

SEPSIS Measures

General Inclusion: Patients with severe sepsis, septic shock

General Exclusion: Patients who are < 16 years of age

Quality Indicator	Definition of Indicator	Specifications
Blood cultures collected before broad-spectrum antibiotic administration	The percent of patients presenting with severe sepsis, septic shock who had blood cultures collected prior to broad-spectrum antibiotic administration	<i>Numerator:</i> number of patients who had blood cultures collected before broad-spectrum antibiotic administration following presentation with severe sepsis, septic shock <i>Denominator:</i> number of patients presenting with severe sepsis, septic shock

Quality Indicator	Definition of Indicator	Specifications
For patients presenting to the ED with severe sepsis, septic shock, median time in minutes to broad-spectrum antibiotic(s) initiation from ED registration time.	Median time to initiation of broad-spectrum antibiotic(s) following patient registration in the ED.	For patients presenting with severe sepsis, septic shock to the ED, median time in minutes to broad-spectrum antibiotic(s) initiation from patient registration in the ED. Exclusion: patients identified with severe sepsis, septic shock greater than 24 hours after ICU admission.

Quality Indicator	Definition of Indicator	Specifications
For patients presenting to the ICU with severe sepsis, septic shock from units other than the ED, median time in minutes to broad-spectrum antibiotic(s) from recorded ICU admission time.	Median time to initiation of broad-spectrum antibiotic(s) following admission to the ICU from units other than the ED.	For patients presenting with severe sepsis, septic shock to the ICU from units other than the ED, median time in minutes to broad-spectrum antibiotic(s) initiation from recorded ICU admission time. Exclusion: patients identified with severe sepsis, septic shock greater than 24 hours after ICU admission.

Quality Indicator	Definition of Indicator	Specifications
Central venous catheter placed and CVP maintained on average ≥ 8 mm Hg following septic shock or lactate > 4 identification	The percent of patients for whom CVP was maintained on average ≥ 8 mmHg following septic shock or lactate > 4 identification	<i>Numerator:</i> the number of patients for whom CVP was maintained on average ≥ 8 mmHg following septic shock or lactate > 4 identification <i>Denominator:</i> the number of patients with severe sepsis with lactate > 4 or septic shock <i>Exclusion:</i> patients with uncomplicated sepsis or severe sepsis with lactate ≤ 4

Quality Indicator	Definition of Indicator	Specifications
Following septic shock or lactate > 4 identification, once ScVO ₂ is measured to be < 70% (or SVO ₂ < 65%) and CVP ≥ 8 mmHg, PRBC's transfused for hematocrit < 30% on baseline laboratory values	The percent of patients following septic shock or lactate > 4 identification, who once ScVO ₂ is measured to be < 70% (or SVO ₂ < 65%) and CVP ≥ 8 mmHg, receive a transfusion of PRBC's if hematocrit is identified to be < 30% on baseline laboratory values	<p><i>Numerator:</i> the number of patients following septic shock or lactate > 4 identification, who once ScVO₂ is measured to be < 70% (or SVO₂ < 65%) and CVP ≥ 8 mmHg, received a transfusion of PRBC's if hematocrit was identified to be < 30% on baseline laboratory values</p> <p><i>Denominator:</i> the number of patients with ScVO₂ measured to be < 70% (or SVO₂ < 65%), CVP ≥ 8 mmHg and hematocrit < 30% on baseline laboratory values following septic shock or lactate > 4 identification</p> <p><i>Exclusion:</i> patients with uncomplicated sepsis or severe sepsis with lactate ≤ 4 or hematocrit > 30%</p>

Quality Indicator	Definition of Indicator	Specifications
Following septic shock or lactate > 4 identification, once ScVO ₂ is measured to be < 70% (or SVO ₂ < 65%), hematocrit ≥ 30% and CVP ≥ 8 mmHg, inotropes should be initiated for ScVO ₂ < 70% and titrated to maintain ScVO ₂ ≥ 70% (or SVO ₂ ≥ 65%) on average	The percent of patients following septic shock or lactate > 4 identification, who once ScVO ₂ is measured to be < 70% (or SVO ₂ < 65%), hematocrit ≥ 30%, CVP ≥ 8 mmHg, received inotropes titrated to maintain ScVO ₂ ≥ 70% (or SVO ₂ ≥ 65%) on average	<p><i>Numerator:</i> the number of patients following septic shock or lactate > 4 identification, who once ScVO₂ is measured to be < 70% (or SVO₂ < 65%), hematocrit ≥ 30% and CVP ≥ 8 mmHg, received inotropes titrated to maintain ScVO₂ ≥ 70% (or SVO₂ ≥ 65%) on average</p> <p><i>Denominator:</i> the number of patients with ScVO₂ measured to be < 70% (or SVO₂ < 65%), hematocrit ≥ 30%, CVP ≥ 8 mmHg following septic shock or lactate > 4 identification</p> <p><i>Exclusion:</i> patients with uncomplicated sepsis or severe sepsis with lactate ≤ 4</p>

