3-Hour Bundle: The percentage of discharges in calendar year 2015 or 2016 for which all components of the 3-hour bundle were satisfied by the hospital.

6-Hour Bundle: The percentage of discharges in calendar year 2015 or 2016 for which all components of the 6-hour bundle were satisfied by the hospital. The 6-hour bundle includes the 3-hour bundle.

Criteria	Relevant Data Dictionary Elements
Denominator	
Inclusions	
All cases which a protocol was initiated in the ED except cases removed by the exceptions	<ul> <li>Protocol Initiated Place = 1</li> <li>Exceptions:</li> <li>Same PCN but different MRN or UPI</li> <li>Same MRN but different UPI or DOB</li> <li>Duplicated or Overlapped Visits</li> <li>Incorrect Date or Datetime (wrong datetime format or discharge time before or on admission time)</li> </ul>
Exclusions	
<ul> <li>Discharges for patients whose age &lt; 18</li> </ul>	<ul> <li>Admission Datetime – Date of Birth &lt; 18 yrs</li> </ul>
<ul> <li>3-hour exclusions: Discharges where patient was excluded from protocol within 3 hours of time zero</li> <li>If triage time not provided, earliest of admission/earliest is used to determine time.</li> </ul>	<ul> <li>Triage Time Not NULL -AND- Excluded from Protocol = 1 -AND- time interval between Excluded Time and Triage Time not null and not greater than 3 hr (null &lt; Excluded Time – Triage Time ≤ 3 hr) -OR-</li> <li>Triage Time NULL -AND- Excluded from Protocol = 1 -AND- time interval between Excluded Time and the minimum of Earliest Time and Admission Time not null and not greater than 3 hr (null &lt; Excluded Time – min(Earliest Time , Admission Time) ≤ 3 hr)</li> </ul>
<ul> <li>3-hour expired exclusions: Discharges where patient died within 3 hours of time zero</li> <li>If triage time not provided, earliest of admission/earliest is used to determine time.</li> </ul>	<ul> <li>Triage Time Not Null -AND- Discharge Status = 20 -AND- time interval between Discharge Time and Triage Time not null and not greater than 3 hr (null &lt; Discharge Time – Triage Time ≤ 3 hr) - OR-</li> <li>Triage Time Null -AND- Discharge Status = 20 -AND- time interval between Discharge Time and the minimum of Earliest Time and Admission Time not null</li> </ul>

	and not greater than 3 hr (null < Discharge Time – min(Earliest Time , Admission Time) ≤ 3 hr)
<ul> <li>Discharges where patient was transferred to or from another hospital</li> </ul>	<ul> <li>Transfer Status = 3, 4, or 5 -OR-</li> <li>Discharge Status = 02, 05, 66, 82, 85, 94 -OR-</li> <li>Source of Admission = 4</li> </ul>
Denominator/Exclusion/Numerator	
Denominator: Initial Lactate Level Collection Antibiotic Administration Blood Culture Collection	<ul> <li>All cases except cases dropped by 3- Hour Exclusions</li> </ul>
<ul> <li>Numerator: <ul> <li>Lactate Reported within 3 hours of time zero</li> </ul> </li> <li>If triage time not provided, earliest of admission/earliest is used to determine time.</li> </ul>	<ul> <li>Triage Time Not Null -AND- time interval between Lactate Reported Time and Triage Time not null and not greater than 3 hr (null &lt; Lactate Reported Time – Triage Time ≤ 3 hr) -OR-</li> <li>Triage Time Null -AND- time interval between Lactate Reported Time and the minimum of Earliest Time and Admission Time not null and not greater than 3 hr (null &lt; Lactate Reported Time – min(Earliest Time , Admission Time) ≤ 3 hr)</li> </ul>
<ul> <li>Numerator: <ul> <li>Antibiotics Given within 3 hours of time zero</li> </ul> </li> <li>If triage time not provided, earliest of admission/earliest is used to determine time.</li> </ul>	<ul> <li>Triage Time Not Null -AND- time interval between Antibiotics Start Time and Triage Time not null and not greater than 3 hr (null &lt; Antibiotics Start Time – Triage Time ≤ 3 hr) -OR-</li> <li>Triage Time Null -AND- time interval between Antibiotics Start Time and the minimum of Earliest Time and Admission Time not null and not greater than 3 hr (null &lt; Antibiotics Start Time – min(Earliest Time , Admission Time) ≤ 3 hr)</li> </ul>
Numerator: Blood Cultures Obtained prior to antibiotics and within 3 hours of	<ul> <li>(</li> <li>Triage Time Not Null -AND- Blood Cultures Obtained = 1</li> </ul>

