

Draft

**Second National
Essential
Diagnostics List**



2025

Overview

The Indian Council of Medical Research released the first National Essential Diagnostics List (NEDL) in 2019 to make diagnostics an essential component of the health care system.

The list enumerates minimum number of tests that should be available at various levels of healthcare facilities, including – village level, Sub Health Centre/Health & Wellness Centres (HWCs), Primary Health Centres (PHC)/HWCs, Community Health Centres (CHC), Sub-District Hospital (SDH), and District Hospital (DH).

ICMR has now proposed a revised version of the NEDL, incorporating inputs from relevant stakeholders and feedback from multiple consultation meetings. The draft of the second National Essential Diagnostics List (NEDL) reflects advancements made in recent years. Notably, the nomenclature of healthcare facilities has been updated, with Sub-Centres now being referred to as Ayushman Arogya Mandirs. Additionally, new guidance documents, such as the Integrated Public Health Laboratories (IPHL) for District Hospitals (released in 2021) and the Indian Public Health Standards (IPHS) for Sub-Centres, PHCs, CHCs, SDHs, and DHs (released in 2022), have also been considered.

The revised NEDL has been harmonized with the available MoHFW guidance documents and aligned with national health programs. It builds upon the first list and provides recommendations for diagnostic tests across various levels of healthcare facilities, including village-level facilities, Ayushman Arogya Mandirs -Sub-Centres, PHCs, CHCs and SDHs-DHs.

Table 1: List of diagnostic tests at village level

S.No	Diagnostic test	Specimen type	Equipment used for test
Haematology			
1.	Slide preparation for peripheral blood smear	Capillary blood	Sample (prepared slide) to be collected and sent to PHC for microscopy
Clinical pathology			
2.	Urine albumin and glucose	Urine	Dipstick
3.	Urine pregnancy test	Urine	RDT
Biochemistry			
4.	Blood glucose	Capillary blood	Glucometer
Specific diseases			
5.	Malaria	Capillary/whole blood	RDT (Antigen based bivalent)
6.	Peripheral blood smear (thick smear for Filariasis*)	Capillary blood	Sample (prepared slide) to be collected and sent to PHC for microscopy
7.	HIV and Syphilis screening	Whole blood	RDT
8.	TB infection testing (TST/Cy-TB)	Blood	Sample to be collected and sent for IGRA
9.	Sputum for TB	Sputum collection in disposable sterile containers	Sample to be collected and sent to PHC for microscopy

*For endemic areas

 Hub and spoke, sample to be transferred to lab with available facility

Table 2: List of diagnostic tests at Ayushman Arogya Mandir Sub-Centre

S.No	Diagnostic test	Specimen type	Equipment used for test
Haematology			
1.	Haemoglobin	Capillary blood	Digital haemoglobinometer
2.	Slide preparation for peripheral blood smear	Capillary blood	Sample (prepared slide) to be collected and sent to PHC for microscopy
3.	Sickle cell test	Capillary blood	RDT
Clinical pathology			
4.	Urine pregnancy test	Urine	RDT
5.	Urine albumin and glucose	Urine	Dipstick
6.	Haemoglobin, bile salts, bile pigments, ketone bodies, specific gravity and reaction (pH)	Urine	Dipstick (multiparameter urine strip)
7.	Visual Inspection acetic acid	Visual examination using vaginal speculum	Vaginal speculum
Microbiology			
8.	Test for Syphilis	Whole blood	RDT
Biochemistry			
9.	Blood glucose	Capillary blood	Glucometer
Specific Diseases			
10.	Malaria	Capillary/whole blood	RDT (Antigen based bivalent)
11.	Peripheral blood smear (thick smear) for filariasis*	Capillary blood	Sample (prepared slide) to be collected and sent to PHC for microscopy

12.	TB infection testing (TST/Cy-TB)	Blood	Sample to be collected and sent for IGRA
13.	Sputum for TB	Sputum collection in disposable sterile containers	Sample to be collected and sent to PHC for microscopy
14.	HIV test (Antibodies 1/2) [^]	Whole blood	RDT
15.	HBs Ag test for Hepatitis B	Whole blood	RDT
16.	Test for screening for HIV and Syphilis ^{@^}	Whole blood – if Dual kit is being used for HIV and Syphilis Serum/Plasma – if RPR kits are being used for Syphilis separately	RDT

*For endemic areas

[^] Test available only after pre-test counseling for HIV

[@]Dual or combined test kit can be used


 Hub and spoke, sample to be transferred to lab with available facility

Table 3: List of diagnostic tests at Primary Health Centre (PHC)

