



Outcomes of ABCDE Bundle in Mechanically Ventilated Patients



Increasing focus on ICU utilisation and survivorship has also resulted in a greater focus on the long-term consequences of critical illness. Post Intensive Care Syndrome (PICS) is characterised by physical, cognitive, and emotional manifestations and can have a long-lasting impact on survivors of ICU as well as their families and caregivers.

The ABCDEF bundle is an organisational approach that is used to screen and treat variables that affect ICU patients. The bundle consists of the following components:

- A - **A**ssess, prevent and manage pain;
- B - **B**oth spontaneous awakening trials and spontaneous breathing trials;
- C - **C**hoice of analgesia and sedation;
- D - assess, prevent, and manage **D**elirium;
- E - **E**arly mobility and exercise; and
- F - **F**amily engagement and empowerment.

Over the years, the ABCDEF bundle has demonstrated improvement in duration of mechanical ventilation, delirium, mobilisation, and survival of ICU patients. Greater compliance with the bundle is associated with incremental improvements. The Society of Critical Care Medicine has also initiated the ICU Liberation Collaborative, which is designed to facilitate the application of the Pain, Agitation, and Delirium Guidelines through the ABCDEF bundle.

In this review, the authors staged partial and full implementation of the ABCDE bundle components in adult mechanically ventilated patients. Both ICUs had already performed component B at baseline. A and D were added to both ICUs, and E and C were added to one ICU. The full bundle was thus implemented as B-AD-ED, and the partial bundle was B-AD. At the time this study was conducted, F was not part of the bundle. 1855 patients were included in this study.

Findings showed that the addition of E and C improved mobilisation and reduced ICU-acquired pressure ulcers and restraint. Full implementation was also associated with greater reductions in the duration of mechanical ventilation and hospital length of stay. In addition, full implementation reduced total hospital cost by 30.2%.

These findings confirm the positive impacts of the ABCDEF bundle. Not only does this approach improve patient outcomes, but it also provides cost benefits. There is definitely an advantage for ICU patients and clinicians to get from A to F.

It is important to note that the implementation of the ABCDEF bundle is still inconsistent across ICUs.

There is a need to knock down barriers and to ensure good ideas and useful approaches are implemented so that care delivery is improved and patient outcomes are better.

Source: [Critical Care Medicine](#)

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