TITLE: Stool Culture

PRINCIPLE/PURPOSE: The enteric pathogens of gastrointestinal infection or diarrheal disease are shown to cause disease in 4 ways: 1. producing a toxin, 2. by invading the mucosal epithelium, 3. by adhering to the intestinal mucosa, and 4. by growing within or close to the mucosal epithelium.

The invasive nature of microorganisms is thought to contribute to the pathogenesis associated with the species of enteric pathogen, resulting in increased diarrheal disease.

The culture of fecal material for the isolation of enteric pathogens of gastrointestinal disease is performed by inoculating stool onto several selective and differential media to maximize bacterial yield. The enteric pathogens most frequently examined for in the United States are Campylobacter, Salmonella, Shigella, E. coli 0157:H7 and the presence of Clostridium difficile toxin.

SCOPE: This procedure applies to the processing of stool culture samples within the ARMC clinical lab.

SPECIMEN:

 Patient Preparation: Specimens for stool culture will not be accepted if greater than 3 days after patient admission without consultation with Microbiology Staff. Patients with persistent diarrhea after this time period are more likely to have Clostridium difficile toxin. No more than 2 stool specimens per admission will be accepted for stool culture without consultation with Microbiology Staff. Additional specimens are not likely to yield additional information.

 Type: Initially, the stool is collected in a bed pan. It is important to avoid urine contamination of the specimen. Select the bloody or mucous area of the fecal specimen. If the stool is formed, it should be rejected since the patient is being tested for diarrheal disease. Rectal swabs can be submitted, but are not the specimen of choice. The swab is passed beyond the anal sphincter, rotated and withdrawn.

 Handling Conditions: Fill the Para-Pak C&S transport container (orange top) with 2-3 scoops of specimen up to the fill line. Recap the transport container and invert several times to mix the specimen. Handle all specimens as potentially infectious material. Once in the solution, the specimen is good for 96 hours (4 days).

Fresh stool specimens without preservatives may be used but it must be plated within 1 hour of collection.

EQUIPMENT AND MATERIALS:

Equipment:

Inoculating loop

35o C, non-CO2 incubator

 Materials: MacConkey, Hektoen, Blood agar, GN broth, sterile swabs, sterile inoculating loops, spot oxidase and indole reagents and the pipettes contained in the ImmunoCard STAT EHEC kit. (These pipettes are placed in a cup under the hood labeled “STOOL”. If the cup is empty, open a kit in the refrigerator and place some more in the cup for future use)

Storage Requirements:

All media is stored at 5o C. The stool should be placed in the Para-Pak C&S transport medium as soon as possible and stored at room temperature afterwards. If sample is NOT in Para-Pak C&S, it must be cultured within 1 (one) hour of collection.

QUALITY CONTROL: Refer to ImmunoCard STAT EHEC and CAMPY QC requirements.

PROCEDURE:

NOTE: Always use biological safety when opening a container. Always wear gloves when handling a specimen.

1. Obtain a HE, MAC, BAP, and a GN Broth.
2. Using two patient identifiers compare your accession label with your specimen label. If your patient’s specimen label only has a name and date of birth, match it with the date of birth on the patient’s worksheet because the date of birth does not appear on the accession label. (If the patient’s specimen contains only their name then reject it and give it back to the phlebotomist. You must have two patient’s identifiers.)
3. Place the patient’s specimen and the corresponding plates under the hood. Then place an accession label on each plate, the GN broth, and the patient’s specimen.
4. After labeling each plate then turn the plates over with the lid facing upwards and remove the cap off the GN broth.
5. Inoculate the plate media as follows depending on the type of sample:
* Para-Pak C&S (Modified Cary Blair Medium-preserved specimen)

Using the pipette described in the Material Section remove some liquid from the patient’s specimen, lift the lid off the media plate, drop 1 or 2 drops of specimen on each. (Place the drops towards the top somewhere on each plate.)

