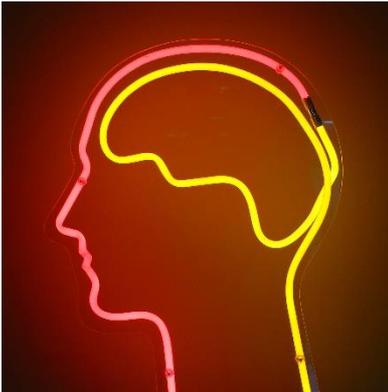


The TAME Trial

Targeted Therapeutic Mild Hypercapnia
after Resuscitated Cardiac Arrest

August 2017



Background

- For patients admitted to the ICU after a cardiac arrest, neurological injury leading to the withdrawal of life support or neurological impairment are the most common outcomes following cardiac arrest.
- Even after the heart has been restarted, poor blood flow to the brain continues and can cause more brain injury.
- A likely reason for this loss of blood flow after the heart has been restarted is the loss of the normal ability of brain blood vessels to adjust blood flow (autoregulation): a process controlled by carbon dioxide in the blood.
- However, an increased partial pressure of carbon dioxide (PaCO₂) in the blood (hypercapnia) could increase brain blood flow in these patients and reduce brain damage.

Aim

The primary objective of this study is to determine whether targeted therapeutic mild hypercapnia (TTMH) improves neurological outcome at 6 months compared to standard care (targeted normocapnia) (TN).

Methods

- A 1700 patient, an international, multi-centre, parallel-group, phase III, non-commercial, randomised, controlled trial (RCT).
- Eligible patients will be randomised 1:1 to receive targeted therapeutic mild hypercapnia (TTMH) treatment with the target PaCO₂ range of 50-55 mmHg for 24 hours, or standard care (targeted normocapnia [TN]) with the target PaCO₂ range of 35-45 mmHg for 24 hours.

Endorsement

Australian and New Zealand Intensive Care Society Clinical Trials Group (ANZICS-CTG) and the Irish Critical Care Clinical Trials Group (ICC-CTG).

Coordinating centre

The ANZIC-RC, School of Public Health and Preventative Medicine, Monash University.

Find out more: <http://spinnakersoftware.co.nz/TAME>



Facts

An out-of-hospital cardiac arrest has an estimated incidence of approximately 1 in 1,000 persons per year.

For each resuscitated cardiac arrest patient admitted to ICU who survives to hospital discharge, admission costs alone exceed \$120,000.

The estimated ongoing community-based costs for each patient with moderate cerebral injury is AUD\$34,000/year.

Spinnaker
SOFTWARE

Contact

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