

IMPLEMENTATION OF ABCDEF BUNDLE IN BURN CARE UNIT

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BACKGROUND

Critical care typically involves administering analgesics and sedatives to facilitate mechanical ventilation and reduce pain, agitation, and anxiety. However, pain, agitation, and delirium are frequent complications of intensive care unit (ICU) admissions, with occurrence rates as high as 80% (Kram, 2015). The difficulties are increased delirium, more extended number of days on the ventilator, decreased mobility, surge pressure injury, and increased patient length of stay (LOS).

Critical Care team (Clinical Director Diane Knapp, BCU Manager Andrea Kovalcheck, Respiratory Therapy Director Jason Meilleur, Respiratory Therapy Manager Richard Allen, Clinical Nurse Specialist Stephen Ingerson, Epic Team Rosemary Gharibian and Charge Nurse Joann Anacta) conducted the needs assessment and evaluated the Burn Care Units (BCU) need for the ABCDEF bundle. The Respiratory Therapy Department and Infection Control department director assisted the committee with statistical data collecting that evaluated VAP statistics and mechanical ventilation duration in the BCU. Thus, the identified business project that affects Burn Care Units (BCU) implements the ABCDEF bundle.

PURPOSE

Hospital-acquired Ventilator-associated pneumonia (VAPS) prevention is the primary goal. By March 31, 2022, an interprofessional team, including nurses, expedite (rate/%) the decrease of patient-ventilator days from intubation to extubation to mitigate the risk of common complications (infection, deconditioning, pressure injury, and delirium). The Nursing Work Plan specific content included implementing ABCDEF bundles to improve team members' ability to implement prevention interventions consistently.

METHODS

Qualitative and quantitative studies are eligible for the systematic review with adult patients in the Burn Care Unit (BCU) implementation of the ABCDEF bundles compared to the usual care in the ICU. In order to search the implementation interventions of the bundles, the search was conducted electronically: MEDLINE (PubMed); Cumulative Index to Nursing and Allied Health Literature (EBSCO); The Cochrane Library (Wiley); National Center for Biotechnology Information, U.S. National Library of Medicine (NCBI). We will not impose any language restrictions or publication status. Outcomes of interest include ICU and hospital length of stay; mechanical ventilation time; incidence and prevalence of delirium or coma; level of agitation and sedation; early mobilization; mortality in ICU and hospital; change in perception, attitude, or behavior of the stakeholders; and change in knowledge of health professionals. The reviewers will independently screen search results, extract data from eligible studies, and assess the risk of bias. Disagreements between the reviewers will be solved through consensus or arbitration by a third-party investigator.



ASSESS, PREVENT, AND MANAGE PAIN
Understand pain and find tools for its assessment, treatment and prevention.



BOTH SAT AND SBT
Both Spontaneous Awakening Trials and Spontaneous Breathing Trials



CHOICE OF ANALGESIA AND SEDATION
Understand the importance of defining the depth of sedation choosing the right medication.