S.No	Diagnostic test	Specimen type	Equipment used for test
Haematology			
1.	Haemoglobin	Capillary blood	Digital haemoglobinometer
2.	Peripheral blood smear	Capillary blood	Microscopy
3.	RBC count [#]	EDTA whole blood	Microscopy
4.	Reticulocyte count [#]	EDTA whole blood	Microscopy
5.	Absolute eosinophil count [#]	EDTA whole blood	Microscopy
6.	Total leucocyte count [#]	EDTA whole blood	Microscopy
7.	Differential leucocyte count [#]	EDTA whole blood	Microscopy
8.	Platelet count [#]	EDTA whole blood	Microscopy
9.	CBC [#]	EDTA whole blood	3-part Hematology Analyzer
10.	ESR [#]	EDTA whole blood	Manual/ ESR analyser
11.	Bleeding time	Whole blood	Manual
12.	Clotting time	Whole blood	Manual
13.	Blood grouping and Rh typing	EDTA whole blood	Manual
14.	Sickle cell test*	Capillary blood/ EDTA whole blood	Screening: Sickling/solubility test; RDT Confirmation: Sample to be collected & sent to DH for HPLC / electrophoresis
15.	Naked Eye Single Tube Red Cell Osmotic Fragility Test [NESTROFT] (screening for beta-thalassaemia)	Whole blood	Observation test
16.	Reduction test for screening G6PD deficiency*	EDTA whole blood	Sample to be collected and sent to DH for qualitative visual method

Clinical pathology			
17.	Urine pregnancy test	Urine	RDT
18.	Urine albumin and glucose	Urine	Dipstick
19.	Haemoglobin, bile salts, bile pigments, ketone bodies, specific gravity and reaction (pH)	Urine	Dipstick (multiparameter urine strip)
20.	Urine microscopy	Urine	Microscopy
21.	Urine for microalbumin	Urine	Sample to be sent to CHC and above
22.	Urine for creatinine and Albumin to creatinine ratio (ACR)	Urine	Sample to be sent to CHC and above
23.	Vaginal smear for presence of sperms (Medico Legal Case)	Vaginal smear	Microscopy (Samples to be sent to SFSL/CFSL as per guideline) https://mohfw.gov.in/sites/default/files/953522324.pdf (This will be included in ref section)
24.	Visual Inspection acetic acid	Visual examination using vaginal speculum	Vaginal speculum
25.	Pap smear	Cervical smear	Sample to be sent to DH for microscopy
Biochemistry			
26.	Blood glucose [#]	Capillary blood	Glucometer
27.	Glucose tolerance test (GTT) [#]	Plasma (Fluoride Tube)	Semiautoanalyzer
28.	LFT: Serum Bilirubin (Total, direct, indirect) [#]	Serum	Semiautoanalyzer
29.	Serum ALT [#]	Serum	Semiautoanalyzer
30.	Serum AST [#]	Serum	Semiautoanalyzer
31.	Serum Alkaline phosphatase [#]	Serum	Semiautoanalyzer
32.	Serum total protein [#]	Serum	Semiautoanalyzer
33.	Serum Albumin and AG ratio [#]	Serum	Semiautoanalyzer

34.	Blood Urea [#]	Serum	Semiautoanalyzer
35.	Serum creatinine [#]	Serum	Semiautoanalyzer
36.	Serum uric acid [#]	Serum	Semiautoanalyzer
37.	Lipid Profile: S. Total Cholesterol[#]	Serum	Semiautoanalyzer
38.	S. Triglycerides [#]	Serum	Semiautoanalyzer
39.	S.VLDL-C [#]	Serum	Semiautoanalyzer
40.	S.HDL-C [#]	Serum	Semiautoanalyzer
41.	S.LDL-C [#]	Serum	Semiautoanalyzer
42.	Serum Sodium [#]	Serum	Sample to be sent to Hub (CHC/DH) for Electrolyte analyser
43.	Serum Potassium [#]	Serum	Sample to be sent to Hub (CHC/DH) for Electrolyte analyser
44.	Serum Calcium [#]	Serum	Sample to be sent to Hub (CHC/DH) for Electrolyte analyser
45.	Total T3	Serum	Sample to be collected and sent to DH for Chemiluminescence analyzer
46.	Total T4/Free T4	Serum	Sample to be collected and sent to DH for Chemiluminescence analyzer
47.	TSH (including for newborn screening)	Serum	Sample to be collected and sent to DH for Chemiluminescence analyzer
48.	Glycosylated haemoglobin (HbA1C)	EDTA Whole blood	Sample to be collected and sent to DH for Fully automated biochemistry analyser/HPLC
Microbiology			
49.	Smear for RTI/STDs ^{&}	Representative sample	Wet mounting, gram staining-microscope
50.	Urine M/E for pus cells	Urine	Microscopy
51.	Smear examination for <i>Mycobacterium leprae</i>	Slit skin smear	Microscopy
52.	Gram staining	Pus, body fluids	Microscopy

