Acute Care RN
Protocols & Order sets
Alcohol Withdrawal Order set
Available in Empower
Effective 03/2014
Rev 06/2014

General Nursing orders

Assess patient Vital Signs and alcohol withdrawal status (CIWA-Ar Score):

- Every 2 hours x 24 hours, then q 2 hours while awake, q 4 hours while asleep.

Notify physician if the patient exhibits the following symptoms:

- Severe agitation, hallucinations, or change in orientation status, and any of the following vital sign abnormalities: Oral temperature is greater than 101° F (38.3° C), heart rate is greater than 120, diastolic BP is greater than 110, or systolic BP is greater than 160.

Lab orders

Order the following labs if not already ordered: Liver Function Tests, Magnesium, Phosphate, PTT/PT/INR.

Medication Management - Symptom triggered treatment approach.

CHOOSE ONLY ONE: EITHER Chlordiazepoxide (Librium) OR Lorazepam (Ativan) - Discontinue any previous sedation orders.

Chlordiazepoxide (Librium)*

*Maximum dosage 300mg/day

Check one box Plus a PRN is permitted.

A) Chlordiazepoxide (Librium) 50 mg PO q hr for CIWA-Ar Score of 8 or greater OR
B) Chlordiazepoxide (Librium) 100 mg PO q hr for CIWA-Ar Score of 8 or greater
C) Chlordiazepoxide (Librium) 50mg PO q hour, PRN, IF CIWA-Ar Score is less than 8 and the patient has any of the following: systolic BP > 160; diastolic BP > 100; or HR >100 and etiology is alcohol withdrawal.

Lorazepam (Ativan)

Check one box Plus a PRN is permitted.

A) Lorazepam (Ativan) 2mg PO q hour for CIWA-Ar Score of 8 or greater OR
B) Lorazepam (Ativan) 1mg IV q hour for CIWA-Ar Score of 8 or greater
C) Lorazepam (Ativan) 2mg PO q hour PRN IF CIWA-Ar Score is less than 8 and the patient has any of the following: diastolic BP > 100; or HR > 110 and etiology is alcohol withdrawal.
IV FLUIDS:
A) 0.9% Sodium Chloride with Thiamine 100mg, Folic Acid 1mg, and multivitamin 10ml in first liter at a rate specified by the MD; OR
B) 0.45% Sodium Chloride + 5 % Dextrose with Thiamine 100mg, Folic Acid 1mg, and multivitamin 10ml in first liter at a rate specified by the MD; OR
C) Dextrose 5% with Thiamine 100mg, Folic Acid 1mg, and multivitamin 10ml in first liter at a rate specified by MD; OR
D) Lactated Ringers with Thiamine 100mg, Folic Acid 1mg, and multivitamin 10ml in first liter at a rate specified by MD; OR

If IV access is not available, substitute the below PO orders:

**PO Route:**
- Thiamine 100mg PO STAT and daily x 3 days
- Multivitamin, without Iron, 1 tab PO daily
- Folic Acid 1mg PO daily
### CIWA SCALE

#### Nausea/Vomiting - Rate on scale 0 - 7
- 0: None
- 1: Mild nausea with no vomiting
- 2
- 3
- 4: Intermittent nausea
- 5
- 6
- 7: Constant nausea and frequent dry heaves and vomiting

#### Tremors - have patient extend arms & spread fingers.
Rate on scale 0 - 7.
- 0: No tremor
- 1: Not visible, but can be felt fingertip to fingertip
- 2
- 3
- 4: Moderate, with patient's arms extended
- 5
- 6
- 7: Severe, even w/ arms not extended

#### Anxiety - Rate on scale 0 - 7
- 0: No anxiety, patient at ease
- 1: Mildly anxious
- 2
- 3
- 4: Moderately anxious or guarded, so anxiety is inferred
- 5
- 6
- 7: Equivalent to acute panic states seen in severe delirium or acute schizophrenic reactions.

