

DRAFT

**Indian Public Health Standards (IPHS)
For
31 to 50 Bedded
Sub-District/Sub-Divisional Hospitals**

GUIDELINES
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**Directorate General of Health Services
Ministry of Health & Family Welfare
Government of India**

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1. Introduction

Sub-district (Sub-divisional) hospitals are below the district and above the block level (CHC) hospitals and act as First Referral Units for the Tehsil /Taluk /block population in which they are geographically located. Specialist services are provided through these sub-district hospitals and they receive referred in cases from neighboring CHCs. These hospitals should play an important referral link between the Community Health Centres, Primary Health Centres and sub-centres. They have an important role to play as First Referral Units in providing emergency obstetrics care and neonatal care and help in bringing down the Maternal Mortality and Infant Mortality. It also saves the travel time for the cases needing emergency care and reduces the workload of the district hospital. In some of the states, each district is subdivided in to two or three sub divisions. A subdivision hospital caters to about 5-6 lakhs people. In bigger districts the sub-district hospitals fills the gap between the block level hospitals and the district hospitals. There are about 1200 such hospitals in the country with a varying strength of number of beds ranging from 50 to 100 beds or more.

The Government of India is strongly committed to strengthen the health sector for improving the availability, accessibility of affordable quality health services to the people. In order to improve the quality and accountability of health services a set of standards need to be there for all health service institutions including sub-district hospitals.

Standards are a means of describing the level of quality that health care organizations are expected to meet or aspire to. The key aim of standard is to underpin the delivery of quality services which are fair and responsive to client's needs, which should be provided equitably and which deliver improvements in health and well being of the population. Standards are the main driver for continuous improvements in quality. The performance of Sub-district hospitals can be assessed against a set of standards.

There has been effort to set standards for 30 and 100 bedded hospitals by the Bureau of Indian Standards (BIS). However, these standards are considered very resource intensive and lack the process to ensure community involvement, accountability and citizens charter issues that are important for public hospitals.

Under the National Rural Health Mission (NRHM), the concept of Indian Public Health Standards (IPHS) for the Health Centres/ Hospitals functioning in the country. IPHS for CHC, PHC and Sub-centres have been finalized available on the ministry's website www.mohfw.nic.in.

The current effort is to prepare Indian Public Health Standards for the Sub-district Hospitals. Reference has been made to the BIS Standard for 100 bedded hospitals; Rationalisation of Service Norms for Secondary Care Hospitals prepared by Govt. of

Tamil Nadu; District Health Facilities, Guidelines for Development and Operations, WHO, 1998 and Indian Public Health Standards (IPHS) for Community Health Centres. Setting standards is a dynamic process. This document contains the standards to bring the Sub-district Hospitals to a minimum acceptable functional grade with scope for further improvement in it. These standards are flexible as per the requirements and resources available to the concerned State/UT Government. The timeframe for implementation and achievement of these Standards could be extended for five years and to be done in phases.

Most of the existing hospitals below district level (31-50 Bed category) are located in older buildings in urbanized areas / towns as compared to most Primary Health Centres / Sub-centres. The expansions already done have resulted in construction touching the boundaries walls with no scope of further expansions. As far as possible, States should not dislocate the said hospitals to a new location (in case of dislocating to a new location, the original client group will not be able to have same access to the desired health facilities)

2. Objectives of Indian Public Health Standards (IPHS) for Sub-District Hospitals:

The overall objective of IPHS is to provide health care that is quality oriented and sensitive to the needs of the people of the district. The specific objectives of IPHS for Sub District Hospitals are:

- i. To provide comprehensive secondary health care (specialist and referral services) to the community through the Sub District Hospital.
- ii. To achieve and maintain an acceptable standard of quality of care.
- iii. To make the services more responsive and sensitive to the needs of the people of the district and act as the First Referral Unit (FRU) for the hospitals/centers from which the cases are referred to the Sub District hospitals

3. Definition of Sub District hospitals

The term Sub District / Sub Divisional Hospital is used here to mean a hospital at the secondary referral level responsible for the Sub District / Sub Division of a defined geographical area containing a defined population.

4. Categorizing of Sub District hospitals

The size of a sub district hospital is a function of the hospital bed requirement, which in turn is a function of the size of the population it serves. In India the population size of a sub district varies from 1,00,000 to 5,00,000. Based on the assumptions of the annual rate of admission as 1 per 50 populations and average length of stay in a hospital as 5 days, the number of beds required for a sub district having a population of 5 lakhs will be around 100-150 beds. However, as the population of the sub district varies a lot, it would be prudent to prescribe norms by categorizing the size of the hospitals as per the number

of beds. For the purpose of classification, we have arbitrarily leveled Sub-district Hospitals as Category-I (31-50) and Category II (51-100). We presume that above 100 beds strength, health care facility will constitute District Hospital Group.

Category I: Sub District hospitals norms for 51-100 beds.

Category II: Sub District hospitals norms for 31 to 50 beds.

The minimum functional requirement of sub district hospitals (31-50 bedded) is given as under.

5. Functions

A sub district hospital has the following functions:

1. It provides effective, affordable healthcare services (curative including specialist services, preventive and promotive) for a defined population, with their full participation and in co-operation with agencies in the district that have similar concern. It covers both urban population (sub divisional headquarter town) and the rural population of the sub division.
2. Function as a referral centre for the public health institutions below the tehseel / taluka level such as Community Health Centres, Primary Health Centres and Sub-centres.
3. Provide education and training for primary health care staff.

6. Essential Services (Minimum Assured Services)

Services include OPD, indoor and emergency services.

Secondary level health care services regarding following specialties will be assured at hospital:

Consultation services with following specialists:

General Medicine

General Surgery

Obstetric & Gynecology

Pediatrics

Anesthesia

Orthopedics

ENT

Radiologist and Ultrasonologist

Ophthalmology

Community Health

Dermatology and Venerology (Skin & VD) RTI/STI

Dental care

AYUSH

Diagnostic and other Para clinical services regarding:

Lab, X-ray, Ultrasound, ECG, Blood transfusion and storage, and physiotherapy

Support Services: Following ancillary services shall be ensured:

- ◆ Finance*
- ◆ Medico legal/postmortem
- ◆ Ambulance services
- ◆ Dietary services
- ◆ Laundry services
- ◆ Security services
- ◆ Housekeeping and Sanitation
- ◆ Inventory Management
- ◆ Waste management
- ◆ Office Management (Provision should be made for computerized medical records with anti-virus facilities whereas alternate records should also be maintained)
- ◆ Counseling services for domestic violence, gender violence, adolescents, etc. Gender and socially sensitive service delivery be assured.

* Financial accounting and auditing be carried out as per the rules along with timely submission of SOEs/UCs.

Finalcial powers of Head of the Institution

Medical Superintendent to be authorized to incure and expenditure up to Rs.15.00 lakhs for repair/upgradating of impaired equipments/instruments with the approval of executive committee of RKS.

No equipment/instruments should remain non-functional for more than 30 days. It will amount to suspension of status of IPHS of the concerned institutions for absence period.

Outsourcing of services like laundry, ambulance, dietary, housekeeping and sanitation, waste disposal etc. to be arranged by hospital itself. Manpower and outsourcing work could be done through local tender mechanism.

