

HEALTH CARE PROFESSIONALS IMPROVE *eICU*[®] SERVICES

Outline Of Need: *Recent studies reveal that 1 in 10 patients who die in the ICU would survive if intensivists (critical care specialists) were present to assist with care. Nationally, there is a shortage of intensivists and rural hospitals in particular cannot attract the specialists needed to provide this care. However, Avera *eICU*[®] CARE is providing intensivist services through a telemedicine application.*

How Rural Development Helped: *USDA Rural Development awarded distance learning and telemedicine grant funding to Avera McKennan to assist in providing a higher quality and quantity of years of healthy life to rural residents. This is being accomplished through providing access to more efficient, up-to-date, quality healthcare and assisting ambulance crews to instantly transmit patients' vital data via cellular phone to the receiving facility's emergency department. In addition, funding supports advanced education, retention and recruitment which are critical to this region.*

The Results: *This project will help Avera greatly extend the implementation of *eICU*[®] services to rural Midwest communities – maximizing valuable specialist services with a remote-care ICU strategy and system. The system provides rural hospitals with monitors, cameras, microphone, and software that connects to intensivists, critical care nurses and support staff located in a hub 24 hours a day. The *eICU*[®] center is similar to an “air traffic control” for ICU patients. Hospitals currently covered by Avera *eICU*[®] CARE have seen significant reductions in predicted mortality (actual mortality rate of 1.6% compared to a predicted rate of 7.0%). This reduction translates to approximately 200 lives saved per year! These hospitals have also seen a significant reduction in the length of time patients are hospitalized (down 1 day in the ICU and 2 days in the hospital) and have realized other quality improvements.*

*The system has also proven to increase nurse retention, and it is anticipated that it will assist with recruitment of physicians to smaller communities. Physicians and nurses both state that it has been invaluable to them to have peers available to discuss cases or concerns at all hours of the day and night. Avera *eICU*[®] CARE is also available to assist with patient care during extreme weather conditions when safe transport is not possible.*

*“The grant allows us to leverage resources outwardly, which means that patients in a rural area can have subspecialty care come to them, rather than having to travel. It means faster response times, fewer emergency transports and treatment in the comfort of familiar surroundings,” says Dr. David Erickson, senior vice president and chief medical officer, Avera and Avera *eICU*[®] CARE.*

*The Avera *eICU*[®] CARE project will benefit over 500 ICU patients, serving Minnehaha, Moody, Gregory, Grant, Bon Homme, Spink, Hutchinson, Hand, Jerauld, and Charles*

Mix Counties in South Dakota; Pipestone and Lincoln Counties in Minnesota; and Holt County in Nebraska.

Gale Walker, Chief Executive Officer at Avera St. Benedict Health Center located in Parkston, South Dakota offered the following when asked about the benefits of the program to their facility, "The eICU has provided the physicians at Avera St. Benedict Health Center with access to a specialist on a 24 hour basis. It also provides a level of comfort for our RNs to know that there is another set of eyes assisting. These eyes are the eyes of the eICU monitoring the ICU patient around the clock. In addition, the patient and the family are offered the high quality service of the sub-specialist and it allows the patients to receive a complete evaluation by the attending family practice physicians as well as the intensive specialty physicians through eICU while staying in their local community. Patients and families are reassured by having immediate access to specialists and another professional opinion. After they receive the full evaluation, it may not be necessary for the patients to be transferred as they may be able to receive the same high quality care at our facility under the direct supervision of the Avera St. Benedict Family Practice Physicians along with the eICU specialty physicians at Avera McKennan. This is a tremendously valuable service to rural South Dakota for patients, nursing and medical staff."

Submitted: Sioux Falls - 03/25/2008