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Implementing sedation protocols: closing the evidence-practice gap

Implementando protocolos de sedação: aproximando a diferença entre evidência e prática

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Sedation and analgesia are frequently used in the critical care unit. Pain has already been described as the “fifth vital sign,” and most people describe experiencing pain as a source of great stress during an intensive care unit (ICU) stay.^(1,2) Sedation can be used to ease discomfort, to facilitate adaptation to mechanical ventilation, and to prevent self-harm.⁽³⁾ However, despite its humanitarian intentions, over-sedation is associated with prolonged mechanical ventilation, increased delirium rates, longer ICU lengths of stay (LOS), and increased mortality.^(4,5)

In recent decades, many studies have addressed the risks of over-sedation.⁽⁶⁾ Kress et al. were the first to demonstrate that a protocol of daily awakening led to a reduced duration of mechanical ventilation and of ICU LOS.⁽⁷⁾ Subsequently, Girard et al. performed a trial comparing daily awakening plus spontaneous breathing trials with standard sedation practices plus spontaneous breathing trials and showed that the intervention group had an improved 1-year mortality, with an impressive NNT of 7.⁽⁸⁾ More recently, a “no-sedation, analgesia-based” trial also showed more ventilator-free days and reduced ICU and hospital LOS.⁽⁹⁾

Despite all the impressive evidence available, there is a wide variation among sedation surveys worldwide. Self-reported adherence to daily interruption of sedation varies from 14% in Malaysia⁽¹⁰⁾ to 78% in the UK.⁽¹¹⁾ In North America, Patel et al. showed that only 44% of the respondents performed sedation interruption on more than half of the ICU days, and 29% did not have a written sedation protocol.⁽¹²⁾ The use of a sedation protocol also varies among countries, ranging from 33% in Denmark⁽¹³⁾ to 80% in the UK.⁽¹⁴⁾ In Brazil, a recent survey showed that only 52.7% of the respondents use a sedation protocol, and 68.3% of physicians do not practice sedation interruption at all.⁽¹⁵⁾

Why there is such a wide evidence-practice gap? There are many possible explanations, such as the lack of personnel or equipment support, concern about risk of patient-initiated device removal, and fear of patient discomfort and increase in workload.⁽¹⁶⁾ In this context, the trial presented in this edition of the journal by Bugeo et al. clarifies much.⁽¹⁷⁾ The authors performed a nationwide, multicenter study in 13 ICUs evaluating an analgesia-based, goal-directed, nurse-driven sedation protocol. They showed that after an educational effort, the proportion of patients in deep sedation or coma could be reduced from 55.2% to 44% with no increase in agitation events. This paper shows us that the implementation of sedation protocols is feasible, although it requires a persistent educational effort and the participation of all of the staff working in the ICU.

Conflicts of interest: Former speaker from Hospira.

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