Clinical Laboratory Department POLICY AND PROCEDURE

POLICY NUMBER: 1155
VERSION: 4

SUBJECT: Cultures for Fungus and to Rule Out Yeast

Principle:

Specimens received for mycology culture are processed, plated onto appropriate media, incubated and examined at appropriate intervals for growth of fungi and/or yeast. Yeasts are identified as Candida albicans in-house, or sent to a reference lab if they are not C.albicans and need further identification. Fungi deemed clinically significant are transported to a reference lab for identification.

Specimen:

1. All specimens shall be processed in the bacteriology hood.
2. Mycology media include:
    a. Sabouraud Dextrose media
    b. Inhibitory Mold media
3. Cultures are incubated at room temperature.
4. Specimen acceptability and processing remains the same as for routine bacteriological culture with the following exceptions:

    a. Sterile body fluids:
        i. are to be centrifuged at 1500-300 RPM for 15 minutes.
        ii. Decant supernatant into a labeled tube if chemistries are ordered. Otherwise, decant supernatant into a biohazard container.
        iii. Be sure to leave 1.0 to 1.5 ml of sediment in bottom of tube.
        iv. Inoculate 0.5 ml of sediment onto mycology media.
    b. Urines:
        i. Pour 10cc from a well-mixed specimen into a sterile tube and centrifuge at 2000 RPM for 15 minutes.
        ii. Decant supernatant into a labeled tube if chemistries are ordered. Otherwise, decant supernatant into a biohazard container.
        iii. Be sure to leave 0.5 ml of sediment in bottom of tube.
        iv. Inoculate 0.1 ml of sediment onto mycology media using a sterile loop.

    c. Skin scrapings, nails, hairs:
        i. Specimens should be submitted in a dry, sterile closed container.
        ii. Place specimen directly onto media surface using sterile forceps.

    d. Stool specimens are not acceptable for fungal culture.

Procedure:

1. Yeast Cultures
    a. Precaution: Yeast cultures are handled in the same manner as bacterial cultures.
    b. Cultures are examined once a day, for growth of yeast for 1 week. If on Monday, it is less than 1 week, hold for an additional week.
    c. Growth of yeast is worked up in the following manner:
        i. Suspicious Growth → Wet Prep. If bacteria, report as for a negative for yeast.
        ii. If yeast is seen → Germ tube. If positive, report as C.albicans. If negative, subculture to both a SabDex plate and a ChromAgar.
        iii. If the ChromAgar is not green, then send SabDex agar to reference lab for idententification. Report as "yeast seen, sent to reference lab for ID." If ChromAgar is green, then can report as C.albicans.
        iv. If the source is from a sterile site, then add the C.albicans QC organism to the ChromAgar in a separate quadrant. If the unknown organism is a darker green than the QC strain of C.albicans, then it could be C.dublienses, and the SabDex must be sent to a reference lab for identification. Report as "yeast seen, sent to reference lab for ID."
    d. Report negative results as "No Yeast Isolated" using the Microbiology Coded Response Sheet.

2. Fungal Cultures
    a. Cultures are examined once a week, preferably each Monday, for growth of yeast and/or fungi.
    b. Yeast isolates are handled as described in Yeast Culture above.
    c. No wet preps or manipulation of any kind shall be performed on any suspected mold isolates.
    d. Fungal isolates are sent to a reference lab for identification. Report as "Mold isolated, sent to reference lab for ID" using the Microbiology Coded Response Sheet.
    e. Hold all cultures for 4 weeks regardless if an organism has already been isolated. Recovery of one organism does not preclude recovery of a slower growing organism in the same culture.
    f. A preliminary report of "no Fungi isolated" is sent at 1 week (or less than 1 week if on Monday, the culture is not a full week old), and at 2,3 and 4 weeks if no fungi are isolated using the Microbiology Coded Response Sheet. It is not necessary to add culture in progress as this should be obvious to the physicians due to their preliminary status.

References:

Manual of Clinical Microbiology, ed. 4, Lennette, E.H., et al, editors. American Society for Microbiology, Washington, D.C., 1985.

Medically Important Fungi: A Guide to Identification, ed. 2., Larone, D.H., Elsevier Science Publishing Co., Inc., New York, 1987.

Color Atlas and Testbook of Disgnostic Microbiology, ed. 3, Koneman, E.W., et al., editors, Lippincott Col, Philadelphia, 1988.

Bailey & Scott's Diagnostic Micrioiology, ed. 8, Baron, E.J. and Finegold, S.M., C.V. Mosby Col, St. Louis, 1980.

Approved By: Brian Yee (PHYS SPEC PATHOLOGY)	
Date: 03/24/2017	**Original Date:** 02/14/1991
Reviewed: 03/24/2017	**Next Review Date:** 03/24/2018
Revised:	6/27/96lg-no sputolysin for fungal cx 7/3/2003db-HDHS added 4/15/2004db-submit in closed container, ref lab from OV to Quest 10/11/05lg-use chromagar 5/24/10 jh-changed format, ref lab from Quest to "ref lab", no Id of yeast, added use of fungal blood cx bottles. 6/18/13 jh time of holding r/oyeast only corrected. 12/12/14jh formatted for PPM 12/22/14jh changed R/O Yeast c. iii. To if ChromAgar is green from SabDex is green. 3/21/17jh changed approver to Dr.Yee, added unnecessary to use culture in progress if still preliminary report
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