#### Agitation - Rate on scale 0 - 7
- 0: Normal activity
- 1: Somewhat normal activity
- 2
- 3
- 4: Moderately fidgety and restless
- 5
- 6
- 7: Pacses back and forth, or constantly thrashes about

#### Paroxysmal Sweats - Rate on Scale 0 - 7.
- 0: No sweats
- 1: Barely perceptible sweating, palms moist
- 2
- 3
- 4: Beads of sweat obvious on forehead
- 5
- 6
- 7: Drenching sweats

#### Orientation and clouding of sensorium - Ask, “What day is this? Where are you? Who am I?” Rate scale 0 - 4
- 0: Oriented x3, and can do serial additions
- 1: Cannot do serial additions or is uncertain about date
- 2: Disoriented to date by no more than 2 calendar days
- 3: Disoriented to date by more than 2 calendar days
- 4: Disoriented to place and/or person

#### Auditory Disturbances - Ask, “Are you more aware of sounds around you? Are they harsh? Do they startle you? Do you hear anything that disturbs you or that you know isn’t there?”
- 0: Not present
- 1: Very mild harshness or ability to startle
- 2: Mild harshness or ability to startle
- 3: Moderate harshness or ability to startle
- 4: Slightly loud
- 5: Severe hallucinations
- 6: Extremely severe hallucinations
- 7: Continuous hallucinations

#### Visual disturbances - Ask, “Does the light appear to be too bright? Is its color different than normal? Does it hurt your eyes? Are you seeing anything that disturbs you or that you know isn’t there?”
- 0: Not present
- 1: Very mild sensitivity
- 2: Mild sensitivity
- 3: Moderate sensitivity
- 4: Moderate hallucinations
- 5: Severe hallucinations
- 6: Extremely severe hallucinations
- 7: Continuous hallucinations

#### Tactile disturbances - Ask, “Have you experienced any itching, pins & needles sensation, burning or numbness, or a feeling of bugs crawling on or under your skin?”
- 0: None
- 1: Very mild itching, pins & needles burning, or numbness
- 2: Mild itching, pins & needles burning, or numbness
- 3: Moderate itching, pins & needles burning, or numbness
- 4: Moderate hallucinations
- 5: Severe hallucinations
- 6: Extremely severe hallucinations
- 7: Continuous hallucinations

#### Auditory Disturbances - Ask, “Does your head feel different than usual? Does it feel like there is a band around your head?” Do not rate dizziness or lightheadedness.
- 0: Not present
- 1: Very mild
- 2: Mild
- 3: Moderate
- 4: Moderately severe
- 5: Severe
- 6: Very severe
- 7: Extremely severe
Procedure

1. Assess and rate each of the 10 criteria of the CIWA scale. Each criterion is rated on a scale from 0 to 7, except for “Orientation and clouding of sensorium” which is rated on scale 0 to 4. Calculate the CIWA-Ar score for the patient using the Empower based tool. Document vitals and CIWA-Ar assessment in the patient’s chart.
Diltiazem (Cardizem) drip Order Set

Available in Empower
Effective. 03/2014
Rev. 06/2014

INDICATION: Atrial fibrillation with sustained (greater than 30 minutes) heart rate greater than 120 bpm and systolic blood pressure greater than 100mmHg

GENERAL NURSING

1. Telemetry with continuous cardiac monitoring
2. Vital signs prior to administration, and 15 minutes after each bolus and every 15 minutes x 1 hour, then every 30 minutes x 2, then every 1 hour x 2 then every 4 hours during administration of diltiazem.
3. Check BMP, serum magnesium, and TSH, T3, T4 if not done yet.
4. Implement ‘Electrolytes Replacement Protocol’
5. Target heart rate after Cardizem drip initiation is less than 110 (resting) unless stated otherwise by MD.

MEDICATIONS

A) Diltiazem (Cardizem) initial dose 0.25mg/kg (actual body weight, maximum 20mg) IV bolus over 2 minutes.
B) Follow immediately with diltiazem drip 125mg/125ml D5W (concentration=1mg/ml), start at 10mg/hr (10ml/hr)
C) If heart rate is greater than 120 after 30 minutes of 10mg/hr drip, rebolus with 0.35mg/kg (actual body weight, maximum 25mg) diltiazem IV over 2 minutes and increase drip by 5mg/hr to a maximum of 15mg/hr.
D) If heart rate remains uncontrolled (greater than 120) after 1 hour with the drip at 15mg/hr, Notify physician for further treatment.
E) If systolic BP drops below 100mmHg, stop the drip until systolic BP is greater than 100mmHg. When systolic BP is greater than 100mmHg, restart drip at half the previous rate.
F) If patient becomes bradycardic (heart rate less than 40) or develops a three second or greater pause on EKG, stop infusion and notify the physician.
G) If the patient develops symptomatic hypotension stop the drip and notify the physician.
Amiodarone Order Set
Available in Empower
Effective 03/2014
Rev. 06/2014

GENERAL NURSING
1. Telemetry with continuous cardiac monitoring.
2. Discontinue drip if systolic BP is less than 90 or HR is less than 60, and notify physician.
3. Must NOT be infused concomitantly with any other agents.
4. Must be administered with an in line filter (0.2 micron).
5. Implement ‘Electrolytes Replacement Protocol’

LABORATORY
2. BMP and Magnesium if not done yet

MEDICATION
Loading dose: Amiodarone 150 mg in 100 ml D5W.
Concentration is 1.5 mg/ml. (Not compatible with Normal Saline)

LOADING: Amiodarone 150 mg infusion over the first 10 minutes.
Set the pump to infusion at 600 ml/hour for ten minutes to deliver the 150 mg dose.

