

Obtaining Cultures

- I. Environmental Cultures
 - A. Cultures of environmental surfaces or equipment are generally indicated only as part of an epidemiologic investigation; i.e., an outbreak.
 - B. VRE can persist on surfaces for many days; therefore, facilities may elect to conduct focused environmental cultures (before and after cleaning of rooms that housed a VRE-positive patient) especially if experiencing ongoing VRE transmission.
 - C. Collaboration with laboratory and infection control program staff is essential when obtaining environmental cultures.
 - D. Samples for environmental sampling should be obtained as follows:
 - 1. Moisten a swab with sterile saline or break ampule and swab frequently-touched surfaces such as side rails, faucet handles, telephones, commodes, windowsills, etc.
 - 2. Use a separate culturette and label appropriately for each surface cultured.
 - 3. Instruct the laboratory to screen for the specific organism only; i.e., VRE.

- II. Patient Cultures for Termination of Precautions/Isolation
 - A. Sites which should be cultured:
 - 1. MRSA – anterior nares, moist skin surfaces (axillary, groin, perineum), open areas (wounds, gastrostomy tube sites, foley catheter) and sites of previous MRSA.
 - 2. VRE – stool (preferable) or rectal swab, axillary, groin, wounds, foley catheter, colostomy site, umbilicus, and sites of previous VRE.

 - B. Directions for obtaining a specimen for culture:
 - 1. **Nares (nose)**
Obtain a culture using a culturette moistened with sterile saline and gently swirl in each anterior nares (the opening of each nostril) for 2 to 3 seconds. The same swab can be used for both nares. Instruct the laboratory to screen the specimen specifically for MRSA if that is the intent.

 - 2. **Surface cultures of broken skin or weeping lesions**
Before obtaining cultures of broken skin (pressure ulcer, open wound gastrostomy site), gently wipe the area with a sterile gauze pad moistened with sterile saline to remove

exudates and surface flora. Swab site with a culturette using a gentle rolling motion – if purulent, the culture should be obtained from the most heavily involved area. Avoid culturing surface encrustation – unroof the scab to get a good specimen. The anatomical site of the specimen should be clearly indicated on the requisition slip.

3. Stool cultures

If stool specimen is unobtainable, do a rectal swab using a culturette and gently swirl in the rectum. Instruct the laboratory to screen the specimen for VRE only. The laboratory must use appropriate and approved methods for antimicrobial susceptibility testing methods. See Appendix E.

4. Surface cultures of intact skin

Moisten a culturette with sterile saline and gently roll over area to be cultured (axillary, groin). Instruct the laboratory to screen the specimen for the specific organism, i.e., VRE or MRSA.

5. Other cultures

Vascular catheters, urine, sputum, blood, etc. – follow specific laboratory protocols for obtaining appropriate specimens.

C. Number of Sets of Cultures:

1. Patient must be off antibiotics for at least 48 hours before collecting cultures to terminate precautions/isolation.
2. Collect three (3) consecutive sets of cultures at least one (1) week apart. All three must be negative to discontinue precautions. Do not continue to repeat culturing if any cultures are positive.

III. Additional Surveillance Cultures

- A. Surveillance cultures are not warranted in most situations unless there is reason to suspect an infection or in an outbreak situation. Screening of high-risk patients may be implemented in some facilities in order to ensure appropriate precautions for colonized or infected patients. (Refer to SHEA Guidelines.)
- B. Culturing of employees is not indicated except during an outbreak/epidemic.
- C. When VRE-positive patients have been newly identified, the HICPAC recommendations indicate that roommates should be cultured.

- D. Facilities that have many critically ill patients at high risk for VRE infection may choose to conduct periodic cultures of stool specimens or rectal swabs from such patients.
- E. Current literature (i.e., Infection Control and Hospital Epidemiology, February 2002) indicates many facilities nationwide and in North Dakota have initiated screening of high-risk populations on admission to acute-care facilities. High-risk populations may include long-term-care residents, renal (dialysis) patients, intensive-care-unit patients and discharges from other tertiary facilities. Identification of colonized reservoirs allows timely initiation of isolation precautions in an effort to prevent transmission of antibiotic-resistant organisms.