

Standard Operating Procedure

SOP Number: **02-18-5628**
Service: **Research**
Operating Section: **Laboratory**
Unit: **CMF**
Title: **Performing an Aerobic Culture**

Purpose: To detect and identify aerobic organisms in a sample.

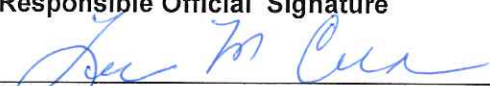

Procedure:

- 1) Log the sample into the lab accession log book and assign a lab accession number. The sample should be collected from the site using aseptic technique either on a swab or into a sterile collection container.
- 2) Plate the sample onto blood agar and maconkey agar and transfer the swab or remaining sample into a tube of sterile standard methods or thioglycolate broth. Incubate at least 24 hours in a 37°C incubator.
- 3) Examine plates for growth. If colonies are not isolated, replate (on the same type of agar plate from which the colony is sampled) and incubate at 37°C for 24 hours. Continue to replate until organisms are isolated and move to the next step for further identification.
 - a) Initial identification of colonies (for each different organism judged by the difference in their physical characteristics);
 - (1) Gram stain one of each different isolated colony
 - (i) Gram positive cocci must undergo a catalase test
 - (ii) Gram negative organisms must undergo an oxidase test
 - (2) Identify organisms using appropriate Analytical Profile Index (API) test strips:
 - (i) Gram positive, catalase positive = Staph
 - (ii) Gram positive, catalase negative = Strep
 - (iii) Gram negative, oxidase negative = 20E
 - (iv) Gram negative, oxidase positive = 20NE

Results:

- 1) Gram Positive Bacillus will be reported as "Gram Positive Bacillus" without further identification.
- 2) Other organisms will be reported to the nearest genus and species if possible.
- 3) Samples may be sent out to an outside laboratory if identification cannot be made in house.

APPROVALS

Responsible Official Signature		Date	
		3/01/18	
QA Signature	Date		
	03/01/2018		
Version #2	Effective Date	Supersedes #1	Original Date
			08/12/15