

Quality Improvement in the Emergency Department: A Project to Reduce Door - to- Electrocardiography Times

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The AHA and Joint Commission recommend obtaining an EKG for patients who present to the ED with chest pain or atypical MI symptoms within 10 minutes of arrival. Barriers to meeting this standard include large number of patients presenting with chest pain at one time, crowding, inadequate triage flow, and lack of knowledge regarding the 10-minute door to EKG time. The project site has a protocol on what chief complaints qualify for an immediate EKG, there is no process in place to identify these patients in their electronic record. Research has demonstrated that technicians will often wait for the EKG symbol to pop up on the computer screen indicating that the physician has ordered an EKG. This QI project examined if door to EKG times improved in an acute care hospital after 3 weeks of executing a nurse driven protocol for obtaining an EKG based on the patient's chief complaint. Mean door to EKG times were compared for 3 weeks prior to the project and for the 3 weeks the quality improvement project was implemented. The mean door to EKG time pre-project was 17.56 minutes and 18.45 minutes during the project. The probability (p) value was 0.544 indicating that there wasn't a significant difference in door to EKG times with the implementation of the QI project. ED boarding hours, patient volume, and acuity were all higher during the QI phase of this project. When considering these limitations, the QI project likely had a positive impact on door to EKG times.