



American Heart Association®
Mission:Lifeline®
EMS

2025 Mission: Lifeline EMS Recognition Measures



Table of Contents

AHAEMS1: Pre-Arrival Notification for Suspected Stroke	3
AHAEMS2: Documentation of Last Known Well for Patients with Suspected Stroke	5
AHAEMS3: Evaluation of Blood Glucose for Patients with Suspected Stroke	7
AHAEMS4: Stroke Screen Performed and Documented	9
AHAEMS5: 12-Lead ECG Performed within 10 Minutes.....	11
AHAEMS6: Aspirin Administration for STEMI	15
AHAEMS6b: Aspirin Administration for Suspected Heart Attack.....	17
AHAEMS7: Pre-Arrival Notification of STEMI within 10 Minutes of Positive ECG	19
AHAEMS8: EMS FMC to Primary PCI within 90 Minutes for Patients with STEMI	23
AHAEMS9: EMS FMC to Thrombolytic Administration within 60 Minutes for Patients with STEMI	28
AHAEMS10: EMS FMC to Thrombolytic Administration within 90 minutes for Patients with Stroke.....	32
AHAEMS11: EMS FMC to Endovascular Therapy within 120 Minutes for Patients with Stroke	36

AHAEMS1: Pre-Arrival Notification for Suspected Stroke

The percentage of EMS patients aged 18 years and older transported from the scene with a primary or secondary impression of stroke whom a pre-arrival alert for stroke was activated during the EMS encounter.

Initial Patient Population	
Patients aged 18 years and older with a suspected stroke transported from the scene from a 911 request	(ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and (eSituation.11 Provider's Primary Impression matches\^[I60)(I61)(I63)(G45)(G46)/ or eSituation.12 Provider's Secondary Impressions matches\^[I60)(I61)(I63)(G45)(G46)/) and eDisposition.30 Transport Disposition is in (4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"), 2205009 ("Emergency Response (Mutual Aid)"))))
Denominator	

Include:	Data Elements for Calculation
Patients in the initial population	Equals Initial Population
Exclusions: (Always remove from denominator)	
Patients with a documented Last Known Well of greater than or equal to 24 hours prior to assessment or Patients in cardiac arrest or Patient died prior to arrival to hospital	$ \begin{aligned} & (\\ & \quad (\\ & \quad \quad \text{eSituation.18 Date/Time Last Known Well} \\ & \quad \quad \text{is greater than or equal to 24 hours before} \\ & \quad \quad \quad \text{eVitals.01 Date/Time Vital Signs Taken} \\ & \quad \quad \text{where} \\ & \quad \quad \quad \text{eSituation.18 Date/Time Last Known Well is not null} \\ & \quad \quad \text{and} \\ & \quad \quad \quad \text{eVitals.01 Date/Time Vital Signs Taken is not null} \\ & \quad) \\ & \text{or} \\ & \quad \text{eArrest.01 Cardiac Arrest is in} \\ & \quad \quad (3001003 ("Yes, Prior to Any EMS Arrival (includes Transport EMS \& Medical First Responders)"), \\ & \quad \quad 3001005 ("Yes, After Any EMS Arrival (includes Transport EMS \& Medical First Responders)")) \\ & \text{or} \\ & \quad \text{eDisposition.19 Final Patient Acuity is} \\ & \quad \quad 4219909 ("Dead with Resuscitation Efforts (Black)") \\ &) \end{aligned} $
Exceptions: (Remove from denominator if present and numerator is not met)	
None	N/A
Numerator	
Pre-arrival alert for stroke initiated during the EMS encounter	<u>eDisposition.24 Destination Team Pre-Arrival Alert or Activation</u> is 4424015 ("Stroke")

AHAEMS2: Documentation of Last Known Well for Patients with Suspected Stroke

Percent of EMS patients aged 18 years and older transported from the scene with a primary or secondary impression of stroke for whom Last Known Well was documented during the EMS encounter.

Initial Patient Population	
Patients aged 18 years and older with suspected stroke transported from the scene from a 911 request	(ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and eSituation.11 Provider's Primary Impression matches\^(I60)(I61)(I63)(G45)(G46)/ or eSituation.12 Provider's Secondary Impressions matches\^(I60)(I61)(I63)(G45)(G46)/) and eDisposition.30 Transport Disposition is in (4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"), 2205009 ("Emergency Response (Mutual Aid)"))))
Denominator	

Include:	Data Elements for Calculation
Patients in the Initial Population	Equals Initial Population
Exclusions: (Always remove from denominator)	
Patients with a documented Last Known Well of greater than or equal to 24 hours prior to assessment or Patients in cardiac arrest or Patient died prior to arrival to hospital	(((eSituation.18 Date/Time Last Known Well is greater than or equal to 24 hours before eVitals.01 Date/Time Vital Signs Taken where (eSituation.18 Date/Time Last Known Well is not null and eVitals.01 Date/Time Vital Signs Taken is not null)) or eArrest.01 Cardiac Arrest is in (3001003 ("Yes, Prior to Any EMS Arrival (includes Transport EMS & Medical First Responders)"), 3001005 ("Yes, After Any EMS Arrival (includes Transport EMS & Medical First Responders)")) or eDisposition.19 Final Patient Acuity is 4219909 ("Dead with Resuscitation Efforts (Black)")))
Exceptions: (Remove from denominator if present and numerator is not met)	
None	N/A
Numerator	
Last Known Well documented during the EMS encounter <i>Note: Pertinent Negative (PN) of Unable to Complete (8801023) is an acceptable Numerator value.</i>	eSituation.18 Date/Time Last Known Well is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded"))

AHAEMS3: Evaluation of Blood Glucose for Patients with Suspected Stroke

Percent of EMS patients aged 18 years and older transported from the scene with suspected stroke for whom blood glucose was evaluated during the EMS encounter.

