Improving Outcomes Post Cardiac Arrest through APRN Led Hypothermia Response Teams

Jason Wannemacher DNP, APRN, ACNP-BC, CCRN, CEN, NRP - Dana Tschannen PhD, RN-Kim Biery DNP, RN, NEA-BC- Cynthia Arslanian-Engoren PhD, RN, ACNS-BC
Good Samaritan Hospital

Question

Can rapidly implemented therapeutic hypothermia improve neurological recovery after cardiac arrest?

Hypothesis

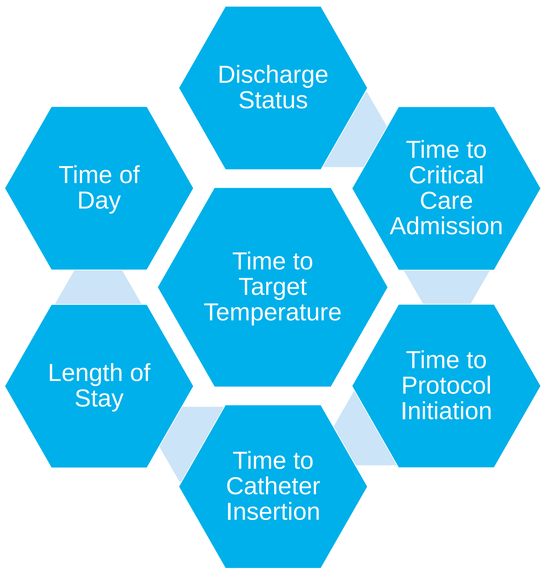
The addition of an Advanced Practice Nurse to a therapeutic hypothermia response team will improve patient outcomes post cardiac arrest.

APRN led practice teams reduce costs, drive favorable patient outcomes, with patients having a shorter LOS and lower readmission rates.

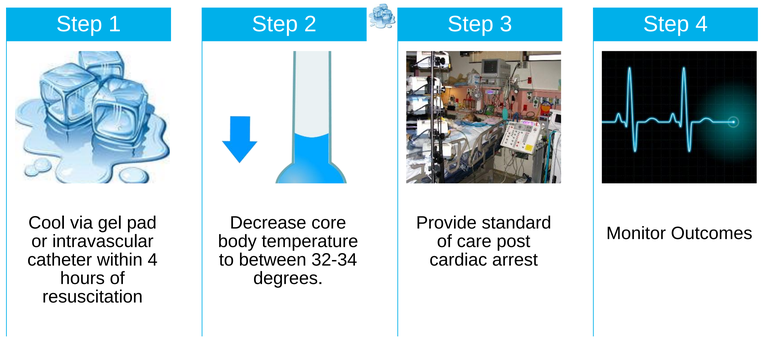
Project Overview

A pilot project was conducted evaluating patient outcomes before and after addition of APRN leadership to a therapeutic hypothermia response team.

Variables / Research



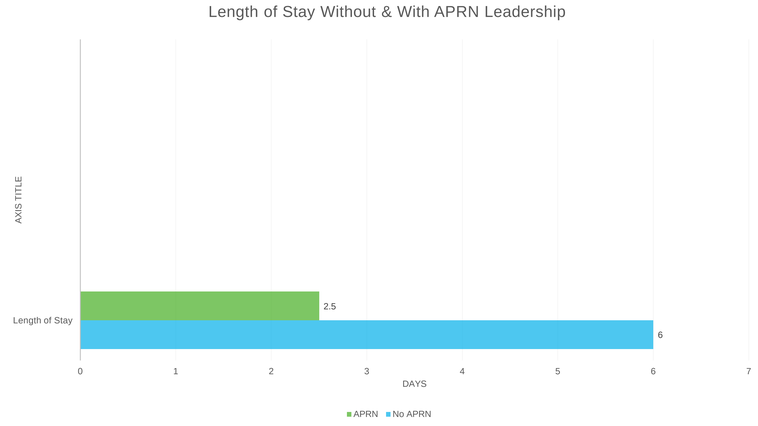
Therapeutic Hypothermia



Barriers to Effective Hypothermia Post Cardiac Arrest

- Delays in achieving target temperature
- High patient acuity
- Competency with the hypothermia protocol
- Lack of APRN member
- Incorrect technology application(s).

Results



- Impact of APRN Leadership was significant (p=0.05)
- Time to CCU admission & central catheter insertion was quicker with addition of an APRN to the Care Team.

Conclusion

- This project provides foundational data to enable evaluation of the APRN contributions in implementing a therapeutic hypothermia protocol in the clinical setting.
- APRNs provide direction, education & attenuation of obstacles to achieve favorable patient outcomes.
- Further research is needed in other specialties & settings.

Article Reviewed

Wannemacher J, Tschannen D, Biery K, Arslanian-Engoren C. Advanced Practice Registered Nurses Therapeutic Hypothermia Response Teams. AACN Advanced Critical Care. 2017; 28(4): 332-341.