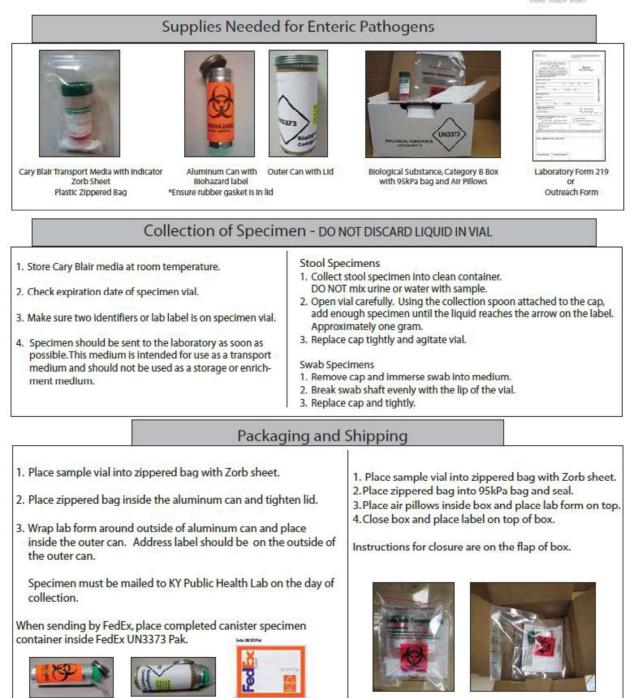
Appendix D: Collection and Submission of Clinical Samples

- 1) Collection and Packaging of Enteric Pathogens
- 2) Collection and Packaging of Norovirus Specimens
- 3) Lab Form 219
- 4) Lab Form 275
- 5) Request for Laboratory Kits and Supplies
- 6) Reference List of Tests
- 7) Bacteriology Flow Charts
- 8) WGS Flow Chart

Collection and Packaging of Enteric Pathogens

Collection and Packaging of Enteric Pathogens





Refer to 49CFR 173.199 for current regulations on packaging and shipping of Category B infectious substances KY Division of Laboratory Services (502)564-4446

03/2017

Collection and Packaging of Norovirus Specimens

Collection and Packaging of Norovirus



*Remel package insert



Supplies Needed for Norovirus

Kit Components:

Cold Pack

95kPa Bag with absorbent

Two vial pack - Empty vial and Cary Blair Vial in zip bag with Zorb Sheet Outreach/Lab Form 275

Collection of Specimen

1. Check expiration date of specimen vials.

- 2. Make sure two identifiers or lab label is on specimen vial.
- Fill out lab or Outreach form completely.

*Stool Specimens

1. Collect stool specimen into clean container. DO NOT mix urine or water with sample.

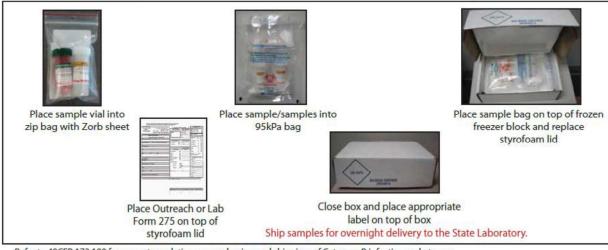
- 2. Open vials carefully.
 - Using the collection spoon attached to the cap, add enough specimen until the liquid reaches the arrow on the label.
 - Fill empty vial, to one-half full with stool specimen.

Fill only one vial at a time and replace the cap onto the same vial. DO NOT mix caps.

Important: Sample areas of the specimen which appear bloody, slimy, or watery. If the stool is hard, sample from each end and the middle of the specimen.

If larger specimen collection containers are used, contact KY DLS for additional instructions.

