Oncology Patient with Fever, ED

NEMOURS CHILDREN'S HEALTH

Last Updated: 04/08/25

INCLUSION CRITERIA

Oncology patients with temperature ≥38 degrees celsius **AND** one of the following (bullets 2-4):

- Oncology treatment within three months
- History of bone marrow transplant
- History of cellular therapy (CART, gene therapy)

EXCLUSION CRITERIA

- History Sickle Cell Disease
- Concern for Sepsis & Septic Shock

MEASURES

- Order set utilization
- ED arrival to antibiotic administration for patients with CVL

[3]INTRA-ABDOMINAL INFECTION

Use EITHER
Cefepime+metronidazole
OR
Piperacillin/tazobactam alone
If allergy to cephalosporin, then use meropenem alone

[4]CRITERIA FOR ADDITION OF VANCOMYCIN

- Patient currently receiving levofloxacin prophylaxis
- History of cephalosporin resistant Strep viridans group species

DISCUSS WITH ONCOLOGIST

- If presence of severe mucositis, central line site infection or other clinical concerns

Initial Assessment

- Immediately notify ED provider and charge nurse to obtain antibiotic orders
- Prioritize rooming patient
- Obtain Vital Signs – **No Rectal Temperatures**

Concern for sepsis or shock?

Yes → **Sepsis & Septic Shock Pathway**

No

Obtain Labs

- RN access central venous catheter
  - -Do not delay accessing port for topical lidocaine
  - -Place PIV (and obtain peripheral blood culture) if unable to access/no CVL
- Collect CBC, CMP, Magnesium, Phosphorus, Reticulocyte count, blood culture(from all lumens), Type and Screen, clean catch urine
- Consider respiratory pathogen panel and chest x-ray for respiratory symptoms

Bone marrow transplant patients within 6 months *or* cellular therapy patients within 2 months

Yes

Administer Cefepime (Unless previously instructed to use Ceftriaxone by Oncology) within 60 minutes of ED Arrival

Do not delay antibiotics if having difficulty obtaining labs

Please Consider alternative antibiotic recommendations for the following:

- If concern for intra abdominal infection[3]
- If allergy concerns, see Allergy & Drug Reaction Information (page 2)
- Consider addition of vancomycin[4]

ANC >500 and clinically well appearing?

No → **Contact Oncology Team for Admission**

Yes → **Discharge Eligible**

- Alert on call Oncology provider
- Ensure follow up within 48 hours
- **Administer dose of Ceftriaxone if patient has a central line, if not already received**

No

Central venous catheter?

No

Review ANC

ANC < 500 or clinically ill appearing

Administer Cefepime

- If allergy concerns, see Allergy & Drug Reaction Information (page 2)
- Consider addition of vancomycin[4]

Contact Oncology Team for Admission

ANC >500 and clinically well appearing

→ **Discharge Eligible**

Yes

Administer Cefepime (Unless previously instructed to use Ceftriaxone by Oncology) within 60 minutes of ED Arrival

Do not delay antibiotics if having difficulty obtaining labs

Refer to CRS and ICANS pathway for CART patients - NCH-DE Only

Contact Oncology Team for Admission

Medications			
Medication	Route	Dose	Max. per Dose
Cefepime	IV	50mg/kg/dose	2,000mg/dose
Ceftriaxone	IV	75mg/kg/dose	2,000mg/dose
Vancomycin	IV	Dosing varies by patient age and renal function	
Meropenem	IV	40mg/kg/dose	2,000mg/dose
Piperacillin/tazobactam	IV	100mg/kg/dose	4,000mg of piperacillin/dose
Metronidazole	IV	10mg/kg/dose	500mg/dose

Allergy & Drug Reaction Information

Ask ALLERGY Question FIRST: Does patient have IgE mediated penicillin or cephalosporin allergy[1] or other severe reactions[2]?

NO: Continue with algorithm

- **YES** to penicillins →May use 3rd or 4th generation cephalosporins per algorithm
- **YES** to cephalosporins → Consult with pharmacy; May use meropenem

[1]IgE Mediated (Type 1) Allergy

- Allergist-confirmed allergy
- History of urticaria, angioedema, wheezing, respiratory distress or anaphylaxis

[2]Other life threatening and/or severe hypersensitivity reactions

- History of serum sickness or like reactions, erythema multiforme, SJS/TEN/ DRESS – Contact ID

If severe hypersensitivity reactions to any beta-lactam, or allergy/reaction to carbapenem

- Contact ID

Abbreviations			
Abbreviation	**Terminology**	**Abbreviation**	**Terminology**
ANC	Absolute Neutrophil Count	**ICANS**	Immune effector cell-associated neurotoxicity syndrome
C	Celsius	**IgE**	Immunoglobulin E
CART	Chimeric Antigen Receptor T-cell Therapy	**ID**	Infectious Diseases
CBC	Complete Blood Count	**Kg**	Kilograms
CMP	Comprehensive Metabolic Panel	**LOS**	Length of Stay
CRS	Cytokine Release Syndrome	**mg**	Milligrams
CVL	Central Venous Line	**NSAID**	Nonsteroidal Anti-inflammatory Drug
DRESS	Drug Reaction with Eosinophilia and Systemic Symptoms	**PIV**	Peripheral Intravenous
ED	Emergency Department	**PRN**	As needed
G	Grams	**SJS**	Stevens Johnson Syndrome
HLOS	Hospital Length of Stay	**TEN**	Toxic Epidermal Necrolysis

VERSION MANAGEMENT

- Version 1.0 (4/8/2025): Go Live.

Questions about this pathway should be directed to **clinicalpathways@nemours.org**.

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