CMS Update

Sepsis and Antibiotic Stewardship

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Illinois Antibiotic Stewardship Summit
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I have no actual or potential conflict of interest in relation to this program or presentation.

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Objectives

• **Overview of CMS Priorities**
  - Shifting from Volume to Value-Based payments
  - Program alignment and streamlining

• **Key focus on Patient Safety**
  - Early diagnosis and treatment of sepsis
  - SEP-1 and Antibiotic stewardship
  - Special Innovation Projects and Best Practices

• **The Link to Health System Transformation**
  - MACRA and The Quality Payment Program
  - Key elements that focus on sepsis and stewardship
### Focus Areas

<table>
<thead>
<tr>
<th>Incentives</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Promote value-based payment systems</td>
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<tr>
<td></td>
<td>- Test new alternative payment models</td>
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<tr>
<td></td>
<td>- Increase linkage of Medicaid, Medicare FFS, and other payments to value</td>
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<tr>
<td></td>
<td>- Bring proven payment models to scale</td>
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<tr>
<td>Care Delivery</td>
<td></td>
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<td></td>
<td>- Encourage the integration and coordination of services</td>
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<td></td>
<td>- Improve population health</td>
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<td>- Promote patient engagement through shared decision making</td>
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<tr>
<td>Information</td>
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<td></td>
<td>- Create transparency on cost and quality information</td>
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<tr>
<td></td>
<td>- Bring electronic health information to the point of care for meaningful use</td>
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</tbody>
</table>

Source: Burwell SM. Setting Value-Based Payment Goals – HHS Efforts to Improve U.S. Health Care. NEJM 2015 Jan 26; published online first.
### Focus Areas

#### Pay Providers

**Test and expand alternative payment models**
- **Accountable Care**
  - Pioneer ACO Model
  - Medicare Shared Savings Program (housed in Center for Medicare)
  - Advance Payment ACO Model
  - Comprehensive ERSD Care Initiative
  - Next Generation ACO
- **Primary Care Transformation**
  - Comprehensive Primary Care Initiative (CPC)
  - Multi-Payer Advanced Primary Care Practice (MAPCP) Demonstration
  - Federally Qualified Health Center (FQHC) Advanced Primary Care Practice Demonstration
  - Independence at Home Demonstration
  - Graduate Nurse Education Demonstration
  - Home Health Value Based Purchasing (proposed)
- **Bundled payment models**
  - Bundled Payment for Care Improvement Models 1-4
  - Oncology Care Model
  - Comprehensive Care for Joint Replacement (proposed)
- **Initiatives Focused on the Medicaid population**
  - Medicaid Emergency Psychiatric Demonstration
  - Medicaid Incentives for Prevention of Chronic Diseases
  - Strong Start Initiative
  - Medicaid Innovation Accelerator Program
- **Dual Eligible (Medicare-Medicaid Enrollees)**
  - Financial Alignment Initiative
  - Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents
- **Other**
  - Medicare Care Choices
  - Medicare Advantage Value-Based Insurance Design model

**Support providers and states to improve the delivery of care**
- **Learning and Diffusion**
  - Partnership for Patients
  - Transforming Clinical Practice
  - Community-Based Care Transitions
- **State Innovation Models Initiative**
  - SIM Round 1
  - SIM Round 2
  - Maryland All-Payer Model
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**Increase information available for effective informed decision-making by consumers and providers**
- **Health Care Innovation Awards**
- **Million Hearts Cardiovascular Risk Reduction Model**
- **Shared decision-making required by many models**
Why focus on Sepsis?

• An increasingly common cause of mortality
  - Between 1999 and 2014, the annual number of all reported sepsis-related deaths (primary and secondary diagnoses combined) increased 31 percent, from 139,086 in 1999 → 182,242 in 2014
  - Data reveal that the sepsis mortality rate is more than eight times higher than mortality rates among patients admitted for other conditions

• Most expensive condition treated in U.S. hospitals
  - Costs associated with the treatment of sepsis alone aggregated to $20.3 billion, or approximately 5.2 percent of the total cost of all hospitalizations in the country


Sepsis is the #1 Cause of Inpatient Deaths

2014 Acute Care Discharges
11% of Patients Have Sepsis DX

- Simple Sepsis: 4,505, 3%
- Severe Sepsis: 3,466, 3%
- Septic Shock: 7,557, 5%
- Acute Care Patients without Sepsis DX: 122,517, 89%

2014 Acute Care Deaths
48% of Patients Have Sepsis DX

- Simple Sepsis: 245, 7%
- Severe Sepsis: 506, 13%
- Septic Shock: 1,072, 28%
- Acute Care Patients without Sepsis DX: 1,988, 52%
Opportunities for intervention

• Reduction in mortality rates have been achieved by implementing a **bundle of interventions** that address the process of care for sepsis.
  
