

## Optimizing the Care of the Out of Hospital Cardiac Arrest Patients with Return of Spontaneous Circulation. A Quality Initiative to Standardize the Process and Monitoring of this Patient Population.

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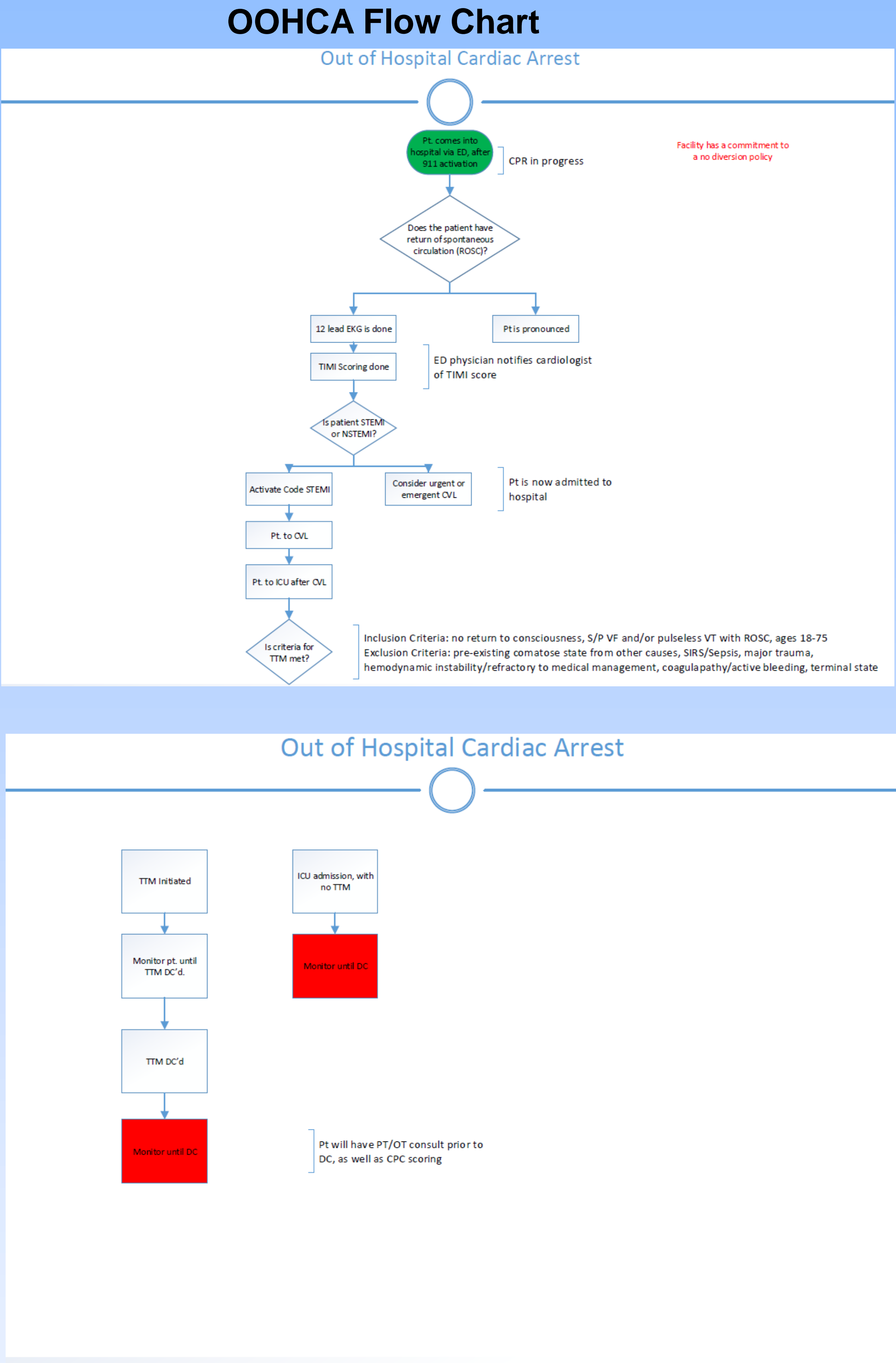
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## BACKGROUND

At Hackensack Meridian Health (HMH), Jersey Shore University Medical Center, we are committed to providing optimal patient care with the utilization of evidence-based guideline driven medicine. According to the American Heart Association (AHA) in 2016, there are approximately 350,000 out of hospital cardiac arrests (OOHCA) that occur in the United States of America annually; with only 26% of those patients surviving. At Jersey Shore University Medical Center (JSUMC) we receive approximately 120 cases of OOHCA annually. According to our American College of Cardiology National Cardiovascular Data Registry (NCDR®), we identified 8% of these cases obtained return of spontaneous circulation (ROSC) and had positive indications for coronary angiography. Our institution needs a well-defined metric and quality assurance process to evaluate all aspects of patient care from the prehospital environment to hospital discharge. This quality improvement initiative is a process change designed to better serve this patient population and reduce variations in patient care.

# PROCESS REDESIGN



## METHODS

A multidisciplinary process improvement team was assembled and PLAN DO STUDY ACT methodology was utilized which included the Director of Cardiovascular Services, Department Chair of Academic Internal Medicine, Chief of Cardiology, campus senior leadership, Emergency Services leadership, physician champions, nursing leaders, Cardiovascular Nurse Practitioners, Educators, RPI® Specialist, VP of Cardiology Transformational Care Services, Directors of Cardiovascular Services Fellows, Residents and Database Administrators to implement the initiative and develop process.

Initial efforts were focused on:

- Development of subcommittee
- Comparative Gap analysis
- Identification of learning opportunities for physicians, providers, and staff.
- Standardization of process.
- Development of a dashboard for standardized data collection.
- Create a forum for quality review and process improvement opportunities at each point of care (out of hospital to discharge).

# OUTCOMES

As OOHCA is a low-volume, high risk occurrence it is important to standardize the process of care in an effort to strengthen the “Chain of Survival” and decrease variation of care in this patient population. The goal is to reduce overall morbidity and mortality. Utilizing NCDR® and ACC Accreditation Conformance Database (ACD) metrics a quality assurance dashboard was created. Development of a standardized process to collect and organize data on the dashboard, review patient outcomes, and implement process improvements were indicated.

## NEXT STEPS

- Collection and analysis of data real time
- Quality review of patients for adherence to process.
- Quarterly reporting to our Resuscitation, Acute Coronary Syndrome, Quality corporate Committees.
- Quality Review for Mortality.

# GOAL STATEMENTS

- Implement an OOHCA with ROSC standardized protocol.
- Develop real time communication with the “Chain of Survival.”
- Develop an evidence based metric driven dashboard for monitoring patient care and developing process improvement (PI) needs.
- Develop a subcommittee to review patient outcomes and implement process improvement strategies where indicated.
- Streamline and standardize care of the OOHCA patient to improve overall patient outcomes and decrease morbidity and mortality in this specific patient.

# OOHCA Data Dashboard

[illegible]

## REFERENCES

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2. [https://cpr.heart.org/AHA/ECC/CPRECC/AboutCPRECC/CPRECCFactsAndStats/UCM\\_475748\\_CPR-Facts-and-Stats.jsp](https://cpr.heart.org/AHA/ECC/CPRECC/AboutCPRECC/CPRECCFactsAndStats/UCM_475748_CPR-Facts-and-Stats.jsp)
3. [www.thelancet.com](http://www.thelancet.com) Vol. 391 March 10, 2018.

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