Packaging and Shipping



Refer to 49CFR 173.199 for current regulations on packaging and shipping of Category B infectious substances KY Division of Laboratory Services (502)564-4446

04/2018

Lab Form 219

Form 219 Revised 9/2018			be protect		, contains patient info with the Health Insu	
100 Sov	of Laboratory ver Blvd. Suite rt, Kentucky -4446 Fax: !	e 204 40601	9	1	Kentucky Public He Specia Microbiol	l
Please complete a		or each specime	en.			~ 97
PATIENT INFORM	ATION:					
Name (Last, First, MI)						letely
Social Security #		Sex	Race	Age	DOB	dwo
Home Address						 ≣
City	State	Zip Co	de Cou	nty		elor —
Send Report To:						Please Use "L" Label or Fill in Completely
Submitter						.
Street Address (PO BOX)					lease
City	State	Zip C	ode			&
Specimen Inform	ation:	9// * 5/55/		37-52		
Purpose of Exam					Clinical Specim	
Specimen Source Date of Collection					Referred Cultu dy Diarrhea	
Examination Req Enteric Pathogens Niscellaneous Bac		e mark one)	<u> </u>	Organ	ism Suspected:	
Other			6			
Other pertinent Medic	al Data: <i>*Pleas</i>	e complete this	section whe	n <mark>submitting</mark>	Miscellaneous Ba	acterial Cultures
FOR LABORAT	ORY USE	ONLY:				
Date Received:	Laborator	y Number:				

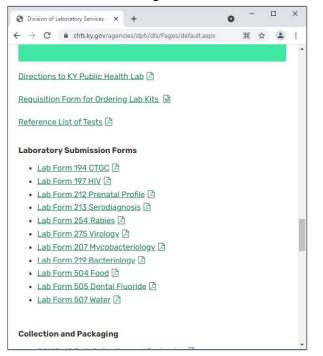
Lab Form 275

"This form, when filled in, contains patient information that must be protected in accordance with the Health Insurance Portability Accountability Act."

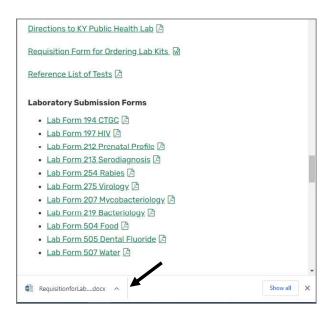
Lab 275 (Rev 4/2021)							
Kentucky Public Health	KY Division of Laboratory Services	Test	s Re	quested	CLINIC Purpose of re		
Viral Isolation	100 Sower Blvd Suite 204	COVID-19				1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
and	Frankfort KY 40601	Influenza			immune :	status	
Immunology	(502) 564-4446 FAX (502) 564-7019	Was patient	prescre	eened for flu?	antibody	status	
		Result of pr	escreer	ning:	Decease	d	
Pa	atient Information:				Other		_
(Use	label or fill in completely)	Respiratory Pa	nel		Date o	fOns	et:
Name (Last, First,	MI)	Herpes/VZV			7		
		Measles			Symptoms:	YES	NO
Social Security #	Sex EO Birthdate (yyyy-mm-dd)	Mumps			Fever		
		Norovirus			Neurological		
Home Address		Other			Headache		
					Respiratory		
City					Gastrointestin	al 🗆	
		Specimen S	ource	/ Date Collected	Fatigue		
State ZIP	County	Throat Swab			Rash		
1		NP Swab		6	Lesions		
		OP Swab			Other		
Send Reports to:		Nasal Swab			Immuniza	tions /	Date
Submitter		Genital Swab			None 🗆		
		CSF			MMR		23
Street Address / P O	Box	Stool			Influenza		
		Serum			Varicella		
City		Other			COVID		
		Hospitilization		Yes 🛛 No 🗆	Contacts /	Recent	Travel
State ZII	P	Pregnant		weeks	Tick bite		3
					Mosquito bite		
Phone	Fax	Testing approv	ed?		Community_		
		COVID Sequencin	g		Other		
Physician (if other th	an Submitter)	Yes D No D			Travel		
					970-9385-948		
			-				
*********************	***************************************	******DLS Laborator	/ Finding:	S*************************************	**************	*********	*********
		Date Received		Laboratory #	Tech Da	ate Repo	orted
					1		

Request for Laboratory Kits and Supplies

1. Connect to <u>https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx</u> and scroll down to find "Requisition Form for Ordering Lab Kits".