Following services mix of procedures in medical and surgical specialties would be available:

SERVICE MIX OF PROCEDURES IN MEDICAL AND SURGICAL SPECIALITIES

MEDICAL	
1	Pleural Aspiration

2	Lumbar Puncture
3	Skin scraping for fungus / AFB
4	Skin Biopsies
5	Abdominal tapping
OPD Procedures (Including IPD)	
1	Dressing (Small, Medium and Large)
2	Injection (I/M & I/V)
3	Catheterisation
4	Steam Inhalation
5	Cut down (Adult)
6	Enema
7	Stomach Wash
8	Douche
9	Sitz bath
10	Blood Transfusion
11	Hydrotherapy
12	Bowel Wash
Skin Procedures	
1	Chemical Cautery
2	Electro Cautery
3	Intra Lesional Injection
4	Biopsy
Paediatric Procedures	
1	Immunization (BCG, OPV, DPT, Measles, DT) / CH/ORT corner
2	Services related to new borne care + All procedures as mentioned in Medical
2.1	- only cradle
2.2	- Incubator Nebulization equipment
2.3	- Radiant Heat Warmer
2.4	- Phototherapy
2.5	- Gases (oxygen)
2.6	- Cut down
Cardiology Procedures and Diagnostic Tests	
1	ECG
2	Defibrillator Shock
Physiotherapy Services	
1	With Electrical Equipments
1.1	- Short wave diathermy
1.2	- Ultra Sonic Therapy
1.3	- Infra Red Lamp (Therapy)
1.4	- Electric Vibrator
Eye Specialist Services (Ophthalmology)	

1	OPD Procedures
1.1	- Refraction (by using snellen's chart) - Prescription for glasses using Trial frame.
1.2	- Syringing and Probing
1.3	- Foreign Body Removal (conjunctival)
1.4	- Foreign Body Removal (Corneal)
1.5	- Epilation
1.6	- Suture Removal
1.7	- Subconj Injection
1.8	- Retrobulbar Injection (Alcohol etc.)
1.9	- Tonometry
1.10	- Pterygium Excision
1.11	- Syringing & Probing
1.12	- I & C of chalazion
1.13	- Stye
1.14	- Conjunctival Resuturing
1.15	- Corneal Scraping
1.16	- I & D Lid Abscess
1.17	- Uncomplicated Lid Tear
1.18	- Indirect Ophthalmoscopy
1.19	- Retinoscopy
Obstetric & Gynecology Specialist Services	
1	Episiotomy
2	Forceps delivery
3	Craniotomy-Dead Fetus/Hydrocephalus
4	Caesarean section
5	Female Sterilization (Mini Laparotomy & Laparoscopic)
6	D&C
7	MTP
8	Bartholin Cyst Excision
9	Suturing Perineal Tears
10	Assisted Breech Delivery
11	Cervical Cautery
12	Normal Delivery
13	E U A
14	Retained Placenta & MRP
15	Suturing Cervical Tear
16	Assisted Twin Delivery
Dental Services	
1	Dental Caries/Dental Abcess/Gingivitis
2	Minor Surgeries, Impaction, Flap

3	Trauma including Vehicular Accidents
4	Sub Mucus Fibrosis (SMF)
5	Scaling and Polishing
6	Root Canal Treatment
7	Extractions
8	Amalgum Filling (Silver)
9	Intra oral X-ray
10	Complicated Extractions (including suturing of gums)
SURGICAL	
1	Abcess drainage including breast & perianal
2	Wound Debridement
3	Appendicectomy
4	Fissurotomy or fistulectomy
5	Hemorrohoidectomy
6	Circumcision
7	Hydrocele surgery
8	Herniorraphy
9	Suprapubic Cystostomy
10	Vasectomy
11	Cysts and Benign Tumour of the Palate
12	Excision Submucous Cysts
Breast	
1	Excision fibroadenoma – Lump
Hernia	
1	Ingunial Hernia repair reinforcement
2	Femoral Hernia repair
3	Strangulated Ventral or Incisional Hernia/Ingunial
Abdomen	
1	Exploratory Laparotomy
2	Gastrostomy or Jejuncstomy
3	Simple Closure of Perforated Ulcer
Pancreas	
1	Drainage of Pseudopancreatic Cyst
2	Retroperitoneal Drainage of Abscess
Appendix	
1	Emergency Appendisectomy
2	Interval Appendisectomy

3	Appendicular Abscess Drainage
Small Intestine	
1	Resection and Anastomosis
2	Multiple Resection and Anaestomosis
3	Intestinal Perforation
Liver	
1	Open Drainage of liver abscess
2	Drainage of Subdia, Abscess/Perigastric Abscess
Biliary System	
1	Cholecystostomy
2	Cholecystectomy
3	Cholecystectomy and Choledocholithotomy
Colon, Rectum and Anus	
1	Fistula in anus low level
2	Catheters
3	IV Sets
4	Colostomy Bags
5	Fistula in ano high level
6	Perianal Abscess
7	Ischiorectal Abscess
8	Ileostomy or colostomy alone
9	Haemorrhoidectomy
10	Anal Sphincter Repair after injury
Penis, Testes, Scrotum	
1	Circumcision
2	Partial amputation of Penis
3	Total amputation of Penis
4	Orchidopexy (Unilateral & Bilateral)
5	Orchidectomy (Unilateral & Bilateral)
6	Hydrocele (Unilateral & Bilateral)
7	Excision of Multiple sebaceous cyst of scrotal skin
8	Reduction of Paraphimosis
Other Procedures	
1	Suture of large laceration
2	Suturing of small wounds
3	Excision of sebaceous cyst

4	Small superficial tumour
5	Repair torn ear lobule
6	Incision and drainage of abscess
7	Injection Haemorrhoids/Ganglion/Keloids
8	Removal of foreign body (superficial)
9	Removal of foreign body (deep)
10	Excision Multiple Cysts
11	Tongue Tie
12	Debridment of wounds
13	Excision carbuncle
14	Ingrowing Toe Nail
15	Diabetic Foot And carbuncle
Urology	
1	Pyelolithotomy
2	Nephrolithotomy
3	Uretrolithotomy
4	Open Prostatectomy
5	Cystolithotomy Superopubic
6	Dilatation of stricture urethra under GA
7	Dilatation of stricture urethra without anaesthesia
8	Meatotomy
9	Trocar Cystostomy
Plastic Surgery	
1	Burn Dressing Small, medium (10% to 30%), large 30% to 60%, extensive > 60%
2	Ear lobules repair one side
3	Simple wound
4	Complicated wound
5	Simple injury fingers
6	Crush injury hand
7	Polio Surgery
8	Surgery concerning disability with Leprosy
9	Surgery concerning with TB
Orthopaedic Surgery	
1	Fractures
1.1	Open reduction int, fixation of femur, tibia, B. Bone, Forearm Humerus inter-condylar fracture of humerus and femur and open reduction and int.

