Performance Measurement

Preventive Care: Review of the Performance Measures by the Performance Measurement Committee of the American College of Physicians

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Introduction

The United States healthcare system has shifted its efforts to focus on priority areas of value-based care and to deliver integrated preventive care services at lower costs. In spite of these efforts, intricacies of the current system impede physician’s abilities to seamlessly embed screening protocols and preventive care interventions (1). Lack of awareness and appropriate knowledge, adherence issues beyond the physicians control, and unintended consequences of the pressures to comply with a value-based system pose barriers to quality outcomes among primary care physicians and the populations they serve (2-4).

While the impact of screening interventions on lifestyle changes is questionable, stakeholders agree that preventive care measures play a significant role in achieving measurable improvements of clinical outcomes (5). Failure to acknowledge the importance of this role needlessly endangers the health of current and future populations (6).

The American College of Physicians (ACP) Performance Measurement Committee (PMC) reviewed performance measures related to Preventive Care to assess whether the measures are evidence-based, methodologically sound, and clinically meaningful.

Methods

Between November 8, 2017 and April 13, 2018 we searched to identify relevant performance measures from the National Quality Forum (NQF), the Centers for Medicare and Medicaid Services Quality Payment Program (QPP) and the National Quality Measures Clearinghouse (NQMC) websites. The inclusion criteria were performance measures endorsed by the National Quality Forum, currently used in the Centers for Medicare and Medicaid Services’ (CMS) Value-Based Payment programs (VBP) or currently used in federal reporting programs. The PMC identified and reviewed 28 performance measures.

To determine the validity of the selected performance measures as indicators of the quality of health care provided by internal medicine physicians, reviewers used a modification of the RAND-UCLA appropriateness method. The committee chair (NF) and immediate past chair (CM) served as moderators for the panel process and did not rate the measures.

Results

Among the 28 measures* in preventive care measures list, 6 (21%) were rated as valid, 10 (36%) were rated as not valid, and 12 (43%) were rated as uncertain validity. While the measures rated as invalid represent important clinical concepts, lack of support is mainly based on methodological flaws.

*Access the full list of recommendations here
## Recommendation
ACP does not support NQF #0500: “Severe Sepsis and Septic Shock: Management Bundle.”

## Rationale
ACP does not support NQF measure #0500: “Severe Sepsis and Septic Shock: Management Bundle.” This measure emphasizes the importance of early recognition and the need to treat septic patients expeditiously; however, implementation includes mixed benefits and detriments. As currently specified, the measure excludes clinical judgement. The benefits of treating patients who are infected need to be balanced against the harms of treating patients who at first appear as if they might have infections but in fact do not (8). For patients with less severe disease and in whom the presence of infection is uncertain, there is often more time to gather additional diagnostic data to generate a more informed and precise therapeutic plan. Stipulating a fixed-time period for drawing lactate levels could lead to unintended consequences, namely an increased likelihood that broad-spectrum antibiotics will be given more frequently to uninfected patients with syndromes that look like infections. Additionally, implementation has the potential to lead to indiscriminate use of central venous pressure (CVP) monitoring, which is invasive and has adverse effects. The evidence for standard infusion therapy for all patients diagnosed with sepsis is mixed; there are likely populations that benefit from standard therapy while others may require individualized infusion parameters (e.g., HF patients). While implementation of the Surviving Sepsis Campaign has been associated with improved clinical outcomes, there is no literature on the unintended consequences of this measure. We advocate for research on post-marketing surveillance (similar to that of the CAP antibiotics measure: [http://annals.org/aim/fullarticle/741439/public-reporting-antibiotic-timing-patientspneumonia-lessons-from-flawed-performance](http://annals.org/aim/fullarticle/741439/public-reporting-antibiotic-timing-patientspneumonia-lessons-from-flawed-performance)) to weigh the benefits of early diagnosis against the potential harms of treating patients who appear to be infected, but in fact are not.

## Measure Specifications

<table>
<thead>
<tr>
<th>NQF 0500: Severe Sepsis and Septic Shock: Management Bundle</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure Steward:</strong></td>
</tr>
<tr>
<td><strong>NQF Status:</strong></td>
</tr>
<tr>
<td><strong>Use in Federal Program:</strong></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
</tr>
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</table>
be performed in the early management of severe sepsis and septic shock.

<table>
<thead>
<tr>
<th>Numerator Statement:</th>
<th>The number of patients in the denominator who received ALL of the following components (if applicable) for the early management of severe sepsis and septic shock: initial lactate levels, blood cultures, antibiotics, fluid resuscitation, repeat lactate level, vasopressors, and volume status and tissue perfusion reassessment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator Statement:</td>
<td>Inpatients age 18 and over with an ICD-10-CM Principal or Other Diagnosis Code of Sepsis, Severe Sepsis, or Septic Shock.</td>
</tr>
</tbody>
</table>
| Exclusions: | The following patients are excluded from the denominator:  
• Severe sepsis is not present  
• Patients Transferred in from another acute care facility  
• Patients receiving IV antibiotics for more than 24 hours prior to presentation of severe sepsis.  
• Patients with a Directive for Comfort Care or Palliative Care within 3 hours of presentation of severe sepsis  
• Patients with an Administrative Contraindication to Care within 6 hours of presentation of severe sepsis  
• Patients with an Administrative Contraindication to Care within 6 hours of presentation of septic shock  
• Patients with a Directive for Comfort Care or Palliative Care within 6 hours of presentation of septic shock  
• Patients with septic shock who are discharged within 6 hours of presentation  
• Patients with severe sepsis who are discharged within 6 hours of presentation  
• Patients with a Length of Stay >120 days  
• Patients included in a Clinical Trial |
| Type of Measure: | Composite |
| Intended Level of Attribution: | Facility |
| Care Setting: | Inpatient/Hospital |
| Data Source: | Electronic Health Data, Paper Medical Records |

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interest is kept for each Performance Measurement Committee meeting and conference call and can be viewed at https://www.acponline.org/about-acp/who-we-are/leadership/committees-boards-councils/performance-measurement-committee/performance-measurement-committee-disclosures-of-interest.

Drs. Metersky and Persell reported financial relationships with commercial entities and were recused from authorship of this paper.

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