

# Diagnostic Tests for Targeting Diseases under Surveillance

#	Target disease	Test available Locally and Method	Test sent to Reference Laboratory	Screen or Confirmatory Testing	Turn Around Time	Specimen Volume/ Type	Specimen Container
1	Amoebiasis	Diagnostic Laboratory Services (DLS, Tamuning) Microscopy: Ova and Parasite  GPHL Past Testing Record per year = 0-3)	Ova & Parasite Test at DLS Indicate specific E. histolytica screening  DLS refer to DLS Hawaii (5 to 10 working days)	Screen (DLS: Microscopy)	2 to 4 hours on working days (Screen)  5 to 10 working days (Confirm)	2 mL Stool	Sterile Cup; Clean, leak-proof container with screw-cap lid; PVA/ Formalin Containers
2	(Avian) Influenza A, B	Guam Public Health Laboratory (GPHL, Mangilao) Rapid Test: BD Veritor Influenza A+B  Guam Public Health Laboratory (GPHL, Mangilao) METHOD/MACHINE: Polymerase Chain Reaction (PCR) GeneXpert by CEPHEID	No	Screen (GPHL: BD Veritor )  Confirmatory (GPHL: GeneXpert)	2 to 4 hours on working days (Screen)  24 to 48 hours on working days (Confirm)	Nasopharyngeal Swab	Sterile Swab; Dacron/ Nylon Swab in transport media tube
3	Chikungunya (Trioplex PCR)	Guam Public Health Laboratory (GPHL, Mangilao) CDC Trioplex PCR test  METHOD/MACHINE: Polymerase Chain Reaction (PCR) ABI 7500 by LIFE TECHNOLOGIES	No	Confirmatory IgM (Hawaii State Lab, CDC, Fort Collins)	24 to 48 hours on working days (GPHL)  5-10 working days (Confirm)	2 mL Serum	SST ; Serum Separator Tube
4	Chlamydia (CT/NG)	Guam Public Health Laboratory (GPHL, Mangilao) Method: PCR (GeneXpert)  METHOD/MACHINE: Polymerase Chain Reaction (PCR) GeneXpert by CEPHEID	No	Confirmatory (GPHL: GeneXpert)	24 to 48 hours on working days (Confirm)	2 mL Urine or Swab Discharge F: Vaginal M: Urethral	Sterile Cup; Clean, leak-proof container with screw-cap lid.  Sterile Swab Dacron/ Nylon in transport tube
5	Cholera	Guam Memorial Hospital Lab. (GMHA, Tamuning) Method: Culture and Sensitivity (VITEK)  GPHL Set Up in-progress: VITEK System	Guam Memorial Hospital Lab. Microbiology dept.	Confirmatory (GMH Lab: VITEK)	48 hours on day shift (Preliminary)  3-5 working days (Final)	2 mL Stool Or Swab	Sterile Cup; Clean, leak-proof container with screw-cap lid Or Sterile Swab
6	Dengue fever	Guam Public Health Laboratory (GPHL, Mangilao)  Method/Machine: PCR ABI 7500 by LIFE TECHNOLOGIES	No	Confirmatory (GPHL: ABI 7500)	24-48 hours on working days (Confirm)	2 mL Serum	SST; Serum Separator Tube

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7	Ebola Virus Disease (EVD)	No  Requirement: Biosafety Level 4 BSL-4 biocontainment level	CDC/WHO Laboratory  ReEBOV rapid test is First Antigen rapid test for Ebola through WHO Emergency Assessment	Confirmatory (CDC/WHO)	5-10 working days	Please call Public Health before collection.	Please call Public Health before collection.
8	Gonorrhea (CT/NG)	Guam Public Health Laboratory (GPHL, Mangilao) Method: PCR (GeneXpert)  METHOD/MACHINE: Polymerase Chain Reaction (PCR) GeneXpert by CEPHEID  GC Culture: InTray GC BioMed Diagnostics	No	Confirmatory (GPHL: GeneXpert)	24-48 hours on working days  5-10 working days	2 mL Urine  Or  Swab Discharge F: Vaginal M: Urethral	Urine: Clean, leak-proof container with screw-cap lid.  Swab: Dacron/ Nylon in transport tube
9	Hansen's Disease	Guam Public Health Laboratory (GPHL, Mangilao) Method: Skin Slit Procedure Acid Fast Bacilli Smear Ziehl-Neelsen stain MIBI Leprosy Test (Morphological Index and Bacteriological Index Leprosy Test)	No	Screen Skin Slit Procedure (GPHL: Direct AFB Smear)	5-10 working days	Skin Slit Procedure performed by GPHL	Please call Public Health TB/ Hansen's Disease Program.
10	Hepatitis A	No	DLS refer to DLS Hawaii (5-10 working days)	Confirmatory (DLS)	5-10 working days	2 mL Serum	SST; Serum Separator Tube
11	Hepatitis B	Guam Public Health Laboratory (GPHL, Mangilao)  Validation in progress Method: HBsAg EIA (BIORAD Reader PR4100)	DLS refer to DLS Hawaii (5 to 10 working days)	Confirmatory (GPHL: Biorad Reader)	2-3 working days  (GPHL Past Testing capacity per day = 91)	2 mL Serum	SST; Serum Separator Tube
12	Hepatitis C	OraQuick HCV Rapid Antibody Test as CLIA-waived under STD program only (not performed in GPHL)	DLS refer to DLS Hawaii (5-10 working days)	Confirmatory (DLS)	5-10 working days	2 mL Serum	SST; Serum Separator Tube
13	HIV	Guam Public Health Laboratory (GPHL, Mangilao) Method: Alere Determine HIV-1 / 2 Ag/Ab Combo (rapid point-of-care test) Validation in progress: Method: HIV EIA BIORAD Reader PR4100 GS HIV- 1 / 2 Plus O EIA  HIV Confirmation BIORAD Reader PR4100 GS HIV Combo Ag/Ab EIA	DLS refer to DLS Hawaii (5 to 10 working days)  DLS refer to DLS Hawaii (5 to 10 working days)	Screen (GPHL: Rapid Point-of-Care Test)  Confirmatory (GPHL: Biorad Reader PR4100) Confirmatory (GPHL: Biorad)	2-3 working days  (GPHL Past Testing Capacity per day = 90)	2 mL Serum  2 mL Serum	SST; Serum Separator Tube  SST; Serum Separator Tube