Initial Patient Population	
Patients aged 18 years and older with suspected stroke transported from the scene from a 911 request	(ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and (eSituation.11 Provider's Primary Impression matches\^[I60)(I61))(I63))(G45))(G46)/ or eSituation.12 Provider's Secondary Impressions matches\^[I60)(I61))(I63))(G45))(G46)/) and eDisposition.30 Transport Disposition is in (4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"),

	2205009 ("Emergency Response (Mutual Aid)"))
Denominator	
Include:	Data Elements for Calculation
Patients in the Initial Population	Equals Initial Population
Exclusions: (Always remove from denominator)	
Patients with a documented Last Known Well of greater than or equal to 24 hours prior to assessment or Patients in cardiac arrest or Patient died prior to arrival to hospital	(((eSituation.18 Date/Time Last Known Well is greater than or equal to 24 hours before eVitals.01 Date/Time Vital Signs Taken) where (eSituation.18 Date/Time Last Known Well is not null and eVitals.01 Date/Time Vital Signs Taken is not null)) or eArrest.01 Cardiac Arrest is in (3001003 ("Yes, Prior to Any EMS Arrival (includes Transport EMS & Medical First Responders)"), 3001005 ("Yes, After Any EMS Arrival (includes Transport EMS & Medical First Responders)")) or eDisposition.19 Final Patient Acuity is 4219909 ("Dead with Resuscitation Efforts (Black)"))
Exceptions: (Remove from denominator if present and numerator is not met)	
None	N/A
Numerator	
Blood glucose evaluated during the EMS encounter	eVitals.18 Blood Glucose Level is not in (Null, 7701001 ("Not Applicable"),

<i>Note: Pertinent Negative (PN) of Unable to Complete (8801023) and Refused (8801019) are acceptable Numerator values.</i>	7701003 ("Not Recorded")
---	--------------------------

AHAEMS4: Stroke Screen Performed and Documented

Percent of EMS patients aged 18 years and older transported from the scene with a suspected stroke for whom a stroke screen was performed and severity documented during the EMS encounter.

Initial Patient Population	
Patients aged 18 years and older with a suspected stroke transported from the scene from a 911 request	(ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and eSituation.11 Provider's Primary Impression matches \"(I60)(I61)(I63)(G45)(G46)/ or eSituation.12 Provider's Secondary Impressions matches \"(I60)(I61)(I63)(G45)(G46)/) and eDisposition.30 Transport Disposition is in (4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"),

	2205009 ("Emergency Response (Mutual Aid)"))
Denominator	
Include:	Data Elements for Calculation
Patients in the Initial Population	Equals Initial Population
Exclusions: (Always remove from denominator)	
Patients with a documented Last Known Well of greater than or equal to 24 hours prior to assessment or Patients in cardiac arrest or Patient died prior to arrival to hospital	(((eSituation.18 Date/Time Last Known Well is greater than or equal to 24 hours before eVitals.01 Date/Time Vital Signs Taken) where (eSituation.18 Date/Time Last Known Well is not null and eVitals.01 Date/Time Vital Signs Taken is not null)) or eArrest.01 Cardiac Arrest is in (3001003 ("Yes, Prior to Any EMS Arrival (includes Transport EMS & Medical First Responders)"), 3001005 ("Yes, After Any EMS Arrival (includes Transport EMS & Medical First Responders)")) or eDisposition.19 Final Patient Acuity is 4219909 ("Dead with Resuscitation Efforts (Black)")))
Exceptions: (Remove from denominator if present and numerator is not met)	
None	N/A
Numerator	
Stroke screen performed and score (severity) documented	(eVitals.30 Stroke Scale Type is in (

<i>Note: Pertinent Negative (PN) of Refused (8801019) and Unable to Complete (8801023) are acceptable values for stroke scale score.</i>	3330001 ("Cincinnati Prehospital Stroke Scale (CPSS)"), 3330004 ("Los Angeles prehospital Stroke Screen (LAPSS)"), 3330005 ("Massachusetts Stroke Scale (MSS)"), 3330007 ("Miami Emergency Neurologic Deficit Exam (MEND)"), 3330009 ("NIH Stroke Scale (NIHSS)"), 3330011 ("Other Stroke Scale Type"), 3330013 ("FAST-ED"), 3330015 ("Boston Stroke Scale (BOSS)"), 3330017 ("Ontario Prehospital Stroke Scale (OPSS)"), 3330019 ("Melbourne Ambulance Stroke Screen (MASS)"), 3330021 ("Rapid Arterial Occlusion Evaluation (RACE)"), 3330023 ("Los Angeles Motor Score (LAMS)")) and (eVitals.29 Stroke Scale Score is in (3329001 ("Negative"), 3329003 ("Non-Conclusive"), 3329005 ("Positive")) or eVitals.29 Stroke Scale Score is in (8801019 ("Refused") 8801023 ("Unable to Complete")))))
---	--

AHAEMS5: 12-Lead ECG Performed within 10 Minutes

Percent of EMS patients aged 18 years and older transported from the scene with a primary impression chest pain or a suspected MI for whom a 12-Lead ECG was performed within 10 minutes of first medical contact.

