

CORRESPONDENCE



“Do no further harm” – Why shall we sedate unresponsive patients?

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We read with great interest the 2021 revision of the European Resuscitation Council (ERC) guidelines for post-resuscitation care by Nolan et al. [1]. Compared to the 2015 version the recommendations provide a helpful improvement particularly regarding the assessment of prognosis. Focussing on patient assignment for temperature control, however, the clinician is still left in uncertainty: unconscious survivors of cardiac arrest benefit from body temperature control — either therapeutic hypothermia (33 °C) or targeted temperature control (≤ 36 °C). For responsive patients, however, solely avoidance of fever is recommended. The premise for this decision — to cool or not to cool—is, that the team applying cardiopulmonary resuscitation (CPR) and succeeding with return of spontaneous circulation (ROSC) allows the patient to wake up to get categorized. Therefore, it is misleading that Fig.1 of the guidelines suggests “sedation” as a matter of cause during “immediate treatment”.

The questions remaining are: how do we define “unresponsive” and how long do we give the patients the chance to respond before declaring them as unresponsive and impairing the consciousness artificially with sedatives?

Nielsen et al. [2] included patients with a value < 8 on Glasgow Coma Scale (GCS) on admission of hospital in the targeted temperature trial (TTM1), Lascarrou et al. [3] patients with a GCS value ≤ 8 at admission in the intensive care unit (ICU) and Dankiewicz et al. are currently including patients with a motor response < 4 on the FOUR score who do not obey verbal commands 20 min after ROSC in the TTM2-trial.

Without doubt temperature control may improve neurological outcome after resuscitation for those who stay unresponsive. For a conscious patient, however, therapeutic hypothermia is not recommended and on the other hand, an unresponsive patient does not need sedatives.

There is no evidence that sedatives improve neurological outcome after cardiac arrest but it is recognized that deep sedation increases mortality of ICU patients [4, 5]. Hypothermia impairs physiological processes like haemostasis, immune defence, intestinal function, wound healing and others in several ways. Hence, benefits and harms of sedation and temperature control need to be carefully weighed. A critical selection of patients is crucial and early sedation might lead to allocation of patients to temperature control who do not take advantage.

Would it not be an evidence-based approach to recommend rather the *avoidance* of sedatives after ROSC until the patient is admitted to the hospital and equipment for induction of hypothermia is fully prepared? Pain or coughing in the meantime can easily be controlled by short acting opioids. In our opinion, sedatives should not routinely be used in the setting of post-resuscitation care.

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