

**National EMS Quality Alliance (NEMSQA)
Measurement Development Committee Meeting**

**Monday, April 15, 2019
8:00 a.m.- 5:00 p.m. CST
Irving, Texas**

MINUTES

In attendance:

Measurement Development Committee Representatives

In person attendance: Kathleen Brown, MD, FACEP, Co-Chair (AAP), Jon Washko, Co-Chair (NAEMT), Joe Penner (AIMHI), Megan Hollern, MA, RN, NRP (NREMT), Peter Fischer, MD, FACS (ACS-COT),

via phone call attendance: Michael Redlener, MD, FAEMS, Board Representative (NAEMSP), Lori Hollowell, RN, MHIT, NREMT-P-retired) (AHA) ,

Federal Partners:

Sean Andrews (HHS PHE ECCC), Dave Bryson, EMT (NHTSA OEMS)

Guests:

Clay Mann, PhD, MS, MBA (NEMESIS), Lynn White (AMR), Michael Thompson (First Watch), Mike Taigman (First Watch), Richard Hale (ESO), Remle Crowe (ESO)

ACEP: Jeffery Jarvis, MD, MS, EMT-P, FACEP, FAEMS, Kelly Burlison, MPH (ACEP), Rick Murray, EMT-P, Patrick Elmes, EMT-P, Deanna Harper, EMT-I, Mari Houlihan, Cynthia Singh, MS

Agenda Items:

1. Welcome and Introductions
 - a. Kathleen Brown opened the meeting and attendees introduced themselves
2. EMS Compass Background
 - a. Jonathan Washko provided a brief overview of the history of the EMS Compass.
3. NEMSQA History
 - a. Michael Redlener provided an overview of NEMSQA and the organization's history.
4. Current Workplan and Measure Development Process
 - a. Michael Redlener reviewed the NEMSQA Measure Development Process and the EMS Compass Measure Development Workplan.
 - A. Reminded group that there were over 50 measure concepts that were developed in initial EMS Compass work and committee should investigate developing bundles of measures using the concepts with similar concepts.
5. Measure Reviews –
 - a. Kelly Burlison technical expert reviews and discussions on the EMS Compass Measure Candidates. Summaries of the measure reviews and discussions are as follows:

Measure ID	Discussion	Decision
Seizure-01	•Evidence does not support measure. Indicates testing should not be a priority and should not precede treatment of seizure with AED.	Committee members voted and unanimously decided to retire measure from EMS Compass measure set.

Seizure-02	<ul style="list-style-type: none"> ●Research: Evidence supports measure with Level B Guidelines and Level II Rationale. <ul style="list-style-type: none"> ○ Guidelines in the measure worksheet (Maryland Protocols) were not used for Level B grade. Should remove all state-level guidelines from worksheets. ●There is a practice gap in agencies currently using the measure. ●There is opportunity to develop future outcome measure to measure if EMS was able to successfully treat seizure. Also, can develop a composite measure or an entire bundle of measures on this concept. Will add to NEMSQA measure concept list. ●It is difficult to capture the denominator for this measure and the group discussed ways to improve defining the denominator, to improve feasibility. 	<ul style="list-style-type: none"> ●Committee voted and unanimously decided to retain Seizure-02 in EMS Compass measure set. ●Re-specifications: <ul style="list-style-type: none"> Original Denominator: Patients with ongoing status seizure activity (also known as status epilepticus, defined as seizing for 5 minutes or more or two or more status seizures in a 5-minute period without regaining consciousness) originating from a 911 request. Updated Denominator: EMS responses originating from a 911 request for patients with primary or secondary impression of status epilepticus. Original Numerator: Patients receiving EMS intervention (e.g.: benzodiazepine) aimed at terminating their status seizure. Updated Numerator: Patients who received benzodiazepine aimed at terminating their status seizure.
Peds-02	<ul style="list-style-type: none"> ●Research: Measures were initially consensus-based and did not undergo literature reviews. It has been difficult to find information to support the measures, but the research workgroup will continue to work on these elements. Current evidence supports the measure with Level B Guidelines, Level III Rationale, and a published practice gap. ●There is a practice gap in agencies currently using the measure. ●There is opportunity to develop an adult measure with the same concept and a PTA measure for pediatrics. Will add to NEMSQA measure concept list. 	<ul style="list-style-type: none"> ●Committee voted and unanimously decided to retain Peds-02 in EMS Compass measure set. ●Re-specifications: <ul style="list-style-type: none"> Original Denominator: Patients 2-15 years AND PRI/SEC Impression “Asthma with exacerbation” or “Acute bronchospasm” originating from a 911 request. Updated Denominator: EMS responses originating from a 911 request for patients 2-18 years of age with a primary or secondary impression of asthma exacerbation or acute bronchospasm. Original Numerator: Pediatric patients administered (albuterol, Accuneb, Combivent, DuoNeb, ProAir, Proventil, Ventolin, or Vospire) by any means. Updated Numerator: Pediatric patients who had an aerosolized beta agonist administered by EMS.
Peds-01	<ul style="list-style-type: none"> ●Research: Measure was initially consensus-based and did not undergo literature reviews. It has been difficult to find information to support the measure, but the research workgroup will continue to work on this. 	<ul style="list-style-type: none"> ●Committee voted and unanimously decided to retain Peds-01 in EMS Compass measure set. ●Re-specifications:

