Eg. Cefazolin 1g IV q8h x 3 doses If allergic Clindamycin 600mg IV q8h x 3 doses Anticoagulation (per protocol) <input type="checkbox"/> LMWH <input type="checkbox"/> Warfarin Antiemetics (gravol) as required	<input type="checkbox"/> ___ pain , 4/10 or manageable <input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___ nausea under control if not call MD
<b>5. Fluid Nutrition Elimination</b>	Clear to full fluid diet as tolerated IV fluids as per protocol reduce to TKVO when drinking well Foley catheter as per protocol Monitor urine output	<input type="checkbox"/> ___ <input type="checkbox"/> ___ hemodynamic stable <input type="checkbox"/> ___ monitor urine output call MD if < 240 ml/8 hours
<b>6. Activity / Mobility</b>	Bed rest and positioning Encourage patient to sit on side of bed if tolerated Observe THR precautions Bed exercises Isometric quads, gluteal, foot & ankle exercises Deep breathing 10 deep breaths /hr, cough if secretions	<input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___
<b>7. Client / Family Perspective</b>	Provide support and education re: post-op exercises and discharge	<input type="checkbox"/> ___
<b>8. Discharge Planning</b>	Confirm discharge plan and target date of discharge	<input type="checkbox"/> ___

# Clinical Pathway

## Total Hip and Knee Replacement

### Post-op Day 1

	Interventions	Outcomes
<b>1. Assessment</b>	Assessment (as per protocol) VS eg. q shift if stable CSM eg. q shift if stable SaO <sub>2</sub> eg. q shift if stable until pt off O <sub>2</sub> Dressings q8h Pain q4h	<input type="checkbox"/> ___ stable call MD if BP < 90 systolic or temp > 38.5 <input type="checkbox"/> ___ stable <input type="checkbox"/> ___ stable <input type="checkbox"/> ___ dressings intact <input type="checkbox"/> ___ pain < 4/10 or manageable
<b>2. Tests</b>	CBC, lytes, creatinine, PT/INR (if on warfarin), BS (if diabetic)	<input type="checkbox"/> ___ call MD if Hb <80 or pt. symptomatic
<b>3. Treatments</b>	Titrate O <sub>2</sub> to keep SaO <sub>2</sub> > 94% Change wound dressings (as per protocol) Remove wound drain if output < 100 ml/ 8hours (if applicable) Inform MD of INR results for Warfarin order (if applicable) Blood transfusion (as per protocol)	<input type="checkbox"/> ___ call MD if pt. Requires > 4L/min O <sub>2</sub> <input type="checkbox"/> ___ incision clean / intact <input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___ call MD if Hb <80 or pt. Symptomatic or Hb <100 with cardiac dis.
<b>4. Medication</b>	Post op pain management: D/C PCA, etc (as per protocol) Anticoagulation (as per protocol) <input type="checkbox"/> LMWH 5,000 IU Fragmin / day <input type="checkbox"/> Warfarin Antiemetics (gravol) as required Bowel routine: (as per protocol) Eg. Start post-op day 1: Docusate 200mg po qam, Sennosides 12mg tab 1-4 tabs po hs prn, Glycerin suppository per rectum prn, Fleet enema per rectum prn	<input type="checkbox"/> ___ pain, 4/10 or manageable <input type="checkbox"/> ___ <input type="checkbox"/> ___ nausea under control if not call MD <input type="checkbox"/> ___
<b>5. Fluid Nutrition Elimination</b>	Progress to high fiber DAT as tolerated Monitor dietary intake & output q shift (bowel sounds) IV fluids as per protocol reduce to saline lock when drinking well Foley catheter as per protocol, DC Foley 4 hrs post DC of PCA Monitor urine output / urinary retention	<input type="checkbox"/> ___ <input type="checkbox"/> ___ hemodynamic stable <input type="checkbox"/> ___ <input type="checkbox"/> ___ monitor urine output call MD if < 240 ml/8 hours
<b>6. Activity / Mobility</b>	Initiate PT treatments bid OT assessment (as per protocol) Up in chair in AM with assistance (as per protocol) Encourage deep breathing & coughing Active / assisted bed and chair exercises TKR/THR begin AAROM exercises THR review precautions Teach safe transfer techniques Gait training begin assisted walking in AM if stable Weight Bearing: (unless otherwise stated by MD) TKR full weight bearing THR cemented / hybrid full weight bearing THR uncemented (as per protocol)	<input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___ Pt transferring ↔ lying to sitting ___ assist Sitting ↔ standing ___ assist Up to stand ___ WB ___ Aid ___ assist Ambulated ___ meters ___ aid ___ assist Up in chair ___ mins ___ Stairs TKR ROM ___
<b>7. Client / Family Perspective</b>	Identify and address patient / family concerns	<input type="checkbox"/> ___
<b>8. Discharge Planning</b>	Review discharge plan and goals Confirm with designated inpatient rehab unit of transfer in 24 - 48 hrs Ed: patient on self administration of LMWH	<input type="checkbox"/> ___ <input type="checkbox"/> ___ <input type="checkbox"/> ___

