

## September 2018 – Cardiac Care

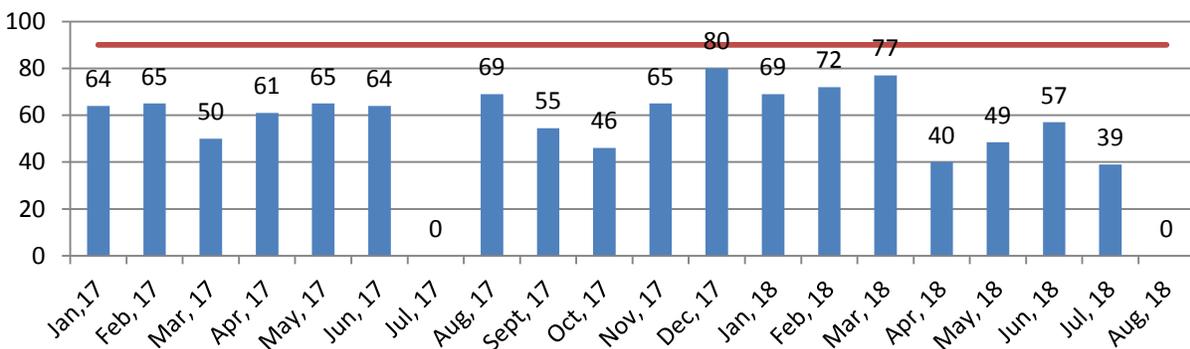
Every year, more than 250,000 people experience an ST elevation myocardial infarction (STEMI), the most deadly type of heart attack caused by blockage of blood flow to the heart that requires timely treatment. To prevent death it's critical to restore blood flow as quickly as possible, either by mechanically opening the blocked vessel or by providing clot-busting medication.

In July 2009, Olean General Hospital embarked on a journey to improve outcomes for cardiac patients. The initiative began with the development of the hospital's Chest Pain Center program, which represents coordination of processes for early recognition, diagnosis, and treatment of patients with signs and symptoms of acute coronary syndrome or heart attack. The program has continued to grow, and in 2017, 518 patients were cared for in our Chest Pain Center.

The second stage focused on rural community education and coordination of prehospital care. Our goal was to improve cardiac care through timely recognition of symptoms, early activation, EMS response, and appropriate prehospital care. Through a series of continuous improvements and the use of Lean A-3 problem solving, emergency department patient arrival to EKG read times for patients presenting with signs and symptoms of ACS were reduced from 15 minutes in April 2011 to seven minutes in April 2012. Since that time, we have continued to refine emergency department processes and have further reduced patient arrival to EKG read times to three minutes for patients presenting with signs and symptoms of acute coronary syndrome.

Olean General Hospital's Cardiac Catheterization Lab opened in October 2013, as a joint partnership with Kaleida Health, further improving accessibility and timeliness of cardiac care. Processes were developed to assure timely activation of our STEMI team through implementation of an electronic notification system along with checklists to expedite patient transfer. Through collaboration with ALS agencies, systems were developed to facilitate transmission of prehospital EKGs from surrounding counties, allowing for prehospital activation of the STEMI team. When a patient arrives at Olean General Hospital with a blocked artery to their heart, the average time from arrival to opening the artery (door to balloon) is 63 minutes, compared to the national standard of 90 minutes.

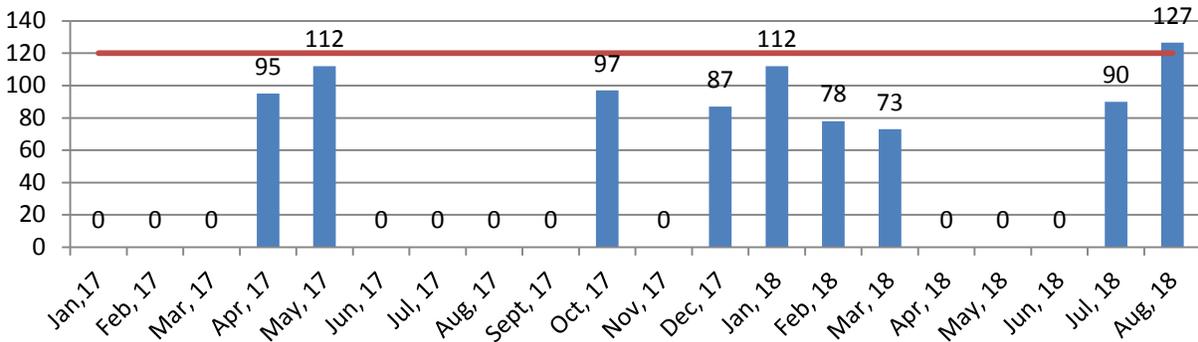
**Olean General Hospital  
Patient Arrival to Balloon Time  
(Goal less than 90 minutes)**



Bradford Regional Medical Center has also worked hard to refine processes for early recognition and transfer of patients with signs and symptoms of acute coronary syndrome. Their efforts focused on reducing time from patient arrival with ACS signs and symptoms to EKG read times and streamlining of communication with area ambulance services and Olean General Hospital cath lab. As a result, when patients arrive at Bradford Regional Medical Center with a blocked artery to their heart, the average time

from arrival to opening of the artery in Olean General Hospital’s Cardiac Catheterization Lab (door-to-door-to-balloon) is 78 minutes. The graph below shows average times per month from patients arriving at all transferring facilities with signs and symptoms of acute coronary syndrome to opening of the artery in Olean General Hospital’s Cardiac Catheterization Lab. This time includes the time it takes to transport the patient from the transferring facility to Olean General Hospital.

**Olean General Hospital Cardiac Cath Lab - Door-To-Door-To Balloon  
(Cardiac Catheterization in Patients Transferred from Other Hospitals)  
Goal Less Than 120 Minutes**



In July 2016, Olean General Hospital, Trans Am Ambulance Services, Inc., and the City of Olean Bureau of Fire and EMS all received Mission Lifeline awards for their outstanding success within the Mission Lifeline STEMI program. The American Heart Association’s Mission: Lifeline program’s goal is to reduce system barriers to prompt treatment for heart attacks, beginning with the 911 call and continuing through EMS and hospital treatment. Through combined efforts between Olean General Hospital, Bradford Regional Medical Center, and EMS providers, the average time from EMS arrival to EKG was reduced to 10 minutes, and average time from EMS first contact to opening the artery (EMS first contact to balloon) is 75 minutes.

Olean General Hospital and Bradford Regional Medical Center are dedicated to improving the quality of care for our patients who suffer a heart attack.