Procedure: Independent Chemotherapy Dose Verification (MUNSON)
Checklist: Independent Chemotherapy Dose Verification (MUNSON)
Evaluator's Name: _____ **Examinee's Name:** _____
Evaluator's ID: _____ **Examinee's ID:** _____
Evaluator's Dept: _____ **Examinee's Dept:** _____
Date: _____ **Meets criteria/Does not meet criteria:** _____
Select Evaluation Method:
☐ Clinical Observation ☐ Documentation Review
☐ Demonstration ☐ Verbalization

Independent Chemotherapy Dose Verification (MUNSON)

Objective: Provide an independent verification of chemotherapy dose calculations prior to treatment administration.
This process will be followed for any pediatric or adult patient receiving chemotherapy.
Item I:
Prior to Chemotherapy Administration:
☐ Assesses the original provider order for specific treatment doses (i.e.-mg/kg, mg/m^2).
☐ Assures availability of current patient height, weight, and lab values required for treatment.

- Determine body mass index (BMI) if gynecologic/oncology patient receiving carboplatin.

☐ Calculates body surface area (BSA, mg/m^2) if required for dosing.

- Adults - Dubois formula
- Pediatrics - Mosteller formula

☐ Assesses current lab values for absolute neutrophil count, if required for dose verification.

- (% Segs + % Bands) x WBC divided by 100

☐ Assesses current values for serum creatinine (SCr), weight and age if creatinine clearance required for dose verification.

- Cockroft-Gault formula using actual weight (*for gyn/onc CARBOplatin patient, see below)
- Minimum SCr = 0.7 mg/dL, Maximum CrCL = 125 mL/min
- (140-age) x Weight (kg) x 0.85 (if female)

72 x SCr

** for gyn/onc patients with BMI ≥ 25, use adjusted body weight in carboplatin dose calculation.*
Adjusted body weight (female) = IBW + [0.4 x (actual weight – IBW)]
☐ Calculates AUC dosing using Calvert formula for patient receiving CARBOplatin therapy

- (Creatinine Clearance + 25) x desired AUC = CARBOplatin dose in mg

Item II:
☐ Nurse providing chemotherapy double-check should independently complete all steps listed in Item I.
Item III:
☐ Demonstrates appropriate charting consistent with policy and procedure and EMR requirements. ☐ Records electronic signature as primary nurse or double-checking nurse in EMR indicating completion of independent verification process.
Competence in the task will be recognized according to achievement of the indicators listed.
Need for competency identified by: (delete all that do not pertain to this task)

- New Procedure/Software
- High Risk

Method of validation: (delete all that do not pertain to this task)

- Direct Observation by peer/manager
- Classroom/Return Demonstration

Action Plan/Comment - (develop for all findings 'not met'; attach to *Annual List of Competencies* form)

Status Active PolicyStat ID 16539731

Origination	2/4/2010
Last Approved	9/6/2024
Effective	9/6/2024
Last Revised	10/25/2021
Next Review	9/6/2027

Owner	Angela Richardson-Gross: Mgr Nursing Services
Area/ Department	Oncology
Applicability	Munson Healthcare Systemwide
Tags	Guideline

Neutropenic Precaution

Purpose

To provide guidelines for nursing management of patients with neutropenia and those patients at risk for neutropenia secondary to disease, chemotherapy treatment or radiation therapy. ***Exemption for outpatient infusion clinics.***

Definitions

1. **Neutropenia**: A decrease in number of circulating neutrophils in the blood evidenced by an absolute neutrophil count (ANC) less than 1000 mm3.
2. **Neutropenic Fever:** Temperature greater than 38°C (100.4°F) in the setting of neutropenia. Neutropenic patients may not show the classic signs of infection because they have a suppressed immune system.
3. **ANC Calculation**
   $$\text{ANC} = \frac{(\%\ \text{neutrophils} + \%\ \text{bands}) \times \text{white blood cell (WBC)}}{100}$$

Guideline

A. ***Exemption for outpatient infusion clinics.***

B. Neutropenic guidelines will be instituted for patients with an ANC below 1000/mm3.

   1. Patient must be in a private room.

2. A “Neutropenic Precautions” sign must be posted on the door (orderable form via Allscripts #81040).
3. Strict adherence to hospital hand hygiene guidelines by all staff, patients, and visitors entering the room.
4. Use dedicated or disposable equipment when necessary. Clean/disinfect any equipment before taking it into the room.
5. Eliminate sources of stagnant water – change water frequently in containers (e.g. water cups, denture cups, respiratory equipment).
6. No fresh or dried flowers, live plants or moss allowed.
7. Avoid trauma to skin and mucus membranes:
    a. **Prohibit use (unless approved by provider aware of neutropenia status) of any rectal or genitourinary instrumentation including catheters, tampons, enemas, rectal thermometers/tubes, rectal exams and suppositories**
    b. Prevent constipation
    c. Use electric razors
    d. Recommend soft bristled toothbrush, do not floss, or use an alcohol-based mouthwash
8. No pet visitation allowed for neutropenic patients.
9. Neutropenic patients must wear a mask when out of the room.
10. Neutropenic patients should not be placed in a negative pressure room.
11. Neutropenic Food Guidelines:
    a. Keep hot food greater than 140° and cold foods less than 45° until ready to serve
    b. Wash fruits and vegetables before use
    c. No raw or undercooked eggs
    d. Use only pasteurized dairy, fruit juices and honey
    e. Do not eat undercooked meat or fish

Assessment

A. Laboratory data will be used to assess the presence of neutropenia evidenced by ANC calculation.

B. Monitor vital signs every 4 hours and as needed (prn), or as directed by a provider.

C. Assess oral cavity and skin integrity every shift.

D. Assess respiratory function every eight hours and prn. Note changes in breath sounds, rate and rhythm. Encourage coughing, deep breathing, and ambulation as tolerated.

E. Assess for change in genitourinary function: Frequency, dysuria, odor, cloudy, or hematuria. Assess perirectal area: Lesions, swelling, erythema, or c/o tenderness. Assess for presence of vaginal discharge.

F. Inspect any interrupted sites of skin integrity, peripheral intravenous (IV), central venous access device (CVAD), venipuncture sites, etc.

G. Monitor for erythema, swelling, pain or tenderness.

Hygiene

A. Meticulous oral and personal hygiene:
    1. Daily shower or bath
    2. Bed linen change daily
    3. Normal saline mouth rinses after meals and before bed
    4. Diligent hand hygiene before meals and after bathroom use

B. Chlorhexidine (CHG) wipes daily if central line is in place. If patient declines to utilize CHG, provider will be notified.

Document ID: 102.G007

Attachments

Neutropenic Precautions

Approval Signatures

Step Description	Approver	Date
System Policy Oversight Committee	Terri Fries: Document Mgmt Spec	9/6/2024
VP, Oncology & Professional Services	Kathleen Laraia: VP Oncology and Professional Services	9/6/2024
Mgr Nursing Services	Mariah Powell: Mgr Nursing Services	9/6/2024
Document Owner	Angela Richardson-Gross: Mgr Nursing Services	9/6/2024

Applicability

Cadillac Hospital, Charlevoix Hospital, Grayling Hospital, Kalkaska Memorial Health Center, MHC Corporate (Home Health, Dialysis, NMSA, etc.), Manistee Hospital, Munson Medical Center, Otsego

Standards

No standards are associated with this document

Status Active PolicyStat ID 18332024

MUNSON MEDICAL CENTER
MUNSON HEALTHCARE

Origination	5/8/2015
Last Approved	7/22/2025
Effective	7/22/2025
Last Revised	7/22/2025
Next Review	7/22/2026

Owner	Aimee Cloud: Mgr Pharmacy
Area/ Department	Pharmacy
Applicability	MHC Hospital System w/KMHC (MMC, Cadillac, Charlevoix, Grayling, KMHC, Otsego, Manistee, POMH)
Tags	Procedure

Oncology/Outpatient Infusion Hypersensitivity - Infusion Reaction/Emergency Management Protocol

Purpose

To define medications, treatment, and emergency supplies utilized for hypersensitivity infusion reactions and the procedure used to correct the reaction in both the inpatient and outpatient (OP) setting.

Background

- Many drugs, including chemotherapeutic and bio-therapeutic agents are associated with a risk of hypersensitivity infusion reactions, including anaphylaxis.
- All at-risk patients/caregivers should be educated about the signs, symptoms and potential timing of hypersensitivity and the importance of reporting symptoms during infusion and after receiving agents.
- For a patient to have treatment of reaction initiated prior to provider notification, the protocol will be part of the ordered treatment plan.
- Emergency supplies are stored and are readily accessible in all patient treatment areas. Supplies should include oxygen (O2), intravenous (IV) fluids, prefilled flush syringes, and any medication mentioned in this protocol, as well as supplies for administration.

