

Screening samples of resistant bacteria important with respect to hospital hygiene (MRSA 12584, VRE 1788, ESBL 4817 etc.)

The bacteria sought for with screening samples tend to be resistant to antimicrobial medicines used to treat common infections. It is good to understand that the MRSA and other bacteria sought for by screening samples are not more contagious and do not cause more severe infections than the strains of the same bacteria which are sensitive to antimicrobial agents and which most of us carry. If the resistant strains of bacteria, however, do cause a serious infection, it may be more difficult than usual to treat such an infection.

Resistance against infections is often poor among hospital patients who are prone to infections. That is why efforts are made to stop the spread of the MRSA bacterium and other antibiotic-resistant bacteria. Among these efforts identification of carriers of these bacteria is very important, and these patients need then to follow strict hygienic rules while they are in the hospital.

Being a carrier of MRSA or other bacteria is not dangerous for the person, who can live without any special restrictions a normal life outside the hospital. The carrier state may disappear over time or efforts to eradicate the resistant bacteria may be made.

The following bacteria are important from the point of view of antibiotic resistance in the hospital environment:

- Methicillin-resistant *Staphylococcus aureus* (MRSA)
- Vancomycin-resistant enterococcus (VRE)
- The ESBL and CPE strains *Enterobacteriaceae*
- Multiresistant strains of *Pseudomonas aeruginosa* and *Acinetobacter baumannii*

Taking the sample does not require any preparation. The samples are taken in the lab, ward or open care department.

Materials

1. Plastic or cardboard container
2. Tube for fecal sample (Fig. 1), if you take the sample at home.
3. Plastic bag and sticker for name



Faecal container with “spoon”.

Procedure

1. Depending on which bacterium is targeted sampling is done by swabbing with a moistened cotton-tipped stick from the nose, throat, arm pits, groins, perineum, anal opening and/or feces.
2. If present, also ulcers or other sites of skin injury may be swabbed.
3. Faecal samples may be collected at home into a container provided by the lab.
4. Defecate into the container or on toilet paper.

Sample to the container: Open the container for the fecal sample. Using the spatula attached to the top, take about one spoonful of feces into the container (don't fill the container) or

sample to the transport tube: Roll the swab belonging to the transport tube in the faeces and transfer the swab into the tube (see figures). Do not discard the liquid or gel from the tube!

5. Close the container or the tube tightly.
6. Please be careful so that the outside of the container doesn't get sample on it.
7. **Write your name, social security number, sampling date and sampling time on the sticker that came with the materials from the lab.**
8. **Affix the sticker to the sample container.**
9. Put the sample container into the plastic bag.
10. Keep the sample container at refrigerator temperature where it can be kept **for 24 hours**.



Picture: Transport tube with pink cap and the sampling swab After sampling, the swab is set into the tube and the shaft is broken at the red line. Do not discard the liquid!

Take the sample container to the laboratory no later than 24 hours after you have taken the sample.

Please contact the department or outpatient clinic if you have questions regarding the sampling procedure for this examination.

You may ask for the result of this examination at the hospital unit where you are being treated.

Reviewed 21.3.2023/ KRJ