

Infection Prevention & Control Fact Sheet

Antimicrobial Resistant Gram-Negative Bacteria (AMR GNB) for the General Public

What are Gram-negative bacteria?

Gram-negative bacteria commonly encountered in healthcare settings include species such as *Pseudomonas aeruginosa*, *Acinetobacter* species, *Stenotrophomonas maltophilia*, and species belonging to the *Enterobacterales* family, such as *Escherichia coli*, *Klebsiella pneumoniae*, and *Enterobacter cloacae*. These may cause infections such as pneumonia, blood stream infections and urinary tract infections.

What are antimicrobial drug resistant Gram-negative bacteria (AMR GNB)?

AMR GNB are bacteria (or germs) that are resistant to many different antibiotic groups. These bacteria are commonly found in the gut, where they do no harm; however, they can cause infection at other body sites, mainly in patients who are vulnerable due to other underlying diseases, injury or hospitalization. Infection often happens when the bacteria enter the body through an open wound or via a medical device such as a catheter. Infections caused by AMR GNB are difficult to treat, and can cause additional pain to patients with slow wound healing and other complications such as pneumonia or infection in the blood. This can prolong the length of stay in hospital and, in some cases, may cause death.

How does a person get AMR GNB?

AMR GNB can spread from one person to another by touch (usually with hands), for example touching, hugging or shaking hands. It can be spread by touching surfaces that a person positive for AMR GNB has touched such as door knobs, bed rails, tables, counter tops, water taps or medical equipment such as a blood pressure cuff. Like many other bacteria, AMR GNB can get into the body if hands are not cleaned before eating or touching the mouth or an open wound or touching something the person positive with AMR GNB has touched. Hospitals are places where bacteria may be passed from one patient to another. *AMR GNB is most commonly spread by unwashed hands of staff.*

Who gets AMR GNB?

Patients in hospitals who have open wounds, catheters or drainage tubes, and those who are very ill, are most likely to get AMR GNB. Residents living in personal care homes are at a lower risk for AMR GNB. Their risk is increased if they are admitted for a long stay in hospital, receive a lot of antibiotics, or have contact with a person positive for AMR GNB or with equipment contaminated with AMR GNB. Health care workers who follow the suggested precautions are not at increased risk for AMR GNB. Their chances of infection with AMR GNB does not increase even if they have been in contact with a AMR GNB positive person.

If the health care worker has low immunity or is pregnant, the risk is still very small. Those receiving care in community settings are not at increased risk of getting AMR GNB.

What Infection Prevention and Control Measures Are Necessary for People with AMR GNB?

Everyone should clean their hands well at all times. This includes health care workers, people positive for AMR GNB, family and visitors. Good hygiene practices include cleaning hands with alcohol-based handrub (sanitizer) or soap and water for at least 15 seconds. Containment Precautions are used for a patient who is found to have AMR GNB during a hospital stay.

Containment precautions involve:

- Placement in a private room
- Placement of a sign on the room door to alert everyone of the precautions needed
- Use of alcohol-based hand rub (sanitizer) or handwashing by everyone entering and

exiting the room, including the patient

- Use of a long sleeved gown and gloves by caregivers and visitors

Before visitors go into the patient's room:

1. Talk to the nurse.
2. Ask for help if you need it.
3. Clean your hands with hand sanitizer or soap and water. Use soap and water instead of hand sanitizer if you can see dirt on your hands.
4. Put on a yellow gown. Tie the gown at the back.
5. Put on gloves. Pull the gloves over the gown cuffs.

Before visitors leave the patient's room:

1. Take off your gloves
 2. Put them in the garbage.
 3. Take off your yellow gown.
 4. Put it in the SOILED laundry hamper in the patient's room.
 5. Clean your hands when leaving the patient's room.
- If the patient has to leave the room (e.g. medical appointment), hands must be cleaned well and open wounds covered
 - To transfer a patient in a bed or wheelchair which is already in the patient room, clean and disinfect high touch areas (e.g., handles, bed rails) before leaving the room
 - Patients may not go to other areas of the hospital or to the cafeteria

Follow the procedures outlined by the staff to prevent spreading AMR GNB to others.

We understand these measures may be inconvenient, but it is important to protect others from AMR GNB.

Your cooperation is appreciated.

In a long-term care facility or personal care home, precautions may include the above if the person has a AMR GNB infection which cannot be contained (e.g., covering a wound with a dressing).

What about at home?

The risk to healthy family members and friends is very low. The best way they can protect themselves is to clean their hands often. See a health care provider as soon as possible if an infection is suspected; and tell health care providers you are AMR GNB positive. This includes home health care workers, therapists and staff in the doctor's office.

At home, the chance of spreading AMR GNB to family is low

- Cleaning hands well is important for the AMR GNB positive person as well as their family members all of the time. This includes before preparing food, before eating and after using the toilet.
- Shower or bathe regularly
- Use own towels, clothes and bed sheets.
- Do not share personal items such as nail scissors, tweezers, razors or toothbrushes.
- Keep sores or wounds covered, if they share a bed with someone.
- No special cleaning of items in your home (e.g. dishes) is required.

How is AMR GNB detected?

There is currently no screening for AMR GNB, however it can be identified when recovered in samples (e.g. blood, urine).

How is AMR GNB treated?

People who have AMR GNB in their bowel will likely carry it for a long time. You may be treated if AMR GNB is causing symptoms of infection.

*****Cleaning hands is the best way to prevent the spread of germs***