



सत्यमेव जयते

DEPARTMENT OF PATHOLOGY
VMMC & SAFDARJUNG HOSPITAL
NEW DELHI-110029

Directory of tests

Department Address:
Department of Pathology
2nd Floor, Old Causality Building
VMMC & Safdarjung Hospital
Phone No: 91-011-26767408
Email: sjhvmmchodpath@gmail.com

HISTOPATHOLOGY

S.No	Test Name	Location	Specimen Type/Preservative/ Container	Turn-Around-Time	Remarks	Method Of Testing
1.	Histo-pathological examination* of biopsies and surgical specimens	411, 4 th floor, college building	Tissue received in formalin (ten times the tissue volume)	5 working days	Ref: SJH/DOP/Manual/ SCHM 02	Formalin fixation and Paraffin embedding
2.	Review of slides and blocks (external sources)	411, 4 th floor, college building	Stained/unstained slides and tissue blocks along with signed and stamped TRF and previous reports	3 working days	Ref: SJH/DOP/Manual/ SCHM 02	Routine microscopy, Sectioning and IHC wherever applicable
3.	Intra-operative Frozen Section as per clinical request	411, 4 th floor, college building	Freshly operated specimen WITHOUT FORMALIN with or without NORMAL SALINE in clean container ASAP after surgery	30 minutes	Ref:- SJH/DOP/Manual/ SCHM 02	Frozen sectioning with HE/ Toluidine Blue; scrape cytology wherever applicable

Note: All the following IHC markers are independent markers and not combinations. Whereas they are commonly used in the settings as indicated below, their use is not restricted to a particular type of cancer. Any marker may be used for any patient case as per the discretion of the reporting authority

4.	Immunohistochemistry IHC Panels available for various malignancies A. Breast cancer • ER/ PR/ HER2NEU/ Ki67 • BRCA1 • E CADHERIN • PDL1/ GCDPF B. Lymphoma • LCA/ CD45	411, 4 th floor, college building	Biopsies/ surgical specimens/tissue blocks/unstained slides	10 working days	Ref: SJH/DOP/Manual/ SCHM 02	Manual or automated immunohistochemical staining
----	---	--	---	-----------------	------------------------------	--

- TDT/ CD15/ CD30
- CD19/ CD20
- KAPPA/LAMBDA
- CYCLIN D/ CD3/ CD5
- BCL2/BCI-6/PAX- 5
- CD138/ ALK/Ki67
- CD1a/ CD68/ CD23

C. Cervical cancer

- CK7/ p63/ p16/ CK5/6
MUCSAC/ E CADHERIN/
EGFR/P53/ Ki67

D. Colorectal & Stomach cancer

- CK7/ CK20P53/ CDX2/
-CD117/ DOG1/CK/

E. Lung cancer

- TTF1/ p63/CK5/CK6
- CK7/ CK20/CALRETININ
- PDL1/ ALK/CK/CD34

**F. Unknown Primary/
Miscellaneous IHC
markers**

- CALRETININ /
CHROMOGRANIN/
CD30/ CD31/ CD34/
CD99/ CK DESMIN/
FACTOR VIII/ HMB
45/MELAN A/
MYOGENIN/NSE/ p53/
S100/ SMA/
SYNAPTOPHYSIN/
VIMENTIN

**G. GYNAECOLOGICAL
MALIGNANCY**

- CK7/ WT1/ BETA HC/

mk

veega

M

	<p>-INHIBIN/ AFP/ CALRETININ/ CK20/ VIMENTIN/ ER/ HER2 NEU</p> <p>H. <u>PROSTATE & TESTICULAR CANCER</u></p> <ul style="list-style-type: none"> • AMACR/ PSA/ CK7/ CK20/ AFP/ EMA/ CD30/ CD117 <p>I. <u>NEUROENDOCRINE TUMOR</u></p> <ul style="list-style-type: none"> • Synaptophysin/ Chromogranin/ NSE/ CK7/ CK20 <p>J. <u>LIVER CANCER</u></p> <ul style="list-style-type: none"> • CK/ CK7/ CK20/ CA125/ AFP/ p53 <p>K. <u>KIDNEY CANCER</u></p> <ul style="list-style-type: none"> • WT1/ CD10/ CALRETININ/ CK/ CK7/ CK20/ VIMENTIN/ AMACR/ CD34/ KI67/ <p>L. <u>GERM CELL TUMOR</u></p> <ul style="list-style-type: none"> • p53/ PLAP/ AFP/ OCT3/4/ CD117 <p>M. <u>BRAIN TUMOURS</u></p> <ul style="list-style-type: none"> • GFAP/ IDH1 					
5.	<p>Special stains</p> <ul style="list-style-type: none"> • AFB/ Lepra stain/ PAS/ Reticulin/ Masson's trichrome/ Giemsa/ Alcian blue/ Van Gieson/ Perl's Prussian blue/ Congo Red/ Toluidine blue/ Cresyl 	411, 4 th floor, college building	Biopsies/ surgical specimens/tissue blocks/unstained slides	5 working days	Special stains to be done at the discretion of the Reporting faculty and Unit In-charge (Histopathology). Application of any special stain requires mandatory submission	As per department protocols

