

# Fever in Oncology Patients Pathway

**Pathway purpose:** Decrease time to administration of appropriate parenteral antibiotics in febrile oncology patients.

**Goal:** Antibiotics given within 60 min of arrival to ED or Bass Infusion Center (BIC) or within 60 min of fever (acute care, ICU)

## Inclusion Criteria:

- Oncology patients with fever (*temp*  $\geq 38.0C \times 2$  in 24 hours OR  $\geq 38.3C \times 1$ ) by history or at time of presentation

## Exclusion Criteria:

- Oncology patients >2 months off therapy without a central line
- Hematopoietic stem cell transplant (HSCT) patients
- Immunotherapy / cancer cellular therapy patients
- Hematology patients (e.g. sickle cell anemia, hemophilia)

## Initial Evaluation and Management

### Based on patient location:

- **Outpatient:** Oncology provider notifies ED or BIC of incoming patient, **infection risk status\***, and **initial antibiotic recommendation (pg 2)**
- **Acute care floor:** Resident/APP notifies oncology fellow to discuss **infection risk status\***, and **initial antibiotic recommendation (pg 2)**
- **ICU:** ICU provider notifies oncology fellow to discuss **infection risk status\***, and **initial antibiotic recommendation (pg 2)**

### \*HIGH RISK infection status if:

- Known or suspected neutropenia (ANC<500)
- OR**
- Significant additional risk factor (e.g. intense phase of therapy, steroids, other immunosuppressant, trisomy 21, relapsed leukemia, infants)

### Rapid assessment by RN/MD:

- Obtain full set of vitals signs
- Evaluate for **early sepsis warning signs:**
  - Tachycardia
  - Shaking chills/rigors
  - Hypotension
  - Hypothermia
  - Abnormal pulses or cap refill
  - Respiratory distress or hypoxia
  - Altered mental status

Does the patient have any of the following early sepsis warning signs?  
*Hypotension, continued tachycardia after 20mL/kg bolus, or altered mental status?*

Yes

- Follow **Sepsis Management Pathway**
- Initiate meropenem 20 mg/kg (max 1000mg) + vancomycin 15 mg/kg (max 1000mg <12 yo, 1500mg  $\geq$  12 yo) for sepsis

No

### 1) MD/APP to:

- Order appropriate labs and antibiotics from F&N order set based on **infection risk status\***

### 2) RN to:

- Access central line (do not wait for topical anesthetic)
  - If unable to access, place PIV
- Draw CBC with diff and weight-based blood cultures
- Collect UA with micro + urine culture (clean catch, NO catheterization; **do NOT delay antibiotics awaiting urine collection or results**)

### 3) MD/APP to:

- Perform thorough H&P to assess for source of infection:
  - Cough/respiratory symptoms
  - Abdominal/perirectal pain
  - Skin changes/rash/tenderness at central line site
  - Mucositis
- Order additional studies if indicated based on H&P\*\*:
  - Chemistries, respiratory viral panel, wound culture
  - CXR, CT abdomen/pelvis

- Antibiotic(s) administered from order set based on **infection risk status\***  
*See next page*

### \*\*Additional considerations:

- If clinical concern for meningitis, discuss obtaining LP with oncology fellow and consider appropriately dose-adjusting antibiotics
- Review prior culture history and discuss with ID if history of MDRO/VRE/MRSA
- Recommend ID consult for any positive blood culture

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Last Updated: September 2022

Associated Orderset: Fever and neutropenia

Associated Policies:

