

## Preventing the Spread of Multi-drug Resistant Organisms (MDROs)

Almost as soon as there were antibiotics, bacteria began acquiring resistance to them. As health care providers, you are all familiar with the challenges of treating patients with multi-drug resistant organisms. While MRSA has been around for many years, we are more recently challenged with an increase in multi-drug resistant gram negative bacteria like ESBLs (Extended-Spectrum Beta-Lactamase Producers) and CRE (Carbapenem-Resistant Enterobacteriaceae). There are resistant strains of tuberculosis (some pan-resistant although rare), drug resistant syphilis, and the latest MRDO being tracked across the world is *Candida auris*.

Prevention of MDRO infection is of utmost importance to us at St David's. These are the ways in which we as a team work to prevent the spread of these organisms:

- Hand Hygiene – seems simple but it's still an important way to prevent the spread of infection.
- Optimal management of vascular and urinary catheters – limiting use of invasive devices to only when medically necessary reduces the introduction of bacteria, subsequent infection, and the risk of spread to other patients.
  - If the catheters must be in place, evidence-based insertion and maintenance practices reduce the risk of infection
- Optimal management of the vented patient – evidence-based care while the patient requires ventilation and then getting the patient extubated as soon as medically appropriate
- Evidence-based practices to prevent surgical site infections (SSI) – appropriate antibiotic prophylaxis, surgical site prep, glucose control, and screening and staph decolonization for certain joint, spine and cardiac surgeries
- Transmission-based precautions – Isolation for targeted MDROs or patients whose condition increases the risk for contaminating their environment (uncontained draining wounds)
- Infection surveillance – Infection Prevention reviews all cultures to identify MDROs and ensure precautions are implemented to prevent transmission
- Antibiotic stewardship – Pharmacists track cultures, sensitivities and antibiotic usage to help providers narrow the spectrum of antibiotic coverage and reduce collateral damage and resistance

Preventing infections will reduce the burden of MDROs in the hospital. The Joint Commission National Patient Safety Goal #7 requires that we provide education to our licensed independent practitioners related to MDROs and Hospital-Associated Infections. Look for additional topics in the Medical Staff Update Newsletters in the coming months. If you have any questions please reach out to your hospital Infection Preventionist.

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