National EMS Quality Alliance
EMS Compass 2.0
Trauma-04 Measure Package
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Trauma-04: Trauma Patients Transported to the Trauma Center

Trauma-04 was designed using CDC guidelines for Field Triage of Trauma Patients. Along with the CDC guidelines, published literature clearly supports this measure, as patients who receive appropriate trauma care often have better outcomes. As this measure was being re-specified, the TEP discussed many concerns with the pragmatic implementation of this measure – including the availability of trauma centers in rural communities and whether the measure should focus on transporting patients to the appropriate level of trauma center. While there are many possible variations and stratifications of this measure, the TEP ultimately decided to stay with the intent of the original EMS Compass candidate measure, which is measuring if patients with trauma are being transported to a trauma center.

During the re-specification process, the TEP closely reviewed the CDC Guidelines for Field Triage, which were used to build the denominator for this measure. Originally, in the EMS Compass candidate measures, Step 1, 2, and 3 criteria were part of the denominator inclusion criteria. But, after reviewing the guidelines again, the TEP decided to remove Step 3 from the denominator for the re-specified measure, as Steps 1 and 2 identify the most seriously injured patients. The experts determined that limiting the denominator to **Steps 1 and 2** will satisfy the intent of the measure without running the risk of over transporting patients to trauma centers who may not need the care of such a facility.

As stated above, much discussion was had about the numerator of Trauma-04. While everyone on the TEP agreed that transporting a trauma center is the best course of treatment for certain patients, it was noted that trauma centers are not always available or well-defined. The TEP discussed many different options for the numerator for Trauma-04, including transporting patient with trauma to the nearest hospital and transporting patients to a specific level of trauma center. However, the final measure has been specified to require the patient to be transported to a trauma center.

The TEP understands concerns about limited access to trauma centers in certain communities and concerns that some hospitals labeled as trauma centers may not be as equipped as others. But, as measurement is used to drive change, the TEP hopes data collected from Trauma-04 will help drive change in the availability and standards of trauma centers across the nation.
Trauma-04: Trauma Patients Transported to a Trauma Center

Measure Score Interpretation: For this measure, a higher score indicates better quality.

<table>
<thead>
<tr>
<th>Measure Description</th>
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<tbody>
<tr>
<td>Percentage of EMS responses originating from a 911 request for patients who meet CDC criteria for trauma and are transported to a trauma center.</td>
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<table>
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<tr>
<th>Measure Components</th>
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<tbody>
<tr>
<td><strong>Numerator Statement</strong></td>
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<tr>
<td><strong>Denominator Statement</strong></td>
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<tr>
<td><strong>Denominator Exclusions</strong></td>
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<tr>
<td><strong>Denominator Exceptions</strong></td>
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</tbody>
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<tr>
<th>Supporting Guidance &amp; Other Evidence</th>
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<tbody>
<tr>
<td>The following evidence statements are quoted verbatim from the referenced treatment protocol:</td>
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</table>

Centers for Disease Control and Prevention: Guidelines for Field Triage of Injured Patients:

![Diagram](image)

Measure Importance
Victims of severe violet injuries involving trauma not only see a slight improvement in survival rates if they receive treatment in a trauma center, but they also benefit from less complications and shorter lengths of stay.\textsuperscript{ii}

A study on the effect of trauma center care on mortality published in 2006 found that one-year survival rates among patients with traumatic injuries were significantly higher when patients received care in trauma centers as opposed to non-trauma centers. This same study showed a 25% decrease in mortality for severely injured adult patients who received care at Level I trauma centers.\textsuperscript{iii}

<table>
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<tr>
<th>Rationale</th>
<th>Victims of severe violet injuries involving trauma not only see a slight improvement in survival rates if they receive treatment in a trauma center, but they also benefit from less complications and shorter lengths of stay.\textsuperscript{ii} A study on the effect of trauma center care on mortality published in 2006 found that one-year survival rates among patients with traumatic injuries were significantly higher when patients received care in trauma centers as opposed to non-trauma centers. This same study showed a 25% decrease in mortality for severely injured adult patients who received care at Level I trauma centers.\textsuperscript{iii}</th>
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</thead>
<tbody>
<tr>
<td>Measure Designation</td>
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</table>
| Measure purpose | • ☒ Quality Improvement  
• ☒ Accountability  
• ☐ MOC  |
| Type of measure | • ☒ Process  
• ☐ Outcome  
• ☐ Structure  
• ☐ Efficiency  |
| National Quality Strategy/Priority/CMS Measure Domain | • ☒ Clinical Process-Effectiveness  
• ☐ Patient Safety  
• ☐ Patient Experience  
• ☐ Care Coordination  
• ☐ Efficiency: Overuse  
• ☐ Efficiency: Cost  
• ☐ Population & Community Health  |
| CMS Meaningful Measure Domain | • ☐ Medication Management  
• ☐ Admissions and Readmissions to Hospitals  
• ☐ Transfer of Health Information and Interoperability  
• ☐ Preventative Care  
• ☐ Management of Chronic Conditions  
• ☐ Prevention, Treatment, and Management of Mental Health  
• ☐ Prevention and Treatment of Opioid and Substance  
• ☐ Risk Adjusted Mortality  
• ☐ Equity of Care  
• ☐ Community Engagement  
• ☐ Appropriate Use of Healthcare  
• ☐ Patient-focused Episode of Care  
• ☐ Risk-Adjusted Total Cost of Care  
• ☐ Healthcare-associated infections  
• ☐ Preventable Healthcare Harm  |
<table>
<thead>
<tr>
<th>Level of measurement</th>
<th>• ☒ Individual EMS Professional</th>
<th>• ☒ EMS Agency</th>
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<tbody>
<tr>
<td>Care setting</td>
<td>• ☒ Pre-Hospital Care</td>
<td></td>
</tr>
<tr>
<td>Data source</td>
<td>• ☒ Electronic Patient Care Record (eCPR) data</td>
<td>• ☒ Paper medical record/Chart abstracted</td>
</tr>
<tr>
<td></td>
<td>• ☐ Administrative Data/Claims (inpatient, outpatient or multiple-source claims)</td>
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Clinical Quality Measure Flow for Trauma-04
Trauma Patients Transported to a Trauma Center

Start

All EMS Transports

Originating from a 911 request

Patient meets CDC Step 1 Criteria for Trauma

Patient meets CDC Step 2 Criteria for Trauma

Include in Eligible Population/Denominator

Do not include in Eligible Population/Denominator

Patient transported to trauma center

Measure Performance Met

Measure Performance Not Met

Denominator

Numerator