	Fixation bimalleolar fracture and fracture dislocation of ankle Monteggia fracture dislocation
1.2	Medial condyle of humerus fracture lateral condyle of humerus Olecranon fracture, head of radius lower end of radius, medial malleolus patella fracture and fracture of calcaneum talus single forearm, bone fracture
1.3	Ext. fixation of hand & foot bones
1.4	Tarsals, Metatarsals, Phalanges carpals, Metacarpals, excision head fibula, lower end of tibia
1.5	Interlocking nailing of long bones
1.6	Debridement & Secondary closure
1.7	Percutaneous Fixation (small and long bones)
2	Closed Reduction
2.1	Hand, Foot bone and cervicle
2.2	Forearm or Arm, Leg, Thigh, Wrist, Ankle
2.3	Dislocation elbow, shoulder, Hip, Knee
2.4	Closed Fixation of hand / foot bone
3	Open Reduction
3.1	Shoulder dislocation, knee dislocation
3.2	Acromioclavicular or sternoclavicular Jt. Clavicle
3.3	Wrist dislocation on intercarpal joints
3.4	MP & IP Joints
3.5	Debridement of hand/foot
3.6	Fibula Radius Ulna (Clavicle) and Wrist, Ankle, Hand foot
3.7	Amputation (Thigh or arm, leg or forearm, feet or hand, digits)
3.8	POP Application (Hip Spica, Shoulder spica POP Jacket; A-K/A-E POP; B-K/B-E POP)
3.9	Patellectomy

RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS) FOR DIFFERENT ILLNESSES CONCERNING DIFFERENT SPECIALITIES:

Obstetric & Gynecology

S. No	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Bleeding during first trimester	Diagnose ,Treat
2	Bleeding during second trimester	Diagnose ,Treat

3	Bleeding during third trimester	Diagnose ,Treat & refer
4	Normal Delivery	Yes
5	Abnormal labour (Mal presentation ,prolonged labour, PROM, Obstructed labour)	Refer
6	PPH	Obstetric first aid –IV line /oxytonic Drip SOS / Inj. Ergometrine IV /Inj. Prostaglandin IM and refer Mesopros
7	Puerperal Sepsis	First Aid ,IV parenteral antibiotics and refer
8	Ectopic Pregnancy	May refer
9	Hypertensive disorders	Diagnose and refer
10	Septic abortion	Diagnose and IV parenteral antibiotics and refer
11	Medical disorders complicating pregnancy (heart disease ,diabetes ,hepatitis)	Diagnose and refer
12	Bronchial asthma	Diagnose , first aid and refer
Gynaecology		
1	RTI / STI	Treat and refer if necessary
2	DUB	Refer D & C medical management
3	Benign disorders (fibroid,prolapse ,ovarian masses) Initial investigation at PHC / Gr III level	Initial Investigations and refer
4	Breast Tumors	Refer
5	Cancer Cervix screening Initial investigation at PHC / Grade III level	Initial Investigations, Collection of PAP SMEAR and refer
6	Cancer cervix /ovarian Initial investigation at PHC / Gr III level	Diagnose and refer
7	Infertility	Basic Workout & Semen Analysis & Refer
8	Prevention of MTCT	Refer
9	MTP / MVA services	MVA
10	Tubectomy	Yes
11	Pap Smear	Yes

12	PPTCT Counseling	Yes
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GENERAL MEDICINE

S. No	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Fever -a) Short duration (<1 week)	Basic investigation and Treatment
	Fever -b) Long duration (>1 week)	Investigation and treatment Refer if necessary
	c) Typhoid	Treat uncomplicated Complicated cases refer to Gr-II - SDH
	d) Malaria / Filaria	Treat
	e) Pulmonary Tuberculosis.	Sputum +ve - Treat Sputum -ve - Ref to Gr-II-SDH
	f) Viral Hepatitis	Mild icterus, Short duration - Treat/ Long duration, Severe icterus- Refer to Gr-II-SDH
	g) Leptospirosis / Meningitis and Haemorrhagic fever	Refer to Gr-I / G-II District level
	f) Malignancy	Refer to Gr-I / G-II District
2	COMMON RESP. ILLNESSES :	
	Bronchial Asthma / Pleuraleffusion / Pneumonia / Allergic Bronchitis/COPD	Diagnose and Treat refer if necessary
3	COMMON CARDIAC PROBLEMS	
	a) Chest pain (IHD)	Diagnose and refer to Gr-II Sub district
	b) Giddiness (HT)	Diagnose and treat - Emergencies Refer to Gr-IISDH
4	G I TRACT	
a)	G I Bleed / Portal hypertension / Gallbladder disorder	Emergencies - Ref. To Gr-II / Gr-I - District Hospital
b)	AGE / Dysentry / Diarrhoreas	Treat
5	NEUROLOGY	
a)	Chronic Hpeadache	Ref. To Gr - I sub district
b)	Chronic Vertigo/ CVA/TIA/Hemiplegia/Paraplegia	Ref. To Gr - I / G-II district

6	HAEMATOLOGY	
a)	Anaemia	Basic investigation and Treatment Refer if necessary
b)	Bleeding disorder	Emergencies - Ref. to Gr-II- SDH otherwise - Ref. To Tertiary
c)	Malignancy	Ref. To Gr - I / G-II district
7	COMMUNICABLE DISEASES	
	Cholera, Measles, Mumps, and Chickenpox	Treat
8	PSYCHOLOGICAL DISORDERS	
	Acute psychosis / Obsession / Anxiety neurosis	Screening, emergency care and referral

PAEDIATRICS

S. No	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	ARI/Asthmatic Bronchitis	Diagnose, Treat & Refer if no improvement
2	Diarrohoeal Diseases	Diagnose, Treat & Refer if no improvement
3	Protein Energy Malnutrition and Vitamin Deficiencies	Diagnose, Treat, & Refer
4	Pyrexia of unknown origin	Investigate, diagnose, treat & refer if no improvement
5	Bleeding Disorders	Early Diagnosis and Refer
6	Diseases of Bones and Joints	Early Diagnosis and Refer

NEONATOLOGY

S. No	Name of the Illness	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Attention at birth (to prevent illness)	5 cleans warm chain
2	Hypothermia	Warm chain
3	Birth asphyxia	Resuscitation/Refer if Necessary
4	Hypoglycemia	Treat
5	Meconium aspiration syndrome	Treat and Refer
6	Convulsions (seizures)	Treat and Refer

7	Neonatal Sepsis	Treat and refer in necessary
8	LBW	1800-1500 gms treat with kangaroo care below that refer
9	Neonatal Jaundice	Treat and refer if necessary
10	Preterm	warm chain, feeding, kangaroo care and refer
11	Congenital malformations	Examine and refer
12	R.D.S, ARI	Manage and Refer
13	Dangerously ill baby	Identify, first-aid and refer
14	Feeding Problems	Identify and manage
15	Neonatal diarrhea	Diagnosis and manage. Refer if necessary
16	Birth injury	Minor -manage; major -refer
17	Neonatal Meningitis	identify and refer
18	Renal problems/Congenital heart disease/Surgical emergencies	Refer
19	HIV/AIDS	Refer to ARV Centre
20	Hypocalcemia	Manage and Refer
21	Metabolic Disorders	Identify & Refer
22	Hyaline Membrane diseases	Diagnose & refer
23	Neonatal Malaria	Manage/refer if needed
24	Blood disorders	Manage and refer
25	Developmental Delays	CBR
26	UTIs	Manage & refer
27	Failure to Thrive	Manage & Refer