Using the same pipette place 175 µl from the specimen (second mark from tip of pipette) into the GN broth. Replace the cap on the GN broth.

Using a loop, spread the drops on each plate into 4 quadrants. (You can use one loop to spread the drops on each plate).

* Fresh Stool (Formed or Soft)

 Using a swab dipped into the fresh sample, lift the lid on each plate and rub a little of the specimen in an area somewhere at the top of each plate. You may dip the swab back into the stool specimen to get enough sample on each plate.

Use a loop to streak the specimen into 4 four quadrants on each plate for isolation.

Remove the cap from the GN broth. Using a cotton tip applicator swab insert the end of the swab without the cotton tip into the stool specimen and place a 3-4 mm round pellet of the formed stool into the 8 ml of BN broth. (You may use a wooden cotton tipped or just a wooden stick.)

* Fresh Stool (Liquid)
* Using the pipette described in the Material Section remove some liquid from the patient’s specimen (unpreserved) and after lifting the lid off the media plate, drop 1 or 2 drops of specimen on each. (Place the drops towards the top somewhere on each plate.)
* Using the same pipette place 50 µl from the specimen (first mark from tip of pipette) into the GN broth. Replace the cap on the GN broth.
* Using a loop spread the drops on each plate into 4 quadrants. (You can use one loop to spread the drops on each plate).
1. Incubate plates and broth in the non CO2 incubator labeled “Urines and Stools”at 35o C.

DAY 1:

1. Examine plates at 12-24 hours for potential pathogens. See Table 1.

TABLE 1

INTERPRETATION OF GROWTH ON CULTURE MEDIA

|  |  |  |  |
| --- | --- | --- | --- |
| ORGANISM | HEKTOEN | BAP | MacConkey |
| *Salmonella sp.* | Blue or blue-green with black centers |  | colorless |
| *Shigella sp.* | Blue or blue-green w/o black centers |  | colorless |
| *Yersinia* | Yellow |  | colorless |
| *Vibrio Species* |  |  | Maybe colorless |
| *Aeromonas* |  | GrayOxidase Positive | Pink or colorless |
| *Plesiomonas shigelloides* |  |  | colorless |
| *Edwardsiella tarda* | Black center |  | colorless |

ORGANISMS OF INTEREST:

 *Salmonella sp.*

 *Shigella sp.*

 *Campylobacter sp.*

 *E. coli 0157-H7*

 *Vibrio(upon physician request)*

 *Yersina (upon physician request)*

 *\* S. aureus*

 *\* Yeast*

 \* *Pseudomonas aeruginosa*

 \* THESE ARE TO BE WORKED UP IF THEY ARE PREDOMINATING AND

 NORMAL FLORA IS REDUCED.

The following organisms cause diarrhea and may be “accidentally” isolated. They should be reported.

 Aermonas sp.

 Plesiomonas shigelloides

 Edwardsiella tarda

1. Evaluate each plate for potential pathogens as described below and based on the following guidelines:

Rare – growth present in 1st quadrant only (1 to 2 colonies)

Light – growth present in 1st quadrant

Moderate – growth present in 2nd or 3rd quadrant

Heavy – growth present 4th quadrant

1. For each plate examine for the following:

NORMAL FLORA

* Gray, oxidase negative, colonies on Sheep blood agar
* Pink (lactose fermenter) colonies on MacConkey (MAC) agar
* Bright orange to salmon pink colonies with or without black centers on Hektoen (HE) agar.

