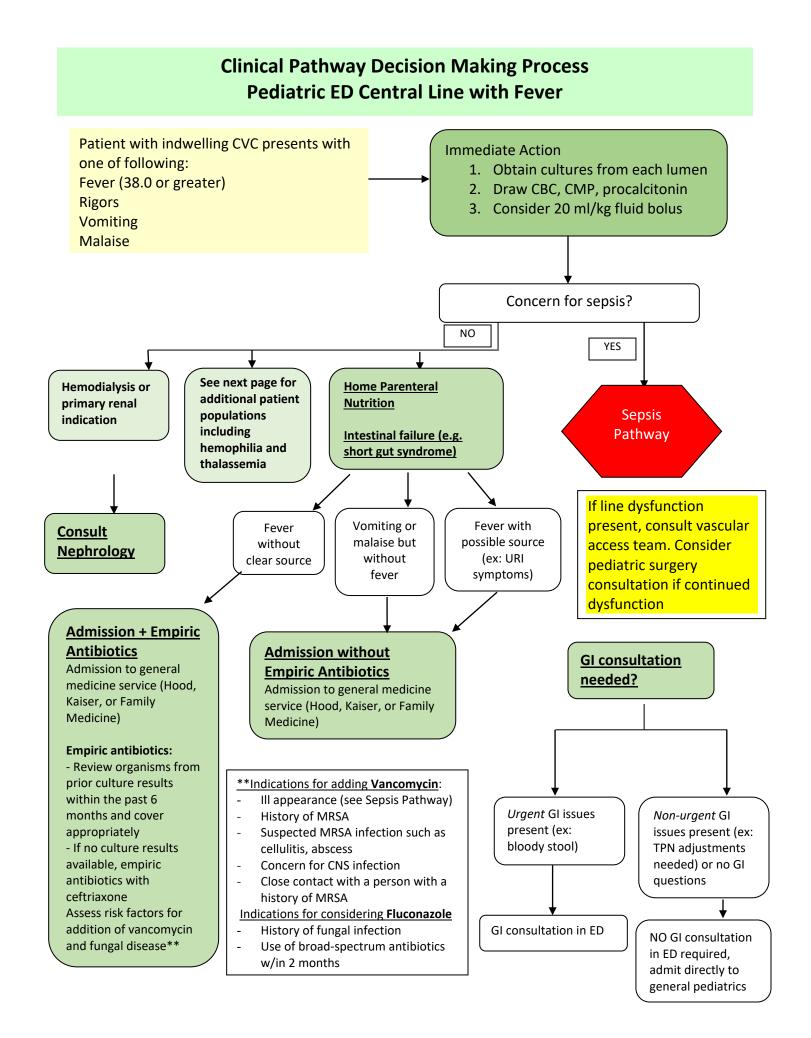
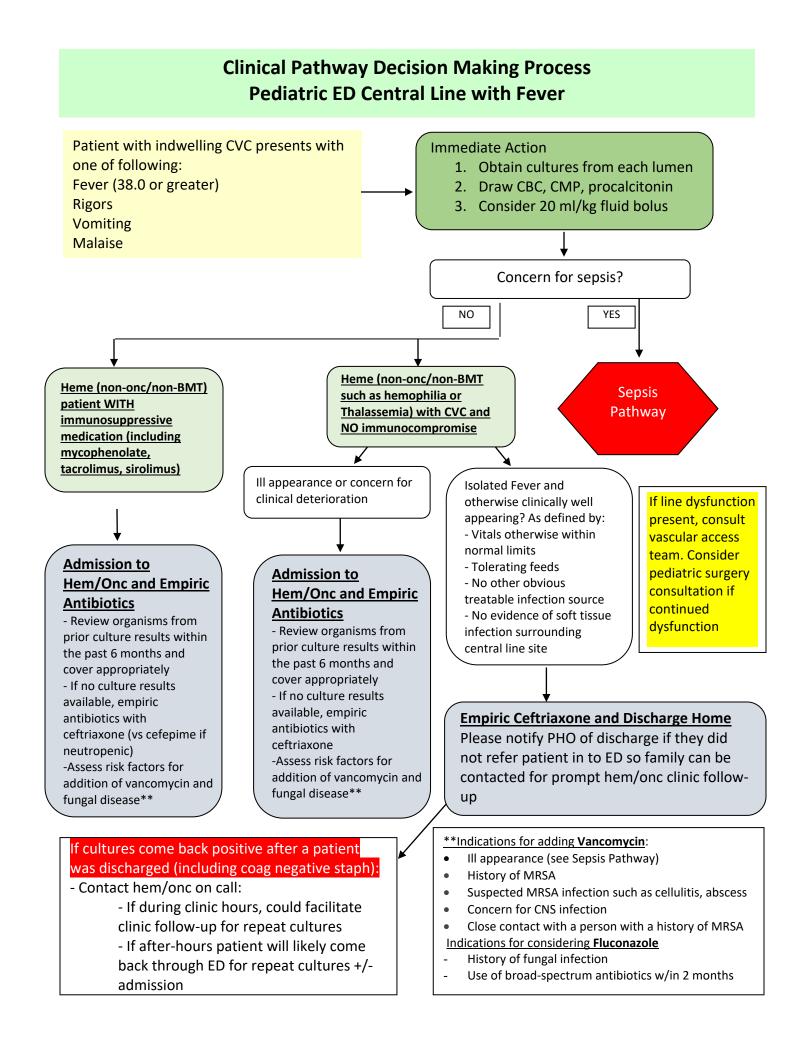
2. Inclusion Criteria	Create standardization around early identification and management of central line associated bloodstream infections Adhere to the OHSU CLABSI Prevention Bundle		
	Pediatric emergency department (ED) patients with indwelling central venous catheters with suspected central line-associated infections, suggested by fever (38.0 or greater), lethargy, malaise, vomiting, or other systemic symptoms		
dy ar in	Patients with central lines in the absence of fever or suspected CLI-associated infections; line dysfunction without symptoms of vomiting, malaise, fever, rigors; patients with malignancy and/or on anti-neoplastic chemotherapy (see Pediatric Neutropenic Fever pathway); apparent infection at line site/tunnel infection; Bone-marrow transplant or solid organ transplant; Sickle-cell disease (see Peds SCD with Fever pathway); Cystic fibrosis		
O	Vital signs, evidence of shock/decompensation, neuro status with attention to alertness. Onset of fever. Presence of central line, last access to port, history of line infections or problems with port, use of an Ethanol lock. Medications, allergies, weight per standard of care and triage guidelines. General appearance.		
INTERVENTIONS1.Initiate on arrival2.3.4.	Full Set of Vital Signs and Sepsis/Shock Screen. Notify MD/DO immediately if meeting Huddle criteria or if in severe shock— initiate Sepsis Pathway for fluid resuscitation and stabilization if appropriate. If not concern for sepsis notify MD of suspected CLI and abnormal vital signs.		
DIAGNOSTICS/ COLLECTION 2. 3.	< 16 years of age: Pediatric Blood Culture Bottle (min. 1mL/recommended 4mL blood)		
PHYSICIAN (LIP) 1. 2.			
	npiric Antibiotics –For all patients, if meets criteria for antibiotics, review culture results ithin the past 6 months and cover appropriately. If no culture results available, start with: Intestinal failure, home TPN with fever and no source: Ceftriaxone 50mg/kg IV (max 2 grams) Non-oncology patient on immunosuppression: Ceftriaxone 50mg/kg IV (max 2 grams) if ANC > 500, Cefepime 50mg/kg IV (max 2 grams) if ANC < 500 Non-oncology patient, no immunocompromise: Ceftriaxone 50mg/kg IV (max 2 grams) Add vancomycin 15mg/kg IV (max dose 3 grams) if ill appearance (see Sepsis Pathway),		
•	history of MRSA, suspected MRSA infection (e.g. cellulitis, abscess), concern for CNS infection, or close contact with a person with a history of MRSA Consider fluconazole 12 mg/kg/dose (max 800 mg) if history of fungal infection or broad- spectrum antibiotics within the last 2 months		
vc sh	 atients with an indwelling central venous catheter who present with fever, malaise, lethargy, pointing, or other signs/symptoms of systemic illness should have blood cultures drawn AND hould be admitted for observation to the appropriate service, <i>regardless</i> of initiation of mpiric antibiotics Contact appropriate service for admission Consult other subspecialty services as appropriate and depending on indication for 		
	indwelling central venous catheter (see decision tree page 2 and 3) hanol lock protocol: <u>https://ohsu.ellucid.com/documents/view/6924</u> Ethanol lock and line does not draw. Consult vascular access team (VAT). Do NOT Flush.		





