Chapter 1. Antibiotics: What They Are and How to Use Them

Important

The different antibiotics work in different ways against specific infections. All antibiotics have dangers in their use, but some are far more dangerous than others. Take great care in choosing and using antibiotics.

Table 1.1. Antibiotics

<table>
<thead>
<tr>
<th>antibiotic group (generic name)</th>
<th>examples of brand names</th>
<th>brand names in your area</th>
<th>see Page</th>
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</thead>
<tbody>
<tr>
<td>PENICILLINS</td>
<td>Pen-V-K 351</td>
<td>enter here</td>
<td>pg 351</td>
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<tr>
<td>AMPICILLINS*</td>
<td>Penbritin 353</td>
<td>enter here</td>
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*Note: Ampicillin is a type of penicillin that kills more kinds of bacteria than do ordinary penicillins.

GUIDELINES FOR THE USE OF ALL ANTIBIOTICS

1. If you do not know exactly how to use the antibiotic and what infections it can be used for, do not use it.

2. Use only an antibiotic that is recommended for the infection you wish to treat. (Look for the illness in this book.)

3. Know the risks in using the antibiotic and take all the recommended precautions (see the GREEN PAGES).

4. Use the antibiotic only in the recommended does—no more, no less. The does depends on the illness and the age or weight of the sick person.

5. Never use injections of antibiotics if taking them by mouth is likely to work as well. Inject only when absolutely necessary.

6. Keep using the antibiotics until the illness is completely cured, or for at least 2 days after the fever and other signs of infection have gone. (Some illnesses, like tuberculosis and leprosy, need to be treated for many months or years after the person feels better. Follow the instructions for each illness.)

7. If the antibiotic causes a skin rash, itching, difficult breathing, or any serious reactions, the person must stop using it and never use it again (see p. 70)

8. Only use antibiotics when the need is great. When antibiotics are used too much they begin not to work as well.

GUIDELINES FOR THE USE OF CERTAIN ANTIBIOTICS

1. Before you inject penicillin or ampicillin, always have ready ampules of Adrenalin (epinephrine) to control an allergic reaction if one occurs (p. 70).
2. For persons who are allergic to penicillin, use another antibiotic such as erythromycin or a sulfa (see p. 355 and 358).

3. Do not use tetracycline, ampicillin, or another broad-spectrum antibiotic for an illness that can probably be controlled with penicillin or another narrow-spectrum antibiotic (see p. 58). Broad-spectrum antibiotics attack many more kinds of bacteria than narrow-spectrum antibiotics.

4. As a rule, use chloramphenicol only for certain severe or life-threatening illnesses like typhoid. It is a dangerous drug. Never use it for mild illness. And never give it to newborn children (except perhaps for whooping cough, p. 313).

5. Never inject tetracycline or chloramphenicol. They are safer, less painful, and do as much or more good when taken by mouth.

6. Do not give tetracycline to pregnant women or to children under 8 years old. It can damage new teeth and bones (see p. 356).

7. As a general rule, use streptomycin, and products that contain it, only for tuberculosis—and always together with other anti–tuberculosis medicines (see p. 363). Streptomycin in combination with penicillin can be used for deep wounds to the gut, appendicitis, and other specific infections when ampicillin is not available (or is too costly), but should never be used for colds, flu, and common respiratory infections.

8. All medicines in the streptomycin group (including kanamycin and gentamicin) are quite toxic (poisonous). Too often they are prescribed for mild infections where they may do more harm than good. Use only for certain very serious infections for which these medicines are recommended.

9. Eating yogurt or curdled milk helps to replace necessary bacteria killed by antibiotics like ampicillin and to return the body’s natural balance to normal (see next page).

WHAT TO DO IF AN ANTIBIOTIC DOES NOT SEEM TO HELP

1. The illness is not what you think. You may be using the wrong medicine. Try to find out more exactly what the illness is—and use the right medicine.

2. The dose of the antibiotic is not correct. Check it.

3. The bacteria have become resistant to this antibiotic (they no longer are harmed by it). Try another one of the antibiotics recommended for that illness.

4. You may not know enough to cure the illness. Get medical help, especially if the condition is serious or getting worse.

IMPORTANCE OF LIMITED USE OF ANTIBIOTICS

1. Poisoning and reactions. Antibiotics not only kill bacteria, they can also harm the body, either by poisoning it or by causing allergic reactions. Many people die each year because they take antibiotics they do not need.

2. Upsetting the natural balance. Not all bacteria in the body are harmful. Some are necessary for the body to function normally. Antibiotics often kill the good bacteria along with the harmful ones. Babies who are given antibiotics sometimes develop fungus or yeast infections of the mouth (thrush, p. 232) or skin (moniliasis, p. 242). This is because the antibiotics kill the bacteria that help keep fungus under control. For similar reasons, persons who take ampicillin and other broad-spectrum antibiotics for several days may develop diarrhea. Antibiotics may kill some
kinds of bacteria necessary for digestion, upsetting the natural balance of bacteria in the gut.

3. **Resistance to treatment.** In the long run, the most important reason the use of antibiotics should be limited, is that WHEN ANTIBIOTICS ARE USED TOO MUCH, THEY BECOME LESS EFFECTIVE.

When used correctly, antibiotics are extremely useful and important medicines. They fight certain infections and diseases caused by bacteria. Well-known antibiotics are penicillin, tetracycline, streptomycin, chloramphenicol, and the sulfa drugs, or sulfonamides.

There are many kinds of antibiotics, and each kind is sold under several ‘brand names’ This can be confusing. However, the most important antibiotics fall into a few major groups: