

*In reply:*



We thank Podsiadło et al<sup>1</sup> for their valuable comments. We agree that an accurate estimate of survival is essential to prevent mismanagement. Two main strategies have been proposed for triage and prognostication of hypothermic patients in cardiac arrest: one out-of-hospital and one in-hospital. European Resuscitation Council guidelines for the management of hypothermic cardiac arrest state that resuscitation of hypothermic cardiac arrest patients should be withheld out of hospital only if the cause of cardiac arrest is attributable to a lethal injury, fatal illness, or prolonged asphyxia, or if the chest is incompressible; otherwise, they should receive prolonged cardiopulmonary resuscitation (CPR) and be transported to an extracorporeal life support center for extracorporeal rewarming.<sup>2</sup> Our case report showed the importance of the knowledge of out-of-hospital triage criteria to start a seamless chain that optimizes prolonged CPR from the scene of the accident to the center during transport and enables prompt initiation of extracorporeal life support at admission.<sup>3</sup> Conversely, the Hypothermia Outcome Prediction After ECLS survival probability score covers in-hospital triage (in a spoke or hub extracorporeal life support center).<sup>4</sup> Specifically, based on the score, the survival probability of our patient was well above 50% in the spoke hospital of Belluno, and it would have once more justified the secondary transport of the patient to the extracorporeal life support center (Treviso, Italy; 83 km) with an early activation of the extracorporeal membrane oxygenation team, despite difficult logistic conditions. Moreover, as suggested by Podsiadło et al, a Hypothermia Outcome Prediction After ECLS score of 23% on arrival at the extracorporeal life support center with an alerted extracorporeal membrane oxygenation team could have further supported all the team's efforts.

The Hypothermia Outcome Prediction After ECLS score is currently under external validation in hypothermic cardiac arrest patients, and it is under investigation compared with other in-hospital triage criteria in other special circumstances in which there is a need to distinguish between asphyxial and hypothermic cardiac arrest, such as for buried avalanche patients.<sup>5</sup> In-hospital extracorporeal membrane oxygenation teams often face a lack of out-of-hospital data, such as duration of avalanche burial, airway status, the presence of electrical cardiac activity, or an air pocket noted at extrication in avalanche debris.

Next to the need for the establishment of clear standard operating procedures with associated education and training in regard to hypothermic and other patients in refractory cardiac arrest, there is the need to integrate them with optimized out-of-hospital and in-hospital triage criteria.

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