

Outpatient Management of Fever/Neutropenia In “Low Risk” Designated Oncology Patients With Central Line Care Guideline

Inclusion Criteria: “Low Risk” designated patients who are well appearing with Fever and Absolute Neutrophil Count (ANC) > 500. Must not have any “High Risk” factors

Exclusion Criteria: Meets Any “High Risk” features

Determination of “High” versus “Low” Risk must be made in consultation with Oncology

“High Risk”

Having *any* of the following “high risk” factors *excludes* a patient from initial outpatient management:

- ANC < 500 or expected to fall <500 in next 48 hours
- Inpatient at time of initial fever
- Shaking chills regardless of temperature
- History of overwhelming sepsis w/in previous 6 months
- Age < 12 months
- Down Syndrome
- Hematopoietic stem cell transplant patient w/in 6 mos of transplant and/or receiving immunosuppressant's
- On high dose steroids ($\geq 1\text{mg/kg/day}$)
- Known history of pseudomonas infection
- Diagnosis of:
 - Acute lymphoblastic leukemia (ALL) in induction, re-induction or delayed intensification; High Risk (HR) ALL in consolidation
 - Relapsed ALL on active chemo other than Maintenance
 - Progressive/relapsed malignancy with bone marrow involvement
 - Acute myelogenous leukemia (AML)
 - Burkitt's Lymphoma
 - Stage 3 or 4 Neuroblastoma
 - Patient on Phase I study
 - Patient with solid tumor s/p surgery w/in 2 weeks
- Presents with any of the following:
 - Fever > 40 degrees or Chills
 - Septic Shock
 - Hypotension
 - New pulmonary infiltrate on CXR
 - Tachypnea
 - Hypoxia (O2 saturation < 92% on room air)
 - Altered mental status
 - Severe mucositis
 - Persistent vomiting or abdominal pain
 - Evidence of significant local infection (e.g. tunnel infection, peri-rectal abscess, cellulitis)
 - ANC > 500 but failed outpatient oral antibiotics for infection

Any “High Risk” Factor indicates need for inpatient admission

“Low Risk”

All of the following factors are required for “Low Risk” outpatient management:

- Outpatient at time of initial fever
- AND
- No “High Risk” factors
- AND
- Presents with fever Sunday through Thursdays
- AND
- No history of cephalosporin or penicillin allergies

Additional criteria to meet outpatient management:

Access to Hospital: resides within one hour of CHOC, access to transportation should clinical condition change

Communication: Family has phone and can be reached reliably

Equipment: Thermometer

Family/Caregiver Compliance: agrees to follow-up visit and adhere to treatment plan; reliable family with history of good compliance to therapy

If assessment meets *all* “Low Risk” factors above, advance to:

- Diagnostic Evaluation of “Low Risk Patient and
- Antibiotic Management of “Low Risk” Patient (See Page 2 of 2)

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“Low” Risk febrile neutropenia patients who:

- present on **Friday or Saturdays**
- have a **history of cephalosporin or penicillin allergies**

are **not eligible** for Outpatient Management and should be admitted.

Diagnostic Evaluation of “Low Risk” Patient

- Prompt blood cultures from **All** central lines
- CBC, Panel 18
- CXR, VRP in symptomatic patients
- Consider peripheral blood culture
- Consider UA/Urine culture if clean catch/midstream urine feasible and patient is symptomatic
- Obtain any other labs, cultures deemed appropriate

Recommendations

- Thoroughly assess GI tract, skin, lungs, sinuses, ears, perineum/perirectum, IV access sites, and recent procedure sites (bone marrow biopsy/aspirate, lumbar puncture)
- **If Patient is in Emergency Department - Decision to designate as “Low Risk” MUST be made in consultation with Oncology**

****Use clinical judgment – If ANC >500, but patient is ill appearing, use caution and admit*

Antibiotic Management of “Low Risk” Patient

- **Ceftriaxone IV daily**
Dosage: 100 mg/kg/dose or max 2 grams

*Initial dose in ED or Outpatient Infusion Center (OPI)
*Return to OPI next day for follow-up and 2nd dose
- **Duration of Antibiotic**
Discontinue empiric antibiotics in patients with (-) cultures at 48 hrs who are clinically well, afebrile for at least 24 hours, and showing signs of marrow recovery.

If fever persists to 3rd day or if blood culture is (+), patient must be admitted for inpatient antibiotics

Any “High Risk” Factor indicates need for inpatient admission

References

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