

Delivering High-Quality Critical Care Services in Hospitals

More than 5 million patients are admitted to intensive care units (ICUs) in the United States each year. Although this figure represents just 10% of all inpatients, the resources expended on patients receiving critical care in ICUs account for almost 30%, or \$180 billion annually, of acute care hospital costs in the country.¹ Critical care has drawn a great deal of attention in the health policy arena, primarily because ICU services make heavy demands on hospital resources and have a significant impact on overall patient flow, and because of a national perception that critical care beds are overused or misused in hospitals across the country.² More important, the intensive care setting is a highly complex and technical system in which a great many different conditions are treated, posing unique challenges to caregivers. This issue of *Health Care News In-Depth* covers some of the important initiatives that GNYHA and its member hospitals are undertaking to ensure the effective delivery of outstanding critical care services throughout the region.

Acute care hospitals in GNYHA's membership area provide a full range of critical care services through medical and surgical, neurological, pediatric, neonatal, and coronary intensive care units to a diverse population. Many units often operate at full capacity or beyond and face many challenges that come with taking care of severely ill patients and planning for possible surges of patients during emergencies. In New York State, GNYHA and the United Hospital Fund (UHF) have been at the forefront in establishing noteworthy initiatives to address these important issues. Most recently, GNYHA and UHF have developed the Critical Care Leadership Network (CCLN), a forum created to build a regional critical care infrastructure to improve patient care and standardize staff education, protocols, and services.

The GNYHA/UHF Critical Care Collaborative Model

Over the last two years, GNYHA and UHF have implemented a number of critical care quality improvement initiatives. The first of

these initiatives, the Central Line–Associated Bloodstream Infections (CLABs) Collaborative, seeks to eliminate CLAB infections in intensive care units by creating a sustainable quality improvement model for optimizing patient care. The most recent results from the Collaborative show that participating hospitals had reduced the rate of CLABs in their ICUs by 70%, on average, with some eliminating CLABs altogether. As a follow-up, GNYHA and UHF initiated the Rapid Response Systems Collaborative, which has the primary goals of implementing and maintaining designated teams of clinicians who identify high-risk patients, respond to early signs of acute deterioration, and bring critical care expertise to the bedside before patients decline into a critical state.

Building on the success of those collaboratives and responding to a stated need by participating clinicians to establish a forum to discuss opportunities for standardizing and improving care as well as sharing limited ICU resources, GNYHA and UHF estab-

lished the Critical Care Leadership Network in November 2006.

The Critical Care Leadership Network: An Overview

The Critical Care Leadership Network is composed of executive leadership and interdisciplinary hospital staff who are leaders in the field of critical care medicine, surgery, and nursing and are active in critical care initiatives and associations both locally and nationally. The network extends beyond New York to GNYHA's membership in New Jersey, Connecticut, and Rhode Island.

The CCLN Steering Committee, comprising 30 individuals from 14 hospitals in GNYHA's membership area, meets bimonthly to guide, oversee, and set the priorities for the overall CCLN. The Steering Committee is chaired by Vladimir Kvetan, M.D., of Montefiore Medical Center, and Joseph Cooke, M.D., of NewYork-Presbyterian Hospital, Weill Cornell Medical Center, who are recognized experts in the fields of

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1. N. Halpern, L. Betts, and S. Gregorich. "Federal and nationwide intensive care units and health care costs: 1986–1992," *Critical Care Medicine* 22 (1994): 2001–07.

2. John Wennberg, *The Care of Patients with Severe Chronic Illness: A Report on the Medicare Program by the Dartmouth Atlas Project* (Hanover, NH: Center for the Evaluative Clinical Sciences, Dartmouth Medical School, May 12, 2006).

critical care medicine and quality improvement at the regional and national levels. The CCLN also has representation from nursing as well as individuals from both large academic hospitals and community hospitals to round out the group with diverse perspectives and resources.

CCLN Priorities. The CCLN Steering Committee has identified several priority areas around which to focus initiatives and to achieve its goals, including:

- effective collection and use of critical care data;
- development of optimal critical care staffing models;
- examining the role of critical care outside the ICU;
- monitoring bed utilization and patient throughput;
- examining end-of-life care and organ donor/recipient issues; and
- mobilizing local expertise to deliver standardized training to staff.