Initial Patient Population

Patients aged 18 years and older with chest pain or a suspected MI transported from the scene from a 911 request <i>Note: chest pain or suspected MI is defined as:</i> • <i>Angina pectoris, unspecified</i> • <i>Acute myocardial infarction</i> • <i>Cardiac arrhythmia, unspecified</i> • <i>Acute respiratory distress syndrome</i> • <i>Acute pulmonary edema</i> • <i>Dyspnea, unspecified</i> • <i>Shortness of breath</i> • <i>Chest pain, unspecified</i> • <i>Nausea and vomiting</i> • <i>Syncope and collapse</i>	(ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and eSituation.11 Provider's Primary Impression matches\^(I20.9) (I21) (I49.9) (J80) (J81.0) R06.00 R06.02 (R07.9) (R11) (R55)/ and eDisposition.30 Transport Disposition is in (4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"), 2205009 ("Emergency Response (Mutual Aid)"))))
Denominator	
Include:	Data Elements for Calculation
Patients in the initial population with a 12-lead ECG performed during the EMS encounter	Initial Patient Population and eVitals.04 ECG Type is in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"), 3304011 ("15 Lead"), 3304013 ("18 Lead"))
Exclusions: (Always remove from denominator)	
None	N/A
Exceptions: (Remove from denominator if present and numerator is not met)	

Patients in cardiac arrest or Patients requiring advanced airway management or non-invasive (CPAP/BiPAP) prior to ECG or Patients in shock, respiratory arrest, or with injury, or requiring stabilization or Patients who refuse care or First ECG performed is not STEMI-positive	((eArrest.01 Cardiac Arrest is in (3001003 ("Yes, Prior to Any EMS Arrival (includes EMS & Medical First Responders)"), 3001005 ("Yes, After Any EMS Arrival (includes Transport EMS & Medical First Responders)")) or ((eAirway.10 Date/Time Decision to Manage the Patient with an Invasive Airway is not null is before first (eVitals.04 ECG Type is in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"), 3304011 ("15 Lead"), 3304013 ("18 Lead")))) where (eVitals.01 Date/Time Vital Signs Taken is not null sorted by eVitals.01 Date/Time Vital Signs Taken)) or Medical Device Type is in (1603037 ("Ventilator Assistance-BiPAP"), 1603039 ("Ventilator Assistance-CPAP")) or eProtocols.01 Protocols Used is in (9914127 ("Medical-Hypotension/Shock (Non-Trauma)"), 9914139 ("Medical-Respiratory Distress/Asthma/COPD/Reactive Airway")) or eSituation.02 Injury is 9922005 ("Yes") or eDisposition.28 Patient Evaluation/Care is in (
--	---

	4228003 ("Patient Evaluated and Refused Care"), 4228007 ("Patient Refused Evaluation/Care")) or eProtocols.01 Protocols Used is 9914189 ("General Refusal of Care")) or eVitals.04 ECG Type is 8801019 ("Refused") or (first (eVitals.03 Cardiac Rhythm/Electrocardiography (ECG) is not in (9901051 ("STEMI Anterior Ischemia""), 9901053 ("STEMI Inferior Ischemia""), 9901055 ("STEMI Lateral Ischemia"), 9901057 ("STEMI Posterior Ischemia"), 9901058 ("STEMI Septal Ischemia")) where eVitals.01 Date/Time Vital Signs Taken is not null and sorted by eVitals.01 Date/Time Vital Signs Taken)))
Numerator	
12-Lead EGG performed within 10 minutes of first medical contact	((eVitals.04 ECG Type is in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"), 3304011 ("15 Lead"), 3304013 ("18 Lead")) where eVitals.01 Date/Time Vital Signs Taken is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded"))) and

	eTimes.07 Arrived at Patient Date/Time is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and (eVitals.01 Date/Time Vital Signs Taken MINUS eTimes.07 Arrived at Patient Date/Time (> 0 Minutes and <= 10 Minutes)))
--	---

AHAEMS6: Aspirin Administration for STEMI

Percent of EMS patients aged 18 years and older transported from the scene with a STEMI positive ECG who were administered aspirin.

Initial Patient Population	
Patients aged 18 years and older with chest pain or suspected MI transported from the scene from a 911 request <i>Note: chest pain or suspected MI is defined as:</i> • <i>Angina pectoris, unspecified</i> • <i>Acute myocardial infarction</i> • <i>Cardiac arrhythmia, unspecified</i> • <i>Acute respiratory distress syndrome</i> • <i>Acute pulmonary edema</i> • <i>Dyspnea, unspecified</i> • <i>Shortness of breath</i> • <i>Chest pain, unspecified</i> • <i>Nausea and vomiting</i> • <i>Syncope and collapse</i>	(ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and eSituation.11 Provider's Primary Impression matches\^(I20.9) (I21) (I49.9) (J80) (J81.0) R06.00 R06.02 (R07.9) (R11) (R55)/ and eDisposition.30 Transport Disposition is in (4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (

	2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"), 2205009 ("Emergency Response (Mutual Aid)"))
Denominator	
Include:	Data Elements for Calculation
Patients in the Initial Population with a positive 12-Lead ECG for STEMI	Initial Population and (eVitals.04 ECG Type is in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"), 3304011 ("15 Lead"), 3304013 ("18 Lead")) and eVitals.03 Cardiac Rhythm/Electrocardiography (ECG) is in (9901051 ("STEMI Anterior Ischemia"), 9901053 ("STEMI Inferior Ischemia"), 9901055 ("STEMI Lateral Ischemia"), 9901057 ("STEMI Posterior Ischemia"), 9901058 ("STEMI Septal Ischemia")))
Exclusions: (Always remove from denominator)	
None	N/A
Exceptions: (Remove from denominator if present and numerator is not met)	
Patients with a documented allergy or contraindication (e.g., Warfarin or other anticoagulant/antiplatelet medication, liver disease/cirrhosis, etc.) to aspirin or Patient refused medication	((eHistory.06 Medication Allergies is 9924003 ("RXNORM"), 1191 ("Aspirin") or eHistory.06 Medication Allergies is 9924001 ("ICD-10"), T39.015 ("Adverse effect of aspirin") or (eMedications.03 Medications Administered is 1191 "Aspirin..." and eMedications.03 Medications Administered is in