Infusion dose: Amiodarone 450mg in 250ml D5W
(Concentration is 1.8 mg/ml/Not compatible with Normal Saline). After the 150 mg bolus over 10 minutes, follow the below continuous and maintenance dosing guidelines.
CONTINUOUS: Amiodarone at a rate of 1 mg/minute (33.3 ml/hour) over the next 6 hours.
MAINTENANCE: After 6 hours, reduce the infusion to the maintenance infusion rate of 0.5 mg/minute (16.6 ml/hour)
**Medication:**
Insulin Lispro (Humalog) given subcutaneous

Dosing Regimens (appropriate for ages 12 and older)

<table>
<thead>
<tr>
<th>1. Start sliding scale with:</th>
<th>Low dose</th>
<th>Moderate dose</th>
<th>High dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Glucose (BG) Level (mg/dL)</td>
<td>Low Dose Regimen Suggested for thin, elderly, or renally-impaired patients</td>
<td>Moderate Dose Regimen Suggested for average weight patients</td>
<td>High Dose Regimen Suggested for overweight patients</td>
</tr>
<tr>
<td>Less than or equal to 50</td>
<td>Hypoglycemia Protocol/Order Set</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51–100</td>
<td>If BG is 51-100 <strong>twice</strong> in 24 hours, call physician and suggest next LOWER dose regimen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>101-150</td>
<td>0</td>
<td>0</td>
<td>2 units</td>
</tr>
<tr>
<td>151-200</td>
<td>0</td>
<td>2 units</td>
<td>5 units</td>
</tr>
<tr>
<td>201-250</td>
<td>2 units</td>
<td>4 units</td>
<td>10 units</td>
</tr>
<tr>
<td>If BG &gt; 250 mg/dL <strong>twice</strong> in 24 hours, call physician and suggest next HIGHER dose regimen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>251-300</td>
<td>4 units</td>
<td>8 units</td>
<td>15 units</td>
</tr>
<tr>
<td>301-350</td>
<td>6 units</td>
<td>10 units</td>
<td>18 units</td>
</tr>
<tr>
<td>351-400</td>
<td>8 units</td>
<td>12 units</td>
<td>20 units</td>
</tr>
<tr>
<td>&gt; 400</td>
<td>Call physician for insulin dose</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Monitor blood glucose:
For patients who are NPO or have continuous enteral feeding
**Every 6 hours** (0000 – 0600 – 1200 – 1800)

For patients who are PO
**AC & HS** (30 minutes prior to meals and at 2100)

3. Nursing to notify physician who prescribed insulin protocol of any new NPO orders.
Hypoglycemia Order set
Available in Empower
Effective, 03/2014
Rev. 06/2014

Blood glucose \( \leq 50 \): If patient can tolerate PO, administer 15 grams of fast acting carbohydrate, such as 4 oz of juice or 1 packet of glucose tablets or 8 oz. of milk or 6 oz of regular soda. Recheck blood glucose in 15 minutes.

Blood glucose \( \leq 50 \): If mental status changes are noted, administer dextrose 50% IV and follow protocol. If patient is NPO administer dextrose 50% IV (one 50mL syringe). Notify the Physician. Recheck blood glucose in 15 minutes.

If blood sugar after 15 minutes is still \( \leq 50 \), retreat as above and call for Stat glucose via lab venous puncture. Notify the Physician.
**Electrolytes Replacement Protocol**

*Effective 03/2014*  
*Rev. 06/2014*

1. **Magnesium Replacement:**

| Creatinine | MG++ LEVEL
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than or Equal To 1.5</td>
<td>1.6 – 1.7</td>
</tr>
<tr>
<td>Magnesium Sulfate 3gm in 50ml D5/W IVPB over 2 hours</td>
<td>Magnesium Sulfate 2gm in 50ml D5/W IVPB over 2 hours</td>
</tr>
<tr>
<td>Repeat MG+ Level in a.m.</td>
<td>Repeat MG+ Level in a.m.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Greater Than 3.0</th>
<th>Magnesium Sulfate 2gm in 50ml D5/W IVPB over 2 hours</th>
<th>Magnesium Sulfate 1gm in 50ml D5/W IVPB over 1 hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeat MG+ Level in a.m.</td>
<td>Repeat MG+ Level in a.m.</td>
<td>No RX</td>
</tr>
</tbody>
</table>

