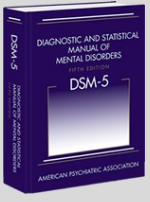


ROI of Noise Reduction and Delirium in the Intensive Care Unit (ICU)



Delirium

A disturbance of consciousness and cognition that develops over a short period of time.

(APA) Diagnostic and Statistical Manual of Mental

ICU Patients with delirium experience...

- Longer length of stay
- Lower 6-month survival rate
- Cognitive impairment that persists months to years after discharge
- Additional cost to the hospital of \$14,730 per ICU patient with delirium

- Journal of Critical Care Medicine. 2004 Apr;32(4):955-62.

“The prevalence of delirium reported in medical and surgical ICU cohort studies has varied from

20% to 80%

depending upon severity of illness observed and diagnostic methods used.”

- Journal of Critical Care Medicine. 2008; 12(Suppl 3): S3.



A 5dB reduction of noise in the ICU resulted in a reduction of delirium by 54%.

- Journal of Critical Care Medicine. 2013 Mar;41(3):800-9

For Every
1,000
ICU Patients
(average hospital has 2,000 ICU patients per year)



ICU Patients w/Delirium
High **80%**
Low **20%**



Reduction in Delirium for 5 dB Reduction in Overall ICU Noise
.54



Additional Cost Per ICU Patient with Delirium
\$14,730

For Every 1,000 ICU Patients

You Can Save

With a 5dB Noise Reduction in the ICU

High Range
 $1,000 \times .8 \times .54 \times 14,730 =$

\$6,363,360

Low Range
 $1,000 \times .2 \times .54 \times 14,730 =$

\$1,590,840

Quietyme Reduces Noise in the ICU by More Than 5 dB

2015 University of Michigan Health System Study
Presented at PAS Conference
May 2, 2016 Baltimore, MD

Quietyme Annual Cost in ICU = \$9,000
Avg. Hospital Savings = \$12.7 million

ROI = \$12,691,000 = 1,400X



QUIETyme