Form Title: Hip Fracture, Adult Post-Op Order Set

Form Number: 21171Bond

© 2018, Alberta Health Services, CKCM

This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. The license does not apply to content for which the Alberta Health Services is not the copyright owner.

To view a copy of this license, visit
https://creativecommons.org/licenses/by-nc-nd/4.0/

Disclaimer: This material is intended for use by clinicians only and is provided on an "as is", "where is" basis. Although reasonable efforts were made to confirm the accuracy of the information, Alberta Health Services does not make any representation or warranty, express, implied or statutory, as to the accuracy, reliability, completeness, applicability or fitness for a particular purpose of such information. This material is not a substitute for the advice of a qualified health professional. Alberta Health Services expressly disclaims all liability for the use of these materials, and for any claims, actions, demands or suits arising from such use.
**Hip Fracture, Adult Post-Op Order Set**

Select orders by placing a (✔️) in the associated box

For more information, see *Fractured Hip Care Pathway*

### Goals of Care Designation

*Reassess Goals of Care Designation (GCD) post-op if required*

- ✔️ Anticipated Date of Discharge:
  - □ Date (dd-Mon-yyyy):
  - Choose ONE:
    - □ Greater than 5 days
    - □ Less than 5 days
    - □ Unknown
- ✔️ Clinical Communication: Follow *Fractured Hip Care Pathway*

### Discharge

- Consult Dietitian if Renal Diet selected
- ✔️ High Protein High Calorie Diet: start POD 0
- □ Regular Diet: start POD 0
- □ Diabetic Diet: start POD 0
- □ Renal Diet: start POD 0
- □ Other

**Oral Nutrition Supplement**

Appropriate when patient is on any type of oral diet including Gluten Free and Diabetic – Adult.

*Suitable for lactose intolerance but NOT appropriate for dairy allergy. Start on POD 0 and continue until discharge.*

- ✔️ Ensure Protein Max 90 mL orally three times daily (e.g. 0800, 1400, 2000)
- □ TwoCal HN 60 mL orally three times daily (e.g. 0800, 1400, 2000)
- ✔️ Malnutrition Screening: Complete The Canadian Nutrition Screening Tool (CNST) by POD 1.

Consult Dietician if criteria met for nutrition risk - 2 “yes” answers on screening

### Patient Care

#### Activity

- ✔️ Weight bearing: as tolerated
- □ Weight bearing, restricted; ____________________ (Type of weight bearing) x _______ weeks.
  - Reason for restrictions:
- ✔️ Ambulate on post-op day (POD) 1

### Vital Signs

- ✔️ Vital Signs: temperature (T), pulse rate (P) respiratory rate (RR), blood pressure (BP), oxygen saturation (SpO2), sedation level, and pain scale. As per postoperative routine
- ✔️ Neurovascular Assessment. As per postoperative routine

### Patient Care Assessments

- ✔️ Confusion Assessment Method (CAM): every 8 hours x 14 days and PRN if change in patient’s clinical status. If CAM is positive, contact physician.
- ✔️ Confusion Assessment Method (CAM): daily and PRN if change in patient’s clinical status, start on POD 15. If CAM is positive, contact physician.

  *If CAM is positive, please see Delirium Investigation and Management Orders.*

  *If CAM is negative, please see Delirium Prevention Orders.*

- ✔️ Pressure Injury/Ulcer Prevention: Use pressure injury/ulcer prevention strategies if Braden Score is 18 or less. Refer to local institutional practices until provincial orders available.

If Braden score is 18 or less, please see *Pressure Injury/Ulcer Prevention Order Set*
### Hip Fracture, Adult Post-Op Order Set

