

List of Tests done in the Department of Microbiology

A. Tests Done in Bacteriology Laboratory:-

S. No.	TEST NAME	SAMPLE	SAMPLE QUANTITY/ VOLUME	COLLECTION CONTAINER	SPECIAL COMMENTS
1.	Bacterial culture and sensitivity testing (aerobic)	Urine	3-5mL	Universal container	Midstream urine sample is preferred after cleaning the local periurethral area.
		Sputum	2-5mL	Universal container	Avoid Saliva
		Endotracheal (ET) aspirate	2-5mL	Universal container	
		Pus	2-3mL	Either Universal container or swab	
		CSF/Body fluids	2-5mL	Universal Container	Do not send syringes with needles
		Stool	Pea Size	Universal container	Avoid mixing with urine
2	Automated Bacterial Culture Sensitivity Testing	Same as above	Same as above	Same as above	Same as above
3	Gram stain	Sputum	1-2mL	Universal Container	Avoid Saliva
		ET aspirate	1-2mL	Universal Container	
		Body fluids	1-2mL	Universal Container	
4.	Bacterial Anaerobic culture and sensitivity	Pus aspirate	3-5mL	Universal container	Swabs not preferable. Maintain strict anaerobic environment while transportation of samples
5	<i>Clostridium difficile</i> toxin assay	Stool	1-2mL; fresh or refrigerated liquid or unformed stool	Universal container	

6	Blood Culture and Sensitivity	Blood	8-10mL per bottle. Send a set of 2 bottles (Aerobic/Anaerobic) inoculated from single venupuncture (Adults). Send 2 sets preferably from 2 separate venupuncture from 2 sites	Blood culture bottles	Skin asepsis to be done by Either "alcoholic chlorhexidine" or "70% alcohol + 10% Povidone Iodine"
			1-5mL (Neonates & Children)/ bottle.	Blood culture bottles	For new borns 2 separate alcohol wipes for skin asepsis

B. TESTS DONE IN VIROLOGY LABORATORY:

S.N.	VIRUS	TEST NAME	SAMPLE	SAMPLE QUANTITY	CONTAINER	SPECIAL COMMENT
1	Hepatitis A	Anti Hepatitis A IgM	Serum	2-3mL whole blood	Plain vial (Red Vacutainer)	
2	Hepatitis B	HBsAg	Serum	2-3mL whole blood	Plain vial	
3		anti-HBs IgM	Serum	2-3mL whole blood	Plain vial	
4		Anti- HBc IgM	Serum	2-3mL whole blood	Plain vial	
5		HBeAg	Serum	2-3mL whole blood	Plain vial	
6		Anti-HBe IgM	Serum	2-3mL whole blood	Plain vial	
7		Hepatitis C	Anti HCV antibody	Serum	2-3mL whole blood	Plain vial
8	Hepatitis E	Anti HEV IgM	Serum	2-3mL whole blood	Plain vial	

C. TESTS DONE IN SEROLOGY LABORATORY:

S.N.	TEST NAME	SAMPLE	SAMPLE QUANTITY/ VOLUME	Collection container	SPECIAL COMMENTS
1	Procalcitonin assay	Serum	5mL whole blood	Plain vial (Red Vacutainer)	
2	RA(Quantitative)	Serum	2-3mL whole blood	Plain vial	
3	RA factor (Semiquantitative)	Serum	2-3mL whole blood	Plain vial	
4	CRP (Quantitative)	Serum	2-3mL whole blood	Plain vial	
5	CRP (Semiquantitative)	Serum	2-3mL whole blood	Plain vial	
6	ASO (Quantitative)	Serum	2-3mL whole blood	Plain vial	
7	ASO (Semiquantitative)	Serum	2-3mL whole blood	Plain vial	
8	Anti-CCP antibodies (ELISA)	Serum	2-3mL whole blood	Plain vial	
9	Rapid card test for Typhoid-IgM/IgG	Serum	2-3mL whole blood	Plain vial	
10	WIDAL tube test	Serum	5mL whole blood	Plain vial	
11	Rapid Leptospira IgM test	Serum	2-3mL whole blood	Plain vial	
12	RPR(Rapid Plasma Raegin)	Serum	2-3mL whole blood	Plain vial	
13	Treponema pallidum haemagglutination test (TPHA)	Serum	2-3mL whole blood	Plain vial	
14	Chikungunya antibody test (IgM capture ELISA)	Serum	2-3mL whole blood	Plain vial	test is free of cost as kits are supplied by NIV Pune