DERMATOLOGY

S. No	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Infections	Treat
	a) Viral - HIV - Verruca Molluscum Contagiosa	
	Pityriasis Rosea, LGV, HIV	
	b) Bacteria Pyoderma Chancroid	
	Gonorrhoea, Leprosy, & Tuberculosis	
2	c) Fungal Sup. Mycosis, Subcut – Mycetoma	Identify / Treat and refer
	d) Parasitic Infestation Scabies / Pediculosis/Larva Migrans	Treat
3	e) Spirochaetes Syphilis	Diagnosis and Treat
	Papulosquamous Psoriasis (classical)-uncomplicated/Lichen Planus	Treat
4	Pigmentary Disorder Vitiligo	Treat/Refer
5	Keratinisation Disorder Ichthyosis/Traumatic Fissures	Refer/Treat
6	Autoimmune Collagen Vascular DLE, Morphea	Treat / Refer
7	Skin Tumors , Seb.Keratosis, Soft Fibroma, Benign Surface,Tumors / Cysts, Appendageal Tumors	Refer
7	Miscellaneous	Treat
	a.) Acne Vulgaris, Miliaria, Alopecia, Nail disorder,Toxin induced	
	b) Leprosy - Resistant/ Complications / reaction Allergy - EMF / SJS / TENP soriasis/Collagen Vascular/Auto immune Disorders	
	c) Deep Mycosis, STD Complications	
	d) Genetically Determined Disorders	Refer

CHEST DISEASES

S. No	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Fever	Investigation and Treatment Refer if necessary
2	Cough with Expectoration / Blood Stained	Treatment and refer if necessary
3	Hemoptysis	First Aid, Start blood transfusion and refer
4	Chest Pain	ECG Symptomatic treatment Refer
5	Wheezing	Investigation, Symptomatic treatment if necessary
6	Breathlessness	Investigation, Treatment and Refer if necessary, X-ray

PSYCHIATRY

S. No.	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Schizophrenia	Screening and Refer
2	Depression	Screening and Refer
3	Mania	Screening and Refer
4	Anxiety Disorders	Screening and Refer
5	Mental Retardation	Screening and Refer
6	Other Childhood Disorders	Screening and Refer
7	Alcohol and Drug Abuse	Screening and Refer
8	Dementia	Screening and Refer

DIABETOLOGY

S. No	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Screening for Diabetes	Diagnose and Treat
2	Gestational Diabetes/DM with Pregnancy	Diagnose and Treat
3	DM with HT	Diagnose and Treat

4	Nephropathy/Retinopathy	Diagnose and Refer
5	Neuropathy with Foot Care	Investigate, Diagnose & Treat
6	Emergency :- i) Hypoglycemia ii) Ketosis iii) Coma	Diagnose first and refer

NEPHROLOGY

S. No.	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Uncomplicated UTI	Treat
2	Nephrotic Syndrome - Children/ Acute Nephritis	Refer to SD-II
3	Nephrotic Syndrome - Adults	Refer to Tertiary Care
4	HT, DM	Annual followup / refer to Gr-II-SD
5	Asymptomatic Urinary Abnormalities	Refer to the District
6	Nephrolithiasis	Refer to District Hospital
7	Acute renal Failure/ Chronic Renal Failure	Suspect / Refer to District level
8	Tumors	Refer to Tertiary

NEURO MEDICINE AND NEURO SURGERY

S. No	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Epilepsy	First Aid, Referral and Follow up of already diagnosed cases
2	C.V.A.	First Aid and Referral
3	Infections	Referral
4	Trauma	First Aid and Referral
5	Chronic headache	Referral
6	Chronic Progressive Neurological disorder	Referral

GENERAL SURGERY

S. No		NAME OF THE SURGICAL PROCEDURE/ILLNESSES	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Basic Techniques	a. Minor Cases under LA Abcess I&D/Suturing, Excision of Lipoma / Ganglion / Lymph Node, Seb-Cyst / Dermoid / Ear Lobe Repair / Circumcision	Treat
		b. Breast Lumps, Lymph nodes Swelling	Diagnosis and Refer
2	Elective Surgeries	a. Genitourinary tract Hydrocele, Hernia, Circumcision, Supra pubic cystostomy	Treat
		b. Gastrointestinal disorder Appendicitis/Anorectal abscesses /Hemorrhoids/Fistula	Treat
3	Emergency surgeries	Assault injuries/Bowel injuries/Head injuries/Stab injuries/Multiple injuries/Perforation/Intestinal obstruction	Diagnose, treat & refer
4	Benign/ Malignant Diseases	Breast/Oral/GI tract/Genitourinary (Penis, Prostate, Testis)	Diagnose & refer

5	Others	Thyroid, Varicose veins	Diagnose & Refer
6	Burns	Burns < 15% >15%	Treat first and then Refer
7	Medico legal	a) Assault / RTA	AR entry / Treat Refer if necessary
		b) Poisonings	AR entry / Treat Refer if necessary
		c) Rape	AR entry / Treat Refer if necessary
		d) Postmortem	Done

OPHTHALMOLOGY

S. No.	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Superficial Infection	Treatment with drugs
2	Deep Infections	First aid and refer
3	Refractive Error	Treat
4	Glaucoma	Diagnosis and refer
5	Eye problems following systemic disorders	Refer
6	Cataract	Screening and refer
7	Foreign Body and Injuries	First aid and refer
8	Squint and Amblyopia/Corneal Blindness(INF,INJ, Leucoma)/ Oculoplasty	Refer
9	Malignancy/Retina Disease	Refer
10	Paediatric Ophthalmology	Refer

EAR, NOSE, THROAT

EAR		
S. No.	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	ASOM/SOM/CSOM	Treat
2	Otitis External / Wax Ears	Treat
3	Polyps	Diagnose and Refer
4	Mastoiditis	Treatment (Medical)
5	Unsafe Ear	Diagnose and Refer
THROAT		
1	Tonsillitis/Pharyngitis/Laryngitis	Treat
2	Quinsy	Diagnose and Refer
3	Malignancy Larynx	Diagnose and Refer
4	Foreign Body Esophagus	Diagnose and Refer

NOSE		
1	Epistaxis	First aid & Refer
2	Foreign Body	Treat(Removal)And refer if needed
3	Polyyps	Refer
4	Sinusitis	Treat (Medical)
5	Septal Deviation	Treat (Symptomatic)

ORTHOPADICS

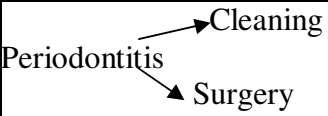
S. No.	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Osteomyelitis	X-ray / Antibiotics POP/refer
2	Rickets /Nutritional Defeciencies	Detection/ Refer Nutritional Mgt
3	Poliomyelitis with residual Deformities/JRA/RA	Prevention / Detection / Antibiotics/Anti inflammatory for JRA
4	RTA/Polytrauma	Stabilize and Refer

UROLOGY

CHILDREN		
S. No	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Hydronephrosis	Diagnose and refer
2	Urinary Tract Injuries	Diagnose and refer
3	PUV/ Posterior Urethral Valve	Diagnose and refer
4	Cystic Kidney	Diagnose and refer
5	Urinary Obstruction	Urethral Catheter Insertion Referral
6	Undesended Testis	Diagnose and refer
7	Hypospadias and Epispadias	Diagnose and refer
8	Mega Ureter	Diagnose and refer
9	Extrophy	Diagnose and refer
10	Tumours - Urinary Tact	Diagnose and refer