	(8801001 ("Contraindication Noted"), 8801007 ("Medication Allergy"), 8801003 ("Refused"))))
Numerator	
Aspirin administered prior to or during the EMS encounter	(eMedications.03 Medication Administered is 1191 "Aspirin..." or (eMedications.03 Medication Administered is 1191 "Aspirin..." and eMedications.03 Medication Administered is 8801009 ("Medication Already Taken"))))

AHAEMS6b: Aspirin Administration for Suspected Heart Attack

Percent of EMS patients aged 18 years and older transported from the scene with a primary impression of chest pain or a suspected heart attack who were administered aspirin.

Initial Patient Population	
Patients aged 18 years and older with chest pain or suspected MI transported from the scene from a 911 request <i>Note: chest pain or suspected MI is defined as:</i> • Angina pectoris, unspecified • Acute myocardial infarction • Cardiac arrhythmia, unspecified • Acute respiratory distress syndrome • Acute pulmonary edema • Dyspnea, unspecified • Shortness of breath	(ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and eSituation.11 Provider's Primary Impression matches\^(I20.9) (I21) (I49.9) (J80) (J81.0) R06.00 R06.02 (R07.9) (R11) (R55)/ and eDisposition.30 Transport Disposition is in (

<i>Chest pain, unspecified</i> <i>Nausea and vomiting</i> <i>Syncope and collapse</i>	4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"), 2205009 ("Emergency Response (Mutual Aid)"))))
Denominator	
Include:	Data Elements for Calculation
Patients in the Initial Population	Equals Initial Patient Population
Exclusions: (Always remove from denominator)	
None	N/A
Exceptions: (Remove from denominator if present and numerator is not met)	
Patients with a documented allergy or contraindication (e.g., Warfarin or other anticoagulant/antiplatelet medication, liver disease/cirrhosis, etc.) to aspirin or Patient refused medication	((eHistory.06 Medication Allergies is 9924003 ("RXNORM"), 1191 ("Aspirin") or eHistory.06 Medication Allergies is 9924001 ("ICD-10"), T39.015 ("Adverse effect of aspirin") or (eMedications.03 Medications Administered is 1191 "Aspirin..." and eMedications.03 Medications Administered is in (8801001 ("Contraindication Noted"), 8801007 ("Medication Allergy"), 8801003 ("Refused"))))
Numerator	

Aspirin administered prior to or during the EMS encounter	(eMedications.03 Medication Administered is 1191 "Aspirin..." or (eMedications.03 Medication Administered is 1191 "Aspirin..." and eMedications.03 Medication Administered is 8801009 ("Medication Already Taken")))
---	--

AHAEMS7: Pre-Arrival Notification of STEMI within 10 Minutes of Positive ECG

Percent of EMS patients aged 18 years and older transported from the scene with a STEMI positive ECG for whom pre-arrival notification was activated within 10 minutes of positive ECG.

Initial Patient Population	
Patients aged 18 years and older with chest pain or suspected MI transported from the scene from a 911 request <i>Note: chest pain or suspected MI is defined as:</i> • <i>Angina pectoris, unspecified</i> • <i>Acute myocardial infarction</i> • <i>Cardiac arrhythmia, unspecified</i> • <i>Acute respiratory distress syndrome</i> • <i>Acute pulmonary edema</i> • <i>Dyspnea, unspecified</i> • <i>Shortness of breath</i> • <i>Chest pain, unspecified</i> • <i>Nausea and vomiting</i> • <i>Syncope and collapse</i>	(ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and eSituation.11 Provider's Primary Impression matches\ (I20.9) (I21) (I49.9) (J80) (J81.0) R06.00 R06.02 (R07.9) (R11) (R55)/ and eDisposition.30 Transport Disposition is in (4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"),

	4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"), 2205009 ("Emergency Response (Mutual Aid)"))
Denominator	
Include:	Data Elements for Calculation
Patients in the Initial Population with a positive 12-Lead ECG for STEMI and a documented STEMI pre-arrival alert	Initial Population and (eVitals.04 ECG Type is in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"), 3304011 ("15 Lead"), 3304013 ("18 Lead") and eVitals.03 Cardiac Rhythm/Electrocardiography (ECG) is in (9901051 ("STEMI Anterior Ischemia"), 9901053 ("STEMI Inferior Ischemia"), 9901055 ("STEMI Lateral Ischemia"), 9901057 ("STEMI Posterior Ischemia"), 9901058 ("STEMI Septal Ischemia") and eDisposition.24 Destination Team Pre-Arrival Alert or Activation is 4224013 ("Yes – STEMI")))
Exclusions: (Always remove from denominator)	
None	N/A
Exceptions: (Remove from denominator if present and numerator is not met)	
Patients in cardiac arrest or	(eArrest.01 Cardiac Arrest is in (

