

Product Evaluation for Infection Prevention

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ICT asked Jan Creidenberg, vice president of global marketing for infection prevention at CareFusion, for her perspective on product evaluation, the economics of infection prevention, and more.

Q: What suggestions can you offer infection preventionists in terms of smart product evaluation and purchasing as a way to meet healthcare-acquired infection (HAI) reduction goals?

A: Ideally an infection preventionist will work hand-in-hand with the materials manager and other healthcare professionals, such as surgeons and nurses, to select the products that have been proven to reduce the risk of HAIs. The field of infection prevention is unique as it involves multiple protocols and products in order to best reduce the risk. Therefore all components – from sterile drapes to surgical clippers to skin antiseptics products – should be evaluated first from a clinical standpoint, and secondarily from a cost-benefit perspective. When evaluating a product, the most important question to answer is whether it is clinically proven with robust published evidence. If an adequate and well-controlled outcomes study demonstrating an impact on infection rates is available, this can be the basis for a valid cost-benefit analysis. A good example is the efficacy and safety of ChlorPrep® for skin antiseptics, which is supported by more than 35 clinical studies and recommendations by 18 internationally recognized organizations.

Q: Is it critical that infection preventionists understand how to make a solid business case for infection prevention to their facility administrators in order to secure the resources and funding they require to run their infection control programs?

A: Yes and most importantly, facility administrators need to understand the financial burden that HAIs impose on both patients and the healthcare facility. And they need to assess the overall economic impact, not just a comparison of acquisition costs. It is estimated that HAIs affect 1.7 million people each year¹ and have an estimated annual economic impact of more than \$17 billion.² Microorganisms on the patient's skin are the No. 1 cause of surgical site infections (SSIs) and catheter-related bloodstream infections, which account for nearly half of all HAIs.

The reimbursement landscape has changed in recent years and CMS no longer reimburses for certain healthcare-acquired conditions that have evidence-based prevention guidelines, such as vascular catheter-associated bloodstream infections and some surgical site infections. This means when a patient experiences a preventable HAI, he or she has a longer hospital stay, uses more healthcare resources and has the potential for readmission, it directly affects the hospital's bottom line. It has been estimated that a SSI can cost up to an average of approximately \$25,000³ – a cost that a hospital may have to absorb for each preventable infection.

Q: How can manufacturers best assist clinicians in understanding the economics of infection prevention? How the right products can help them reduce infections?

A: It can be beneficial for clinicians to tap into the consultative support and resources that many manufacturers provide. Manufacturers typically have data compendiums that can help eliminate the time and burden of research for infection preventionists in identifying the right products. Ask manufacturers to provide a bibliography of published evidence or the full text articles. Knowledgeable sales representatives are a good resource, and clinical educators should provide a balanced summary of the evidence to help speed the review. But, clinicians should scrutinize the data to ensure the studies were adequate in size, well designed and controlled, and reached statistical significance.

You should also ask your sales representative if the company has developed an evidence-based health economic model to analyze the financial impact based on your hospital's own situation/data. This type of analysis, if done well, can be the backbone of the business case. CareFusion has developed a robust model to assess the economic impact of ChloroPrep for both CRBSI and SSI, which has proven to be a valuable tool for infection preventionists and materials managers as part of their skin prep optimization initiatives. For example, CareFusion has a clinical education team that has real-world experience in implementing and maintaining infection prevention programs. Their role is to be a resource and assist with proper product selection and tailored training programs for the different clinical specialties within the health care facility. The company also keeps an up-to-date bibliography and offers reprints of most available studies about their products, as well as best practice care bundles.

Q: How can reducing/eliminating infections impact things like risk management and healthcare facility reimbursement, etc. in the economic cycle?

A: Beyond the human cost of HAIs, hospitals now face greater economic incentive than ever before to reduce infections given the CMS reimbursement changes. Therefore, implementing an effective infection prevention protocol across the facility can be good for the bottom line by lowering overhead costs and improving reimbursement.

References:

1. Centers of Disease Control and Prevention. Estimates on HealthCare Associated Infections. Available at: <http://www.cdc.gov/ncidod/dhqp/hai.html>. Accessed October 2007.
2. Bhutta A, et al. Reduction of bloodstream infections associated with catheters in pediatric intensive care unit: stepwise approach. *BMJ*. 334:362-365. 2007.
3. Stone PW, Braccia D, Larson E. Systematic review of economic analyses of healthcare-associated infections. *Am J Infect Control*. 33(9):501-509. 2005.