Definitions

1. **ADULT**: age 18 years and older (see separate protocol)
2. **PEDIATRIC**: less then 18 years of age (see separate protocol)

Procedure

Emergency Response

A. Follow emergency response procedures for local site.

Monitor

A. Monitor for signs and symptoms of infusion reaction, including, but not limited to:

1. Hives, welts, wheals, itching, rash, flushing
2. Chills, rigors, diaphoresis
3. Headache, arthralgia, myalgia
4. Chest pain, dysrhythmia
5. Dizziness, syncope
6. Nausea, vomiting
7. Temperature elevation greater than 38°C
8. Hypotension
9. Shortness of breath (SOB), tachypnea, decreased oxygen saturation (SpO2), bronchoconstriction, dyspnea, wheezing, stridor
10. Angioedema

Management

Hypersensitivity – Infusion Reaction Adult Protocol

ADULT Grade 1 – Mild, Transient Reaction

Symptoms	General Treatment	Specific Treatment	Patient Disposition
• Cough • Tachycardia, without symptoms • Blood pressure (BP) drops 10mmHg without symptoms • Temperature elevation (increase of 1°C)	• PAUSE infusion • Maintain IV with 0.9% Sodium Chloride • Monitor vital signs (VS) every 15 minutes	• May restart infusion after 15 minutes if symptoms resolve, following drug-specific recommendations if applicable • For unresolved or worsening symptoms, STOP infusion, notify provider and treat symptomatically as defined below	• Monitor for duration of treatment • If stable, discharge (OP)

ADULT Grade 2 – Moderate Reaction

(Responds promptly to symptomatic treatment)

Symptoms	General Treatment	Specific Treatment	Patient Disposition
• SOB • Tachypnea • Wheezing • Decreased SpO2 below 92% or baseline • Mild swelling of lips or tongue • Dizziness • Increased pulse from baseline • Rash/hives, itching	• STOP Infusion • Maintain IV with 0.9% Sodium Chloride • Monitor VS every 5 minutes	• Give rescue medications ◦ Diphenhydramine 50 mg IV push over 2 minutes (EXCEPTION - Do not give diphenhydramine for reactions to IV iron products) ◦ Methylprednisolone 125 mg IV push over at least 3 minutes ◦ Famotidine 20 mg IV push diluted to 10 mL with 0.9% Sodium Chloride over at least 2 minutes (EXCEPTION - Do not give famotidine for reactions to IV iron products) • For respiratory symptoms ◦ Albuterol inhaler 2 puffs x 1 dose OR albuterol nebulizer 2.5 mg x 1 dose (if available at site) ◦ Start O2 at 2 liters and titrate to SpO2 of greater than 92% • For unresolved/worsening symptoms, call 911 to notify Emergency Medical Services (EMS) for emergency transportation, activate rapid response team and notify provider	• Observation • May restart infusion, following drug-specific recommendations, after 30 minutes if symptoms resolve and approved by provider • Monitor x 30 minutes after infusion complete as needed • Educate patient on possible recurrent symptoms in 2-4 hour (late phase) and need to monitor for and seek treatment if occurs • Discuss concerns with provider. • If stable, discharge (OP)
• BP drops 10mmHg with symptoms	• Notify provider • 0.9% Sodium Chloride 1000 mL IV bolus		
• Temperature elevation greater than 38°C	• STOP Infusion • Monitor VS every 5 min	• Give rescue medications • Acetaminophen 650 mg by mouth (PO) x 1 dose	• Observation • May restart infusion after 30 minutes, following

Symptoms	General Treatment	Specific Treatment	Patient Disposition
	• Anticipate possible blood cultures		drug-specific recommendations if applicable, if symptoms resolve and approved by provider • Monitor x 30 min after infusion complete as needed • If stable, discharge (OP)
• Mild/ Moderate Chills	• Offer warm blankets • Anticipate possible blood cultures		
• Severe Chills/ Rigors		• Meperidine 25 mg IV push diluted to 10 mL with 0.9% Sodium Chloride x 1 dose over 3 minutes. May repeat x 1 dose in 15 minutes if unresolved. • Notify provider for unresolved or worsening symptoms	

ADULT Grade 3 – Severe and Prolonged Reaction (Not responding to interventions, or recurs following initial treatment)

Symptoms	General Treatment	Specific Treatment	Patient Disposition
• Severe SOB • Stridor • Bronchospasm • Panic • Wheezing • Voice changes • Swelling of lips or tongue • Hypoxia • Chest Pain • Syncope • Severe hives	• STOP Infusion • Maintain IV with 0.9% Sodium Chloride • Monitor VS every 5 min or more frequently as needed	• **Call 911** to notify EMS for emergency transportation, activate rapid response team and notify provider • Give rescue medications ◦ Treat as above for Grade 2 ◦ Epinephrine 0.3 mg intramuscular (IM) x 1 dose. May repeat in 5 to 15 minutes x 1 dose. *(anterolateral aspect of middle third of thigh preferred)* • For respiratory symptoms	• Inpatient hospital transport (OP) • Discontinue medication until evaluated by provider
• BP drops 10mmHg with symptoms	• Notify Provider • 0.9% Sodium Chloride 1000 mL IV bolus		

Symptoms	General Treatment	Specific Treatment	Patient Disposition
		◦ Albuterol inhaler 2 puffs x 1 dose OR albuterol nebulizer 2.5mg x1 dose (if available at site) ◦ Start oxygen at 2 liters and titrate to O2 sat of greater than 92%	

ADULT Grade 4 – Life Threatening

Symptoms	General Treatment	Specific Treatment
• Cyanosis • Respiratory arrest	• STOP Infusion • Maintain IV with 0.9% Sodium Chloride • Monitor VS every 5 min or more frequently as needed	**IMMEDIATELY Call 911** to notify EMS for emergency transportation (OP), activate rapid response team and notify provider Give rescue medications and follow procedures as above for Grade 2/3 reaction

Transfer of care: *If transfer of care is necessary, ensure complete report is given to receiving staff*

Documentation

A. Document details of reaction, treatment, response and follow-up instructions in patient medical record
B. For reactions related to rituximab, complete rituximab administration nursing assessment form
C. Document in allergies if appropriate

Hypersensitivity – Infusion Reaction Pediatric Protocol

PEDIATRIC Grade 1 – Mild, Transient Reaction

Symptoms	General Treatment	Specific Treatment	Patient Disposition
• Cough • Tachycardia, without symptoms	• PAUSE infusion • Maintain IV with	• May restart infusion, following drug-specific recommendations, after 15 minutes if symptoms	• Monitor for duration of

Symptoms	General Treatment	Specific Treatment	Patient Disposition
• BP drops 10mmHg without symptoms • Temperature elevation (increase of 1°C)	sodium chloride 0.9% • Monitor VS every 15 minutes	resolve • For unresolved or worsening symptoms, STOP infusion, notify provider and treat symptomatically as defined below	treatment • If stable, discharge (OP)

PEDIATRIC Grade 2 – Moderate Reaction (Responds promptly to symptomatic treatment)

Symptoms	General Treatment	Specific Treatment	Patient Disposition
• Shortness of Breath • Tachypnea • Wheezing • Decreased O2 saturation below 92% or baseline • Mild swelling of lips or tongue • Dizziness • Increased pulse from baseline • Rash/ hives, itching	• STOP Infusion • Maintain IV with 0.9% Sodium Chloride • Monitor VS every 5 minutes	• Give rescue medications ◦ Diphenhydramine 1 mg/kg IV push over 2 minutes *(Max 50 mg)* (EXCEPTION - Do not give diphenhydramine for reactions to IV iron products) ◦ Methylprednisolone 2 mg/kg IV push over at least 5 minutes *(Max 125 mg)* ◦ Famotidine 0.5 mg/ kg IV push diluted to 10 mL with 0.9% Sodium Chloride over at least 2 minutes *(Max 20 mg)* (EXCEPTION - Do not give famotidine for reactions to IV iron products) • For respiratory symptoms ◦ Albuterol inhaler 2 puffs x 1 dose OR albuterol nebulizer 2.5 mg x 1 dose (if available at site) ◦ Start oxygen at 2	• Observation • May restart infusion, following drug-specific recommendations, after 30 minutes if symptoms resolve and approved by provider • Monitor x 30 minutes after infusion complete as needed • Be aware of late phase of anaphylactic-type reaction (2-4 hr later). Discuss risk with provider. Educate care giver. • If stable, discharge (OP)
• BP drops 10mmHg with symptoms	• Notify provider • 0.9% Sodium Chloride 20 mL/kg IV bolus *(Max 1000 mL)*		

Symptoms	General Treatment	Specific Treatment	Patient Disposition
		liters and titrate to SpO2 of greater than 92% • For unresolved/worsening symptoms, call 911 to notify EMS for emergency transportation, activate rapid response team and notify provider	
• Fever greater than 38°C • Chills/ Rigors	• STOP Infusion • Monitor VS every 5 min • Offer warm blankets • Anticipate possible blood cultures	• Give rescue medications ◦ Acetaminophen 15 mg/kg/dose PO x 1 dose *(Max 750 mg)* • Notify provider	• Observation • May restart infusion, following drug-specific recommendations, after 30 minutes if symptoms resolve and approved by provider • Monitor x 30 min after infusion complete as needed • If stable, discharge (OP)

PEDIATRIC Grade 3 – Severe and Prolonged Reaction (Not responding to interventions, or recurs following initial treatment)