Patients requiring advanced airway management or non-invasive (CPAP/BiPAP) prior to ECG or Patients in shock, respiratory arrest, or with injury, or requiring stabilization or Patients refused care or First ECG performed is not STEMI-positive	3001003 ("Yes, Prior to Any EMS Arrival (includes EMS & Medical First Responders)"), 3001005 ("Yes, After Any EMS Arrival (includes Transport EMS & Medical First Responders)") or ((eAirway.10 Date/Time Decision to Manage the Patient with an Invasive Airway is not null is before first (eVitals.04 ECG Type is in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"), 3304011 ("15 Lead"), 3304013 ("18 Lead")))) where (eVitals.01 Date/Time Vital Signs Taken is not null sorted by eVitals.01 Date/Time Vital Signs Taken)) or Medical Device Type is in (1603037 ("Ventilator Assistance-BiPAP"), 1603039 ("Ventilator Assistance-CPAP")) or eProtocols.01 Protocols Used is in (9914127 ("Medical-Hypotension/Shock (Non-Trauma)"), 9914139 ("Medical-Respiratory Distress/Asthma/COPD/Reactive Airway")) or eSituation.02 Injury is 9922005 ("Yes") or eDisposition.28 Patient Evaluation/Care is in (
---	---

	4228003 ("Patient Evaluated and Refused Care"), 4228007 ("Patient Refused Evaluation/Care")) or eProtocols.01 Protocols Used is 9914189 ("General Refusal of Care")) or eVitals.04 ECG Type is 8801019 ("Refused") or (eVitals.03 Cardiac Rhythm/Electrocardiography (ECG) is in (9901051 ("STEMI Anterior Ischemia"), 9901053 ("STEMI Inferior Ischemia"), 9901055 ("STEMI Lateral Ischemia"), 9901057 ("STEMI Posterior Ischemia"), 9901058 ("STEMI Septal Ischemia")) where eVitals.01 Date/Time Vital Signs Taken is not null and sorted by eVitals.01 Date/Time Vital Signs Taken)))
Numerator	
Pre-arrival STEMI notification activated within 10 minutes of STEMI positive ECG	(eDisposition.25 Date/Time of Destination Prearrival Alert or Activation is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and eVitals.VitalsGroup exists where ((first (eVitals.04 ECG Type) is in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"),

	3304011 ("15 Lead"), 3304013 ("18 Lead")) and eVitals.03 Cardiac Rhythm/Electrocardiography (ECG) is in (9901051 ("STEMI Anterior Ischemia"), 9901053 ("STEMI Inferior Ischemia") 9901055 ("STEMI Lateral Ischemia") 9901057 ("STEMI Posterior Ischemia") 9901058 ("STEMI Septal Ischemia")) where eVitals.01 Date/Time Vital Signs Taken is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and eDisposition.25 Date/Time of Destination Prearrival Alert or Activation MINUS eVitals.01 Date/Time Vital Signs Taken (> 0 Minutes and <= 10 Minutes))
--	--

AHAEMS8: EMS FMC to Primary PCI within 90 Minutes for Patients with STEMI

Percent of EMS patients aged 18 years and older transported to a STEMI receiving center with an EMS first medical contact to primary percutaneous coronary intervention (PPCI) time of less than or equal to 90 minutes or EMS first medical contact to PPCI time of less than or equal to 120 minutes when transport time is greater than or equal to 45 minutes and door to PPCI is within 30 minutes.

Initial Patient Population	
Patients aged 18 years and older with a prehospital STEMI positive ECG who were directly transported to a STEMI receiving center by EMS	(ePatient.15 Age is greater than or equal to 18 and

	ePatient.16 Age Units is 2546009 ("Years")) and eVitals.03 Cardiac Rhythm/Electrocardiography (ECG) is in (9901051 ("STEMI Anterior Ischemia"), 9901053 ("STEMI Inferior Ischemia"), 9901055 ("STEMI Lateral Ischemia"), 9901057 ("STEMI Posterior Ischemia"), 9901058 ("STEMI Septal Ischemia")) and eDisposition.30 Transport Disposition is in (4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"), 2205009 ("Emergency Response (Mutual Aid)")) and eDisposition.23 Hospital Capability is in (9908031 ("Cardiac-STEMI/PCI Capable"), 9908033 ("Cardiac-STEMI/PCI Capable (24/7)"), 9908035 ("Cardiac-STEMI/Non-PCI Capable"))))
Denominator	
Include:	Data Elements for Calculation
Patients in the Initial Population who received PCI	Initial Population and eOutcome.09 Emergency Department Pcedures is (

	Reference ICD10PCS codes from PCI code list)
Exclusions: (Always remove from denominator)	
None	N/A
Exceptions: (Remove from denominator if present and numerator is not met)	
Patients in cardiac arrest or Patients requiring advanced airway management or non-invasive (CPAP/BiPAP) prior to ECG or Patients in shock, respiratory arrest, or with injury, or requiring stabilization or Patients refused care or First ECG performed is not STEMI-positive or Documented non-system scene delay	((eArrest.01 Cardiac Arrest is in (3001003 ("Yes, Prior to Any EMS Arrival (includes EMS & Medical First Responders)"), 3001005 ("Yes, After Any EMS Arrival (includes Transport EMS & Medical First Responders)"), or ((eAirway.10 Date/Time Decision to Manage the Patient with an Invasive Airway is not null is before first (eVitals.04 ECG Type is in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"), 3304011 ("15 Lead"), 3304013 ("18 Lead"))) where (eVitals.01 Date/Time Vital Signs Taken is not null sorted by eVitals.01 Date/Time Vital Signs Taken)) or Medical Device Type is in (1603037 ("Ventilator Assistance-BiPAP"), 1603039 ("Ventilator Assistance-CPAP")) or eProtocols.01 Protocols Used is in (9914127 ("Medical-Hypotension/Shock (Non-Trauma)"), 9914139 ("Medical-Respiratory Distress/Asthma/COPD/Reactive Airway"))

