

TML\MSH Microbiology Department Policy & Procedure Manual	<b>Policy # MIVRESP\10\v02</b>	Page 1 of 2
Section: <b>Respiratory Tract Culture Manual</b>	Subject Title: <b>Sinus/Antral Specimens</b>	
Issued by: <b>LABORATORY MANAGER</b>	Original Date: September 25, 2000	
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## SINUS/ANTRAL SPECIMENS

### **I. Introduction**

Acute sinusitis commonly involves upper respiratory tract organisms such as *S. pneumoniae*, *H. influenzae*, *M. catarrhalis*, *S. aureus*, *B. cepacia*, *P. aeruginosa*, Group A streptococcus and fungus. A moderate to heavy pure growth of other Gram negative bacilli should also be considered significant. Anaerobic culture is done on request only. Nasal and nasopharyngeal specimens are unacceptable for diagnosis of sinusitis since there is a poor correlation with sinusitis and are cultured for MRSA only.

### **II. Specimen Collection and Transport**

See [Pre-analytical Procedure - Specimen Collection QPCMI02001](#)

### **III. Reagents / Materials / Media**

See [Analytical Process - Bacteriology Reagents\\_Materials\\_Media List QPCMI10001](#)

### **IV. Procedure**

A. Processing of Specimens:

See [Specimen Processing Procedure QPCMI06003](#)

a) Direct examination:

- i) Gram stain - Examine for and quantitate the presence of pus cells and organisms.
- ii) Fungifluor - Forward to Mycology Section for staining and interpretation.

b) Culture:

<b>Media</b>	<b>Incubation</b>
Blood Agar (BA)	CO <sub>2</sub> , 35°C x 48 hours
Haemophilus Isolation Medium (HI)	CO <sub>2</sub> , 35°C x 48 hours
MacConkey Agar (MAC)	CO <sub>2</sub> , 35°C x 48 hours

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<b>Media</b>	<b>Incubation</b>
Inhibitory Mold agar (IMA)*	O <sub>2</sub> , 28°C x 4 weeks
Esculin Base Medium (EBM)*	O <sub>2</sub> , 28°C x 4 weeks
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If anaerobic culture requested, <b>add</b> :	
Kanamycin Vancomycin Agar (KV)	AnO <sub>2</sub> , 35°C x 48 hours
Fastidious Anaerobic Agar (BRUC)	AnO <sub>2</sub> , 35°C x 48 hours
Fastidious Anaerobic Broth (THIO)	O <sub>2</sub> , 35°C x 48 hours
*Forward inoculated fungal media to Mycology section for incubation and work-up.	

#### B. Interpretation of cultures:

Examine the BA, HI and MAC plates after 24 and 48 hours incubation and the KV, BRUC and THIO after 48 hours incubation.

#### C. Susceptibility testing:

Refer to Susceptibility Testing Manual.

### VII. Reporting

Gram stain: Report with quantitation the presence of pus cells and organisms.

Culture:

Negative report: “Commensal flora” or “No growth”.  
“No anaerobes isolated” if anaerobic culture is requested.

Positive report: Quantitate and report significant isolates with appropriate sensitivities. Report “Commensal flora” if also present.

Telephone all positive Group A streptococcus isolates to ward/ordering physician.

### VI. References

P.R. Murray, E.J. Baron, M.A. Pfaller, R.H. Tenover, R.M. Tenover. 2003. Manual of Clinical Microbiology, 8<sup>th</sup> ed. ASM Press, Washington, D.C.

H.D. Izenberg. 2003. Nasal Sinus Cultures, 3.11.9.1 in Clinical Microbiology Procedures

PROCEDURE MANUAL

TORONTO MEDICAL LABORATORIES / MOUNT SINAI HOSPITAL MICROBIOLOGY DEPARTMENT

Handbook, 2<sup>nd</sup> ed. Vol.1 ASM Press, Washington, D.C.