2. **Potassium (oral) Replacement (For patients able to take orally):**

| Creatinine | K+ LEVEL
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2.0</td>
<td>2.5 – 3.1</td>
</tr>
<tr>
<td>&lt;2.0</td>
<td>Call Physician</td>
</tr>
<tr>
<td>2.0 – 3.0</td>
<td>Call Physician</td>
</tr>
<tr>
<td>&gt;3.0</td>
<td>Call Physician</td>
</tr>
</tbody>
</table>

*RN to import protocol into Empower patient’s chart.*
Electrolytes Replacement Protocol (continuation)*

**Effective. 03/2014**

**Rev. 06/2014**

3. Potassium (IV) Replacement** (For patients not able to take / tolerate orally):

<table>
<thead>
<tr>
<th>Creatinine</th>
<th>K+ Level</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2.0</td>
<td>2.5 – 3.1</td>
<td>3.2 – 3.5</td>
<td>3.6 – 3.8</td>
</tr>
<tr>
<td></td>
<td>40 MEQ KCL in 250ml D5/W (PIV) over 4 hours followed by 20 MEQ KCL in 100ml D5/W (PIV) over 2 hours <strong>OR</strong> 60 MEQ KCL in 250ml D5/W (Central Line) over 6 hours. Repeat K+ level 2 hours after infusion completed and follow protocol.</td>
<td>40 MEQ KCL in 250ml D5/W (PIV) over 6 hours <strong>OR</strong> 40 MEQ KCL in 100ml D5/W (Central Line) over 6 hours. Repeat K+ level in a.m. and follow protocol.</td>
<td>20 MEQ KCL in 100ml D5/W (PIV or Central Line) over 2 hours. Repeat K+ Level in a.m. and follow protocol.</td>
</tr>
<tr>
<td>2.0 – 3.0</td>
<td>40 MEQ KCL in 250ml D5/W (PIV) over 6 hours <strong>OR</strong> 40 MEQ KCL in 100ml D5/W (Central Line) over 6 hours. Repeat K+ level 2 hours after infusion completed and follow protocol.</td>
<td>40 MEQ KCL in 250ml D5/W (PIV) over 6 hours <strong>OR</strong> 40 MEQ KCL in 100ml D5/W (Central Line) over 6 hours. Repeat K+ level in a.m. and follow protocol.</td>
<td>20 MEQ KCL in 100ml D5/W (PIV or Central Line) over 2 hours. Repeat K+ level in a.m. and follow protocol.</td>
</tr>
</tbody>
</table>

- Call Attending Physician if K+ is less than 3.8 & Creatinine is greater than 3.0
- Call Attending Physician if K+ is less than 2.5 OR K+ is greater than 5.5

*RN to import protocol into Empower patient’s chart.

** If patient cannot tolerate KCl infusion secondary to pain, add 20 mg (2ml of 1%) Lidocaine HCl injection to KCl bag.
Administration of Heparin for ACS*

Effective. 03/2014
Rev. 06/2014

1. LABORATORY

   a. **STAT** PTT, PT/INR and CBC prior to heparin bolus
   b. **STAT** PTT, 6 hours after heparin bolus
   c. CBC daily and notify physician of a drop in Hemoglobin >2 or a drop in platelet count <100,000.

2. MEDICATION: All patients to receive heparin bolus automatically per protocol unless otherwise specified by physician. All heparin infusion bags will be dispensed in Dextrose 5% Water unless otherwise stated.

   a. HEPARIN BOLUS: 60 units/kilogram IV (Max bolus dose 4000 units) THEN
   HEPARIN DRIP RATE: 12 units/kilogram/hour (Max rate 1000 units/hour)

