PRESCRIBER’S ORDERS FOR:
Fever and Neutropenia - Stable Patient

DATE _____/_____/_______       TIME _________
DD      MM       YYYY

WEIGHT:_________ KG
HEIGHT:_________ CM
□ ALLERGY CAUTION sheet reviewed

Patient Care
☑ Access Central venous line (CVL) (all lumens/ports) and draw bloodwork
☑ If no CVL then start two peripheral IVs

Vital Signs
☒ Vital Signs
☑ every 30 minutes with BP * no rectal temperatures
☑ Measure weight

Medications

› Consider if dosage adjustments are necessary for renal impairment

High Risk
☐ piperacillin-tazobactam___________ mg (75 mg/kg/dose) IV Q6H (based on piperacillin component)
(Maximum 4 g/dose)

If non-anaphylactic penicillin allergy
☐ meropenem _________ mg (20 mg/kg/dose) IV Q8H (Maximum 2 g/dose)

If serious penicillin allergy
☐ vancomycin _________ mg (15 mg/kg/dose) IV Q6H (Maximum 2 g/dose)
☐ ciprofloxacin__________ mg (15 mg/kg/dose) IV Q12H (Maximum 400 mg/dose)
☐ metroNIDAZOLE__________ mg (10 mg/kg/dose) IV Q8H (Maximum 1000 mg/dose)

Low Risk
☐ levofloxacin___________ mg (10 mg/kg/dose; Round dose to nearest 62.5 mg) PO BID for age greater than or equal to 6 months to less than 5 years
☐ levofloxacin___________ mg (10 mg/kg/dose; Round dose to nearest 62.5 mg) PO once a day for age greater than or equal to 5 years (Maximum 500 mg/dose)

If unable to tolerate oral antibiotics
☐ piperacillin-tazobactam___________ mg (75 mg/kg/dose) IV Q6H (based on piperacillin component)
(Maximum 4 g/dose)

IV Infusions
☐ Sodium Chloride 0.9%___________ mL (20 mL/kg/dose) IV once over 5 min
☐ Sodium Chloride 0.9%___________ mL/h IV (maintenance)

Signature:______________________________________  Print Name:____________________________________
College ID:_____________________________________   Pager:_______________________________________

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PRESCRIBER’S ORDERS FOR:
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DATE _____/_____/_______       TIME _________
DD      MM       YYYY

WEIGHT:_________ KG   HEIGHT:_________ CM

☐ ALLERGY CAUTION sheet reviewed

Laboratory

Initial Management - to be done STAT

- Culture, aerobic, blood
  - Take two aerobic culture bottles from each lumen and one peripheral site, and one anaerobic culture bottle from one lumen.
  - Complete blood cell count with automated white blood cell differential
  - Sodium level, serum
  - Potassium level, serum
  - Chloride, serum
  - Carbon dioxide, total (bicarbonate plus dissolved carbon dioxide)
  - Urea
  - Creatinine
  - Glucose, serum, random
  - CRP
  - Screen for multi resistant organisms as per infection control policies
  - Group and screen
  - Culture, urine
  - Urinalysis (UA) with microscopy
  - Blood gas, venous
  - Lactate, serum
  - Peripheral coagulation profile
  - Culture, stool
  - Culture, throat
  - NPW for VIRAP
  - Culture, cerebrospinal fluid
  - Mouth ulcer swab for HSV PCR
  - Culture, other apparent sites of infection ______________________________________________

Medical Imaging

Initial Management

- Radiograph, chest if respiratory symptoms present

Consults

- Page Oncologist on call
- Consult to infectious diseases, pediatric

Signature:______________________________________  Print Name:____________________________________
College ID:_____________________________________   Pager:_______________________________________
PTN Review Date: 21 July 2015  PTN# CH773v1  Exp Date: 21 July 2018  Page 2 of 2
**FEVER AND NEUTROPENIA CLINICAL PRACTICE GUIDELINES**

**Applicable patient population:** known or suspected malignancy, use of antineoplastic agents, allogeneic stem cell transplant within 6 months of transplantation or still on immunosuppressive agents, and patients who completed cancer therapy if central venous catheter in place.