#### Patient Care Continued

<table>
<thead>
<tr>
<th>Intake and Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Intake and Output: every shift</td>
</tr>
<tr>
<td>✓ Indwelling catheter – Remove: by early morning POD 1</td>
</tr>
<tr>
<td>✓ Toileting/Elimination: timed toileting 4 times per day</td>
</tr>
<tr>
<td>✓ Bladder Scan: if patient unable to void within 6 hours of indwelling catheter removal and every 6 hours until post void residual volume is less than 200 mL</td>
</tr>
<tr>
<td>✓ In and out catheter: if bladder scan volume is greater than 300 mL</td>
</tr>
<tr>
<td>✓ Clinical communication: discontinue bladder scan when post void residual volume is less than 200 mL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respiratory Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ O2 Therapy – Titrate to Saturation (SpO2): Titrate oxygen to maintain oxygen saturation (SpO2) greater than or equal to 92% or patient baseline</td>
</tr>
<tr>
<td>✓ Maintain on oxygen for 24 hours postoperative</td>
</tr>
<tr>
<td>✓ Deep Breathing and Coughing: every 1 hour and PRN while awake</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wound Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Dressing - Change dressing</td>
</tr>
<tr>
<td>Choose ONE:</td>
</tr>
<tr>
<td>□ POD 2</td>
</tr>
<tr>
<td>□ POD</td>
</tr>
<tr>
<td>□ Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Laboratory Investigations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hematology</strong></td>
</tr>
<tr>
<td>✓ Complete blood count with differential (CBC) daily on POD 1, 2, 3. Notify physician if Hemoglobin is less than 80 g/L or patient is symptomatic</td>
</tr>
<tr>
<td><em>If patient receiving warfarin</em></td>
</tr>
<tr>
<td>□ PT INR daily</td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
</tr>
<tr>
<td>✓ Carbon Dioxide (CO2) daily on POD 1, 2, 3</td>
</tr>
<tr>
<td>✓ Chloride (Cl) daily on POD 1, 2, 3</td>
</tr>
<tr>
<td>✓ Creatinine daily on POD 1, 2, 3</td>
</tr>
<tr>
<td>✓ Magnesium once on POD 1</td>
</tr>
<tr>
<td>✓ Potassium (K) daily on POD 1, 2, 3</td>
</tr>
<tr>
<td>✓ Sodium (Na) daily on POD 1, 2, 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diagnostic Imaging</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>If intraoperative fluoroscopy not completed:</em></td>
</tr>
<tr>
<td>□ Hip X-ray anterior-posterior and lateral (GR Hip, 1 - 2 Projections)</td>
</tr>
<tr>
<td>□ Right Hip</td>
</tr>
<tr>
<td>□ Left Hip</td>
</tr>
<tr>
<td>□ POD 0</td>
</tr>
<tr>
<td>□ POD 1</td>
</tr>
<tr>
<td>□ POD 2</td>
</tr>
<tr>
<td>□ POD 3</td>
</tr>
<tr>
<td>□ Femur X-ray</td>
</tr>
<tr>
<td>□ Right femur</td>
</tr>
<tr>
<td>□ Left femur</td>
</tr>
<tr>
<td>□ POD 0</td>
</tr>
<tr>
<td>□ POD 1</td>
</tr>
<tr>
<td>□ POD 2</td>
</tr>
<tr>
<td>□ POD 3</td>
</tr>
</tbody>
</table>

Prescriber Signature | Date (dd-Mon-yyyy) | Time (hh mm)
Hip Fracture, Adult Post-Op Order Set

IV Maintenance

Choose ONE:
- lactated ringers infusion IV at ______ mL/hour
- sodium chloride 0.9% infusion IV at ______ mL/hour
- dextrose 5% – sodium chloride 0.9% infusion IV at ______ mL/hour

Saline Lock/Flush
- Saline Lock: when patient drinking well
- Intravenous Cannula – Discontinue: after blood work results assessed on POD 3

VTE Prophylaxis

28 days recommended or until back on therapeutic full dose anticoagulation

- Clinical Communication: Anaesthesia confirms that anticoagulation may commence ______ hours postoperative

Choose one (if applicable)

- fondaparinux 2.5 mg SUBCUTANEOUSLY daily x ______ days. Start 6 to 8 hours postoperatively.
- tinzaparin 2500 units SUBCUTANEOUSLY once, 6 hours postoperatively and then 4500 units SUBCUTANEOUSLY every 24 hours x ______ days. Minimum 12 hours between initial dose and first 24 hour dose.
- tinzaparin 4500 units SUBCUTANEOUSLY every 24 hours x ______ days. Start ______ hours postoperatively

Choose for patients less than 40 kg (30 to 39 kg):

Recommended tinzaparin dosing is 75 units/kg (actual body weight) for patients less than 40 kg
- tinzaparin 3500 units SUBCUTANEOUSLY every 24 hours x ______ days. Start ______ hours postoperatively.

Choose for patients less than 30 kg:

Recommended tinzaparin dosing is 75 units/kg (actual body weight) for patients less than 30 kg
- tinzaparin 2500 units SUBCUTANEOUSLY every 24 hours x ______ days. Start ______ hours postoperatively.

Choose for patients greater than 100 kg:

Recommended tinzaparin dosing is 75 units/kg (actual body weight) for patients greater than 100 kg.
See AHS Tinzaparin band dosing chart for VTE prophylaxis for banded dosing
- tinzaparin ______ units SUBCUTANEOUSLY every 24 hours x ______ days. Start ______ hours postoperatively.

For patients with impaired renal function (Creatinine Clearance [CrCl] less than 20 mL/minute)

Choose ONE:

- heparin 5,000 units SUBCUTANEOUSLY every 12 hours x ______ days. Start 6 to 8 hours postoperatively
- tinzaparin 4500 units SUBCUTANEOUSLY every 24 hours x ______ days. Start ______ hours postoperatively.