HEPARIN DOSAGE ADJUSTMENT

<table>
<thead>
<tr>
<th>PTT (seconds) Baseline 21-33 seconds</th>
<th>Dosage Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 40</td>
<td><strong>Bolus with 40 units/kilogram IV and increase drip rate by 2 units/kilogram/hour.</strong> Recheck PTT in 6 hours</td>
</tr>
<tr>
<td>41-49</td>
<td><strong>Repeat Bolus with 30 units/kilogram IV and increase drip rate by 1 unit/kilogram/hour.</strong> Recheck PTT in 6 hours</td>
</tr>
<tr>
<td>50-70</td>
<td><strong>Therapeutic Range</strong>, no change; Repeat PTT every 6 hours until 2 consecutive therapeutic PTT’s are achieved; then repeat PTT every 24 hours</td>
</tr>
<tr>
<td>71 - 90</td>
<td><strong>Reduce</strong> drip by 1 unit/kilogram/hour. Recheck PTT in 6 hours</td>
</tr>
<tr>
<td>91 - 99</td>
<td><strong>Reduce</strong> drip by 2 units/kilogram/hour. Recheck PTT in 6 hours</td>
</tr>
<tr>
<td>greater than 100</td>
<td><strong>Hold infusion for 30 minutes and reduce</strong> drip by 3 units/kilogram/hour. Recheck PTT in 6 hours</td>
</tr>
</tbody>
</table>

*RN to import protocol into Empower patient’s chart.*
**Administration of Heparin for DVT-PE**

*Effective. 03/2014
Rev. 06/2014*

1. **LABORATORY**
   
   a. **STAT** PTT, PT/INR and CBC prior to heparin bolus
   
   b. **STAT** PTT, 6 hours after heparin bolus
   
   c. **CBC Daily** and notify physician of a drop in HGB >2 or a drop in platelet count <100,000.

2. **Medication Orders:** All patients to receive heparin bolus automatically per protocol unless otherwise specified by physician. All heparin infusion bags will be dispensed in Dextrose 5% Water unless otherwise stated.

<table>
<thead>
<tr>
<th>Patient Weight (kilograms)</th>
<th>Heparin IV Bolus 80 units / kg <em>Use 5000 units/ml vial</em></th>
<th>Initial Heparin Infusion Rate 18 units / kilogram / hour <em>Use Pre-mixed Bag =100 units/ml</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>less than or equal to 49</td>
<td>4000 units = 0.8 ml</td>
<td>800 units/hour = 8 ml/hour</td>
</tr>
<tr>
<td>50 - 57</td>
<td>4500 units = 0.9 ml</td>
<td>900 units/hour = 9 ml/hour</td>
</tr>
<tr>
<td>58 - 64</td>
<td>5000 units = 1 ml</td>
<td>1000 units/hour = 10 ml/hour</td>
</tr>
<tr>
<td>65 - 71</td>
<td>5500 units = 1.1 ml</td>
<td>1200 units/hour = 12 ml/hour</td>
</tr>
<tr>
<td>72 - 78</td>
<td>6000 units = 1.2 ml</td>
<td>1300 units/hour = 13 ml/hour</td>
</tr>
<tr>
<td>79 - 85</td>
<td>6500 units = 1.3 ml</td>
<td>1400 units/hour = 14 ml/hour</td>
</tr>
<tr>
<td>86 - 92</td>
<td>7000 units = 1.4 ml</td>
<td>1500 units/hour = 15 ml/hour</td>
</tr>
<tr>
<td>93 - 99</td>
<td>7500 units = 1.5 ml</td>
<td>1700 units/hour = 17 ml/hour</td>
</tr>
<tr>
<td>100 - 105</td>
<td>8000 units = 1.6 ml</td>
<td>1800 units/hour = 18 ml/hour</td>
</tr>
<tr>
<td>106 - 113</td>
<td>8500 units = 1.7 ml</td>
<td>1900 units/hour = 19 ml/hour</td>
</tr>
<tr>
<td>114 - 119</td>
<td>9000 units = 1.8 ml</td>
<td>2000 units/hour = 20 ml/hour</td>
</tr>
<tr>
<td>120 - 124</td>
<td>9500 units = 1.9 ml</td>
<td>2200 units/hour = 22 ml/hour</td>
</tr>
<tr>
<td>Greater than 125</td>
<td>10000 units = 2 ml</td>
<td>2300 units/hour = 23 ml/hour</td>
</tr>
</tbody>
</table>

**MAX BOLUS:** 10000 UNITS   **MAX RATE:** 2300 UNITS/HR

**HEPARIN DOSAGE ADJUSTMENT**

*(next page)*

*RN to import protocol into Empower patient’s chart.*
HEPARIN DOSAGE ADJUSTMENT - Administration of Heparin for DVT-PE