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13	(Cont.) HIV	Method: HIV 1 / 2 Differentiation Assay BIORAD Geenius Reader Geenius HIV 1 / 2 Supplemental Assay		Reader PR4100)	5-10 working days		
14	Influenza (Subtyping)	Guam Public Health Laboratory (GPHL, Mangilao) Rapid Test: BD Veritor Influenza A+B  Guam Public Health Laboratory <u>METHOD/MACHINE:</u> <u>Polymerase Chain Reaction</u> <u>(PCR) GeneXpert by</u> <u>CEPHEID Xpert Xpress</u> <u>Flu/RSV Assay Test</u>  <u>SUBTYPING: FLU A (H1, H3,</u> <u>H5, H7); FLU B (YAM, VIC)</u> <u>PCR</u> <u>ABI 7500 by LIFE</u> <u>TECHNOLOGIES</u>	No	Screen (GPHL: BD Veritor)  Confirmatory (GPHL: GeneXpert)   SUBTYPING <u>PCR</u> <u>ABI 7500 by</u> <u>LIFE</u> <u>TECHNOLOG</u> <u>IES</u>	2-4 hours on working days  24-48 hours on working days	Nasopha- ryngeal Swab	Sterile Swab Dacron/ Nylon Swab in transport media tube
15	Leptospirosis	Guam Public Health Laboratory (GPHL, Mangilao) Leptorapide Agglutination Test (one-step assay qualitative)	No	Screen (GPHL: Leptorapide)	2-4 hours on working days	2 mL Serum	SST; Serum Separator Tube
16	Malaria	Diagnostic Laboratory Services (DLS, Tamuning) Microscopy: Malarial Smear	Confirmatory sent to Reference Laboratory: DLS refer to DLS Hawaii (5-10 working days)	Screen (DLS: Malarial Smear)	24 hours (Screen)  5-10 working days Confrm	2 Thick and Thin Blood Smear from Fingerstick. 3mL Whole Blood	2 Glass Slides, double frosted 1 Lavendar top tube
17	Measles, IgM (Rubeola)	Guam Public Health Laboratory (GPHL, Mangilao) Method: IgM only EIA ThermoLab System Reader	No	Surveillance purpose only Screen (GPHL: ThermoLab System Reader)	2-3 working days	2 mL Serum	SST; Serum Separator Tube
18	Meningococcal disease	Guam Memorial Hospital Lab. (GMHA, Tamuning) BD DirectigenMeningitis ComboTest	Guam Memorial Hospital Lab. Microbiology dept.	Confirmatory (GMH Lab)	24 hours	2 mL CSF (Cerebro- Spinal Fluid)	Clean, leak- proof container with screw- cap lid
19	MERS-coV (Middle East respiratory syndrome – coronavirus)	No  Requirement: Biosafety Level 3 BSL-3 biocontainment level	CDC/WHO Laboratory	Confirmatory (CDC/WHO)	5-10 working days	Please call Public Health before collection.	Please call Public Health before collection.
20	Mumps	No	DLS refer to DLS Hawaii (5-10 working days)	Confirmatory (DLS)	5-10 working days	2 mL Serum	SST; Serum Separator Tube
21	Mycobacterium Tuberculosis (TB)	Guam Public Health Laboratory (GPHL, Mangilao)  Acid Fast Bacilli DirectSmears	No	Screen Direct Smear (GPHL: AFB Smear)	24 hours on working days	2 mL Sputum	Sterile screw-cap conical tube