D. TESTS DONE IN IMMUNOLOGY LABORATORY:

S.N.	TEST NAME	SAMPLE	SAMPLE QUANTITY/ VOLUME	Collection container	SPECIAL COMMENTS
1	CMV IgM ELISA	SERUM	1ml(2ml blood)	Plain vial	-
2	HIV (CARD TEST)	SERUM	1ml(2ml blood)	Plain vial	-
3	Dengue IgM ELISA	SERUM	1ml(2ml blood)	Plain vial	Free of cost, since the kit is provided by NIV Pune
4	HIV ELISA	SERUM	1ml(2ml blood)	Plain vial	-
5	HSV 1+2 IgM ELISA	SERUM	1ml(2ml blood)	Plain vial	-
6	Rubella IgM ELISA	SERUM	1ml(2ml blood)	Plain vial	-
7	TORCH IgM ELISA (Toxoplasma, Rubella, Cytomegalovirus, Herpes simplex)	SERUM	1ml(2ml blood)	Plain vial	-
8	Toxoplasma IgM ELISA	SERUM	1ml(2ml blood)	Plain vial	-

E. TESTS DONE IN MYCOBACTERIOLOGY LABORATORY:

S.N	TEST NAME	SAMPLE	SAMPLE QUANTITY/ VOLUME	Collection container	SPECIAL COMMENTS
1	Slit skin smear for <i>M. leprae</i>	Scraping from skin/site	-	--	Patient to be referred to Microbiology Dept.
2	AFB smear for TB	Sputum/ CSF /Pus/Body fluid/ Tissue	Sputum >2 ml Tissue > 1 gm CSF > 3 ml Pus > 2 ml Body fluid > 3 ml Urine –early morning urine max 500 ml	Sputum In sterile wide mouth container after rinse/gargle. Cough deeply. Others by aseptic / standard procedures. CSF/body fluid in sterile container Tissue in sterile container with or without Normal saline	
3	Routine mycobacterial culture and sensitivity	Sputum/ CSF /pus/body fluid/tissue	Sputum >2 ml Tissue > 1 gm CSF > 3 ml Pus > 2 ml Body fluid > 3 ml Urine –early morning urine max 500 ml	Same as above	
4	MGIT TB culture	Sputum/ CSF /pus/body fluid/tissue	Sputum >2 ml Tissue > 1 gm CSF > 3 ml Pus > 2 ml Body fluid > 3 ml Urine –early morning urine max 500 ml	Same as above	
5	MGIT TB culture and AST for primary	Sputum/ CSF /pus/body fluid/	Sputum >2 ml Tissue > 1 gm CSF > 3 ml Pus > 2 ml	Same as above	

	and secondary drugs	tissue	Body fluid > 3 ml Urine –early morning urine max 500 ml		
6	MTB Complex genotype and RIF and INH RE (LPA for MDR TB)	Only pulmonary samples	Sputum >2 ml BAL >1 ml Pleural fluid > 3 ml	Sputum in sterile wide mouth container after rinse/ gargle cough deeply. Others Respiratory samples by aseptic / standard procedures	
7	Real Time PCR for Mycobacterium tuberculosis	Sputum/ CSF /pus/ body fluid/tissue (except blood)	Sputum >2 ml Tissue > 1 gm CSF > 3 ml Pus > 2 ml Body fluid > 3 ml Urine –early morning urine max 500 ml	Sputum In in sterile wide mouth container after rinse/ gargle cough deeply. others by aseptic / standard procedures CSF/body fluid in sterile container Tissue in sterile container with or without Normal saline	
8	GeneXpert test for TB	Sputum/ CSF /pus/ body fluid/ tissue (except blood and urine)	Sputum >2 ml Tissue > 1 gm CSF > 3 ml Pus > 2 ml Body fluid > 3 ml	Sputum in sterile wide mouth container after rinse/ gargle cough deeply, others by aseptic / standard procedures CSF/body fluid in sterile	