	blue				of blocks/ unstained extra slides for corresponding H E staining	
CYTOPATHOLOGY						
6.	FNAC(Fine needle aspiration cytology)	557-A, 5th floor, New OPD Building	Material aspirated from palpable lesions through fine needle. Preservative: None (Air dried)	3 working days	For FNAC procedure and further handling, standard operating procedures of the Department of Pathology will be followed Reference: SJH/DOP/ Manuals/ SCHM 02	With plunger and needle/ Aspiration or Non-aspiration
7.	Fluid cytology	410, 4th floor, college building	Pleural/ascitic/peritoneal/pericardial Fluid/synovial/BAL/CSF Preservative: NIL CONTAINER: STERILE PLASTIC CONTAINER	3 working days	Specimen Must be sent to the laboratory within 30 minutes of collection. Date and time of fluid collection must be mentioned on TRF	All specimens to be accompanied by duly filled, signed and stamped TRF.
8.	Urine cytology	410, 4th floor, college building	Urine(3 day) Preservative: NIL CONTAINER: STERILE PLASTIC CONTAINER	1 working day after receipt of third day urine sample		All specimens to be accompanied by duly filled, signed and stamped TRF.
9.	Intra-operative scrape cytology	410, 4th floor, college building	Biopsies & Surgical specimens	30 minutes after receipt of specimen	The scrape cytology specimen must be pre-informed to the Histopathology Unit Reporting faculty at	All specimens to be accompanied by duly filled, signed and stamped TRF.
Prepared by: Dr Meetu Agrawal		Reviewed by: Dr Mukul Singh		Approved by: Dr Sunil Ranga		Issued By: Dr Meetu Agrawal
Page 4 of 12		Document Type: Controlled				

					Extension No 3063-64	
10.	Gynaecological Cytology (Conventional)	410, 4th floor, college building	Pap smears	4 working days	The slides must be immediately spray fixed with Cytospray which is available in the Gynaecology OPD. They must be wrapped and placed in suitable transportation box <u>once they are completely dried</u> . No blood soiling of the wrapping paper or box should be present	All specimens to be accompanied by duly filled, signed and stamped TRF.
11.	Gynaecological Cytology (LBC)	410, 4th floor, college building	Pap smears	7 working days	The LBC sample must be collected in the appropriate container as per LBC collection guidelines for LBC technology	
12.	Cell Block	410, 4th floor, college building	Fluids/blood	5 working days	Preparation under discretion and Supervision of Technical Manager and Reporting faculty	
13.	Review of slides	410, 4th floor, college building	Stained/unstained slides	3 working days	Refer to SJH/DOP/ Manual/ SCHM 02	

14.	Special stains <ul style="list-style-type: none"> • AFB/ PAS/ Giemsa/ Alcian blue/ Perl's Prussian blue/ Toluidine blue/ Cresyl blue 	410, 4 th floor, college building	Aspirate/fluid/unstained smears	3 working days	Preparation under discretion and Supervision of Technical Manager and Reporting faculty
-----	--	--	---------------------------------	----------------	---

LAB MEDICINE

1. Central collection center- Room No 19, OPD Building, Safdarjung Hospital
2. Gynae lab- Room No 154, 1st Floor, OPD Building, Safdarjung Hospital
3. Burn and Plastic lab- Room No 3, Burns-Plastic Building, Safdarjung Hospital
4. Main lab- Room No 209, 2nd Floor, Old Causality Building, Safdarjung Hospital
5. Special hematology- Room No 212, 2nd Floor, Old Causality Building, Safdarjung Hospital
6. Pathology Lab: New Emergency Block- Room No 108, 1st Floor, New Emergency Building, Safdarjung Hospital
7. Molecular lab Room No 308, 3rd Floor, Old Causality Building, Safdarjung Hospital

