Telecritical care: The Sutter Health System Experience

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Introduction

In 2002 Sutter Health System[1], a 26 hospital, 3,400 physician system in Northern California, began implementing a telecritical care system (*e*ICU®; VISICU, Inc, Baltimore, Maryland)[2] across all its intensive care units (ICUs). By the end of 2006 two remote centers will be monitoring the Sutter System's approximately 400 critical care beds, with 161 served by the Sacramento, California center. This talk will provide a first-hand report on what it is like to work as a clinician in a telecritical care setting. Additionally, it will present initial quality assurance data.

Methods

The day-to-day experience of the authors was reviewed. Quality measures from one hospital (Sutter General Hospital) were trended. These included process measures such as ICU length of stay and outcome measures such as ICU and hospital mortality.

Results

There is a consensus among the Sacramento staff that telemedicine technology can enable effective remote critical care consultation that complements care offered by traditional bedside providers and that reduces undesirable practice differences. Acceptance by bedside clinicians is variable and is the key factor that determines whether the consultant can effectively contribute to patient care. Additionally, there are several areas where improvements in the software and integration with a true electronic medical record can improve productivity of the consultant.

ICU length of stay increased slightly from 3.61 days prior to initiation of the telecritical care program to 3.73 days over the first 15 months. Over the same time interval, however, ICU mortality rate dropped from 12.0 percent to 9.8 percent and hospital mortality has dropped from 17.8 percent to 13.2 percent.

Conclusions

Telecritical care is evolving but an important role appears to be enabling standardized, high-quality practices across the critical care units of a health care system. Full implementation of telecritical care requires re-engineering of bedside roles, behavior, incentives, culture and information systems. Initial quality assurance data suggest that telecritical care is improving outcomes in the Sutter Health System critical care program.

References

1. www.sutterhealth.org/about/news/news_facts.html
2. www.visicu.com