# Clinical Pathway

## Total Hip and Knee Replacement

### Post-op Day 2

	Interventions	Outcomes
<b>1. Assessment</b>	Assessment as per protocol: VS eg. q shift if stable CSM eg. q shift if stable SaO <sub>2</sub> eg. q shift if stable until pt off O <sub>2</sub> Incision check Pain q4h	<input type="checkbox"/> stable call MD if BP < 90 systolic or temp > 38.5 <input type="checkbox"/> stable <input type="checkbox"/> stable <input type="checkbox"/> incision clean / intact <input type="checkbox"/> pain < 4/10 or manageable
<b>2. Tests</b>	CBC, lytes, creatinine , PT/INR (if on warfarin), BS (if diabetic)	<input type="checkbox"/> call MD if Hb <80 or pt. symptomatic
<b>3. Treatments</b>	Titrate O <sub>2</sub> to keep SaO <sub>2</sub> > 94% Change wound dressings (as per protocol) Inform MD of INR results for Warfarin order (if applicable) Blood transfusion (as per protocol)	<input type="checkbox"/> call MD if pt. still requires O <sub>2</sub> <input type="checkbox"/> incision clean / intact <input type="checkbox"/> <input type="checkbox"/> call MD if Hb <80 or pt. Symptomatic or Hb<100 with cardiac dis
<b>4. Medication</b>	Post op pain management: oral analgesics (as per protocol) Anticoagulation (per protocol) <input type="checkbox"/> LMWH 5,000 IU / day Fragmin <input type="checkbox"/> Warfarin Antiemetics (granol) as required Bowel routine: (as per protocol) Fe Gluconate 300 mg po tid	<input type="checkbox"/> pain , 4/10 or manageable <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> nausea under control if not call MD <input type="checkbox"/>
<b>5. Fluid Nutrition Elimination</b>	High fiber DAT as tolerated Monitor dietary intake & output q shift (bowel sounds) IV fluids as per protocol reduce to TKVO when drinking well DC routine Foley catheter Monitor urine output / urinary retention (as per protocol)	<input type="checkbox"/> <input type="checkbox"/> pt has had bowel movement <input type="checkbox"/> monitor urine output call MD if < 240 ml/8 hrs <input type="checkbox"/> call MD if urinary retention
<b>6. Activity / Mobility</b>	PT treatments bid OT intervention (as per protocol) Encourage deep breathing and coughing Continue Active / assisted bed and chair exercises TKR/THR progress AAROM exercises THR review precautions Teach safe active assisted transfers from bed to chair and sit to stand Gait training assisted walking in AM and PM Initiate stair climbing exercise with supervision	<input type="checkbox"/> Pt transferring ↔ lying to sitting ____ assist Sitting ↔ standing ____ assist Up to stand _____ WB _____ Aid _____ assist Ambulated _____ meters _____ aid _____ assist Up in chair _____ mins _____ Stairs TKR ROM _____
<b>7. Client / Family Perspective</b>	Identify and address patient / family concerns	<input type="checkbox"/> _____
<b>8. Discharge Planning</b>	Confirm discharge home including: Home equipment / aids arranged Arrangements made for journey home Confirm outpatient physiotherapy appointment (if applicable) Confirm CCAC (if applicable) Ed: patient on self administration of LMWH D/C slow stream patients to inpt rehab or confirm their transfer tomorrow	<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____