	<p>elements. Current evidence supports the measure with Level C Guidelines, Level III Rationale, and a published practice gap.</p> <ul style="list-style-type: none"> •There is a practice gap in agencies currently using the measure. 	<p>Original Denominator: Patients <15 years AND PRI/SEC Impression with (Dyspnea, unspecified Orthopnea, Shortness of breath, or other forms of Dyspnea) originating from a 911 request.</p> <ul style="list-style-type: none"> •Updated Denominator: EMS responses originating from a 911 request for patients <18 years of age with a primary or secondary impression and symptoms of respiratory distress.
Peds-03	<ul style="list-style-type: none"> •Research: Measure was initially consensus-based and did not undergo literature reviews. It has been difficult to find information to support the measure, but the research workgroup will continue to work on these elements. Current evidence supports the measure with Level C Guidelines, Level III Rationale, and a published practice gap. <ul style="list-style-type: none"> ○ This is a safety measure, aimed at preventing medication dosing errors. There are many publications documenting medication errors, but they do not directly correlate them to weight miscalculations. •Measure scores for agencies currently using the measure are high. Kelly Burlison to calculate the Truncated Coefficient of Variation (TCV) during beta testing to determine of measure is topped out. •There is a similar NQF measure for weighing pediatric patients in kilograms in the ED. 	<ul style="list-style-type: none"> •Committee voted and unanimously decided to retain Peds-03 in EMS Compass measure set. •Re-specifications: <p>Original Denominator: Patients <15 years old that received medication originating from a 911 request.</p> <p>Updated Denominator: All EMS responses originating from a 911 request for patients less than 18 years of age who received a weight-based medication.</p> <p>Original Numerator: Weight value in kilograms or length-based weight entered.</p> <p>Updated Numerator: Patients for which a weight value was documented in kilograms or a length-based weight was documented during the EMS encounter.</p>
Hypoglycemia-01	<ul style="list-style-type: none"> •Research: Measure is supported by Level C Guidelines and Level III Rationale. Research Workgroup will continue to work on finding evidence for this measure. •There is a practice gap in agencies using the measure. •Comments for improvement: <ul style="list-style-type: none"> ○ The measure is easy to implement but there are issues around conducting quality assurance, depending on the type of glucometer used. ○ It would be nice to try to incorporate presence of symptoms with hypoglycemia in the denominator. •Much discussion took place on the threshold for hypoglycemia, which creates the inclusion criteria for this measure. •There is an opportunity to create an outcome measure on this topic. Will add to the NEMSQA measure concept list. 	<ul style="list-style-type: none"> •Committee voted and unanimously decided to retain Hypoglycemia-01 in EMS Compass measure set. •Re-specifications: <p>Original Denominator: Patients identified as being hypoglycemic with a blood sugar of <60mg/dl originating from a 911 request</p> <p>Updated Denominator: EMS responses originating from a 911 request for patients who were identified as having hypoglycemia with a primary or secondary assessment of altered mental status.</p> <p>Original Numerator: Patients receiving treatment intended to correct hypoglycemia (food, administration of oral glucose, dextrose, or glucagon).</p>