AEROMONAS or PLESIOMONAS

* Perform oxidase testing on predominant or beta hemolytic isolates from the Sheep blood agar plate. Aeromonas will be pink to colorless on Mac and Plesiomonas will be colorless.
	+ If the isolate is oxidase positive then rule out Aeromonas or Plesiomonas especially if they are beta hemolytic.
	+ Perform an indole. Aeromonas and Plesiomonas are both indole positive.
* If you are unsure if the isolate is a gram negative rod then verify with a gram stain.
* Quantitate the amount of colonies present using the guidelines above and document on the worksheet.
* Perform a GNI for definitive identification. We do not perform sensitivities on these organisms.
* In the computer use the code “HPP” for “Holding for a potential pathogen” because you are only ruling out the presence of a possible pathogen.
* If the isolate identifies as an Aeromonas or Plesiomonas with a 90% or above confidence level then repeat the isolate again and report in the computer as a free text that you are ruling out the presence of Aeromonas or Plesiomonas and definitive identification is to follow. You may place this in the comment section which is the second screen.

STAPH AUREUS

* Look for possible Staph colonies which may be *Staph aureus*. These colonies may appear as Beta hemolytic, white, or yellow or a variation of any of these together. However, Staph should only be worked up if predominating and normal flora is reduced.
* If the possible Staph colony is predominating, perform a gram stain, Staph latex, catalase, and Beta lactamase. The following results should be obtained:
* Gram stain – gram positive cocci
* Catalase – positive
* Latex – positive
* Beta lactamase – may be positive or negative
* If the above criteria is met, program it in the Vitek as Staph aureus perform an AST for the sensitivities. Enter the beta lactamase result. If the above criteria is not met then it is normal flora.
* In the computer use the code “HPP” which means “Holding for a potential pathogen” because you are only ruling out the presence of a possible pathogen.
* If Vitek reads *Staph aureus* greater than or equal to 90% confidence level without other contraindications, quantitate the amount and comment that “normal flora is reduced”.
* Charge one aero meth and one sensitivity.

PSEUDOMONAS

* You should only report this organism if it is predominating and other normal flora is reduced. It may appear as beta hemolytic, gray, spready, or metallic looking on the blood agar plate.
* It is a gram negative rod that will also appear as a non lactose fermenter (clear) on MacConkey agar.
* Perform an oxidase from a suspected colony from the Blood plate
	+ it should be oxidase positive.
	+ Do not perform an oxidase from the MacConkey plate because it could yield a false positive result. If you do not have a well isolated colony to confirm the oxidase then sub one of the colonies for pure to another blood plate and analyze tomorrow.
* Pseudomonas species will be indole negative.
* Some pseudomonas species will exhibit a grapey odor.
* If you smell the grapey odor and there are colonies on the blood plate that look like Pseudomas and non lactose (clear) colonies on the MacConkey agar plate, isolate for pure culture onto another Blood plate and MacConkey plate.
* If the next day it still looks and smells the same but it is not a predominating organism with other normal enteric flora reduced then you can document on the worksheet a grapey odor and “OK”. You do not have to perform a GNI to confirm.
* For predominant suspected Pseudomonas colonies set up a GNI and AST for definitive identification and sensitivities.
	+ If the suspected Pseudomonas isolate has a grapey odor, oxidase positive, and indole negative then you can call the isolate a *Pseudomonas aeruginosa* in the Vitek and just perform sensitivities.
* In the computer use the code “HPP” which means “Holding for a potential pathogen” because you are only ruling out the presence of a possible pathogen.
* If Vitek reads Pseudomonas greater than or equal to 90% confidence level without other contraindications then quantitate the amount and comment that “normal flora is reduced”.
* Charge one aero meth and one sensitivity

YEAST

* You should only report this organism if it is a predominating organism and other normal flora is reduced.
* It may appear as white colonies with or without “feet” Some yeast appear as creamy.
	+ If you are unsure then perform a wet prep by placing a colony on a clean glass slide with a drop of saline or sterile water and cover with a coverslip. View the slide under the microscope using 40X high power. You can also perform a gram stain.
* If the colony is a yeast and there are sufficient isolated colonies to make a turbidity of 1.80 to 2.20 using the densitometer then set up a yeast ID.
* If there are not enough well isolated colonies then sub a colony to a SAB plate and perform the yeast ID from this sub tomorrow.
* In the computer use the code “HPP” which means “Holding for a potential pathogen” because you are only ruling out the presence of a possible pathogen.
* If the yeast Id identifies a Yeast with a greater than 90% confidence level or other contraindications then report the definitive identification and type in a comment that “normal flora is reduced”.
* Charge one aero meth.

