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Empirical Clinical Research in Continuous Deep Sedation at the End of Life

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Letter to the Editor **16-00687**

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To the Editor:

We applaud Morita and colleagues on their call for more rigorous empirical clinical research in continuous deep sedation (CDS) at the end of life.[1] To facilitate such research, we proposed using the Richmond Agitation–Sedation Scale (RASS) to standardize the definition of CDS.[2] This scale has been validated for dose titration of sedatives in the intensive care unit.[3] RASS measures the depth of sedation by assessing behavioral responsiveness to verbal and physical stimuli (Table 1).[3] Although we agree with Morita and colleagues on the use of RASS in the research methodology in CDS, we disagree on how they apply the RASS in their proposal.[1] We posit that Morita and colleagues incorrectly postulated the existence of two types of "continuous *deep* sedation" based on intervention protocols and target RASS: gradual CDS (target RASS 0 to −2) and rapid CDS (target RASS −4 to −5). However, the RASS 0 to -2 is commonly referred to in the published literature as calm (0), drowsy (−1), and light sedation (−2).[3] The misclassification of light sedation as deep sedation has consequences in terms of trying to find an empirically based answer to whether CDS can have a life-shortening effect. Incorrectly classifying RASS 0 to −2 as CDS can result in a false negative, i.e., that there is no life-shortening effect. Furthermore, to buttress their proposal for a conceptual framework for empirical research into CDS, the authors made several assumptions: 1) the induction of unresponsiveness in patients is always associated with the relief of suffering, 2) the administration of continuous infusion of sedatives in non-lethal doses does not cause death, and 3) the underlying diseases are always the proximate cause of dying within days of initiating CDS. We disagree with the authors' classification of CDS and express concerns about the