Symptoms	General Treatment	Specific Treatment	Patient Disposition
• Severe SOB • Bronchospasm/ stridor • Panic • Wheezing • Voice changes • Swelling of lips or tongue • Hypoxia • Chest Pain • Syncope • Severe hives	• STOP Infusion • Maintain IV with 0.9% Sodium Chloride • Start O2 by mask • Monitor VS every 5 minutes or more frequently as needed	• **Call 911** to notify EMS for emergency transportation, activate rapid response team and notify provider • Give rescue medications • Treat as above for Grade 2 • Epinephrine 0.15 mg IM x 1 dose (less than or equal to 25 kg), 0.3 mg IM x 1 dose	• Inpatient hospitalization (OP) • Discontinue medication until evaluated by provider
• BP drops	• Notify		

Symptoms	General Treatment	Specific Treatment	Patient Disposition
10mmHg with symptoms	provider • 0.9% Sodium Chloride 20 mL/kg IV bolus *(Max 1000 mL)*	(greater than 25 kg). May repeat in 5 to 15 minutes x 1 dose *(anterolateral aspect of middle third of thigh preferred)* • For respiratory symptoms ◦ Albuterol inhaler 2 puffs x 1 dose OR albuterol nebulizer 2.5 mg x 1 dose (if available at site) ◦ Start oxygen at 2 liters and titrate to SpO2 of greater than 92%	

PEDIATRIC Grade 4 – Life Threatening

Symptoms	General Treatment	Specific Treatment
• Cyanosis • Respiratory arrest	• STOP Infusion • Maintain IV with 0.9% Sodium Chloride • Monitor VS every 5 min or more frequently as needed	**IMMEDIATELY Call 911** to notify EMS for emergency transportation (OP), activate rapid response team and notify provider Give rescue medications and follow procedures as above for Grade 2/3 reaction

Transfer of care: *If transfer of care is necessary, ensure complete report is given to receiving staff*

Documentation

A. Document details of reaction, treatment, response and follow-up instructions in patient medical record.

B. Document in allergies if appropriate.

References

1. Basic Life Support. American Heart Association
2. Pediatric Advanced Life Support. American Heart Association
3. Advanced Cardiac Life Support. American Heart Association
4. LexiComp®

Author: Aimee Cloud, PharmD BCOP

Approval Signatures

Step Description	Approver	Date
System Policy Oversight Committee	Terri Fries: Document Mgmt Spec	7/22/2025
System P&T (On Behalf of Each Site)	Cathi Cornelius: Clin Pharmacy Utilization Spec	7/22/2025
Document Owner	Aimee Cloud: Mgr Pharmacy	6/25/2025

Applicability

Cadillac Hospital, Charlevoix Hospital, Grayling Hospital, Kalkaska Memorial Health Center, Manistee Hospital, Munson Medical Center, Otsego Memorial Hospital, Paul Oliver Memorial Hospital

Standards

No standards are associated with this document

Status Active PolicyStat ID 16349520

Origination	4/13/2007
Last Approved	9/3/2024
Effective	9/3/2024
Last Revised	9/3/2024
Next Review	9/3/2027
Owner	Angela Richardson-Gross: Mgr Nursing Services
Area/ Department	Oncology
Applicability	Munson Healthcare Systemwide
Tags	Guideline

Oncology Nursing Standard of Care

Purpose

The following oncology standards of care will be upheld by oncology nurses practicing in the Munson Healthcare (MHC) Oncology Service Line.

Guidelines

Protection

A. **Nursing Objective: To assess for and prevent complications of cancer/cancer treatment**

1. Assess and maintain a patent airway and optimal air exchange.
2. Assess, document and report baseline status and change in cardiac system, neurological system, integument system, hematopoietic system.
3. Institute appropriate nursing interventions for changes assessed above.
4. For patients receiving chemotherapy, assess baseline and daily oral status and implement standard oral care protocol.
5. Provide wound care following physician preference and/or wound, ostomy, and continence nurse (WOCN) direction.
6. Assess and promote optimal circulation.
7. Maintain patency and proper care of all invasive tubes.
8. Assist with personal hygiene – give back care at bedtime (HS) and as needed (PRN).

9. Maintain appropriate pre and post-operative nursing standards of care as appropriate.

B. **Nursing Objective: To ensure patient safety**
    1. Assist patient in and out of bed as indicated.
    2. Instruct the patient to seek assistance as appropriate.
    3. Ensure call bell or manual bell availability at all times.
    4. Initiate Fall Prevention measures as indicated.
    5. Communicate safety goals/measures with family.

Management of Illness

A. **Nursing Objective: To assist the patient to understand his type of cancer, mode of treatment, hospitalization (if needed), and rehabilitation**
    1. Assess the patient's knowledge of the above.
    2. Plan and implement appropriate teaching.
    3. Implement individualized discharge planning beginning at the time of admission.
    4. Facilitate the continuity of care and rehabilitation, utilizing the multidisciplinary team approach.

Coping

A. **Nursing Objective: To assist patient and family to cope optimally with cancer treatment, hospitalization, rehabilitation, or terminality**
    1. Provide support, reassurance, and counseling.
    2. Assist the patient to achieve and/or maintain a healthy self-concept.
    3. Coordinate care with other members of the healthcare team and resource agents.
    4. Maintain good communication with patient and family.
    5. Provide continuity of care pre and post-hospitalization by coordinating with Home Care nursing and ancillary services as indicated.
    6. Facilitate patient and their significant others to cope with impending death in a manner and place most appropriate for them as needed.
    7. Facilitate expression and practice of spirituality as patient desires.
    8. Educate patient and family on appropriate community support resources.

Sexuality

A. **Nursing Objective: To identify aspects of patient's sexuality which may be threatened by cancer and/or its treatment**
    1. Assess potential or actual alterations in perception of sexuality or sexual functions.
    2. Initiate referral to appropriate resource for counseling.

Comfort

A. **Nursing Objective: To assist patient to achieve optimum comfort**

1. Assess pain, nausea, vomiting.
    a. Administer medication as appropriate and evaluate effectiveness.
    b. Advocate for relief of poorly managed symptoms
    c. Assist to positions of comfort (bed, chair, ambulation, etc.)
    d. Instruct in relaxation techniques.
    e. Provide for adequate rest/relaxation/sleep in conducive environment.
    f. Assist with diversional activities.
    g. Utilize alternative methods as appropriate.
    h. Reduce noxious stimuli.

Nutrition

A. **Nursing Objective: To assist patient to achieve/maintain optimal nutritional status**

1. Assess intake and output when indicated.
2. Assess appropriate diet.
3. Collaborate with dietician and/or physician regarding dietary problems and solutions.
4. Assess and administer appropriate nutrition (oral, intravenous [IV], nasogastric [NG], J-tube, G-tube, etc.)
5. Assess the patient's knowledge of nutrition needs and teach as appropriate.
6. Maintain oral care protocol.
7. Maintain oral comfort.
8. Weigh patients upon admission and PRN.

Elimination

A. **Nursing Objective: To ensure the patient will have adequate elimination**

1. Assess intake and output when indicated.
2. Be alert for urinary output less than 30 cc/hr.
3. Monitor bowel elimination for adequacy or problems.
4. Give fluid/food/medication as indicated for adequate bowel/bladder activity.
5. Assess the patient's knowledge of factors influencing elimination (bladder/bowel) and teach as appropriate.

Activity

A. **Nursing Objective: To assist the patient to engage in activities to tolerance**

1. Assess the patient's pre-hospitalization level of activity.
2. Plan and implement an activity program.
3. Involve/collaborate with other healthcare team members and family with an activity program.
4. Assess the Karnofsky scale as appropriate.

Document ID: 102.G004

Approval Signatures

Step Description	Approver	Date
System Policy Oversight Committee	Terri Fries: Document Mgmt Spec	9/3/2024
VP, Oncology & Professional Services	Kathleen Laraia: VP Oncology and Professional Services	9/3/2024
Mgr Nursing Services	Mariah Powell: Mgr Nursing Services	8/28/2024
Document Owner	Angela Richardson-Gross: Mgr Nursing Services	8/28/2024

Applicability

Cadillac Hospital, Charlevoix Hospital, Grayling Hospital, Kalkaska Memorial Health Center, MHC Corporate (Home Health, Dialysis, NMSA, etc.), Manistee Hospital, Munson Medical Center, Otsego Memorial Hospital, Paul Oliver Memorial Hospital

Standards

No standards are associated with this document

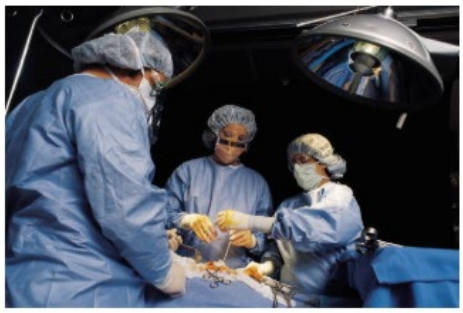
Procedure: Pleur-X Drainage (MUNSON)
Checklist: Pleur-X Drainage (MUNSON)
Evaluator's Name: _____ **Examinee's Name:** _____
Evaluator's ID: _____ **Examinee's ID:** _____
Evaluator's Dept: _____ **Examinee's Dept:** _____
Date: _____ **Meets criteria/Does not meet criteria:** _____
Select Evaluation Method:
☐ Clinical Observation ☐ Documentation Review
☐ Demonstration ☐ Verbalization

