Improving Outcomes Post Cardiac Arrest through APRN Led Hypothermia Response Teams

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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

<table>
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<tr>
<th>Discharge Status</th>
<th>Time of Day</th>
<th>Time to Critical Care Admission</th>
<th>Time to Target Temperature</th>
<th>Time to Protocol Initiation</th>
<th>Time to Catheter Insertion</th>
<th>Length of Stay</th>
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erapeutic Hypothermia

**Step 1**
Cool via gel pad or intravascular catheter within 4 hours of resuscitation.

**Step 2**
Decrease core body temperature to between 32-34 degrees.

**Step 3**
Provide standard of care post cardiac arrest.

**Step 4**
Monitor Outcomes.

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