# IT-4.10: Severe Sepsis and Septic Shock: Management Bundle

| **Measure Title** | **IT-4.10 Severe Sepsis and Septic Shock: Management Bundle** |
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| **Description** | Patients aged 18 years and older who present with symptoms of severe sepsis or septic shock. These patients will be eligible for the 3 hour (severe sepsis) and/or 6 hour (septic shock) early management bundle. |
| **NQF Number** | 0500 |
| **Measure Steward** | Henry Ford Hospital |
| **Link to measure citation** | <http://www.qualityforum.org/QPS/0500> http://www.survivingsepsis.org/Bundles/Pages/default.aspx |
| **Measure type** | Stand-alone (SA) |
| **Performance and Achievement Type**  | Pay for Performance (P4P) – Improvement Over Self (IOS)

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|  | DY4 | DY5 |
| Achievement Level Calculation | Baseline + 5% \*(performance gap)=Baseline + 5% \*(0% – Baseline rate) | Baseline + 10% \*(performance gap)=Baseline + 10% \*(0% – Baseline rate) |

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| **DSRIP-specific modifications to Measure Steward’s specification** | Modification of management component F to align with recommended revisions to specifications.  |
| **Denominator Description**  | Number of patients presenting with severe sepsis or septic shock. |
| **Denominator Inclusions** | There are no additional numerator/denominator inclusions/exclusions specified by the Measure Steward. |
| **Denominator Exclusions** | A) Patients with advanced directives for comfort care are excluded.B) Clinical conditions that preclude total measure completion should be excluded (e.g. mortality within the first 6 hours of presentation).C) Patients for whom a central line is clinically contraindicated (e.g. coagulopathy that cannot be corrected, inadequate internal jugular or subclavian central venous access due to repeated cannulations).D) Patients for whom a central line was attempted but could not be successfully inserted.E) Patient or surrogate decision maker declined or is unwilling to consent to such therapies or central line placement. |
| **Denominator Size** | Providers must report a minimum of 30 cases per measure during a 12-month measurement period (15 cases for a 6-month measurement period)* For a measurement period (either 6 or 12 months) where the denominator size is less than or equal to 75, providers must report on all cases. No sampling is allowed.
* For a measurement period (either 6 or 12 months) where the denominator size is less than or equal to 380 but greater than 75, providers must report on all cases (preferred, particularly for providers using an electronic health record) or a random sample of not less than 76 cases.
* For a measurement period (either 6 or 12-months) where the denominator size is greater than 380, providers must report on all cases (preferred, particularly for providers using an electronic health record) or a random sample of cases that is not less than 20% of all cases; however, providers may cap the total sample size at 300 cases.
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| **Numerator Description**  | Patients from the denominator who received all the following: A, B, C, and D within 3 hours of time of presentation†, AND, IF septic shock is present (as either defined as hypotension\* or lactate >=4 mmol/L) who also received E, ,F and G within 6 hours of time of presentationTo be completed within 3 hours:A. measure lactate levelB. obtain blood cultures prior to antibioticsC. administer broad spectrum antibioticsD. administer 30 ml/kg crystalloid (bolus) for hypotension or lactate >=4 mmol/LTo be completed within 6 hours (or if septic shock is present):E. apply vasopressors (for hypotension that does not respond to initial fluid resuscitation to maintain a mean arterial pressure >= 65)F. In the event of persistent arterial hypotension despite volume resuscitation (septic shock) or initial lactate >=4 mmol/L (36 mg/dl) *the resuscitation is objectively monitored using a method such as lactate clearance, ScvO2 monitoring or CVP monitoring*G. re-measure lactate if initial lactate is elevated |
| **Numerator Inclusions** | † ”time of presentation” is defined as the time of triage in the Emergency Department or, if presenting from another care venue, from the earliest chart annotation consistent with all elements severe sepsis or septic shock ascertained through chart review.\* “hypotension” is defined as systolic blood pressure (SBP) <90 mm Hg or mean arterial pressure (MAP) <70 mm Hg or a SBP decrease >40 mm Hg or <2 SD below normal for age or known baseline. |
| **Numerator Exclusions** | There are no additional numerator/denominator inclusions/exclusions specified by the Measure Steward. |
| **Setting** | Inpatient |
| **Data Source** | Electronic Health Record, Registry, Clinical laboratory data |
| **Allowable Denominator Sub-sets** | All denominator subsets are permissible for this outcome  |