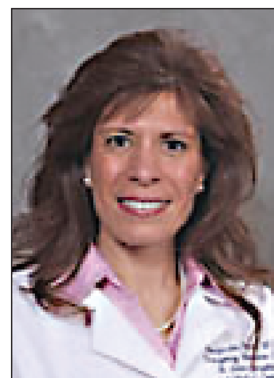
SJHMC Clinical Decision Unit Highlights of the Last Three Years

Margarita E. Pena, M.D., F.A.C.E.P.
Medical Director, Clinical Decision Unit, St. John Hospital and Medical Center

EMS, P.C. began managing and staffing the observation unit at St. John Hospital on September 4, 2008. The unit's name was changed from the Progressive Care Unit to the Clinical Decision Unit and in these three years we have strived to ensure best care practice delivered efficiently for our patients. Overall volume in the CDU continues to increase, mirroring our increase in ED volume, but the percent of patients placed in CDU from the ED has remained consistent at about 7.5%. Due to this increase in volume, staffing increased last year from 12 hours of on-site emergency physician coverage on weekdays to 16 hours. 'This article presents some highlights of the changes and improvements made during this time.



Dr. Margarita Pena

Our patient length of stay significantly decreased when comparing the 10-month period before and after September 2008 from 27 hours to 17 hours for discharged patients and 21 hours to 17 hours for admitted patients. Since this time, our average CDU arrival to disposition time for all CDU patients has remained at 15 hours. This change has also impacted our ED boarder hours which also decreased significantly in the first year from 247 hours to 200 hours and is currently about 86 hours.

Summary of Achievements

	Before	*After*
Observation LOS	27 hours	15 hours
% Admitted from Observation	28%	20%
ED Boarder hours	247 hours/month	86 hours/month
Exercise Stress testing	Nuclear	Non-nuclear

In May 2008 the CDU also became an accredited Chest Pain Unit, and many process improvements were implemented for patients presenting with chest pain to our ED. One of these processes included appropriate stress test ordering with a focus on decreasing radiation exposure to patients placed in the CDU for stress testing. We sought to decrease the number of nuclear exercise stress tests by using appropriate non-radiation options. Comparing three similar nine-month time periods in 2008, 2009 and 2010, we were able to significantly decrease utilization of nuclear stress tests by 58% from 2008 to 2009 and increase utilization of non-nuclear stress echocardiograms by 65%. This improvement was sustained through 2010. Furthermore, we found that the ED physicians correctly ordered the appropriate stress test in at least 90% of patients after process improvement measures and this percentage has remained consistent.

Abstracts for both of these process improvements were presented at the ACEP Scientific Assembly in October 2010 and at the Congress for the Society of Chest Pain Centers in May 2011, respectively.

We have also compared how often observed patients required admission from the observation unit. Looking at time periods almost one year before and after September 2008, fewer patients required admission when run by the ED group: 22% compared with 28% previously. For the past year, it has been an average of 20%. With limited health care resources and the focus on patient centered medical home, ED run observation units are more effective and focused on what needs to be performed in the hospital versus as an outpatient.

We look forward to further opportunities to improving and expanding to meet the needs of our patients.