	or eSituation.02 Injury is 9922005 ("Yes") or eDisposition.28 Patient Evaluation/Care is in (4228003 ("Patient Evaluated and Refused Care"), 4228007 ("Patient Refused Evaluation/Care)) or eProtocols.01 Protocols Used is 9914189 ("General Refusal of Care")) or eVitals.04 ECG Type is 8801019 ("Refused") or (first (eVitals.04 ECG Type is not in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"), 3304011 ("15 Lead"), 3304013 ("18 Lead")) where eVitals.01 Date/Time Vital Signs Taken is not null and sorted by eVitals.01 Date/Time Vital Signs Taken)) or eResponse.10 Type of Scene Delay is in (2210005 ("Crowd"), 2210011 ("Extrication"), 2210013 ("HazMat"), 2210021 ("Patient Access"), 2210032 ("Safety-Crew/Staging"), 2210025 ("Safety-Patient"), 2210031 ("Triage/Multiple Patients"), 2210037 ("Weather")))
Numerator	

Patients who received primary PCI within 90 minutes of EMS First Medical Contact or Who had an EMS transport time of greater than or equal to 45 minutes AND ○ Who received a primary PCI within 120 minutes of EMS First Medical Contact AND ○ Within 30 minutes of arrival at the Receiving Center	(eTimes.07 Arrived at Patient Date/Time is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and eTimes.09 Unit Left Scene Date/Time is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and eTimes.11 Patient Arrived at Destination Date/Time is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and (eOutcome.09 Emergency Department Procedures is (Reference ICD10PCS codes from PCI code list) and eOutcome.19 Date/Time Emergency Department Procedure Performed is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and ((eOutcome.19 Date/Time Emergency Department Procedure Performed MINUS eTimes.07 Arrived at Patient Date/Time (> 0 Minutes and <= 90 Minutes)) or ((eTimes.11 Patient Arrived at Destination MINUS eTimes.09 Unit Left Scene
--	---

	and ((Date/Time (>=45 Minutes)) and ((eOutcome.19 Date/Time Emergency Department Procedure Performed MINUS eTimes.07 Arrived at Patient Date/Time (> 0 Minutes and <= 120 Minutes)) and (eOutcome.19 Date/Time Emergency Department Procedure Performed MINUS eTimes.11 Patient Arrived at Destination (> 0 Minutes and <= 30 Minutes))))))
--	--

AHAEMS9: EMS FMC to Thrombolytic Administration within 60 Minutes for Patients with STEMI

Percent of EMS patients aged 18 years and older treated and directly transported to a STEMI referring center with an EMS first medical contact to thrombolytic time of less than or equal to 60 minutes.

Initial Patient Population	
Patients aged 18 years and older with a prehospital STEMI positive ECG who were directly transported to a STEMI receiving center by EMS	(ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and eVitals.03 Cardiac Rhythm/Electrocardiography (ECG) is in (9901051 ("STEMI Anterior Ischemia"), 9901053 ("STEMI Inferior Ischemia"), 9901055 ("STEMI Lateral Ischemia"), 9901057 ("STEMI Posterior Ischemia"), 9901058 ("STEMI Septal Ischemia")) and eDisposition.30 Transport Disposition is in (

	4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"), 2205009 ("Emergency Response (Mutual Aid)")) and eDisposition.23 Hospital Capability is in (9908031 ("Cardiac-STEMI/PCI Capable"), 9908033 ("Cardiac-STEMI/PCI Capable (24/7)"), 9908035 ("Cardiac-STEMI/Non-PCI Capable"))
Denominator	
Include:	Data Elements for Calculation
Patients in the Initial Population who received thrombolytics	Initial Population and eOutcome.09 Emergency Department Procedures is (3E03017 "Introduction of Other Thrombolytic into Peripheral Vein, Open Approach...", 3E03317 "Introduction of Other Thrombolytic into peripheral Vein, Percutaneous Approach...", 3E04017 "Introduction of Other Thrombolytic into Central Vein, Open Approach...", 3E04317 "Introduction of Other Thrombolytic into Central Vein, Percutaneous Approach...")
Exclusions: (Always remove from denominator)	
None	N/A

Exceptions: (Remove from denominator if present and numerator is not met)

Patients in cardiac arrest or Patients requiring advanced airway management or non-invasive (CPAP/BiPAP) prior to ECG or Patients in shock, respiratory arrest, or with injury, or requiring stabilization or Patients refused care or First ECG performed is not STEMI-positive or Documented non-system scene delay	((eArrest.01 Cardiac Arrest is in (3001003 ("Yes, Prior to Any EMS Arrival (includes EMS & Medical First Responders")), 3001005 ("Yes, After Any EMS Arrival (includes Transport EMS & Medical First Responders")) or ((eAirway.10 Date/Time Decision to Manage the Patient with an Invasive Airway is not null is before first (eVitals.04 ECG Type is in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"), 3304011 ("15 Lead"), 3304013 ("18 Lead"))) where (eVitals.01 Date/Time Vital Signs Taken is not null sorted by eVitals.01 Date/Time Vital Signs Taken)) or Medical Device Type is in (1603037 ("Ventilator Assistance-BiPAP"), 1603039 ("Ventilator Assistance-CPAP")) or eProtocols.01 Protocols Used is in (9914127 ("Medical-Hypotension/Shock (Non-Trauma)"), 9914139 ("Medical-Respiratory Distress/Asthma/COPD/Reactive Airway")) or eSituation.02 Injury is 9922005 ("Yes") or eDisposition.28 Patient Evaluation/Care is in
--	---

