

## CHOOSING WISELY® IN CRITICAL CARE: MAXIMIZING VALUE IN THE INTENSIVE CARE UNIT

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Overuse of medical tests and treatments wastes health care resources and leads to unnecessary complications, while underuse results in delayed or missed diagnoses and treatment opportunities.<sup>1</sup> Such problems are well recognized and there have been multiple attempts to correct inappropriate diagnostic testing and treatment over the past several decades.<sup>2</sup> However, sustainable solutions have proven to be elusive.<sup>3</sup>

Several years ago, medical ethicist Howard Brody suggested that physicians take leadership in declaring what tests and interventions should be used less commonly. He recommended that professional societies develop a specialty's top 5 list of "diagnostic tests or treatments that are very commonly ordered, that are among the most expensive services provided, and that have been shown by the currently available evidence not to provide any meaningful benefit to at least some major categories of patients."<sup>4</sup> Dr Brody's vision gave rise to the Choosing Wisely® Campaign, an effort designed to empower providers and patients by charging professional societies to develop lists of 5 common medical services "that patients and physicians should question."<sup>5</sup>

The top 5 list for critical care medicine was developed by the Critical Care Societies Collaborative (CCSC), a consortium representing the 4 professional

societies most involved with providing care to critically ill patients—the American Association of Critical-Care Nurses, American College of Chest Physicians, American Thoracic Society, and Society of Critical Care Medicine. The critical care list is the only Choosing Wisely® list developed in partnership with a nursing professional society, which is important and noteworthy because it reflects the multiprofessional nature of critical care. The CCSC represents 150 000 members; therefore, a list developed by the CCSC reflects the thinking of a wide range of stakeholders. It is hoped that such broad input will improve both the value and the acceptance of the list.

The Choosing Wisely® list of the top 5 critical care services that patients and providers should question are: (1) ordering diagnostic tests at regular intervals (such as every day) rather than to answer specific clinical questions; (2) transfusing red blood cells in hemodynamically stable, nonbleeding ICU patients with a hemoglobin concentration of 7 g/dL or greater; (3) using parenteral nutrition in adequately nourished critically ill patients within the first 7 days of an ICU stay; (4) deeply sedating mechanically ventilated patients without a specific indication and without daily attempts to lighten sedation; and (5) continuing life support for patients at high risk for death or severely impaired functional recovery without offering patients and their families the alternative of care focused entirely on comfort (Table).<sup>6</sup>

The process and rationale for selecting each item on the critical care list are described in detail

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in an official statement from the CCSC.<sup>7</sup> Briefly, the CCSC formed a Task Force comprised of representatives of each organization; the composition of the group provided input from multiprofessional perspectives. This group reviewed the literature, identified 56 candidate items and, using the Delphi methodology to reach consensus, chose the 5 they believed to be most appropriate. Although use of an iterative consensus strategy rather than the rigorous systematic approach that is now expected of clinical practice guidelines increases the likelihood that related evidence may have been missed,<sup>8,9</sup> we expect the Choosing Wisely® Campaign's critical care list to be beneficial because the items chosen for the critical care list appear robust and it seems unlikely that identifying additional evidence would change the estimated value of the selected tests and treatments.

To maximize the benefits of the critical care list, efforts need to be deployed to encourage compliance. This includes education and, possibly, linkage to performance measurement and reimbursement. The critical care community must also guard against unintended consequences. Perhaps the biggest concern is the possibility that the items in the list may evolve from “choice” to “dictum,” from “suggestion” to “requirement.” The Choosing Wisely® Campaign charged the individual Task Forces to create a list of services that patients and providers “should question,” not to create a list of services that providers should not provide and that patients should refuse.

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**Table**  
**The Choosing Wisely® Critical Care List**

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|---|--|
| 1 | Don't order diagnostic tests at regular intervals (such as every day), but rather in response to specific clinical questions.  |
| 2 | Don't transfuse red blood cells in hemodynamically stable, nonbleeding intensive care unit patients with a hemoglobin concentration greater than 7mg/dL.   |
| 3 | Don't use parenteral nutrition in adequately nourished critically ill patients within the first 7 days of an intensive care unit stay.   |
| 4 | Don't deeply sedate mechanically ventilated patients without a specific indication and without daily attempts to lighten sedation.   |
| 5 | Don't continue life support for patients at high risk for death or severely impaired functional recovery without offering patients and their families the alternative of care focused entirely on comfort. |

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Any strategy to increase compliance with the Choosing Wisely® recommendations should not remove choice by penalizing the provider for tailoring management to the individual and the circumstance. Another concern is the possibility that the effort to curb overutilization of tests and treatments could inadvertently promote underutilization. Clearly, tests like chest x-rays and treatments like blood transfusions and sedation have an important role in critical care and underutilization could be problematic as well.

It is imperative that the Choosing Wisely® Campaign performs periodic self-evaluations to determine whether or not its aims of curbing health care costs and improving patient care by reducing unnecessary testing and treatment are being achieved. Early detection of poor outcomes may prompt adjustments that turn failure into success. The importance of reevaluation is supported by the history of prior unsuccessful efforts to improve appropriate utilization of tests and treatments.<sup>2,3</sup>

Organized medicine as a whole may want to ask themselves, “Why is the Choosing Wisely® Campaign necessary?” It is tempting to blame overuse of diagnostic testing and treatments on the pressure to “be complete” and to avoid the potentially dire legal consequences of “missing something.”

“ The items on the Choosing Wisely® lists are intended to prompt discussion and shared decision-making between the patient and the provider. ”

It is similarly tempting to blame underuse on administrative pressures to minimize interventions and to limit costs. However, these notions are not supported by evidence.<sup>4,10</sup> The underlying causes of inappropriate testing and treatment remain uncertain, but are complex, likely multifactorial, and merit ongoing investigation. Physicians may also want to ask whether the Choosing Wisely® lists for their specialty should be broadened to address tests and treatments important in multiprofessional care. Broader inclusion of nurses and other providers strengthened the development of the critical care list and may similarly strengthen the lists of other specialties.

The success of the Choosing Wisely® campaign is the responsibility of those of us who provide care; we cannot leave it to others to determine how we practice. The items on the Choosing Wisely® lists are intended to prompt discussion and shared decision-making between the patient and the provider to determine the optimal approach for each unique individual and specific set of circumstances. Avoiding unintended consequences and assuring continual reexamination of value requires a concerted effort to assure that the recommendations are implemented by choice and are applied wisely.

#### FINANCIAL DISCLOSURES

Dr Angus has nothing to disclose. Dr Deutschman reports that he was president of the Society of Critical Care Medicine (SCCM) in 2012, during which he received salary support of \$100 000 and travel expenses to any meeting where he represented the SCCM. Dr Hall reports being an editorial board member of *Chest*, *Critical Care Medicine*, and the *American Journal of Respiratory and Critical Care Medicine*. Dr Wilson reports being employed by the American Thoracic Society (ATS) as both the documents editor and the senior director for documents and medical affairs. Dr Munro reports being the coeditor in chief of the *American Journal of Critical Care*. Dr Hill reports that he was president of the ATS in 2011-2012.

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