SALMONELLA

* This organism will appear gray on sheep blood agar, clear on MacConkey agar, and black on HE agar. If your MAC plate has clear colonies and your HE plate has green to blue-green colonies with black centers and there are enough well isolated colonies on the MacConkey plate to obtain a turbidity of 0.50 – 0.63 on the densitometer, perform a GNI and AST for definitive identification and sensitivities.
	+ Do not perform a GNI or AST from the colonies on the HE plate. If there are not enough well isolated colonies, sub a clear colony to another blood and Mac plate and then perform studies from the pure isolate.
* If the Vitek identifies Salmonella, regardless of confidence level, repeat the GNI from the purity plate isolate.
* Set up a TSI slant which are located in the Microbiology refrigerator.
	+ To inoculate the TSI slant, remove a colony from the purity plate with a sterile inoculating needle or loop and streak the TSI slant and then stab the slant without going to the bottom.
	+ The TSI slant will go into the non CO2 incubator labeled Urines and Stools.
	+ Salmonella species will be K/A with H2S production so the slant will appear as black. If there is black in the center of the TSI slant only then this may indicate *Salmonella typhi.*
	+ If the Vitek reported the sensitivities without “Inconsistent” results or other problems initially then you do not have to repeat the sensitivities.
	+ Salmonella isolates report ampicillin, ciprofloxacin, Septra, 3rd generation cephalosporin and chloramphenicol if extra-intestinal.
* If the repeat GNI indicates Salmonella and the TSI is K/A with H2S production (black) then sub the isolates to 1 TSA slant.
	+ You can reprint accession labels to label the TSA slant.
	+ Make sure to also write the date of birth on patient’s accession label.
	+ The TSA slant will go to the North Carolina State Lab of Public Health for serotyping
* Place the TSI slant in the rack, top shelf, in the back of the Urine and Stool non-CO2 incubator. Keep the TSI slant in case the other TSA slant gets lost or broken. Refer to the procedure “Sending Specimens to State Lab” in procedure Manual I labeled Quality Control/Quality Assurance
* In the computer report the quantity present of probable Salmonella species. For example, “Light growth probable Salmonella species”
* Then also state “sending to State lab for serotyping”
* Call isolate to the doctor or nurse in charge of the patient depending on whether the patient is an inpatient or outpatient. It is not considered a critical value so you do not have to enter the comment code “CV” for critical value.
* This isolate also needs to be reported to the Health Department following the procedure located in the Communicable Diseases manual.
* If the patient is an inpatient then print a copy to printer #42 which is to Infection Control and document this was performed in the computer. For example “Printed to Infection Control 01/01/14”. If the patient is an outpatient then you do not need to print a copy to Infection Control.
* After the report is sent to the Health Department also document this on the worksheet and in the computer. For example “Reported to the Health Department”
* Leave the report in preliminary status until the confirmation is resulted from the State Lab
	+ Place the worksheet behind the State Lab tab in the “Specimen” notebook.
* Once the isolate is confirmed (serotyped) from the State Lab then remove the patient’s worksheet from behind the State lab tab and finalize the report.
* Make sure to document that the serotyping was performed by the NC State Lab of Public Health.
* Finalize and charge one aero meth ID and one sensitivity.