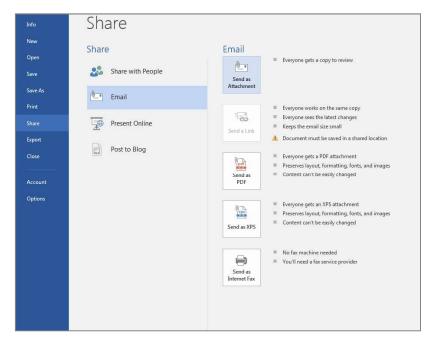
2. Download the form



3. Fill out the information in the form

	Email to: DPH	iLabKits@	ky.gov or F	ax to: (502)564-7019	
Facility: Delivery addr Phone: Date Request Requested By	ted:				
Gonorrhea/Chiar	mydia	Swabs	Urine	Noravirus Kit	1
(Genprobe kits) # of kits	20			Viral Isolation Swab Kit (Includes shipper)	
Enteric Pathoger (Cary Blair)	n Kit		-05	Viral Transport Media (Seath/ Heilia; used for Virus & Flu)	
TB Sputum Kit				2 2	<i>е</i>
Newborn Screen	ing Filter Paper				8
	Shipp	ers		Blood Tubes	10. 10.
Multi-Shippers (Ship ET/GE, Syptiles)	HDV. etc.]			Red Stopper Tubes	1
Multi-Shippers w (Ship Ru, Hester)		1		PPT Tubes (HCV testing)	
Inmark Ambient	ġ.				8
Tube Shuttles					Č.
95kPa bags				Labels	
2				Purple (All samples) PD Box Only	
OTHER				Environmental	2 0
UTHER					-
				Rables Collection Kit	
				Water Bacteriology Kit	
				Food Collection Kit	

4. Send document to <u>DPHLabKits@ky.gov</u>



5. Save document as a different file name if you want to retain the information for future use.

If you have problems connecting to the website (https://chfs.ky.gov/agencies/dph/dls/Pages /default.aspx) or downloading the forms, please contact Leigh Ann Bates at (502) 782-7703

BACILLUS CEREUS				
DLS Department:	Bacteriology Environmental Microbiology			
OUTREACH Test Code:	MEP			
Methodology:	Culture/ Isolation/ PCR			
Availability:	M-F			
Turn-around-Time:	Clinical 4-7 days/ Food 4-15 days			
Specimen Requirements:	Clinical- Isolate- Food-			
Collection Kit/Container:	Clinical – Cary Blair Transport Media			
Collection and Packaging Instructions:	https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx Enteric Collection and Packaging Guidelines Food- Food Kit			
Specimen Handling and Transport:	Clinical- Mail immediately after collection Isolation- Provide fresh growth slant; mail immediately Food - Specimen must be shipped overnight in cooler with cold packs. Call laboratory before sending.			
Unacceptable Conditions:	> 7 days from collection			
Reference Range:	Clinical – No B. cereus isolated Food - <100 cfu/g			
CPT Code:	Stool 87046; Vomitus 87070 PCR 87153			
Additional Comments:	Collect during acute stage (Days 1-3) of diarrheal disease and before initiation of anti-microbial or drug therapy.			

BOTULISM		
DLS Department:	Preparedness	
OUTREACH Test Code:	MEP	
Includes:	Clostridium Botulinum Identification and Confirmation	
Methodology:	ELISA, Mouse Bioassay, Culture	
Availability:		
Turn-around-Time:	Food: 24-96 hours toxin test, 5-12 days culture Stool: 24-96 hours toxin test, 5-12 days culture Serum: 24-96 hours	
Specimen Requirements:	Patient's physician must consult the Division of Epidemiology for approval and to verify the need to perform appropriate tests	
Collection Kit/Container:	Consult with DLS for specific information of collecting and submitting specimens	
Collection and Packaging Instructions:	Serum: 10ml Stool: 10-50g Enema Wash: 20ml Infants- Stool or Enema Wash	
Specimen Handling and Transport:		
Reference Range:	ELISA: "No botulinum toxin A, B, E or F detected. Assay does not detect botulinum toxins C, D and G". Mouse Bioassay: No C. botulinum toxin detected by mouse bioassay Culture: No C. botulinum isolated	
CPT Code:	87003; 87158; 87076	
Additional Comments:	Refer to the Sentinel Guidelines on asm.org for more information	

