

PHYSICIAN'S ORDER SHEET

FEBRILE NEUTROPENIA ORDERS - Adults

Unwell Cancer Patients (with or without a fever) who have received systemic anti-cancer therapy in previous 6 weeks, with anticipated absolute neutrophil count less than $0.5 \times 10^9/L$, and suspected infection

Triage classification CTAS Level II (Emergent)

Administration of initial empirical antibacterial therapy within 60 minutes of suspicion of a neutropenic fever (sepsis) syndrome

| | | | |
|--|---|--|---|
| These orders are to be used as a guideline and do not replace sound clinical judgment and professional practice standards. Patient allergy and contraindications must be considered when completing these orders. <input checked="" type="checkbox"/> Standard orders. If not in agreement with an order, cross out and initial. <input type="checkbox"/> Requires a check (✓) for activation. | | | |
| Drug Allergies → _____ | ORDER TRANSCRIBED AND ACTIVATED | DATE: _____ TIME: _____ Patient's Height _____ Patient's Weight _____ | GENERAL ORDERS PAGE 1 OF 2 |
| <p>R MEDICATION ORDERS TO BE INITIATED OR DISCONTINUED</p> DATE: _____ TIME: _____ | <input checked="" type="checkbox"/> | TEST DONE | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> CBC, electrolytes, glucose, urea, creatinine <input type="checkbox"/> Venous blood gases <input type="checkbox"/> Lactate <input checked="" type="checkbox"/> INR, Prothrombin Time <input checked="" type="checkbox"/> AST, ALT, LDH, GGT, ALP, Total Bilirubin <input checked="" type="checkbox"/> Blood Culture – <u>before</u> antibiotic administration from 1 peripheral site (at minimum) and all parenteral lines as follows: <ul style="list-style-type: none"> <input type="checkbox"/> One each: aerobic and anaerobic blood culture bottle from a peripheral site, <u>and</u> <input type="checkbox"/> One aerobic blood culture bottle from each lumen of a multi-lumen central venous catheter (CVC) <input type="checkbox"/> Where there is no CVC, obtain blood cultures from 2 peripheral sites (at minimum) <input type="checkbox"/> Urinalysis and urine culture <input checked="" type="checkbox"/> Chest radiograph <input type="checkbox"/> Electrocardiogram <input type="checkbox"/> Other: _____ <hr/> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Vital signs every <input type="checkbox"/> 15 minutes or <input type="checkbox"/> 30 minutes or <input type="checkbox"/> _____ minutes until vital signs stable <input type="checkbox"/> Document height and weight <input type="checkbox"/> Complete risk stratification (see p.2) <input type="checkbox"/> If "Severe sepsis or Septic shock syndrome" – add Sepsis Order Set <hr/> <p>Contact phone number(s): _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> Consult MICU, if severe sepsis or septic shock <input type="checkbox"/> Consult Medicine <input type="checkbox"/> Consult Medical Oncology, Radiation Oncology, Adult Hematology, or Leukemia/Bone Marrow Transplant Service (circle desired service) <input type="checkbox"/> Consult Infectious Diseases Services <hr/> <p>Low-risk Patients Following work-up and initial empirical antibacterial therapy:</p> <ul style="list-style-type: none"> <input type="checkbox"/> If vital signs stable observe patient for _____ hours (usually 2 – 4 hours) <input type="checkbox"/> Phone oncologist or hematologist on call to make aware of patient discharge (see p.2) <input type="checkbox"/> Ensure patient follow-up within 48 hours |
| <p>Initial Therapy</p> <ul style="list-style-type: none"> <input type="checkbox"/> Normal Saline intravenously _____ mL bolus over _____ hours <input type="checkbox"/> Normal Saline intravenously _____ mL/hr <input type="checkbox"/> Oxygen _____ L/min nasal prongs <hr/> <p>High-risk Patients (MASCC less than 21, and other criteria – Features p.2)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Piperacillin-tazobactam 4.5 grams intravenously every 8 hours – first dose within 60 minutes after arrival <p>If Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) risk factors, (colonization, skin and soft tissue infection) consider adding:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Vancomycin _____ milligrams (15 mg/kg/dose) intravenously every 12 hours <p>If Vancomycin-resistant <i>Enterococcus</i> (VRE) colonization consider adding:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Linezolid 600 milligrams intravenously every 12 hours <p>If suspected extended-spectrum Beta Lactamase (ESBL) – producing Gram-negative bacillary infection:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Meropenem 1 gram intravenously every 8 hours – first dose within 60 minutes after arrival <p>If severe sepsis or septic shock consider adding:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Gentamicin or <input type="checkbox"/> Tobramycin _____ milligrams (7 mg/kg) intravenously daily, dose adjusted for serum creatinine and trough levels <p>Piperacillin-tazobactam, meropenem, linezolid are restricted drugs. Ongoing prescription requires mandatory consultation with Infectious Diseases Services.</p> <hr/> <p>Low-risk Patients (MASCC 21 or greater)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ciprofloxacin 750 milligrams orally every 12 hours plus Amoxicillin-clavulanate 875-125 milligrams orally every 12 hours | PHYSICIAN'S SIGNATURE: _____ MD PRINTED NAME: _____ MD _____ GENERIC EQUIVALENT AUTHORIZED | TRANSCRIBED: _____ REVIEWER: _____ <input type="checkbox"/> FAXED DATE: _____ TIME: _____ INITIALS: _____ | |