# Clinical Pathway

## Total Hip and Knee Replacement

### Post-op Day 3

	Interventions	Outcomes
<b>1. Assessment</b>	Assessment (as per protocol) VS eg. q shift if stable CSM eg. q shift if stable SaO <sub>2</sub> eg. q shift if stable until pt off O <sub>2</sub> Incision check Pain q4h	<input type="checkbox"/> stable call MD if BP < 90 systolic or temp > 38.5 <input type="checkbox"/> stable <input type="checkbox"/> stable <input type="checkbox"/> incision clean / intact <input type="checkbox"/> pain < 4/10 or manageable
<b>2. Tests</b>	CBC, lytes, creatinine, PT/INR (if on warfarin), BS (if diabetic)	<input type="checkbox"/> call MD if Hb <80 or pt. symptomatic
<b>3. Treatments</b>	Titrate O <sub>2</sub> to keep SaO <sub>2</sub> > 94% Change wound dressings (as per protocol) Inform MD of INR results for Warfarin order (if applicable) Blood transfusion (as per protocol)	<input type="checkbox"/> call MD if pt. still requires O <sub>2</sub> <input type="checkbox"/> incision clean / intact <input type="checkbox"/> <input type="checkbox"/> call MD if Hb <80 or pt. Symptomatic or Hb <100 with cardiac dis.
<b>4. Medication</b>	Post op pain management: oral analgesics (as per protocol) Anticoagulation (as per protocol) <input type="checkbox"/> LMWH 5,000 IU / day Fragmin <input type="checkbox"/> Warfarin Antiemetics (graval) as required Bowel routine: (as per protocol) Fe Gluconate 300 mg po tid	<input type="checkbox"/> pain , 4/10 or manageable <input type="checkbox"/> <input type="checkbox"/> nausea under control if not call MD <input type="checkbox"/> <input type="checkbox"/>
<b>5. Fluid Nutrition Elimination</b>	High fiber DAT as tolerated Monitor dietary intake & output q shift (bowel sounds)  IV fluids as per protocol reduce to saline lock when drinking well  Monitor urine output / urinary retention	<input type="checkbox"/> <input type="checkbox"/> no ileus/pt has had bowel movement <input type="checkbox"/> monitor urine output call MD if < 240 ml/8 hrs <input type="checkbox"/> call MD if urinary retention
<b>6. Activity / Mobility</b>	PT treatments bid (as per protocol) OT intervention (as per protocol) Encourage deep breathing and coughing Encourage independence in self care Continue Active / assisted bed and chair exercises TKR/THR progress AAROM exercises THR review precautions Gait training assisted walking in AM and PM Teach safe active assisted transfers from bed to chair and sit to stand Initiate/Continue stair climbing exercise with supervision	Transfers lying ↔ sit   A U sit ↔ standing   A U Stairs   A U Up in chair _____ mins Walk _____ meters _____ Aid _____ Assist  I – independent A- assistance U – unable TKR _____ ROM
<b>7. Client / Family Perspective</b>	Identify and address patient / family concerns	<input type="checkbox"/>
<b>8. Discharge Planning</b>	D/C stable patients home Ed: patient going home on self administration of LMWH (if required) Confirm discharge home for unstable patients including: Home equipment / aids arranged Arrangements made for journey home Confirm outpatient physiotherapy appointment (if applicable) Confirm CCAC (if applicable) D/C slow stream patients to Inpatient Rehab	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Pt temp < 38, <input type="checkbox"/> off O <sub>2</sub> , <input type="checkbox"/> VSS, <input type="checkbox"/> incision intact, <input type="checkbox"/> HB > 80 / asymp., <input type="checkbox"/> voiding well, <input type="checkbox"/> tolerating diet, <input type="checkbox"/> Pt understands rehab goals / outcomes <input type="checkbox"/> Letter to MD done <input type="checkbox"/> Transfer sheet completed <input type="checkbox"/> FU appointment booked

# Clinical Pathway

## Total Hip and Knee Replacement

### Post-op Day 4: Target Discharge

	Interventions	Outcomes
<b>1. Assessment</b>	Assessment as per protocol: VS eg. q shift if stable CSM eg. q shift if stable SaO <sub>2</sub> eg. q shift if stable until pt off O <sub>2</sub> Incision check Pain q4h	<input type="checkbox"/> stable call MD if BP < 90 systolic or temp > 38.5 <input type="checkbox"/> stable <input type="checkbox"/> call MD if pt still requires O <sub>2</sub> <input type="checkbox"/> incision clean / intact <input type="checkbox"/> pain < 4/10 or manageable
<b>2. Tests</b>	PT/INR (if on warfarin), BS (if diabetic)	<input type="checkbox"/>
<b>3. Treatments</b>	Change wound dressings (as per protocol) Inform MD of INR results for Warfarin order (if applicable)	<input type="checkbox"/> incision clean / intact <input type="checkbox"/>
<b>4. Medication</b>	Post op pain management: oral analgesics (as per protocol) Anticoagulation (per protocol) <input type="checkbox"/> LMWH 5,000 IU / day Fragmin <input type="checkbox"/> Warfarin Antiemetics (gravol) as required Bowel routine: (as per protocol) Fe Gluconate 300 mg po tid	<input type="checkbox"/> pain , 4/10 or manageable <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> nausea under control if not call MD
<b>5. Fluid Nutrition Elimination</b>	High fiber DAT as tolerated Monitor dietary intake & output q shift (bowel sounds) Monitor urine output / urinary retention q shift	<input type="checkbox"/> tolerating oral intake <input type="checkbox"/> pt has had bowel movement <input type="checkbox"/> call MD if urinary retention
<b>6. Activity / Mobility</b>	PT treatments bid OT interventions (as per protocol) ADL and assessment of home equipment needs Encourage deep breathing and coughing Encourage independence in self care Continue Active / assisted bed and chair exercises TKR/THR progress AAROM exercises THR review precautions Teach safe active assisted transfers from bed to chair and sit to stand Gait training assisted walking in AM and PM Continue stair climbing exercise with supervision	<b>Transfers</b> lying ↔ sit   A U sit ↔ standing   A U Stairs   A U Up in chair _____ mins Walk _____ meters _____ Aid _____ Assist  I – independent A- assistance U – unable TKR _____ ROM
<b>7. Client / Family Perspective</b>	Express confidence in activity level and safe precautions	<input type="checkbox"/>
<b>8. Discharge Planning</b>	D/C home today	<input type="checkbox"/> <input type="checkbox"/> Pt comfortable with self injection <input type="checkbox"/> CCAC visit / equipment organized <input type="checkbox"/> Arrangements for journey made