SHIGELLA

* This organism will appear gray on sheep blood agar, clear on MacConkey agar, and green to blue-green on HE agar.
* If your MAC plate has clear colonies and your HE plate has green or blue-green colonies and there are enough well isolated colonies on the MacConkey plate to obtain a turbidity of 0.50 – 0.63 on the densitometer, perform a GNI and AST for definitive identification and sensitivities.
	+ Do not perform a GNI or AST from the colonies on the HE plate. If there are not enough well isolated colonies, sub a clear colony to another blood and HE plate and then perform studies from the pure isolate.
* If the Vitek identifies Shigella, repeat the GNI from the purity plate isolate and set up a TSI slant which are located in the Microbiology refrigerator.
	+ To inoculate the TSI slant, remove a colony from the purity plate with a sterile inoculating needle or loop and streak the TSI slant and then stab the slant without going to the bottom.
	+ The TSI slant will go into the non CO2 incubator labeled Urines and Stools.
	+ If the slant appears red (K) over yellow (A), with or without gas and without black then it may indicate Shigella.
* If the Vitek reported the sensitivities without “Inconsistent” results or other problems then you do not have to repeat the sensitivities.
	+ Shigella isolates report ampicillin, ciprofloxacin, Septra, 3rd generation cephalosporin and chloramphenicol if extra-intestinal.
* If the repeat GNI indicates Shigella then sub the isolate to a TSA slant.
	+ You can reprint accession labels to label the TSA slant. Make sure to also write the date of birth on patient’s accession label.
	+ The TSA slant will go to the North Carolina State Lab of Public Health for confirmation
	+ Place the TSI slant in the rack, top shelf, in the back of the Urine and Stool non-CO2 incubator. We keep the TSI slant in case the other TSA slant gets lost or broken. Refer to the procedure “Sending Specimens to State Lab” in procedure manual I for instructions on how to send this TSA slant to the STATE.
* In the computer report the quantity present of probable Shigella species. For example, Light growth probable Shigella species”
* Also state “sending to State lab for confirmation” in the comments
* This isolate needs to be called to the doctor or nurse in charge of the patient depending on whether the patient is an inpatient or outpatient. It is not considered a critical value so you do not have to enter the comment code “CV” for critical value.
* This isolate also needs to be reported to the Health Department following the procedure in the Communicable Disease Manual.
* If the patient is an inpatient then print a copy to printer #42 which is to Infection Control and document this was performed in the computer. For example “Printed to Infection Control 01/01/14”. If the patient is an outpatient then you do not need to print a copy to Infection Control.
* After the report is sent to the Health Department also document this on the worksheet and in the computer. For example “Reported to the Health Department”
* Leave the report in preliminary until the confirmation is resulted from the State Lab
	+ Place the worksheet behind the State Lab tab in the “Specimen” notebook.
* Once the isolate is confirmed from the State Lab then remove the patient’s worksheet from behind the State lab tab and finalize the report.
* Make sure to document that the serotyping was performed by the NC State Lab of Public Health.
* Finalize and charge one aero meth ID and one sensitivity.