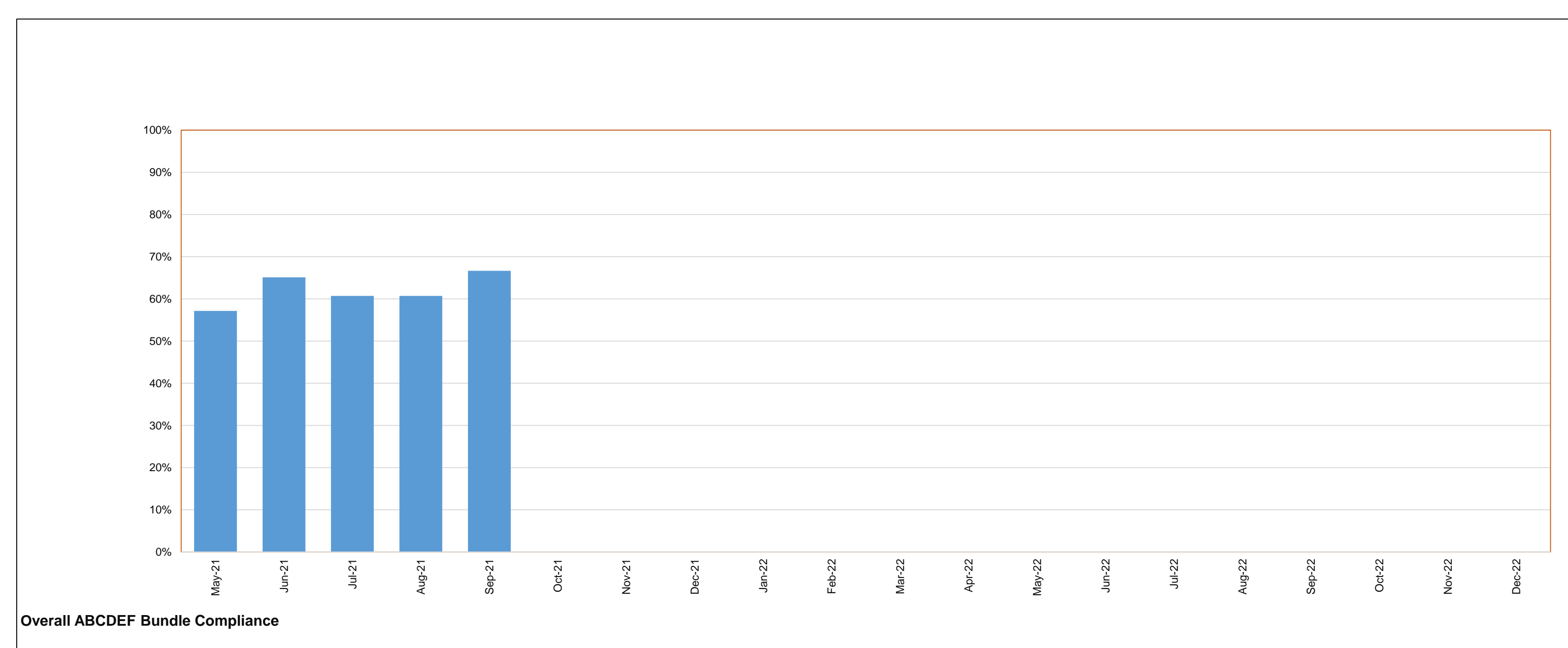
DELIRIUM: ASSESS, PREVENT AND MANAGE
Understand delirium risk factors and find tools for its assessment, treatment and prevention.



EARLY MOBILITY AND EXERCISE
ICU early mobility involves more than changing the patient's position.



FAMILY ENGAGEMENT AND EMPOWERMENT
Involving the family in patient care can help recovery.



RESULTS

The evidence derived from this study will increase the knowledge of the effectiveness and safety of the implementation process of ABCDEF bundles. The chart showed the overall compliance of BCU as of September 2021.

CONCLUSIONS

The ABCDEF bundle represents one method of approaching the organizational changes that create a culture shift in our treatment of ICU patients. The multifold potential benefits of these recommended strategies outweigh the minimal risks of costs and coordination. They can safely participate with their families and healthcare providers in higher-order physical and cognitive activities at the earliest point in their critical illness. Ultimately, the ABCDEF bundle is one path to well-rounded patient care and optimal resource utilization resulting in more interactive ICU patients with better pain control.

REFERENCE

Kram, S. (2015). Implementation of the ABCDE bundle to improve patient outcomes in the intensive care unit in a rural community hospital . . *Dimensions of Critical Care Nursing*, 34(5), 250 – 258.

Marra, A., Ely, E. W., Pandharipande, P. P., & Patel, M. B. (2017). The ABCDEF Bundle in Critical Care. *Critical care clinics*, 33(2), 225–243. <https://doi.org/10.1016/j.ccc.2016.12.005>.

