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## Aspirin and Cardiac Chest Pain

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There have been multiple research studies that have demonstrated the aspirin reduces the mortality in patients with cardiac disease. Pharmacologically, aspirin inhibits platelet aggregation which in turn, inhibits or prevents thrombus formation. In the setting of acute chest pain, the early administration of aspirin reduces mortality in patients who present with acute coronary syndrome as well as acute myocardial infarction. Daily aspirin therapy improves long-term survival in patients with unstable angina and coronary artery disease.

The reimbursement for medical care by insurance companies is determined, in part, by patient care parameters recommended by the Agency for Healthcare Research and Quality (AHRQ) and adopted by the Centers for Medicaid and Medicare Services (CMS). As the reimbursement of medical care is transitioned from payment for procedures performed to payment based upon quality measures and patient outcome, CMS developed a set of core measures for inpatients and outpatients that includes the timely administration of aspirin to patients with acute coronary syndrome (ACS) and acute myocardial infarction (AMI). The data from the administration of aspirin in the emergency department contributes to the assessment of a hospital in their ability to provide quality cardiac care, a ranking system that is available to the general public and other healthcare organizations.

When the CMS core measure for aspirin administration was initially introduced, emergency physicians noted that their compliance with this recommendation was not always reflected in the hospital data. Upon quality assurance reviews, it was frequently noted that the patient presenting with ACS or AMI was not given aspirin in the emergency department because the patient had self-administered aspirin prior arrival at the hospital or it was administered by EMS providers. The gap in the accuracy of the data was due to a failure to consistently document this information on the patient's medical record in the emergency department. This CMS core measure for emergency department performance is easily met when the documentation includes patient self-administration of aspirin within 24 hours of arrival, administration of aspirin by EMS, or a contraindication to administration of the medication.

The Ohio Department of Public Safety, Division of EMS has recently seen several articles in various media outlets citing the failure of EMS providers to administer aspirin to patients suspected of experiencing cardiac chest pain. I have not reviewed the specific sources of the media's data; however, I suspect that a similar documentation issue exists in the prehospital patient care records as what occurred in the emergency department medical records. While CMS has not implemented this patient measure as a core measure for

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*"to save lives, reduce injuries and economic loss, to administer Ohio's motor vehicle laws and to preserve the safety and well being of all citizens with the most cost-effective and service-oriented methods available."*

EMS, I predict that performance measures for EMS will be a reality in the future. The EMS medical director may include the administration of aspirin for signs and symptoms of ACS or for AMI in the protocols provided to an EMS agency. Although the EMS medical director retains the authority over the dose and clinical circumstances, when aspirin is administered to a patient the usual dose ranges between 81 mg to 325 mg orally. Contraindications to aspirin administration include, but are not limited to, allergy or hypersensitivity to aspirin, bleeding disorders, or active gastrointestinal bleeding.

Over the years, the general public has become more knowledgeable in the recognition of signs and symptoms of ACS and AMI. In increasing numbers, laypersons activate the emergency care system via 9-1-1 when they or a loved one experiences chest pain and, in some cases, immediately take or administer aspirin. We must be cognizant of the fact that documentation of the actions of the patient prior to the arrival of EMS is equally as important as the documentation of the patient care provided by EMS. For patients with suspected ACS or AMI, the prehospital patient care record should reflect aspirin administration, by EMS or by the patient, or the contraindication for aspirin administration.

Ohio EMS providers have been and will continue to be a positive force in the significant improvement and advances in emergency cardiac care in our healthcare system through patient assessment, prehospital 12-lead EKG acquisition, aspirin administration, and expeditious transport to the appropriate facilities. Thank you for your dedicated service to Ohio EMS and for the wonderful lifesaving care that you provide to the residents and visitors of Ohio each and every day.

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