  - Severe Sepsis and Septic Shock: Management Bundle (Henry Ford Hospital and the Society of Critical Care Medicine, the Infectious Diseases Society of America, and emergency physicians)
  
  - Creation of the Surviving Sepsis Campaign to revise the measure’s specifications on the basis of recently released studies
  
  - NQF endorsed in 2008
  
  - CMS adopted this composite measure for the Hospital Inpatient Quality Reporting Program (IQR) and hospitals began submitting measure data beginning with October 1, 2015 discharges
The Centers for Medicare & Medicaid Services (CMS) has incorporated a composite measure for assessing the degree to which sepsis care in hospitals meets recommended guidelines.

- Evaluates the processes associated with high quality care for patients with severe sepsis and septic shock
- Facilitates the “efficient, effective, and timely delivery of high quality sepsis care in support of the Institute of Medicine’s aims for quality improvement.”
- Aims to lower complication and mortality rates while making sepsis care more affordable by focusing on early intervention, which leads to the use of fewer resources
SEP-1

To be completed within **three hours** of time of presentation*:

1. Measure lactate level
2. Obtain blood cultures prior to administration of antibiotics
3. Administer broad spectrum antibiotics
4. Administer 30ml/kg crystalloid for hypotension or lactate ≥ 4mmol/L

* “Time of presentation” is defined as the time of earliest chart annotation consistent with all elements of severe sepsis or septic shock ascertained through chart review.
SEP-1

To be completed within **six hours** of time of presentation*:

1. Administer vasopressors (for hypotension that does not respond to initial fluid resuscitation) to maintain a mean arterial pressure (MAP) ≥ 65mmHg
2. In the event of persistent hypotension after initial fluid administration (MAP < 65 mm Hg) or if initial lactate was ≥ 4 mmol/L, re-assess volume status and tissue perfusion and document findings according to Table 1
3. Re-measure lactate if initial lactate elevated

* “Time of presentation” is defined as the time of earliest chart annotation consistent with all elements of severe sepsis or septic shock ascertained through chart review.
## SEP-1: Completing The Bundles

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Severe Sepsis</th>
<th>Septic Shock</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Three Hour Bundle</td>
<td>Six Hour Bundle</td>
</tr>
<tr>
<td>Initial Lactate Collection</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Blood Culture Collection</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Initial Antibiotic Started</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Repeat Lactate Collection (if Initial Lactate greater than 2)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>30mL/kg Crystalloid Fluids Started</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Vasopressor Given (if decreasing BP persists)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Repeat Volume Status/ Tissue Perfusion Assessment</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Takeaways

• SEP-1 measure refinement is an ongoing and iterative process
• The process involves engaging with multiple stakeholders
• Refinement is driven by these goals:
  - Maximizing beneficiary sepsis care
  - Minimizing clinician documentation burden
  - Minimizing hospital abstraction burden
• Performance is poised for improvements in future analyses (v5.2) on feedback effective January 1, 2017
The other side of the coin: Antibiotic Stewardship

- **Update to SEP-1**
  - Specifications changed in v5.2 → allow cases with known culture results and known sensitivities to use *targeted antibiotic choice*

<table>
<thead>
<tr>
<th>Bacteria</th>
<th>Number of isolates tested (n)</th>
<th>% of n isolates susceptible to each antibiotic listed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOB</td>
<td>CFP</td>
</tr>
<tr>
<td><em>E. cloacae</em></td>
<td>192</td>
<td>65</td>
</tr>
<tr>
<td><em>E. coli</em></td>
<td>1462</td>
<td>86</td>
</tr>
<tr>
<td><em>K. pneumoniae</em></td>
<td>379*</td>
<td>78</td>
</tr>
<tr>
<td><em>A. baumannii</em></td>
<td>117</td>
<td>63</td>
</tr>
<tr>
<td><em>P. aeruginosa</em></td>
<td>928</td>
<td>65</td>
</tr>
<tr>
<td><em>S. aureus</em></td>
<td>1178</td>
<td>44</td>
</tr>
<tr>
<td><em>E. faecalis</em></td>
<td>572</td>
<td>99</td>
</tr>
<tr>
<td><em>E. faecium</em></td>
<td>206</td>
<td>43</td>
</tr>
</tbody>
</table>

*20% of isolates are ESBL-positive
*23% of isolates have vancomycin MIC = 2mcg/mL
TOB = tobramycin; CFP = cefepime; CTZ = ceftazidine; PTZ = piperacillin/tazobactam; IMI = imipenem; CIP = ciprofloxacin; OXA = oxacillin; VAN = vancomycin; DAP = daptomycin

- **Alignment with other reimbursement policy**
  - Quality Payment Program
  - Improvement Activity related to promoting antibiotic stewardship programs
QIN/QIO efforts on Stewardship: Telligen

