

## Observation and caring for delirious patients with an acute brain injury.

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### Description

Delirium in the neurocritical care setting can be difficult to address and assess due to the several overlapping terms used to describe symptoms and behavioural changes in these patients, e.g. post traumatic confusion, agitation and amnesia [1,2]. Moreover, there is segregation in published research between the terms delirium and encephalopathy linked to clinical discipline [3]. However, no matter what term we use to describe changes and delirium symptoms in patients with acute brain injury, we should always reflect on and target the causes of the symptoms. Delirium symptoms in this specific group of critically ill patients can be viewed as a positive state as an expression of the process moving on the continuum from coma toward being awake and aware [4]. In contrast, delirium symptoms can also be an indication of neurocritical complications such as vasospasm, oedema or seizures. The distinction is crucial to acknowledge, and we must be careful not to medically over-treat patients with antipsychotics as soon as their arousal levels are rising [5]. Instead we need to offer optimized evidence-based treatment and care in which nurses play an important role by observing, describing, managing and reacting upon cognitive and psychomotor changes.

To prevent and manage Intensive Care Unit (ICU) delirium the ABCDE bundle [6] and the Pain, Agitation, Delirium, Immobilization and Sleep (PADIS) guideline recommendation have been developed based on evidence generated from general ICU's and partly on a low level of evidence [7]. Patients with acute brain injuries share many of the same risk factors for delirium as patients in the general ICU but may develop delirium symptoms with a different pathophysiology related to the specific brain injury. Despite the possible differences, the European Society of Intensive Care Medicine (ESICM) recommends delirium screening in all critically ill patients including the neurocritical ill [8].

We decided to implement delirium screening in a 20-bed specialised neuro ICU and test relevant delirium preventive interventions in a quasi-experimental setup. The results are presented in the article Delirium prevalence and prevention in patients with acute brain injury: A prospective before- and after study [9]. We hope, this study will help catalyse the conversation about delirium detection, prevention and treatment in neuro ICU's and contribute to reduce the gap between neuroscience and critical care research tradition.

During the study, we learnt the importance of focusing on the symptoms when screening for delirium, and when doing so delirium screening becomes a valuable tool to nuance the neurological observations in a neuro-ICU setting. In specific situations, we experienced delirium screening to be sensitive to subtle

clinical changes and worked as an early signal for neurocritical complications. Evidence regarding the effect of preventive interventions, pathophysiology and the impact of delirium in regards of long-term outcome in patients with acute brain injury is still urgently needed.

A future research area for nurses to explore in regards to ICU delirium are the "F" added to the latest version of the ABCDEF-bundle [10]. The "F" stands for family, and it is evident and makes intuitive sense to involve family in the treatment and care of ICU-patient. However, family involvement as concept may be difficult to measure and can be perceived as unstructured unless a framework is used to define how to apply the "F" integrated in the delirium preventive strategy.

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