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Hypoglycemia

EMS Compass® ID	Version	Topic/Clinical Area	EMS Compass Bundle	Measure Title	Description	Measure Type	Rationale	Numerator	Denominator	Complete Pseudocode
Hypoglycemia-01	1	Hypoglycemia	Hypoglycemia	Treatment Administered for Hypoglycemia	Measure of patients who received treatment to correct their hypoglycemia	Process	Displays the number of patients who received EMS intervention that is intended to correct hypoglycemia	Patients receiving treatment intended to correct hypoglycemia (food, administration of oral glucose, dextrose, or glucagon)	Patients identified as being hypoglycemic with a blood sugar of <60mg/dl originating from a 911 request	eMedications.03 Medication Given = (4832 - Glucagon (IN - generic) 4850 - Glucose (IN - generic) 237653 - D50 237648 - D10 260258 - D25 309778 - D5W 309806 - D5 ½ NS OR eProcedures.03 710925007 - Provision of food (procedure) 225285007 - Giving oral fluid (procedure) WHERE eVitals.18 Blood Glucose Level < 60 AND eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene)

Medication Error

EMS Compass® ID	Version	Topic/Clinical Area	EMS Compass Bundle	Measure Title	Description	Measure Type	Rationale	Numerator	Denominator	Complete Pseudocode
PEDS-03	1	Clinical	Pediatric Medication Error	Documentation of estimated weight in kilograms - pediatric	Frequency that weight or length based estimate are documented in kilograms	Process	Medication errors are common in pediatric patients and are often based on wrong weight	Weight value in kilograms or length based weight entered	Patients <15 years old that received medication originating from a 911 request	eExam.01 IS NOT NULL or eExam.02 is NOT NULL ePatient.15 < 15 AND ePatient.16 = 2516009 Years AND eMedications.03 IS NOT NULL WHERE eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene)

Pediatric Respiratory										
EMS Compass® ID	Version	Topic/Clinical Area	EMS Compass Bundle	Measure Title	Description	Measure Type	Rationale	Numerator	Denominator	Complete Pseudocode
PEDS-01	1	Clinical	Pediatric Respiratory	Respiratory Assessment - Pediatric	Documented evidence that a respiratory assessment was performed on pediatric patients	Process	Detection of respiratory distress has been shown to be challenging in pediatric patients. Assessment of the pediatric respiratory patient is critically important. Pediatric respiratory distress is a frequent cause for emergency care.	Pediatric patients with SpO2 AND RR measurement	Patients <15 years AND PRI/SEC Impression with (Dyspnea, unspecified, Orthopnea, Shortness of breath, or Other forms of dyspnea) originating from a 911 request	<pre>eRecord.01 IN (SELECT * FROM eVitals WHERE eVitals.12 IS NOT NULL) AND eRecord.01 IN eRecord.01 IN (SELECT * FROM eVitals WHERE eVitals.14 IS NOT NULL) ePatient.15 <= 15 AND ePatient.16 = 2516009 Years AND (eSituation.11 in (R06%) OR eSituation.12 in (R06%)) WHERE eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene)</pre>
PEDS-02	1	Clinical	Pediatric Respiratory	Administration of beta agonist for pediatric asthma	Administration of beta agonist for pediatric asthma	Process	Evidence shows administration of beta agonist improves outcomes for pediatric asthma	Pediatric patients administered (Albuterol, Accuneb, Combivent, DuoNeb, ProAir, Proventil, Ventolin or Vospire) by any means	Patients 2-15 years AND PRI/SEC Impression "Asthma with exacerbation" or "Acute bronchospasm" originating from a 911 request	<pre>eMedication.03 IN (435 - Albuterol; 352394 - Accuneb; 151539 - Combivent; 285059 - DuoNeb; 647295 - ProAir; 202908 - Proventil; 8887 - Ventolin; 353091 - Vospire) ePatient.15 <= 15 AND ePatient.16 = 2516009 Years AND ePatient.15 > 2 AND (eSituation.11 in (J45%, J98.01) OR eSituation.12 in (J45%, J98.01)) WHERE eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene)</pre>