53.	Throat swab for Diphtheria	Throat swab	Gram and Albert's stain, Microscopy
54.	Hanging drop test for <i>V. cholera</i>	Stool	Microscopy
55.	Stool routine examination including ova and cyst	Stool	Microscopy
56.	Stool for occult blood	Stool	Manual
57.	Test for syphilis	Serum/Plasma/Whole blood	RDT
58.	rK39 test for Kala-Azar*	Serum	RDT
59.	CRP(including new born) (semiquantitative)	Serum	Semiquantitative analyzer Sample to be collected and sent to DH for Turbidimetric based analyzer
60.	RA factor (semiquantitative)	Serum	Semiquantitative analyzer Sample to be collected and sent to DH for Turbidimetric based/ Fully automated biochemistry analyzer
Specific Diseases			
61.	Peripheral blood smear for malaria parasite detection	Capillary/whole blood	Microscopy
62.	Malaria	Capillary/whole blood	RDT (Antigen based bivalent)
63.	Peripheral blood smear (thick smear) for filariasis*	Capillary blood	Microscopy
64.	Dengue	Serum	Sample to be collected and sent to DH for ELISA
65.	Japanese encephalitis*	Serum	Sample to be collected and sent to DH for ELISA
66.	Scrub Typhus IgM*	Serum	Sample to be collected and sent to DH for ELISA
67.	Tuberculosis: Sputum for AFB	Sputum	Microscopy (ZN stain)
68.	TB infection testing (TST/Cy-TB)	Blood	Sample to be collected and sent for IGRA

69.	HIV test (Antibodies 1/2) [^]	Serum/Plasma/Whole blood	RDT
70.	Test for screening for HIV and Syphilis ^{@^}	Whole blood – if Dual kit is being used for HIV and Syphilis Serum/Plasma – if RPR kits are being used for Syphilis separately	RDT
71.	HBs Antigen test for Hepatitis B	Whole blood	RDT
72.	Hepatitis C antibody test	Whole blood	RDT
Radiology			
73.	X-Ray		
Other tests			
74.	ECG		

*For endemic areas

#These tests may follow a hub-and-spoke model where analyzers are unavailable or for fully automated analyser/indirect ion selective electrode analyzer for confirmation. The nearest hub lab could be CHC, SDH and DH

[^] Test available only after pre-test counseling for HIV

[@]Dual or combined test kit can be used

[&]*Neisseria gonorrhoeae*, Bacterial Vaginosis (*Gardnerella vaginalis*, *Mobiluncus mulieris*, etc.), *Haemophilus ducreyi*, *Candida* spp.; Wet mount - *Trichomonas vaginalis*


 Hub and spoke, sample to be transferred to lab with available facility

Table 4: List of diagnostic tests at Community Health Centre (CHC)

S.No	Diagnostic test	Specimen type	Equipment used for test
Haematology			
1.	Haemoglobin	Capillary blood	Digital haemoglobinometer
2.	Peripheral blood smear	Capillary blood	Microscopy
3.	Total RBC count	EDTA whole blood	Microscopy
4.	Reticulocyte count	EDTA whole blood	Microscopy
5.	Absolute eosinophil count	EDTA whole blood	Microscopy
6.	Total leucocyte count	EDTA whole blood	Microscopy
7.	Differential leucocyte count	EDTA whole blood	Microscopy
8.	Platelet count	EDTA whole blood	Microscopy
9.	CBC	EDTA whole blood	Fully automated hematology analyzer
10.	ESR	EDTA whole blood	Manual/ ESR analyser
11.	Prothrombin time and INR	Plasma (citrate)	Automated coagulation analyser
12.	Bleeding time	Whole blood	Manual
13.	Clotting time	Whole blood	Manual
14.	Blood grouping and Rh typing	EDTA whole blood	Manual
15.	Blood cross matching	EDTA whole blood	Manual
16.	Packed Cell volume	EDTA whole blood	Automated haematology analyser
17.	Sickle cell test*	Capillary blood/EDTA whole blood	Screening: Sickling/solubility test; RDT Confirmation: Sample to be collected & sent to DH for electrophoresis/HPLC
18.	Naked Eye Single Tube Red Cell Osmotic Fragility Test [NESTROFT] (screening for beta-thalassaemia)	Whole blood	Observation test
19.	Reduction test for screening G6PD deficiency*	EDTA whole blood	Sample to be collected and sent to DH for qualitative visual