	(4228003 ("Patient Evaluated and Refused Care"), 4228007 ("Patient Refused Evaluation/Care")) or eProtocols.01 Protocols Used is 9914189 ("General Refusal of Care")) or eVitals.04 ECG Type is 8801019 ("Refused") or (first (eVitals.04 ECG Type is not in (3304007 ("12 Lead-Left Sided (Normal)"), 3304009 ("12 Lead-Right Sided"), 3304011 ("15 Lead"), 3304013 ("18 Lead")) where eVitals.01 Date/Time Vital Signs Taken is not null and sorted by eVitals.01 Date/Time Vital Signs Taken)) or eResponse.10 Type of Scene Delay is in (2210005 ("Crowd"), 2210011 ("Extrication"), 2210013 ("HazMat"), 2210021 ("Patient Access"), 2210032 ("Safety-Crew/Staging"), 2210025 ("Safety-Patient"), 2210031 ("Triage/Multiple Patients"), 2210037 ("Weather")))
Numerator	
Patients who received thrombolytics within 60 minutes of EMS first medical contact	(eTimes.07 Arrived at Patient Date/Time is not in (Null, 7701001 ("Not Applicable"),

	7701003 ("Not Recorded")) and (eOutcome.09 Emergency Department Procedures is (3E03017 "Introduction of Other Thrombolytic into Peripheral Vein, Open Approach...", 3E03317 "Introduction of Other Thrombolytic into peripheral Vein, Percutaneous Approach...", 3E04017 "Introduction of Other Thrombolytic into Central Vein, Open Approach...", 3E04317 "Introduction of Other Thrombolytic into Central Vein, Percutaneous Approach...") and eOutcome.19 Date/Time Emergency Department Procedure Performed is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and ((eOutcome.19 Date/Time Emergency Department Procedure Performed MINUS eTimes.07 Arrived at Patient Date/Time (> 0 Minutes and <= 60 Minutes)))
--	--

AHAEMS10: EMS FMC to Thrombolytic Administration within 90 minutes for Patients with Stroke

Percent of patients treated and directly transported to destination hospital with an EMS first medical contact to thrombolytic administration time of less than or equal to 90 minutes.

Initial Patient Population	
Patients aged 18 years and older with a suspected stroke transported to the emergency department from the scene from a 911 request	(ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and (eSituation.11 Provider's Primary Impression matches\"^(I60)(I61))(I63))(G45))(G46)/ or eSituation.12 Provider's Secondary Impressions matches\"^(I60)(I61))(I63))(G45))(G46)/) and eDisposition.30 Transport Disposition is in (4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"), 2205009 ("Emergency Response (Mutual Aid)")) and eDisposition.21 Type of Destination is in (4221003 ("Hospital – Emergency Department"), 4221023 ("Freestanding Emergency Department"))))
Denominator	
Include:	Data Elements for Calculation

Patients in the Initial Population who received thrombolytics	Initial Population and eOutcome.09 Emergency Department Procedures is (3E03017 "Introduction of Other Thrombolytic into Peripheral Vein, Open Approach...," 3E03317 "Introduction of Other Thrombolytic into peripheral Vein, Percutaneous Approach...," 3E04017 "Introduction of Other Thrombolytic into Central Vein, Open Approach...," 3E04317 "Introduction of Other Thrombolytic into Central Vein, Percutaneous Approach...")
Exclusions: (Always remove from denominator)	
None	N/A
Exceptions: (Remove from denominator if present and numerator is not met)	
Documented EMS reasons for delay (patient in cardiac arrest, airway management required) or Documented non-system reasons for delay (Scene delays: crowd, extrication, hazmat, safety, triage/multiple patients) or Patients who refused care	(eArrest.01 Cardiac Arrest is in (3001003 ("Yes, Prior to Any EMS Arrival (includes Transport EMS & Medical First Responders)"), 3001005 ("Yes, After Any EMS Arrival (includes Transport EMS & Medical First Responders)")) or eAirway.10 Date/Time Decision to Manage the Patient with an Invasive Airway is not in Null or eResponse.10 Type of Scene Delay is in (2210005 ("Crowd"), 2210011 ("Extrication"), 2210013 ("HazMat"), 2210023 ("Safety-Crew Staging"), 2210025 ("Safety-Patient"),

	2210031 ("Triage/Multiple Patients")) or eDisposition.28 Patient Evaluation/Care is in (4228003 ("Patient Evaluated and Refused Care"), 4228007 ("Patient Refused Evaluation/Care")) or eProtocols.01 Protocols Used is 9914189 ("General Refusal of Care")) or eVitals.04 ECG Type is 8801019 ("Refused"))
Numerator	
Patients who received thrombolytics within 90 minutes of EMS first medical contact	(eTimes.07 Arrived at Patient Date/Time is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and (eOutcome.09 Emergency Department Procedures is (3E03017 "Introduction of Other Thrombolytic into Peripheral Vein, Open Approach...", 3E03317 "Introduction of Other Thrombolytic into peripheral Vein, Percutaneous Approach...", 3E04017 "Introduction of Other Thrombolytic into Central Vein, Open Approach...", 3E04317 "Introduction of Other Thrombolytic into Central Vein, Percutaneous Approach...") and eOutcome.19 Date/Time Emergency Department Procedure Performed is not in (Null,

	7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and ((eOutcome.19 Date/Time Emergency Department Procedure Performed MINUS eTimes.07 Arrived at Patient Date/Time (> 0 Minutes and <= 90 Minutes)))
--	---

AHAEMS11: EMS FMC to Endovascular Therapy within 120 Minutes for Patients with Stroke

Percent of EMS patients aged 18 years and older transported to a comprehensive stroke center or thrombectomy capable stroke center with an EMS first medical contact to endovascular therapy time of less than or equal to 120 minutes; or EMS first medical contact to endovascular therapy time of less than or equal to 150 minutes when transport time is greater than or equal to 45 minutes and door to EVT is within 30 minutes.

