

TECHNICAL PROCEDURE NO.:	<u>SC029</u>
SUBJECT:	Throat Swab Collection for Rapid A Strep (SS), Strep A Screen Culture (SAC), or routine Throat Culture (THC)
Effective Date:	<u>8/13/07</u>
Supersedes:	<u>11/30/99</u>
Medical Director:	<u>Vincent DeRisio, D.O.</u>
Site Medical Director (IRL):	_____
Medical or Scientific Director (of discipline):	_____
Written By:	<u>Barbara Jennings; revised by L. Portwood</u>
Annual Review:	_____
DATE REMOVED FROM SERVICE:	_____

All specimen material should be considered potentially hazardous and thereby handled according to practices of Universal Precautions.

PRINCIPLE:

Throat Cultures are most frequently obtained for the diagnosis of Streptococcal pharyngitis and less commonly for the diagnosis of pharyngitis due to *Neisseria gonorrhoeae*, *Corynebacterium diphtheriae*, *Bordetella pertussis*, other bacteria or viruses.

Streptococcal pharyngitis is suggested when observing an inflamed, swollen pharynx in a patient complaining of throat pain, difficulty on swallowing and secondary symptoms as fever and headache. Purulent (containing pus) exudates over the posterior pharynx and tonsil area can also be observed.

Adequate sampling of the area of inflammation or exudate is necessary for a successful culture or Group A antigen screen.

It is of great importance to know, before collecting the throat sample, what pathogen(s) is suspected. A rapid direct antigen test for Group A Streptococcus or Streptococcus A Culture can be performed from the same swab specimen. Two swabs must be collected to provide adequate sample.

SPECIMEN:

Swabs of posterior pharynx (back of throat)

REAGENTS - SPECIAL SUPPLIES AND EQUIPMENT:

Rapid Strep A Antigen or Strep A Culture: BD CultureSwab™ #4320109 (Red capped, sponge) containing 2 swabs

Throat Culture (Routine): BD CultureSwab Plus™ #4320117 (blue capped, with gel) containing 2 swabs

Gonorrhea Culture (preferred): BD CultureSwab Plus™ with charcoal #4320121 (black capped, black gel) containing 1 swab

Viral Culture: (acceptable media includes)

- UTM medium for transport of Viruses, Chlamydia, Mycoplasma & Ureaplasma; Healthlink; (red topped tube w/ 3 mL pink/red fluid)
- Microtest M4 microbr transport tube (blue topped tube w/ pink fluid)

Tongue depressor

Light source

Disposable gloves

CALIBRATION: N/A

QUALITY CONTROL: N/A

USE OF LABORATORY INFORMATION SYSTEM: N/A

PROCEDURE:

The Method of collection of throat swabs is the same for Strep A, other bacteria or viruses. However the transport medium for various bacteria and viruses is different.

1. Prepare by assembling materials: tongue depressor and proper swab transport.
2. Wash hands thoroughly and put on gloves.
3. Explain to patient what you are about to do. Be sure to have some “signal” for the patient, to indicate to you, if he/she is becoming nauseated.
4. A bright light, from over your shoulder, will help to illuminate the oral cavity of the patient.
5. Peel open the package containing the swabs and transport, being careful not to contaminate the swabs. Snap off and discard the cap on the tube transport.
6. Have patient tilt head back, breath deeply open mouth wide and say “Ah.” This serves to lift the uvula and aids in reducing the gag reflex.

7. Use tongue depressor to gently depress the tongue and look for areas of inflammation (redness) and exudate (pus).
8. Pull the red capped - 2 swabs (or blue capped with gel - 2 swabs) out of the package.
9. Guide the swabs over the tongue into the posterior pharynx (back of throat).
10. **Every effort should be made to avoid touching the swabs to the tongue, teeth, roof of the mouth or the inside of the cheeks.**
11. Carefully but firmly rub the swabs over:
 - i. Several areas of pus or inflammation
 - ii. Over the tonsils (or tonsillar crypts if tonsils have been removed)
 - iii. Posterior pharynx
 - iv. (See illustration)
12. Remove swabs carefully from the mouth, again avoid touching the swabs to the tongue, teeth, roof of the mouth or the inside of the cheeks.
13. Insert swabs completely into the tube transport.
14. Label tube transport with patient's first and last name, date and time of collection, specimen type (throat) and your initials.
15. Remove gloves and wash hands thoroughly.
16. Check that the requisition is completely filled out indicating all patient information and any special requests (i.e. diphtheria, etc.)
17. Viral cultures are collected using the swabs in viral transport pack. The swab(s) is placed into the conical tube and snapped off.
18. Transport swabs to laboratory as soon as possible. Red, blue and black capped transports are stable at Room temperature for 24 hours. Viral transport is stable at refrigeration temperature up to 48 hours.

CALCULATION/INTERPRETATION: N/A

REPORTING RESULTS: N/A

NORMAL RANGE: N/A

CRITICAL VALUES: N/A

LIMITATIONS OF THE PROCEDURE:

1. Adequate sampling of the area of inflammation or exudate is necessary for a successful culture or antigen screen.
2. Rapid Strep A Antigen and Strep A Culture test only for the presence or absence of Beta-hemolytic Streptococcus Group A. Routine Throat Culture, checks for Streptococcus Group A, other Beta-Streptococcus, Haemophilus, species, and other potential respiratory pathogens.
3. If *Bordetella pertussis* is suspected, special transports must be obtained from the Children's Hospital Laboratory prior to the collection of the throat swabs.
4. Throat culture for *Neisseria gonorrhoea* is available, but must be collected in proper transport (see above) and clearly indicated on requisition.

PROCEDURAL NOTES:

Any additional requests other than Streptococcus Group A (Gonorrhoea, diphtheria, etc.) must be clearly written on the requisition.

ALTERNATIVE METHOD: N/A

REFERENCES:

1. Color Atlas and Textbook of Diagnostic Microbiology, 5th ed. Koneman, E.W., Allen, S.D., Janda, W.M., Schreckenberger, P.C., Winn, Jr., W.C. Lippincott, Philadelphia. 1997.
2. A Guide to Specimen Management in Clinical Microbiology, 2nd ed. Miller, J. M., ASM Press, Washington, D.C. 1999.