ADULT		
	All above and	
1	Stricture Urethra	Diagnose and refer
2	Stone Diseases	Diagnose and refer
3	Cancer - Urinary and Genital Tract	Diagnose and refer
4	Trauma Urinary Tact	Diagnose and refer
5	GUTB	Diagnose and refer
OLD AGE		
1	Prostate Enlargement and Urinary Retention	Urethral Catheter Insertion Referral
2	Stricture Urethra	Diagnose and refer
3	Stone	Diagnose and refer
4	Cancer (Kidney, Bladder, Prostate, Testis, Penis and Urethra)	Diagnose and refer
5	Trauma Urinary Tract	Diagnose and refer

DENTAL SURGERY

S. No	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Dental Caries/Dental Abscess/Gingivitis	Treatment Extraction and Filling
2	Periodontitis 	Treat by Cleaning
3	Minor Surgeries, Impaction, Flap	Treat and Refer if necessary
4	Malocclusion	Diagnose and Refer
5	Prosthodontia (Prosthetic Treatment)	Diganose and Refer
6	Trauma	Treated - First aid with drugs and refer
7	Maxillo Facial Surgeries	Refer
8	Neoplasms	Refer

HEALTH PROMOTION & COUNSELLING

S. No.	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	CHD / M.I.	Counseling / Diet advice Safe Style changes
2	Diabetes	Safe Style Changes / Physiotherapy
3	Substance Abuse	Vocational Rehabilitation Safe Style

COMMUNITY HEALTH SERVICES:

S. No.	NAME OF THE ILLNESS	RECOMMENDED SERVICE MIX (SUGGESTED ACTIONS)
1	Communicable & Vaccine Preventable Diseases	Health Promotional Activities like ORT Canon, Immunization Camps
2	Non-communicable Diseases	Epidemic Health Investigation, Promotion & Counseling Activities
3	Adolescent & School Health	Adolescent & school health promotional activities
4	Family Planning	Counseling services, camps, follow up of contraceptive users
5	HIV / AIDS	Counseling, ART

7. Physical Infrastructure

7.1. **Size of the hospital:** the size of a district hospital is a function of the hospital bed requirement which in turn is a function of the size of the population served. In India the population size of a district varies from 50,000 to 15,00,000. For the purpose of convenience the average size of the district is taken in this document as one million populations. Based on the assumptions of the annual rate of admission as 1 per 50 populations. And average length of stay in a hospital as 5 days. The number of beds required for a district having a population of 10 lakhs will be as follows:

The total number of admissions per year = $10,00,000 \times 1/50 = 20,000$

Bed days per year = $20,000 \times 5 = 1,00,000$

Total number of beds required when occupancy is 100% = $1,00,000/365 = 275$

Total number of beds required when occupancy is 80% = $1,00,000/365 \times 80/100$

7.2. **Area of the hospital:** An area of 65-85 m² per bed has been considered to be reasonable. The area will include the service areas such as waiting space, entrance hall, registration counter, etc. In case of specific requirement of a hospital, flexibility in altering the area be kept.

7.3. **Site information:** Physical description of the area which should include bearings, boundaries, topography, surface area, land used in adjoining areas, limitation of the site that would affect planning, maps of vicinity and landmarks or centers, existing utilities, nearest city, port, airport, railway station, major bus stand, rain fall and data on weather and climate. Hospital Management Policy should emphasize on quake proof, fire proof and flood proof buildings. Infrastructure should be eco-friendly and disabled (physically and visually handicapped) friendly. Provision should be made for water harvesting, generating back-up, solar energy / power back-up, and horticulture services including herbal garden. Local agency Guidelines and By-laws should strictly be followed. A room for horticulture to store garden implements, seeds etc will be made available.

7.4. Factors to be considered in locating a district hospital

- ◆ The location may be near the residential area.
- ◆ Too old building may be demolished and new construction done in its place.
- ◆ It should be free from dangers of flooding; it must not, therefore, be sited at the lowest point of the district.
- ◆ It should be in an area free of pollution of any kind, including air, noise, water and land pollution.
- ◆ It must be serviced by public utilities: water, sewage and storm-water disposal, electricity, gas and telephone. In areas where such utilities are not available, substitutes must be found, such as a deep well for water, generators for electricity and radio communication for telephone.
- ◆ Necessary environmental clearance will be taken.
- ◆ Disability Act will be followed.

7.5. Site selection criteria

A rational, step-by-step process of site selection occurs only in ideal circumstances. In some cases, the availability of a site outweighs other rational reasons for its selection, and planners and architects are confronted with the job of assessing whether a piece of land is suitable for building a hospital. In the case of either site selection or evaluation of adaptability, the following items must be considered: size, topography, drainage, soil conditions, utilities available, natural features and limitations.

7.6 In the already existing structures of a district hospital

- ◆ It should be examined whether they fit into the design of the recommended structure and if the existing parts can be converted into functional spaces to fit in to the recommended standards.
- ◆ If the existing structures are too old to become part of the new hospital, could they be converted to a motor pool, laundry, store or workshop or for any other use of the district hospital.
- ◆ If they are too old and dilapidated then they must be demolished. And new construction should be put in place.

7.7. Building and Space Requirements

Administrative Block:

Administrative block attached to main hospital along with provision of MS Office and other staff will be provided.

Circulation Areas

Circulation areas like corridors, toilets, lifts, ramps, staircase and other common spaces etc. in the hospital should not be more than 55% of the total floor area of the building.

Floor Height

The room height should not be less than approximately 3.6 m measured at any point from floor to floor height.

Entrance Area

Physical Facilities

Ambulatory Care Area (OPD)

Waiting Spaces

Registration, assistance and enquiry counter facility be made available in all the clinics.

Main entrance, general waiting and subsidiary waiting spaces are required adjacent to each consultation and treatment room in all the clinics.

Clinics

The clinics should include general, medical, surgical, ophthalmic, ENT, dental, obstetric and gynaecology, paediatrics, dermatology and venereology, psychiatry, neonatology, orthopaedic and social service department. The clinics for infectious and communicable diseases should be located in isolation, preferably, in remote corner, provided with independent access. For National Health Programme, adequate space be made available.

Nursing Services

Various clinics under Ambulatory Care Area require nursing facilities in common which include dressing room, side laboratory, injection room, social service and treatment rooms, etc.

Nursing Station: On an average, one nursing station per ward will be provided. However, it should be ensured that nursing station caters to about 40-45 beds. Out of these half will be for acute patients and chronic patients.

Diagnostic Services

Imaging

Role of imaging department should be radio-diagnosis and ultrasound along with hire facilities depending on the bed strength. The department should be located at a place which is accessible to both OPD and wards and also to operation theatre department. The size of the room should depend on the type of instrument installed. The room should have a sub-waiting area with toilet facility and a change room facility, if required. Film developing and processing (dark room) shall be provided in the department for loading, unloading, developing and processing of X-ray films. Separate Reporting Room for doctors should be there.

Clinical Laboratory

For quick diagnosis of blood, urine, etc., a small sample collection room facility shall be provided.
Separate Reporting Room for doctors should be there.

Blood Bank

Blood bank shall be in close proximity to pathology department and at an accessible distance to operation theatre department, intensive care units and emergency and accident department. Blood Bank should follow all existing guidelines and fulfill all requirements as per the various Acts pertaining to setting up of the Blood Bank.

Separate Reporting Room for doctors should be there.

Intermediate Care Area (Inpatient Nursing Units)

General

Nursing care should fall under following categories:

General Wards: Male / Female
Private Wards
Wards for Specialities

Depending upon the requirement of the hospital and catchment area, appropriate beds may be allowed for private facility. 10% of the total bed strength is recommended as private wards beds.

