

Background

In 2019, a multidisciplinary team from the St Joseph's Medical Center Department of Emergency Medicine began a process of simulation-based trainings to improve the management of STEMI patients going to Cath Lab. The case was constructed based on an actual case where errors or delays in care were identified by the quality improvement (QI) process.

Methods

Once the case was developed, on three separate occasions the simulated case was run in a resuscitation bay of the emergency department. High-fidelity mannequins were utilized, programed and supported by residents and attendings. Attendings, residents, nurses and technical staff responded in real-time through the STEMI activation system. After the case was run to completion, a structured debrief was performed by nursing, and emergency medicine educators. The debriefing focused on team leadership, technical resuscitation skills, and communication. A questionnaire was given to participants regarding their impressions of the experience. Additionally, data was collected on Average door to EKG and Average time spent in ED times from July 2019 to November 2019 to see if there was difference. The intervention period was July and August.



Communication between team members in the past STEMI Code 3 Alerts that I've been to has been



Prior to today, my understanding of my role during a STEMI Code 3 Alert was



After today's intervention, my understanding of my role during a STEMI Code 3 Alert is



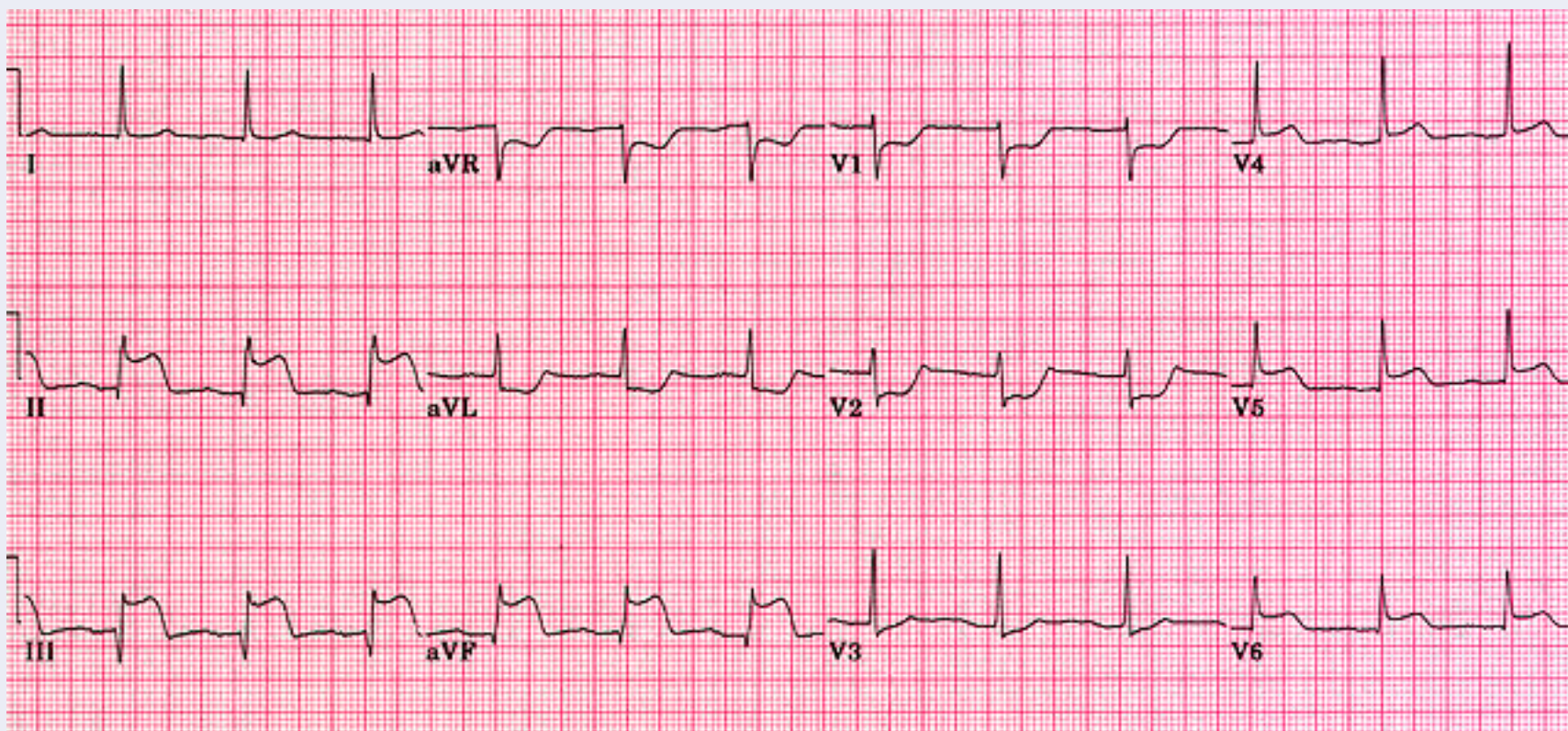
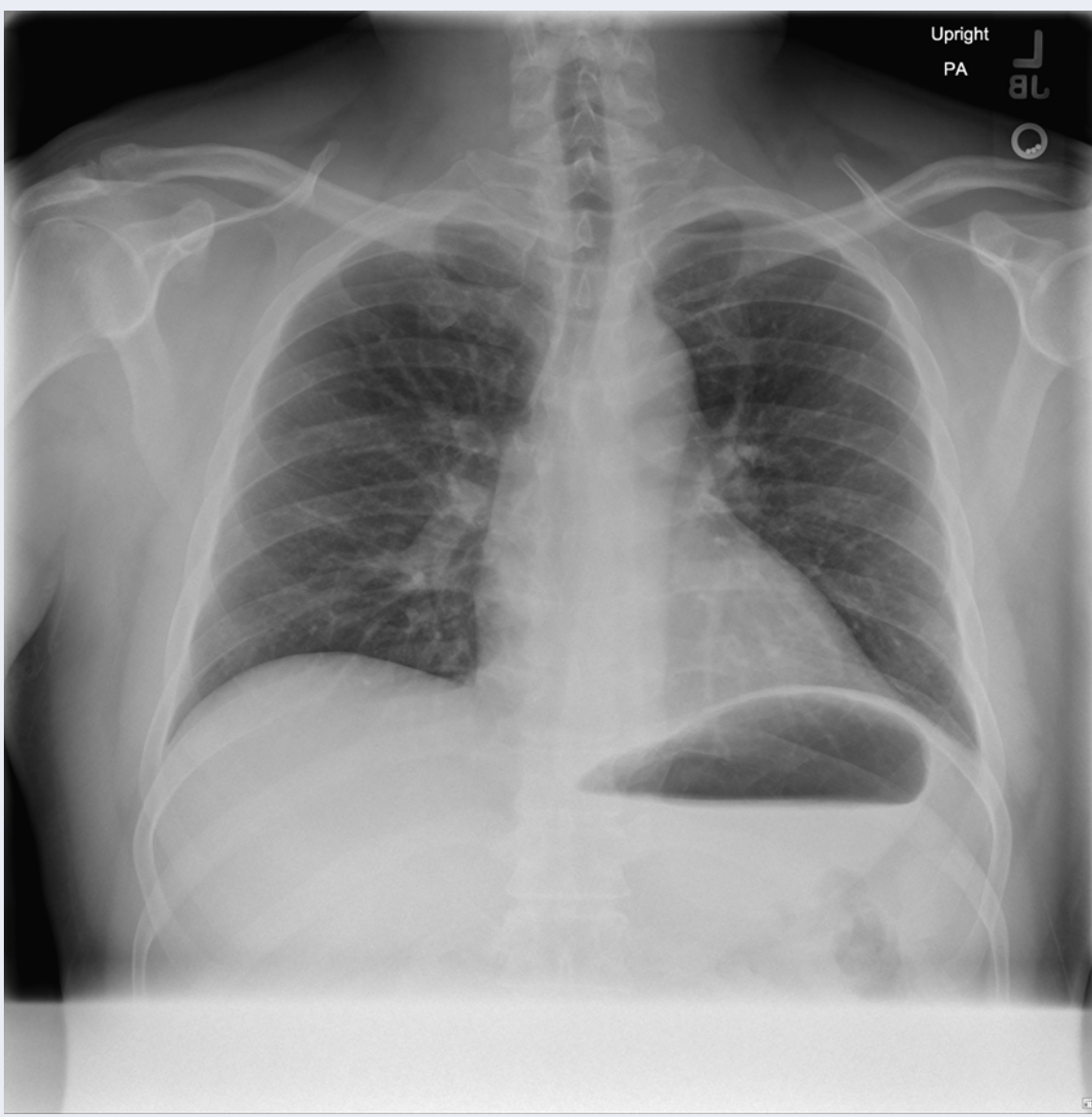
I would like to see more simulation based training exercises such as this one while on shift in the future



