Post-Intensive Care Syndrome

Improving long-term outcomes after discharge from intensive care unit: Report from a stakeholders' conference*

Dale M. Needham, MD, PhD; Judy Davidson, DNP, RN; Henry Cohen, PharmD; Ramona O. Hopkins, PhD; Craig Weinert, MD, MPH; Hannah Wunsch, MD, MSc; Christine Zawistowski, MD; Anita Bemis-Dougherty, PT, DPT; Susan C. Berney, PT, PhD; O. Joseph Bienvenu, MD, PhD; Susan L. Brady, MS; Martin B. Brodsky, PhD; Linda Denehy, PT, PhD; Doug Elliott, RN, PhD; Carl Flatley, DDS; Andrea L. Harabin, PhD; Christina Jones, RN, PhD; Deborah Louis, RN; Wendy Meltzer, JD; Sean R. Muldoon, MD, MPH, MS; Jeffrey B. Palmer, MD; Christiane Perme, PT, CCS; Marla Robinson, OTR/L, MSc, BCPR; David M. Schmidt, MD, PhD; Elizabeth Scruth, RN; Gayle R. Spill, MD; C. Porter Storey, MD; Marta Render, MD; John Votto, DO; Maurene A. Harvey, RN, MPH, FCCM

Background: Millions of patients are discharged from intensive care units annually. These intensive care survivors and their families frequently report a wide range of impairments in their health status which may last for months and years after hospital

Objectives: To report on a 2-day Society of Critical Care Medicine conference aimed at improving the long-term outcomes after critical illness for patients and their families.

Participants: Thirty-one invited stakeholders participated in the conference. Stakeholders represented key professional orga-nizations and groups, predominantly from North America, which are involved in the care of intensive care survivors after hospital

Design: Invited experts and Society of Critical Care Medicine members presented a summary of existing data regarding the po-tential long-term physical, cognitive and mental health problems after intensive care and the results from studies of postintensive care unit interventions to address these problems. Stakeholders provided reactions, perspectives, concerns and strategies aimed at improving care and mitigating these long-term health problems

Measurements and Main Results: Three major themes emerged from the conference regarding: (1) raising awareness and education, (2) understanding and addressing barriers to practice, and (3) identifying research gaps and resources. Postintensive care syndrome was agreed upon as the recommended term to describe new or worsening problems in physical, cognitive, or mental health status arising after a critical illness and persisting beyond acute care hospitalization. The term could be applied to either a survivor or family member.

Conclusions: Improving care for intensive care survivors and their families requires collaboration between practitioners and researchers in both the inpatient and outpatient settings. Strategies were developed to address the major themes arising from the conference to improve outcomes for survivors and families. (Crit Care Med 2012; 40:502-509)

Key Words: aftercare: caregivers: continuity of patient care: critical care; follow-up studies; intensive care units; outcome assessment; patient care planning; patient care team; postintensive care syndrome: stress disorders, post-traumatic; survivors

From the OACIS Group, Pulmonary and Critical From the UALIS Group, Pulmonary and Critical Care Medicine, and Physical Medicine and Rehabilita-tion (DMN), Johns Hopkins University, Baltimore, MD; Nursing Excellence and Advanced Practice (JD), Scripps Mercy Hospital, San Diego, CA; Pharmacother-Scripps Mercy Hospital, San Diego, Ck. Pharmacother-gray (HG), Kingsbrook Jewish Medical Center, Wood-mere, NY, Medicine, Pulmonary, and Critical Care (10H), Internountain Medical Center, and Psychology and Neuroscience Center, Brigham Young University, Salt Lake City, UT: Pulmonary, Allergy, Critical Cris-gal Care Medicine (UM), Clinical Outcomes Research Contest Librarios of Microscotic Microscotic Microscotic Center, University of Minnesota, Minneapolis, MN; An-esthesiology and Epidemiology (HW), Columbia Univer-sity, New York, NY; Pediatrics (CZ), Mount Sinai Kravis sity, New York, NY; Pediatrics (i.2.), Mourit Sinai Kraivs Children's Hospital, Brooklyn, NY; Department of Prac-tice (ABD), American Physical Therapy Association, Alexandria, VA; Physiotherapy Department (SCB), Aus-tin Heath, Melbourne, Australia; Psychiatry and Behav-

tation (MBB), Johns Hookins University, Baltimore, MD: tation (MBB), Johns Hopkins University, Battimore, MD; Physiotherapy (LD), Mollocure School of Health Sci-ences, University of Melbourne, Mebourne, Australia; Faculty of Nusrign (DB, University of Technology, Vol-ney, Australia; Sepsie Alliance (CP), Tampa, Ft; Divi-sion of Lung Disease (ALH), National Heart, Lung, and Blood Institute, Betheeda, MD, Critical Care Rehabilibioto institute, bernessa, Mu; Critical care Herabert atton (LD), Whiston Hospital, Prescot, United Kingdom; Critical Care (DL), Kaiser Sunnyside Medical Center, Clackamus, OR; Binois Citizens for Better Care (WM), Chicago, IL; Hospital Division (SRM), Kinded Health-care, Louisville, KY; Physical Medicine and Rehabilitation (JBP), Otolaryngology, and Functional Medicine, Johns Hopkins University, Baltimore, MD; Physical Jonns Hoppuns University, Bastimores, MJC, Priysical Therapy (CP), The Methodst Hospital, Houston, TX; Occupational Therapy (MR), University of Chicago Medical Center, Chicago, IL: Pulmonary and Critical Care (DMS), Kalser Surreyside Medical Center, Clacka-mus, OR; Northern California Quality Department (ES), Kaiser Permanente, San Jose, CX; Cancer Rehabilitaioral Sciences (US), Johns Hopkins University Batt-lamore, MD; Research (SLB), Marianjoy Rehabilitation

Thospital, Research (SLB), Marianjoy Rehabilitation

Thospital, Research (SLB), Marianjoy Rehabilitation

Topical (SS), Rehabilitation Institute of Chicago

Thospital, Research (SLB), Marianjoy Rehabilitation

Topical (SS), Rehabilitation Institute of Chicago

Topical (SS), Rehabilitation Institute of Chica

ative Medicine (CPS), Boulder, CO: Inpatient Evaluation Center (MR), Vetrans Affairs Medical Center— Cincinnati, and Pulmonary/Critical Care/Sleep, Univer-sity of Cincinnati College of Medicine, Cincinnati, 0H; Hospital for Special Care (JV). New Britain, CT: Critical

Dr. Needham has received grant support from the National Institutes of Health Dr. Rienvenu has receive funding from the National Institutes of Health. Ms.
Louis is employed by Kaiser Permanente. Dr. Muldoon is employed by and has stock ownership in Kindred

For information regarding this article, E-mail

Copyright © 2012 by the Society of Critical Care

DOI: 10.1097/CCM.0b013e318232da75

Crit Care Med 2012 Vol. 40, No. 2



