



We are pleased to bring you Campaign Update, the official e-newsletter of the Surviving Sepsis Campaign. The Surviving Sepsis Campaign is a partnership of the European Society of Intensive Care Medicine, the International Sepsis Forum and the Society of Critical Care Medicine. This monthly communiqué focuses on topics related to local, regional and national SSC activities. Feedback and content suggestions may be sent to [campaignupdate@survivingsepsis.org](mailto:campaignupdate@survivingsepsis.org).



## SSC in Colorado: Community Hospitals Drive Success in Colorado



*More than 1,200 lives annually might be saved as a result of SSC efforts in Colorado.*

Recognizing the substantial care challenge stemming from severe sepsis and septic shock, a coalition of critical care providers from community and academic hospitals in Colorado formed the Colorado Critical Care Collaborative (C-4) in March 2005. In May of that same year, C-4 partnered with SSC to launch the first North American network. To date, there are 16 Colorado hospitals participating in the Collaborative.

### Building a Collaborative

The Collaborative is a broadly constituted, multidisciplinary organization comprised of multiprofessional critical care providers. Members come from across Colorado and share similar clinical challenges and patient populations. The Collaborative's development has served as a benchmark for other regional

groupings focused on advancing excellence in critical care.

The Collaborative leadership is provided by the C-4 Steering Committee. Ron Rains, MD, Director of the Medical Intensive Care Unit at Memorial Hospital in Colorado Springs, and Ivor Douglas, MD, MRCP, Assistant Professor of Pulmonary and Critical Care Medicine at the University of Colorado Health Sciences Center and Director of the Medical Intensive Care Unit at Denver Health Medical Center, serve as co-chairs.

### Data Collection and Publication

The network has been collecting SSC data for 15 months. More than 600 patient records have been transmitted to the SSC database. Individual and collective C-4 sites have submitted a variety of performance improvement data for presentation at major emergency medicine and intensive care meetings.

Cost savings are also a focus for the Collaborative. "The potential rewards in terms of lives saved and reductions in cost-of-care

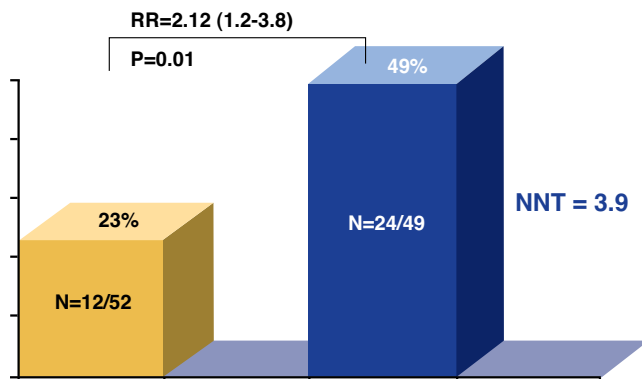
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## Compliance with 6-Hour Resuscitation Bundle and Hospital Mortality

When all indicators in an adaptation of the SSC resuscitation bundle were satisfied within the allotted 6-hour time period, mortality was noted to be 23 percent versus 49 percent when all six indicators were not satisfied. Assuming cause and effect, the number needed to treat (NNT) to save one life would be 3.9.

Gao F, Melody T, Daniels et al. *Critical Care*. 2005; 9:764-770. © 2005 Gao et al.; licensee BioMed Central Ltd.



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*Greater than the Sum of Our Parts*



Like some of you, I was at the European Society of Intensive Care Medicine 19th Annual Congress in Barcelona in September. This gathering represented a significant milestone for the SSC. In the same city, in 2002, the Campaign issued the “Barcelona Declaration,” the first phase in a collaborative effort to reduce mortality from severe sepsis and septic shock. Four years later, from a podium in Barcelona, representatives from several global networks presented initial data that support SSC bundle implementation and the value of a sepsis performance improvement initiative.

