



C—The Missing Tenet Within the ABCDEF Bundle

To the Editor:

Critical care researchers, clinicians, and implementation scientists embrace the ABCDEF (“A” for Assessment, Prevention, and Manage Pain; “B” for Both Spontaneous Awakening Trials and Spontaneous Breathing Trials; “C” for Choice of Analgesia and Sedation; “D” for Delirium Assess, Prevent, and Manage; “E” for Early Mobility and Exercise; “F” for Family Engagement and Empowerment) bundle as the fundamental regimen for liberation from mechanical ventilation and optimizing ICU patients’ neurocognitive and physical functional outcomes. However, consistent and regular adherence to the bundle protocol across the ICU stay with all eligible patients has been shown to be difficult and suboptimal (1).

We read with interest the article published in a recent issue of *Critical Care Medicine* by Stollings et al (2) that emphasizes the applicability of the cooperative efforts by the interprofessional team on implementing the ABCDEF bundle. Although the need for multidisciplinary support and accountability is important, this article and many others on the ICU liberation topic overlook accommodating and attending to patient communication as a component of the bundle or implementation model. Although the speech-language pathologist is included in the list of interprofessional team members, there is no description of their role or contribution. Indeed, patient communication is not addressed as a component of interprofessional rounds or the ABCDEF bundle implementation. The nurse’s role in assessing and facilitating communication with the communication-impaired mechanically ventilated ICU patient is ignored. In fact, all mentions of communication are in reference to communication within the interprofessional team or communication between the interprofessional team and family. The bundle implementation strategies (Table 3 in [2]) do not include patient communication assessment or accommodation.

Despite the patient-centered care mantra dominating healthcare initiatives for the past 2 decades, most communication initiatives in critical care have centered on interprofessional team communication or provider-family communication. We suggest that prioritizing family engagement over patient engagement is a mistake. It is the patient who needs engaging to participate in spontaneous awake trials/spontaneous breathing trials and mobilization. If family engagement is intended to substitute for patient communication or if the family is intended to serve as the patient’s interpreter and voice, that is not consistent with evidence from research on both the patient and family experience (3, 4). If reducing sedation exposure is a

foundational pillar of the ABCDEF bundle, then enabling and assisting optimum patient communication is a clinical ethical obligation (5). When clinical approaches ignore and perpetuate impaired patient communication, the interprofessional team accepts a mutable impediment in the ABCDEF bundle implementation process. The ABCDEF bundle needs to guarantee that these patients experience their best chance of 1) understanding the interprofessional team instructions and explanations, and 2) having their questions, symptoms, needs, and feelings “heard” and accurately understood.

Empowering a patient to communicate should not be a random, situation- or provider-specific event, but something as common, expected and standardized as measuring and documenting blood pressure or heart rate. Perhaps communication should be a vital sign. At the very least, it should be one of the pillars within the ABCDEF Bundle. We suggest placing the “Choice of analgesia and sedative” within the “Delirium” pillar and label the C pillar “Communication.” The ABCDEF bundle will be truly patient-centered and best positioned to deliver on its promise when assistive communication strategies tailored to the patient’s abilities and preferences are included in bundle implementation.

Dr. Patak currently serves as a member and is a shareholder of Vidatak, LLC. Vidatak was the company recipient for National Institutes of Health (NIH) Small Business Technology Transfer (STTR) Grant NR014087 which guided the development of VidaTalk in concert with The Ohio State University and is the manufacturer of the EZ Board and VidaTalk. Dr. Happ collaborated with Vidatak, LLC, as principal investigator (PI) for NIH STTR Grant NR014087 to iteratively develop and test the VidaTalk patient communication application, and Dr. Happ holds copyright to the Study of Patient-Nurse Effectiveness with Assisted Communication Strategies-2 (SPEACS-2) communication training program. Dr. Happ’s institution received funding from NIH/National Institute of Nursing Research (NINR) R42-NR014087, NIH/National Institute on Aging (R01AG045176-05, NIH/NINR R01-NR017018-02-S (M.K. Song, PI; Dr. Happ, co-investigator), and she received funding from New York University Langone Medical Center (honorarium). Dr. Happ disclosed that Individual Continuing education enrollments to the SPEACS-2 communication training program are received by the Ohio State University College of Nursing continuing education platform; Dr. Happ has not received any proceeds. Dr. Tate has disclosed that she does not have any potential conflicts of interest.

Lance Patak, MD, MBA, Department of Anesthesiology and Pain Medicine, Seattle Children’s Hospital, University of Washington, Seattle, WA; **Judith A. Tate, PhD, RN, Mary Beth Happ, PhD, RN, FAAN, FGSA**, Center for Healthy Aging, Self-Management and Complex Care, The Ohio State University College of Nursing, Columbus, OH

REFERENCES

1. Pun BT, Balas MC, Barnes-Daly MA, et al: Caring for critically ill patients with the ABCDEF bundle: Results of the ICU liberation collaborative in over 15,000 adults. *Crit Care Med* 2019; 47:3–14
2. Stollings JL, Devlin JW, Lin JC, et al: Best Practices for Conducting Interprofessional Team Rounds to Facilitate Performance of the ICU Liberation (ABCDEF) Bundle. *Crit Care Med* 2020; 48:562–570
3. Broyles LM, Tate JA, Happ MB: Use of augmentative and alternative communication strategies by family members in the intensive care unit. *Am J Crit Care* 2012; 21:e21–e32
4. Guttormson JL, Bremer KL, Jones RM: “Not being able to talk was horrid”: A descriptive, correlational study of communication during mechanical ventilation. *Intensive Crit Care Nurs* 2015; 31:179–186
5. Patak L, Wilson-Stronks A, Costello J, et al: Improving patient-provider communication: A call to action. *J Nurs Adm* 2009; 39:372–376

