

## 20. PRESUMED CARDIAC ARREST ETIOLOGY

### Definition/Description:

- Indication of the etiology or cause of the cardiac arrest.
- **All cardiac arrests of non-traumatic etiology where resuscitative efforts were initiated by a 911 Responder MUST be entered into CARES including those due to: presumed cardiac cause, respiratory cause or asphyxia, drowning/submersion, electrocution, exsanguination/hemorrhage, and drug overdose.**
- This field allows for categorization based on evidence to suggest the presumed etiology of the arrest. This will allow for the best chance of identifying patients that are otherwise presumed to have a primary cardiac etiology and help establish an Utstein survival rate for a specific community.

### Instructions for Coding:

- An arrest is **presumed to be of cardiac etiology** unless it is known or likely to have been caused by trauma, drowning, respiratory causes, asphyxia, electrocution, drug overdose, poisoning/intoxication, hemorrhage/exsanguination, or any other non-cardiac cause as best determined by rescuers.
- Additional information when available from the hospital (if the patient is transported) or medical examiner's office (death certificate) that may help clarify the etiology should also be used when available.
  - If the hospital determines the etiology to be other than what is listed by pre-hospital providers, the EMS Agency should be notified and the etiology changed in CARES with approval of pre-hospital provider.
- Select the presumed arrest etiology that is most appropriate based on the definitions below. If etiology is not included in one of the defined categories, select "Other" and describe the arrest etiology in the free text field. This free text will be reviewed during the audit/QA process by a CARES coordinator.

Presumed Cardiac Arrest Etiology	Definition
Presumed Cardiac Etiology	The arrest should be coded as "Presumed Cardiac Etiology" unless it is known or likely to have been caused by a non-cardiac cause (see definitions below).
Trauma	Defined as out-of-hospital injury (e.g. blunt or penetrating trauma, burns, GSW, hanging, etc.) resulting in traumatic arrest. In cases where seemingly minor "trauma" may be present but not likely the cause of the arrest, cardiac etiology should be considered (e.g. minor MVA with patient slumped over; a minor fall).
Respiratory/Asphyxia	Underlying respiratory disease or a respiratory mechanism as the primary cause of arrest, e.g. acute respiratory event that is likely the cause of the cardiac arrest. Examples include: choking, hypoxemia, foreign body airway obstruction (FBAO).
Drowning/Submersion	Submersion in water with no evidence of other contributing factors such as drug poisoning or trauma prior to falling into the water.
Electrocution	Primary cause of arrest due to electric shock, i.e. by a source of high voltage current.
Exsanguination/Hemorrhage	Includes GI bleed, post-surgical complications, ruptured varices, all ruptured aneurysms, subarachnoid hemorrhage (SAH), cranial bleeds not specified as stroke or CVA, any other uncontrolled bleeding resulting in hypovolemia.
Drug Overdose	Includes all intentional and accidental arrests caused by a presumed or known overdose of medication or drugs (legal/illegal), to include alcohol.

Other	<p><b>Only</b> to be used if the cause of arrest is <u>known and documented</u> but is not one of the available options. “Other” is <b>not</b> the default answer and therefore should <b>not</b> be used for “unknown” etiologies. When this option is selected, please indicate/describe the arrest etiology in the free text field.</p> <p>Examples of Other etiologies include, but are not limited to: Anaphylaxis; End Stage Cancer; Carbon Monoxide (CO) Poisoning; Chemical Poisoning; Hyperthermia or Hypothermia; Labor Complications; Metabolic Disease (DKA, Hypo or Hyperkalemia, Hyponatremia, Hypo or Hyperglycemia, Renal or Liver Failure); Pulmonary Embolism (PE); Stroke or CVA; Sudden Unexplained Infant Death (SUID); Sudden Infant Death Syndrome (SIDS).</p>
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Example	CARES Coding
EMS was called to the home of a patient who complained of shortness of breath and chest pain. The patient was awake and alert when EMS arrived and the first monitored cardiac rhythm was sinus tachycardia. The patient then went into ventricular fibrillation and resuscitative efforts were initiated.	Presumed Cardiac Etiology
EMS was called to a dialysis clinic to find patient in full cardiac arrest. No other information was provided.	Presumed Cardiac Etiology
EMS arrived on scene to find patient unresponsive on the floor of a public building. Bystander stated that the patient exhibited seizure-like activity before becoming unresponsive. The patient had no history of seizures.	Presumed Cardiac Etiology
EMS is called to the home of a forty-year-old man for an attempted suicide. Patient is found hanging and resuscitation efforts are initiated.	Trauma
EMS was called to the home of a patient who complained of shortness of breath. EMS arrived to find the patient awake, alert, and wheezing. The patient had a medical history of asthma. After two minutes the patient stopped breathing and went into respiratory arrest.	Respiratory/Asphyxia
EMS was dispatched to a possible cardiac arrest. Upon their arrival, the patient was unconscious in the swimming pool. The patient did not have a pulse when he was removed from the pool.	Drowning/Submersion
EMS arrived at a college dormitory to find patient unconscious and unresponsive. Drug paraphernalia was located near the patient. Friends of the patient said she had been using cocaine and heroin throughout the day.	Drug Overdose
Patient found with large amounts of bloody emesis, thought to be from a gastrointestinal hemorrhage (GI bleed).	Exsanguination/Hemorrhage
EMS arrived on scene to find patient lying in bed unresponsive. The patient had end stage cancer and was in hospice care.	Other: Cancer
Patient found in a parked car in his garage, suspected of carbon monoxide poisoning.	Other: CO Poisoning
EMS responds to an infant arrest believed to be Sudden Infant Death Syndrome (SIDS) or Sudden Unexpected Infant Death (SUID), the unexpected, sudden death of a child under age 1 in which an autopsy does not show an explainable cause of death.	Other: SIDS