PROCEDURE: WATER QC CULTURE PROCEDURE

I. PRINCIPLE

The Microbiology department occasionally receives water specimens from analyzers or DI systems in other departments to check for contamination. Assessing colony counts will help in monitoring QC and contamination problems within these departments.

Leech hotel water will occasionally be submitted from RIH pharmacy. The purpose of these water cultures is to check for organism growth, specifically *Aeromonas* sp. Identifying these organisms and providing antimicrobial susceptibility testing will help guide the pharmacy team with regards to antibiotic prophylaxis for patients undergoing leech therapy.

II. CULTURE PROCEDURE

A. Pipette 0.1ml of water onto a labeled BAP
B. Try not to swirl water along edge of the plate to avoid contamination.
C. Using a sterile 0.01 loop (green loop), streak plate for quantitation (like a urine culture).
D. Incubate at 37C in CO2 in the respiratory bench rack.

III. INTERPRETATIONS

A. Analyzer/DI water:
    1. Read at 24 and 48 hours.
    2. All organisms are reported with a colony count and identified generically. Definitive identification and susceptibility testing is not required.

B. Leech Hotel water:
    1. Read at 24 hours.
    2. All organisms are reported with a colony count and identified to the species level, if possible. Definitive identification may not be required.
    3. Susceptibility testing should be performed on all eligible isolates.

IV. REPORTING

A. Analyzer/DI water:
    1. No growth – Finalize culture at 48 hours as **No Growth**
    2. Growth – List organisms generically and quantitate with colony counts (cfu/ml)
        1. If there is confluent growth over the whole plate and unable to count individual colonies then quantitate as “Confluent growth”

B. Leech hotel water:
    1. No growth – Finalize culture at 24 hrs as **No Growth**
    2. Growth – Identify and report all organisms to the species level including any applicable susceptibility results and quantitate with colony counts (cfu/ml).
        1. If there is confluent growth over the whole plate and unable to count individual colonies then quantitate as “Confluent growth”

Colony counts for each organism = (the number of colonies x 10)
ie: 10 colonies of a GNR on BAP = 100 cfu/mL GNR

V. REVISIONS

A. 1/20/2026 Updated protocol to include Leech hotel water