<table>
<thead>
<tr>
<th>PTT (seconds) Baseline = 22-34 seconds</th>
<th>Dosage Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 50</td>
<td>Repeat Full Bolus (80 units/kg) and increase drip rate by 4 units/kg/hr. Recheck aPTT in 6 hours</td>
</tr>
<tr>
<td>51 – 61</td>
<td>Repeat 1/2 Bolus (40 units/kg) and increase drip rate by 2 units/kg/hr. Recheck aPTT in 6 hours</td>
</tr>
<tr>
<td>62 – 94 <strong>Therapeutic Range</strong>, NO change. Repeat aPTT every 6 hours until 2 consecutive therapeutic aPTTs are achieved, then repeat aPTT every 24 hours.</td>
<td></td>
</tr>
<tr>
<td>95 – 105</td>
<td>Reduce drip 2 units/kg/hr. Recheck aPTT in 6 hours</td>
</tr>
<tr>
<td>106 – 116</td>
<td>Hold Heparin infusion for 30 minutes and reduce drip by 3 units/kg/hr. Recheck aPTT in 6 hours</td>
</tr>
<tr>
<td>Greater Than 117</td>
<td>Hold Heparin infusion for 60 minutes and reduce drip by 4 units/kg/hr. Recheck aPTT in 6 hours</td>
</tr>
</tbody>
</table>

*RN to import protocol into Empower patient’s chart.*
Contrast Allergy Premedication Order Set

Effective. 03/2014
Rev. 06/2014

1. Assess the patient’s prior history for contrast, iodine or shellfish allergies.
2. Notify the radiologist when pre-medication for contrast allergy is indicated.
3. If the patient is an emergent case administer pre-medications per physician orders.
4. Review the signs and symptoms of allergic reaction with the patient, having them demonstrate adequate understanding. Signs and symptoms of allergic reaction include but are not limited to:
   a. Skin: redness, hives, pruritus, flushing, urticaria
   b. Respiratory: nasal congestion, rhinorrhea, itchy throat or nose, difficulty breathing, wheezing, coughing
   c. Ocular: itchy, watery eyes, edema
   d. GI: nausea, vomiting, diarrhea, abdominal cramps
   e. Cardiovascular: dizziness, syncope, chest pain, palpitations.
   f. Neurological: headache, rarely seizures

Medication:
   If Patient is able to take Oral medication:
   1. Prednisone 50mg PO at 13 hours, 7 hours and 1 hour before contrast injection
   2. Diphenhydramine 50mg PO 1 hour before contrast injection

   If Patient is unable to take oral medication:
   1. Hydrocortisone 200mg IV at 13 hours, 7 hours and 1 hour before contrast injection
   2. Diphenhydramine 50mg IV 1 hour before contrast injection
Pressure ulcer prevention and wound care treatment guidelines

Effective. 03/2014
Rev. 06/2014

PURPOSE

To provide a standardized approach to skin and wound care. To assess risk status, as well as the presence of acute and chronic wounds. To initiate preventive and/or therapeutic interventions with the goal of preventing pressure ulcers and promoting optimal wound healing.

POLICY

In collaboration with the Medical Staff, Nursing and Physical Therapy Departments, this policy has been developed. It is intended that Nursing will initiate the pressure ulcer prevention and wound care treatment guidelines to provide quality evidence based patient care. These guidelines have been approved by the Medical Staff Committee to allow Nursing to implement these guidelines for all patients admitted to the Hospital.

PROCEDURE

1. Upon admission, a patient's skin (head to toe) is assessed. Pressure Ulcer Risk Assessment (Braden Scale) is completed and documented. If the presence of wounds on admission, or if wounds are detected during daily re-assessments is documented on the Electronic Health Record, the RN will implement the Pressure Ulcer Prevention and Wound Care Guidelines. Physician is notified of presence of acute or chronic wounds.
   • Reassessment of pressure ulcer risk is completed every shift and when patient's condition changes. Risk status is documented on the Electronic Health Record.
   • Head to toe skin assessment is performed
   • Depending on the type of wound, assessment and documentation include the following: the size, location, and appearance of the wound; the presence of any drainage or odor and additionally, if the wound is a pressure ulcer, the stage of the wound.
   • Wounds are measured in cm, length x width x depth with wound measuring guide.
   • Obtain signed consent from patient or patient's representative PRIOR to photographing wounds (Consent to Photograph form attached).
   • Wounds will be accurately documented through the use of photography upon admission, with every dressing change or every 24 hours, and at discharge in addition to written documentation of wound characteristics and measurements.
   • Photographs must be downloaded to computer, printed in color, signed and dated by RN, and scanned into Empower.
   • Document when wound resolves.
2. Pressure ulcers are sized and staged upon admission, or with any signs of skin/wound deterioration and upon discharge. Lower leg ulcers (Venous, Diabetic, Arterial, Mixed Arterial-Venous) and skin tears are sized and assessed for appearance, drainage and odor. Assessment is on the Electronic Health Record.

