

Global Threat of Growing Antibiotic Resistance Highlights Need For Antiseptic Alternatives Clorox Healthcare introduces povidone-iodine alternative to antibiotics for nasal decolonization

PLEASANTON, Calif., March 31, 2016 – Each year in the United States, at least 2 million people become infected with bacteria that are resistant to antibiotics and at least 23,000 people die as a direct result of these infections. According to the U.S. Centers for Disease Control and Prevention (CDC), antibiotic stewardship – the commitment to use antibiotics only when necessary to treat or prevent disease – combined with steps to prevent hospital-associated infections (HAIs) and transmission of resistant bacteria, is critical to stopping the spread of antibiotic resistance.²

In 2014, one in seven surgical site infections (SSIs) was caused by antibiotic-resistant bacteria identified as urgent or serious threats by the CDC. Nasal decolonization has become an important strategy to reduce the risk of SSIs as part of a bundled approach to infection prevention. However, growing evidence of bacterial resistance to commonly used antibiotics and the consequent potential for decolonization failure has made evaluating non-antibiotic methods a priority. Reducing unnecessary antibiotic use can help decrease antibiotic resistance and healthcare costs, and improve patient outcomes.³

To help healthcare professionals in their ongoing efforts to protect patients from SSIs, Clorox Healthcare is introducing Clorox Healthcare™ Nasal Antiseptic Swabs, a povidone-iodine alternative to antibiotics, at the Association of periOperative Registered Nurses (AORN) Surgical Conference and Expo.

Using an antiseptic, like Clorox Healthcare™ Nasal Antiseptic Swabs, instead of an antibiotic, like mupirocin, for preoperative nasal decolonization is a simple and effective way for any healthcare facility to reduce unnecessary antibiotic use.

"Clorox Healthcare understands the urgency to act on antibiotic stewardship," said Dr. Rosie D. Lyles, Head of Clinical Affairs for Clorox Healthcare. "Antibiotics save lives, but inappropriate prescribing and misuse puts patients at risk."

"It was important to us to bring forward an antiseptic nasal decolonization solution that would help protect patients from SSIs and antibiotic-resistant bacteria while enabling stewardship. Using the swabs can also increase the likelihood of compliance because the responsibility for application is shifted from patients to trained healthcare professionals."

SSIs are common and costly for both healthcare facilities and patients. They account for approximately 23 percent of HAIs⁴ and an excess of up to \$3.5 billion in healthcare expenditures per year.⁵ The perpatient cost for an SSI can be as high as \$60,000⁶ and increase the average length of hospital stays from seven to 11 days.⁵

Benefits of Clorox Healthcare™ Nasal Antiseptic Swabs

Clorox Healthcare™ Nasal Antiseptic Swabs offer several key benefits as part of preoperative and inpatient decolonization strategies:

- Safe and Efficient Alternative to Antibiotics: Clorox Healthcare[™] Nasal Antiseptic Swabs are clinically shown to be non-irritating and well tolerated in the nares after 10 applications.⁷ They are further shown to reduce 99.4% of *S. aureus* at 1 hour and maintain persistence through 12 hours in an in vitro study.⁸
- Simple and Easy to Use: Clorox Healthcare [™] Nasal Antiseptic Swabs are pre-saturated, ready-to-use swabs that are applied to a patient's nostrils by a healthcare provider one hour before surgery. This method shifts the responsibility for nasal decolonization from patients to trained healthcare professionals, increasing the likelihood of compliance. Nasal Antiseptic Swabs were determined by patients to be comfortable during application and reported an overall positive experience.⁷
- **No Evidence of Bacterial Resistance:** There is growing evidence of resistance of *Staphylococcus aureus* (*S. aureus*) and methicillin-resistant *Staphylococcus aureus* (MRSA) to mupirocin. High-level resistance has been associated with nasal decolonization failure. ⁹ Clorox Healthcare ™ Nasal Antiseptic Swabs contain povidone-iodine, an antiseptic that has broad

activity against gram-positive and gram-negative bacteria. This antiseptic has been in use for over 50 years and to date, studies have not shown that bacteria develop resistance to povidone-iodine. ^{10,11}