**Humble Beginnings**

Much of the Campaign’s strength is derived from its collaborative origins. The Surviving Sepsis Campaign was created in 2002 as a partnership of the Society of Critical Care Medicine, the European Society of Intensive Care Medicine, and the International Sepsis Forum. Participation from the American College of Emergency Physicians soon followed.

Under the leadership of R. Phillip Dellinger, MD, FCCM, the *SSC Guidelines for the Management of Patients with Severe Sepsis and Septic Shock* were published in September 2004 and included the participation and endorsement of 11 professional societies. The first guidelines revision will be published in Spring 2007 and will include the endorsement of three additional societies. This revision was sponsored by the Society of Critical Care Medicine, and no industry funding was

used. The evolving evidence-based medicine ranking system, GRADE, was utilized to evaluate the literature to arrive at levels of recommendations for the guidelines revision. The GRADE system has evolved from the original Sackett ranking system, which was used for the 2004 guidelines. The revision process speaks to the value of a multiprofessional and collaborative approach in the publication of a series of evidence-based recommendations.

The Campaign subsequently partnered with the Institute for Healthcare Improvement on the development of the care bundles when it became clear that performance improvement expertise was needed to synthesize the SSC’s clinical recommendations into easy-to-use bedside tools.

**Organizational Structure**

The SSC organizational structure consists of an Executive Committee and Steering Committee, both comprised of members of each of the partner organizations. Staff resources are provided by the ESICM, ISF and SCCM. Monthly calls are held with members of the Executive Committee, and minutes are distributed to all Steering Committee members. Funding is provided, in part, by unrestricted educational grants from industry.

**Confronting the Skeptics**

I remain intrigued by continued commentary regarding perceived bias inherent throughout the development and administration of the Campaign.

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**In memoriam: William J. Sibbald, MD, FCCM  
Sepsis Pioneer and Founder of Critical Care  
Credited with Introducing “SIRS” to the  
Medical Lexicon**

Surrounded by family, William J. Sibbald, MD, FCCM passed away on September 14, 2006 at his home in Toronto, Ontario, Canada. The cause of death was cancer.

Dr. Sibbald was physician and chief of the department of medicine at Sunnybrook and Women’s College Health Sciences Center in Toronto, and professor of medicine and health administration at the University of Toronto. Previously, Dr. Sibbald had been professor of medicine at the University of Western Ontario in London, Canada.

His achievements include research interests in sepsis, acute respiratory distress syndrome, microcirculation, hemodynamic monitoring, and steroids. He coined the term *systemic inflammatory response syndrome* (SIRS)

at the first American College of Chest Physicians-SCCM consensus conference on the definition of sepsis and organ failure in 1991. This contribution to critical care now helps differentiate patients with systemic inflammatory response and infections from those without infections.

A prolific researcher, Dr. Sibbald was the author of more than 200 original manuscripts and 70 books or book chapters, several of which are considered to be classics. His publications encompassed all areas of critical care including both bench and clinical projects.

Just as noteworthy as his scientific accomplishments, Dr. Sibbald was a mentor, partner, and inspiration to many in the field of critical care medicine. He will be remembered not only as a great scientist and pioneer, but as a great teacher, colleague, and man of compassion and vision.

Dr. Sibbald is survived by his wife and five children, and will be missed by many.

## In the Literature

Listed below are articles that may provide additional background to practitioners as they implement the SSC.

Kumar A, Roberts D, Wood KE, et al. **Duration of hypotension before initiation of effective antimicrobial therapy is the critical determinant of survival in human septic shock.** *Crit Care Med.* 2006; 34:1589-1596.

*In this database analysis of 2731 patients with septic shock, it was noted that, with each hour that went by from onset of shock to administration of appropriate antibiotics, mortality increased.*

Trzeciak S, Dellinger RP, Abate NL, et al. **Translating research to clinical practice: a 1-year experience with implementing early goal-directed therapy for septic shock in the emergency department.** *Chest.* 2006; 129:225-232.