3. Based on the Risk Assessment score (for pressure ulcers) and wound characteristics, acute and chronic wounds are managed using the Pressure Ulcer Prevention and Wound Care Treatment Guidelines. If the patient requires more extensive management (e.g., Alternative wound care therapies – Pulse lavage, negative pressure wound therapy, enzymatic debridement agents, a physician order is obtained for Physical Therapy Wound Evaluation and Care Consult.

4. Referral to Physical Therapy by the RN is recommended for patients with stage 3 and stage 4 pressure ulcers, as well as complex, draining non-pressure related wounds.

5. Ongoing assessment / evaluation of wound is documented every shift by the RN on the Electronic Health Record, and reported to the physician daily. Integrity of dressing (if present) or wound (if open to air) is observed for drainage, foul odor and tissue necrosis. Assess surrounding skin for inflammation, edema and tenderness. Change dressing when soiled and every 3 days based on type of dressing and manufacturer recommendations and document.

6. Assess for pain related to pressure ulcer(s) / wounds and/or their treatment. Document pain level and management on the Electronic Health Record.

7. Notify physician of changes in skin integrity / deterioration in ulcer appearance (redness, irritation, edema, tenderness, actual skin breakdown, etc.) and document.

8. Complete hospital occurrence report on any pressure ulcer(s) that occur during the patient’s hospitalization.

REFERENCE


Solutions® Algorithms for Skin & Wound Care, 2011 ConvaTec Inc.

Assessment

Assess individual risk for developing pressure ulcers (Braden) and document.
Complete Head to Toe skin/wound assessment and document.
Implement Pressure Ulcer Prevention and Wound Care Treatment Guidelines.
Notify physician of presence of acute and chronic wounds.
Reassess skin integrity risk (Braden) every shift and when patient’s condition changes.
Head to toe skin assessment is performed every shift.
Perform ongoing assessment/evaluation
Complete hospital occurrence report on any pressure ulcer(s) that occur during the patient’s hospitalization.
Notify Manager/Director by end of shift.

Prevention

Obtain nutritional consult when the Braden score is 18 or less.
Place on therapeutic mattress (pressure redistribution support surface) / specialty bed.
Utilize Low Air Loss Support Surface Overlay when indicated.
Utilize pressure redistribution devices (i.e. heel protectors, seat cushions, body wedges, ear pads) to reduce/relieve pressure.
Reposition bedbound patient at a minimum of every 2 hours. If unable to position self in chair, reposition chair bound patient every 1 hour and encourage shifting of position every 15 minutes.
Reduce shear/friction/moisture: Utilize every day moisturizer, moisture barrier ointment and skin protectant paste as indicated. Use transfer or assistive devices.
Elevate head of bed less than or equal to 30 degrees consistent with patient’s condition to prevent sliding and shear related injury.
Assess need for incontinences management. Utilize absorbent under pads, no diapers.
Apply skin protective paste or moisture barrier ointment to skin exposed to moisture due to incontinence, perspiration or wound drainage.
Use containment device (e.g., external male catheter, fecal collection pouch, fecal management system) as indicated.

Stage I Pressure Ulcer

Implement/continue prevention care
Maintain intact skin
Cleanse with warm water, pat skin dry
Refrain from massaging reddened skin over bony prominences
Protect skin from further injury
Place on pressure redistribution support surface
Protect skin against friction and shear
Stage II Pressure Ulcer / Partial Thickness Wounds

Open Skin
- Cleanse with wound cleanser or Normal Saline
- Implement prevention care
- Assess wound
- Apply hydrating gel, if needed, to dry wound bed
- Cover with a hydrocolloid
- Change when soiled and every 3 days based on type of dressing and manufacturer recommendations.

Intact Blister
- Do not open or drain
- Cover with a protective foam dressing
- Change when soiled and every 3 days based on type of dressing and manufacturer recommendations.

Stage III & Stage IV Pressure Ulcers or Full Thickness Wounds

Shallow / Dry
- Cleanse with wound cleanser or Normal Saline
- Apply hydrating gel, if needed, to dry wound bed
- Cover with moisture-retentive hydrocolloid dressing
- Change when soiled and every 3 days based on type of dressing and manufacturer recommendations.