Patients on warfarin prior to hospital admission
- warfarin ______ mg PO daily.
  Start on POD 0. Adjust daily dose to patient specific target INR range; ______ to ______

Prescriber Signature: ____________________________
Date (dd-Mon-yyyy): ____________
Time (hh mm): ____________

Sample
### Hip Fracture, Adult Post-Op Order Set

**VTE Prophylaxis Continued**

Patients on direct oral anticoagulants (DOAC) prior to hospital admission (dabigatran, rivaroxaban or apixaban. These are not to be used with any other anticoagulant.

Restart when hemostasis is achieved; 24 hours for low bleed risk and 48 hours for high bleed risk procedures.

- Choose one (if applicable)
  - [ ] dabigatran _____ mg PO bid. Start _____ hours (24 or 48 hours) postoperatively.
  - [ ] rivaroxaban _____ mg PO daily. Start _____ hours (24 or 48 hours) postoperatively.
  - [ ] apixaban _____ mg PO bid. Start _____ hours (24 or 48 hours) postoperatively.

**Medications**

**Antibiotic Prophylaxis**
- [ ] ceFAZolin 2g IV every 8 hours x 3 doses. First dose 8 hours after preoperative dose.

**OR** if ceFAZolin allergy or severe non-IgE mediated reaction to any β-lactam antibiotics:

- Choose one (if applicable)
  - [ ] clindamycin 600 mg IV every 8 hours x 3 doses. First dose 8 hours after preoperative dose
  - **OR**
    - [ ] vancomycin ______ IV every 12 hours x 2 doses. First dose 12 hours after preoperative dose.

  *(Less than or equal to 1 g over at least 60 minutes. Greater than 1 g to 1.5 g over at least 90 minutes. Greater than 1.5 g over 120 minutes.)*

**Analgesics and Antipyretics**

*High risk delirium prevention - reduce disruption of sleep at night*

- [ ] acetaminophen 650 mg PO/rectally QID.
  - Maximum 3000 mg acetaminophen per 24 hours from all sources.

- [ ] HYDROmorphine 0.5 mg PO every 2 hours PRN for pain

- [ ] HYDROmorphine 0.25 mg IV/SUBCUTANEOUSLY every 2 hours PRN for pain

**OR**

- [ ] morphine 5 mg PO every 2 hours PRN for pain

- [ ] morphine 2.5 mg IV/SUBCUTANEOUSLY every 2 hours PRN for pain

**Antiemetics**

*Avoid dimenhyDRINATE in the elderly:*

- [ ] ondansetron 4 mg PO/SL every 8 hours PRN for nausea
- [ ] ondansetron 4 mg IV every 8 hours PRN for nausea

**Prescriber Signature**

**Date** *(dd-Mon-yyyy)*

**Time** *(hh mm)*
Hip Fracture, Adult Post-Op Order Set

Select orders by placing a (√) in the associated box
For more information, see Fractured Hip Care Pathway

Bowel Routine
Choose ONE if applicable:

- polyethylene glycol NF 3350 powder
  (PEG 3350 powder oral solution) 17 g
  PO daily
- lactulose 30 mL PO once daily

AND
- senna glycosides 2 tablets (8.6 mg) PO daily at bedtime. Hold if stool is loose
- bisacodyl 10 mg rectally daily PRN for constipation
- sodium phosphate enema 130 mL rectally

For patients with osteoporosis
- elemental calcium 500 mg PO once daily (at noon with meal), start on POD 1
- cholecalciferol (vitamin D3) 2000 units PO daily, start on POD 1

Contraindications: esophageal stricture or impaired swallowing, eGFR less than 35 mL/min
- alendronate 70 mg 1 tab PO weekly at least 30 minutes before breakfast. Patient to remain upright for at least 30 minutes after medication given
  - Start on POD 7
  - Start on POD ____

Contraindications: esophageal stricture or impaired swallowing, Creatinine Clearance less than 30 ml/Min
- risedronate 35 mg PO weekly at least 30 minutes before breakfast. Patient to remain upright for at least 30 minutes after medication given
  - Start on POD 7
  - Start on POD ____

Patient Specific Medications
- Clinical Communication – Medications & IVs: if patient is on beta blocker(s), hold if systolic blood pressure is less than 100 or pulse less than 55, and notify physician
- Clinical Communication – Medications & IVs: if patient is on anti-hypertensives hold if systolic blood pressure is less than 100 and notify physician

Consults and Referrals
- Physiotherapy Referral – assess and treat: post hip fracture surgery
- Occupational Therapy Referral – assess and treat: post hip fracture surgery
- Dietitian Referral: if renal diet ordered
- Dietitian Referral: if patient identified as nutrition risk / or poor intake post-op
- Social Work Referral
- Transition Services Referral
- Other Consult/Referral: __________________________

Discharge Planning
- Discharge plan: assess daily, finalize by POD 5
- Discharge Instructions: transfer to appropriate alternate care facility
- Discharge Instructions: home care/transitional care orders as required
- Discharge Instructions: remove staples/sutures on POD 14

Prescriber Signature Date (dd-Mon-yyyy) Time (hh mm)