



Collection, Culture, and Interpretation of a Throat Culture Screen for Presumptive Identification of Group A Streptococci



Preanalytical Steps

Required Quality Control (QC) Before Collection and Culture

Primary Inoculation Media

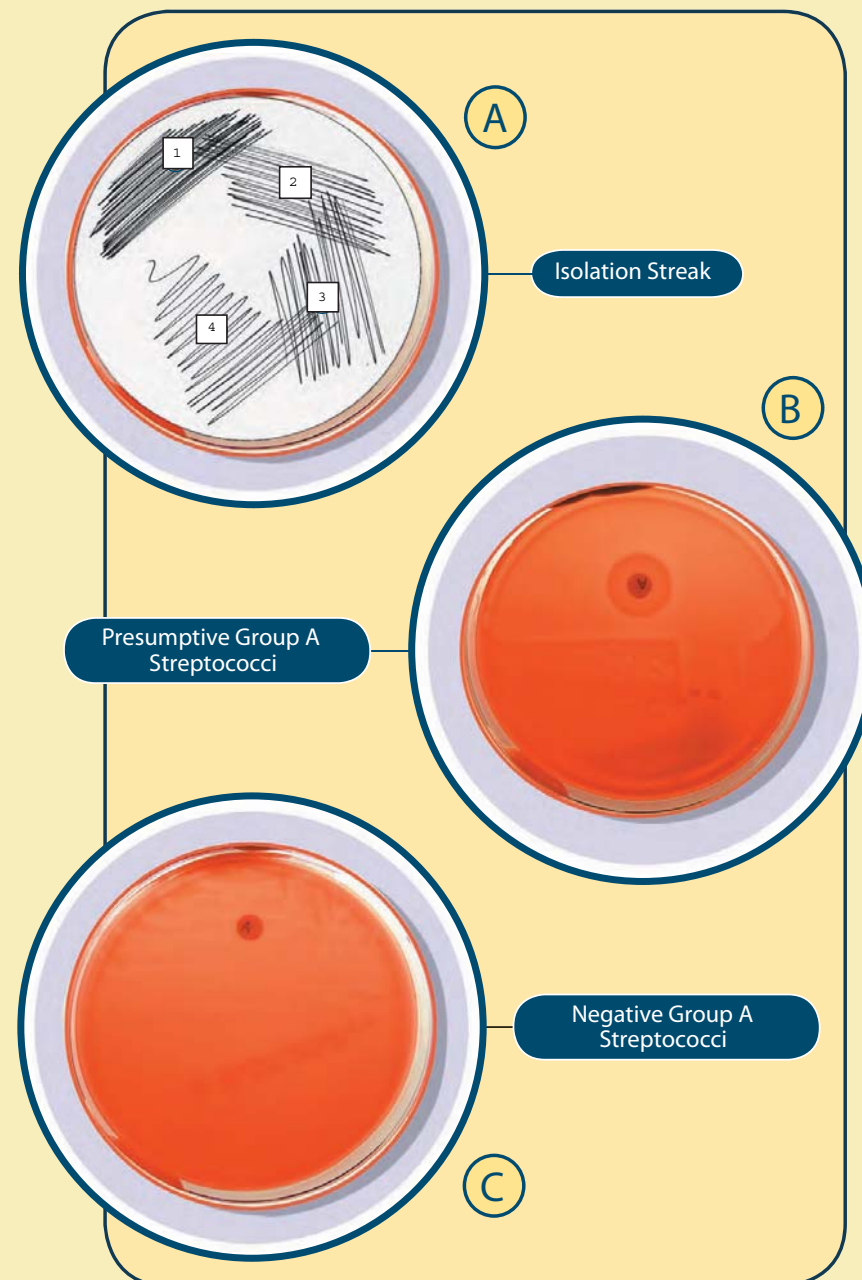
- Use **ONLY** Selective Strep Agar (SSA).
 - Maintain documentation on manufacturer's quality control performance.
- For each new shipment and each new lot number,
 - Document receipt date, lot number and expiration date.
 - Document any variations in the physical characteristics of the media.
- If QC fails,
 - Take corrective action; and
 - Document the action in the corrective action log.

TAXO A Disks

- Use **ONLY** TAXO A Disks (0.04 units bacitracin).
 - Test each new shipment and each new lot number before patient testing by using the following organisms:
Streptococcus pyogenes ATCC 12384 (or equivalent) — Positive Control
Observe the SSA plate for the appearance of translucent or opaque white-to-gray-colored colonies surrounded by a zone of beta hemolysis and a zone of no colony growth around the TAXO A disk.
Streptococcus agalactiae ATCC 12386 (or equivalent) — Negative Control
Observe the SSA plate for hemolysis and growth up to the TAXO A disk.
- If QC fails,
 - Take corrective action; and
 - Document the action in the corrective action log.

Specimen Handling

- Specimen Collection
 - Correct throat specimen collection is critical in recovering Group A streptococci.
 - Review correct collection technique.
 - Collect specimen with a sterile dry swab (cotton, Dacron,™ or calcium alginate) or a transport system.
- Specimen Labeling
 - Date.
 - Patient's name PLUS date of birth or medical record number.
- Specimen Processing
 - Sterile dry swab: Inoculate SSA plate immediately.
 - Transport media swab: Inoculate SSA plate within manufacturer's specified time frame.



Presumptive Group A Streptococci

Isolation Streak

Negative Group A Streptococci

This Guide Is a Joint Collaboration of the Massachusetts Department of Public Health and the National Laboratory Training Network



Contact information:

For detailed information, refer to corresponding Group A Streptococci Procedure Guide.

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Analytical Steps

Test Procedure

Inoculation of Agar Plate

- Use **ONE** SSA plate per patient.
- Label plate bottom, not cover.
 - Include patient's first name, last name, and unique identifier.
 - Include inoculation date.
- Inoculate plate with specimen swab.
 - Cover $\leq 1/4$ of agar surface.
 - Use sterile inoculating loop to streak plate (See Diagram A).
- Apply TAXO A disk.
 - Remove one disk with clean forceps and place disk on first quadrant.
 - Do not allow the forceps to touch agar surface.

Incubation of Agar Plate

- Incubate at 35–37 °C for 24–48 hours.
- Incubate agar plates **BOTTOM SIDE UP**.
 - **DO NOT** incubate agar plates cover side up.
- Examine agar plates at 24 hours; document results. Re-incubate negative agar plates for an additional 24 hours and document final results.

Test Results

- Positive: Appearance of translucent or opaque white-to-gray-colored colonies surrounded by a zone of beta hemolysis and a zone of no colony growth around the TAXO A disk (See plate B).
- Negative: Colony growth up to TAXO A disk with or without beta hemolysis (See plate C).
- Questionable (Follow the full procedure as outlined in the guide for these steps):
 - Moderate-complexity laboratories: Send any culture with questionable results to a reference laboratory for further testing.
 - High-complexity laboratories: Subculture questionable colonies with a TAXO A disk or retest with Rapid Strep test that is FDA-approved for confirmation of Group A streptococci from cultures.

Postanalytical Steps

Report Results

- Presumptive Group A streptococci isolated (See Diagram B).
- Negative for Group A streptococci (See Diagram C).

Quality Assessment Program

- Written procedure.
- Proficiency program enrollment.
- Testing personnel training documentation.
- Annual testing personnel competency documentation
- Monthly QC records review.
- Quality assessment of patient test results.