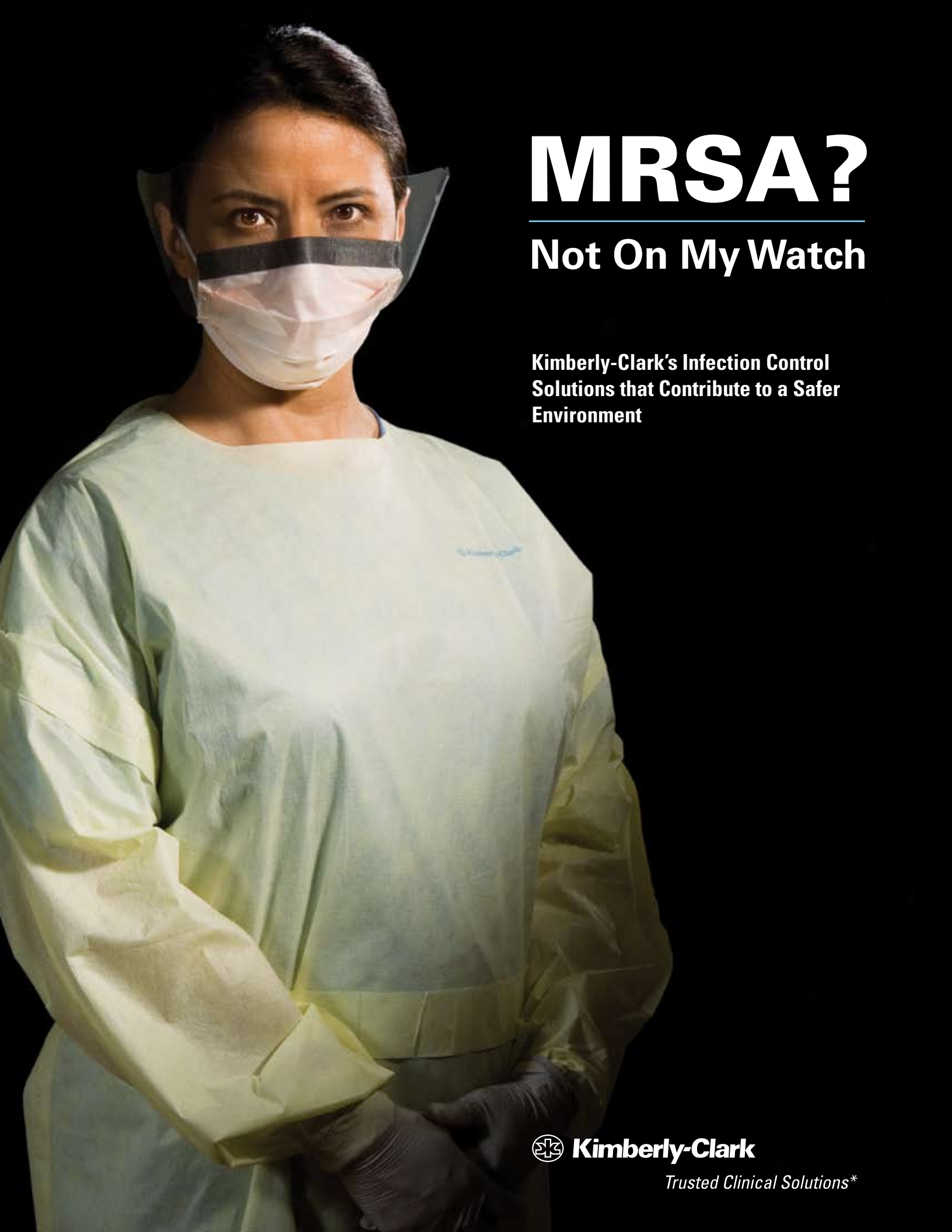


# MRSA?

## Not On My Watch

**Kimberly-Clark's Infection Control Solutions that Contribute to a Safer Environment**

Kimberly-Clark

*Trusted Clinical Solutions**

## MRSA Is In the News

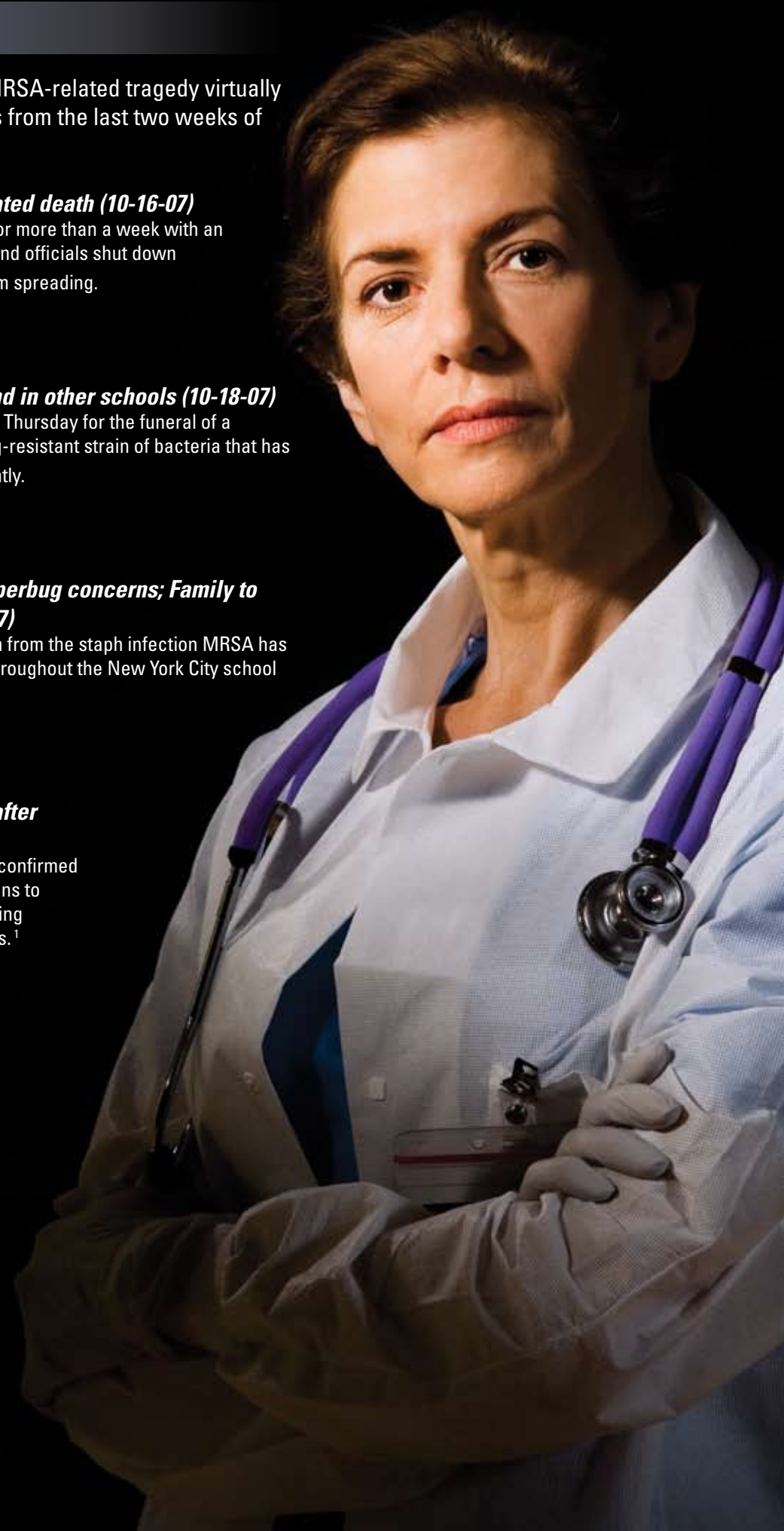
Recently, it seems there's news of a MRSA-related tragedy virtually every day. Take a look at these reports from the last two weeks of October, 2007 alone:

***Schools closed after teen's staph-related death (10-16-07)***
A high school student who was hospitalized for more than a week with an antibiotic-resistant staph infection has died, and officials shut down 21 schools for cleaning to keep the illness from spreading.

***Bacteria that killed Virginia teen found in other schools (10-18-07)***
Students at a high school in Virginia prepared Thursday for the funeral of a popular classmate, the victim of a deadly drug-resistant strain of bacteria that has turned up in schools across the country recently.

***7th-grader's death sparks parents' superbug concerns; Family to sue for $25 million (10-26-07 – 10-30-07)***
The death of a 12-year-old student in Brooklyn from the staph infection MRSA has prompted fear among parents and students throughout the New York City school system, forcing officials to respond.