24-Hour ICU Survey. During the winter of 2007, the CCLN developed and tested a standard ICU survey tool to capture a profile of the region's critical care units over a 24-hour period. On March 15, 2007, the survey was administered across 68 hospitals within 141 separate critical care units and included de-identified data on 1,889 patients (see chart below). The data gathered from the survey have given the CCLN insight into the areas of the ICU and hospital that need further focus and improvement, including informa-

CRITICAL CARE EDUCATIONAL PROGRAMS AND CONFERENCES	
Date	Educational Session and Lead Faculty
October 2–5, 2007	<i>Critical Care Ultrasonography</i> Paul Mayo, M.D., Beth Israel Medical Center
December 10, 2007	<i>Cerebral Hypothermic Resuscitation for Victims of Cardiac Arrest</i> Stephan Mayer, M.D., NewYork-Presbyterian Hospital/Columbia University Medical Center
January 15–16, 2008	<i>Critical Care Networks: A Partnership Model to Improve Patient Outcomes</i> (two-day conference)
March 12, 2008	<i>Organ Donation</i> Joseph Cooke, M.D., NewYork-Presbyterian Hospital/Weill Cornell Medical Center
April 15, 2008	<i>Cardio Thoracic Care in the ICU & Transplant Management</i> Vladimir Kvetan, M.D., Montefiore Medical Center; Robert Sladen, M.D., NewYork-Presbyterian Hospital/Columbia University Medical Center
June 17, 2008	<i>Burn Care for Critical Care Staff</i> Joseph Cooke, M.D., NewYork-Presbyterian Hospital/Weill Cornell Medical Center <i>Surgical Care for Medical Fellows</i> John McNelis, M.D., North Shore–Long Island Jewish Health System

tion about resources and planning for surge capacity in emergencies, advance directives, patient throughput, and training and education needs.

CCLN Educational Programs. This fall, GNYHA and UHF are offering a series of critical care educational programs as part of the initiatives developed through the CCLN. The programs reflect the CCLN's efforts to standardize education for ICU staff and physicians-in-training, which will translate into less variation in patient care and better adherence to evidence-based practice guidelines. The programs strive to leverage the critical care expertise that is available in GNYHA's membership area and to highlight the region as the leader in exceptional critical care medicine.

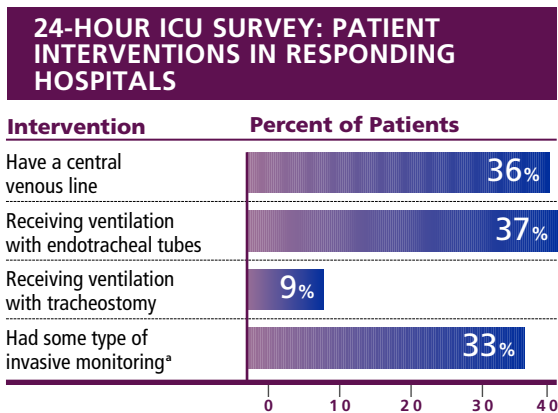
The first set of programs—the CCLN Educational Series—consists of in-depth training sessions on a variety of specialty critical care topics. The series began in October 2007 with a four-day training program on using ultrasound in the ICU. GNYHA and UHF plan to add to the list of specialty critical care topics and expand the series

to repeat annually. GNYHA will also be conducting a series of educational conference calls on legal issues that affect the ICU to help address the difficult issues that staff, patients, and their families face.

Finally, GNYHA is planning a two-day conference, *Critical Care Networks: A Partnership Model to Improve Patient Outcomes*, that will take place on January 15–16, 2008, at the New York Academy of Medicine. The goal of the conference is to provide a forum in which clinicians and other health care professionals can share best practices in critical care and to showcase the wealth of critical care expertise among GNYHA members.

The goal of GNYHA and UHF, through the CCLN and other quality initiatives, is to develop a model for networking, rapid dissemination of evidence-based practices, and improving the access to and quality of continuing medical education for all physicians, nurses, and other health care professionals.

For additional information on GNYHA's critical care, patient safety, and quality initiatives, please visit the Resource Centers section of GNYHA's Web site at www.gnyha.org, or contact Terri Straub or Zeynep Sumer at GNYHA. ■



Note: N = 1,889. (Survey respondents included 68 hospitals representing 141 units and 1,889 patients.)

*Includes pulmonary artery catheter, peripheral arterial catheter, and central venous pressure catheter.