

Lessons Learned in Caring for Patients Treated With Therapeutic Hypothermia

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Lessons Learned in Caring for Patients Treated With Therapeutic Hypothermia

Lehigh Valley Health Network, Allentown, Pennsylvania

ABSTRACT

Research confirms therapeutic hypothermia (TH) redefines post-resuscitation care and offers an aggressive intervention with the potential to mitigate post-resuscitation syndrome. At LVHN, as of January, 2014, more than 371 patients were treated with TH over 9 years. This poster identifies five critical elements attributed to the successful TH program. The experiences shared by this team can be utilized to enhance processes and assure optimum outcomes in any TH setting.

Interprofessional Stakeholders

Physicians

- Knowledge and ownership critical
- Includes all appropriate medical specialties, i.e. critical care, cardiology, neurology, palliative care, and ED

Nurses

- Early adapters and patient advocates
- Includes direct care nurses, managers, educators and advanced practice nurses

Administrative Personnel

- Support and promote program
- Includes nurses and physicians

Coordination of Care

Mobilization of trained interprofessional staff via 'Ice Alert' page

Rapid interventions at intake site, i.e. ED, catheterization lab

Dedicated placement in Cardiac ICU (CICU)

Division of standard work according to protocol among ICU staff during induction phase

Critical Elements for Success

Global Database Participation

INTCAR - International Cardiac Arrest Registry

- Abstraction of data metrics to correlate and compare with international standards of care
- Comparison of results for changes and improvements in practice

Education

Nurse Orientation

- Specialized 4 hour didactic training
- Supported by preceptor for 1st case

Continuing Interprofessional Education

- Identification, planning, and implementation on routine basis due to staff attrition or change in practice
- Examples - eLearning, grand rounds, symposiums

Case Analysis

Daily

- Real time at bedside
- Primary nurse and TH nursing expert

Monthly

- TH committee meetings
- Interprofessional, emphasizing processes and opportunities for improvement

TH Committee

Purpose

- Oversee implementation & ensure ongoing evaluation

Team Members

- Physicians from various specialties
- Nurses
- Managers
- Educators
- Pre-hospital personnel

Outcomes

INDICATOR	LVHN N=371	INTCAR
Total ischemic time (minutes, median)	25	20
Initial rhythm (VF/VT %)	35.7	42.2
% Bystander CPR	36.7	39.1
% Out of hospital arrest	80.9	74.2
Time from arrest to initiation of temperature management (minutes, median)	140	90
% Urgent cardiac cath in patients with STEMI	81.3	80.9
% Urgent cardiac cath in patients with VT/VF initial rhythm	54.9	62.1
% Patients with goal temperature achieved (of patients undergoing temperature management)	93.6	96.5
% Life support withdrawal due to neurological futility <48h after arrest	13.5	18.3
% Survival to hospital discharge	27.6	39.3
% Good neurological function at follow up	70	77.8

Future State

- Core physician TH team - cardiologist, neurologist, intensivist, and palliative medicine specialist
- Ongoing refinements based on evidence
- Long-term follow-up of TH patients after discharge
- Patient support group

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