***Entire school system to be scrubbed after superbug case (10-27-07)***
An eastern Kentucky school district with one confirmed case of antibiotic-resistant staph infection plans to shut down all 23 of its schools Monday, affecting about 10,300 students, to disinfect the facilities.[1]



NOT ON MY WATCH

## What is MRSA? And How Big a Problem Is It?

MRSA, Methicillin-Resistant *Staphylococcus aureus* is a member of the extremely common staph family of infections. Staph infections are not new. Infections caused by *Staphylococcus aureus* were treated successfully with penicillin in the 1940's. The growing concern in healthcare today is that this pathogen has become increasingly resistant to antibiotic treatment.

According to CDC data, the proportion of antimicrobial-resistant infections in healthcare settings has been growing. In 1974, MRSA infections accounted for two percent of the total number of staph infections; in 1995 it was 22%; in 2004 it was 63%.[2] The Healthcare Cost and Utilization Project of the Agency for Healthcare Research and Quality (AHRQ) reports that patients diagnosed with MRSA infections rose from 1,900 in 1993 to 368,600 in 2005. [3]

In 2005, MRSA caused more than 94,000 life-threatening infections and nearly 19,000 deaths in the United States alone. Of these infections, 85% were associated with healthcare settings (HA-MRSA) and an additional 15% were acquired in the community with no documented healthcare contact. [4]

MRSA infections that are acquired by people who have not been hospitalized or have not had a medical procedure such as dialysis, surgery, or catheterization within the past year are known as community-associated or CA-MRSA infections. MRSA infections in the community usually occur in otherwise healthy people and manifest as skin infections, such as pimples and boils; however, CA-MRSA can cause life-threatening blood infections. Factors that have been associated with the spread of CA-MRSA include: close skin-to-skin contact, poor hygeine, openings in the skin such as cuts or abrasions, and sharing of contaminated items such as towels and sports equipment. [5]

In an article published in **Infection Control Today**, Denise Cardo, MD, Director of CDC's Division of Healthcare Quality Promotion has stated that: "…many families are being affected by these drug-resistant infections. Healthcare facilities need to make MRSA prevention a greater priority. The closer we get to 100% compliance with CDC recommendations, the greater the impact on patient health and safety." [6]

## The Importance of Proper PPE Use in Healthcare Facilities

Multidrug-resistant organisms (MDROs) such as MRSA are known for their ability to survive and proliferate. MRSA can survive for weeks to several months on virtually all surfaces which have had patient or healthcare worker contact, including stethoscopes, pagers, pens, blood pressure cuffs, otoscopes, bed rails, bed tables, thermometers, pulse oximeters, linens, doorknobs, patient charts, patient gowns, floors, furniture, privacy curtains and hydrotherapy tanks. [7]

In addition, studies have shown that clinicians' personal protective equipment (PPE) such as gowns and gloves are frequently contaminated with MRSA and can potentially serve as sources for healthcare worker, patient or environmental contamination. [7]

Therefore, following CDC guidelines for the proper use of PPE is critically important in helping prevent the spread of MRSA.

### EXAM GLOVES

According to CDC Standard Precautions, gloves should be:

- Worn when touching blood, body fluids, secretions and excretions or contaminated items, mucous membranes and non-intact skin
- Selected with the appropriate durability for the task at hand
- Changed between patients, and between tasks and procedures on the same patient after contact with possibly infected material (which may occur when emptying a urine bag or suctioning a patient with a tracheostomy or endotracheal tube)
- Removed promptly after use and before touching non-contaminated items and surfaces
- Hands should be washed when gloves are removed

## Our Solution

### Kimberly-Clark* Exam Gloves

Kimberly-Clark has a range of latex-free exam gloves for virtually every task throughout the hospital. Our popular Purple Nitrile* Gloves deliver a high level of protection, and our Sterling* Nitrile Gloves provide latex-like fit and feel for the ultimate in comfort and protection, without the risks associated with latex allergies. We also offer vinyl gloves for economical protection.

## FACIAL PROTECTION

According to CDC Standard Precautions, masks should be used:

- During procedures and patient care activities likely to generate splashes or sprays of blood, body fluids or secretions
- When caring for patients with open tracheostomies and the potential for projectile secretions
- In circumstances where there is evidence of transmission from heavily colonized sources such as burn wounds

Masks or respirators may reduce the risk of MRSA transmission, probably by reducing the risk of healthcare workers becoming colonized with MRSA by touching their faces after contaminating their hands during patient contact.