			method
20.	Haemoglobinopathies screening/testing (in high prevalence areas)	EDTA whole blood and serum	Sample to be collected and sent to DH for HPLC and analyzer
21.	Haemoglobin electrophoresis	EDTA Whole blood and serum	Sample to be collected and sent to DH for HPLC
Clinical pathology			
22.	Urine pregnancy test	Urine	RDT
23.	Urine albumin and glucose	Urine	Dipstick
24.	Haemoglobin, bile salts, bile pigments, ketone bodies, specific gravity and reaction (pH)	Urine	Dipstick (multiparameter urine strip)
25.	Urine microscopy	Urine	Microscopy
26.	Urine for microalbumin	Urine	Manual/Analyzer/ Turbidometer
27.	Urine for creatinine and Albumin to creatinine ratio (ACR)	Urine	Analyzer
28.	24- hrs urinary protein	Urine	Manual
29.	Vaginal smear for presence of sperms (Medico Legal Case)	Vaginal smear	Microscopy(Samples to be sent to SFSL/CFSL as per guideline)
30.	Visual Inspection acetic acid	Visual examination using vaginal speculum	Vaginal speculum
31.	Pap smear	Cervical smear	Sample to be sent to DH and above for microscopy
Biochemistry			
32.	Blood glucose	Capillary blood	Glucometer
33.	Glucose tolerance test (GTT)	Plasma	Fully automated biochemistry autoanalyzer
34.	LFT:Serum Bilirubin (Total, direct, indirect)	Serum	Fully automated biochemistry autoanalyzer
35.	Serum ALT	Serum	Fully automated biochemistry autoanalyzer
36.	Serum AST	Serum	Fully automated biochemistry autoanalyzer

37.	Serum Alkaline phosphatase	Serum	Fully automated biochemistry autoanalyzer
38.	Serum total protein	Serum	Fully automated biochemistry autoanalyzer
39.	Serum Albumin and AG ratio	Serum	Fully automated biochemistry autoanalyzer
40.	Serum Globulin	Serum	Fully automated biochemistry autoanalyzer
41.	Blood Urea	Serum	Fully automated biochemistry autoanalyzer
42.	Serum creatinine	Serum	Fully automated biochemistry autoanalyzer
43.	Serum uric acid	Serum	Fully automated biochemistry autoanalyzer
44.	Lipid Profile: S. Total Cholesterol	Serum	Fully automated biochemistry autoanalyzer
45.	S. Triglycerides	Serum	Fully automated biochemistry autoanalyzer
46.	S.VLDL-C	Serum	Fully automated biochemistry autoanalyzer
47.	S.HDL-C	Serum	Fully automated biochemistry autoanalyzer
48.	S.LDL-C	Serum	Fully automated biochemistry autoanalyzer
49.	Serum Sodium	Serum	Electrolyte analyser (Indirect ion selective electrode)
50.	Serum Potassium	Serum	Electrolyte analyser (Indirect ion selective electrode)
51.	Serum Calcium	Serum	Fully automated biochemistry autoanalyzer
52.	Serum Amylase	Serum	Fully automated biochemistry autoanalyzer
53.	Serum Iron	Serum	Fully automated biochemistry autoanalyzer
54.	Serum Magnesium	Serum	Electrolyte Analyser (Indirect ion selective electrode)
55.	Total iron binding capacity	Serum	Fully automated biochemistry autoanalyzer
56.	Serum Ferritin	Serum	Sample to be collected and sent to DH and above for ELISA

57.	Total T3	Serum	Sample to be collected and sent to DH for Chemiluminescence analyzer
58.	Total T4/Free T4	Serum	Sample to be collected and sent to DH for Chemiluminescence analyzer
59.	TSH (including for newborn screening)	Serum	Sample to be collected and sent to DH for Chemiluminescence analyzer
60.	Serum Prolactin	Serum	Chemiluminescence analyzer
61.	Troponin I	Serum	RDT (If a physician is available at the CHC, troponin I testing may be included)
62.	Troponin T	Serum	RDT (If a physician is available at the CHC, troponin T testing may be included)
63.	Glycosylated haemoglobin (HbA1C)	EDTA Whole blood	Sample to be collected and sent to DH for Turbidimetric based/ Fully automated biochemistry analyser/HPLC
Microbiology			
64.	Smear for RTI/STDs ^{&}	Representative sample	Wet mounting, gram staining-microscope
65.	Urine M/E for pus cells	Urine	Microscopy
66.	Smear examination for <i>Mycobacterium leprae</i>	Slit skin smear	Microscopy
67.	Gram staining	Pus, body fluids	Microscopy
68.	Throat swab for Diphtheria	Throat swab	Gram and Albert's stain, Microscopy
69.	Hanging drop test for <i>V. cholera</i>	Stool	Microscopy
70.	Stool routine examination including ova and cyst	Stool	Microscopy
71.	Stool for occult blood	Stool	Manual
72.	Stool, pus, throat, blood and body fluids culture, and antimicrobial sensitivity	Stool, pus, blood, throat swab, and body fluids	Samples to be collected and sent to DH for manual/ automated analyzer
73.	Test for syphilis	Serum/Plasma/Whole blood	RDT
74.	rK39 test for Kala-Azar*	Serum	RDT