CAMPYLOBACTER		
DLS Department:	Bacteriology (clinical) Environmental Microbiology (Food)	
OUTREACH Test Code:	CAMP	
Methodology:	Culture	
Availability:	M-F	
Turn-around-Time:	Clinical specimen- 4-7 days Pure culture isolate- 3-5 days Food- 5-15 days	
Specimen Requirements:	Clinical- Feces Isolate- swab from culture in Cary Blair, Campy thio or Campy blood plate in bag with Campy gas or in semi-solid motility type media. Chocolate slant is also acceptable.	
Collection Kit/Container:	Clinical: Cary Blair Transport Media Isolate: Submitter packaging	
Collection and Packaging Instructions:	https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx Food-Food Kit	
Specimen Handling and Transport:	Feces- mail immediately after collection on cold pack. Isolate-Provide fresh growth slant; mail immediately; avoid extreme temperatures Food- Call laboratory; ship overnight in cooler with cold packs	
Unacceptable Conditions:	Stool 7 days or older	
Reference Range:	NA	
CPT Code:	87040; stool 87046	
Additional Comments:	Food- By request of Epidemiology or Food Safety Branch ONLY for investigation of foodborne disease outbreaks	

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Reference List of Tests

ESCHERICHIA COLI			
DLS Department:	Bacteriology Environmental Microbiology		
OUTREACH Test Code:	ECO		
Methodology:	Isolation/Identification and Antigenic typing/ Food Culture		
Availability:	M-F		
Turn-around-Time:	Clinical 4-5 days/ Food 48 hrs-15 days		
Specimen Requirements:	Clinical- Feces Identification and Antigenic typing- Agar slant: Heart infusion, trypticase soy, blood or chocolate Food- By request of Epidemiology or Food Safety Branch ONLY for investigation of foodborne disease outbreaks		
Collection Kit/Container:	Clinical- Enteric pathogens kit with Cary Blair or Amies transport media Isolate – Pure fresh growth on agar slant Food- Food Kit		
Collection and Packaging Instructions:	https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx Enterics Collection and Packaging		
Specimen Handling and Transpor <mark>t</mark> :	Clinical- hrs Isolation- Provide fresh growth slant; mail immediately Food - Cold packs. Call laboratory before sending specimens.		
Unacceptable Conditions:	Stools 7 days or older		
Reference Range:	NA		
CPT Code:	Stool 87046, 87147 PCR 87150		
Additional Comments:	Collect during acute stage (Days 1-3) of diarrheal disease and before initiation of anti-microbial or drug therapy.		

GA	STROINTESTINA	L PANEL	
DLS Department:	Virology		
OUTREACH Test Code:	GIP		
Methodology:	Multiplex PCR		
Availability:	M-F		
Turn-around-Time:	24-48 hrs		
Specimen Requirements:	Stool specimen put Into Cary Blair transport media w hours of collection		
Collection Kit/Container:	Cary Blair		
Collection and Packaging Instructions:	https://chfs.ky.gov/agencies/dph/dis/Pages/default.aspx Multishipper with cold pack		
Specimen Handling and Transport:	Can be stored at room temperature or refrigerated at 2° to 8°C for up to four days.		
Unacceptable Conditions:			
Reference Range:			
CPT Code:	87507		
Additional Comments:	By request of Epidemiolo Bacteria: Campylobacter (jejuni, coli, and upsi - Clostridium difficile (tokin A/B) - Piesiomonas shigelioides - Salmonella - Yersinia enterocolitica - Vibrio (parahaemolyticus, vuinificu - Vibrio cholerae DIARRHEAGENIC E. COLI/SHIGELLA - Enteroaggregative E. coli (EAEC) - Enteroaggregative E. coli (EAEC) - Enteroaggnegative E. coli (EAEC) - Enteroaggnegative E. coli (EFEC) - Enteroaggnegative E. coli (EFEC) - Enterotoxigenic E. coli (EFEC) - Enterotoxigenic E. coli (ETEC) It/st - Shige-like toxin-producing E. coli (ETEC) - Shigella/Enteroinvasive E. coli (ETEC)	aliensis) s, and cholerae) : STEC) stx1/stx2 :C)	
	PARASITES: • Cryptosporidium • Cyclospora cayetanensis • Entamoeba histolytica • Giardia lamblia	VIRUSES: • Adenovirus F40/41 • Astrovirus • Norovirus GI/GII • Rotavirus A • Sapovirus (I, II, IV, and V)	

HEPATITIS A			
DLS Department:	Virology		
OUTREACH Test Code:	HAV		
Methodology:	EIA (IgM only)		
Availability:	M-F		
Turn-around-Time:	48 hours		
Specimen Requirements:	Serum or whole blood in 7 ml red stoppered tube		
Collection Kit/Container:			
Collection and Packaging Instructions:	https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx Multishipper with Cold Pack Hepatitis A		
Specimen Handling and Transport:	Specimen should be stored at 2-8°C prior to shipping. Ship ASAP. If possible, ship on cold pack.		
Unacceptable Conditions:			
Reference Range:	Non-reactive		
CPT Code:	86709		
Additional Comments:			

DLS Department:	Bacteriology (clinical) Environmental Microbiology (Food)
OUTREACH Test Code:	MC (clinical)
Methodology:	Identification/Culture/Molecular
Availability:	M-F
Turn-around-Time:	4-6 days
Specimen Requirements:	Clinical- Pure culture TSA or blood agar slant Environmental- Food
Collection Kit/Container:	
Collection and Packaging Instructions:	Submitter packaging for clinical isolates Food: https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx Food Kit
Specimen Handling and Transport:	Clinical- Provide fresh growth on slant. Mail immediately to be received within 24 hours. Avoid extreme temperatures Food specimens - Ship overnight in cooler with cold packs. Call laboratory before sending specimens.
Reference Range:	NA
CPT Code:	Clinical- 87077, 87153
Additional Comments:	Clinical – Call the laboratory if Listeria is suspected and when specimen is shipped. Food- By request of Epidemiology or Food Safety Branch ONLY for investigation of foodborne disease outbreaks.

N.	NOROVIRUS
DLS Department:	Virology
OUTREACH Test Code:	NORX
Methodology:	PCR
Availability:	M-F
Turn-around-Time:	24-48 hours
Specimen Requirements:	Raw stool, Emesis
Collection Kit/Container:	Sterile container without preservative. Ship with cold pack.
Collection and Packaging	https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx
Instructions:	Multi-shipper with cold pack.
Specimen Handling and Transport:	Specimen should be collected in sterile screw top container within 72 hours of onset of symptoms and refrigerated prior to shipping DO NOT FREEZE. Ship with cold pack ASAP
Unacceptable Conditions:	
Reference Range:	Negative
CPT Code:	87798
Additional Comments:	Call Epidemiology prior to sending specimens.

SALMONELLA		
DLS Department:	Bacteriology/ Environmental Microbiology	
OUTREACH Test Code:	Stools- SGT Culture isolate- SGT	
Methodology:	Isolation Identification Antigenic Testing	
Availability:	M-F	
Turn-around-Time:	Clinical-8-10 days Food- 5-15 days	
Specimen Requirements:	Isolation- Stool Identification and Antigenic Typing- Pure culture isolate. Agar slant: Heart infusion, trypticase soy, blood or chocolate agar	
Collection Kit/Container:	Stools - Cary Blair	
Collection and Packaging Instructions:	https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx Clinical – Enteric Food-Food Kit	
Specimen Handling and Transport:	Food specimens - Ship overnight in cooler with cold packs. Call laboratory before sending specimens.	
Unacceptable Conditions:	Stools 7 days or older	
Reference Range:		
CPT Code:	Stool- 87045 Identification and Antigenic Typing- 87147	
Additional Comments:	Stool-Mail immediately after collection; to be received within 24 hours. Provide fresh grown on slants and mail immediately at room temperature. Food- By request of Epidemiology or Food Safety Branch/ONLY for investigation of foodborne disease outbreaks	

SHIGELLA		
DLS Department:	Bacteriology/ Environmental Microbiology	
OUTREACH Test Code:	Stools- SHGR Culture isolate- SHGR	
Methodology:	Isolation Identification and antigentic typing	
Availability:	M-F	
Turn-around-Time:	Clinical-8-10 days Food- 5-15 days	
Specimen Requirements:	Isolation- Stool Identification and Antigenic Typing- Pure culture isolate. Agar slant: Heart infusion, trypticase soy, blood or chocolate agar	
Collection Kit/Container:	Stools - Cary Blair	
Collection and Packaging Instructions:	https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx Clinical – Enteric Food-Food Kit	
Specimen Handling and Transport:	Food specimens - Ship overnight in cooler with cold packs. Call laboratory before sending specimens.	
Unacceptable Conditions:	Stools 7 days or older	
Reference Range:		
CPT Code:	Stool- 87045 Identification and Antigenic Typing- 87147	
Additional Comments:	Stool-Mail immediately after collection; to be received within 24 hours. Provide fresh grown on slants and mail immediately at room temperature. Food- By request of Epidemiology or Food Safety Branch/ONLY for investigation of foodborne disease outbreaks	

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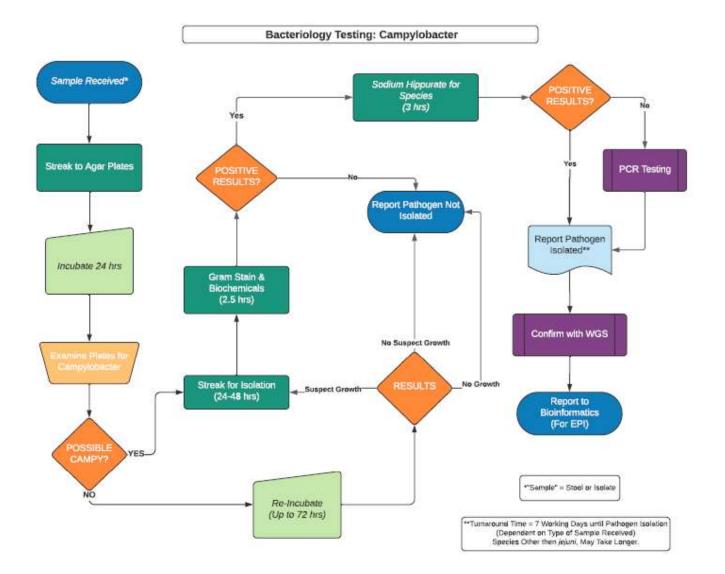
Reference List of Tests

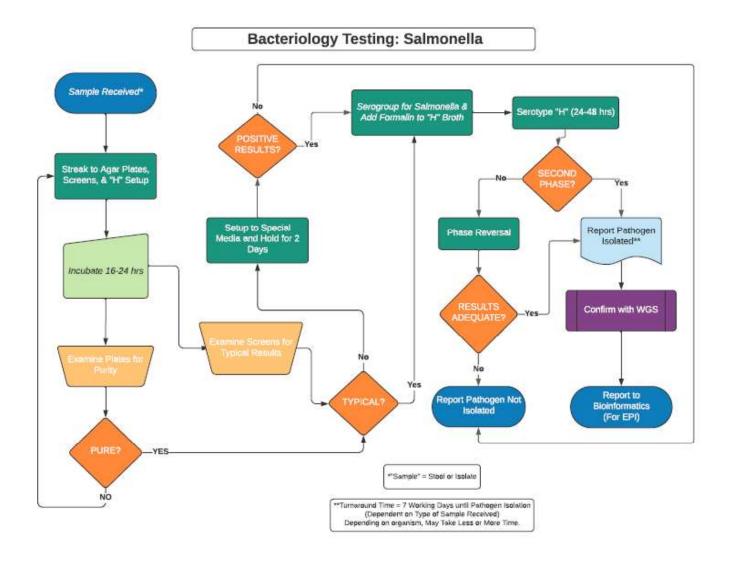
DLS Department:	Bacteriology
OUTREACH Test Code:	Stool - MEP Pure culture isolate on agar slant- MC
Methodology:	Isolation and Identification
Availability:	M-F
Turn-around-Time:	Stool-3-7 days Pure culture isolate- 24hrs- 7days Food- 5-15 days
Specimen Requirements:	Clinical- Stool Isolation- Pure culture isolate on agar slant: Heart Infusion, trypticase soy, blood or chocolate agar slant Food- By request of Epidemiology or Food Safety Branch/ ONLY for investigation of foodborne disease outbreaks
Collection Kit/Container:	Clinical – Stool -Cary Blair Transport Media
Collection and Packaging Instructions:	https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx Enteric Collection Food Kit
Specimen Handling and Transport:	Food specimens - Ship overnight in cooler with cold packs. Call laboratory before sending specimens.
Unacceptable Conditions:	Stools 7 days or older.
Reference Range:	NA
CPT Code:	87046, 87153
Additional Comments:	Clinical testing- Only by request of the Division of Epidemiology. Stool-Mail immediately after collection; to be received within 24 hours Isolate - Provide fresh grown on slants and mail immediately at room temperature. Food- By request of Epidemiology or Food Safety Branch. ONLY for investigation of foodborne disease outbreaks.