E. coli 0157

* The EHEC STAT ImmunoCard kit is performed on the GN broth if it is cloudy. Refer to this procedure for more information.
* If you performed a GNI on a non lactose fermenter from the MAC plate and the confidence level is greater than or equal to 90% without contraindications for E. coli then E. coli 0157 is not present.
	+ However, if the non lactose fermenter colonies read less than 90% confidence level or have contraindications or low discrimination then you can perform a Mug test. Refer to the Mug test located in procedure manual III.
	+ If the organism is Mug positive it is not E. coli 0157.
	+ If it is Mug negative then repeat the GNI.
	+ If it still has any issues listed above then sub 2 TSA slants from the isolated colonies.
		- Send one of the slants to the NC State Lab for definitive ID and document in the computer that you are sending to state to rule out the presence of E. coli 0157.
		- Place the other TSA slant in the Urine/Stool incubator. Refer to procedure “Sending Specimens to State Lab” in Manual I.
* If the GN broth results are positive from the EHEC STAT Immunocard kit the type in “PEHEC” which decodes “pathogenic E. coli detected”.
* All E. coli 0157 detections from the GN broth or from the Vitek combined with Mug results need to be called to the doctor or nurse in charge of the patient depending on whether the patient is an inpatient or outpatient. It is not considered a critical value so you do not have to enter the comment code “CV” for critical value.
* Document in the computer and on the worksheet the amount of possible E. coli 0157 as follows: “Light amount possible E. coli 0157” and type in sending to state for confirmation in the comment section.
	+ If you are sending a positive GN broth then pipette some of the specimen into another GN broth labeled with the patient’s name and accession number.
	+ Save this aliquot in the back rack of the Urine/Stool incubator. You will send the actual GN broth to the state.
* This isolate also needs to be reported to the Health Department following the procedure in the Communicable Disease manual.
* If the patient is an inpatient then print a copy to printer #42 which is to Infection Control and document this was performed in the computer. For example “Printed to Infection Control 01/01/14”. If the patient is an outpatient then you do not need to print a copy to Infection Control.
* After the report is sent to the Health Department also document this on the worksheet and in the computer. For example “Reported to the Health Department”
* Leave the report in preliminary until the confirmation is resulted from the State Lab and place the worksheet behind the State Lab tab in the “Specimen” notebook.
* Once the isolate is confirmed from the State Lab then remove the patient’s worksheet from behind the State lab tab and finalize the report. Make sure to document that the serotyping was performed by the NC State Lab of Public Health. Finalize and charge one aero meth ID.
1. If broth tube exhibits growth after incubation, proceed with ImmunoCard STAT EHEC procedure. (Refer to ImmunoCard STAT EHEC procedure). If the GN broth is clear you do not have to perform the ImmunoCard STAT EHEC procedure and report NEC for “No pathogenic E. coli detected”.
2. Document all steps and results on worksheet. Initial and date worksheet. Enter

 results in LIS.

1. Perform ImmunCard STAT CAMPY on original stool specimen. (Refer to ImmunoCard STAT CAMPY procedure).
	1. If the kit indicates the sample is negative then report “NOCAM” which decodes “NO CAMPYLOBACTER ANTIGEN DETECTED”.
	2. If the kit indicates the sample is positive then type in “PCAMP” which decodes “POSITIVE CAMPYLOBACTER AG (JEJUNI/COLI).
		1. All positive campylobacter antigens need to be called to the doctor or the nurse in charge.
		2. If the patient is an inpatient then the report needs to be printed to Infection control printer #42 and to the Health Department. It should be documented who, time and date the result was called. It is not considered a critical value so you do not use the codes “RB” or “CV”.
		3. You should also document the report was printed to infection control as follows: “Printed to Infection Control on 09-14-14” . It should also be documented that the report was reported to the Health Department as follows: “Reported to the Health Dept”.

DAY 2:

1. Examine plates and GN broth again. If the GN broth is still clear then leave in the comment NEC but if it is cloudy then perform the EHEC STATE ImmunoCard procedure and report accordingly as stated above.
2. Examine plates on Day 2 for all organisms and the circumstances as stated above. Refer to table below for a quick reference tool.
3. If culture does not contain suspicious colonies or all suspicious colonies have been ruled out as normal flora then you will type in the code NSS which decodes to “No Salmonella or Shigella isolated”.
4. If the EHEC STAT Immunocard kit is negative from the cloudy GN broth then type in the code “NEC” for “No pathogenic E. coli detected”.
5. If the CAMPY STAT Immunocard kit is negative from the patient’s stool specimen then type in the code “NOCAM” which decodes for “No Campylobacter antigen detected”.

Note: NSS, NEC, and NOCSM are used on final report together in that order if no pathogens are isolated. If no gram negative rods are present, please include that information as a comment. For example: “No gram negative rods are present”. If normal flora is reduced with growth mostly on the blood agar plate and rare to light growth on the MAC or HE plate, then report “Normal flora is reduced”.

1. Save a representative plate of any potential pathogens that were worked up in the Biohazard waste room and the GN broth. Discard all others.

