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 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	Admission Datetime – Date of Birth < 18 yrs
 3-hour exclusions: Discharges where patient was excluded from protocol within 3 hours of time zero If protocol time not provided, earliest of admission/earliest/triage is used to determine time. 	 Protocol Time Not Null -AND- Excluded From Protocol = 1 -AND- time interval between Excluded Time and Protocol Time not null and not greater than 3 hr (null < Excluded Time – Protocol Time ≤ 3 hr) -OR- Protocol Time Null -AND- Excluded From Protocol = 1 -AND- time interval between Excluded Time and the minimum of Earliest Time, Triage Time and Admission Time not null and not greater than 3 hr (null < Excluded Time – min(Earliest Time, Triage Time, Admission Time) ≤ 3 hr)
3-hour expired exclusions: Discharges where patient died within 3 hours of time zero If protocol time not provided, earliest of admission/earliest/triage is used to determine time.	 Protocol Time Not Null -AND- Discharge Status = 20 -AND- time interval between discharge Time and Protocol Time not null and not greater than 3 hr (null < Discharge Time - Protocol Time ≤ 3 hr) -OR- Protocol Time Null -AND- Discharge Status = 20 -AND- time interval between Excluded Time and the minimum of Earliest Time, Triage Time and Admission Time not null and not greater than 3 hr

2015 & 2016 Sepsis Measure Specifications. Addit time zero protocol	
	<pre>(null < Discharge Time – min(Earliest Time, Triage Time, Admission Time) ≤ 3 hr)</pre>
Denominator/Exclusion/Numerator	
Denominator:	All cases except cases dropped by 3- Hour Exclusions
Numerator:	Protocol Time Not Null -AND- time

- Lactate Reported within 3 hours of time zero
- If protocol time not provided, earliest of admission/earliest/triage is used to determine time.

Numerator:

- Antibiotics Given within 3 hours of time zero
- If protocol time not provided, earliest of admission/earliest/triage is used to determine time.

- Protocol Time Not Null -AND- time interval between Lactate Reported Time and Protocol Time not null and not greater than 3 hr (null < Lactate Reported Time – Protocol Time ≤ 3 hr) -OR-
- Protocol Time Null -AND- time interval between Lactate Reported Time and the minimum of Earliest Time, Triage Time and Admission Time not null and not greater than 3 hr (null < Lactate Reported Time – min(Earliest Time, Triage Time, Admission Time) ≤ 3 hr)
- Protocol Time Not Null -AND- time interval between Antibiotics Start Time and Protocol Time not null and not greater than 3 hr (null < Antibiotics Start Time – Protocol Time ≤ 3 hr) -OR-
- Protocol Time Null -AND- time interval between Antibiotics Start Time and the minimum of Earliest Time, Triage Time and Admission Time not null and not greater than 3 hr (null < Antibiotics Start Time – min(Earliest Time, Triage Time, Admission Time) ≤ 3 hr)

Numerator:

- Blood Cultures Obtained prior to antibiotics and within 3 hours of time zero
- If protocol time not provided, earliest of admission/earliest/triage
- (
- Protocol Time Not Null -AND- Blood Cultures Obtained = 1
- -And- (
- (time interval between Antibiotics Start Time and Blood Cultures Obtained Time not less than 0 (Antibiotics Start Time –

is used to determine time.

 This allows if antibiotic never done but blood culture was done within 3 hours. Blood Cultures Obtained Time ≥ 0) –ANDtime interval between Blood Cultures Obtained Time and Protocol Time not greater than 3 hr (Blood Cultures Obtained Time – Protocol Time ≤ 3 hr))

- -OR-
- (Blood Cultures Obtained Time Not Null and Antibiotics Start Time Null and time interval between Blood Cultures Obtained Time and Protocol Time not greater than 3 hr (Blood Cultures Obtained Time – Protocol Time ≤ 3 hr))
-)
-) -OR- (
- Protocol Time Null -AND- Blood Cultures Obtained = 1
- -And- (
- (time interval between Antibiotics Start Time and Blood Cultures Obtained Time not less than 0 (Antibiotics Start Time Blood Cultures Obtained Time ≥ 0) -AND-time interval between Blood Cultures Obtained Time and the minimum of Earliest Time, Triage Time and Admission Time not greater than 3 hr (Blood Cultures Obtained Time min(Earliest Time, Triage Time, Admission Time) ≤ 3 hr))
- -OR-
- (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, Triage Time and Admission Time not greater than 3 hr (Blood Cultures Obtained Time – min(Earliest Time, Triage Time, Admission Time) ≤ 3 hr))
-)
- 6-hour exclusion or expired:
 - If protocol time not provided, earliest of admission/earliest/triage is used to determine time.
- •
- Protocol Time Not Null -AND- Excluded From Protocol = 1 -AND- time interval between Excluded Time and Protocol Time not null and not greater than 6 hr (null < Excluded Time – Protocol Time ≤ 6 hr) -OR-
- Protocol Time Null -AND- Excluded From