<ul> <li>time zero</li> <li>If triage time not provided, earliest of admission/earliest is used to determine time.</li> <li>This allows if antibiotic never done but blood culture was done within 3 hours.</li> </ul>	<ul> <li>-And- (</li> <li>(time interval between Antibiotics Start Time and Blood Cultures Obtained Time – Blood Cultures Obtained Time ≥ 0) –AND- time interval between Blood Cultures Obtained Time and Triage Time not greater than 3 hr (Blood Cultures Obtained Time – Triage Time ≤ 3 hr))</li> <li>-OR-</li> <li>(Blood Cultures Obtained Time Not Null and Antibiotics Start Time Null and time interval between Blood Cultures Obtained Time and Triage Time not greater than 3 hr (Blood Cultures Obtained Time – Triage Time ≤ 3 hr))</li> <li>)-OR- (</li> <li>Triage Time Null -AND- Blood Cultures Obtained = 1</li> <li>-And- (</li> <li>(time interval between Antibiotics Start Time and Blood Cultures Obtained Time not less than 0 (Antibiotics Start Time and Blood Cultures Obtained Time not less than 0 (Antibiotics Start Time – Blood Cultures Obtained Time &gt; 0 - Blood Cultures Obtained Time pot less than 0 (Antibiotics Start Time – Blood Cultures Obtained Time ≥ 0) -AND- time interval between Blood Cultures Obtained = 1</li> <li>-And- (</li> <li>(time interval between Blood Cultures Obtained Time and the minimum of Earliest Time and Admission Time not greater than 3 hr (Blood Cultures Obtained Time - min(Earliest Time, Admission Time) ≤ 3 hr))</li> <li>-OR-</li> <li>(Blood Cultures Obtained Time Not Null and Antibiotics Start Time Null and time interval between Blood Cultures Obtained Time and the minimum of Earliest Time and Admission Time not greater than 3 hr (Blood Cultures Obtained Time Null and time interval between Blood Cultures Obtained Time and the minimum of Earliest Time and Admission Time not greater than 3 hr (Blood Cultures Obtained Time – min(Earliest Time, Admission Time) ≤ 3 hr))</li> <li>)</li> </ul>
<ul> <li>6-hour exclusion or expired:</li> <li>If triage time not provided, earliest of admission/earliest is used to determine time.</li> </ul>	<ul> <li>(</li> <li>Triage Time Not NULL -AND- Excluded from Protocol = 1 -AND- time interval between Excluded Time and Triage Time not null and not greater than 6 hr (null &lt; Excluded Time – Triage Time ≤ 6 hr) -OR-</li> </ul>