				container Tissue in sterile container with or without Normal saline	
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F. TESTS DONE IN PARASITOLOGY LABORATORY:

S.N	TEST NAME	SAMPLE	SAMPLE QUANTITY/ VOLUME	Collection container	SPECIAL COMMENTS
1	Malaria antigen (rapid test)	Whole blood	2ml	EDTA vial	
2	Blood smear for MP	Whole blood	2ml	EDTA vial	
3	Antigen detection for Filariasis (rapid test)	Whole blood	2ml	EDTA vial	
4	Blood smear for MF	Whole blood	2ml	EDTA vial	
5	Stool for occult blood	Stool	Pea Size	Universal container	
6	Microscopy Stool (routine)	Stool	Pea size	Universal container	
7	Special staining for opportunistic parasite (STOOL)	Stool	Pea Size	Universal container	
8	IgG ELISA for Echinococcus	Serum	1ml (2ml blood)	Plain Vial	
9	Microscopy for Hydatid cyst	Cyst Fluid	1ml	Universal Container	
10	IgG ELISA for Cysticercosis	Serum	1ml (2ml blood)	Plain vial	

G. TESTS DONE IN MYCOLOGY LABORATORY:

S.N	TEST NAME	SAMPLE	SAMPLE QUANTITY/ VOLUME	Collection container	SPECIAL COMMENTS
1	Cryptococcal diagnostic assay	CSF, Serum	Plain vial	CSF- 1ml Serum- 1ml	Do not send syringes with needles
2	KOH Mount for Mycology	Skin/Nail/Hair	Sterile Black paper		Patient to be referred to Mycology Laboratory for sample collection
3	Culture - Fungal Routine	Respiratory Sample/Body Fluid/Pus/Urine/Tissue	Universal container	1-2ml	Do not send syringes with needles
4	Fungal Blood Culture	Blood	Blood culture bottle	8-10mL/bottle. Send a set of 2 bottles inoculated from single venupuncture (Adults). Send 2 sets preferably, 2 separate venupuncture from 2 sites	
5	Microscopy for fungi	Body Fluid/Pus/Urine/Tissue	Universal container	1-2ml	
6	Special staining- Sputum for opportunistic Pathogen	Respiratory Sample/Body Fluid	Universal container	1-2ml	Do not send syringes with needles
7	Automated Yeast identification Culture and Sensitivity		---	---	When yeast is isolated in all the above samples, requisition for Automated

					Yeast identificatio n Culture and Sensitivity can done from ward/clinic in consultation with Mycology Laboratory
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H: MICROBIOLOGY TESTS DONE IN EMERGENCY LABORATORY:

S.N	TEST NAME	SAMPLE	SAMPLE QUANTITY/ VOLUME	Collection container	SPECIAL COMMENTS
1	DENGUE NSI ANTIGEN/ANTIBODY combo (Rapid test)	SERUM	1ml(2ml blood)	Plain vial	Only available in emergency. Results must be confirmed with ELISA
2	HIV (Rapid test)	SERUM	1ml(2ml blood)	Plain vial	Only available in emergency. Results must be confirmed with ELISA
3	HBsAg (Rapid test)	SERUM	1ml(2ml blood)	Plain vial	Only available in emergency. Results must be confirmed with ELISA
4	HCV (Rapid test)	SERUM	1ml(2ml blood)	Plain vial	Only available in emergency. Results must be confirmed with ELISA