TABLE 2

WORKUP OF SUSPICIOUS COLONIES

|  |  |  |
| --- | --- | --- |
| ORGANISM | IDENTIFICATION | AST |
| *Salmonella**Shigella* | Perform Vitek ID*Salmonella-* inoculate to TSI slant to detect S. typhi. To inoculate TSI, use a needle, streak and then stab the slant. (H2S production in the center of the TSI only may indicate S. typhi.At time of TSI inoculation, also inoculate a TSA slant to be sent to State Lab. Hold TSI until ID comes back from State Lab. | *Salmonella* and *Shigella-* ampicillin, ciprofloxacin, Septra, 3rd generation cephalosporin and chloramphenicol if extra-intestinal. |
| *Aeromonas* | Oxidase and indole positive and may be hemolytic. | none |
| *Edwardsiella* | Indole positive | none |
| *Vibrio* | Oxidase positive | none |
| *Plesiomonas shigelloides* | Oxidase and indole positive | none |

CALCULATIONS: N/A

INTERPRETATION & REPORTING RESULTS:

 Reference Ranges:

Enteric pathogens are normally not present except in active disease or carrier states.

Procedures for Abnormal Results:

Report all Salmonella sp., Shigella sp., Campylobacter sp., & Shiga Toxin Producing E. coli. to the Infection Control nurse (if an inpatient), ordering physician or nurse in charge, and Alamance County Health Department (see separate procedure in the Communicable Disease Manual).

Reporting Format:

Semi-quantitate growth using the following terms:

* RARE- 1-2 colonies
* LIGHT GROWTH-1st quadrant
* MODERATE GROWTH- 2nd quadrant
* HEAVY GROWTH-final quadrant
* SUB-growth only on subculture

The following LIS decodes are the most common used for result entry

* HPP-holding for possible pathogen
* NG24-No growth in 24 hours
* NG48-No growth in 48 hours
* NSS-No Salmonella or Shigella isolated
* NEC-No pathogenic E.coli detected.
* PEHEC-Pathogenic E. coli detected
* NOCAM-No Campylobacter antigen detected.
* PCAMP-Positive for Campylobacter AG (jejuni/coli)

 Note: NSS, NEC, and NOCAM are used on final report together in that order if no pathogens are isolated. If no gram negative rods are present, please include that information as a comment. If *Yersinia Aeromonas, Pleisimonas, Edwardsiella* and/or *Vibrio* are isolated, report in LIS.

PROCEDURE NOTES:

Any pure culture isolated from a stool can be potentially pathogenic.

No more than 2 specimens per patient will be accepted without prior consultation with the laboratory.

The laboratory will not accept any stool specimen for culture if the patient has been in the hospital for more than three days.

An assay for C. difficile toxin should be performed on all patients over 6 months of age with clinical significant diarrhea and a history of antibiotic exposure or chemo-therapy.

RELATED PROCEDURES:

1. ImmunoCard STAT EHEC
2. ImmunoCard STAT Campy
3. Communicable Disease Testing
4. Packaging Specimen for Reference Lab

LIMITATIONS OF THE PROCEDURE:

Some enteric pathogens are shed intermittently and may not be detected in a single culture, multiple cultures may be necessary.

REFERENCES:

ASM; Clinical Microbiology Procedures Handbook, ASM, Sec.1.10, 2010

ASM: Manual of Clinical Microbiology, ASM, Washington, 8TH Edition, pg. 906, 2009.

PARA PAK C&S Insert, Meridian Bioscience, Inc. Cincinnati, Ohio Rev. 3/2010.

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SOP HISTORY PAGE

SOP Number: MIC-705

SOP Title: Comprehensive Stool Culture

Written By: Jacee Farmer/Shaye Yarbrough

Manual in which Hard Copy of this SOP is located: Microbiology Manual IV

Distribution: Sharepoint

Supersedes Procedure: MICRO- 745

SOP CHANGE CONTROL

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