		<p>Updated Numerator: Patients who received treatment to correct hypoglycemia.</p> <p>Original Exclusion Criteria: None</p> <p>Updated Exclusion Criteria: Patients less than 24 hours of age.</p>
Stroke-01	<ul style="list-style-type: none"> •Research: Measure is supported by Level B Guidelines and Level III Rationale. Research Workgroup will continue to search for evidence to support this measure. •There is a practice gap in agencies currently using the measure. •Suggestions were submitted via the Expert Opinion Survey for adding additional assessment criteria to this measure, such as glucose assessment and assessment of head trauma, but group determined these were separate measures. Ideas will be added to NEMSQA measure concept list. •Discussion as to whether measure specification should require a specific stroke assessment be performed, but after reviewing the guideline, it was determined any stroke assessment is acceptable. 	<ul style="list-style-type: none"> •Committee voted and unanimously decided to retain Stroke-01 in EMS Compass measure set. •Re-Specifications: Original Denominator: Patients with a provider impression of stroke originating from a 911 request. <p>Updated Denominator: EMS responses originating from a 911 request for patients with a provider impression of stroke.</p> <p>Original Numerator: Number of suspected stroke patients who had a stroke assessment performed (CPSS, LAMS, etc.).</p> <p>Updated Numerator: Patients with suspected stroke who had stroke assessment performed.</p> <p>Original Exclusion Criteria: None</p> <p>Updated Exclusion Criteria: Patients who are unresponsive or unable to perform assessment.</p>
Stroke-08	<ul style="list-style-type: none"> •Research: Measure is supported by Level B Guidelines, Level III Rationale, and a published practice gap. •NEMSIS nor any agencies participating in the review meeting have been able to collect data on this measure due to difficulties collecting hospital data. •Federal partners announced that new legislation is in pipeline that may improve data interoperability. •Discussed the potential of developing a measure to determine the percentage of EMS transports for suspected stroke where EMS professionals alerted the hospital in advance. Will be added to the NEMSQA measure concept list. 	<ul style="list-style-type: none"> •Committee voted and unanimously decided to remove Stroke-08 from the EMS Compass measure set until data interoperability between EMS agencies and hospitals is improved. Measure will be readdressed when systems improve to make it more feasible to capture data required for measurement.
Trauma-01	<ul style="list-style-type: none"> •Research: Measure is supported by Level B Guidelines, Level II Rationale, and a published practice gap. There is an evidence-based guideline that supports this measure and the measure worksheet will be updated to reflect the guideline. •There is a practice gap in the agencies currently using the measure. 	<ul style="list-style-type: none"> •Committee voted and unanimously decided to retain Trauma-01 in EMS Compass measure set. •Re-specification: Original Denominator: Patients with injury originating from a 911 request.