Pleur-X Drainage (MUNSON)

Objective: Safely and effectively drain pleural effusions or abdominal ascities from the implanted Pleur-X Drainage Catheter.
State what population-served considerations you made (or would make) in providing care for the pateints.
☐ Obtain drainage kits from Logistics. 1000 ml # 52665, 500 ml # 25572.
☐ Verify patient identification and education on procedure for the patient/family.
☐ Clean the work area.
☐ Remove rings and wash hands.
☐ Open the drainage kit onto a clean surface.
☐ Open a sterile pack on the work place and keep items and surface inside the pack sterile.
☐ Set the bottle on the work space and access the tip onto the sterile surface.
☐ Open alcohol pads and set on sterile surface - away from other contents.
☐ Put on sterile gloves, open pouch with valve cap, and place on the sterile surface.
Connecting the drainage bottle:
☐ Close the clamp on the drainage line.
☐ Remove the sterile drainage line cap and keep the tip sterile.
☐ Remove the cap from the catheter that extends from the patient.
☐ Clean around the opening with an alcohol pad - careful to avoid the inside of the catheter opening.
☐ Insert the access tip of the drainage line into the end of the Pleur-X catheter.
☐ Remove supporrt clip from top of drainage bottle and push down "T" plunger.

☐ Release clamp on drainage line to begin draining, then squeeze clamp closed competency when finished.
☐ The vacuum drainage bottles will hold 500ml of fluid for chest tubes and 1000ml of fluid for abdominal/peritoneal drainage catheters.
DO NOT drain more than 1000ml from chest tubes or more than 2000ml from abdominal/peritoneal drainage tubes at one time.
☐ Drainage may take 5-15 minutes and will gradually slow down or stop.
☐ If the patient experiences pain with drainage, slowing down or stopping 1-5 minutes may rellieve the patient's discomfort.
☐ To utilize a 2nd drainage bottle: clamp the lines, remove the access tip from the catheter, and clean the opening an alcohol pad.
Apply New Dressing:
☐ Clean the skin around the catheter insertion site with alcohol pads.
☐ Place a foam pad dressing around the catheter.
☐ Coil the catheter in loops, hold on top of the foam pad, and cover with gauze pads.
☐ Remove gloves and then apply an adhesive dressing.
☐ Push down "T" plunger and move plunger in circular motion to further puncture the foil seal so fluid can be poured out.
☐ Document the procedure and the fluid output into PowerChart.
☐ Assess and document the patient's condition/tolerance both pre-procedure and post-procedure.
Need identified by: New equipment/procedure.
Method of validation: Rerurn Demonstraion/Direct Observation.
Action Plan/Comment developed for all findings rated "Not Met".

Preparing A Patient For Surgery



Molly Gallagher, BSN, RN, CAPA
Jeannette Reynolds, MSN, BBA, RN, CPAN

October 2025

MUNSON HEALTHCARE

Goal and Objectives

Document was last saved: Just now

Goal:

This course provides information on the Preprocedure checklist and provides rationale on inpatient preparation for surgery or a procedure.

Objectives:

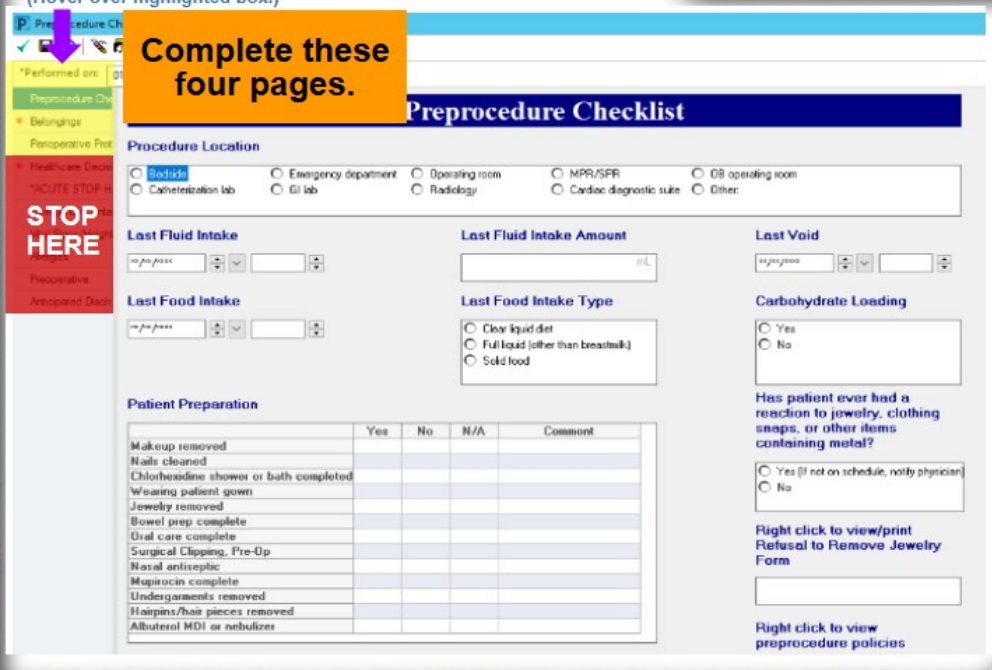
1. Accurately complete the Preprocedure checklist for a patient going to the Operating Room (OR), Medical Procedure Room (MPR), or Interventional Radiology (IR).
2. Correctly perform the pre-surgical hygiene elements when preparing a patient for surgery or a procedure.
3. Explain the importance of the Beta Blocker regimen during the peri-operative period.

Preprocedure Checklist

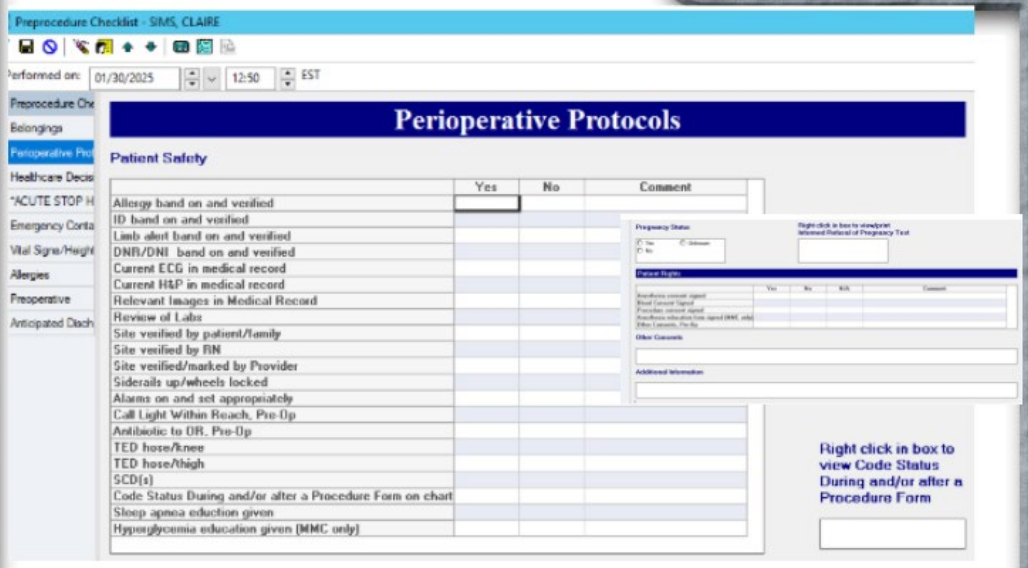
- Begin the Preprocedure checklist as soon as you know the patient is going to surgery - ideally the day before surgery.
- Must be completed for every patient going to the OR, MPR, or IR for surgery or procedure.
- With the patient's chart open, click AdHoc.
- Select preprocedure checklist.
- The acute care nurse will complete the first 4 pages of the powerform.

Preprocedure Checklist *(cont.)*

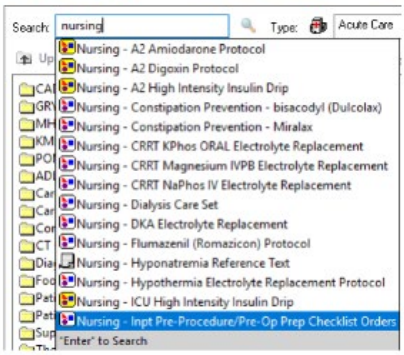
(Hover over highlighted box.)