Combating Antibiotic Resistant Bacteria through Antibiotic Stewardship in Communities ➔ Key components:

- Develop a multidisciplinary advisory team with expertise in the topic area
- Increase the number of outpatient facilities with AS programs
- Educate recruited outpatient settings including healthcare leadership and patients on the fundamentals of antimicrobial stewardship and the risks of misuse/overuse of antibiotics
- Build and sustain robust partnerships to promote and educate the community about antibiotic stewardship
- By the end of the scope of work, 80% of recruited settings will have implemented the Core Elements for Antibiotic Stewardship ➔ will potentially represent 32% of Medicare FFS beneficiaries benefiting from implementation of this initiative.
Congress Session Addresses Antibiotic Stewardship in Sepsis
A session during the 46th Critical Care Congress addressed balancing early antibiotic administration and stewardship in sepsis. Learn more and access related materials here.

Statement on Maternal Sepsis
SCCM has endorsed a Statement on Maternal Sepsis released by the World Health Organization.

Updated Surviving Sepsis Campaign Guidelines
A consensus committee of 55 international experts in sepsis has updated recommendations to help guide clinicians caring for their adult patients with sepsis and septic shock.

Best Practice Resource: [www.survivingsepsis.org](http://www.survivingsepsis.org)
### Protocols and Checklists

Colleagues share the tools they have developed as they implement the Surviving Sepsis created protocols, checklists, policies, and guidelines. The following links should not be considered as substitutes to start from scratch. If you need guidelines and guidelines and bundles, please email PDFs to info@survivingsepsis.org. Permissions from your institution may be required.

#### Campaign Screening Tool Sample

The Surviving Sepsis Campaign provides a paper screening tool to assist when evaluating patients in the medical/surgical/telemetry wards, or in the ICU.

#### Community Resources

- **Severe Sepsis/Septic Shock Progress Note** - Cookeville Regional Medical Center
- **Severe Sepsis/Septic Shock Clinical Pathway** - Cookeville Regional Medical Center
- **Pediatric Initial Sepsis Response Plan** - Wesley Children’s Hospital
- **Sepsis Screen Flowchart** - Wesley Children’s Hospital
- **Sepsis Alert Checklist** - Wesley Healthcare
- **Adult Sepsis Management Pathway** - St. Helens and Knowsley Hospitals
- **ICU Severe Sepsis Screening Tool** - Saint Joseph Mercy Health System
- **Patient Units Severe Sepsis Screening Tool** - Saint Joseph Mercy Health System
- **Sepsis Pocket Card** - Saint Joseph Mercy Health System
- **Sepsis Recognition and Treatment Protocols** - Stony Brook
- **Sepsis Pediatric Order Set** - Stony Brook
- **Pediatric ICU Screening Tool** - Stony Brook
- **Perinatal Screening Tool** - Dignity Health
The Quality Payment Program policy will:

- Reform Medicare Part B payments for more than 600,000 clinicians
- Improve care across the entire health care delivery system

Clinicians have two tracks to choose from:

**MIPS**

The Merit-based Incentive Payment System (MIPS)

*If you decide to participate in traditional Medicare, you may earn a performance-based payment adjustment through MIPS.*

**Advanced APMs**

Advanced Alternative Payment Models (APMs)

*If you decide to take part in an Advanced APM, you may earn a Medicare incentive payment for participating in an innovative payment model.*
What is the Merit-based Incentive Payment System?

Combines legacy programs into single, improved reporting program

- Physician Quality Reporting System (PQRS)
- Value-Based Payment Modifier (VM)
- Medicare EHR Incentive Program (EHR)

Legacy Program Phase Out

- Last Performance Period: 2016
- PQRS Payment End: 2018
What Is MIPS?

Performance Categories:

- Quality
- Improvement Activities
- Advancing Care Information
- Cost

Clinicians will be reimbursed under Medicare Part B based on this Performance Score

Reporting standards align with Alternative Payment Models when possible

Many measures align with those being used by private insurers

https://qpp.cms.gov
Pick Your Pace for Participation for the Transition Year

Participate in an Advanced Alternative Payment Model

- Some practices may choose to participate in an Advanced Alternative Payment Model in 2017

MIPS

Test

- Submit something
- Neutral payment adjustment

Partial Year

- Submit a Partial Year
- Report for 90-day period after January 1, 2017
- Neutral or positive payment adjustment

Full Year

- Submit a Full Year
- Fully participate starting January 1, 2017
- Positive payment adjustment

Note: Clinicians do not need to tell CMS which option they intend to pursue.