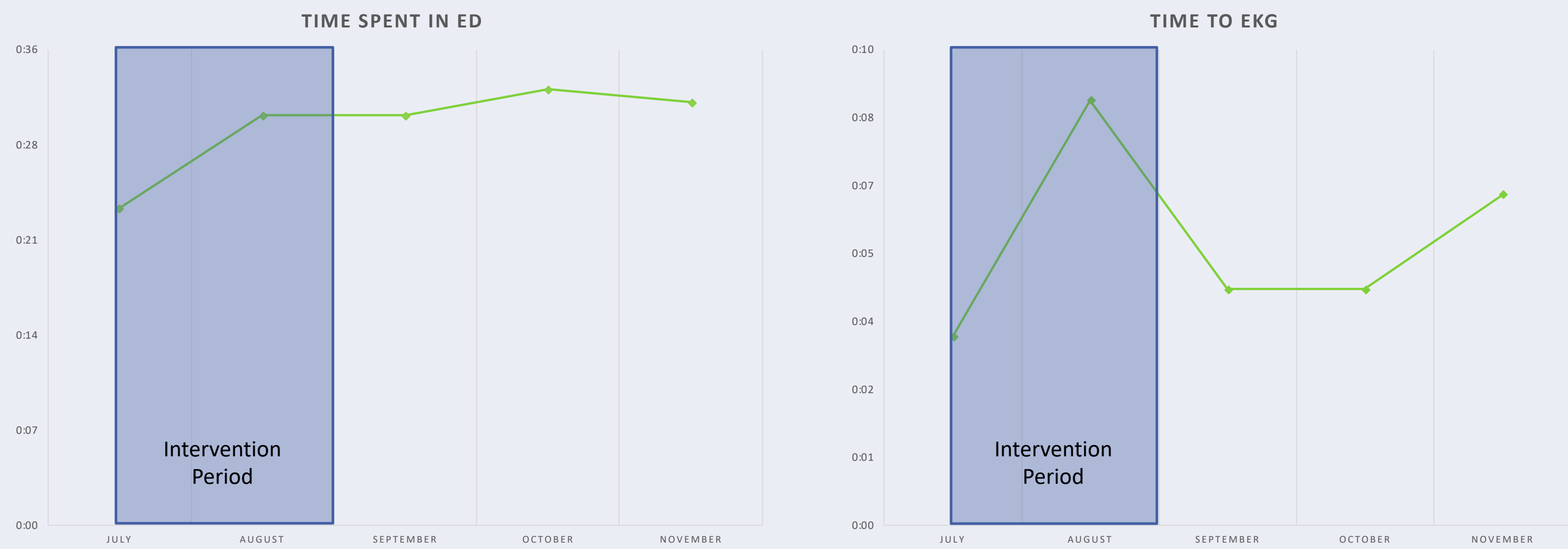
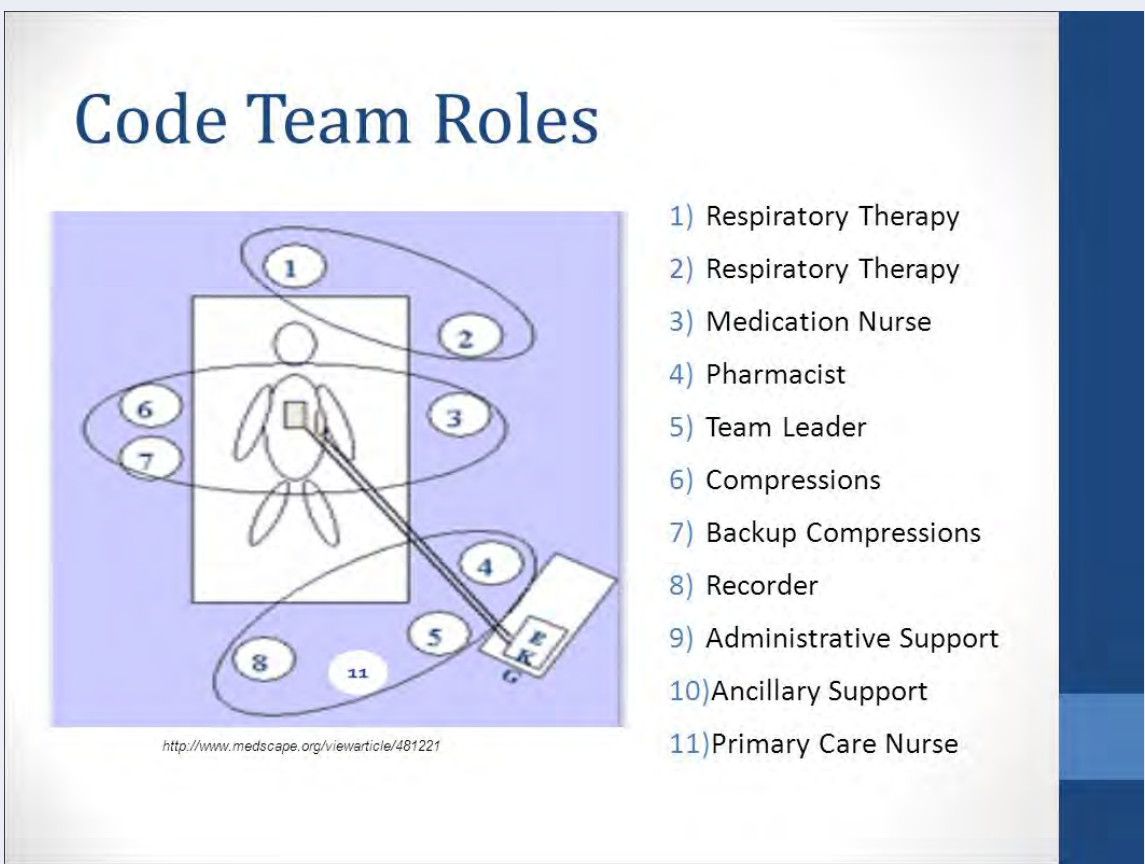
Simulated STEMI Case