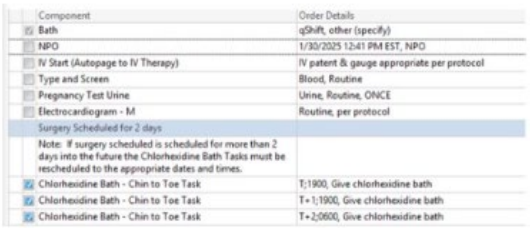


Preprocedure Checklist *(cont.)*



Nursing - Careset Orders

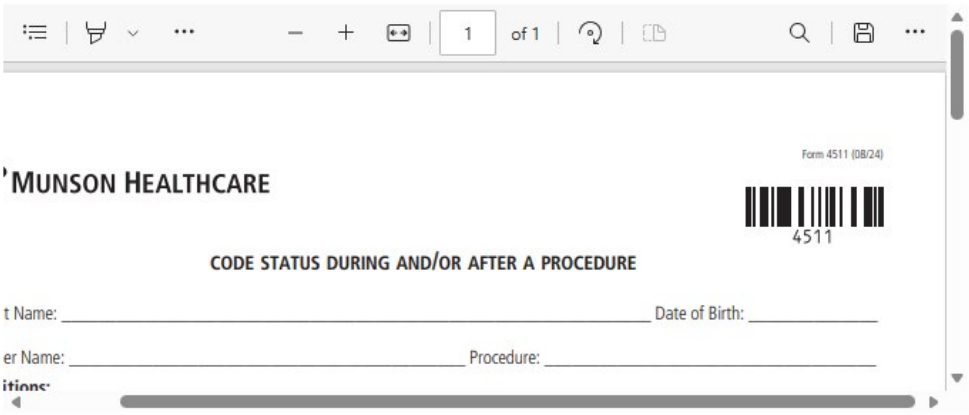




- Order your careset for Nursing - Inpt Preprocedure/Pre-Op Prep Checklist. Enter the careset as a 'Nurse per Protocol' (exception for patients scheduled in Maternity OR).
- Adjust the dates of CHG baths and nasal decolonization to correlate with day of surgery.
- Everything you do to help prepare the patient prior to their arrival in pre-op benefits the patient and prevents delays in surgery start times.

Treatment Decision Form

- Check code status in PowerChart.
- If the patient is anything except a full code, print a Treatment Decision Form (form #4511) and page the surgeon to complete it.
- Patients going to the operating room **do not** automatically become full codes. A Treatment Decision Form must be completed prior to surgery and will include a date/time to resume patient's preprocedure code status.



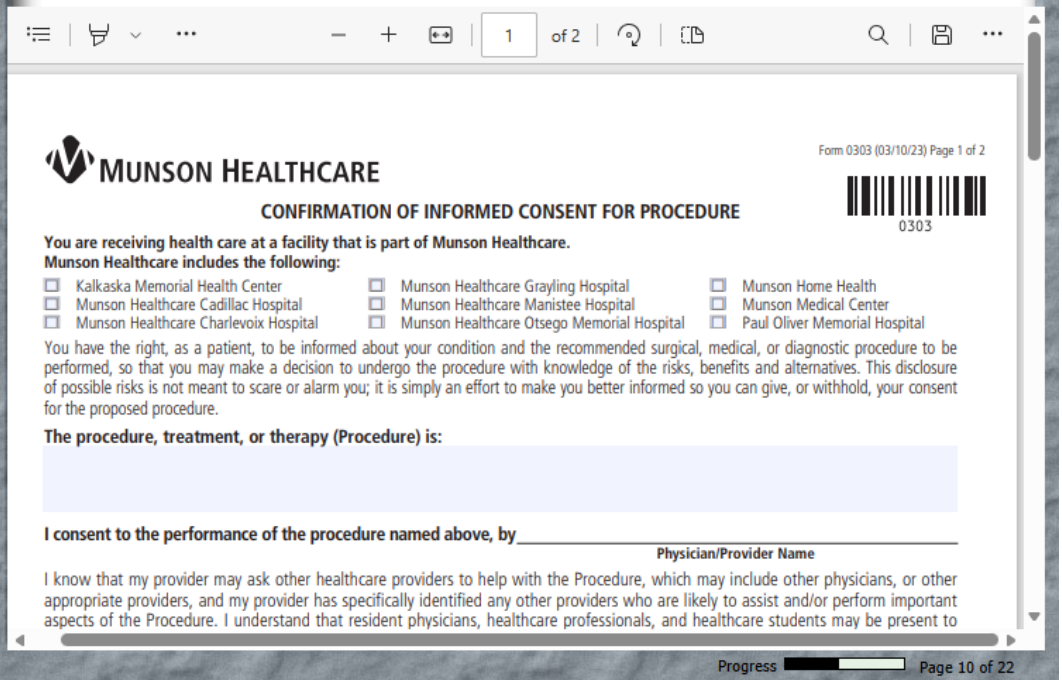
History and Physical (H&P)

- For all surgical or invasive procedures involving anesthesia or sedation, a valid H&P must be on the patient chart prior to start of the procedure. A valid H&P must have been completed within 30 days (not 31 or more days prior to admission or procedure).
- The surgeon must document in the patient's electronic record (H&P, consult, or progress note) the planned course of action and applicable side of the procedure, if warranted.
  - Writing an order is NOT acceptable as the surgical plan.
- In emergency cases, where completion of an H&P is not feasible, the surgeon should make a notation of relevant history and physical findings in the patients progress notes, if time allows.

Informed Consent

- Informed consent is a process of communication between a provider and patient to reach an agreement or permission to perform a procedure. The patient (or designee) signature on the form confirms that a provider has:
  - Reviewed the procedure.
  - Discussed the risks, benefits, or alternatives.
  - Answered all the patient or designee questions.
- The informed consent process could occur on the inpatient floor or at the site of the procedure.
- The patient and the provider performing the procedure will both sign the form (#0303) "Confirmation of Informed Consent for Procedure" (often referred to as CIC) ideally at the time of the informed consent discussion. The form must be signed prior to performing an invasive procedure.
- The signature of the provider performing the procedure **is required** on the form confirming the informed consent process has been completed.
- Consents are valid for 90 days.

Confirmation of Informed Consent for Procedure



MUNSON HEALTHCARE

Form 0303 (03/10/23) Page 1 of 2

0303

CONFIRMATION OF INFORMED CONSENT FOR PROCEDURE

You are receiving health care at a facility that is part of Munson Healthcare.
Munson Healthcare includes the following:

- ☐ Kalkaska Memorial Health Center
- ☐ Munson Healthcare Cadillac Hospital
- ☐ Munson Healthcare Charlevoix Hospital
- ☐ Munson Healthcare Grayling Hospital
- ☐ Munson Healthcare Manistee Hospital
- ☐ Munson Healthcare Otsego Memorial Hospital
- ☐ Munson Home Health
- ☐ Munson Medical Center
- ☐ Paul Oliver Memorial Hospital

You have the right, as a patient, to be informed about your condition and the recommended surgical, medical, or diagnostic procedure to be performed, so that you may make a decision to undergo the procedure with knowledge of the risks, benefits and alternatives. This disclosure of possible risks is not meant to scare or alarm you; it is simply an effort to make you better informed so you can give, or withhold, your consent for the proposed procedure.

The procedure, treatment, or therapy (Procedure) is:

I consent to the performance of the procedure named above, by _____
Physician/Provider Name

I know that my provider may ask other healthcare providers to help with the Procedure, which may include other physicians, or other appropriate providers, and my provider has specifically identified any other providers who are likely to assist and/or perform important aspects of the Procedure. I understand that resident physicians, healthcare professionals, and healthcare students may be present to

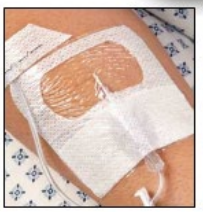
Informed Consent Process - Nurse's Responsibility

The nurse serves an important role in the process to optimize patient care and workflow.

- Review the provider's order and electronic record for the planned operative procedure.
- The RN may enter the procedure on the consent form using no abbreviations, or if available, use the procedure-specific consent form.
  - If needed, clarify any abbreviations, illegible or unusual order, and any discrepancies with the provider performing the procedure.
- Confirm the performing provider and patient have both signed, dated, and timed the CIC.
  - If the informed consent discussion occurred with the provider, but the provider did not have the patient sign the form at the time of the discussion, **nursing personnel may facilitate signature of the patient or the designee ONLY in situations where the patient or designee has no questions.**
  - Confirm the form is placed in the patient's chart and travels with the patient to the procedural area. If there is no provider or patient signature, inform the pre-procedure staff during hand-off communication.
  - The form may be sent to preop holding with only the patient's signature.

Checklist Components

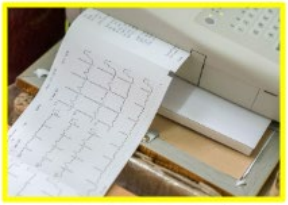
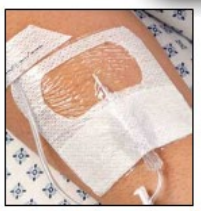





Lab Tests

- Check all current lab values and report any abnormal findings to the surgeon.
- Obtain a urine pregnancy test (per Pre and Post Surgical/Procedural Adult Protocols) on all females between menarche and menopause. Women who have had tubal ligation still need a pregnancy test. Women who have had hysterectomies do not.
- Notify the pre-op RN of abnormal lab findings during handoff report.