DOI: 10.1097/CCM.0000000000004311

The authors reply:

We appreciate the letter from Patak et al (1) and fully agree the degree by which critically ill adults can communicate with the ICU interprofessional team (IPT) and their families is an important factor in ABCDEF (“A” for Assessment, Prevention, and Manage Pain; “B” for Both Spontaneous Awakening Trials and Spontaneous Breathing Trials; “C” for Choice of Analgesia and Sedation; “D” for Delirium Assess, Prevent, and Manage; “E” for Early Mobility and Exercise; “F” for Family Engagement and Empowerment) bundle implementation success. The patient was central in our figure as there is no question the information gleaned from patients through both verbal and nonverbal assessments and communication efforts is central to all IPT members as they strive to optimize and individualize ICU liberation bundle use for each patient every day, as stated in our recent article (2) in *Critical Care Medicine*. We apologize for not better highlighting the important role of the speech-language pathologist in augmenting communication with critically ill adults as they transition through the ICU regardless of intubation/tracheostomy, neurologic injury, or laryngeal dysfunction (3).

Patient communication should always be optimized by the IPT as it seeks to deliver each of the individual ICU liberation bundle elements. The results of pain, sedation, and delirium assessments, goals of care, and intubation status will all inform patient communication efforts. For most patients, family involvement in patient care should not be considered mutually exclusive to patient-IPT communication, and in most cases should augment it (4). Although it is clear the IPT should optimize communication with the patient when delivering the ICU liberation bundle, we do not feel that revising “C” from “Choice of analgesia and sedation” to “Communication” is the optimal way boost communication with the ICU patients under our care. Further research is needed to define best practices for better IPT-patient communication during ICU liberation bundle delivery.

Dr. Barr received funding from Masimo, Medasense, and Dignity Health. Dr. Barr is an Advisory Board Member for Medasense Biometrics and a Scientific Advisor for Masimo.

Dr. Devlin has received research funding from the National Institute of Aging, National Heart, Lung and Blood Institute, the Canadian Institute of Health Research, and Astra Zeneca; he is on the editorial board of *Critical Care Medicine* and is the past-president of the American Delirium Society. Dr. Stollings has disclosed that she does not have any potential conflicts of interest.

Joanna L. Stollings, PharmD, FCCM, Department of Pharmaceutical Services, Vanderbilt University Medical Center, Nashville, TN, and Critical Illness, Brain Dysfunction and Survivorship (CIBS) Center, Vanderbilt University Medical Center, Nashville, TN; **John W. Devlin, Pharm D, MCCM**, School of Pharmacy, Northeastern University, Boston, MA; **Juliana Barr, MD, FCCM**, Anesthesiology and Perioperative Care Service, VA Palo Alto Health Care System, Palo Alto, CA, and Department of Anesthesiology, Perioperative, and Pain Medicine, Stanford University School of Medicine, Stanford, CA

REFERENCES

1. Patak L, Tate JA, Happ MB: C—The Missing Tenet Within the ABCDEF Bundle. *Crit Care Med* 2020; 48:e629–e630
2. Stollings JL, Devlin JW, Lin JC, et al: Best practices for conducting interprofessional team rounds to facilitate performance of the ICU liberation (ABCDEF) bundle. *Crit Care Med* 2020; 48:562–570
3. Istanbulian L, Rose L, Gorospe F, et al: Barriers to and facilitators for the use of augmentative and alternative communication and voice restorative strategies for adults with an advanced airway in the intensive care unit: A scoping review. *J Crit Care* 2020; 57:168–176
4. Rose L, Istanbulian L, Allum L, et al: Patient and family centered actionable processes of care and performance measures for persistent and chronic critical illness: A systematic review. *Crit Care Explor* 2019; 1:e0005

DOI: 10.1097/CCM.0000000000004399

Preoperative Extracorporeal Membrane Oxygenation Implantation in Heart Transplantation. A Cautious Interpretation

To the Editor:

We have read with great interest the article published in a recent issue of *Critical Care Medicine* by Coutance et al (1) about their favorable results with a specific protocol for extracorporeal membrane oxygenation (ECMO) as a bridge to heart transplantation (HT). In Spain, almost one half of HT are performed with a preoperative mechanical circulatory support, and one third have a preoperative ECMO (2). However, discouraging results with an ECMO-bridging strategy have been reported, with high in-hospital (3) and 1-year mortality up to 30% (4). Nonetheless, these results might have been influenced by the fact that most patients were transplanted before a full recovery of end-organ function was achieved.

In this line, the work by Coutance et al (1) with a correct patient selection, reports a similar survival between patients with or without preoperative ECMO. As the authors point out, several reasons explain this good result: first, most patients were awake and extubated without significant organ dysfunction. In this regard, only 10 patients had a creatinine clearance below