

EDITORIALS



Critical Care — An All-Encompassing Specialty

Simon Finfer, M.D., F.C.I.C.M., and Jean-Louis Vincent, M.D., Ph.D.

The August 29 issue of the *Journal* will include the first in a series of review articles on critical care. Critical care is a young specialty that is generally considered to have developed from the successful use of invasive ventilation during the 1952 polio epidemic in Copenhagen. In his report of the response to that epidemic, Ibsen described much more than the use of invasive ventilation; he also described collaborative, multidisciplinary care that can serve as a model for critical care services to this day.¹ He described managing severe infections and respiratory failure, providing cardiovascular support with resuscitation fluids and vasopressors, monitoring ventilation by measuring carbon dioxide, placing nasogastric tubes to feed patients, and conducting daily multidisciplinary rounds. He also described the importance of backup systems when patients' lives are so dependent on technology that even brief technical failures will prove fatal.¹

From these beginnings, critical care has spread to most countries in the world. In many developed societies, the number of critical care beds is increasing while total number of acute care hospital beds is decreasing; the proportion of acute care hospital beds that are intensive care unit (ICU) beds is increasing substantially.² Critical care services consume a high proportion of health care budgets. In 2005, critical care services in the United States were estimated to cost \$81.7 billion, or 0.66% of the gross domestic product.³

Although the organization of critical care services varies from country to country, it is clear that taken at its broadest definition, critical care is an all-encompassing specialty with almost limitless boundaries. Critical care involves the use of life-sustaining, high-technology medicine

catering to a patient population that extends to both extremes of age. In adult ICUs, the average age is increasing and is now commonly well over 60 years. Although ICUs admitting patients for preplanned brief stays after planned major surgery have very low mortality rates, the rates in adult ICUs among patients admitted “for cause” are generally around 15% in developed countries. In a recent study of Medicare beneficiaries in the United States, 29.2% of patients had been treated in an ICU during the last month of their lives.⁴ Currently, most deaths in ICUs are expected, and ICU clinicians regularly face the decision of when to change the focus of treatment from attempting to cure to providing palliative care. Compassionate care of dying patients requires that critical care practitioners add yet another essential skill set to their more obvious background knowledge and procedural skills designed to sustain life.

In 2013, critical care practitioners may recognize many of the problems faced by Ibsen in 1952. Although we have much more highly developed technology available, our patients are often much older, and many have multiple coexisting diseases. Determining how best to use the available technology for our patients' benefit can be determined only through high-quality research. To the credit of our specialty, large national and international clinical-trial networks are systematically evaluating both established and new treatments in high-quality large-scale trials.⁵ Most of these trials are funded by competitive, peer-reviewed grants, and many of the trial reports have been published in the *Journal*.⁶⁻¹¹

Although we cannot cover anywhere near the full range of critical care practice in our series, we have invited our authors to address many of

the core issues faced in the ICU. Coming reviews will address the management of severe sepsis, the choice and use of resuscitation fluids, and the treatment of shock. In addition, they will address newer issues that are a product of our success in supporting older, sicker patients through longer stays in the ICU — problems such as the management of delirium, ICU-acquired weakness, and recovery from prolonged critical illness.

In preparation for the start of the series, we have posted a case at NEJM.org that highlights issues raised in the review article on sepsis, the first in the series. As the series progresses, each installment of the case will be accompanied, 2 weeks before publication of the review article, by questions about the diagnosis or management of the condition to be explored in that month's critical care review article. We encourage you to follow the case and tell us how you would manage the patient's treatment. We will post the results of the online polling to coordinate with publication of the actual review article.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

From the George Institute for Global Health and Royal North Shore Hospital, University of Sydney, Sydney (S.F.); and the Department of Intensive Care Medicine, Université Libre de Bruxelles, and the Department of Intensive Care, Erasme University Hospital — both in Brussels (J.L.V.).

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DOI: 10.1056/NEJMe1304035

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A Role for Finasteride in the Prevention of Prostate Cancer?

Michael LeFevre, M.D., M.S.P.H.

All medical care should seek to achieve one or more of these three goals: to relieve suffering, to prevent future suffering, or to prolong life. Preventive services, by definition, are utilized to prevent future suffering or prolong life. We should offer preventive services when science assures us that across the population of patients we serve, we do more good than harm.

How would we know if a preventive service accomplishes one or more of these three goals? All-cause mortality is the most appealing outcome in a prevention trial because it clearly reflects the goal of prolonging life, and it is not subject to the difficulties of accurately assigning a specific cause of death. All clinicians who struggle with completing a death certificate can

identify with the challenge that researchers face in the ascertainment of cause of death. But at any specific age, most single diseases play a relatively small role in overall mortality. It is much easier to demonstrate a reduction in disease-specific mortality.

Prostate cancer is a logical target for a preventive service, with most of the public discourse about prostate-cancer prevention today focusing on screening. Screening seeks to identify cancers in asymptomatic persons with the hope of altering the natural history of those cancers that are destined to cause suffering without doing too much harm in the process. In the multicenter Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial¹ conducted in