Bringing Nasal Decolonization to Life at AORN Surgical Conference and Expo

At the AORN Surgical Conference and Expo, the largest gathering of perioperative professionals in the United States, Clorox Healthcare will bring attention to nasal decolonization as an important part of plans for SSI prevention and antibiotic stewardship through an immersive virtual reality experience. Clorox Healthcare booth (#313) attendees will be able to view a 360° video that puts them in the shoes of a healthcare provider performing nasal decolonization in a real-world setting. For those unable to attend the conference, for an optimal 360° experience, watch the video from your virtual reality headset or smartphone by visiting Clorox Healthcare's YouTube channel.

To further help AORN conference attendees understand the issue of nasal decolonization, Dr. Lyles will lead a continuing education (CE) presentation at the Clorox Healthcare booth (#313) titled, "Nasal Decolonization: Alternatives to Antibiotics." The free CE credit presentation will discuss the causes and clinical and economic impact of HAIs and SSIs, problems associated with antibiotic therapy, antiseptic alternatives to antibiotics for nasal decolonization, and best practices.

For more information, including complimentary educational resources such as kits, training materials and sample products, visit www.CloroxHealthcare.com/NasalAntisepticSwabs.

About Clorox Healthcare

Building on a century-long legacy in cleaning and disinfecting, Clorox Healthcare offers a wide range of products to help stop the spread of infection in healthcare facilities. From comprehensive surface disinfection, including advanced ultraviolet technology, to skin antisepsis, we are committed to providing efficacious solutions to the healthcare community. For more information, visit www.CloroxHealthcare.com or follow @CloroxHealthcare.com or follow @CloroxHealthcare.com or follows

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- Antibiotic / Antimicrobial Resistance. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. http://www.cdc.gov/drugresistance/. Accessed 1/26/2016.
- 2. Weiner LM, Fridkin SK, Aponte-Torres Z, et al. Vital Signs: Preventing Antibiotic-Resistant Infections in Hospitals United States, 2014. MMWR Morb Mortal Wkly Rep. ePub: 3 March 2016.
- 3. Get Smart for Healthcare: Overview and Evidence to Support Stewardship. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. http://www.cdc.gov/getsmart/healthcare/evidence.html. Accessed 2/4/2016.
- 4. Sievert DM et al. National Healthcare Safety Network (NHSN) Team and Participating NHSN Facilities. Antimicrobial-resistant pathogens associated with healthcare-associated infections: summary of data reported to the National Healthcare Safety Network at the Centers for Disease Control and Prevention, 2009-2010. Infect Control Hosp Epidemiol. 2013 Jan;34(1):1-14.
- 5. Anderson DJ, Podgorny K, Berrios-Torres SI, et al. "Strategies to Prevent Surgical Site Infections in Acute Care Hospitals: 2014 Update." *Infection Control and Hospital Epidemiology* 35.6(2014): 605-627.
- 6. Anderson DJ et al, "Clinical and Financial Outcomes Due to Methicillin Resistant Staphylococcus aureus Surgical Site Infection: A Multi-Center Matched Outcomes Study," PLOS ONE 2009 Dec 15;4(12).
- 7. The Clorox Services Company Study Number: 2015-002/2015-003
- 8. In vitro Clorox Technical Services; Clorox Study #9550-005
- 9. Hetem DJ, Bonten MJ. Clinical relevance of mupirocin resistance in *Staphylococcus aureus*. J Hosp Infect. 2013 Dec;85(4):249-56.
- 10. Houang ET et al. Absence of bacterial resistance to povidone iodine. J Clin Pathol. 1976 Aug;29(8):752-5.
- 11. Lanker Klossner B et al. Nondevelopment of resistance by bacteria during hospital use of povidone-iodine. Dermatology. 1997;195 Suppl 2:10-3.