## Our Solution

### Kimberly-Clark* Facial Protection

Kimberly-Clark is recognized as a market leader in disposable **fluid protection**, **specialty**, and **standard face masks**, **N95 respirators**, and **eyewear** that help prevent the spread of infection and contribute to a safer environment for both healthcare workers and patients. The many styles and breathable fabrics provide comfort as well as protection.

## PROTECTIVE APPAREL

According to CDC Standard Precautions, gowns should be:

- Worn to protect skin and prevent soiling of clothing during procedures and patient care activities when contact of clothing or exposed skin with blood or body fluids, secretions and excretions is anticipated
- Selected according to the patient care activity
- Removed promptly if soiled, and hands cleansed thoroughly after removal

## Our Solution

### Kimberly-Clark* Protective Apparel

From **Control* Gowns** for light fluid exposure, **Ultra Gowns** designed for the heaviest fluid contact, and **MicroCool* Gowns** for the best in breathable comfort and protection—to scrubs, lab coats, headwear, footwear and more, Kimberly-Clark provides a full line of protective apparel solutions to help reduce the spread of MRSA and other healthcare-associated infections (HAIs) among healthcare workers and patients.

## Our Solution

### Kimberly-Clark* PPE Dispensing System

In addition, the **Kimberly-Clark* PPE Dispensing System** is an advanced tool to help prevent the contact transfer of germs such as MRSA. It is a modular, portable, all-in-one solution for dispensing and storing Kimberly-Clark* PPE and Hand Sanitizer. Its unique, proprietary method of dispensing helps prevent PPE contamination. A spring-assisted mechanism, in combination with our proprietary box openings, eliminates the need to reach into boxes of gloves and masks to pull them out, helping to minimize the risk of contaminating them before they are donned.

## The Importance of Hand Hygiene in Healthcare Facilities

Strict adherence to hand hygiene has been shown to be critically important in reducing the risk of transmission of healthcare-associated infections such as MRSA.[10, 11]

### HAND HYGIENE

According to CDC Standard Precautions, hand washing with soap and water should be performed:

- When hands are visibly soiled or contaminated with blood, body fluids, or body substances
- If hands are not visibly soiled, the use of alcohol-based hand rubs is recommended.[8, 12]
- When caring for patients with spore forming organisms such as *Clostridium difficile*, whether or not gloves are worn

According to the Association for Professionals in Infection Control and Epidemiology (APIC), healthcare providers caring for patients with suspected or confirmed MRSA infection or colonization should perform hand hygiene at the following times:

- Before and after direct contact with patients
- Between procedures on the same patient
- After contact with potentially contaminated inanimate objects in the immediate vicinity of the patient
- After removing gloves[13]

## Our Solution

### Kimcare*Instant Hand Sanitizer

Kimcare* Instant Hand Sanitizer gel provides fast acting anti-microbial action when hands are not visibly soiled or contaminated with body fluid, or when water is not available so you can kill germs on the go. The 62% ethyl alcohol formula makes it useful for just about anywhere, especially healthcare environments.

And dermatologist tested Kimcare* Moisturizing Instant Hand Sanitizer also contains aloe and skin conditioners to moisturize and prevent dry skin.

## The Importance of Reducing Migration of Bacteria into Surgical Sites

Surgical site infections (SSI) are the second most frequently occuring category of healthcare-associated infections, complicating almost 250,000 surgeries in the US each year.[14] According to the CDC's Guideline for Prevention of Surgical Site Infection (SSI), microbial contamination of the surgical site is a necessary precursor of SSI.[15] An increasing proportion of SSIs are caused by antimicrobial-resistant pathogens, such as Methicillin-Resistant *Staphylococcus aureus* (MRSA).

- For most SSIs, the source of pathogens is the patient's endogenous flora from skin, mucus membranes, or hollow viscera.
- When skin or mucus membranes are incised, the exposed tissues are at risk for contamination with endogenous flora.
- The CDC recommends multiple pre-operative skin preparation procedures to reduce the patient's skin flora, including preoperative antiseptic showering, preoperative hair removal and patient skin preparation in the operating room with antiseptic scrubs and solutions.