Pediatric Central Line with Fever Rationale and Data

Goals of Clinical Pathway

- 1. To ensure timely identification and treatment patients with indwelling central venous catheters with concern for infection
- 2. To standardize care of these patients when presenting to the emergency department
- 3. Create an efficient team-oriented approach in conjunction with the pediatric inpatient team
- 4. Ensure stability of patient after antibiotic administration (if appropriate) prior to admission to the floor

Data Considerations	Interventions	Rationale
Obtain baseline rate	Initiate clinical	Goal is to increase rate of obtaining blood cultures after
of obtaining blood	pathway	standardized pathway is introduced
cultures in the peds		
ED within this		
population		
Obtain baseline data	Clinical pathway will	Risk for bacteremia varies depending on the underlying medical
on initiation of	include suggested	condition for patients with indwelling central venous catheters.
antibiotics and initial	empiric antibiotic	Children who have central venous catheters secondary to intestinal
antibiotic choice	choice	failure have even higher rates of infection, with rates from 2-26.5
within this		infections/1000 catheter days, likely due to dependence on
population		parenteral nutrition which serves as a rich medium for bacterial
		growth, in addition to increased bacterial gut translocation. Previous
		retrospective studies within the pediatric emergency department
		identified CLABSI rates at 47-69% in intestinal failure children who
		presented with fever. Patients without fever or with central lines for
		other conditions may be at lower risk of central line associated
		infections and therefore may not warrant empiric antibiotic therapy.
Previous positive	Base empiric	Patients with central venous catheter infections tend to have
blood cultures	antibiotic selection	recurrent infections with the same organisms
	on previous positive	
	blood cultures	
Blood culture from	Draw blood culture	Blood cultures obtained from central venous catheterization appear
central venous	from central line only	to be more sensitive with a higher negative predictive value for
catheter, all lumens	and defer peripheral	ruling out bloodstream infection, while peripheral blood cultures are
	cultures	more specific. There is not current consensus on the ideal approach
		in the pediatric population. Collaborators from this workgroup feel
		that given the challenges with peripheral phlebotomy in some
		children, including those who may require multiple attempts due to
		difficult access, given that many of these children will require
		frequent evaluation, and given that this is a painful procedure, it is
		reasonable to prioritize sensitivity to specificity and forego routine
		peripheral cultures.

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