

Can antibiotics sometimes be harmful?

Antibiotics are generally safe and very helpful in fighting disease, but there are certain cases where antibiotics can actually be harmful. These are some things to watch for while taking antibiotics:

1. Side effects of the antibiotics

Some common side effects of antibiotics include nausea, diarrhoea and stomach pain. Sometimes these symptoms can lead to dehydration and other problems.

2. Allergic reaction.

Some people may experience rash, itching and in some cases difficulty breathing.

Impact of multiple drug resistance

1. Treatment failures of serious infections
2. Death due to treatment failures
3. Extended lengths of stay
4. Long – term complications
5. Increase treatment costs



This brochure provides basic general information only, and is to be used as a guide, not as a complete resource on the subject....

If you have any further question, please ask Pharmacy, Epidemiology or check IDSA Guidelines. (Infectious Disease Society of America 2005.)



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PACIFIC HOSPITAL OF LONG BEACH

ANTIBIOTIC SAFETY



Making your health care Safer.

Multiple Drug-Resistant Bacteria Prevention and Control

Example of Drug Resistant Bacteria

MRSA (Methicillin Resistant Staphylococcus aureus) was first recognized during the 1960s today, MRSA is a world wide problem not only in healthcare facilities, but also in the community at large.

VRE (Vancomycin Resistant Enterococci) developed because of use and misuse of antibiotics including vancomycin.

Hospital Epidemiologist and researchers are concerned that bacteria may develop resistance to all previously effective antibiotics, eliminating all current treatment options for these diseases causing bacteria.

There are other types of microbes that may be resistant. These include:

MDR-TB (Multiple – drug resistant Mycobacterium tuberculosis) developed because of patient non-

compliance with taking medications and can be spread from person to person, especially immunocompromised persons such as those with HIV or AIDS

PPNG (Penicillinase producing Neisseria gonorrhoea) developed because of patient non-compliance with antibiotic therapy and overuse of penicillin and can spread from person to person primarily through sexual relations.

Factors that contribute to bacterial resistance

Some bacterial have intrinsic resistance to antibiotics, but resistance can be acquired by bacteria due to:

- 1. Antibiotic use or misuse**
Sometimes antibiotics are given to a patients when they should not be. An example is when a patient is given antibiotic for a viral infection such as cold or flu, or when a culture is obtain yielding normal or endogenous flora of the patient(sputum cultures, single draw of blood with gram positive cocci, culture is not correlated with gram stain etc, etc.)
- 2. Patient non-compliance** Often patients fail to follow the

instructions for when and how much medicine should be taken. For example, sometimes as patients feel better they think they can stop taking their medication, even though they have not taken the full course. This allows bacteria that have not yet been killed to survive and develop resistance.

Patient risk factors for developing multiple drug resistance:

Previous antibiotic therapy

Extended length of stay in hospital

Underlying diseases such as diabetes or immune suppression

Use of invasive devices such as intravascular catheters, urinary catheters or ventilators

Hygiene of the patient during hospitalization (bathing, oral care, wound care, central line care, nutrition)

Age over 65 or low birth weight neonates