**Therapeutic Hypothermia Improvement Project**

Shiao-Pei Wang, Shiau-Shiuan Chen, Yi-Chun Chen, Yun-Jhen Tai, Chien-Hua Huang, Department of Emergency Medicine, National Taiwan University Hospital

**Background**

Therapeutic hypothermia (TH) is a standard care of post-cardiac arrest (CA), several studies have showed that TH can improve anoxia neurological outcomes. According to the evidence, TH should be initiated as soon as possible after CA. However, TH is a complicated and labor intensive treatment. Therefore, in order to enhance the efficacy of TH, we must **shorten the time** from return-of-spontaneous circulation (ROSC) after CA to initiation of TH and improve the integrity of nursing care process.

**Project implementation**

- A **trans-unit TH team** was formed which included attending physician, residents, clinical nursing staff and administrator of emergency department and intensive care unit, one **pharmacist** also involved in this team. Team members met once a month and discussed the difficulties of TH in practice.
- Renewed and proposed the **TH operational process and nursing care practice standard**, which approved by department and became a formal practice guideline. The shared decision making concept was applied into the process while physician explained TH to patient’s family.
- Put all medical treatments into a **doctor’s order package** and made it more convenient when doctor prescribed TH orders and reduced missing.
- Developed and integrated all nursing care activities into a **nursing care checklist**, avoiding incomplete nursing care.
- ED and ICU physicians and nurses undergo at least one hour in-service **education** about TH, and advocated the new TH protocol and nursing care practice guideline.

**Results**

The median time from ROSC after CA to initiation of TH was shortened from 151 minutes to 122 minutes. The median time from ROSC after CA to target temperature was **shortened from 431 minutes to 316 minutes**. **Nursing care completeness increased from 81.5% to 95%**.

**Discussion & Conclusion**

Through the trans-unit cooperation, this improvement project shortened the time from ROSC to initiation of TH, time from ROSC to target temperature and improve care completeness successfully. Besides, medical staff had increased knowledge about TH. In the future, we should parallel promote TH protocol and care standard to other ICU.

Contact: shiaopei@ntuh.gov.tw