Shallow / Draining:
- Cleanse with wound cleanser or Normal Saline
- To provide exudate management, apply absorbent wound filler (Hydrofiber/alginate dressing)
- Cover with Moisture-retentive dressing (Hydrocolloid)
- For excessive drainage, apply absorbent wound filler (Hydrofiber Dressing)
- Cover with moisture-retentive foam dressing.
- Change when soiled and every 3 days based on type of dressing and manufacturer recommendations.

Deep / Dry
- Cleanse with wound cleanser or Normal Saline
- Apply hydrating gel or premoistened hydrofiber dressing(s) to provide wound hydration and fill dead space
- Cover with moisture-retentive dressing (Hydrocolloid)
- Change when soiled and every 3 days based on type of dressing and manufacturer recommendations.
Deep / Draining
Cleanse with wound cleanser or Normal Saline
Fill wound bed with absorbent wound filler (hydrofiber/alginate) to provide exudate management and fill dead space
Cover with moisture-retentive dressing (hydrocolloid)
For excessive drainage, fill wound with wound filler (Hydrofiber/alignate) then cover with moisture – retentive foam dressing
Change when soiled and every 3 days based on type of dressing and manufacturer recommendations

Unstageable Pressure Ulcer (Depth Unknown)* Wound base obscured by slough (yellow, tan, gray, green or brown) and/or Eschar (Tan brown or black)
*NEEDS DEBRIDEMENT (i.e. AUTOLYTIC, ENZMATIC, SHARP/SURGICAL)

Dry Wound Bed
Cleanse with wound cleanser or Normal Saline
Apply hydrating gel or premoistened hydrofiber/alginate
Cover with moisture retentive dressing (Hydrocolloid)
Change when soiled and every 3 days based on type of dressing and manufacturer recommendation

Draining Wound Bed
Cleanse with wound cleanser or Normal Saline
Fill wound with absorbent wound filler (Hydrofiber/Alginate) to provide exudate management and fill dead space
Cover with moisture-retentive hydrocolloid dressing
For excessive drainage, fill wound with Hydrofiber/Alignate dressing
Cover with moisture – retentive dressing foam dressing
Change when soiled and every 3 days based on type of dressing and manufacturer recommendation

Wound Debridement*

Autolytic – Removal of necrotic (devitalized) tissue by the body’s own enzymes in the presence of a moist wound healing environment (liquefaction of necrotic tissue) accompanying by use of moisture retentive dressing.

Enzymatic – (chemical) Removal of devitalized tissue by use of proteolytic enzymes (Santyl)

Sharp/Surgical – Qualified provider removes devitalized tissue with scalpel or other sharp instrument.
Suspected Deep Tissue Injury (DTI)

Utilize pressure redistribution devices to redistribute (reduce/relieve) pressure as indicated (e.g., heel protectors, seat cushion, body wedge)
- Cleanse with wound cleanse or Normal Saline
- Sacrum: Apply silicone foam dressing for protection
- Heels: Apply protectant barrier and heel protector/elevator

Stable Dry Adherent Eschar Heels, Toes, Foot (Pressure Ulcers, Arterial, Diabetic)

- Leave open to the air and observe daily
- Debridement is not recommended unless circulation to the area can be improved.
- Moisture-retentive dressings (Hydrocolloid) will aid autolytic debridement. They should not be used on stable pressure, arterial, and diabetic ulcers where debridement is contraindicated.

Infection or Tissue at Risk of Infection

- Cleanse with wound cleanser or Normal Saline
- Systemic therapy as prescribed
- Local therapy – Antimicrobial dressing (e.g., silver dressing – alginate/hydrofiber.
- Cover with moisture retentive dressing (e.g., foam dressing)
- For surrounding skin, consider antifungal ointment, powder or cream for cutaneous fungal infections.
- If dressing in place, change when soiled and every 3-7 days based on type of dressing and manufacturer recommendation.

Skin Tears

- Cleanse with wound cleanser or Normal Saline
- Apply absorbent wound filler if indicated (Hydrofiber Dressing)
- Cover with moisture-retentive dressing (Non-adhesive foam) and wrap with Kling or Kerlex
- Change when soiled and every 3 days based on type of dressing and manufacturer recommendation.

Reference:
- Skin and Wound Care Policy and Procedure
- Solutions® Algorithms for Skin & Wound Care, 2011 ConvaTec Inc.
- National Pressure Ulcer Advisory Panel
- Agency for Healthcare Research and Quality (AHRQ)
Adopted by the Medical Staff, 6/20/2014

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Approved by the Board, 7/07/2014

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