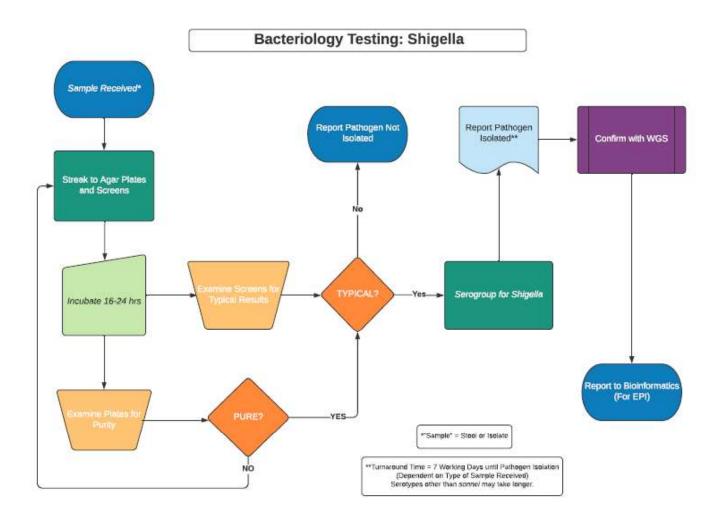
VIBRIO CHOLERAE		
DLS Department:	Bacteriology	
OUTREACH Test Code:	VIB	
Methodology:	Identification and Typing	
Availability:	M-F	
Turn-around-Time:	48 hours- 7 days	
Specimen Requirements:	Clinical - Stool Identification and Typing- Pure culture isolate	
Collection Kit/Container:	Stool – Cary Blair Culture Isolate: Submitter packaging	
Collection and Packaging Instructions:	https://chfs.ky.gov/agencies/dph/dls/Pages/default.aspx Enteric Collection	
Specimen Handling and Transport:		
Unacceptable Conditions:	Stool 7 days or older	
Reference Range:		
CPT Code:	87046	
Additional Comments:	Call the laboratory if Vibrio is suspected and before shipping specimen.	

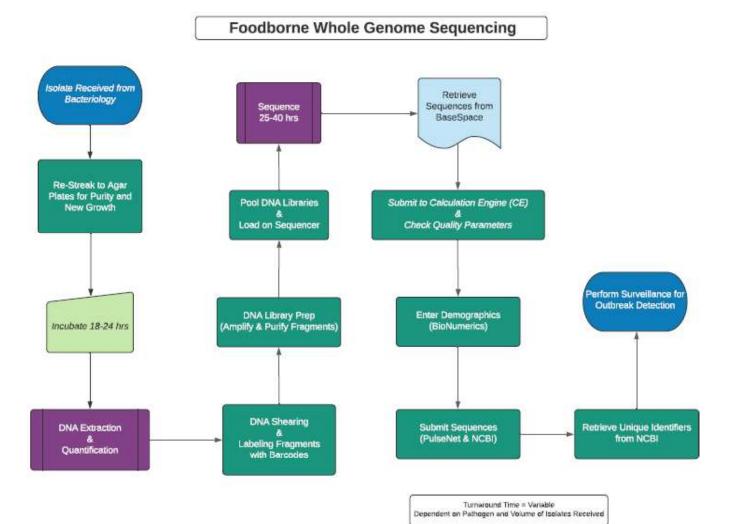
Bacteriology Flow Charts

Please note that the following flow charts do not reflect the entire work process for testing of laboratory specimens. Rather, they have been simplified to provide a basic description of specimen flow through the lab and the testing process. These flow charts are intended to provide a general idea of the steps and time required for testing.









WGS Flow Chart