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## Best Practices at Scott & White Healthcare Reduces Incidence of Common ICU Infection

Scott & White, Temple, TX

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Ventilator associated pneumonia (VAP) is the most common serious infection reported in intensive care units (ICU). For patients on mechanical ventilation, VAP is associated with increased patient mortality and a longer length of stay. It also burdens the healthcare system with additional costs – up to \$40,000 per patient. To reduce VAP rates at Scott & White Healthcare, a task force was convened in 2007. As a result of their work, the rate of VAP cases at Scott & White decreased from 4.87 per 1,000 patients in 2008 to 1.24 in 2009. Success also included decreases in patients' length of stay and ICU days on mechanical ventilation.

A task force was convened in 2007; its goal was to reduce VAP rates at Scott & White Healthcare. The task force included Chairman, Department of Internal Medicine Alejandro Arroliga, MD; Chief Medical Officer Robert Pryor, MD; and representatives from nursing, respiratory therapy and patient safety. The group's work led to almost a 75% reduction in the identification of VAP cases. The task force established criteria for diagnosing patients with VAP and subsequent prevention measures. Diagnosis included visual inspection of patients to determine VAP onset.

Closely monitoring patients served as the foundation for identified prevention measures, including:

- Favorable patient to nurse ratios (no more than two patients per ICU nurse)
- Ongoing collaboration between respiratory therapists and nurses to ensure patients' heads are elevated in their beds
- Oral care with chlorhexidine for patients
- Introduction of silver-coated endotracheal tubes for appropriate patients to prevent bacteria colonization
- Ongoing education of clinical staff, including video and in-person presentations

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Outcomes were presented at the American College of Chest Physicians Annual Meeting in San Diego, CA, in November 2009.

Dr. Arroliga credits the integrated team's expertise for the dramatic reduction in the ICU VAP rate. "This is a real high performance team, a group whose collaboration helped make the VAP rate decrease substantially," he says. "We're very proud of the team's work, especially because of the tremendous benefits to patients." Dr. Arroliga adds that the team's work is just beginning, and further progress is anticipated.

### FOR MORE INFORMATION:

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