Questions and Answers on Healthcare Associated Infection

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The following are some great questions that were asked by a WRH Team Member, Manmander Matharu and Erika Vitale, Manager, Infection Control has provided the following answers. We thought the questions were very good and as a result all questions and answers should be shared with everyone.

How is the data for hand washing compliance collected?

Hand hygiene compliance is collected through direct observations of healthcare providers during care sequences.

In 2009 the Ministry of Health and Long Term Care provided free education to hospital personnel (mainly Infection Control Practitioners) across the province on a standardized and validated audit process for monitoring the 4 critical moments for hand hygiene in the healthcare setting.

This is based on the World Health Organization's Guidelines on Hand Hygiene in Health Care.

The 4 moments for hand hygiene that are observed are:

1. before initial patient / patient environment contact;
2. before an aseptic procedure;
3. after body fluid exposure risk; and
4. after patient / patient environment contact.

This past week we trained more staff to conduct these audits.

Is it by observation?

Yes, as mentioned above, hand hygiene compliance is monitored through direct observation of healthcare providers.

Where does this observation occur?

The longer a patient stays in hospital the greater the risk of acquiring a healthcare associated infection. For this reason, most observations are conducted in in-patient care areas. Although patients could acquire an infection in any area of the hospital, these areas are where the highest risk of transmission of micro-organisms occur because this is where the patients "live" or spend most of their time. Outpatient areas that are regularly audited include the renal dialysis unit and the emergency department.

Therefore, handwashing compliance is NOT just limited to inpatient areas. It is everywhere in the hospital.

How is it determined that a patient has a hospital acquired infection?

The correct term is actually "Healthcare Associated Infection" and these include those infections that are associated with care received while in hospital. The term has been updated to reflect that many procedures nowadays occur on an outpatient basis, and infection resulting from such procedures, although not acquired during a hospital inpatient stay, as still related to the procedure performed.

Standardized case definitions for HAIs developed by the Centers for Disease Prevention and Control are applied consistently by the Infection Control Practitioners during their routine surveillance.

A HAI is defined as an infection (or colonization in the case of some MRSA or VRE cases) that occurs greater than 48-72 hours after hospital admission, within 10 days after discharge, or 30

days post-op. For an infection (or colonization) to be attributed to healthcare received, there must be no evidence of the infection or colonization present on admission to the facility, and the infection cannot be an extension of a pre-existing condition.

The numbers that we have recently heard about include patients that had NO evidence of infection (or colonization) on admission, and then later acquired an infection or tested positive for MRSA or VRE greater than 72 hours after admission top our hospital.

I do know that patients are tested upon admission. Do they get retested to determine that they have an infection because they were in the hospital?

This depends on the type of infection (or colonization). When a patient develops signs and symptoms of UTI, pneumonia, wound infection, etc, greater than 72 hours after admission, the patient may have a sputum, urine, wound culture, etc. sent to the laboratory to determine the causative agent. When it comes to antibiotic resistant organisms, like MRSA and VRE, many patient may be colonized. To identify these patients so that we can use Additional Precautions, patients are asked questions about risk factors for MRSA and VRE, and then screening sites (nares, and perineum / rectal areas) are tested. The most common risk factors are a previous history of MRSA or VRE, and a stay in acute-care or long-term care facility or nursing home, in the last 12 months.

Why is a patient retested?

During a hospital admission, a patient's risk factors for MRSA or VRE may change, and this may require them to be re-tested. Some of the indications for re-testing include: an admission to a high risk area (e.g. ICU, burn or transplant unit), or an exposure to a roommate who has tested positive for MRSA or VRE. Infection Control Practitioners monitor the changes in patient risk factors and actively identify those that require additional testing.

And is it possible a patient is released from hospital prior to being retested, and then does have a hospital acquired infection, which they are not aware of? In the past I was working on a patient who was labelled MRSA+ in our system, but was not aware. After inquiring with Infection Control it was determined that this person did test positive, but had already been released from the hospital. The results were sent to the patient's family physician, who was

supposed to follow up on it. The family physician did not follow up with the patient, and the patient was surprised when in for the test in our department that the label was on the chart. Is there a way of tracking or following up on patients with this scenario?

Due to the nature of the test, on occasion an MRSA or VRE test result is released after a patient is discharged (the turn around time of a positive test can range form 48 - 72 hours). It is the responsibility of the physician that ordered the test to notify the patient of the test results. It is the responsibility of the facility to notify the most responsible physician (in this case it may be the family physician) of the positive test results. If there are gaps in this system identified then it may be a need to be investigate further to improve the process in the future.