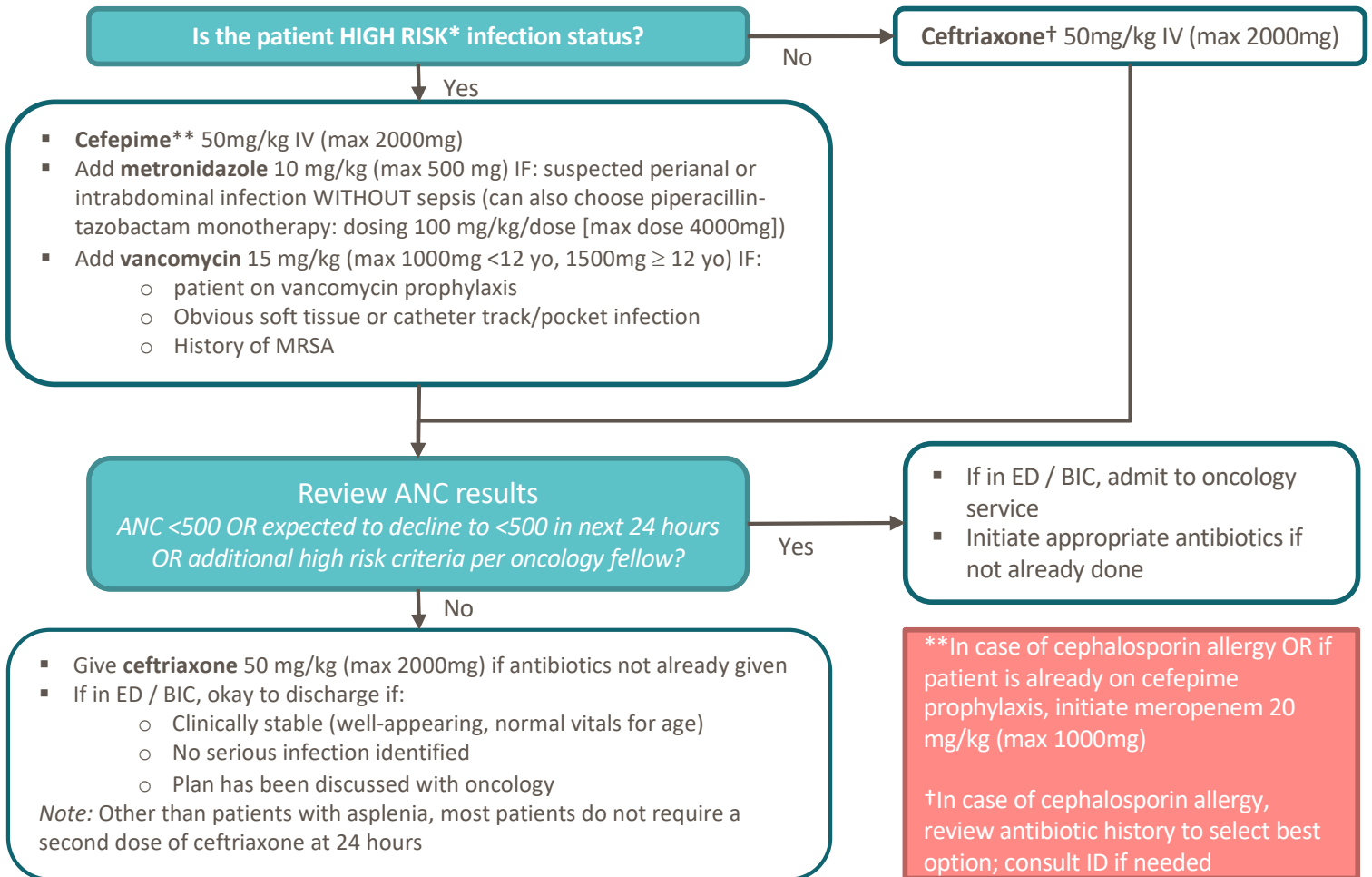


Feedback?