Protocol = 1 -AND- time interval between Excluded Time and the minimum of Earliest Time, Triage Time and Admission Time not null and not greater than 6 hr (null < Excluded Time – min(Earliest Time, Triage Time, Admission Time) ≤ 6 hr)

-) -OR-
- (
- Protocol Time Not Null -AND- Discharge Status = 20 -AND- time interval between discharge Time and Protocol Time not null and not greater than 6 hr (null < Discharge Time - Protocol Time ≤ 6 hr)
 -OR-
- Protocol Time Null -AND- Discharge
 Status = 20 -AND- time interval between
 Excluded Time and the minimum of
 Earliest Time, Triage Time and Admission
 Time not null and not greater than 6 hr
 (null < Discharge Time min(Earliest
 Time, Triage Time, Admission Time) ≤ 6
 hr)
-)

Denominator:

- Lactate Re-ordered within 6 hours of time zero
- 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).

Numerator:

- Lactate Re-ordered within 6 hours of time zero
- If protocol time not provided, earliest of admission/earliest/triage is used to determine time.

- All cases except cases dropped by 6-Hour Exclusions -AND-
- Lactate Reported ≠ 1 -OR- Lactate Level
 ≥ 4 mmol/L

- Lactate Reported ≠ 1 -OR- Lactate Level
 ≥ 4 mmol/L -AND-
- (
- Protocol Time Not Null -AND- time interval between Lactate Re-ordered Time and Protocol Time not null and not greater than 6 hr (null < Lactate Re-ordered Time

Denominator:

- Crystalloid Fluid Administration within 6 hours of time zero
- After exclusions, select cases that are crystalloid fluid required as denominator.
- 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).

Numerator:

- Crystalloid Fluid Administration within 6 hours of time zero
- If protocol time not provided, earliest of admission/earliest/triage is used to determine time.

- Protocol Time ≤ 6 hr) -OR-
- Protocol Time Null -AND- time interval between Lactate Re-ordered Time and the minimum of Earliest Time, Triage Time and Admission Time not null and not greater than 6 hr (null < Lactate Reordered Time – min(Earliest Time, Triage Time, Admission Time) ≤ 6 hr)
-)
- All cases except cases dropped by 6-Hour Exclusions -AND-
- (Hypotension Null -OR- Hypotension in (0,1)) -OR- Lactate Level ≥ 4 mmol/L -OR- Lactate Level Null

- (Hypotension Null -OR- Hypotension in (0,1)) -OR- Lactate Level ≥ 4 mmol/L -OR- Lactate Level Null -AND-
- (
- Protocol Time Not Null -AND- (Adult Fluids in (0,1,2)) -AND- time interval between Fluids Completed Time and Protocol Time not null and not greater than 6 hr (null < Fluids Completed Time – Protocol Time ≤ 6 hr) -OR-
- Protocol Time Null -AND- (Adult Fluids in (0,1,2)) -AND- time interval between Fluids Completed Time and the minimum of Earliest Time, Triage Time and Admission Time not null and not greater than 6 hr (null < Fluids Completed Time – min(Earliest Time, Triage Time, Admission Time) ≤ 6 hr)

Denominator:

 Vasopressor Administration within 6 hours of time zero

- This captures requirement for patients with no response to hypotension or with hypotension not responsive to fluids.
- All cases except cases dropped by 6-Hour Exclusions -AND-
- Hypotension Null -OR- Hypotension = 0

Numerator:

- Vasopressor Administration within 6 hours of time zero
- If protocol time not provided, earliest of admission/earliest/triage is used to determine time.
- Hypotension Null -OR- Hypotension = 0
- -AND-
- (
- Protocol Time Not Null -AND- time interval between Vasopressor Given Time and Protocol Time not null and not greater than 6 hr (null < Vasopressor Given Time - Protocol Time ≤ 6 hr) -OR-
- Protocol Time Null -AND- time interval between Vasopressor Given Time and the minimum of Earliest Time, Triage Time and Admission Time not null and not greater than 6 hr (null < Vasopressor Given Time – min(Earliest Time, Triage Time, Admission Time) ≤ 6 hr)

•)