Seizure										
EMS Compass® ID	Version	Topic/Clinical Area	EMS Compass Bundle	Measure Title	Description	Measure Type	Rationale	Numerator	Denominator	Complete Pseudocode
Seizure-01	1	Seizure	Seizure	Blood Glucose Evaluation	Measure of seizure patients who received an evaluation of their blood glucose	Process	Blood glucose is an important diagnostic vital sign for determination of the cause of a seizure	Patients receiving a blood sugar evaluation	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	eVitals.18 Blood Glucose Level is not null Where: eSituation.11 Provider's Primary Impression contains (ICD-10 codes: G40.901) OR eSituation.12 Provider's Secondary Impression contains (ICD-10 codes: G40.901) AND eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene)
Seizure-02	1	Seizure	Seizure	Patient Received Intervention	Measure of patients with ongoing seizure activity for 5 minutes or more or two or more seizures in a 5 minute period without regaining consciousness between them who received intervention (e.g., benzodiazepine) intended to stop the seizure	Process	Patients experiencing status epilepticus are at risk for hypoxia but with benzodiazapines the seizure may be controlled	Patients receiving EMS intervention (e.g. benzodiazepine) aimed at terminating their status seizure	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	eMedications.03 Medication Given ([Diazepam], 3322 [Valium], 202472 [Versed], 6960 [Midazolam], 6960, [Midazolam Hydrochloride], 203128, [Ativan], 6470 [Alprazolam], 596) Where: eSituation.11 Provider's Primary Impression contains (ICD-10 codes: G40.901) OR eSituation.12 Provider's Secondary Impression contains (ICD-10 codes: G40.901) AND eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene)

Stroke

EMS Compass® ID	Version	Topic/Clinical Area	EMS Compass Bundle	Measure Title	Description	Measure Type	Rationale	Numerator	Denominator	Complete Pseudocode
Stroke-01	1	Stroke	Stroke	Suspected Stroke Receiving Prehospital Stroke Assessment	To measure the percentage of suspected stroke patients who had a stroke assessment performed by EMS	Process	Stroke assessments using prehospital stroke assessment tools can screen for stroke and affect patient destinations	Number of suspected stroke patients who had a stroke assessment performed (CPSS, LAMS, etc.)	Patients with a provider impression of stroke originating from a 911 request	Where: eVitals.30 - Stroke Scale Type is not null (3330001 - Cincinnati 3330003 - Los Angeles 3330005 - Massachusetts 3330007 - Miami Emergency Neurologic Deficit (MEND) 3330009 - NIH 3330013 - F.A.S.T. Exam) OR eVitals.29 Stroke Scale Score = is not null Where: eSituation.11 Provider's Primary Impression contains (ICD-10 codes: I63% or G45%) OR eSituation.12 Provider's Secondary Impression contains (ICD-10 codes: I63% or G45%) WHERE eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene)
Stroke-08	1	Stroke	Stroke	Emergency Department Diagnosed Stroke Identified by Prehospital Stroke Assessment	Measures the percentage of emergency department diagnosed stroke patients who had a positive stroke assessment by EMS	Process	Stroke assessments using prehospital stroke assessment tools can screen for stroke and affect patient destinations. Using hospital data, this measure identified the number of actual strokes that were either falsely assessed or not assessed using a prehospital stroke scale	Patients with a positive stroke assessment	Patients with emergency department diagnosed stroke transported by EMS originating from a 911 request	eSituation.11 Provider's Primary Impression contains (ICD-10 codes: '433.*','I60.*','I61.*','I63.*','I65.*','I66.*','I67.*') OR eSituation.12 Provider's Secondary Impression contains (ICD-10 codes: '433.*','I60.*','I61.*','I63.*','I65.*','I66.*','I67.*') WHERE eOutcomes.10 = '433.*','I60.*','I61.*','I63.*','I65.*','I66.*','I67.*' WHERE eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene) AND eDisposition.12 - Incident/Patient Disposition is 4212033 - Patient Treated, Transported by this EMS Unit

Trauma										
EMS Compass® ID	Version	Topic/Clinical Area	EMS Compass Bundle	Measure Title	Description	Measure Type	Rationale	Numerator	Denominator	Complete Pseudocode
Trauma-04	1	Clinical	Trauma	Trauma patients transported to trauma center	Trauma patients transported to trauma center	Process	Evidence is strong that Step 1 and Step 2 and Step 3 trauma patients should go to a trauma center	Patients transported to a trauma center	Patients meeting CDC Step 1 or 2 or 3 criteria originating from a 911 request	#Disposition.23 IN 9908021 Trauma Center Level 1 9908023 Trauma Center Level 2 9908025 Trauma Center Level 3 9908027 Trauma Center Level 4 9908029 Trauma Center Level 5) [eInjury.02] IS NOT NULL OR [eInjury.03] IN (2903001 Amputation proximal to wrist or ankle; 2903003 Crushed, degloved, mangled, or pulseless extremity; 2903005 Chest wall instability or deformity (e.g., flail chest); 2903007 Glasgow Coma Score <= 13; 2903009 Open or depressed skull fracture; 2903011 Paralysis; 2903013 Pelvic fractures; 2903015 All penetrating injuries to head, neck, torso, and extremities proximal to elbow or knee; 2903017 Respiratory Rate <10 or >29 breaths per minute (<20 in infants aged <1 year) or need for ventilatory support; 2903019 Systolic Blood Pressure <90 mmHg; 2903021 Two or more proximal long-bone fractures) OR [eInjury.04] IN (2904001 Auto v. Pedestrian/Bicyclist Thrown, Run Over, or > 20 MPH Impact; 2904003 Fall Adults: > 20 ft. (one story is equal to 10 ft.); 2904005 Fall Children: > 10 ft. or 2-3 times the height of the child; 2904007 Crash Death in Same Passenger Compartment; 2904009 Crash Ejection (partial or complete) from automobile; 2904011 Crash Intrusion, including roof: > 12 in. occupant side; > 18 in. any side; 2904013 Crash Vehicle Telemetry Data (AACN) Consistent with High Risk of Injury; 2904015 Motorcycle Crash > 20 MPH.) WHERE eResponse.05 = Type of Service Requested = 2205001 - 911 Response (Scene)

