THE IMPACT OF A CARDIAC OBSERVATION UNIT ON LENGTH OF STAY FOR LOW RISK CHEST PAIN PATIENTS
-Poster Presentation-
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Background/Significance: Prior to opening the Cardiac Observation Unit (COU), low risk chest pain patients admitted to observation status on an inpatient unit had a mean length of stay (LOS) of > 24 hours. This contributed to an increase utilization of inpatient beds and resources. The length of stay was not only a concern for the inpatient unit, the longer the patient spent in the Emergency Department (ED) contributed to increased utilization of ED resources.

Purpose: The goal of this project was to provide evidenced-based expedited care for cardiac patients that meet specific low risk criteria for chest pain.

Population: The target population was low risk chest pain patients discharged between 1/1/12 and 10/31/13, admitted from the Emergency Department. Retrospectively, low risk was defined as observation status, principal diagnosis of chest pain, no cath or percutaneous coronary intervention (PCI) within current admission or within 180 days prior, discharged home and within 48 hours.

Setting: A 620 bed, urban, quaternary care center in Milwaukee, Wisconsin

Method/Design/Procedure: A multidisciplinary team, led by a nurse, was formed to manage this patient population in an accelerated manner. An algorithm, based on American College of Cardiology (ACC) criteria, was created to guide management in a closed unit and establish standard orders. The use of the algorithm and the opening of the COU began on 7/1/13. Student’s t-test was used to compare means between groups.

Results/Outcomes: There were a total of 937 low risk chest pain discharges between 1/1/12 and 10/31/13. Of these, 163 (17%) were discharged after the COU opened. Of those 65 (40%) were discharged from the COU. The mean LOS was significantly lower for low risk chest patients after the COU opened compare to before (20.0 vs 24.7 hours, p <.01). The mean ED LOS was also significantly lower after the COU opened (234.2 vs 208.8 minutes, p<0.01). In addition, patients discharged from the COU had significantly lower LOS compared to those discharged anywhere else in the hospital from 7/1/13 to 10/31/13 (13.7 vs. 24.2 hours, p<0.01).

Conclusions/Implications: Patients discharged with low risk chest pain after the COU opened had significantly shorter ED LOS and overall LOS. Those patients discharged specifically from the COU had an even further reduction in LOS vs. those discharged elsewhere. The use of a cardiac observation unit and a diagnosis specific algorithm offers clinician’s better clarity of the patient’s problem, helps to avoid unnecessary hospitalization, expedites care and streamlines ED throughput. Future plans involve expanding utilization by modifying the protocol to include moderate risk chest pain patients and other appropriate cardiac low risk diagnoses.