2018 Sepsis Measure Specifications: Pediatric Time Zero Severe/Shock

1-Hour Bundle: The percentage of discharges in calendar year 2018 for which all components of the 1-hour bundle were satisfied by the hospital.

Criteria	Relevant Data Dictionary Elements
Denominator	
Inclusions	
• All cases except cases removed by the exceptions	Exceptions: • Same PCN but different MRN or UPI • Same MRN but different UPI or DOB • Duplicated or Overlapped Visits • Incorrect Date or Datetime(wrong datetime format or discharge time before or on admission time)
Exclusions	

• Discharges for patients whose age ≥ 18
 	
• 1-hour exclusions: Discharges where patient was excluded from protocol within 1 hour of time zero
 	
    • Earliest of severe sepsis/septic shock is used to determine time.
 	
• 1-hour expired exclusions: Discharges where patient died within 1 hour of time zero
 	
    • Earliest of severe sepsis/septic shock is used to determine time.
	• Admission Datetime – Date of Birth ≥ 18 yrs
	
	• (Severe Sepsis Time Not Null -OR- Septic Shock Time Not Null) -AND- Excluded Time Not Null -AND- time interval between Excluded Time and the minimum of Severe Sepsis Time and Septic Shock Time not greater than 1 hr (Excluded Time – min(Severe Sepsis Time, Septic Shock Time) ≤ 1 hr)
	
	• (Severe Sepsis Time Not Null -OR- Septic Shock Time Not Null) -AND- Discharge Time Not Null -AND- Discharge Status = 20 -AND- time interval between Discharge Time and the minimum of Severe Sepsis Time and Septic Shock Time not greater than 1 hr (Discharge Time – min(Severe Sepsis Time, Septic Shock Time) ≤ 1 hr)

Denominator/Exclusion/Numerator	
Denominator: • Antibiotic Administration • Blood Culture Collection • Crystalloid Fluid Administration	• All cases except cases dropped by *1-Hour Exclusions*

Numerator:
- Antibiotic Administration within 1 hour of time zero

- Earliest of severe sepsis/septic shock is used to determine time.

- Antibiotic Administration = 1 -AND- Antibiotic Administration Time Not Null **-AND-**
- (
- (Severe Sepsis Time Not Null -OR- Septic Shock Time Not Null) -AND- time interval between Antibiotic Administration Time and the minimum of Severe Sepsis Time and Septic Shock Time not more than 24 hr before and not greater than 1 hr (-24 hr≤ Antibiotic Administration Time – min(Severe Sepsis Time, Septic Shock Time) ≤ 1 hr)
-)

Numerator:
- Blood Culture Collection prior to antibiotics and within 1 hour of time zero

- Earliest of severe sepsis/septic shock is used to determine time.

- This allows if antibiotic never done but blood culture was done within 1 hour.

- Blood Culture Collection = 1 -AND- Blood Culture Collection Time Not Null -AND- {[Antibiotic Administration Time Not Null -AND- (time interval between Antibiotic Administration Time and Blood Culture Collection Time not less than 0 (Antibiotic Administration Time – Blood Culture Collection Time ≥ 0)] -OR- (Antibiotic Administration = 2 -AND- Blood Culture Collection = 1)} **-AND-**
- (
- (Severe Sepsis Time Not Null -OR- Septic Shock Time Not Null) -AND- time interval between Blood Culture Collection Time and the minimum of Severe Sepsis Time and Septic Shock Time not greater than 1 hr (Blood Culture Collection Time – min(Severe Sepsis Time, Septic Shock Time) ≤ 1 hr)
-)

Numerator:
- Crystalloid Fluid Administration within 1 hour of time zero

- Earliest of severe sepsis/septic shock is used to determine time.

- Pediatric Crystalloid Fluid Administration = 1 -AND- Crystalloid Fluid Administration Time Not Null   **-AND-**
- (Severe Sepsis Time Not Null -OR- Septic Shock Time Not Null)-AND- time interval between Crystalloid Fluid Administration

	Time and the minimum of Severe Sepsis Time and Septic Shock Time not greater than 1 hr (Crystalloid Fluid Administration Time – min(Severe Sepsis Time, Septic Shock Time)≤ 1 hr) **-AND-** • Arrival Time Not Null -AND- time interval between Crystalloid Fluid Administration Time and Arrival Time not more than 6 hr before (Crystalloid Fluid Administration Time – Arrival Time ≥ -6 hr) •)