Case

65-year-old male with syncope at home, coming in Code 3 due to hypotension 80/40 in ambulance and mild confusion. Complaining of chest pain on arrival. No pre-hospital EKG or IV access.



Having predetermined assignments is essential to running an effective resuscitation.



Our Intervention did not appear to have a positive impact on the time that STEMI patients spent in the ED or on the time from presentation to EKG.



Results

Over the course of 3 different occasions, many of the new nursing staff and residents had participated in one of the simulated STEMI case scenarios. Since such a simulation had not been done recently in the department, it was a new experience for many of the nursing staff. Communication between the team members was overall good, but areas of improvement were identified during the debrief afterward. Namely, residents and some attendings ordered morphine and even nitro on one occasion in the setting of an inferior STEMI causing hypotension. There was also some confusion between the role of primary and secondary nurse. The post simulation questionnaire highlights the general positive attitude toward multidisciplinary simulation in the ED. The before and after door to EKG and time spent in ED times did not show a benefit after the intervention period. But we feel doing multidisciplinary simulations enhances the spirit of teamwork which ultimately leads to better patient care and a more friendly working environment.



Future Direction

Our plans are to implement more simulation mock cases of other common critical presentations such as stroke, trauma and sepsis with the goal of improving resuscitation team communication and improving the confidence of residents in running codes to improve patient care in these scenarios.

Acknowledgments

We would like to thank the staff of the St. Joseph's Emergency Department and St. Joseph's Graduate Medical Education Department.