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January 11, 2008

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**DATA PUBLISHED IN *THE LANCET* SHOW “WAKE UP AND BREATHE”
STRATEGY IMPROVES OUTCOMES IN ICU PATIENTS**

Saint Thomas Hospital and Vanderbilt University Medical Center Researchers Lead the Study

Nashville, Tenn.- The January 12 issue of *The Lancet* published findings from a study, which found that intensive care unit patients on mechanical ventilators have dramatically improved outcomes if they are managed with a daily “wake up and breathe” protocol. Saint Thomas Hospital was the largest enroller of patients for the trial, and Vanderbilt University Medical Center designed and coordinated the study.

The Awakening and Breathing Controlled (ABC) trial, funded by the Saint Thomas Foundation, is the first-ever ventilator or sedation study to show that modified sedation results in a reduction in mortality. The randomized trial also showed the protocol to reduce ICU stays by four days and duration of ventilation by three days compared with standard ventilation weaning procedures.

“For every seven people who get the ‘wake up and breathe’ strategy that we developed, one life is saved at one year,” said Wes Ely, M.D., M.P.H., professor of Medicine at Vanderbilt University and senior author on the study.

Patients on mechanical ventilators are typically sedated to keep them comfortable and safe. The respiratory therapist is responsible for testing the patient’s ability to breathe on his own by turning off the ventilator once a day. The nurse is responsible for controlling the level of sedation, which is not routinely turned off on a daily basis. The ABC trial linked the two caregivers and empowered them to work together to get the patient breathing on their own and comfortably awake sooner.

“Currently, the coordination of ventilator and sedation management is left up to the treating physician, and that might not be the most efficient process,” said Jan Dunn, RN, research coordinator at the Saint Thomas Research Institute and sub-investigator on the study.

“Bedside caregivers are more closely connected to patients on a minute-by-minute basis. The ABC protocol allowed us to connect the nurse and the respiratory therapist, and link what is happening with sedation to what is happening with the ventilator.”

The prospective randomized multi-center trial shows that a sedation and ventilator weaning protocol consisting of daily spontaneous awakening trials (SATs) plus spontaneous breathing

trials (SBTs) resulted in patients spending three more days off mechanical ventilation, less time in coma, and a 14 percent absolute improvement in one-year survival, compared with usual care.

Tim Girard, M.D., M.S.C.I., instructor in Medicine at Vanderbilt University and first author on the study, said that the survival benefit was the most unexpected finding.

“Millions of ventilated, critically ill patients every year will see the implications of these results, which show that modifying sedation reduces mortality,” he said. “Considering that this is an intervention that involves stopping medications and the ventilator when they are no longer needed, rather than adding new or risky therapies, we expect the intervention to be widely adopted by many ICUs.”

Patients in the control group were assessed every morning. If they passed a safety screen, their ventilator was effectively turned off, and they were allowed to breathe on their own for up to two hours. Patients in the “wake up and breathe” intervention group had their sedatives and analgesics interrupted each day that they met safety criteria and were monitored for up to four hours to see if they would open their eyes to verbal stimuli. If they did, they, too, had their ventilators turned off to test their ability to breathe on their own.

“Our close interaction with patients showed that these daily assessments were of great significance to the ‘wake up and breathe’ protocol and the overall results of this trial,” noted Angelo Canonico, MD, a primary site investigator on the study from Saint Thomas Hospital.

Vanderbilt coordinated the study, which enrolled 336 ICU patients at four medical centers: Saint Thomas Hospital, University of Chicago Hospitals, Hospital of the University of Pennsylvania and Penn Presbyterian Medical Center. In addition to the Saint Thomas Foundation, funding was provided by the National Institutes of Health.

About Saint Thomas Research Institute

Saint Thomas Research Institute is a four-hospital clinical research site consisting of four Middle Tennessee hospitals, more than 2,000 physicians and 1,600 beds. A partner and systemwide resource that simplifies the research process, Saint Thomas Research Institute takes on the bulk of the administrative load so that physicians can concentrate on working with their patients. The Institute is nimble, responsive and efficient, using an outsourced Institutional Review Board to get studies launched and enrolled quickly. For more information, contact Wesley Lauterbach, Director of Business Development, at 615-222-3077 or wlauterbach@stthomas.org.

About Saint Thomas Hospital

Saint Thomas Hospital is a member of Saint Thomas Health Services, a faith-based ministry with more than 8,000 associates serving Middle Tennessee. Saint Thomas Health Services’ regional health system consists of four hospitals – Baptist and Saint Thomas in Nashville, Middle Tennessee Medical Center in Murfreesboro and Hickman Community Hospital in Centerville – and a comprehensive network of affiliated joint ventures in diagnostics, cardiac services and ambulatory surgery as well as medical practices, the Center for Spinal Surgery, clinics and rehabilitation facilities. STHS is a member of Ascension Health, a Catholic

organization that is the largest not-for-profit health system in the United States. For more information, visit www.sths.com.

About Vanderbilt University Medical Center

Vanderbilt University Medical Center is home to Vanderbilt University Hospital, The Monroe Carell Jr. Children's Hospital at Vanderbilt, the Psychiatric Hospital at Vanderbilt and the Vanderbilt Stallworth Rehabilitation Hospital combined for more than 46,000 inpatient admissions during 2007. Vanderbilt's adult and pediatric outpatient clinics treated more than 1.1 million patients during this same period.

VUMC provides clinical services unique to its region including: a Level 1 Trauma Center, a comprehensive Regional Burn Center, a Level 4 Neonatal Intensive Care Unit, and the Vanderbilt-Ingram Cancer Center, the region's only National Cancer Institute- designated comprehensive cancer center.

Fulfilling its mission of service to the region as a nonprofit academic medical center, VUMC provided \$184,438,216 in uncompensated care during fiscal year 2007.

Again this year Vanderbilt University Hospital was recognized by *U.S. News & World Report* as offering the nation's best specialty care with nine specialty programs ranking among the nation's top 50 of their respective fields, including the only heart program in Tennessee to be ranked. The Monroe Carell Jr. Children's Hospital at Vanderbilt was ranked among the nation's premiere pediatric hospitals, ranking 23rd in the first "Best Pediatric Hospitals" rankings by *U.S. News & World Report*.

For more information about Vanderbilt University Medical Center, see www.mc.vanderbilt.edu