

MRSA AND CO. – WHAT YOU SHOULD KNOW ABOUT THESE ORGANISMS

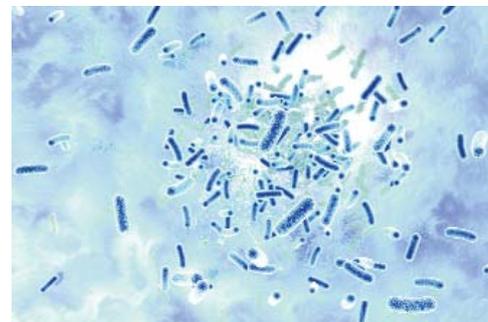


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DEAR READER,

Bacterial infections normally respond well to treatment with antibiotics. However, some bacteria are insensitive to numerous antibiotics. They are called *multidrug-resistant organisms* – in short: MDROs. The most well-known is *methicillin-resistant Staphylococcus aureus* – in short: MRSA. Most antibiotics are not effective against these organisms. There have been frequent reports of late in the media about the risks posed by MRSA and other multidrug-resistant organisms. Many people are worried by these reports.

This Patient Information leaflet outlines for whom multidrug-resistant organisms present a real threat and how you can protect both yourself and others.

At a glance: multidrug-resistant organisms

- Bacterial infections normally respond well to treatment with antibiotics.
- Some bacteria are, however, resistant to many different antibiotics. They are called multi-drug resistant organisms (MDROs). In their case the usual medication doesn't work.
- For healthy individuals, contact with MDROs is usually completely harmless. They don't become ill. However, they may pass them on to other people if they are carriers.
- Individuals with a weakened immune system, particularly in hospitals and nursing homes, are at risk. MDROs can trigger infections in them, for instance in their lungs or on their skin. When they develop an infection, treatment is more difficult because only a few antibiotics still work. In the worst case scenario the infection may become life-threatening.
- To protect against infection, certain hygiene rules should be respected. Regular washing of the hands is very important to prevent the organisms from spreading.

► WHAT CAUSES A BACTERIAL INFECTION?

Bacteria are known as disease-causing organisms. But they also protect our health: many bacteria naturally colonise our skin and the mucous membranes of our mouth, nose, intestines and other organs. Together, they form a protective barrier, making it more difficult for disease-causing organisms to penetrate our bodies. When the immune system is weakened or the skin and mucous membranes are damaged, both foreign organisms and the body's own organisms can enter the body and trigger an infection. Frequent types of bacterial infection are pneumonia, infection of the urinary tract, wound or skin infections.

When the bacteria spread in the bloodstream through the body, the term used is blood poisoning. In the worst case scenario, organ failure may occur. This can be life-threatening. Antibiotics are normally effective in treating bacterial infections. They kill or weaken the bacteria.

► HOW DO MULTIDRUG-RESISTANT ORGANISMS DEVELOP?

Bacteria multiply very quickly and in large numbers. This may change their genetic make-up in such a way that these organisms become insensitive to antibiotics. These bacteria survive antibiotic treatment and pass on their ability to resist. When bacteria are resistant to several antibiotics, the term used is *multiresistance*. In principle, these bacteria are no more dangerous than any others, nor do they trigger infections more frequently. However, once an infection develops, it is far harder to treat. Only a few antibiotics continue to be effective. Laboratory tests can determine which antibiotics can still help and which can't.

Multidrug-resistant bacteria are formed particularly when antibiotics are not correctly administered, this means too often, too short or at an insufficient dose.

► Multidrug-resistant Organisms

► RISK FACTORS FOR MDRO INFECTIONS

Multidrug-resistant organisms are normally harmless for healthy individuals with a good immune system. This means: the risk of disease on contact with these bacteria is very low. Healthy individuals may be carriers of multidrug-resistant organisms without becoming ill themselves. Normally, they don't know they are MDRO carriers. This becomes problematic when they unknowingly transmit these organisms to individuals with a weakened immune system who are particularly at risk of developing infections which are then harder to treat. The following factors increase the risk of catching MDROs:

- Hospital stay during the previous 6 months
- Stay in a nursing home
- Need for permanent care
- Antibiotic treatment within the last 6 months
- Open, larger, poorly healing skin wounds
- Tubes (catheters) in the body, for instance in the bladder
- Diseases which weaken the immune system, for instance diabetes, hepatitis, HIV
- Medication that suppresses the immune system

For healthy MDRO carriers, the organisms can constitute a risk when they undergo surgery. The MDROs can enter the surgical wound and trigger an infection.

► HOW FREQUENT ARE MDRO INFECTIONS?

MDRO infections occur most frequently in facilities that look after sick and weakened individuals, for example hospitals and nursing homes. There are many patients with risk factors in hospitals. That's why the risk of infection is the highest there. In Germany, around 500 000 people develop hospital infections every year, often from the body's own organisms. Around 30 000 of them are caused by multidrug-resistant organisms. Approximately 6 out of 100 hospital infections are caused by MDROs.

► MORE INFORMATION

Sources, methodology and other useful links

You can access all the sources, the methodology document and other useful links here:

www.patienten-information.de/kurzinformationen/quellen-und-methodik/multiresistente-erreger

Patient Information on the subject of "Antibiotics": www.patinfo.org

DOI: 10.6101/AZQ/000375

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► WHAT YOU CAN DO

- The best protection against infection is not to spread disease-causing organisms. This is possible when you respect hygiene rules. Many organisms are spread through direct hand contact. Hence, absolute priority must be given to: **regular and thorough washing of the hands**.
- Do not share personal items like towels, wash cloths and toiletries such as toothbrushes.
- Keep your home clean. Normal household cleaners are sufficient. Special disinfectants may be necessary when a member of your household has an infectious disease or an immunodeficiency. Seek advice from your doctor about this.
- Most disease-causing organisms do not survive temperatures above 60°C. Wash your dishes and laundry regularly at higher temperatures.
- If you are healthy, you can have normal contact with MDRO carriers. You can also hug them. The risk of infection is extremely low. But be sure to wash your hands thoroughly afterwards.
- In hospitals, special hygiene rules must be respected for MDRO carriers or individuals with an MDRO infection to avoid transmitting MDROs to other patients. Please respect the instructions of the nursing staff.
- If you have open wounds or a seriously weakened immune system, you should avoid any contact with MDRO carriers or people with an MDRO infection.
- If your doctor prescribes antibiotics, take them as instructed.
- There is no need for a general test to determine whether you are an MDRO carrier, not even when you have been in contact with a person with an MDRO infection.
- If you need to undergo surgery and are at risk of contracting MDRO, it is advisable to talk to your doctor about whether it might be wise to have a test for MDROs.

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