POLICY STATEMENT	Anaerobic bacteria are important pathogens in a wide variety of human infections and can occur anywhere in the body. Virtually all anaerobes involved in human infections originate from normal flora on mucosal surfaces. Disruption of this barrier (surgery, trauma, vascular stasis, or other disease states) provides an opportunity for these organisms to penetrate deeper tissues and to cause an infection. In other cases anaerobic bacteria from areas where they are part of the normal flora may move into areas normally free of microorganisms to produce an infection at that site.
PURPOSE	This procedure provides technical instruction for the performance of the Anaerobic Cultures.
SCOPE	This procedure applies to testing personnel authorized to perform testing. This group includes, but is not limited to Laboratory Technologists as well as leads and supervisory personnel.
RESPONSIBILITY	All the above personnel are responsible for following the Anaerobic Cultures procedure without exception. In addition, testing personnel are also responsible for evaluating the results and taking proper remedial action.
RELATED DOCUMENTS	MICR 6140 R Specimen Processing MICR 6305 R Bacterial Cultures MICR 6416 R Catalase MICR 6420 R Cefinase MICR 6465 R RapID ANA II

SPECIMEN HANDLING

See *MICR 6140 R Specimen Processing*

The best specimen for anaerobic culture is tissue, biopsy and aspirates collected with a needle and syringe. Swabs should be discouraged. However, if they must be used, a culturette containing Aimes gel and two swabs should be used.

CULTURE WORKUP

1. After 24 hours verify that the anaerobe bag is anaerobic and reincubate anaerobic bag without opening.
2. After 48 hours, open the anaerobic bag and examine plates for growth.
3. If no growth, reincubate the CDC Blood agar plate for an additional 72 hours. Discard the CDC KV plate if it has no growth.
4. Compare the anaerobic culture growth to the aerobic culture growth.
5. Subculture different colony types to two blood agar plates. Incubate one aerobically and one anaerobically for 48 hours.
6. After 48 hours check isolation plates to determine if the isolate is growing aerobically or anaerobically.
7. Perform Gram stain on each colony growing anaerobically.
8. Set up RapID ANA II on each anaerobic isolates if pure.
9. Perform beta-lactamase
10. If more than two anaerobes are present do not work up.
11. Open the original anaerobe bag at 5 days, if additional colony types have grown on primary plate, isolate and identify as above.

REPORTING

- After 24 hours incubation, enter “Culture in Progress”
- If the culture is no growth after 5 days of incubation report as “No growth of Anaerobes"
- If more than two anaerobes are present, report as “Mixed Anaerobic Flora”.
- If anaerobes are isolated, report the identification
- Enter all results in the appropriate spot in the Meditech workcard.

REFERENCES

Garcia, Lynne, *Clinical Microbiology Procedure Handbook,* 3rd Edition, 2010, Volume 1, Section 4, Anaerobic Bacteriology