

Ischemic burden time is a risk for morbidity and mortality, EMS can help decrease first medical contact to intervention time/reflow by efficient scripting/training of safely minimizing scene time

### **Pertinent Assessment Findings**

A complete medication list should be obtained from each patient. It is especially important for the treating physician and healthcare providers to be informed if the patient is taking beta-blockers, calcium channel blockers, clonidine, digoxin, blood thinners (anticoagulants), and medications for the treatment of erectile dysfunction or pulmonary hypertension

### **Quality Improvement**

**Associated NEMSIS Protocol(s) (eProtocol.01)** (*for additional information, go to [www.nemsis.org](http://www.nemsis.org)*)

- 9914117 – Medical - Cardiac Chest Pain
- 9914143 – Medical - ST-Elevation Myocardial Infarction (STEMI)

### **Key Documentation Elements**

- The time of symptom onset
- The time of patient contact by EMS to the time of 12-lead EKG acquisition
- The time aspirin (ASA) administered, or reason why not given
- The time of STEMI notification

### **Performance Measures**

- The time of patient contact by the first medical contact to the time of 12-lead EKG acquisition within 10 minutes
- The time from first diagnostic 12-lead EKG to STEMI notification
- Confirmation patient received ASA (taken prior to EMS arrival, advised by dispatch, given by EMS, or substantiated by other pertinent negatives)
- The time of a STEMI patient's ultimate arrival to a receiving hospital

\*The time of EMS notification to the time of activation of a cardiac catheterization laboratory

\*The time of arrival at the percutaneous coronary intervention (PCI) center to the time of cardiac catheterization (door-to-balloon time) or if patient not transported directly to PCI center, the time of arrival at receiving hospital to thrombolytics

\*The time of prehospital 12-lead EKG acquisition to the time of device deployment (formerly EKG-to-balloon time)

*\*NOTE: These measures can only be evaluated if EMS documentation can be combined with information provided by the receiving hospital*

### **References**

1. Bosson KN, Kaji AH, Niemann JT, et al. The utility of prehospital EKG transmission in a large EMS system. *Prehosp Emerg Care.* 2015;19(4):496–503
2. De Champlain F, Boothroyd LJ, Vadeboncoeur A, et al. Computerized interpretation of the prehospital electrocardiogram: predictive value for ST-segment elevation myocardial infarction and impact on on-scene time. *CJEM.* 2014;16(2):94–105
3. Meine TJ, Roe MT, Chen AY, et al. Association of intravenous morphine use and outcomes in acute coronary syndromes: results from the CRUSADE quality improvement initiative. *Am Heart J.* 2005;149(6):1043–9