*This study demonstrates the successful implementation of the Rivers early-goal directed therapy protocol in a real life environment as part of a quality improvement initiative.*

Gao F, Melody T, Daniels DF, et al. **The impact of compliance with 6-hour and 24-hour sepsis bundles on hospital mortality in patients with severe sepsis: a prospective observational study.** *Crit Care.* 2005; 9:R764-R770.

*Adaptations of the SSC resuscitation and management bundles were implemented. An observational analysis of performance demonstrated a statistically significant correlation between total compliance with either of the bundles and survival.*

Varpula M, Tallgren M, Saukkonen K, et al. **Hemodynamic variables related to outcome in septic shock.** *Intensive Care Med.* 2005; 31:1066-1071.

*In this retrospective cohort analysis of patients with septic shock, a logistic regression analysis demonstrated the patient variables most strongly associated with survival were mean arterial pressure of 65 mm Hg or greater and SvO<sub>2</sub> of 70 percent or greater.*

## Education

### User Groups Meetings Scheduled in North America and Europe

The Campaign will host a series of User Group meetings in early 2007. The half-day programs will promote guidelines implementation and data collection and transfer. Participants will have the opportunity to share successes and challenges with national and regional network members.

Content will include presentations and discussions given by members of the SSC leadership and individual network participants who will discuss strategy related to implementing the change bundles in their facilities. Network leaders will present preliminary data.

The 1st North American User Group meeting will be held on Saturday, February 17 from 1:00 - 6:00pm at the Gaylord Palms Resort and Convention Center. The meeting will be held prior to the SCCM 36th Critical Care Congress in Orlando, Fla.

The 2nd Pan European User Group meeting will be held March 26 from 1:00 - 6:00pm at the Royal Windsor Hotel in Brussels, Belgium. The meeting precedes the International Symposium on Intensive Care and Emergency Medicine in Brussels.

Meeting attendees will include intensive care and emergency department physicians and nurses, allied health professionals and quality personnel. Participation at the meetings is complimentary and by invitation only. If you would like additional information about the SSC User Group meetings, please contact [campaignupdate@survivingsepsis.org](mailto:campaignupdate@survivingsepsis.org).

## CALENDAR

### 2006

#### November 21

Connecticut Regional Training Program  
10:00am - 3:00pm  
Bridgeport Holiday Inn  
Bridgeport, Conn.

#### December 1

California Regional Training Program  
10:00am - 3:00pm  
Orange County Hyatt Regency  
Garden Grove, Calif.

#### December 14

North Carolina Regional Training Program  
10:00am - 3:00pm  
Hilton North Raleigh  
Raleigh, N.C.

#### December 19

Washington Regional Training Program  
10:00am - 3:00pm  
Holiday Inn Seattle Center  
Seattle, Wash.

### 2007

#### January 25

New Mexico Regional Training Program  
10:00am - 3:00pm  
Meeting Place TBD  
Albuquerque, N.M.

#### January 31

Wisconsin Regional Training Program  
10:00am - 3:00pm  
Meeting Place TBD  
Milwaukee, Wisc.

#### February 17

1st North American User Group Meeting  
1:00 - 6:00pm  
Gaylord Palms Hotel and Convention Center  
Orlando, Fla.

#### February 21

SCCM 36th Annual Congress  
SSC Educational Session  
9:30 - 11:00am  
Gaylord Palms Hotel and Convention Center  
Orlando, Fla.

#### March 26

2nd Pan European User Group Meeting  
1:00 - 6:00pm  
Brussels, Belgium

Send us your SSC meeting information and we will include it in future issues of *Campaign Update*. Send submissions to [campaignupdate@survivingsepsis.org](mailto:campaignupdate@survivingsepsis.org).



## SSC in Colorado

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are great," says Dr. Rains. "If we assume a realistic target of a 30 percent reduction in deaths from severe sepsis and more than 4,000 deaths from sepsis annually in the state of Colorado, a potential of more than 1,200 lives annually might be saved." Colorado Campaign efforts may result in a significant potential public health impact in terms of reductions in long-term care and public aid requirements.