75.	CRP(including new born) (quantitative)	Serum	Fully automated analyzer Sample to be collected and sent to DH for Turbidimetric based analyzer
76.	RA factor (quantitative)	Serum	Fully automated analyzer Sample to be collected and sent to DH for Turbidimetric based/ Fully automated biochemistry analyzer
Specific Diseases			
77.	Peripheral blood smear for malaria detection	Capillary blood	Microscopy
78.	Malaria	Capillary/whole blood	RDT (Antigen based bivalent)
79.	Peripheral blood smear (thick smear) for filariasis*	Capillary blood	Microscopy
80.	Dengue	Serum	Sample to be collected and sent to DH for ELISA
81.	Japanese encephalitis*	Serum	Sample to be collected and sent to DH for ELISA
82.	Scrub Typhus IgM*	Serum	Sample to be collected and sent to DH for ELISA
83.	TB infection testing (TST/Cy-TB)	Blood	Sample to be collected and sent for IGRA
84.	Tuberculosis: Sputum for AFB	Sputum	Microscopy (ZN stain)
85.	Tb: Chip based Real time micro PCR test	Sputum	Micro PCR
86.	TB: Sample collection	Sputum	Sample to be collected and sent to DH for NAAT ^V
87.	HIV test (Antibodies 1/2) [^]	Serum/Plasma/Whole blood	RDT
88.	Test for screening for HIV and Syphilis ^{@^}	Whole blood – if Dual kit is being used for HIV and Syphilis Serum/Plasma – if RPR kits are being used for Syphilis separately	RDT

89.	HBs Ag test for Hepatitis B	Serum	RDT
90.	Hepatitis C (Anti HCV)	Serum	RDT
Radiology			
91.	X-Ray		
92.	USG with color doppler		
Other tests			
93.	ECG		

*For endemic areas

@Dual or combined test kit can be used

^ Test available only after pre-test counseling for HIV

&*Neisseria gonorrhoeae*, Bacterial Vaginosis (*Gardnerella vaginalis*, *Mobiluncus mulieris*, etc.),*Haemophilus ducreyi*,*Candida* spp.; Wet mount - *Trichomonas vaginalis*

^vPulmonary and extra pulmonary fluid specimen (biopsy specimen needing homogenization to be sent to nearest IRL/ State level laboratory)


 Hub and spoke, sample to be transferred to lab with available facility

Table 5: List of diagnostic tests at Sub-District Hospital (SDH) - District Hospital (DH)

S.No	Diagnostic test	Specimen type	Equipment used for test
Haematology			
1.	Haemoglobin estimation	Capillary blood/ EDTA Whole blood	Digital haemoglobinometer/ Fully automated haematology analyser
2.	Peripheral blood smear	Capillary blood	Microscopy
3.	Total RBC count	EDTA whole blood	Microscopy/ Fully automated haematology analyser
4.	Reticulocyte count	EDTA whole blood	Microscopy/ Fully automated haematology analyser
5.	Absolute eosinophil count	EDTA whole blood	Microscopy/ Fully automated haematology analyser
6.	Total leucocyte count	EDTA whole blood	Microscopy / Fully automated haematology analyser
7.	Differential leucocyte count	EDTA whole blood	Microscopy/ Fully automated haematology analyser
8.	Platelet count	EDTA whole blood	Microscopy / Fully automated haematology analyser
9.	CBC	EDTA whole blood	Fully automated haematology analyser
10.	ESR	EDTA whole blood	Manual /ESR analyser
11.	Prothrombin time and INR	Plasma (citrate)	Automated coagulation analyser
12.	Activated partial thromboplastin time (APTT)	Plasma (citrate)	Automated coagulation analyser
13.	D-dimer	Plasma (citrate)	Coagulometer
14.	Plasma fibrinogen test	Plasma (citrate)	Coagulometer
15.	Bleeding time	Whole blood	Manual
16.	Clotting time	Whole blood	Manual
17.	Blood grouping and Rh typing	EDTA whole blood	Manual

