



Great Ormond Street Hospital for Children NHS Trust: Information for Families

MRSA

This leaflet explains about *Meticillin Resistant Staphylococcus Aureus (MRSA)*, how it is passed on and how it can be treated. It also explains about things we are doing at Great Ormond Street Hospital (GOSH) to reduce the chance of it spreading.

What is MRSA?

MRSA is short for *Meticillin Resistant Staphylococcus Aureus*. *S. aureus* is a bacterium (bug or germ) that about 30 per cent of us carry on our skin or in our nose without knowing about it. This is called 'colonisation'. The inside of our nose and other moist areas of skin are mostly likely to be colonised by MRSA. Most types (strains) of *S. aureus* do not cause any problems and if they do, are easily treated using standard antibiotic medicines.

However, there are some types of *S. aureus* that cannot be treated with standard antibiotic medicines. This is because the bacterium has 'got used to' the standard medicines and changed itself so that the medicines do not work as well any more. This is called 'resistance'. There are other types of bacteria that are resistant to antibiotic medicines, but MRSA is the most well known type.

How serious is MRSA?

MRSA is not a stronger or more infectious type of bacteria than others. It is only different because the standard antibiotic medicines do not work against it. This means that non-standard antibiotic medicines are needed to treat the infection.

How does someone get colonised with MRSA?

MRSA is mainly spread by direct skin-to-skin contact, although it can also be spread through dusty and dirty equipment and surroundings. If someone who is colonised with MRSA touches the skin of a person who is not colonised, this can transfer the bacteria from one to the other. In a lot of cases, when we test someone for MRSA we find that they are already colonised with the germ. If your child has been in hospital or has had antibiotics recently, he or she is more likely to become colonised with MRSA than other children. Being colonised with MRSA may not cause any problems if a person is well, but they could still pass it on to other people. This is why hand washing is so important. You can stop MRSA spreading just by washing hands before and after contact.

How does someone get infected with MRSA?

MRSA does not cause any problems when a person is well, but it can cause problems when someone has had an operation or any other treatment that breaks the skin. This allows the MRSA germs to get inside the body, where they could cause an infection



or problems with wound healing. As MRSA is spread by direct skin-to-skin contact, it can be passed on through unwashed hands and then spread into the wound site.

How is it diagnosed?

There is no way of telling whether someone has MRSA or not just by looking. The most reliable way of diagnosing MRSA is to take a swab (like a cotton bud) of the inside of their nose and throat or their skin. At GOSH, we check all children admitted as an inpatient using swabs. We also ask for a small sample of faeces (poo) as well, to check for other antibiotic-resistant germs.

The swab is sent to the hospital laboratory to see whether the MRSA germ grows or not. If it does, this shows that the person is colonised with MRSA. A full screening is then carried out, taking swabs from the nose, throat, armpits, hairline, groin and any skin lesions, such as sore areas or catheter sites. Laboratory staff then use this sample of the MRSA to work out which medicines will work best if treatment is needed. At GOSH, the results of these tests are available within three days.

What happens if my child has MRSA?

If your child is colonised with MRSA, we will nurse him or her in a separate room with a closing door if possible. If there are no single rooms available, your child will share a room with other children with MRSA. Our domestic staff will clean the room thoroughly on a regular basis while your child is staying with us, and also after you have gone home.

If your child is colonised with MRSA, he or she will not usually need treatment. However, we will assess each child individually and discuss any plans for treatment with you, your doctors and the infection control team. If your child needs treatment, it might just be with an antiseptic shampoo or body wash if only your child's skin is colonised. If your child has an MRSA infection elsewhere, he or she may need antibiotics given directly into a vein (intravenous infusion). If your child has any tests, scans or procedures planned during the admission, special precautions will be needed, such as changing the order of theatre lists.

Do we need to take any precautions at home or school?

No, there are no additional things you need to do. We always recommend good basic hygiene, such as hand washing before eating and after going to the toilet, and using separate towels. There is usually no need to inform anyone that your child has or has had MRSA unless he or she is in contact with someone who works in a hospital or is currently attending hospital as a patient. The only circumstances where you might consider telling your child's school is if there are other pupils with special needs who may need to go into hospital regularly.

Can MRSA come back once it's been treated?

Yes. We know that if someone is colonised with MRSA and has the germs on his or



her skin, they can move to an operation wound, for example. Equally, if a person's wound has the MRSA germ, this can move to another area of skin. This happens during everyday life activities, such as moving around, washing or eating, and is a normal occurrence.

Treatment can reduce the number of MRSA bacteria to a level where it is difficult to detect through swabbing. So when someone with MRSA is given a standard antibiotic medicine that does not treat MRSA, it is possible that the small number of MRSA bacteria multiply to a number that we are able to detect.

MRSA is easily transferred from person to person, so if your child comes into contact with someone else with MRSA, they can get the germs again, even after treatment.

When will my child be free from MRSA?

At GOSH we declare a child free from MRSA if they meet the following criteria:

- they have had three complete clear screens
- have not been in hospital in the previous six months
- have not been on antibiotics in the previous six months
- have no devices that break the skin barrier, such as, for example, a tracheostomy or a gastrostomy

What is GOSH doing to prevent MRSA spreading?

GOSH has been working hard for a number of years to reduce the spread of MRSA. We screen every child that is admitted for MRSA so that we can nurse them in a separate room or with other children with MRSA. We have low numbers of children with MRSA and when each case is checked, in most cases, the children have developed MRSA before they come to GOSH. Every child who we find is colonised with MRSA has an alert added to his or her computerised patient record.

We strongly encourage hand washing before and after patient contact, by providing alcohol hand rub (an alternative to soap and water) at the entrances to each ward. We encourage you to ask any member of staff who visits your child whether they have washed their hands.

Finally, we are working with our cleaning contractors to improve levels of cleanliness in wards and general areas but we need your help too. There are posters in every ward about how you can help us keep the hospital clean.

If you have any questions, please ask your nurse to contact the ward infection control link nurse

Compiled by the Infection Control team in collaboration with the Child and Family Information Group

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