What you as a patient or visitor can do

Important

The most important means of preventing the spread of infection is disinfecting the hands.

Hand disinfection

 Visitors should disinfect their hands before entering and after leaving the patient’s room. Protective clothing is only recommended in special cases, for example if you wish to help with the nursing care.

 Patients should disinfect their hands after using the toilet and before and after entering their rooms.

Returning home

After being discharged home a person with a multiresistant pathogen can resume his or her everyday activities and pursue social contacts, as before the pathogen was identified. There is no elevated risk for healthy people, pregnant women or children through contact with the person.

If other people in the same household have a severe or chronic illness (for example, children with leukemia or people with HIV infection, a transplanted organ, chronic wounds or inflammatory skin diseases), the most important measure is thorough and frequent hand disinfection to prevent transmission of the pathogen.
Dear patient, dear visitor,

You, the patient, or the person you are visiting has been found to have bacteria that are resistant to particular antibiotics. This leaflet is designed to give you important information and recommendations concerning these pathogens and the hygiene measures that may be necessary to combat them at the Deutsches Herzzentrum Berlin (DHZB).

General information

All human beings carry natural bacteria in their bodies. The skin, mucous membranes and intestine of each person contain bacteria and microbes that are necessary to keep us healthy. When an illness or an accident occurs, these bacteria can lead to an infectious disease. Patients in hospital are often at risk – due to their underlying disease and their possibly weakened immune system – of becoming ill through their own bacteria.

Multiresistant pathogens

There are bacteria that can develop mechanisms that reduce the effectiveness of individual antibiotics or whole groups of antibiotics or even render them ineffective (resistance). Multiresistant pathogens do not react to the antibiotics normally used to combat them in the case of an infection. This does not mean that treatment is not possible but that it will be more difficult and take longer. In most cases, however, multiresistant pathogens do not cause more illness than “normal” bacteria.

The most important multiresistant pathogens

**MRSA** stands for **M**ethicillin **R**esistant **S**taphylococcus **aureus**, which is a bacterium that has become resistant to a particular antibiotic (Methicillin). The non-resistant Staphylococcus aureus is found normally on the skin and mucous membranes. In 20-60% of (healthy!) people it is found in large numbers in the nose and throat, so it does not always make one ill. Under particular conditions, however, it can cause purulent (pus-producing) infections. In the case of infection with MRSA other antibiotics are used to treat the pathogen. Patients with MRSA infection may receive eradication treatment with disinfecting ointments and soaps. Your doctor will be pleased to advise you on this.

**VRE** means **V**ancocycin **R**esistant-**E**nterococci; this is a type of bacteria that is a normal part of our bowel flora but has become resistant to the antibiotic Vancomycin. Colonization of the intestine with VRE requires no antibiotic treatment. Only in the case of a VRE infection should an antibiotic be given that has been shown to be effective.

**MRGN** are **M**ulti**r**esistant **G**ram-**N**egative intestinal and environmental bacteria. **ESBL** stands for **E**xtended-**S**pectrum **B**eta-**L**actamases and covers a large number of enzymes that are produced by particular bacteria under certain conditions. Their production makes the pathogens resistant to different groups of antibiotics. The presence of MRGN/ESBL alone does not mean that antibiotic treatment is required; only when an infection occurs is treatment with an effective antibiotic necessary.

Precautions at the DHZB

For many reasons, patients in hospital are more susceptible to infection than healthy people; lengthy antibiotic treatment itself may destroy the sensitive, healthy bacteria and leave the resistant bacteria untouched. To prevent the bacteria spreading within the hospital, in some cases special measures may be necessary. These include the patient being given a single room and/or the use of barriers (gowns and sometimes masks and gloves). The precautions will differ depending on the type of bacteria and the ward/department. They will be explained to you and you are welcome to address any questions you have to the doctor in charge.

Informing your own doctor and readmission to a hospital

When you are discharged, please give your own doctor the information that you have been found to have multiresistant pathogens. If you are admitted to another hospital please also inform the doctor there. This is important to protect your own health and that of other patients.

It is possible that the multiresistance of the pathogens may be lost in time.

Selected hygiene measures at the DHZB

- In-house hygiene manual, accessible to all staff
- Comprehensive hygiene and disinfection plans for all departments and all work areas
- Inspections to verify compliance with hygiene regulations
- Extensive computer-based recording and use of hygiene-relevant data
- Regular analyses by the Hygiene Committee and implementation of improvements
- Cooperation with the Robert Koch Institute, the State Office for Health and Social Affairs, the State Office for Occupational Safety, Health Protection and Technical Safety, and training centres