Not participating in the Quality Payment Program for the Transition Year will result in a negative 4% payment adjustment.
Part III: Checklist for Preparing and Participating in MIPS
Preparation and Participating in MIPS: A Checklist

- Determine your eligibility and understand the requirements.
- Choose whether you want to submit data as an individual or as a part of a group.
- Choose your submission method and verify its capabilities.
- Verify your EHR vendor or registry’s capabilities before your chosen reporting period.
- Prepare to participate by reviewing practice readiness, ability to report, and the Pick Your Pace options.
- Choose your measures. Visit qpp.cms.gov for valuable resources on measure selection and remember to review your current billing codes and Quality Resource Use Report to help identify measures that best suit your practice.
- Verify the information you need to report successfully.
- Care for your patients and record the data.
- Submit your data by March 31, 2018.
Prepare to Participate

How Do I Do This?

1. Consider your practice readiness.
   - Have you previously participated in a quality reporting program?

2. Evaluate your ability to report.
   - What is your data submission method?
   - Are you prepared to begin reporting data between January 1, 2018 and March 31, 2018?

   - Test
   - Partial Year
   - Full Year
Choose Your Measures/Activities

How Do I Do This?

1. Go to qpp.cms.gov.

2. Click on the Explore Measures tab at the top of the page.

3. Select the performance category of interest.

4. Review the individual Quality and Advancing Care Information measures as well as Improvement Activities.
Getting Started: MIPS Participation Look-Up Tool

You could also check your participation status by:

**Quality Measures**

**Instructions**

1. Review and select measures that best fit your practice.
2. Add up to six measures from the list below, including one outcome measure. You can use the search and filters to help find the measures that meet your needs or specialty.
3. If an outcome measure is not available that is applicable to your specialty or practice, choose another high priority measure.
4. Download a CSV file of the measures you have selected for your records.

**Groups in APMs qualifying for special scoring standards under MIPS, such as Shared Savings Program Track 1 or the Oncology Care Model:** Report quality measures through your APM. You do not need to do anything additional for the MIPS quality category.

---

**Select Measures**

**Search All by Keyword:**
- All Search for...

**Filter By:**
- High Priority Measure
- Data Submission Method
- Specialty Measure Set

Showing 271 Measures

- **Acute Otitis Externa (AOE): Systemic Antimicrobial Therapy - Avoidance of Inappropriate Use** [ADD]
- **Acute Otitis Externa (AOE): Topical Therapy** [ADD]
- **ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication** [ADD]

---

**2017 MIPS Performance**

- Quality (60%)
- Advancing Care Information (25%)
- Improvement Activities (15%)
MIPS Improvement Activity related to Antibiotic Stewardship

Select Improvement Activities

Search All by keyword

Filter by:

Showing 1 Activities

Implementation of antibiotic stewardship program

www.qpp.cms.gov/measures/ia
MIPS Improvement Activity related to Antibiotic Stewardship

Implementation of an antibiotic stewardship program that measures the appropriate use of antibiotics for several different conditions (URI Rx in children, diagnosis of pharyngitis, Bronchitis Rx in adults) according to clinical guidelines for diagnostics and therapeutics.

<table>
<thead>
<tr>
<th>Activity ID</th>
<th>Subcategory Name</th>
<th>Activity Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA_PSPA_15</td>
<td>Patient Safety &amp; Practice Assessment</td>
<td>Medium</td>
</tr>
</tbody>
</table>
NEXT STEPS

Where can I go to get help?
Technical Support Available to Clinicians

Integrated Technical Assistance Program

- Full-service, expert help
  - Quality Payment Program Service Center
  - Quality Innovation Network/Quality Improvement Organizations
  - Quality Payment Program — Small, Underserved, and Rural Support
  - Transforming Clinical Practice Initiative
  - APM Learning Networks

- Self-service
  - QPP Online Portal

All support is FREE to clinicians

https://qpp.cms.gov/education
Quality Payment Program

Coverage by Organization

- Healthcentric Advisors
- IPRO
- Quality Insights (WVMI)
- Alliant GMCF
- QSource
- Altarum
- TMF
- HSAG
- Telenet
- NRHI
- Qualis

Additional Resources

Quality Payment Program: gpp.cms.gov
1-866-288-8292
TTY: 1-877-715-6222
QPP@cms.hhs.gov


Transforming Clinical Practice Initiative (TCPI):
PTN Map: https://innovation.cms.gov/initiatives/Transforming-Clinical-Practices
To enroll in TCPI, contact: TCPI.JSC@Truvenhealth.com

Quality Improvement Organizations:
QIN-QIO Map: http://qioprogram.org/
# Quality Payment Program: How to get help

<table>
<thead>
<tr>
<th><strong>Need Help</strong></th>
<th><strong>Questions</strong></th>
</tr>
</thead>
</table>
| The Quality Payment Program Service Center is available to help.  
1-866-288-8912  
TTY: 1-877-715-6222  
Available Monday-Friday; 8:00AM – 8:00PM Eastern Time | Send us your questions about the Quality Payment Program to  
QPP@cms.hhs.gov |