15.	Complete blood count (CBC)	All Labs S.No 1- 6 above	PERIPHERAL BLOOD <u>CONTAINER:</u> PURPLE TOP VACUTAINER/ EDTA/2 ml	1 day in all labs; 2 hrs (NEB)	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Automated 3 part/ 5 part Hematology Analyzers
16.	CBC with Peripheral smear (PS)	All Labs S.No 1- 6 above	PERIPHERAL BLOOD <u>CONTAINER:</u> PURPLE TOP VACUTAINER/ EDTA/2 ml	1 day in all labs; 5 hrs in NEB	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Automated 3 part/ 5 part Hematology Analyzers ; Microscopic Examination
17.	Reticulocyte count	CCC, Special Hematology lab	PERIPHERAL BLOOD <u>CONTAINER:</u> PURPLE TOP VACUTAINER/ EDTA/2 ml	1 day	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/	Automated 5 part Hematology Analyzers ; Special staining, and manual microscopic examination

					Manuals/ SCHM 02 to be referred	
18.	Malarial parasite	All Labs S.No 1- 6 above	PERIPHERAL BLOOD CONTAINER: PURPLE TOP VACUTAINER/ EDTA/2 ml	Malarial Parasite positive: 2 hrs in all labs	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Microscopic Examination
19.	High Pressure Liquid Chromatography	Spl Hematolo gy Lab	PURPLE TOP VACUTAINER/ EDTA/ 2 ml	1 day	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Distribution of analyte between a mobile (eluent) and stationary phase (packing matreial)
20.	Manual platelet count	CCC	PERIPHERAL BLOOD CONTAINER: PURPLE TOP VACUTAINER/ EDTA/2 ml	1 day	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Manual examination by Neubauer Chamber Counting Method
21.	Coagulation studies (PT, APTT, INR)	Pathology lab (NEB), Special Hematolo gy lab	PERIPHERAL BLOOD CONTAINER: BLUE TOP VACUTAINER/ Sodium Citrate/ Upto mark on vacutainer	Within 24 hours; 4 hrs in NEB	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Automated analyzer

Version No. 3.0

Revision No: 02

Effective Date: 01/07/2023

22.	ESR	CCC	PERIPHERAL BLOOD CONTAINER: PURPLE TOP VACUTAINER/ EDTA/2 ml	Within 24 hours	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM.02 to be referred	Manual Measurement by Westergreen method
23.	Urine (Routine& microscopy)	CCC, Pathology Lab (NEB)	Preservative: NIL CONTAINER: STERILE PLASTIC CONTAINER	Within 24 hours; 3 hrs in NEB	Midstream clean catch sample/ catheterization specimen	Qualitative testing for Physical characteristics (pH, specific gravity, colour/ appearance) / Protein/ Sugar/ Bile salts, Bile Pigments, Leucocyte Esterase/ Microscopic Examination for casts crystals and cells
24.	24- HOUR urinary protein	Main Lab	Preservative: NIL CONTAINER: STERILE PLASTIC CONTAINER OF AT LEAST 2 LITRE CAPACITY	Within 24 hours	24 hour urinary sample as per instructions of the laboratory	Estimation of urinary protein by Esbach'salbuminometer
25.	Body Fluid cell count	NEB	Preservative: NIL CONTAINER: STERILE PLASTIC CONTAINER	2 hours	Body Fluid collected by clinical departments and sent to the laboratory	All specimens to be accompanied by duly filled, signed and stamped TRF.
26.	Bleeding Time Clotting Time	CCC	Fresh Finger prick sample	2 hrs	Fresh finger prick sample collected in Room No 19, OPD Building by Laboratory technicians of Department of Pathology	Manual procedure

Prepared by: Dr Meetu Agrawal

Reviewed by: Dr Mukul Singh

Approved by: Dr Sunil Ranga

Issued By: Dr Meetu Agrawal

Document Type: Controlled

27.	Urine protein/ sugar	Gynae lab	Freshly voided urine sample for patients under Antenatal care	30 minutes	Freshly voided urine sample for patients under Antenatal care	Qualitative analysis for presence of urinary protein and Sugar
28.	Screening for Anemia/ Screening Hemoglobin in ANC patients (Antenatal care)	Gynae lab	Fresh Finger Prick	30 minutes after sample submission	Fresh Finger Prick Sample collected in Room No 154, OPD Building by laboratory technicians of Department of Pathology	Hemiglobincyanide Method
29.	Bone Marrow Aspirate- Microscopic Examination	Spl Hematology	BONE MARROW ASPIRATE CONTAINER: PURPLE TOP VACUTAINER/ EDTA/2 ml OR DIRECTLY PREPARED SLIDES FROM ASPIRATE	2 working days	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Microscopic Examination
30.	Bone marrow Biopsy	Spl Hematology	Bone marrow biopsy specimen in 10% formalin	6 working days	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Microscopic examination
31	Flow cytometry with detection of Minimal Residual Disease (MRD)	Pathology Lab (NEB); Special Hematology Lab	Peripheral Blood or Bone marrow sample in EDTA (Purple cap)/2 ml	1 working day	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Immunophenotyping by 5 colour/ 6 colour flow cytometer
Prepared by: Dr Meetu Agrawal		Reviewed by: Dr Mukul Singh		Approved by: Dr Sunil Ranga		Document Type: Controlled