Checklist Components


ECG Prior to Surgery?

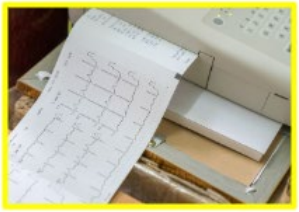
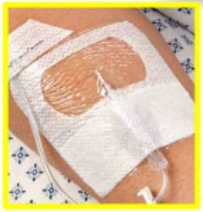
When:

- There needs to be a normal ECG on the chart from the last year, **or** the last 6 months if the last ECG was abnormal and patient is stable.
- If using a paper ECG from another facility, it needs to be verified and signed.

Who:

- Any patient with a history of a previous MI, angina, arrhythmia, renal failure, medication-dependent diabetes, or CVA.
- Any patient 45 years or older with a history of hypertension or history of ≥ one pack per day smoker.
- All patients 45 years or older having major vascular, intra-abdominal, thoracic, neurological, or orthopedic surgery.

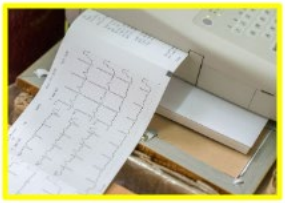
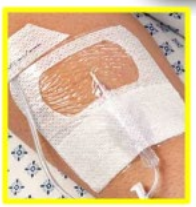
Checklist Components


IV Access

- Ensure a patent large bore IV. Refer to Pre and Post Surgical/Procedural Adult Protocols for catheter size required based on the type of surgery.
- If the patient has Heparin infusing, follow the physician orders regarding continuation/discontinuation.
- Discuss with the pre-op RN during handoff report if the patient's IV infusions should be discontinued prior to sending the patient to the peri-operative area.

Checklist Components

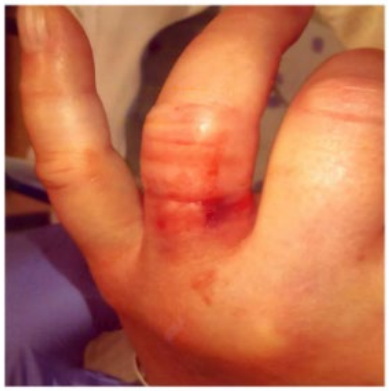

NPO

- NPO except clear liquids and medications after midnight.
- Stop clear liquids 4 hours before scheduled surgery time.
- If the surgeon's NPO orders conflict with the Pre-Procedure Nothing By Mouth Policy, page the anesthesiologist for clarification.
- Sips of water with meds are ok.

Pre-Surgical Hygiene

Prior to the pre-surgical bathing:

- **Remove all body jewelry** (including wedding bands).
- Remove hair clips, pins, rubber bands, etc.
- Remove body piercings.
- Remove makeup and nail polish.



Patient who did not remove ring prior to going into OR.

Pre-Surgical Hygiene *(cont.)*

The patient should have a total of three (3) chlorhexidine gluconate (CHG) baths **if required:**

- Two nights before surgery
- The night before surgery
- The morning of surgery

Example: If the patient's surgery is on Tuesday, bathe with CHG on Sunday night, Monday night, and Tuesday morning.

What if the patient is admitted the night before surgery?

You must ensure two (2) CHG baths are completed:

- The night the patient was admitted
- The morning of surgery

How to Give a CHG Bath

- Wash the entire body (from neck down) with CHG.
  - Cleanse groin area (avoid CHG on mucous membranes).
- Avoid scrubbing the skin too hard with CHG.
- Do **not** use regular soap after the CHG.
- Do **not** rinse the CHG off of the skin.
- Place the patient in a clean gown after the CHG bath (all clothing, including underwear, should be removed).
- Place clean linens on the bed after the CHG bath.

Pre-Surgical Hygiene *(cont.)*

Two nights before surgery:

- Give a soap and water bath ***prior*** to the first CHG prep bath.
- Shampoo hair with regular shampoo.
- Wash face with regular soap/cleanser.
- After the soap and water bath, give the first CHG bath, using either the wipes or the liquid.

The night before surgery:

- Wash face with regular soap or cleanser.
- Give the second CHG bath in the same manner as the previous night.
- Brush teeth and use mouth rinse.

Day of Surgery Preparation

- Use the Preprocedure checklist.
- Complete the 3rd CHG (last) bath. Place a clean hospital gown on the patient.
  - Clean under finger nails.
  - Confirm oral care is completed.
  - Encourage the patient to void prior to sending to pre-op.
    - Bathroom availability is limited in pre-op.
  - Remove the patient's underwear.
  - Inform the pre-op RN when medication patches are left on the patient.
- Complete nasal decolonization, if required.
- Document vital signs prior to transfer.
  - Report abnormal findings to the pre-op RN.
- Send the patient with dentures, glasses, and hearing aids.
- Call hand-off report to the pre-op RN.

Obstructive Sleep Apnea

- Communicate with the pre-op RN if your patient uses a CPAP or BiPAP and discuss if the device should be sent with the patient to the perioperative area.
- Ensure settings are documented, so that the machine can be used accurately postoperatively.

Antibiotics

- The surgeon or a covering physician shall write specific orders for all patients requiring prophylactic pre-operative antibiotics.
- Confirm an order for preoperative antibiotics is placed in PowerChart by the surgeon or covering provider.
  - Pre-op antibiotics should be administered by the pre-op nurse or anesthesia provider to ensure they are administered within one hour prior to the incision window.
- If the patient is on oral antibiotics, give prior to the patient going to pre-op.
- Ensure **scheduled antibiotics** are given as ordered.
- If a scheduled antibiotic is due during the perioperative period, please send it to OR with the patient.

Beta Blockers

Patients on a beta blocker at home should receive their beta blocker during the perioperative period (24 hours prior to surgery through discharge from PACU).

- Stress associated with surgery increases heart rate, myocardial contractility, and myocardial oxygen demand, putting the patient at risk for an acute myocardial infarction (AMI).
- Beta blockers offer cardioprotection for patients with a history of MI and hypertension. They diminish the effects of epinephrine and other stress hormones.
- An MI during surgery results in a nine-fold increase in unstable angina, MI, and cardiac death in the post-op period.
- If the patient's heart rate is greater than 50 and the systolic blood pressure is greater than 100, administer and document beta blocker in PowerChart.
- If held or stopped for a specific reason, it must be documented. This also applies to the perioperative period. Communicate this to the pre-op RN during handoff.
- NPO does **not** mean the patient should not receive their beta blocker. If in doubt, clarify with the surgeon and document who ordered the hold and why it is being held.

Miscellaneous Medications

Aspirin (ASA)

If the patient has a cardiac stent and takes a daily 81mg dose of ASA at home, they must have their ASA dose within 24 hours of surgery start time. There are rare instances where the bleeding risk outweighs the benefits and a surgeon may order the ASA be held.

- If the patient is having a neurosurgery procedure, confirm with surgeon prior to administering aspirin.

Anticoagulants/Anti-platelet medications

- Most anticoagulants will need to be held for invasive procedures/surgery.
- Verify the surgeon's order if anticoagulants are to be held or continued. If no order is present addressing the patient's anticoagulation status, page the performing provider.

Other medications

Medications such as anti-seizure, Parkinsons, anti-rejection, and chronic pain, should be continued, if ordered.

Please call pre-op holding and ask to speak with the charge nurse if you are unsure about giving a medication.

References

Munson Medical Center Policies and Procedures

- Surgical Antibiotic Prophylaxis
- Pre-Procedure Nothing by Mouth Policy
- Ensuring H&Ps are Present Before Surgery/Invasive Procedure
- Skin Preparation of the Surgical Patient
- Jewelry Removal Prior to Surgery
- Pre and Post Surgical/Procedural Adult Protocols
- Plan of Care – Nursing Process in the OR
- Inpatient Pre-Procedure/Pre-Op Checklist and Patient Preparation

Munson Healthcare Policies and Procedures

- Informed Consent - Diagnostic or Therapeutic Procedures and Treatments

Procedure: Aspira Drainage System (MUNSON)
Checklist: Aspira Drainage System (MUNSON)
Evaluator's Name: _____ **Examinee's Name:** _____
Evaluator's ID: _____ **Examinee's ID:** _____
Evaluator's Dept: _____ **Examinee's Dept:** _____
Date: _____ **Meets criteria/Does not meet criteria:** _____
Select Evaluation Method:
☐ Clinical Observation ☐ Documentation Review
☐ Demonstration ☐ Verbalization

Aspira Drainage System (MUNSON)

Revised 2.20.2023

To manage the care of the pleural Aspira Drainage System according to manufacturer's guidelines.

Checklist Step	Comments
Y- Meets; N- Does not meet; I- Not Applicable	
Prepare the workspace:	
__ Clear your work surface (bedside table) and clean with a disinfecting wipe. __ Wash hands. __ Obtain Aspira kit dressing and Aspira drainage bag kit and place supplies on cleaned area.	
Drainage procedure:	
__ Peel open the pouch with the drainage kit. __ Apply clean gloves. __ Remove and discard valve cap from patient's catheter. __ Wipe catheter valve with alcohol pad. __ Connect drainage line to catheter. You should hear or feel a click when secure. __ Place bag on a flat surface at least arm's length below chest or abdomen.	