2015 & 2016 Sepsis Measure Specifications:	Adult Time zero triage
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	<ul> <li>Triage Time NULL -AND- Excluded from Protocol = 1 -AND- time interval between Excluded Time and the minimum of Earliest Time and Admission Time not null and not greater than 6 hr (null &lt; Excluded Time – min(Earliest Time , Admission Time) ≤ 6 hr)</li> <li>) -OR-</li> <li>(</li> <li>Triage Time Not Null -AND- Discharge Status = 20 -AND- time interval between Discharge Time and Triage Time not null and not greater than 6 hr (null &lt; Discharge Time – Triage Time ≤ 6 hr) -OR-</li> <li>Triage Time Null -AND- Discharge Status = 20 -AND- time interval between Discharge Time and the minimum of Earliest Time and Admission Time not null and not greater than 6 hr (null &lt; Discharge Time – min(Earliest Time , Admission Time) ≤ 6 hr)</li> <li>)</li> </ul>
<ul> <li>Denominator:</li> <li>Lactate Re-ordered within 6 hours of time zero</li> <li>This captures requirement for patients with elevated lactate (≥ 4) or patients who never had initial lactate done (i.e., case fails both initial and repeat if lactate never done).</li> </ul>	<ul> <li>All cases except cases dropped by 6- Hour Exclusions -AND-</li> <li>Lactate Reported ≠ 1 -OR- Lactate Level ≥ 4 mmol/L</li> </ul>
<ul> <li>Numerator: <ul> <li>Lactate Re-ordered within 6 hours of time zero</li> </ul> </li> <li>If triage time not provided, earliest of admission/earliest is used to determine time.</li> </ul>	<ul> <li>Lactate Reported ≠ 1 -OR- Lactate Level ≥ 4 mmol/L -AND-</li> <li>(</li> <li>Triage Time Not Null -AND- time interval between Lactate Re-ordered Time and Triage Time not null and not greater than 6 hr (null &lt; Lactate Re-ordered Time – Triage Time ≤ 6 hr) -OR-</li> <li>Triage Time Null -AND- time interval</li> </ul>

	<ul> <li>between Lactate Re-ordered Time and the minimum of Earliest Time and Admission Time not null and not greater than 6 hr (null &lt; Lactate Re-ordered Time – min(Earliest Time, Admission Time) ≤ 6 hr)</li> <li>)</li> </ul>
<ul> <li>Denominator: <ul> <li>Crystalloid Fluid Administration within 6 hours of time zero</li> <li>After exclusions, select cases that are crystalloid fluid required as denominator.</li> <li>This captures requirement for patients with elevated lactate (≥ 4) or patients who never had initial lactate done. This also captures patient with no response to hypotension or with hypotension (responsive or non-responsive).</li> </ul> </li> </ul>	<ul> <li>All cases except cases dropped by 6- Hour Exclusions -AND-</li> <li>(Hypotension Null -OR- Hypotension in (0,1)) -OR- Lactate Level ≥ 4 mmol/L - OR- Lactate Level Null</li> </ul>
<ul> <li>Numerator:</li> <li>Crystalloid Fluid Administration within 6 hours of time zero</li> <li>If triage time not provided, earliest of admission/earliest is used to determine time.</li> </ul>	<ul> <li>(Hypotension Null -OR- Hypotension in (0,1)) -OR- Lactate Level ≥ 4 mmol/L - OR- Lactate Level Null -AND-</li> <li>(</li> <li>Triage Time Not Null -AND- (Adult Fluids in (0,1,2)) -AND- time interval between Fluids Completed Time and Triage Time not null and not greater than 6 hr (null &lt; Fluids Completed Time – Triage Time ≤ 6 hr) -OR-</li> <li>Triage Time Null -AND- (Adult Fluids in (0,1,2)) -AND- time interval between Fluids Completed Time and the minimum of Earliest Time and Admission Time not null and not greater than 6 hr (null &lt; Fluids Completed Time – min(Earliest Time, Admission Time) ≤ 6 hr)</li> </ul>
Denominator: • Vasopressor Administration within 6	<ul> <li>All cases except cases dropped by 6- Hour Exclusions -AND-</li> </ul>

<ul> <li>hours of time zero</li> <li>This captures requirement for patients with no response to hypotension or with hypotension not responsive to fluids.</li> </ul>	• Hypotension Null -OR- Hypotension = 0
<ul> <li>Numerator:</li> <li>Vasopressor Administration within 6 hours of time zero</li> <li>If triage time not provided, earliest of admission/earliest is used to determine time.</li> </ul>	<ul> <li>Hypotension Null -OR- Hypotension = 0</li> <li>-AND-</li> <li>(</li> <li>Triage Time Not Null -AND- time interval between Vasopressor Given Time and Triage Time not null and not greater than 6 hr (null &lt; Vasopressor Given Time – Triage Time ≤ 6 hr) -OR-</li> <li>Triage Time Null -AND- time interval between Vasopressor Given Time and the minimum of Earliest Time and Admission Time not null and not greater than 6 hr (null &lt; Vasopressor Given Time – min(Earliest Time, Admission Time) ≤ 6 hr)</li> <li>)</li> </ul>