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21	(Cont.) TB	(AFB Smear by Ziehl-Neelsen Technique Staining Method)  M. tuberculosis Nucleic Acid Amplification Test (NAAT) Method based on Polymerase Chain Reaction (PCR)  Validation in-progress Method/Machine: ID and Sensitivity on new machine BD MGIT 960	ID and Sensitivity: DLS refer to DLS Hawaii	Screen  Confirmatory  Confirmatory (DLS)	24-48 hours on working days  8 weeks		
22	Norovirus	No  GPHL Validation in-progress: BioFire FilmArray System (Gastrointestinal Panel)	DLS refer to DLS Hawaii (5-10 working days)	Confirmatory (DLS)	5-10 working days	2 mL Stool  Or  2mL Vomitus	Sterile Cup; Clean, leak-proof container with screw-cap lid.
23	Respiratory syncytial virus (RSV)	Guam Public Health Laboratory METHOD/MACHINE: Polymerase Chain Reaction (PCR) GeneXpert by CEPHEID Xpert Xpress Flu/RSV Assay Test	No	Confirmatory (GPHL: GeneXpert)	24-48 hours on working days	Nasopharyngeal Swab	Sterile Swab Dacron/ Nylon Swab in transport media tube
24	Rotavirus	No  GPHL Validation in-progress: BioFire FilmArray System (Gastrointestinal Panel)	DLS refer to DLS Hawaii (5-10 working days)	Confirmatory (DLS)	5-10 working days	2 mL Stool  Or  2mL Vomitus	Sterile Cup; Clean, leak-proof container with screw-cap lid.
25	Rubella, IgM (German Measles)	Guam Public Health Laboratory (GPHL, Mangilao) Method: IgM only EIA ThermoLab System Reader	No	Surveillance only; Screen (GPHL: ThermoLab System Reader)	2-3 working days	2 mL Serum	SST; Serum Separator Tube
26	Rubella, Total (IgG and IgM for Prenatal screening)	Guam Public Health Laboratory (GPHL, Mangilao) Method: IgG and IgM Sure-Vue SELECT Rubella (rapid latex particle agglutination; qualitative)	No	Confirmatory (GPHL: ThermoLab System Reader)	2-3 working days	2 mL Serum	SST; Serum Separator Tube
27	Salmonella	Guam Memorial Hospital Lab. (GMHA, Tamuning) Method: Culture and Sensitivity Salmonella Serotyping BD Difco  GPHL Set Up in-progress: VITEK System	Guam Memorial Hospital Lab. Microbiology dept.	Confirmatory (GMH Lab)	48 hours on day shift (Preliminary)  3-5 working days (Final)	2 mL Stool  Or  Swab	Sterile Cup; Clean, leak-proof container with screw-cap lid Or Sterile Swab
28	Shigella	Guam Memorial Hospital Lab. (GMHA, Tamuning) Method: Culture and Sensitivity Shigella Serotyping BD Difco  GPHL Set Up in-progress: VITEK System	Guam Memorial Hospital Lab. Microbiology dept.	Confirmatory (GMH Lab)	48 hours on day shift (Preliminary)  3-5 working days (Final)	2 mL Stool  Or  Swab	Sterile Cup; Clean, leak-proof container with screw-cap lid OR SterilSwab

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29	<b>Syphilis</b>	Guam Public Health Laboratory (GPHL, Mangilao) RPR, Quali.and Quanti. Rapid Test: Syphilis Health Check  Method: ASI RPR Card test kit Confirmation: Serodia TPPA	No	Screen (GPHL: Syphilis Health Check)  Confirmatory (GPHL: SerodiaTPPA)	2-3 working days	2 mL Serum	SST; Serum Separator Tube
30	<b>Typhoid</b>  (Refer to Salmonella; Rule out for Salmonella typhi)	Guam Memorial Hospital Lab. (GMHA, Tamuning) Method: Culture and Sensitivity Salmonella Serotyping BD Difco antisera  GPHL Set Up in-progress: VITEK System	Guam Memorial Hospital Lab. Microbiology dept.  DLS refer to DLS Hawaii (5-10 working days)	Screen (GMH Lab)  Confirmatory (DLS)	48 hours on day shift (Preliminary)  5-10 working days (Confirm)	2 mL Stool  Or  Swab	Sterile Cup; Clean, leak-proof container with screw-cap lid Or Sterile Swab
31	<b>Zika Virus (Trioplex PCR)</b>	Guam Public Health Laboratory (GPHL, Mangilao)  Method/Machine: CDC Trioplex RT-PCR Assay ABI 7500 by LIFE TECHNOLOGIES  Discussion/Validation/Correlation studies in progress with HSLD: Chembio DPP Zika IgM System with Reader (single-use point-of-care assay; semi-quantitative)	Zika MAC ELISA IgM test sent to Hawaii State Laboratory	Confirmatory IgM (Hawaii State Lab, CDC, Fort Collins)	Zika RT-PCR 2-3 working days  Zika IgM 5-10 working days	2 mL Serum matched with 2 mL Urine	SST; Serum Separator Tube  Urine: Sterile Cup; Clean, leak-proof container with screw-cap lid.