Initial Patient Population	
Patients aged 18 years and older with a suspected stroke transported to the emergency department from the scene from a 911 request	((ePatient.15 Age is greater than or equal to 18 and ePatient.16 Age Units is 2546009 ("Years")) and (eSituation.11 Provider's Primary Impression matches\^(I60)(I61)(I63)(G45)(G46)/ or eSituation.12 Provider's Secondary Impressions matches\^(I60)(I61)(I63)(G45)(G46)/ and eDisposition.30 Transport Disposition is in (

	4230001 ("Transport by This EMS Unit (This Crew Only)"), 4230003 ("Transport by This EMS Unit, with a Member of Another Crew"), 4230007 ("Transport by Another EMS Unit, with a Member of This Crew")) and eResponse.05 Type of Service Requested is in (2205001 ("Emergency Response (Primary Response Area)"), 2205003 ("Emergency Response (Intercept)"), 2205009 ("Emergency Response (Mutual Aid)")) and eDisposition.21 Type of Destination is in (4221003 ("Hospital – Emergency Department"), 4221023 ("Freestanding Emergency Department"))))
Denominator	
Include:	Data Elements for Calculation
Patients in the Initial Population who received endovascular therapy	Initial Population and eOutcome.09 Emergency Department Procedures is (03CG3Z7 "Extirpation of matter from intracranial artery using stent retriever, percutaneous approach...", 03CG3ZZ "Extirpation of matter from intracranial artery, percutaneous approach...", 03CP3Z7 "Extirpation of matter from right verbal artery using stent retriever, percutaneous approach...", 03CP3ZZ "Extirpation of matter from right vertebral artery, percutaneous approach...",

	03CQ3Z7 "Extirpation of matter from left vertebral artery using stent retriever, percutaneous approach..." 03CQ3ZZ "Extirpation of matter from left vertebral artery, percutaneous approach..." B31R1ZZ "Fluoroscopy of intracranial arteries using low osmolar contrast..." B31RYZZ "Fluoroscopy of intracranial arteries using other contrast..."
Exclusions: (Always remove from denominator)	
None	N/A
Exceptions: (Remove from denominator if present and numerator is not met)	
Documented EMS reasons for delay (patient in cardiac arrest, airway management required) or Documented non-system reasons for delay (Scene delays: crowd, extrication, hazmat, safety, triage/multiple patients) or Patients who refused care	(eArrest.01 Cardiac Arrest is in (3001003 ("Yes, Prior to Any EMS Arrival (includes Transport EMS & Medical First Responders)"), 3001005 ("Yes, After Any EMS Arrival (includes Transport EMS & Medical First Responders)")) or eAirway.10 Date/Time Decision to Manage the Patient with an Invasive Airway is not in Null or eResponse.10 Type of Scene Delay is in (2210005 ("Crowd"), 2210011 ("Extrication"), 2210013 ("HazMat"), 2210023 ("Safety-Crew Staging"), 2210025 ("Safety-Patient"), 2210031 ("Triage/Multiple Patients")) or eDisposition.28 Patient Evaluation/Care is in (

	4228003 ("Patient Evaluated and Refused Care"), 4228007 ("Patient Refused Evaluation/Care")) or eProtocols.01 Protocols Used is 9914189 ("General Refusal of Care")) or eVitals.04 ECG Type is 8801019 ("Refused"))
Numerator	
Patients who received endovascular within 120 minutes of EMS first medical contact or Who had an EMS transport time of greater than or equal to 45 minutes AND ○ Who received endovascular therapy within 150 minutes of EMS first medical contact AND ○ Within 30 minutes of arrival at the Receiving Center	(eTimes.07 Arrived at Patient Date/Time is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and eTimes.09 Unit Left Scene Date/Time is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and eTimes.11 Patient Arrived at Destination Date/Time is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and (eOutcome.09 Emergency Department Procedures is (03CG3Z7 "Extirpation of matter from intracranial artery using stent retriever, percutaneous approach...", 03CG3ZZ "Extirpation of matter from intracranial artery, percutaneous approach...",

	03CP3Z7 "Extirpation of matter from right verbal artery using stent retriever, percutaneous approach...," 03CP3ZZ "Extirpation of matter from right vertebral artery, percutaneous approach...," 03CQ3Z7 "Extirpation of matter from left vertebral artery using stent retriever, percutaneous approach...," 03CQ3ZZ "Extirpation of matter from left vertebral artery, percutaneous approach...," B31R1ZZ "Fluoroscopy of intracranial arteries using low osmolar contrast...," B31RYZZ "Fluoroscopy of intracranial arteries using other contrast..." and eOutcome.19 Date/Time Emergency Department Procedure Performed is not in (Null, 7701001 ("Not Applicable"), 7701003 ("Not Recorded")) and ((eOutcome.19 Date/Time Emergency Department Procedure Performed MINUS eTimes.07 Arrived at Patient Date/Time (> 0 Minutes and <= 120 Minutes)) or ((eTimes.11 Patient Arrived at Destination MINUS eTimes.09 Unit Left Scene Date/Time (>=45 Minutes)) and ((eOutcome.19 Date/Time Emergency Department Procedure Performed MINUS eTimes.07 Arrived at Patient Date/Time (> 0 Minutes and <= 150 Minutes)) and (eOutcome.19 Date/Time Emergency Department Procedure Performed MINUS eTimes.11 Patient Arrived at Destination (>
--	---

	0 Minutes and <= 30 Minutes))))))
--	-----------------------------------