Quality Indicator	Definition of Indicator	Specifications
Glucose control maintained with median value < 150 mg/dl within 24 hours following presentation with severe sepsis, septic shock	The percent of patients with severe sepsis, septic shock for whom serum glucose is maintained at a median value < 150 mg/dl within 24 hours	<p><i>Numerator:</i> number of patients with serum glucose maintained at a median value < 150 mg/dl within 24 hours following presentation with severe sepsis, septic shock</p> <p><i>Denominator:</i> number of patients presenting with severe sepsis, septic shock</p>

Quality Indicator	Definition of Indicator	Specifications
Drotrecogin alpha (activated) eligibility assessed within 24 hours following presentation with	The percent of patients with severe sepsis or septic shock who were assessed for Drotrecogin alpha (activated) using hospital guidelines within 24 hours	<p><i>Numerator:</i> number of patients who were assessed for Drotrecogin alpha (activated) eligibility within 24 hours following presentation with severe sepsis, septic shock</p> <p><i>Denominator:</i> total number of patients</p>

severe sepsis, septic shock		presenting with severe sepsis, septic shock <i>Exclusion:</i> uncomplicated sepsis
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Quality Indicator	Definition of Indicator	Specifications
Steroids administered for patients continuing to require vasopressors for equal to or greater than 6 hours within 24 hours following presentation with severe sepsis, septic shock	The percent of patients continuing to require vasopressors for equal to or greater than 6 hours who received steroids within 24 hours following presentation with severe sepsis, septic shock	<i>Numerator:</i> number of patients continuing to require vasopressors for equal to or greater than 6 hours who received steroids within 24 hours following presentation with severe, sepsis, septic shock <i>Denominator:</i> total number of patients presenting with severe sepsis, septic shock continuing to require vasopressors for equal to or greater than 6 hours within 24 hours following presentation with severe, sepsis, septic shock

Quality Indicator	Definition of Indicator	Specifications
Inspiratory plateau pressure maintained on average less than 30 cm H ₂ O in mechanically ventilated patients presenting with severe sepsis, septic shock	The percent of patients presenting with severe sepsis, septic shock who have IPP maintained on average < 30 cm H ₂ O within 24 hours following presentation with severe sepsis, septic shock	<i>Numerator:</i> number of mechanically ventilated patients with severe sepsis, septic shock who had IPP maintained on average < 30 cm H ₂ O during within 24 hours following presentation with severe sepsis, septic shock. <i>Denominator:</i> number of mechanically ventilated patients presenting with severe sepsis, septic shock <i>Exclusion:</i> Patients not mechanically ventilated.

Improvement Measure	Definition of Measure	Specifications
Reliability of compliance with the 6-hour severe sepsis and septic shock bundle	The percent of cases of severe sepsis, septic shock that completed all applicable 6-hour bundle elements	<i>Numerator:</i> the number of cases of severe sepsis, septic shock that completed all applicable 6-hour bundle elements <i>Denominator:</i> total number of patients with severe sepsis, septic shock <i>Exclusion:</i> uncomplicated sepsis

Improvement Measure	Definition of Measure	Specifications
Reliability of compliance with the 24-hour severe sepsis and septic shock bundle	The percent of cases of severe sepsis, septic shock that completed all applicable 24-hour bundle elements	<i>Numerator:</i> the number of cases of severe sepsis, septic shock that completed all applicable 24-hour bundle elements <i>Denominator:</i> total number of patients with

		severe sepsis, septic shock <i>Exclusion: uncomplicated sepsis</i>
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Improvement Measure	Definition of Measure	Specifications
Mortality due to severe sepsis, septic shock	The percent of cases of death due to severe sepsis, septic shock	<i>Numerator:</i> the number of cases of death due to severe sepsis, septic shock <i>Denominator:</i> total number of patients with severe sepsis, septic shock <i>Exclusion:</i> uncomplicated sepsis