	<ul style="list-style-type: none"> Concerns were raised on how the opioid epidemic has influenced EMS providers' ability to manage pain. 	<p>Updated Denominator: EMS responses originating from a 911 request for patients with injury and a Glasgow Coma Score (GCS) of 15 or an Alert Verbal Painful Unresponsiveness (AVPU) of A.</p> <p>Original Numerator: Patients with a pain scale value present.</p> <p>Updated Numerator: Patients with any pain scale value present.</p>
Trauma-02	<ul style="list-style-type: none"> Research: Measure is supported by Level B/Level C Guidelines, Level III Rationale, and a published practice gap. However, it was noted by the research workgroup that it appears to be limited published information/data on the topic. Much discussion surrounded the meaningfulness of this measure, as many participants seemed to believe the measure is simply measuring for the sake of measuring as the measure is not tied to a clinical outcome. <ul style="list-style-type: none"> It was noted that the measure is duplicative to Trauma-03, as the outcome measure requires two pain scale scores. One attendee mentioned an experience where a payor program rejected a similar duplicated measure that was tied to an outcome measure. 	<ul style="list-style-type: none"> Committee voted and unanimously decided to retire Trauma-02 from the EMS Compass measure set due to its duplicative nature to Trauma-03 and its lack of meaningfulness.
Trauma-03	<ul style="list-style-type: none"> Research: Measure is supported by Level B Guidelines, Level II Rationale, and a published practice gap. There is an evidence-based guideline that supports this measure and the measure worksheet will be updated to reflect the guideline. There is a practice gap in the agencies currently using the measure. Comment that reduction of pain is often subjective and/or based on provider's impression. Much discussion surrounded the threshold of initial pain score to set in inclusion criteria, as low pain scale scores will not be treated with medications. However, it was decided to include all initial pain scores greater than zero, as pain can be reduced/controlled with interventions other than medications. 	<ul style="list-style-type: none"> Committee voted and unanimously decided to retain Trauma-03 in the EMS Compass measure set. Re-specifications: <ul style="list-style-type: none"> Original Denominator: Patients with injury and pain scale value >0 originating from a 911 request. Updated Denominator: EMS responses originating from a 911 request for patients who had a documented initial pain score of greater than zero. Original Numerator: Patients with a final pain value less than the maximum.

		Updated Numerator: Patients with a final pain score value less than their highest documented pain score.
Trauma-04	<ul style="list-style-type: none"> ●Research: Measure is supported by Level A Guidelines, Level I Rationale, and a published practice gap. ●Agencies are unable to capture the data for this measure, as they are unable to determine which hospitals are trauma centers. <ul style="list-style-type: none"> ○ There is a list of trauma centers, but it changes often, and it is very difficult to maintain. ○ It is possible to codify list of trauma centers to help improve the feasibility of this measure. 	<ul style="list-style-type: none"> ●Committee voted and unanimously decided to retain Trauma-04 in the EMS Compass measure set. ●Re-specifications: Original Denominator: Patients meeting CDC Step 1 or 2 or 3 criteria originating from a 911 request. <p>Updated Denominator: EMS transports originating from a 911 request for patients who met CDC Step 1, 2, or 3 criteria for trauma.</p>
Safety-01	<ul style="list-style-type: none"> ●Research: Measure is supported by Level B Guidelines, Level II Rationale, and a published practice gap. ●There is a significant practice gap in agencies using this measure. 	<ul style="list-style-type: none"> ●Committee voted and unanimously decided to retain Safety-01 in the EMS Compass measure set. ●Re-specifications: Original Denominator: Number of responses originating from a 911 request. <p>Updated Denominator: EMS responses originating from a 911 request.</p> <p>Original Numerator: Number of lights and sirens responses.</p> <p>Updated Numerator: EMS responses in which lights and sirens were used.</p>
Safety-02	<ul style="list-style-type: none"> ●Research: Measure is supported by Level B Guidelines, Level II Rationale, and a published practice gap. ●There is a practice gap in agencies using this measure. 	<ul style="list-style-type: none"> ●Committee voted and unanimously decided to retain Safety-02 in the EMS Compass measure set. ●Re-specifications: Original Denominator: Number of patient transports by unit originating from a 911 request. <p>Updated Denominator: EMS transports originating from a 911 request.</p> <p>Original Numerator: Number of lights and sirens used during transport.</p>

		Updated Numerator: EMS transports in which lights and sirens were used.
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6. Next steps

- a. Finalize measure specifications
 - A. Finish literature reviews
 - B. Confirm specification changes
 - C. For all measures, a worksheet will be developed that will include definitions, ALS/BLS stratification guidance, where applicable, and research information.
- b. Conduct early feasibility testing
- c. Re-specify, if necessary
- d. Develop electronic specifications
- e. Approve and proceed to Testing & Learning

7. Wrap-up & Adjourn

End of Meeting

Discussion Items