Location

Location of the ward should be such to ensure quietness and to control number of visitors.

Ward Unit

The basic aim in planning a ward unit should be to minimize the work of the nursing staff and provide basic amenities to the patients within the unit. The distances to be traveled by a nurse from bed areas to treatment room, pantry etc. should be kept to the minimum. Ward unit will include nursing station, doctors' duty room, pantry, isolation room, treatment room, nursing store along with wards and toilets as per the norms. On an average one nursing station per ward will be provided. It should be ensure that nursing

station caters to above 40-45 beds, out of which half will be for acute patients and chronic patients.

Private ward: Depending upon the requirement of the hospital and catchment area appropriate beds may be allocated for private facilities. However, 10% of the total bed strength is recommended as private wards beds.

Pharmacy (Dispensary)

The pharmacy should be located in an area conveniently accessible from all clinics. The size should be adequate to contain 5 percent of the total clinical visits to the OPD in one session.

Pharmacy should have component of medical store facility for indoor patients and separate pharmacy with accessibility for OPD patients.

Intensive Care Unit & High Dependency Wards

General

In this unit, critically ill patients requiring highly skilled life saving medical aid and nursing care are concentrated. These should include major surgical and medical cases, head injuries, severe haemorrhage, acute coronary occlusion, kidney and respiratory catastrophe, poisoning etc. It should be the ultimate medicare the hospital can provide with highly specialized staff and equipment. The number of patients requiring intensive care may be about 2 to 5 percent total medical and surgical patients in a hospital. The unit shall not have less than 4 beds not more than 12 beds. Number of beds will be restricted to 5% of the total bed strength. Out of these, they can be equally divided among ICU and High Dependency Wards. For example, in a 500-bedded hospital, total of 25 beds will be for Critical Care. Out of these, 13 may be ICU beds and 12 will be allocated for High Dependency Wards. Changing room should be provided for.

Location

This unit should be located close to operation theatre department and other essential departments, such as, X-ray and pathology so that the staff and ancillaries could be shared. Easy and convenient access from emergency and accident department is also essential. This unit will also need all the specialized services, such as, piped suction and medical gases, uninterrupted electric supply, heating,

ventilation, central air conditioning and efficient life services. A good natural light and pleasant environment would also be of great help to the patients and staff as well.

ICU and High Dependency Wards: Number of beds for both the units will be restricted to 5% of the total bed strength. Out of these, they can be equally divided among ICU and High Dependency Wards. For example, in a 500 bedded hospital, total of 25 beds will be for critical care. Out of these 13 may be ICU beds and 12 will be allocated for high dependency wards.

Facilities

Nurses Station
Clean Utility Area
Equipment Room

Critical Care Area (Emergency Services)

It should preferably have a distinct entry independent of OPD main entry so that a very minimum time is lost in giving immediate treatment to casualties arriving in the hospital. There should be an easy ambulance approach with adequate space for free passage of vehicles and covered area for alighting patients.

Therapeutic Services

Operation Theatre

Operation theatre usually have a team of surgeons anesthetists, nurses and sometime pathologist and radiologist operate upon or care for the patients. The location of Operation theatre should be in a quite environment, free from noise and other disturbances, free from contamination and possible cross infection, maximum protection from solar radiation and convenient relationship with surgical ward, intensive care unit, radiology, pathology, blood bank and CSSD. This unit also need constant specialized services, such as, piped suction and medical gases, electric supply, heating, air-conditioning, ventilation and efficient life service, if the theatres are located on upper floors. Zoning should be done to keep the theatres free from micro organisms. There may be four well defined zones of varying degree of cleanliness namely, Protective Zone, Clean Zone, Aseptic or Sterile Zone and Disposal or Dirty Zone. Normally there are three types of traffic flow, namely, patients, staff and supplies. All these should be properly channelized. An Operation Theatre should also have Preparation Room, Pre-operative Room and Post Operative Resting Room. Operating room should be made dust-proof and moisture proof. There should also be

a Scrub-up room where operating team washes and scrub-up their hands and arms, put on their sterile gown, gloves and other covers before entering the operation theatre. The theatre should have sink / photo sensors for water facility. Laminar flow of air be maintained in operation theatre. It should have a central air conditioning facility. It should have a single leaf door with self closing device and viewing window to communicate with the operation theatre. A pair of surgeon's sinks and elbow or knee operated taps are essential. Operation Theatre should also have a Sub-Sterilizing unit attached to the operation theatre limiting its role to operating instruments on an emergency basis only.

Theatre refuse, such as, dirty linen, used instruments and other disposable / non disposable items should be removed to a room after each operation. Non-disposable instruments after initial wash are given back to instrument sterilization and rest of the disposable items are disposed off and destroyed. Dirty linen is sent to laundry through a separate exit. The room should be provided with sink, slop sink, work bench and draining boards.

Delivery Suite Unit

The delivery suit unit be located near to operation theatre.
The delivery Suit Unit should include the facilities of accommodation for various facilities as given below:

- Reception and admission
- Examination and Preparation Room
- Labour Room (clean and a septic room)
- Delivery Room
- Neo-natal Room
- Sterilizing Rooms
- Sterile Store Room
- Scrubbing Room
- Dirty Utility

Physiotherapy

The physiotherapy department provides treatment facilities to patients suffering from crippling diseases and disabilities. The department is more frequently visited by out-patients but should be located at a place which may be at convenient access to both outdoor and indoor patients with privacy. It should also have a physical and electro-therapy rooms, gymnasium, office, store and toilets separate for male and female. Normative standards will be followed.

Hospital Services

Hospital Kitchen (Dietary Service)

The dietary service of a hospital is an important therapeutic tool. It should easily be accessible from outside along with vehicular accessibility and separate room for dietician and special diet. It should be located such that the noise and cooking odours emanating from the department do not cause any inconvenience to the other departments. At the same time location should involve the shortest possible time in delivering food to the wards.

Central Sterile and Supply Department (CSSD)

As the operation theatre department is the major consumer of this service, it is recommended to locate the department at a position of easy access to operation theatre department. It should have a provision of hot water supply.

Hospital Laundry

It should be provided with necessary facilities for drying, pressing and storage of soiled and cleaned linens.

Medical and General Stores

There are of medical and general store should have vehicular accessibility and ventilation, security and fire fighting arrangements.

Mortuary

It provides facilities for keeping of dead bodies and conducting autopsy. It should be so located that the dead bodies can be transported unnoticed by the general public and patients.

Engineering Services

Electric Engineering

Sub Station and Generation

Electric sub station and standby generator room should be provided.

Illumination

The illumination and lightning in the hospital should be done as per the prescribed standards.

Emergency Lighting

Shadow less light in operation theatre and delivery rooms should be provided. Emergency portable light units should be provided in the wards and departments.

Call Bells

Call bells with switches for all beds should be provided in all types of wards with indicator lights and location indicator situated in the nurses duty room of the wards.

Ventilation

The ventilation in the hospital may be achieved by either natural supply or by mechanical exhaust of air.

Mechanical Engineering

Air-conditioning and Room Heating in operation theatre and neo-natal units should be provided. Air coolers or hot air convectors may be provided for the comfort of patients and staff depending on the local needs.

Hospital should be provided with water coolers and refrigerator in wards and departments depending upon the local needs.

