

Untangling ICU delirium: is establishing its prevention in high-risk patients the final frontier?

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Van den Boogaard et al.¹ recently reported the recalibration of a previously developed prediction model (PRE-DELIRIC) for delirium in critically ill patients. Selecting patients for preventive measures based on PRE-DELIRIC may facilitate implementation of preventive (non-)pharmacologic measures. However, being able to identify patients at high risk for delirium may not be sufficient to facilitate implementation of preventive measures.

Although health care workers at the ICU will acknowledge that delirium is important, stimulating them to 'get with the guidelines' is more cumbersome. There often is a lack of belief that efforts to diagnose and manage delirium will translate into improved outcomes, although the contents of Awakening and Breathing Coordination, Delirium monitoring and Early exercise (ABCDE) bundle are supported by clinical trials². A second problem is that probably no one has ever seen a patient die as a direct consequence of delirium. The same cannot be said about circulatory or respiratory failure, which may explain why care bundles targeted at these organ systems, may seem easier to implement. Further, delirium is still regarded by many as 'an often present but inevitable problem of intensive care'. However, recently such a perception was also common regarding central venous catheter related blood stream infections. However, we now know that prevention is possible, saving many lives³.

To get care bundles aimed at ICU delirium implemented the two barriers mentioned above should be addressed. First, false perceptions about prognostic implications and preventability of delirium should be addressed when present. To this end, implementation efforts led by local champions are critical, and include attending barriers to implementation and on-going education for the complete ICU team, stimulating collaboration between nurses and physicians (nurses have a dominant role in applying preventive measures and they should be empowered to discuss a positive delirium screening test such as the CAM-ICU in the daily rounds), and regular feedback on delirium screening and incidence to the ICU team members. Second, more research is necessary into the causality between delirium and adverse outcomes. We should learn whether delirium is solely an indicator of adverse outcome or that it should be regarded as having direct intrinsic risk for the patient, and if cognitive decline is the only factor on the causal pathway to adverse outcome. The relation between contributing factors, delirium and outcome is complex (**Figure**) and treatment with antipsychotics alone seems unlikely to establish improved outcomes.

Predicting delirium at an early stage and being able to prevent it may only be a part of the solution; only when effective prevention of delirium at the ICU is accompanied by improved outcomes should it become easier to convince the medical community of the necessity of bundled care aimed at delirium. That such bundled care may indeed result in improved outcomes has only recently been shown^{4,5}. Tailoring preventive measures for delirium by identification of high-risk patients that are more likely to benefit from

them may certainly help to establish more support among health care professionals for the implementation of integrated management of delirium.

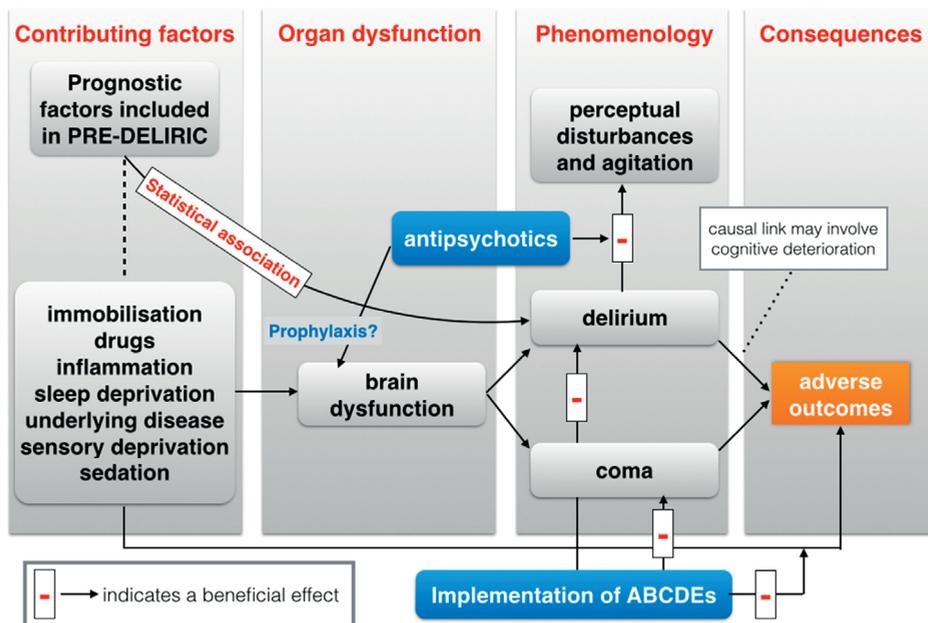


Figure: Relation between contributing factors, delirium and outcome

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