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Letter to the Editor

Post-resuscitation care following cardiac arrest in intensive care units: A French national survey

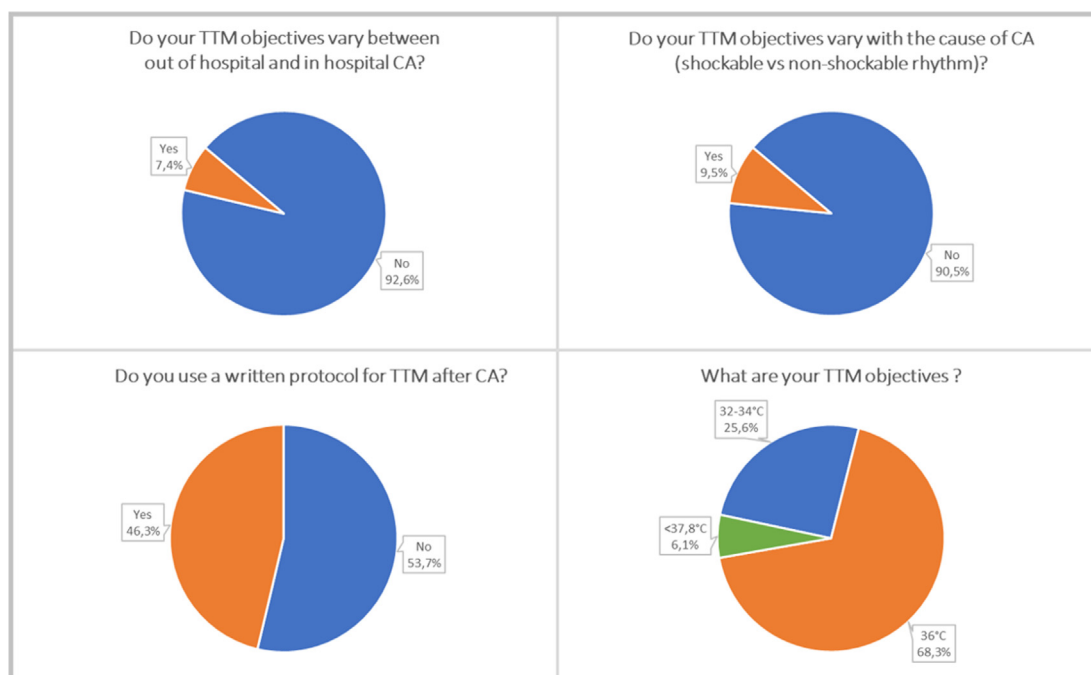


To the editor:

Post-resuscitation care in intensive care units (ICU) includes control of oxygenation, hemodynamic and targeted temperature management (TTM), multimodal prognostication and rehabilitation. The level of evidence on the effectiveness of these measures on outcomes remains insufficient. We aimed to evaluate ICUs practices after successful cardiac arrest (CA) resuscitation. During July 2022, we conducted a national survey of practices in French ICU using a 28-question questionnaire available online.

349 ICUs were surveyed. 95 completed the questionnaire. 57.9% of the responders had been working in ICU for more than 10 years. 34.7% worked in a teaching hospital, 58.9% worked in a general hospital. 96.8% responders used a TTM strategy but only 46.3% of them used a written protocol. 7.4% responders had

different temperature targets between out-of-hospital CA and in-hospital CA and 9.5% had different temperature targets depending on CA cause (shockable versus non-shockable rhythm). In ICU using the same TTM strategy for all CA patients (86.3%), 68.3% targeted 36 °C, 25.6% targeted a temperature ranging from 32 to 34 °C and 6.1% targeted normothermia (temperature < 37,8° C). 98.9% used a sedation while TTM. TTM lasted for 24 hours for 87.4% of the responders and for more than 24 hours for 10,5%. First-line sedative was propofol, midazolam and inhaled sedation for respectively 58.5%, 35.1% and 10.6% of intensivists. 98.9% targeted a normal arterial partial pressure of carbon dioxide (PaCO₂ 35–45 mmHg). 96.8% targeted a mean arterial pressure (MAP) superior to 65 mmHg and 3.2% a mean arterial pressure



TTM: targeted temperature management, CA: cardiac arrest.

Fig. 1 – Targeted temperature management (TTM) after cardiac arrest (CA) in French ICUs.

superior to 80 mmHg. None of the responders started neurological prognostication before 24 hours after CA. 38.9% started neurological prognostication between 24 and 72 hours after CA, 45.3% between 72 and 96 hours and 15.8% after 96 hours. Only 25.3% responders used a written neurological prognostication protocol. Most used tests for neurological prognostication included electroencephalogram (96.8%), biological marker NSE (86.3%), cerebral magnetic resonance imaging (51.6%), somatosensory evoked potentials (N20 wave) (50.5%) and cerebral computed tomography (45.3%). 17.9% responders organized long-term follow-up for CA survivors after hospital discharge.

This study aimed to clarify current post-resuscitation care in ICU in France. The results showed that most participating ICU were aware and in accordance with ILCOR guidelines¹. In accordance with literature, a 36 °C TTM seems to have become the standard of care in French ICU². However, avoiding fever was not the most chosen treatment, the reasons not to change practice are not known. Perhaps our questionnaire was done too early with regard to the release of TTM 2³. However should we tailor the TTM according to patient's individual risk⁴? Practices regarding MAP and PaCO₂ were uniform but may change with future study results (NCT05486884, NCT03114033). The use of paraclinical tests for prognostication was disparate, probably depending on the accessibility of each test in different settings. Less than a fifth of CA survivors in France have a multidisciplinary evaluation after ICU discharge. Studies are needed to assess the prognostic value of such measures⁵.

Despite knowledge gaps in post-resuscitation care, the ILCOR recommendations seem to be well established in French ICUs (see Fig. 1).

Conflicts of Interest

None.

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