18.	Blood cross matching	EDTA whole blood	Manual
19.	Packed Cell volume	EDTA whole blood	Fully automated haematology analyser (3-Part/5-part)
20.	Coomb's test-Direct with titre	EDTA whole blood	Manual
21.	Coomb's test-Indirect with titre	EDTA whole blood	Manual
22.	Bone Marrow Aspiration	Bone marrow Aspiration	Microscopy
23.	Sickle cell test*	EDTA whole blood and serum	Electrophoresis
24.	Reduction test for screening G6PD deficiency*	EDTA whole blood	Qualitative visual method
25.	Thalassemia	EDTA whole blood and serum	Screening: NESTROFT/POC Confirmatory: HPLC Machine
26.	Mixing study and Factor VIII Assay for Hemophilia	Whole blood in sodium citrate (1:9)	Automated Coagulation Analyser
27.	Mixing study and Factor XI Assay for Hemophilia	Whole blood in sodium citrate (1:9)	Automated Coagulation Analyser
28.	Haemoglobinopathies screening/testing (in high prevalence areas)	EDTA whole blood and serum	HPLC analyzer
29.	Haemoglobin electrophoresis	EDTA Whole blood and serum	HPLC
Clinical pathology			
30.	Urine pregnancy test	Urine	RDT
31.	Urine albumin and glucose	Urine	Dipstick
32.	Haemoglobin, bile salts, bile pigments, ketone bodies, specific gravity and reaction (pH)	Urine	Dipstick (multiparameter urine strip)
33.	Urine microscopy	Urine	Microscopy
34.	24-hours urinary protein	Urine	Manual/Analyzer
35.	Urine for microalbumin	Urine	Analyzer
36.	Urine for creatinine and Albumin to creatinine ratio (ACR)	Urine	Analyzer

37.	Vaginal smear for presence of sperms (Medico Legal Case)	Vaginal smear	Microscopy(Samples to be sent to SFSL/CFSL as per guideline)
38.	Visual Inspection acetic acid	Visual examination using vaginal speculum	Vaginal speculum
39.	Pap smear	Cervical smear	Microscopy
40.	Sputum cytology	Sputum	Microscopy
41.	Histopathology	Tissue biopsy	Microscopy
42.	Cytology - FNAC	Aspirate	Microscopy
43.	Semen analysis (Morphology, Vitality, pH, fructose (Qualitative) and Viscosity)	Semen	Microscopy/10 micron depth chamber
44.	Fluid analysis (Cell count, biochemistry and cytology)	Fluid	Fully automated biochemistry and haematology analyser, Microscopy
Biochemistry			
45.	Blood glucose	Capillary blood	Glucometer and fully automated biochemistry autoanalyzer
46.	Glucose tolerance test (GTT)	Plasma	Fully automated biochemistry autoanalyzer
47.	LFT: Bilirubin (Total, direct, indirect)	Serum	Fully automated biochemistry autoanalyzer
48.	Serum ALT	Serum	Fully automated biochemistry autoanalyzer
49.	Serum AST	Serum	Fully automated biochemistry autoanalyzer
50.	Alkaline phosphatase	Serum	Fully automated biochemistry autoanalyzer
51.	Serum total protein	Serum	Fully automated biochemistry autoanalyzer
52.	Serum Albumin	Serum	Fully automated biochemistry analyser
53.	Serum Globulin	Serum	Fully automated biochemistry autoanalyzer
54.	Serum Albumin and AG ratio	Serum	Fully automated biochemistry autoanalyzer
55.	Blood Urea	Serum	Fully automated biochemistry

			autoanalyzer
56.	Serum creatinine	Serum	Fully automated biochemistry autoanalyzer
57.	Serum uric acid	Serum	Fully automated biochemistry autoanalyzer
58.	Lipid profile: Total Cholesterol	Serum	Fully automated biochemistry autoanalyzer
59.	S. Triglycerides	Serum	Fully automated biochemistry autoanalyzer
60.	S.VLDL-C	Serum	Fully automated biochemistry autoanalyzer
61.	S.HDL-C	Serum	Fully automated biochemistry autoanalyzer
62.	S.LDL-C	Serum	Fully automated biochemistry autoanalyzer
63.	Serum Amylase	Serum	Fully automated biochemistry autoanalyzer
64.	Serum lipase	Serum	Fully automated biochemistry analyser
65.	Serum Sodium	Serum	Electrolyte analyser (Indirect ion selective electrode)
66.	Serum Potassium	Serum	Electrolyte analyser (Indirect ion selective electrode)
67.	Serum Calcium	Serum	Electrolyte analyser (Indirect ion selective electrode)
68.	Serum Chlorides	Serum	Electrolyte analyser (Indirect ion selective electrode)
69.	Serum Phosphorous	Serum	Electrolyte analyser (Indirect ion selective electrode)
70.	Serum Magnesium	Serum	Electrolyte analyser (Indirect ion selective electrode)
71.	Serum Iron	Serum	Fully automated biochemistry autoanalyzer
72.	Total iron binding capacity	Serum	Fully automated biochemistry autoanalyzer
73.	Serum ionized calcium	Serum	Fully automated biochemistry autoanalyzer
74.	Blood Gases analysis	Serum	Blood gas analyser

