Evaluation of Evidence-Based Guideline for Fever Management of Critical Adult Patients with Brain Injury

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Abstract

Purpose:

The goal of this study is to apply by a useful algorithm in clinical environments, verifying the effectiveness of the Evidence based guideline for fever management of critical adult patients with brain injury.

Methods:

This nonequivalent control group pretest-posttest experiments involved 48 patients aged ≥ 19 years who were admitted intensive care unit after surgery due to brain injury. Authors investigated the rate of patients with reduced fever, time to decrease fever the difference of neurological status when they discharge the ICU, between either with the algorithm for fever management or not was analyzed.

Results:

The rate of the patients whose fever was decreased after the first fever was the rate of the patients with controlled fever in experimental group is 4.50 times higher than the control group(95% CI: 1.22-16.60, ρ = .024). The fever of 50% of patients in experimental group reduced within less than 1 hour, while in control group, it took less than 17hours (Log rank ρ < .001), the experimental group takes 4.8 times quicker to decrease fever than control group(HR: 4.84, 95% CI: 1.79-13.11, ρ = .002). Neurological status when to admit and to discharge was1.25±2.58 points in experimental group, and 2.13±2.70 points in control group, which was no significant difference between the two groups (z=-1.43, p = .253).

Conclusion:

Algorithm for fever management of brain injury patients can be a scientific evidence for nursing practice with fast decisions, improving the efficiency of health care, hence contributing to better outcomes for critically ill patients.

Biography:

Jungmin Lee has completed her PhD from College of Nursing, The Catholic University of Korea. She is RN, Department of Nursing, Samsung Medical Center. She has worked in the neurosurgery intensive care unit for 13 years and is very interested in research. She had a number of research and book publishing and development of practical guidelines.