



New Approach to Controlling Superbugs

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Goal

PREVENT HEALTHCARE ASSOCIATED INFECTIONS THROUGH TRADITIONAL INFECTION CONTROL STRATEGIES AND ADDITIONAL TECHNIQUES THAT HELP BRING ABOUT POSITIVE CULTURE CHANGE.

Background

- The first Getting Started Kit (GSK) for controlling antibiotic resistant organisms was full of proven techniques to improve infection rates, but it did not deal with behaviour and culture change
- This new approach is meant to add onto the more traditional quality improvement techniques we talked about in the original GSK, not to replace them entirely
- This kit also shifts the focus from just MRSA, to including VRE and C. difficile, or “Superbugs”
- There is a growing awareness among infection control professionals that education, surveillance, hand hygiene and other traditional infection control strategies are necessary, but not sufficient for reducing rates of AROs, or “superbugs”, in hospitals.
- Positive Deviance is introduced in this kit as a strategy for culture change and a way to engage healthcare communities in reducing infections using solutions identified by the experts - front line healthcare workers themselves.

This Kit is divided into 4 Steps

- Step 1:** Understanding the Challenge. We provide an overview of why antibiotic resistant organisms and the infections they cause are a big deal in our health care facilities. We also talk about why tackling infections in health care is so difficult.
- Step 2:** Learning from the Real Experts. We describe Positive Deviance and how you can use to help health care providers change behavior.
- Step 3:** Spread the Word. We focus on social marketing: helping you get your message to the people you want to influence
- Step 4:** Measuring Progress. We introduce you to our “measurement buffet”: different, easy-to-use measures to give you a clear picture of what’s going on in your institution.

Process Measures for Hand Hygiene

1. Volume of alcohol based hand rub used for the area being monitored per month.
2. Volume of hand hygiene soap used for the area being monitored per month.
3. Hand hygiene compliance for a given area per month
4. The percentage of bed spaces or patient areas being monitored at which the ABHR dispenser is:
 - a) Easily visible and accessible at point of care
 - b) Easy to activate and full (i.e. dispensers are not left empty)

Process Measures for New Approach to Controlling Superbugs:

1. Number of gowns used for the area being monitored per month
2. Boxes of gloves used for the area being monitored per month.
3. Percentage of eligible patient admissions (according to your local facility policy) screened for MRSA for the area being monitored per month.
4. Percentage of eligible patient admissions (according to your local facility policy) screened for VRE for the area being monitored per month.
5. The percentage of "High Touch Areas" in the patient environment where there was appropriate environmental cleaning as demonstrated by the complete removal of the Fluorescent Marker. Compliance by individual HIGH TOUCH AREA is also monitored
6. Reduction in Mean Time to Placement on Contact Precautions for Patients with Known or Probable MRSA, VRE , or *C. difficile* at the Time of Admission.
7. Reduction in Mean Time from Notification by Lab of MRSA, VRE or *C. difficile* Status to Placement on Contact Precautions for Patients identified as MRSA, VRE or *C. difficile* positive (if not already pre-emptively isolated).

Outcome measures for New Approach to Controlling Superbugs

1. Surveillance for new healthcare-associated MRSA clinical isolates.
2. Surveillance for new healthcare-associated VRE clinical isolates.
3. Surveillance for new cases of healthcare-associated *C. difficile* infection.

Other Resources and Guidelines

- Provincial Infectious Diseases Advisory Committee. Routine Practices and Additional Precautions in All Health Care Settings. MOHLTC 2009.
- Provincial Infectious Diseases Advisory Committee. Best Practices for Infection Prevention and Control of Resistant *Staphylococcus aureus* and Enterococci in All Health Care Settings. MOHLTC 2007.
- Provincial Infectious Diseases Advisory Committee. Best Practices Document for the Management of *Clostridium difficile* in all health care settings. MOHLTC 2009.
- For more information on starting a PD initiative visit: www.positivedeviance.org and www.postivedeviance.ca and www.plexusinstitute.org
- Turning Point Social Marketing National Excellence Collaborative, "The Basics of Social Marketing", www.turningpointprogram.org
- McKenzie-Mohr, D. (2006). *Fostering Sustainable Behaviour*. New Society Publishers, British Columbia.

Success Stories

- A number of US hospitals are now using PD to reduce their MRSA rates. Here's what John A. Jernigan, MD, MS, who is an epidemiologist at the National Centers for Disease Control and Prevention (CDC), says about the research conducted in 6 pilot project hospitals that have used the PD approach for the past few years. "Reports of successful multicenter interventions to reduce endemic antimicrobial resistance problems among U.S. hospitals are extremely rare. These extremely encouraging findings add to a growing body of evidence that hospitals can make a difference in their endemic MRSA rates, and further might be able to improve the chances that infected patients have the best possible treatment options available. It shows that hospitals can make an important difference in antimicrobial resistance even at a time when the availability of new antibiotics has stagnated." Here are a few examples of where PD has been used successfully outside of hospital settings:
 - Reduced childhood malnutrition by 65% to 80% in Vietnamese communities, reaching a population of 2.2 million
 - Increased by 50% the number of primary school students in 10 Argentinean schools who stayed in school
 - Reduced neo-natal mortality and morbidity in Pakistan and Vietnam