__ Squeeze pump one time. Let fluid drain until bag is full or fluid stops flowing.

__ When fluid stops or bag fills to 1000ml from the chest or the abdomen, disconnect drainage line from catheter.

__ Wipe catheter valve with new alcohol pad.

__ Place new valve cap on patient's catheter.

Dressing procedure:

__ NOTE: Look at the exit site and skin around it. If you notice any redness, swelling, oozing, or the patient has pain at the exit site, finish draining and call provider.

__ Peel open the pouch with the dressing supplies.

__ Apply sterile gloves.

__ Remove sterile pack from pouch and open on your work surface so you can see the dressing supplies.

__ Clean skin around exit site with alcohol pad. Allow skin to dry completely before proceeding to next step.

__ Place split gauze pad on skin around catheter.

__ Coil catheter on top of split gauze pad. Place gauze on top of the catheter.

__ Place clear dressing over catheter and gauze. Lable with date, time, and initials.

__ CAUTION: No more than 1000ml can be removed from the chest and 2000ml from the abdomen in one drainage session.

__ TROUBLESHOOTING: If the flow of fluid does not start, check the connection. Gently squeeze the pump again. If this still does not work, try using a new drainage kit. If the catheter is still not draining, notify provider.

Status **Active** PolicyStat ID **16877281**

Origination	10/24/2018
Last Approved	11/27/2024
Effective	11/27/2024
Last Revised	11/27/2024
Next Review	11/27/2027
Owner	Angela Richardson-Gross: Mgr Nursing Services
Area/ Department	Oncology
Applicability	MHC Hospital System w/KMHC (MMC, Cadillac, Charlevoix, Grayling, KMHC, Otsego, Manistee, POMH)
Tags	Policy

MUNSON MEDICAL CENTER
MUNSON HEALTHCARE

Chemotherapy Consent Policy

Purpose

To provide a policy for obtaining written informed consent for patients prior to chemotherapy administration.

Policy

A. Consent to treatment is an important part of the delivery of quality cancer care. The consent process has evolved over time and is an ongoing process.

B. Informed consent is not limited to a single discussion or form; rather, it is an ongoing communication process that is central to the provider-patient relationship.

C. Best practices dictate that consent conversations should be well documented. One way to document consent is through a written consent form that is reviewed with the patient, signed, and stored in the patient's medical record.

D. This policy outlines Munson Healthcare (MHC) oncology service line's process for insuring a written consent form is in the patient's medical record prior to receiving chemotherapy.

1. The provider will have a discussion with the patient regarding the proposed treatment plan. The discussion is documented in the electronic medical record and

includes information regarding the patient's diagnosis, intent of treatment, risks/benefits/alternatives to treatment proposed. Each provider has discretion as to how they document this information, but the discussion with the patient should be easily identifiable to the person who is actually filling out the written consent form and witnessing the patient's signature on the Consent Form.

2. The provider enters an order into Aria or as established at each regional site:
    a. New Treatment/Change:
        i. Obtain authorization
        ii. Education
        iii. Consent
3. Both the insurance verification team and the Registered Nurse (RN) receive this order from the provider.
4. Prior to 1:1 education with the patient, the RN/Advanced Practice Provider (APP)/Pharmacist will have reviewed patients medical record and provider notes to ensure patient was provided information regarding disease, intent for treatment, treatment plan (drugs), risk, benefits and alternatives (if any). If there are any concerns/questions regarding the treatment plan, or the consent process, RN will notify provider for clarification. Any clarification will be documented and approved in the patient's medical record. The RN or provider can initiate the documentation.
5. The RN/APP/Pharmacist schedules the patient for chemotherapy education session, or as established at each regional site. The RN/APP/Pharmacist will review with the patient their individualized treatment plan including all chemotherapy drugs that will be administered. If the patient does not have written information on chemotherapy drugs, the RN/APP/Pharmacist will provide to patient.
6. At the completion of the chemotherapy education session, the RN/APP/Pharmacist will witness the signature of the patient on the Consent for Chemotherapy document. The patient will be offered a copy of the signed consent.
7. The consent is valid until a treatment plan change, which requires a new consent.
8. As an alternative to the RN/APP/Pharmacist obtaining the written chemotherapy consent at the time of education, the physician/APP, pharmacist or RN may obtain the written consent of the patient.
9. Prior to administering chemotherapy, the RN verifies that a written consent is in the electronic medical record (EMR)/paper record.
10. If at any time, a patient voices concern regarding consent to treatment, the provider will be notified and treatment held until any issue is clarified.

Document ID: 147.001

Approval Signatures

Step Description	Approver	Date
System Policy Oversight Committee	Terri Fries: Document Mgmt Spec	11/27/2024
VP, Oncology & Professional Services	Kathleen Laraia: VP Oncology and Professional Services	11/26/2024
Mgr Nursing Services	Mariah Powell: Mgr Nursing Services	11/26/2024
Document Owner	Angela Richardson-Gross: Mgr Nursing Services	11/26/2024

Applicability

Cadillac Hospital, Charlevoix Hospital, Grayling Hospital, Kalkaska Memorial Health Center, Manistee Hospital, Munson Medical Center, Otsego Memorial Hospital, Paul Oliver Memorial Hospital

Standards

No standards are associated with this document

Procedure: Chemotherapy/Immunotherapy Administration (MUNSON)
Checklist: Chemotherapy/Immunotherapy Administration (MUNSON)
Evaluator's Name: _____ **Examinee's Name:** _____
Evaluator's ID: _____ **Examinee's ID:** _____
Evaluator's Dept: _____ **Examinee's Dept:** _____
Date: _____ **Meets criteria/Does not meet criteria:** _____
Select Evaluation Method:
☐ Clinical Observation ☐ Documentation Review
☐ Demonstration ☐ Verbalization

Chemotherapy/Immunotherapy Administration (MUNSON)

Revised 4.11.2022

Objective: Demonstrate correct steps, safety checks, and technique to ensure optimal patient and staff safety during chemotherapy administration.

*****State what age-specific consideration did/would you make in providing care to/for this customer/patient, if applicable.*****

Checklist Step	Comments
Y- Meets; N- Does not meet; I- Not Applicable	
Prior to chemotherapy administration:	
__ Ensure patient identification using two identifiers and informed, signed, consent is in place.	
__ Assess physical condition of patient – including cardiac, respiratory, hepatic, and renal status.	
__ Assess medication allergies and ensure recent reconciliation of current medications.	
__ Conduct a pain assessment.	
__ Ensure current vital signs, including current measured height and weight are obtained and documented	
__ Assess patient/family knowledge and education of chemotherapy, or previous experience with chemotherapy, and provide information and review if needed: drug information and treatment regimen, precautions to observe for, side effects to observe for, symptom management of common foreseeable side effects	

__ Calculate cumulative life-time doses correctly when indicated

__ Review lab work and other diagnostics, as indicated: CBC within 96 hours for 21 and 28 day cycles, CBC within 48 hours for 14 day cycles, CBC within 48 hours for 7 day cycles, calculate absolute neutrophil count when needed, all labs are within parameters or acceptable range, echocardiogram, pulmonary function test, EKG, urine testing results.

__ Verify extravasation management procedures and availability of appropriate treatment medications if needed.

__ For safe venous access, evaluate patency of peripheral, PICC line, or venous access device.

__ Choose an IV site without adjacent hematoma or previous proximal venipuncture.

__ Avoid using extremity affected by previous surgical procedures or with impaired circulation (i.e.-side of lymph node dissection).

__ Ensures patency of a vein prior to medication administration by instilling a free-flowing solution into the vein.

__ Administer supportive care medications and pre-treatment medications, as ordered.

__ Before each chemotherapy administration, at least two practitioners approved by the health care setting performs independent verification of the required elements listed immediately below.

__ Before each chemotherapy administration, at least two practitioners approved by the health care setting to administer or prepare chemotherapy verify and document the accuracy of the following elements together: Drug name, drug dose, infusion volume or drug volume when prepared in a syringe, rate of administration, route of administration, expiration date and/or time, appearance or physical integrity of the drug(s), rate set on infusion pump, if applicable, and sequencing of drugs.

__ In the presence of the patient, at least two providers approved by the healthcare facility verify

the patient identificiation by using at least two identifiers.

__

For safe chemotherapy administration:

__ Utilizes proper Personal Protection Equipment (PPE) and attire: 1) lint free, cuffed, closed front, non-absorbent, disposable gown 2) ASTM Chemo-rated double gloves and 3) eye protection/goggles and face mask with risk of splash

Bolus IV Syringe Administration:

__ Connect IV Push Chemotherapy dose with closed system transfer devices to IV tubing by clockwise luer lock technique. Place an impervious drape under the line at the point of attachment to shield patient's skin.

__ Assure that any incompatible solutions will be temporarily stopped during administration of IVP chemotherapy and IV line is flushed before and after.

