

Multi-Drug Resistant Organisms (MDRO) Neonatal Information Leaflet for Parents

A Multi Drug Resistant Organism (MDRO) or superbug is a bacterium that is resistant to many commonly used antibiotics. It means that certain drug treatments will not work. Examples of MDROs are:

- Methicillin Resistant Staphylococcus aureus (MRSA)
- Vancomycin Resistant Enterococcus (VRE)
- Carbapenemase Producing Enterobacteriaceae (CPE)
- Extended Spectrum Beta Lactamase (ESBL)
- Gentamicin Resistant Enterobacteriaceae (GRE)

Infection and colonisation with MRDOs

Most MDROs live harmlessly on the skin or in the bowel. This is called colonisation. Sometimes MRDOs can get into the bladder, kidney, lung or blood and cause infection. For neonates, MDROs can enter through IV catheters and ventilation systems causing bloodstream infections or pneumonia. Infections caused by MDROs can be harder to treat since fewer antibiotics work against them. For this reason, all babies in the NICU are screened for MDROs at admission to the unit and once per week or more often if needed.

How antibiotic resistance happens and spreads?

We all have a lot of bacteria living in our body. Some may become resistant after exposure to antibiotics. MDROs can be transferred from a positive person to others by direct contact, with the hands or through contaminated equipment. In a hospital setting, proper decontamination of hands with soap and water or alcohol gel is the best way to stop the spread of MDROs. It is okay to ask the staff if they have cleaned their hands before giving care to you or your baby. The hospital environment is cleaned regularly and medical equipment is cleaned after each usage.

Risk factors for getting MDROs

MDROs are rare in healthy term babies.

Some risk factors include long hospital stay (especially in a neonatal intensive care unit / NICU), being in close proximity to another baby with a MDRO, prolonged use of broad spectrum antibiotics and having an invasive procedure e.g. catheterisation.

What happens if your baby is diagnosed with MDROs?

Babies with MDRO infection will be treated with specific antibiotics that can kill the MRDO. Colonised babies with CPE, VRE, GRE and ESBL do not need any treatment. Your baby may stay in a single room and the staff going into the room will be wearing a gown and gloves. These extra precautions are to stop the spread of an MDRO from one patient to another. To help, Parents are advised to:

- Clean their hands before entering and after leaving the room, after changing baby's nappy and before feeding baby.
- Parents don't need to wear an apron or gloves.
- Avoid visiting other babies in the NICU.
- Expressed breast milk should not be stored in a shared fridge.



How long will the baby carry an MDRO?

Some babies carry MDROs for a short period of time. If your baby needs antibiotics, it may take longer for some MDROs to disappear. No precaution is needed for MRDOs out of the hospital. At home, normal cleaning is sufficient. There are no restrictions on activities or visitors. If your baby is admitted to another hospital, you should inform the nurses/doctors that your baby had an MDRO.