**Physician-on-call or clinic receives call from parent:**
- Child has fever

**Child arrives in Emergency Department with history of fever:** 38.0° ax or 38.5° PO

**Information to Collect**
- Name, Age, Phone number
- Diagnosis
- Symptoms
- Temperature
- Time of last acetaminophen
- Symptoms
- Temperature
- Time of last acetaminophen
- Symptoms

**Within 5 minutes:**
- Vital signs (HR, RR< BP)
- Temperature
- ±O₂ sats
- LOC
- Isolate if possible

**Within 10 minutes:**
- IV NS bolus, repeat as necessary
- Consider dopamine
- meropenem + gentamicin + vancomycin

**For details of febrile neutropenia management beyond initial empiric antibiotic therapy, please refer to full BCCH Febrile Neutropenia guidelines.**

**High Risk Definition (any of the following criteria)**
- AML
- Infant ALL
- Relapsed leukemia
- Burkitt
- Infant brain tumor
- Stage 4 neuroblastoma
- Relapsed lymphoma/solid tumor with bone marrow involvement
- Aplastic anemia with neutropenia
- Down syndrome on chemotherapy
- Within 6 months post-allogeneic stem cell transplant or with ongoing chronic GVHD

**High Risk Clinical Features:**
- Hypotension
- Respiratory distress or hypoxia or new infiltrate on CXR
- Altered mental status
- Suspected typhilitis
- Severe mucositis
- Previous sepsis in last three months
- Evidence of significant local infection
- ANC<0.1

**Low-Risk Definition:** Absence of high risk features

**Triage as Level II:** Assess by ER Physician
- VS with BP q30min
- If CVL, access all lumens
- Draw blood stat:
  - CBC & from each lumen and one peripheral site
  - CBC & diff
  - Electrolytes, urea, SCR
  - Coag studies
  - Group & screen
  - Venous gas
  - CRP
  - Lactate
- If no CVL, start IV and draw above bloodwork
- Weight

**Signs of septic shock?**
- ↓ LOC, ↓ BP, ↓ perfusion

**Within 5 minutes:**
- Isolate if possible
- *No rectal temperatures* + *Wash hands* + *isolate patient in single room*

**Is the patient High Risk or Low Risk Febrile Neutropenia?**
- Low Risk
  - Low Risk Febrile Neutropenia
  - Other cultures as clinically indicated (urine, stool, throat, NPW), CXR
  - Consider outpatient management with careful monitoring and follow-up.

**High Risk Febrile Neutropenia**
- Other cultures as clinically indicated (urine, stool, throat, NPW), CXR
- Consider outpatient management with careful monitoring and follow-up.

**Antibiotic Dosages** (Please refer to BC Children’s Hospital Pediatric Drug Dosage Guidelines for further details)
- Ciprofloxacin: 15 mg/kg/dose IV q12h (max 800 mg/24 h)
- Gentamicin: 7 mg/kg/day IV once daily with normal renal function
- Levofloxacin: 500 mg PO once daily (max 500 mg/dose)
- Meropenem: 20 mg/kg/dose IV q8h (max 2 g/dose)
- Metronidazole: 10 mg/kg/dose IV q8h (max 2 g/24 h)
- Piperacillin/tazobactam: 75 mg/kg/dose of piperacillin IV q8h (max 16 g/24 h)
- Vancomycin: 15 mg/kg/dose IV q12h with normal renal function

**Admit to ICU**
- meropenem + gentamicin + vancomycin

**Admit to private room**
- Risk of communicable infection?
- Yes
- Admit and isolate

**If CVL blocked, see Withdrawal Occlusion Guidelines but do not delay treatment. Start peripheral IV STAT.**

**Is ANC < 0.5?**
- No
  - Triage as Level II: Assess by ER Physician
  - VS with BP q30min
  - If CVL, access all lumens
  - Draw blood stat:
    - CBC & from each lumen and one peripheral site
    - CBC & diff
    - Electrolytes, urea, SCR
    - Coag studies
    - Group & screen
    - Venous gas
    - CRP
    - Lactate
  - If no CVL, start IV and draw above bloodwork
  - Weight
- **Low Risk Febrile Neutropenia**
  - Other cultures as clinically indicated (urine, stool, throat, NPW), CXR
  - Consider outpatient management with careful monitoring and follow-up.

**If patient is clinically well, caregivers are reliable and there are no focal infections requiring treatment, empiric antibiotic therapy is not required. Consider outpatient management with careful monitoring and follow-up.**

**Refer to BCCH Empiric Antimicrobial Guidelines if infection is suspected.**

**High Risk Febrile Neutropenia**
- Other cultures as clinically indicated (urine, stool, throat, NPW), CXR
- Consider outpatient management with careful monitoring and follow-up.

**Able to reliably tolerate oral route?**
- Yes
- levofloxacin PO