Trauma Pain

EMS Compass® ID	Version	Topic/Clinical Area	EMS Compass Bundle	Measure Title	Description	Measure Type	Rationale	Numerator	Denominator	Complete Pseudocode
Trauma-01	1	Clinical	Trauma Pain	Pain assessment of injured patients	Recognizing that pain is undertreated in injured patients, it is important to assess whether a patient is experiencing pain	Process	Recognizing that pain is undertreated in injured patients	Patients with pain scale value present	Patients with injury originating from a 911 request	[eVitals.27] IS NOT NULL WHERE [eSituation.02] = 9922005 WHERE eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene)
Trauma-02	1	Clinical	Trauma Pain	Pain re-assessment of injured patients	Recognizing that pain is undertreated in injured patients, it is important to assess whether a patient is experiencing pain	Process	Pain control is an important component of prehospital care	Patients with two or more pain scale values present	Patients with injury and pain scale value >0 originating from a 911 request	eRecord.01 IN (SELECT * FROM eVitals WHERE eVitals.27 IS NOT NULL GROUP BY eRecord.01 HAVING count(*) > 1) WHERE [eSituation.02] = 9922005 AND [eVitals.27] > 0 WHERE eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene)
Trauma-03	1	Clinical	Trauma Pain	Effectiveness of pain management for injured patients	Of injured patients reassessed, how many had less pain	Outcome	Improving pain management is an important aspect of quality prehospital care	Patients with a final pain value less than the maximum	Patients with injury and pain scale value >0 originating from a 911 request	MAX([eVitals.27]) - LAST([eVitals.27]) > 0 WHERE [eSituation.02] = 9922005 AND [eVitals.27] > 0 and eRecord.01 IN (SELECT * FROM eVitals WHERE eVitals.27 IS NOT NULL GROUP BY eRecord.01 HAVING count(*) > 1) WHERE eResponse.05 - Type of Service Requested = 2205001 - 911 Response (Scene)

Vehicle Operations Safety										
EMS Compass® ID	Version	Topic/Clinical Area	EMS Compass Bundle	Measure Title	Description	Measure Type	Rationale	Numerator	Denominator	Complete Pseudocode
Safety-01	1	Safety	Vehicle Operations Safety	Lights and Sirens Response to Scene Rate	A rate of emergency lights and sirens responses. This includes each vehicle responding to an incident.	Process	Lights and siren responses are demonstrated to have a greater risk for patients, providers, and public. Assessing risk is an important EMS system issue. The intent of this measure is to allow an agency to assess the use of lights and sirens responses within the agency.	Number of lights and sirens responses	Number of responses originating from a 911 request	eResponse.24 - Additional Response Mode Descriptors IN (2224015 - Lights and Sirens; 2224017 - Lights and No Sirens; 2224021 - Initial No Lights or Sirens, Upgraded to Lights and Sirens; 2224023 - Initial Lights and Sirens, Downgraded to No Lights or Sirens) WHERE eResponse.05 - Type of Service Requested is 2205001 - 911 Response (Scene)
Safety-02	1	Safety	Vehicle Operations Safety	Lights and Sirens Transport Rate	A rate of emergency lights and sirens transports. This includes each vehicle transporting from an incident with one or more patients.	Process	Lights and siren responses are demonstrated to have a greater risk for patients, providers, and public. Assessing risk is an important EMS system issue. The intent of this measure is to allow an agency to assess the use of lights and sirens transports within the agency.	Number of lights and sirens used during transport	Number of patient transports by unit originating from a 911 request	eDisposition.18 - Additional Transport Mode Descriptors IN (4218011 - Lights and Sirens; 4218013 - Lights and No Sirens; 4218017 - Initial No Lights or Sirens, Upgraded to Lights and Sirens; 4218019 - Initial Lights and Sirens, Downgraded to No Lights or Sirens) WHERE eResponse.05 - Type of Service Requested is 2205001 - 911 Response (Scene) AND eDisposition.12 - Incident/Patient Disposition is 4212033 - Patient Treated, Transported by this EMS Unit