### Our Solution

#### Kimberly-Clark* IntéguSeal* Microbial Sealant

Kimberly-Clark* IntéguSeal* Microbial Sealant is an important new weapon in the fight against MRSA. IntéguSeal* Microbial Sealant mechanically locks down and immobilizes bacteria found deep in the skin, as well as surface bacteria that survives typical pre-operative prepping, including MRSA, S. epidermidis, and E. coli, helping prevent bacterial migration into surgical incision sites. IntéguSeal* Sealant won't wash off during surgery, and its unique mechanism of action doesn't promote bacterial resistance. Yet, its breathable properties permit normal skin transpiration.[8] Skin can never be completely sterilized. That's why you need IntéguSeal* Microbial Sealant.

## The Importance of Reducing Environmental Contamination

According to CDC Standard Precautions, environmental decontamination using a low or intermediate germicide is essential in the control of MRSA in patient care areas.

Room Decontamination:

- Use dedicated supplies and trained personnel to clean areas under Contact Precautions
- Consider disposable supplies, and change mop heads frequently
- Use the correct cleaning solutions
- Prioritize room cleaning of patients on Contact Precautions

MRSA is susceptible to low and intermediate-level disinfectants, quaternary ammonium compounds, and phenolics (Solutions should be prepared at least daily).[7]


### Our Solution

#### Kimtech Prep* Wipers for the WetTask* System

Because they are compatible with two primary disinfecting agents—quaternary amines and bleach—Kimtech Prep* Wipers for the WetTask* System are ideal for surface disinfection to help fight against outbreaks of MRSA and other serious infectious agents. A recently published white paper demonstrates the enhanced efficacy of the Kimtech Prep* Wiper's meltblown material when used with quaternary amine and bleach, compared to paper wipers or cotton rags.[9]

## The Importance of Keeping Up with MRSA Developments and Strategies


Kimberly-Clark's Knowledge Network* offers the following accredited courses on the subject of MRSA:

### "MRSA: TIME FOR ACTION"

*Staphylococcus aureus* (S. aureus) is an organism commonly found as colonizing flora on the human body. But, when introduced into susceptible individuals in healthcare settings, it can manifest itself into significant infections. In the 1940's, penicillin-based antibiotics were used to treat S. aureus infections; however, resistance to these and other antibiotics quickly followed. Methicillin-Resistant *Staphylococcus aureus* (MRSA) was first documented in the U.K. in 1961, and the U.S. in 1968. Today, MRSA is no longer limited to healthcare settings – it has become an increasing cause of infection in our communities, threatening individuals with no known risk factors for infection.

After completing this program, the learner will be able to:

- Demonstrate awareness of the growing prevalence of Healthcare-Associated MRSA (HA-MRSA) and Community-Acquired MRSA (CA-MRSA)
- Discuss the risk factors associated with the acquisition of MRSA
- Identify the reservoirs for and the modes of transmission of MRSA
- Discuss strategies to identify and reduce or eliminate the transmission of MRSA

This program is available from Kimberly-Clark's Knowledge Network*, free, as a Facilitated Video Education Program or as a Study Guide, both approved by the American Association of Critical Care Nurses (AACN) for 1 Contact Hour. Ask your Kimberly-Clark representative about how your facility can take advantage of this timely educational offering.

Webinar: "Using Personal Protective Equipment for Patient Protection: Making the Case for Contact Precautions Compliance"

http://www.iceinstitute.com/webinar_october.html

The percentage of patients entering the healthcare environment who are colonized with MRSA, VRE or Clostridium difficile is increasing at an alarming rate. The correct and consistent use of PPE is critical to protecting susceptible patients from inadvertent colonization and subsequent development of health care-associated infections. This free webinar addresses:

- The history and current use of medical PPE
- Recent studies on the risks and benefits of PPE for the pediatric and adult patient
- Strategies for helping the health care worker translate contact precautions knowledge into practice

Hosted by Infection Control Today, presented by Suzanne M. Pear, RN, Ph.D, CIC, Associate Director for Infection Prevention practices with Kimberly-Clark Health Care's Scientific Affairs and Clinical Education Department and funded by Kimberly-Clark's Knowledge Network*, this free online educational program is accredited for 1.8 Contact Hours.

For more information about MRSA and Kimberly-Clark solutions, please contact your Kimberly-Clark Representative or visit our website at www.kchealthcare.com.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Commitment to Excellence

If, for any reason, our products do not meet your expectations, please let us know your comments or suggestions for improvement. Your input will result in a concerted effort on our part to meet your requirements. Our goal is to provide quality products that completely meet your needs time after time.

For more information, please call your sales representative, or visit our web site at www.kchealthcare.com.




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