Institution or RHA LOGO

DATE _____ HSC NO. _____

PATIENT
DOB _____

PROV HC# _____

DOCTOR _____

CLINIC/UNIT _____

LOC'N _____

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| Drug Allergies → | ORDER TRANSCRIBED AND ACTIVATED | DATE: _____ TIME: _____ Patient's Height _____ Patient's Weight _____ |
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| | | |
|---|--|----------------------------------|
| R MEDICATION ORDERS TO BE INITIATED OR DISCONTINUED | | GUIDELINES PAGE 2 OF 2 |
|---|--|----------------------------------|

DATE: _____ TIME: _____

Penicillin Allergy Substitutions

1. Immediate-type (less than 1 hour onset) or accelerated-type (less than 72 hours onset) reactions:

i) High-risk patients

Meropenem 1 gram intravenously every 8 hours (preferred)

OR

Ciprofloxacin 400 milligrams intravenously every 12 hours (only if a fluoroquinolone was not used as prophylaxis) **plus**
Vancomycin _____ milligrams (15 mg/kg/dose) intravenously every 12 hours

ii) Low-risk patients

Ciprofloxacin 750 milligrams orally every 12 hours (only if a fluoroquinolone was not used as prophylaxis) **plus**
Clindamycin 600 milligrams orally every 8 hours (preferred)

OR

Moxifloxacin 400 milligrams orally every 24 hours

OR

Levofloxacin 750 milligrams orally every 24 hours

2. Delayed-type (greater than 72 hours onset) reactions:

i) High-risk patients

Meropenem 1 gram intravenously every 8 hours (Preferred)

OR

Ceftazidime 2 grams intravenously every 8 hours **plus**
Vancomycin _____ milligrams (15 mg/kg/dose) intravenously every 12 hours

ii) Low-risk patients

Ciprofloxacin 750 milligrams orally every 12 hours **plus**
Clindamycin 600 milligrams orally every 8 hours (preferred)

OR

Moxifloxacin 400 milligrams orally every 24 hours

OR

Levofloxacin 750 milligrams orally every 24 hours

PHYSICIAN'S SIGNATURE: _____ MD

PRINTED NAME: _____ MD

GENERIC EQUIVALENT AUTHORIZED

High-risk Features for medical complications requiring admission (MASCC less than 21)

- Profound neutropenia ANC less than $100/mm^3$ following cytotoxic chemotherapy
- Anticipated severe neutropenia greater than 7 days
- Hypotension (SBP less than 90 mmHg, or MAP less than 70 mmHg)
- Estimated CrCl less than 30 mL/min, elevated serum creatinine
- Transaminases (AST or ALT) greater than 5 times upper limit of normal
- Uncontrolled or progressive cancer
- Oral or GI mucositis that interferes with oral intake
- New onset abdominal pain, nausea, vomiting, diarrhea
- New onset pulmonary infiltrates or hypoxemia
- New onset of neurologic or mental status changes
- Indwelling central venous access tunnel site infection

Low-risk Features for medical complications (MASCC 21 or greater)

- Outpatient status at time of fever onset
- Absence of high-risk features
- Anticipated duration of severe neutropenia less than 7 days

MASCC Score (maximum score = 26)

| | |
|--|-------|
| Burden of illness: no or mild symptoms | 5 |
| Systolic BP greater than 90 | 5 |
| No Chronic Obstructive Pulmonary Disease (COPD) | 4 |
| Solid tumor diagnosis or no previous invasive fungal infection | 4 |
| No dehydration | 3 |
| Outpatient at onset of fever | 3 |
| Burden of illness: moderate symptoms | 3 |
| Age less than 60 | 2 |
| Total: | _____ |

Guideline for CancerCare Manitoba Consult:

1. Patient with a solid tissue malignancy – Medical Oncology, Radiation Oncology
2. Lymphoma patient – Adult Hematology
3. Patient with acute leukemia or hematopoietic stem cell transplant (HSCT) – Leukemia/Bone Marrow Transplant Service

TRANSCRIBED: _____ REVIEWER: _____

FAXED DATE: _____ TIME: _____ INITIALS: _____

AUTHORIZED BY: _____

DATE: REVIEW PENDING
CPGI Updated: June 22, 2017