Study reveals no benefit to costly and risky brain cooling after brain injury

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patients into two groups: those that received hypothermia treatment as soon as possible post-injury, often in the ambulance on the way to an emergency department, and half who did not receive the therapy. The study, called POLAR (Prophylactic hypothermia to lessen traumatic brain injury) ran from seven years from 2010.

Patients in the hypothermia arm of the trial had their body temperatures reduced (firstly with cold saline provided intravenously in the ambulance and then with cold body wraps in emergency departments and ICUs for between 3 and 7 days post-injury).

According to Professor Cooper, who will present the results in Paris, the study definitively found there was no benefit to patients receiving hypothermia, as measured by their capacity to live independently following recovery from the TBI with 49% able to do so in both groups. "This study is the final word on whether hypothermia as a treatment for TBI works," Professor Cooper, who is also Director of the Australian and New Zealand Intensive Care (ANZIC) Research Centre, said.

Using hypothermia in the ICU not only requires valuable staff time but runs the risk of increased bleeding, increased risk of infection, and decreased heart rate and blood pressure, all of which have to be managed in a vulnerable patient. "From now on, patients should not have to endure the risks of hypothermia because we now know there are no benefits," Professor Cooper said.

Provided by Monash University

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