75.	Creatine phosphokinase (CPK)	Serum	Fully automated biochemistry analyser
76.	LDH	Serum	Fully automated biochemistry analyser
77.	Serum ferritin	EDTA whole blood/Serum	ELISA/ Chemiluminescence
78.	Total T3	Serum	Chemiluminescence analyzer
79.	Total T4/Free T4	Serum	Chemiluminescence analyzer
80.	TSH (including for newborn screening)	Serum	Chemiluminescence analyzer
81.	S. Thyroid peroxidase antibody	Serum	Chemiluminescence analyzer
82.	Troponin I	Serum	Immunoassay analyser/RDT
83.	Troponin T	Serum	Immunoassay analyser/RDT
84.	CSF analysis (Sugar, protein, cell count)	CSF	Fully automated biochemistry analyser
85.	Creatine Kinase-muscle/brain (CK-MB)	Serum	Fully automated biochemistry analyser
86.	Prostate-specific antigen (PSA)	Peripheral blood	ELISA/ Chemiluminescence analyser
87.	Serum Lithium	Serum	Fully automated analyser
88.	NtProBNP (N-terminal prohormone of brain natriuretic peptide)	Serum	Fully automated analyser/ Chemiluminescence analyzer
89.	Serum Beta HCG	Serum	Chemiluminescence analyzer
90.	Serum Prolactin	Serum	Chemiluminescence analyzer
91.	Serum Total Testosterone	Serum	Chemiluminescence analyzer
92.	S. Alfa Feto protein	Serum	Chemiluminescence analyzer
93.	S. CA-125	Serum	Chemiluminescence analyzer
94.	S. CEA	Serum	Chemiluminescence analyzer
95.	S. Vitamin D (25 Hydroxy)	Serum	Chemiluminescence analyzer
96.	S. Vitamin B12	Serum	Chemiluminescence analyzer
97.	Total IgE	Serum	Fully automated analyser
98.	Glycosylated haemoglobin (HbA1C)	EDTA Whole blood	Fully automated biochemistry analyser/HPLC Machine
99.	Protein electrophoresis	Serum	Electrophoresis machine
Microbiology			

100.	Smear for RTI/STDs ^{&}	Representative sample	Wet mounting, gram staining-microscope
101.	Urine M/E for pus cells	Urine	Microscopy
102.	Smear examination for <i>Mycobacterium leprae</i>	Slit skin smear	Microscopy
103.	Gram staining	Pus, body fluids	Microscopy
104.	Throat swab for Diphtheria	Throat swab	Gram and Albert's stain, Microscopy
105.	Hanging drop test for <i>V. cholera</i>	Stool	Microscopy
106.	Stool routine examination including ova and cyst	Stool	Microscopy
107.	Stool for occult blood	Stool	Manual
108.	Gram stain for Meningococci	Fluid, CSF cell type, cell count	Microscopy
109.	KOH study for fungus	Sputum, Tissue, Nail, Hair, CSF etc.	Fluorescent microscopy/Microscopy
110.	Blood culture and antimicrobial sensitivity	Whole Blood	Automated/Manual
111.	Urine, stool, pus, sterile body fluid, throat swab, culture and antimicrobial sensitivity	Representative sample	Automated/Manual
112.	Stool culture for <i>Vibrio cholera</i> and other bacterial enteropathogens	Stool	Automated/Manual
113.	Culture for Diphtheria	nose, throat, membrane or nasopharynx swab	Automated/Manual
114.	Fungal culture	Representative sample	Automated/Manual
115.	Cholera	Stool	RDT
116.	Test for syphilis	Serum/Plasma/Whole blood	RDT
117.	rK39 test for Kala-Azar*	Serum	RDT
118.	IgM for measles	Serum	ELISA
119.	Rapid antigen detection test for Bacterial meningitis	CSF	RDT
120.	C-reactive protein (CRP)	Serum	Turbidimeter
121.	Procalcitonin	Serum/Plasma	RDT/Immunoassay
122.	TORCH: Toxoplasma, Rubella,	Serum	ELISA