*The potential rewards  
in terms of lives saved  
and reductions in  
cost-of-care are great.*

The Collaborative is developing an active partnership with the Colorado Foundation for Medical Care (CFMC). CFMC works collaboratively with government programs, health providers, and managed care companies to improve the quality of Colorado healthcare. CFMC will support the administrative needs of C-4 and will help the collaborative grow and be more effective. According to Dr. Douglas, "this developing relationship with CFMC is a vitally important step in solidifying long-term viability and community awareness of the Colorado Collaborative."

The success of the Collaborative will undoubtedly reflect positively on all C-4 institutions. In Dr. Douglas' view, "evidence-based regional harmonization of critical care practice is a powerful tool for addressing the very real need to deliver quality acute healthcare in Colorado."

## Greater than the Sum of Our Parts

(continued from page 2)

Our partnership with industry, to fund a global initiative designed to facilitate knowledge transfer and change clinical practice based on the published literature, has been transparent from the inception of the Campaign. To assist with the Surviving Sepsis Campaign implementation, the SSC Steering Committee adopted the policy document titled *Surviving Sepsis Campaign Implementation and the Appropriate Role of Industry*. This public domain policy ([www.survivingsepsis.org](http://www.survivingsepsis.org)) clarifies and delineates official SSC implementation activities from those initiated by third parties, including, but not limited to, the pharmaceutical and medical device industries.

It is no surprise that the most vocal of critics are those who have made no effort to implement the Campaign in their own institutions. The challenge of knowledge transfer is difficult and daunting, even for the most dedicated change agents. Unfortunately, with skepticism comes clinical inertia, and an unfortunate loss of focus on the very patients that we seek to help.

### The Future

Since its inception, the Campaign has remained committed to accomplishing a 25 percent reduction in severe sepsis and septic shock mortality rates by 2009. As of this writing, we have more than 2,000 patients entered in the SSC database. There are now several published and/or accepted abstracts in the literature from North America and Europe that demonstrate a significant reduction in mortality in patients compliant with the SSC 6-hour resuscitation and/or 24-hour management bundles. These published abstracts, reflecting the hard work and perseverance of SSC global networks, bring hope and confidence that we will indeed meet our stated goal of a 25 percent reduction in mortality in patients with severe sepsis and septic shock. Change of any kind is never easy, but a continued focus on achieving excellence in patient care will serve to lighten this burden.

Mitchell M. Levy, MD, FCCM  
Professor of Medicine  
Brown University  
Director, Medical ICU  
Rhode Island Hospital  
Providence, Rhode Island, U.S.

Member, SSC Executive Committee

Listed below are locales that have implemented the Surviving Sepsis Campaign as of November 15, 2006. This information will appear in each issue of *Campaign Update*. Contact [campaignupdate@survivingsepsis.org](mailto:campaignupdate@survivingsepsis.org) to obtain details on specific sites and local contact information.

### Asia China

**Europe**  
England  
Germany  
Ireland  
Italy  
Netherlands  
Poland  
Portugal  
Scotland  
Spain  
Wales

**Latin America**  
Brazil  
Chile

**North America**  
Alabama  
California  
Colorado  
Florida  
Georgia  
Iowa  
Illinois  
Kansas  
Maryland  
New Jersey  
Puerto Rico  
Texas  
Virginia  
Washington D.C.

*Campaign Update* is a monthly e-publication of the Surviving Sepsis Campaign. Comments or suggestions should be sent to [campaignupdate@survivingsepsis.org](mailto:campaignupdate@survivingsepsis.org).

SSC Industry Support Policy: The SSC leadership adopted the policy document titled *Surviving Sepsis Campaign Implementation and the Appropriate Role of Industry* in February 2006. This policy is intended to clarify and delineate official SSC implementation activities from those initiated by third parties, including, but not limited to, the pharmaceutical and medical device industries. A copy of the policy is available at [www.survivingsepsis.org](http://www.survivingsepsis.org).