World Health Organization

Hand hygiene and Antibiotic Resistance

WHO Information for Patients and Consumers

What is 'antibiotic resistance'? Sometimes an antibiotic that used to work in the past for a certain type of bacterial infection no longer works. This happens when the bacteria change and so can no longer be killed or inhibited by the antibiotic. The antibiotic (and others of the same "type") is then unable to cure an infection caused by these bacteria. In other words, the bacteria become resistant and can continue to multiply in a patient's body even while taking the antibiotic. The name for this is **antibiotic resistance** and is usually caused by the overuse and misuse of antibiotics.

How do antibiotic-resistant bacteria get into our bodies? Infections may occur when there is an 'entry point' for resistant bacteria to get into the patient's body, usually through a break in the skin, such as a surgical wound or an intravenous line. The most likely way this occurs is by directly touching the 'site' with unclean hands. In health-care facilities where the use of antibiotics is high and poorly regulated, bacteria are more likely to become resistant to antibiotics and can cause health care-associated infections (HAI - infections acquired during health care) which are much more difficult to treat.

Is antibiotic resistance seen in both hospitals and the community? Antibiotic resistance is a worldwide problem seen in hospitals and also in the community.

Why should you be concerned about antibiotic-resistant bacteria? When a person takes antibiotics, generally the bacteria that are causing the infection are killed, but resistant bacteria can develop in the body and multiply, making it harder to treat infections with the antibiotics that are available. These infections can cause serious harm and death. Antibiotic-resistant bacteria can easily spread to vulnerable patients. At times they might also be spread to your family members, schoolmates, or co-workers. It is a public health concern around the globe as more bacteria are developing resistance to antibiotics but the number of antibiotics available to treat infections diminishes. It is important to note that you or your family can pick up antibiotic–resistant bacteria which can sit in your gut or on your skin without causing any harm but which can cause infection in others.

What is the key action that health-care workers should take to stop resistant bacteria getting into patients?

The answer is simple: Hand hygiene!

There are key times when a health-care worker must clean their hands to protect his/her patient from transferring resistant bacteria:

Before a health-care worker touches a patient when first approaching him/her

For example, before performing an examination or helping to move you. WHO calls this indication for hand hygiene **Moment 1**, before touching a patient.

Before a clean/aseptic task

This means before undertaking a care activity involving direct touching of mucous membranes or a part of the body that is not intact skin, for instance during wound dressings, urinary catheter insertion and care, oral care, intravenous (IV) line insertion and care. WHO calls this **Moment 2**; before a clean or aseptic procedure.

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What can patients do to limit the development of antibiotic resistance in hospital?

When patients are in hospital, they can help stop antibiotic-resistant bacteria spreading by cleaning their hands. Here are some examples of when:

a) before touching their own wound dressing or IV line site;

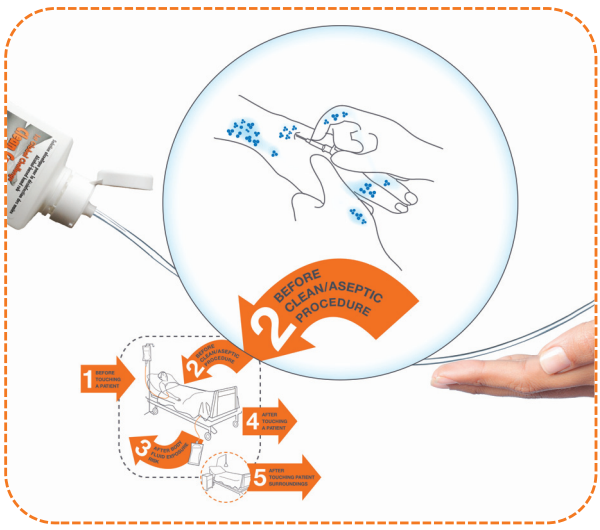
b) after touching other patients;

c) after using the toilet.

Patients can also work alongside their health-care workers, by politely asking if they have cleaned their hands before touching them and before a clean task - WHO has a document on this (http://www.who.int/gpsc/5may/5may2013_patient-participation/en/)

A general call to action for you

- Prevent infections from developing by staying healthy (e.g. through a healthy diet and practicing good hygiene) so that you won't need antibiotics.
- Avoid infections by cleaning your hands regularly in your home, office, school, gym, etc.
- Let a doctor or your pharmacist prescribe an antibiotic appropriate for your infection – don't demand antibiotics. Be aware that they don't generally work for viral infections.
- If antibiotics are prescribed, always ask how the medicine will help your current illness.
- Take antibiotics as prescribed by your doctor or pharmacist, and don't skip or stop them even if you start to feel better.
- Do not save and take antibiotics for another illness. While several infections might appear to be the same, they may not be. Don't share your prescribed drugs with others – this can lead to misuse and facilitate antibiotic resistance. Antibiotics are powerful drugs and can also have negative side effects.
- Encourage your family and friends to only take antibiotics when necessary.



Read more on antimicrobial resistance at http://www.who.int/drugresistance/en/ and read more on hand hygiene in health care at http://www.who.int/gpsc/5may/en/

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