Public Health Engineering

Water Supply

Arrangement should be made for round the clock piped water supply along with an overhead water storage tank with pumping and boosting arrangements. Approximately 10000 litres of potable water per day is required for a 100 bedded hospital. Separate provision for fire fighting and water softening plants be made available.

Drainage and Sanitation

The construction and maintenance of drainage and sanitation system for waste water, surface water, sub-soil water and sewerage

shall be in accordance with the prescribed standards. Prescribed standards and local guidelines shall be followed.

Waste Disposal System

National guidelines on Bio-Medical Waste Management and a Notification of Environment and Forests are at Annexure - I.

Trauma Centre

Guidelines to be followed

Fire Protection

Telephone and Intercom

Medical Gas

Cooking Gas: Liquefied petroleum gas (LPG)

Laboratory Gas: Liquefied petroleum gas (LPG) and other specified gases.

Building Maintenance: Provision for building maintenance staff and an office-cum store will be provided to handle day to day maintenance work

Parking: Sufficient parking place as per the norms will be provided

Administrative Services: Two sections (i) General section to deal with overall upkeep of the hospital and welfare of its staff and patients (ii) Medical Records section.

Committee Room: A meeting or a committee room for conferences, trainings with associated furniture.

Residential Quarters: All the essential medical and para-medical staff will be provided with residential accommodation.

8. MANPOWER REQUIREMENT

8.1. Man Power – Doctors

S. No	Staff	Sub District Hospital
		31-50 bedded
1	Hospital Superintendent ¹	1
2	Medical Specialist	1
3	Surgery Specialists	1
4	O&G specialist	1
5	Dermatologist / Venereologist	1
6	Paediatrician	1
7	Anesthetist	1
8	Ophthalmologist	1
9	Orthopedician	1
10	Radiologist	1
11	Casualty Doctors / General Duty Doctors	7
12	Dental Surgeon	1
13	Forensic Specialist	1
14	ENT Surgeon	1
15	AYUSH Physician ²	2
	Total	22

¹ May be a Public Health Specialist or management specialist trained in public health

² Provided there is no AYUSH hospital / dispensary in the district headquarter

8.2. Man Power – Para Medical

S. No	Staff	Sub District Hospital
		31-50 bedded
1	Staff Nurse	18
2	Hospital worker (OP/ward +OT+ blood bank)	5
3	Sanitary Worker	5
4	Ophthalmic Assistant / Refractionist	1
5	ECG Technician	1
6	Laboratory Technician* (Lab + Blood Storage Unit)	5 (3+2)
7	Laboratory Attendant (Hospital Worker)	2
8	Radiographer	2
9	Pharmacist ¹	4
10	Matron	1
11	Physiotherapist	1
12	Statistical Assistant	1
13	Medical Records Officer / Technician	1
14	Electrician	1
15	Plumber	1
	Total	49

* Must have MLT qualification.

¹ One from AYUSH.

8.3. Manpower- Administrative Staff

S. No	Staff	Sub District Hospital
		31-50 bedded
1	Office Superintendent	1
2	Accountant	2
3	Computer Operator	6
4	Driver	1
5	Peon	2
6	Security Staff*	2
	Total	14

Note: Drivers post will be in the ratio of 1 Driver per 1 vehicle. Driver will not be required if outsourced

* The number would vary as per requirement and to be outsourced.

8.4. Man Power – Operation Theatre

S. No.	Staff	Sub District Headquarters Hospital
		31-50 Bedded
		Emergency / FW OT
1	Staff Nurse	2
3	OT Assistant	2
4	Sweeper	1
	Total	5

8.5. Man Power – Blood Storage

S. No	Staff	Blood Storage
1	Staff Nurse	1
2	MNA / FNA	1
3	Blood Bank Technician	1
4	Sweeper	1

9. EQUIPMENT

I Imaging Equipment		
S. No.	Name of the Equipment	31 -50 bedded Sub District Hospital
1	100 M.A. X-ray machine	1
2	Dental X ray machine	1
3	Ultra Sonogram (Obs & Gyne. department should be having a separate ultra-sound machine of its own)	1 + 1

II X Ray Room Accessories		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	X-ray developing tank	1
2	Safe light X-ray dark room	1
3	Cassettes X-ray	4
4	X-ray lobby single	2
5	Lead Apron	1
6	Intensifying screen X-ray	1

III Cardiac Equipments		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	ECG machine ordinary	1
2	Cardiac Monitor	1
3	Pulse Oximeter	1
4	Infusion pump	1
5	B.P.apparatus table model	6
6	B.P.apparatus stand model	4
7	Stethoscope	2

IV Labour ward & Neo Natal Equipments		
S. No.	Name of the Equipment	50 bedded Sub District Hospital
1	Baby Incubators	1
2	Phototherapy Unit	1
3	Emergency Resuscitation Kit-Baby	2

4	Radiant Warmer	1
5	Room Warmer	2
6	Foetal Doppler	1
7	Delivery Kit	2
8	Episiotomy kit	1
9	Forceps Delivery Kit	1
10	Vacuum extractor metal	1
11	Silastic vacuum extractor	1
12	Pulse Oximeter baby & adult	1
13	Cardiac monitor baby	1
14	Nebulizer baby	1
15	Weighing machine adult	2
16	Weighing machine infant	2
17	CTG Machine	
18	Arc	

V Eye Equipments		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	Ophthalmoscope - Direct	1
2	Slit Lamp	1
3	Retino scope	1
4	Perimeter	1
5	IOL Operation set	1

VI Dental Equipments		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	Air Rotor	1
2	Dental Unit with motor for dental OP	1
3	Dental Chair	1
4	Dental Kit	1

VII Operation Theatre Equipment		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	Auto Clave HP Vertical (2 bin)	1
2	Operation Table Hydraulic Major	1
3	Operation table Hydraulic Minor	1
4	Operating table non-hydraulic field type	1

VII Operation Theatre Equipment		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
5	Autoclave vertical single bin	1
6	Shadowless lamp ceiling type major*	1
7	Shadowless lamp ceiling type minor*	1
8	Shadowless Lamp stand model	1
9	Focus lamp Ordinary	1
10	Sterilizer big (Instrument)	1
11	Sterilizer Medium (Instrument)	2
12	Steriliser Small (Instruments)	2
13	Bowl Steriliser – big*	1
14	Bowl steriliser – Medium*	1
15	Diathermy Machine (Electric Cautery)	1
16	Suction Apparatus - Electrical	2
17	Suction Apparatus - Foot operated	1
18	Ultra violet lamp philips model 4 feet	2

* To be provided as per need.

VIII Laboratory Equipments		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	Binocular Microscope	2
2	Chemical Balances	1
3	Simple balances	1
4	Electric Colorimeter	1
7	Micro pipettes (10-100 ml), (200-1000 ml)	2 (1+1)
8	Water bath	1
9	Hot Air oven*	1
10	Lab Incubator*	1
11	Distilled water Plant	1
12	Electric centrifuge, table top	1
13	Cell Counter Electronic*	1
14	Hot plates	2
15	Rotor / Shaker	1
16	Counting chamber	2
17	PH meter	1
19	Glucometer	1
20	Haemoglobinometer	1
22	TCDC count apparatus	1
23	ESR stand with tubes	1
24	Test tube stands*	3

VIII Laboratory Equipments		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
25	Test tube rack*	3
26	Test tube holders*	3
27	Spirit lamp*	4
34	Timer stop watch	1
35	Alarm clock	1
36	Refrigerator	1
37	Laboratory Auto Claves	2
38	Automatic Processing Unit for Radiology	
39	Tonometer for Ophthalmology	

* To be provided as per need.

