

# STOOL CULTURES

**PURPOSE** This procedure is a standardized format for the reading, evaluating, and reporting of stool cultures

**SCOPE** This procedure is to be used with the M403 Microbiology Augmentation Set.

**PROCEDURE** Stool cultures (i.e. feces, rectal, ostomy) are generally screened for enteric pathogens which include:

- *Salmonella sp.*
- *Shigella sp.*
- *Campylobacter sp..*
- *Vibrio sp.*
- *Shiga Toxin producing E. coli*

**24 HOUR SCREEN:** (the plates are read as follows)

STEP	ACTION
1	<p><b>MACCONKEY PLATE:</b> Select any non-lactose fermenting (clear) colonies from the MAC plate and perform automated identification.</p> <p>Quantitate only on the work document. The presence of any lactose fermenting colonies is noted on work document, but no work up is performed. Hold the plate until workup is completed.</p>
2	<p><b>HEKTOEN PLATE:</b> Select any green or green/black colonies from the Hektoen plate and perform automated identification.</p> <p>Quantitate only on the work document. The presence of any orange colonies is noted on the work document, but no work up is performed. If the growth is good on the Hektoen and no suspicious colonies are seen the plate may be discarded at 24 hours. Otherwise, hold the plate until work up is completed.</p>

3	<b>BAP:</b> Flood plate with oxidase reagent. Subculture positive colonies to BAP/MAC or TCBS. Perform automated ID if necessary.
4	<b>Campylobacter/Shiga Toxin producing E.Coli:</b> Stool specimens may be tested directly by EIA kits, or for increased sensitivity, samples that has been incubated for 18 to 24 hours in TS broth.

**48 HOUR SCREEN: (the plates are read as follows)**

STEP	ACTION
1	<b>MACCONKEY PLATE:</b> This plate is retained until any NLF workup is completed.
2	<b>HEKTOEN PLATE:</b> This plate will be available for review only if a suspicious colony type is pending identification.

**\*\*NOTE:** All automated identifications must have an oxidase performed from the blood agar purity plate. If oxidase positive, automated identification must be re-evaluated using the bioanalysis menu selection.

**RESULTS**

STEP	ACTION
1	Stool cultures that are negative for enteric pathogens are reported as "No Enteric pathogens isolated"
2	When reporting isolated pathogens the isolate is NOT quantitated.  i.e. <i>Vibrio parahaemolyticus</i> or <i>Salmonella species</i> <i>Etc.</i>
3	Antimicrobial susceptibility testing is not routinely performed on these isolates. Consult with the Microbiology Director regarding performance

	of antimicrobial susceptibility if it is requested.
4	If Campylobacter and Shiga Toxin producing E. Coli EIAs are positive or indeterminate, report them as such.

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## REFERENCES

Isenberg, Henry D., ed. Clinical Microbiology Procedures Handbook, Vol. 1., Washington, D.C.: The American Society for Microbiology, 1993 pp. 1.10.1-1.10.25.

Murray, Patrick ed. Manual of Clinical Microbiology: American Society for Microbiology, 7<sup>th</sup> edition. Washington, D.C. 1995, pp. 483-516.

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