



Prone positioning for non-intubated hypoxaemic patients with COVID-19: cheap, easy and makes sense, but does it work?

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This editorial evaluates a large observational study that identified strong associations between awake prone positioning and decreased mortality in hospitalised patients with COVID-19 <https://bit.ly/3m3NeAx>

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Since the 1970s, prone positioning has been proposed as an inexpensive and physiologically justified management strategy for patients with acute respiratory distress syndrome (ARDS). The physiological rationale for prone positioning in ARDS has been well described [1, 2]. Placing a person in the prone position reduces lung compression, which facilitates better ventilation/perfusion matching and leads to improved oxygenation. However, determining whether patients receive clinically meaningful benefit from prone positioning in the form of reduced mortality or time supported on mechanical ventilation has been challenging. Early trials that used prone positioning as a “rescue” therapy or applied relatively small “doses” of prone positioning (*i.e.* limited duration of time in prone position) did not demonstrate improvements in mortality or ventilator-free days (VFDs) [3–5]. The landmark PROSEVA trial published in 2013 enrolled patients with at least moderate ARDS (arterial oxygen tension to fraction of inspired oxygen ratio <150) who were early in their hospital course (<36 h after intubation) and then randomised them to standard care alone (including low tidal volume ventilation) or at least 16 h per day of prone positioning [6]. In contrast to prior trials, PROSEVA identified a marked reduction in mortality and VFDs in ARDS patients treated with prone positioning. There have been many proposed explanations for PROSEVA’s success after repeated negative results in earlier trials of proning. However, selection of a more severe patient population early in their disease clearly differentiated PROSEVA from prior trials. A major question that remained after PROSEVA was whether there might be a broader set of patients with hypoxaemic respiratory failure that might benefit from prone positioning. The onset of the coronavirus disease 2019 (COVID-19) pandemic has forced us to ask whether non-intubated hypoxaemic patients infected with SARS-CoV-2 might represent an additional group of patients that might benefit from prone positioning.