__ Administer medication per Munson Healthcare Protocol.

__ Check for infiltration and patency of vein as appropriate to the drug volume before, during and after the dose is infused: every 1-2 ml for volumes < 10ml, every 4-5 ml for volumes >10ml

__ Continually assess for signs and symptoms of discomfort or side effects.

__ Slowly disconnect closed system transfer device.

__ Elicit patient expected responses before, during and after chemotherapy is given.

__ Dispose of chemotherapy contaminated articles appropriately.

IV Bag Administration:

__ All IV infusions must utilize closed system transfer devices.

__ Verbalize understanding that tubing will be primed in Oncology Pharmacy

__ Confirm that all tubing clamps are closed.

__ Hang IV bag and connect closed system transfer device to the appropriate patient IV access port.

__ Open clamps and infuse per Munson Healthcare Protocol.

__ Patency of the site is checked every 4 hours during continuous vesicant infusion

With connected Secondary tubing Set with closed system transfer device attached:

__ Confirm that all tubing clamps are closed.

__ Attach secondary IV set to appropriate patient access port on Flush line, using closed system transfer device.

__ Verbalizes that Secondary Set tubing is primed with IV fluid

__ Open clamp on the Secondary Set tubing and Infuse per Munson Healthcare protocol.

__ Elicit patient expected responses before, during and after chemotherapy is given.

Inpatient administration only:

__ Verbalize understanding that all chemotherapy infusions present both on and off the designated Oncology unit are managed only by Oncology unit qualified nurses, which includes disconnection and disposal of chemotherapy IV bags, syringes and tubing.

__ Assist Vascular Access Specialty Team (VAST) with chemotherapy line identification to evaluate appropriate chemotherapy access sites or lines.

Demonstrates/discusses appropriate treatment of extravasation:

__ Discusses signs and symptoms of extravasation – burning, pain, swelling, leaking, or redness at IV site.

__ Discusses immediate action to be taken when extravasation is suspected: 1) Stop infusion/injection 2) Attempt to withdraw/aspirate 3-5 ml of blood/solution 3) Notify VAST (if available), physician, Oncology Pharmacy for next steps.

Subcutaneous or Intramuscular Injection:

__ With the closed system transfer device attached:

__ Verbalizes understanding to draw back on syringe plunger enough to visualize air after attaching closed system transfer device and appropriate needle for injection.

__ Attach appropriate needle to the closed system transfer device with clockwise luer-lock technique.

Demonstrates/discusses appropriate treatment of hypersensitivity reaction

__ Follow Munson Healthcare Protocol.

Demonstrate appropriate charting consistent with policy and procedure:

__ Document in Patient Education Record, discharge instructions, as appropriate.

__ Document appropriate focus note/progress note/questionnaire regarding patient's tolerance/response to chemotherapy treatment.

__ Document on chemotherapy administration record or EHR, as appropriate.

__ Need Identified by: New Equipment/Procedure/Software, Staff Identified

__ Action Plan/comment - (develop for all findings 'not met'; attach to Annual List of Competencies form)

Status Active PolicyStat ID 18146058

Origination	5/14/2007
Last Approved	5/13/2025
Effective	5/13/2025
Last Revised	5/13/2025
Next Review	5/13/2026

Owner	Heather Tolfree: Mgr Pharmacy - CPS
Area/ Department	Pharmacy
Applicability	MHC Hospital System w/KMHC (MMC, Cadillac, Charlevoix, Grayling, KMHC, Otsego, Manistee, POMH)
Tags	Policy

Extravasation Management

Purpose

To provide evidence-based guidelines and procedures through the use of a Standing Order for the rapid treatment of extravasation injuries due to chemotherapy and other medications.

Definitions

1. **Extravasation:** accidental leakage of a substance (i.e. medication or fluid) into perivascular and subcutaneous spaces. Depending on the type of substance, the degree of injury can range from local irritation to severe tissue necrosis.
2. **Infiltration:** inadvertent administration of a non-vesicant medication or fluid into the surrounding tissue instead of into the intended vascular pathway.
3. **Investigational Chemotherapy:** since little information may be known about the risks of extravasation, treat all investigational chemotherapy as potential vesicants unless data is available stating otherwise.
4. **Irritant:** an agent that can cause pain, swelling, vein irritation, or phlebitis when extravasation occurs.
5. **Non-Vesicants:** an agent devoid of significant irritant or vesicant effects.
6. **Vesicant:** an agent that is capable of causing pain, blistering, ulceration and necrosis upon

extravasation.

7. **Standing Order:** for any patient at a Munson Healthcare (MHC) facility receiving intravenous medications, this protocol may be activated upon extravasation of the medication or fluid.

Procedure

A. The organization maintains evidence-based guidelines/protocols for the management of extravasation injuries due to chemotherapy or other medications.

B. Agent-specific management guidelines/protocols, medications and treatments are readily available.

C. Extravasation management guidelines/protocols medications and treatments are readily available and are reviewed, updated, and approved by the pharmacy and therapeutics committee (P&T) on a regular basis.

D. Training and education, for nursing and pharmacists includes extravasation management.

Education and Competency Assessment

A. Nursing education includes knowledge of common factors known to increase the risk of extravasation, prevention strategies, immediate management, agent specific antidotes, documentation, and adverse event reporting.

B. Nursing education on extravasation management is documented prior to administering chemotherapy.

Preventive Strategies

A. Preventive strategies are implemented for proper maintenance of intravenous (IV) sites, monitoring infusion rates and providing patient and provider education on risks and steps to prevent extravasation.

B. Nursing PERIPHERAL administration recommendations

    1. Access

        a. Above the wrist placed under ultrasound guidance (if available), confirm blood return PRIOR to initiation of a vesicant.

        b. Try to avoid hand or wrist site

    2. IV Gauge - When possible use 20 gauge or larger

Immediate Management

A. For ALL extravasations, initial treatment includes the following:

B. Immediately STOP and disconnect the infusion (NOT the cannula/needle).

C. Put on gloves (if not already on).

D. Use the cannula/needle to aspirate as much extravasated fluid as possible with a 10 mL syringe. Avoid direct manual pressure to the suspected extravasation site. Leave the cannula

in place until further treatment is determined. DO NOT FLUSH THE LINE.

E. If possible, elevate the extremity and/or encourage movement to facilitate lymphatic resorption of the drug. Avoid placing pressure on the site.

F. Immediately notify the pharmacy for drug therapy orders per protocol with provider co-sign (see Specific Antidotes below). Notify the provider and obtain any additional orders as needed.

G. Retrieve the extravasation kit, if applicable; or contact the pharmacy to obtain agent-specific antidote per order/protocol. If pharmacy is closed, obtain the antidote through the normal after-hours procedures.

H. Initiate agent specific measures per provider order/protocol.

I. Follow the warm or cold pack instructions listed for each specific medication.

J. If an antidote is ordered, the original port may be used to administer the antidote as close as possible to the extravasation site. Remove the cannula/needle to prevent use for further infusions.

K. Assess the patient's pain level and collaborate with the medical staff to determine need for pain management.

L. Mark the affected area. A digital image of the site may be taken as needed.

Specific Pharmacologic Antidotes

A. Click the link for specific extravasation management guidelines:

1. Management of Non-Cytotoxic Extravasations Treatment Algorithm
2. Cytotoxic Extravasation Management Protocol
3. Dexrazoxane Protocol
4. Care of a Suspected Extravasation - Patient Information
5. Chemotherapy Extravasation Supplies
6. Irritant And Vesicant Properties of Anti-Cancer Agents

Documentation and Follow-up

A. Document the extravasation in the medical record consistent with organization-specific procedures as well as enter into the organization's incident tracking system.

B. Notify Risk Management if the extravasation results in nerve impairment or tissue damage requiring surgical intervention.

C. For inpatients, assess the site shift for pain, erythema, induration, or skin breakdown. Document assessment at least every shift for 48 hours.

D. For outpatients, the patient should be provided with information regarding symptoms to report to the provider, how to care for the site, pain management techniques, and the plan for follow-up care.

Adverse Drug Event Reporting

A. Extravasation related events are reported and documented following the hospital's adverse drug event reporting policy and procedure process.

Personnel

A. All clinical staff

References and Related Documentation

1. Joint Commission Standards MM.01.01.03, MM.03.01.03, MM.06.01.01, MM.07.01.03
2. CMS Conditions of Participation §482.23, §482.25
3. Health Care Facilities Accreditation Program (HFAP) 25.01.08, 25.01.19
4. DNV National Integrated Accreditation for Healthcare Organizations MM.7

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Approval Signatures

Step Description	Approver	Date
System Policy Oversight Committee	Terri Fries: Document Mgmt Spec	5/13/2025
System P&T (On Behalf of Each Site)	Cathi Cornelius: Clin Pharmacy Utilization Spec	5/13/2025
Document Owner	Heather Tolfree: Mgr Pharmacy - CPS	5/12/2025

Applicability

Cadillac Hospital, Charlevoix Hospital, Grayling Hospital, Kalkaska Memorial Health Center, Manistee Hospital, Munson Medical Center, Otsego Memorial Hospital, Paul Oliver Memorial Hospital

Standards

No standards are associated with this document