Outpatient Connection

Labs, infection preventionists need to work together to facilitate rapid response to HAIs

The U.S. Department of Health and Human Services (HHS) estimates that about one in every 20 patients develops an infection each year related to their hospital care. The key to preventing an outbreak of potentially deadly healthcare-associated infections (HAIs) – such as methicillin-resistant *Staphylococcus aureus* (MRSA) or *C. difficile* – is identifying them before affected individuals can pose a transmission risk.

But, according to a survey released by the Association for Professionals in Infection Control and Epidemiology (APIC) and the American Society for Microbiology (ASM), the typical turnaround time for laboratory test results may not be meeting expectations. Greater collaboration between labs and infection preventionists may hold the key to addressing the gap – and to more effective management of some HAIs.

Most (51 percent) of the infection preventionists (IPs) surveyed indicated that they need results for MRSA screening tests within 12 hours to initiate the necessary precautions; however, MRSA cultures – a traditional method for screening – typically take 24 to 48 hours to complete.

The survey identified two factors that could be addressed to help resolve the discrepancy and reduce HAIs: the need for increased communication between IPs and lab professionals, and the lack of tools and resources for training and educating all healthcare personnel.

The survey is a first step in the collaboration between APIC and ASM to reduce infections and improve patient outcomes. As part of APIC's Building Bridges initiatives, the IP Col-lab-oration Project aims to improve patient outcomes by bridging the communication gap between IPs and lab professionals, augmenting tools and resources currently available, and educating healthcare personnel. For more information, please visit http://labproject.site.apic.org/

CDC: Life-threatening *C.Difficle* poses threat across medical facilities

A new CDC report highlights how *Clostridium difficile* infection (CDI) is a common and sometimes fatal healthcare–associated infection. The incidence, deaths, and excess healthcare costs resulting from CDIs in hospitalized patients are all at historic highs. Meanwhile, the contribution of nonhospital healthcare exposures to the overall burden of CDI, and the ability of programs to prevent CDIs by implementing CDC recommendations across a range of hospitals, have not been demonstrated previously.

Among CDIs identified in Emerging Infections Program data in 2010, 94% were associated with receiving healthcare; of these, 75% had onset among persons not currently hospitalized, including recently discharged patients, outpatients, and nursing home residents. Among CDIs reported to NHSN in 2010, 52% were already present on hospital admission, although they were largely healthcare related.

OPERATING ROOM

Word of mouth: Oral care basics prevent pneumonia

by Jeannie Akridge

Sometimes something as simple as brushing teeth can make all the difference in one's health. When a patient is under ventilation, oral hygiene becomes all the more critical to maintaining quality of care and preventing complications such as ventilator-associated pneumonia.

Under the Healthcare Reform Law of 2010, 30-day readmissions with pneumonia will impact the rate of provider reimbursement.[1] Knowing which patients are likely targets for pneumonia and how to prevent infection will be more important than ever.

"Hospital-acquired pneumonias (HAPs), including ventilator-associated pneumonia (VAP), often start in the oral cavity,[2,3] explained Tim Sterzik, senior product manager, Oral Care, Sage Products. "Bacteria, including dental plaque, can colonize in the oropharyngeal area,[4] and these pathogens can be aspirated into the lungs, causing infection."[5]

According to the Centers for Disease Control and Prevention (CDC), 63 percent of patients admitted to an intensive care unit (ICU) have oral colonization with pathogens associated with VAP.[6]

Jennifer Danchisin, director of marketing/oral care product manager for the ReadyCare division of Medline Industries Inc., explained, "A major cause of VAP — which occurs in up to 25 percent of all people who require mechanical ventilation through an endotracheal or tracheostomy tube — is oral bacteria that thrive in dental plaque and oropharyngeal secretions making their way into the lungs by way of a mechanical ventilator. To prevent VAP, the CDC recommends cleaning the inside of the patient's mouth on a regular basis."

"Subglottic suctioning is important to remove secretions that pool above the inflated insufflation cuff on the endotracheal tube, so that the secretions don't make their way into the lungs," she added.

In its KimVent Oral Care literature, Kimberly-Clark further describes the science behind why intubation increases the risk of VAP and the critical nature of oral care. "The absence of adequate salivary flow in intubated ICU patients causes severe xerostomia (dry mouth), which may contribute to the development of mucositis (oral tissue inflammation) and oropharyngeal colonization with gram negative bacteria.[7] If an intubated patient does not receive effective and comprehensive oral hygiene, bacterial plaque develop on teeth within 48 hours.[8] As dental plaque increases, so does the risk of pneumonia."[9]

Comprehensive, systematic approach

Comprehensive oral hygiene care has been recognized by organizations such as the CDC,[6] Association for Professionals in Infection Control and Epidemiology (APIC),[10] American Association of Critical-Care Nurses (AACN)[11] and Institute for Healthcare Improvement (IHI)[12] as an important step in the prevention of VAP. But what are the essential components of a comprehensive oral hygiene program?

"Essential components of a comprehensive oral hygiene program include oral assessment as well as oral cleansing and suctioning to reduce bacterial colonization," Sterzik advised. "According to an article published in the *American Journal of Critical Care*, a 48-month study of ICU patients found risk and incidence of VAP was significantly reduced through 'daily oral assessment combined with procedures and tools specifically designated for bacterial reduction in the oral cavity, subglottic space and on teeth, and conducted on an established daily schedule.'"[13]

Detailed Sterzik, "Components used in the study included a Y-connector that provided the ability to attach two suction tubings, one for oral care and the other for a closed suction device; a universal handle that accommodates a variety of suctioning and cleansing devices; a covered Yankauer catether to reduce contamination risk; a suction toothbrush with the antiseptic agent 0.05% cetylpyridinium chloride designed for mechanical reduction of dental plaque; a suction oral swab with 1.5% hydrogen peroxide to cleanse the oral cavity and surrounding tissue; an applicator swab with moisturizers to promote mucosal integrity; and a suction catheter for removal of secretions."

Protocol "bundles" such as those promoted by the IHI and other organizations are an effective way to ensure adherence to a series of prevention measures for conditions such as VAP and help prevent variation in technique. For example, the IHI Ventilator Bundle[14] is