

## **Pneumonia Pathways and Order Form for The Nebraska Medical Center**

Pneumonia is the seventh leading cause of death in the United States across all ages.<sup>1</sup> Inadequate treatment of pneumonia is increasingly being recognized as a potential cause of patient morbidity and mortality. Adequate therapy may be defined as use of an antibiotic(s) effective against an identified pathogen(s), taking the following into consideration: proper dosing, proper interval administration, penetration to the infective site, proper route, and combination therapy.<sup>2</sup> Evidence from multiple studies has demonstrated that early, appropriate therapy is associated with shorter duration of antibiotic therapy, decreased length of ICU or hospital stay, lower total cost, and decreased mortality.<sup>3-6</sup>

However, clinicians are often making antibiotic decisions empirically, which makes appropriate choices of antibiotics more challenging. The American Thoracic Society and the Infectious Diseases Society of America have published guidelines for the management of community-acquired pneumonia (CAP), healthcare-associated pneumonia (HCAP), hospital-acquired pneumonia (HAP), and ventilator-associated pneumonia (VAP).<sup>2,7-8</sup> The guidelines suggest that early, appropriate, broad-spectrum antibiotic therapy should be prescribed with adequate doses to optimize antimicrobial efficacy. De-escalation of antibiotic therapy should be considered once a pathogen(s) has been identified.

The Antimicrobial Stewardship Program, in conjunction with Dr. Rick Starlin and other medical staff and faculty in pulmonology, emergency medicine, and critical care, has developed clinical pathways for [CAP](#) and [nosocomial pneumonia](#) (includes HCAP/HAP/VAP) at The Nebraska Medical Center. These pathways are in accordance with the published guidelines and will help physicians make appropriate initial choices for antibiotic therapy, which has been shown to directly impact morbidity and mortality. Additionally, a [pneumonia order form](#) has been created by Outcomes & Performance Improvement Pulmonary/Cardiovascular Services at The Nebraska Medical Center. The pathways and order form will be bundled together in a packet that is available from Corporate Express. The implementation date is May 1, 2006. Educational sessions will be provided at several meetings to be held during the month of April.

1. CDC/NCHS. Health, United States, 2004, p.154
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3. Craven DE et al. *Infect Dis Clin North Am.* 2004;18:939-962.
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5. Lodise TP et al. *Clin Infect Dis.* 2003;36:1418-1423.
6. Kollef MH et al. *Chest.* 1999;115:462-474.
7. ATS. *Am J Respir Crit Care Med.* 2001;163:1730-1754.
8. Bartlett JG et al. *Clin Infect Dis.* 2000;31:347-382.