

elCU Research Data

CONTACT: Deb Dominianni, VISICU Director of Corporate Communications 410-843-4565 ddominianni@visicu.com

National Aggregate Hospital Data

Data show eICU® Program reduces patient mortality

An analysis of severity-adjusted data from 185,464 patients treated in intensive care units (ICUs) supported by the eICU Program during the period from January 1, 2006, to December 31, 2007, shows actual hospital mortality rates of 9.6 percent compared to the national average of 13.5 percent.

- This is based on data supplied by 156 hospitals representing a mix of rural, community, urban, and academic facilities around the country.
- The 29 percent decrease in mortality for this patient sample translates to 7,233 additional saved lives.
- The national average of 13.5 percent is referenced in a Critical Care Medicine article (2006 Vol. 34, No. 10 2519) reporting on the APACHE[®] model for ICU benchmarking. This is based on data collected from 131,618 patients supplied by 45 geographically dispersed hospitals.

Hospital-Specific Data

Published research from several hospital systems nationwide confirms mortality reduction and highlights additional length of stay improvement

AVERA HEALTH SYSTEM Sioux Falls, South Dakota

Data reflect:

64 ICU beds at 13 hospitals in 4 states 7,784 patients monitored by the *e*ICU Program Timing of research: 2003 – 2006¹

Research results²:

Research concluded that the remote telemedicine intensivist staffing, through the eICU Program, reduced severity-adjusted mortality and length of stay in the ICU, as compared to one year prior to eICU implementation, saving the hospital system millions of dollars.

- o 29 percent reduction in severity-adjusted mortality
- o Reduction in average patient length of stay from 4 days to 2.05 days
- Millions of dollars in cost savings from reduction of 4,146 ICU days and 572 hospital days
- ¹ Benchmark research reflects severity-adjusted data taken one year before the eICU Program was adopted; follow-up measures taken two years post implementation of the program.
- ² Financial benefit of a tele-intensivist program to a rural health system. Zawada, et al. Chest. 2007;132(4):444
- ³ Relationship between levels of consultative management and outcomes in a telemedicince intensivist staffing program in a rural hospital. Zawada, et al. Chest. 2006;130(4):226s

UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM Philadelphia, Pennsylvania

Data reflect:

2,811 patients monitored by the elCU Program Timing of research: $2003 - 2006^{1}$

Research results²:

Research concluded that the implementation of a remote eICU system within an academic surgical ICU is associated with improved outcomes:

- o ICU mortality was reduced from 8.4% to 3.1% after implementation, a 64% reduction
- Hospital mortality was reduced from 11.1% to 6% after implementation, a 46% reduction
- o ICU length of stay was reduced from 7.53 days to 3.78 days, a 50% reduction
- ¹ Benchmark research reflects severity-adjusted data taken one year before the eICU Program was adopted; followup measures taken three years post implementation of the program.
- ² Effect of telemedicine on mortality and length of stay in a university ICU. Kohl, Kim, et al. Crit Care Med. 2007;35(12):A22.

SUTTER HEALTH Sacramento, CA

Data reflect:

24-bed ICU in a tertiary care community hospital 266 patients with sepsis diagnosis and *e*ICU Program management of sepsis protocols Timing of research: 1/1/04 - 6/30/06¹

Research results²:

- o ICU mortality was reduced from 40.07% to 18.86% after implementation, a 53% reduction
- An estimated 56 lives were saved over this 30-month period

¹ Benchmark research reflects actual data taken six months before the eICU Program was adopted; follow-up measures taken two years post implementation of the program.

² Implementation of a standard protocol for the surviving sepsis 6 and 24 hr bundles in patients with an Apache II Admission Diagnosis of sepsis decreases mortality in an open adult ICU. Crit Care Med. 2006;34(12):A108.