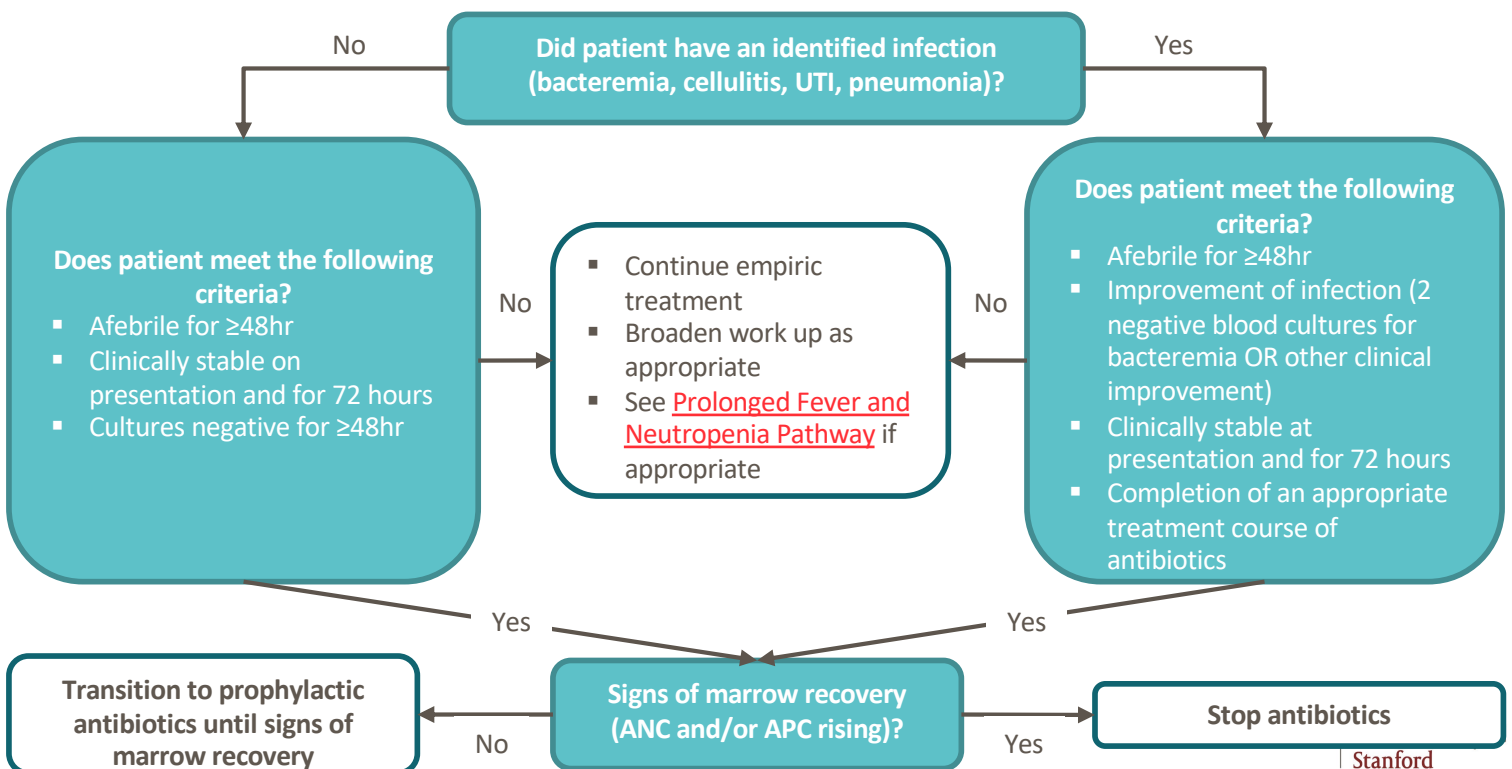
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**\*HIGH RISK infection status if either:**

- Known or suspected neutropenia (ANC<500)
- Additional risk factors (e.g. intense phase of therapy, steroids, other immunosuppressant, trisomy 21, relapsed leukemia, infants)



## Duration of antibiotic therapy for oncology patients with febrile neutropenia



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## Discharge criteria for oncology patients with febrile neutropenia

### Patients should meet the following criteria prior to discharge:

- Afebrile for at least 48 hours
- Improvement/resolution of infection (if present)
- Clinically stable/improved
- No other criteria for ongoing admission (IV fluids, IV pain medication)
- Signs of bone marrow recovery (ANC > 200 and rising or APC > 500 and rising)

*Note:* The above criteria are recommendations only. Certain patients may warrant earlier or later discharge based on patient/family factors and the judgement of the attending physician.

## Additional Information

### Prophylactic antibiotic options

Antibiotic	Route	Dose/Freq	Max dose	Comments
Levofloxacin	PO/IV	<5 yrs: 10 mg/kg BID ≥ 5 yrs: 10 mg/kg QD	750 mg	Preferred agent
Ciprofloxacin + Vancomycin	PO IV	15-20mg/kg BID 15mg/kg BID	500 mg 1000 mg	Consider in pts with a history of resistant <i>Strep mitis</i> infection
Cefepime	IV	50mg/kg BID	2000 mg	

Pathway Measure	Baseline	Target
Duration between fever and antibiotics (goal <60 minutes)		
Recurrent fever within 48 hours of stopping initial pathway antibiotic		
ICU transfer within 48 hours of stopping initial pathway antibiotic		

### References:

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- Verlinden, A., et al., Safety and efficacy of antibiotic de-escalation and discontinuation in high-risk hematological patients with febrile neutropenia: A single-center experience. *Open Forum Infectious Diseases*, 2022. p. 1-9.