	CMV and HSV 1 and 2. Antibody detection test (IgM and IgG)		
Serology			
123.	Rheumatoid Factor quantitative	Serum	Turbidometer /Fully automated analyser
124.	Antistreptolysin O quantitative	Serum	Turbidometer /Fully automated analyser
Specific Diseases			
125.	Peripheral blood smear for malaria detection	Capillary blood	Microscopy
126.	Malaria	Capillary/whole blood	RDT (Antigen based bivalent)
127.	Peripheral blood smear (thick smear) for filariasis*	Capillary blood	Microscopy
128.	Dengue: NS1 antigen and IgM antibody based test	Serum	ELISA
129.	Japanese encephalitis IgM, Antibody test	CSF,Serum	ELISA
130.	Chikungunya IgM, Antibody test	Serum	ELISA
131.	Scrub Typhus IgM*	Serum	ELISA
132.	Leptospirosis IgM, Antibody test	Serum	RDT and ELISA
133.	Brucellosis :Antigen based test	Serum	Standard tube agglutination test
134.	TB infection testing (TST/Cy-TB)	Blood	Sample to be collected and sent for IGRA
135.	Tuberculosis: Sputum, pus for AFB	Sputum , body fluids Gram staining for body fluids	Fluorescent microscopy
136.	Tb: Nucleic Acid Amplification Test (NAAT)	Sputum	PCR ^v
137.	TB culture (liquid)	Sputum, fluid etc.	Sample to be collected and sent to nearest TB lab/State Tb lab
138.	TB DST (liquid)	Sputum, fluid etc.	Sample to be collected and sent to nearest TB lab/State Tb lab
139.	HIV test (Antibodies 1/2) [^]	Serum/Plasma/Whole blood	RDT and ELISA
140.	HIV: CD4 count [#]	Capillary/venous whole blood	Flow cytometry
141.	HIV: Early infant diagnosis	Dried blood spot	Sample to be collected and sent

		(DBS)/Plasma/Whole blood ^s	to tertiary care for molecular testing
142.	HIV: Quantitative virological nucleic acid test	Plasma/Whole blood ^s	Sample to be collected and sent to tertiary care for PCR
143.	Test for screening for HIV and Syphilis ^{@^}	Whole blood – if Dual kit is being used for HIV and Syphilis Serum/Plasma – if RPR kits are being used for Syphilis separately	RDT
144.	Hepatitis A IgM detection test	Serum	ELISA
145.	Hepatitis B surface antigen test	Serum	RDT and ELISA
146.	Hepatitis B :Quantitative test for viral load detection	Whole blood	Sample to be collected and sent to tertiary care for PCR
147.	Hepatitis C: Anti HCV (Total)	Serum	ELISA
148.	Hepatitis C: Quantitative test for viral load detection	Whole blood	Sample to be sent to tertiary care for PCR
149.	Hepatitis E: IgM detection test	Serum	ELISA
150.	HBc (Core antibodies): IgM detection test to hepatitis B core antigen	Serum	ELISA
Radiology (as per IPHS)			
151.	X-Ray		
152.	CT scan		
153.	MRI		
154.	USG with Color Doppler		
Other tests (as per IPHS)			
155.	ECG		
156.	C –Arm		
157.	Dental X-ray/Intra Oral periapical IOPA X-Ray		
158.	Orthopantomogram (OPG)		
159.	Occlusal radiography and Bite wing radiography		
160.	Echocardiography		
161.	Mammography		

162.	EEG
163.	NCV(Nerve Conduction Velocity)
164.	EMG
165.	TMT
166.	PFT
167.	Angiography [@]
168.	Ocular Coherence Tomography
169.	Perimetry (automated)
170.	Pachymetry
171.	Refraction

*For endemic areas

#Only where ART centres are located


^ Test available only after pre-test counseling for HIV

@ Where cardiologist is available

§ For whole blood sample: Freshly drawn specimens (whole blood) may be held at 15 to 30°C for up to 6 hours or at 2 to 8°C for up to 24 hours, prior to centrifugation

& *Neisseria gonorrhoeae*, Bacterial Vaginosis (*Gardnerella vaginalis*, *Mobiluncus mulieris*, etc.), *Haemophilus ducreyi*, *Candida* spp.; Wet mount - *Trichomonas vaginalis*

^vPulmonary and extra pulmonary fluid specimen (biopsy specimen needing homogenization to be sent to nearest IRL/ State level laboratory)

 Hub and spoke, sample to be transferred to lab with available facility