Version No. 3.0

Revision No: 02

Effective Date: 01/07/2023

32	HORMONAL ANALYSIS <ul style="list-style-type: none"> FSH/ LH/ PROLACTIN/ ESTROGEN/ PROGESTERONE TESTOSTERONE/ PSA/ DHEAS/ INSULIN 17-OHP Anti Mullerian Hormone (AMH) 	Main Lab	YELLOW TOP VACUTAINER/ SERUM GEL/ 4 ml	3 working days	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Chemiluminescence & ELISA
33	HORMONAL ANALYSIS <ul style="list-style-type: none"> CORTISOL 1-25 (OH)₂ VIT D pTH(Parathyroid Hormone) GH (Growth Hormone) 	Main Lab	YELLOW TOP VACUTAINER/ SERUM GEL/ 4 ml	3 working days	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Chemiluminescence & ELISA
34	THYROID FUNCTION TESTS <ul style="list-style-type: none"> T3/T4/ TSH Anti TPO antibodies THYROGLOBULIN PTH GROWTH HORMONE Free T3, Free T4 	Main Lab	YELLOW TOP VACUTAINER/ SERUM GEL/ 4 ml	1 day		Chemiluminescence & ELISA
35	TUMOUR MARKERS <ul style="list-style-type: none"> CA-125 CA 15.3 CA 15.9 CA19.9 CEA/ Alfa-feto-protein (AFP)/ BETA HCG/PSA 	Main Lab	YELLOW TOP VACUTAINER/ SERUM GEL/ 4 ml	3 working days		Chemiluminescence & ELISA
36	Glycosylated Hemoglobin HBA1C	Main Lab	YELLOW TOP VACUTAINER/ SERUM GEL/ 4 ml	1 day	Specimen to be	Antigen Antibody interaction reaction
Prepared by: Dr Meetu Agrawal		Reviewed by: Dr Mukul Singh	Approved by: Dr Sunil Ranga	Issued By: Dr Meetu Agrawal		Document Type: Controlled

					collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	
37	AUTOIMMUNITY PROFILE <ul style="list-style-type: none"> ANA ds DNA Anti- Cardiolipin antibody 	Main Lab	YELLOW TOP VACUTAINER/ SERUM GEL/ 4 ml	2 weeks	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	ELISA
38	IMMUNOGLOBULIN PROFILE <ul style="list-style-type: none"> (Serum IgA/ IgG/ IgM) Serum IgE 	Main Lab Spl Hemat	YELLOW TOP VACUTAINER/ SERUM GEL/ 4 ml	2 weeks		<ul style="list-style-type: none"> Radioimmunoassay & Nephelometry (IgA/ IgG/ IgM) Chemiluminescence & ELISA (IgE)
39	Serum FERRITIN	Main Lab	YELLOW TOP VACUTAINER/ SERUM GEL/ 4 ml	2 weeks	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Chemiluminescence & ELISA
40	Serum Complement levels (C3,C4)	Spl Hematolo BY	YELLOW TOP VACUTAINER/ SERUM GEL/ 4 ml	2 weeks	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/	Radioimmunoassay & Nephelometry

					Manuals/ SCHM 02 to be referred	
41	ABDR[HLA typing]	Molecular lab	Peripheral Blood or Bone marrow sample in EDTA (Purple cap)/2 ml	1 week	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Fully Automated HLA Typing
42	Miscellaneous POCT tests Troponin I Procalcitonin NT-Pro BNP CK-MB CRP D-Dimer	Main lab Emergency Lab	Peripheral Blood Smear in EDTA Vacutainer (Purple Top vacutainer) for Troponin I, Procalcitonin & NT-Pro BNP. In Yellow Top (Plain/ Gel based vacutainer) for C reactive Protein and Trisodium Citrate (Blue Top vacutainer) for D-Dimer	1 day in main Lab; 2 hours in Emergency Lab	Specimen to be collected as marked on the vacutainer For specimen Collection guidelines SJH/DOP/ Manuals/ SCHM 02 to be referred	Immunofluorescence technology with standard F analyzer SD Biosensor