Improving Understanding Of and Compliance With Anti-Shivering Protocols During Therapeutic Hypothermia with Just-In-Time Training

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Background/Problem

- Therapeutic hypothermia after cardiac arrest has been demonstrated to improve neurologic outcomes and survival rates following cardiac arrest.
- Shivering during hypothermia increases metabolic demand, increases oxygen consumption and increases difficulty maintaining desired temperatures.
- Gaps in knowledge can lead to inadequate management of shivering, leading to poorer outcomes.

Aims For Improvement

- To improve understanding of and compliance with anti-shivering protocols during therapeutic hypothermia post-cardiac arrest.
- How will we measure this?
  - Educational session pre- & post-test
  - Analyzing data from cardiac arrest patients pre-and post-intervention

Intervention

- Formal didactics given to medicine residents on shivering management during therapeutic hypothermia.
- A voluntary and pre- and post-test was administered to assess prior knowledge and efficacy of teaching.

Results

Scores on the assessment were significantly improved after the session (Before Session mean: 50%; After Session mean: 82.7%; p value: 0.001).

Conclusions/Next Steps

- Our initial assessment indicated that there were significant gaps in knowledge and understanding of TTM and anti-shivering protocols that could be closed with effective education.
- We are currently analyzing pre- and post-intervention data to determine if our education has improved compliance with anti-shivering protocols.
- We hope to have more education sessions in the future, for both residents and ICU nurses. This was delayed this year due to increased demand on ICU staff during the COVID pandemic.
- We also hope to make protocols more accessible to teams when cooling is initiated and streamlining order sets in Epic to make them more user friendly.