IX Surgical Equipment Sets		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	P.S.set	1
2	MTP Set	1
3	Biopsy Cervical Set*	1
4	D & C Set	1
5	I.U.C.D. Kit	1
6	LSCS set	1
7	MVA Kit	1
8	Vaginal Hysterectomy	1
9	Proctoscopy Set*	1
10	P.V. Tray*	1
11	Abdominal Hysterectomy set	1
12	Laparotomy Set	1
13	Formaline dispenser	1
14	Kick Bucket	4
15	General Surgical Instrument Set Piles, Fistula, Fissure*	1
16	Knee hammer	1
17	Hernia, Hydrocele*	1
18	Vaginal Examination set*	2
19	Suturing Set*	2
20	MTP suction apparatus	1
21	Thomas Splint	3
22	Mini Surgery Set*	1
23	GI Operation Set*	1
24	Appendicectomy set *	1

IX Surgical Equipment Sets		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
25	L.P.Tray*	1
26	Urethral Dilator Set	1
27	Amputation set	1
28	Crammer wire splints	6

* To be provided as per need.

X Physio Therapy Equipments		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	Skeleton traction set	1
2	Short Wave Diathermy	1

XI Endoscopy Equipments		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	Laparoscope diagnostic and for sterilisation *	1

* To be provided as per need.

XII Anaesthesia Equipments		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	Anaesthetic - laryngoscope magills with four blades	2
2	Endo tracheal tubes sets	1
3	Magills forceps (two sizes)	3
4	Connector set of six for E.T.T	3
5	Tubes connecting for ETT	4
6	Air way female*	4
7	Air way male*	8
8	Mouth prop*	6
9	Tongue depressors*	6
10	O2 cylinder for Boyles	6
11	N2O Cylinder for Boyles	6
12	CO2 cylinder for laparoscope*	2
13	Boyles Apparatus with Fluotec and circle absorber	1

* To be provided as per need.

XIII Furniture & Hospital Accessories		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	Doctor's chair for OP Ward, Blood Bank, Lab etc.	12
2	Doctor's Table	3
3	Duty Table for Nurses	4
4	Table for Sterilisation use (medium)	4
5	Long Benches(6 1/2' x 1 1/2')	10
6	Stool Wooden	8
7	Stools Revolving	6
8	Steel Cup-board	8
9	Wooden Cup Board	4
10	Racks -Steel – Wooden	5
11	Patients Waiting Chairs (Moulded)*	10
12	Office Chairs	4
13	Office Table	3
14	Foot Stools *	8
15	Filing Cabinets (for records) *	4
16	M.R.D.Requirements (record room use) *	1
17	Paediatric cots with railings	3
18	Cradle*	2
19	Hospital Cots (ISI Model)	50
20	Hospital Cots Paediatric (ISI Model)	5
21	Wooden Blocks (Set)*	1
22	Back rest*	2
23	Dressing Trolley (SS)	2
24	Medicine Almairah	1
25	Bin racks (wooden or steel)*	3
26	ICCU Cots	2
27	Bed Side Screen (SS-Godrej Model)^	As per requirement
28	Medicine Trolley(SS)	2
29	Case Sheet Holders with clip(S.S.)*	40
30	Examination Couch (SS)	2
31	Instrument Trolley (SS)	4
32	Instrument Trolley Mayos (SS)	2
33	Surgical Bin Assorted	15
34	Wheel Chair (SS)	3
35	Stretcher / Patience Trolley (SS)	2 each.
36	Instrument Tray (SS) Assorted	20
37	Kidney Tray (SS) - Assorted	20
38	Basin Assorted (SS)	20
39	Basin Stand Assorted (SS)	

XIII Furniture & Hospital Accessories		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
	(2 basin type)	3
	(1 basin type)	5
40	Delivery Table (SS Full)	4
41	O2 Cylinder Trolley(SS)	3
42	Saline Stand (SS)	10
43	Waste Bucket (SS)	20
44	Dispensing Table Wooden	1
45	Bed Pan (SS)	10
46	Urinal Male and Female	10
47	Name Board for cubicals	1
48	Waste Disposal - Bin / drums	5
49	Waste Disposal - Trolley (SS)	1
50	Linen Almirah	2
51	Stores Almirah	2
52	Arm Board Adult	6
53	Arm Board Child	6
54	SS Bucket with Lid	4
55	Bucket Plastic	6
56	Ambu bags	3
57	O2 Cylinder with spanner ward type	6
58	Diet trolley - stainless steel	1
59	Needle cutter and melter	10
60	Thermometer clinical	10
61	Thermometer Rectal	3
62	Torch light	6
63	Cheatles forceps assorted	5
64	Stomach wash equipment	2
65	Infra Red lamp	3
66	Wax bath	1
67	Emergency Resuscitation Kit-Adult	2
68	Enema Set	2
69	Ceiling Fans\$	As per requirement

* To be provided as per need.

^ At least one screen per five beds except female wards.

\$ One fan per four beds in the ward.

XIV PM Equipments		
S. No.	Name of the Equipment	31-50 bedded Sub District Hospital
1	Mortuary table (Stainless steel)*	2
2	P.M. equipments (list)	3

3	Weighing machines (Organs)	1
4	Measuring glasses(liquids)	2
5	Aprons*	10
6	PM gloves (Pairs)*	10
7	Rubber sheets*	4
8	Lens	1
9	Spot lights	1

* To be provided as per need.

XV Linen		
S. No.	Name of the Equipment	31-50 Bedded Sub District Hospital
1	Bedsheets	200
2	Bedspreads	300
3	Blankets Red and blue	20
4	Patna towels	100
5	Table cloth	30
6	Draw sheet	30
7	Doctor's overcoat	20
8	Hospital worker OT coat	25
9	Patients house coat (for female)	150
10	Patients Pyjama (for male) Shirt	100
11	Over shoes pairs	40
12	Pillows	60
13	Pillows covers	150
14	Mattress (foam) Adult	50
15	Paediatric Mattress	6
16	Abdominal sheets for OT	30
17	Pereneal sheets for OT	30
18	Leggings	40
19	Curtain cloth windows and doors	As per requirement
20	Uniform / Apron	As per requirement
21	Mortuary sheet	10
22	Mats (Nylon)	30
23	Mackin tosh sheet (in meters)	100
24	Apron for cook	As per requirement

XVI Teaching Equipments		
S. No.	Name of the Equipment	31-50 Bedded Sub District Hospital
1	Slide Projector	1
2	O.H.P	1
3	Screen	1

4	White / colour boards	1
5	Television colour	1
6	Tape Recorder (2 in 1)*	1
7	VCD Player	1
8	Radio	1

* To be provided as per need.

XVII Administration		
S. No.	Name of the Equipment	31-50 Bedded Sub District Hospital
1	Computer with Modem with UPS, Printer with Internet Connection	2
2	Xerox Machine	1
3	Intercom (15 lines)*	1
4	Fax Machine	1
5	Telephone	1
6	Public Address System*	1

* To be provided as per need.

XVIII Refrigeration & AC		
S. No.	Name of the Equipment	31-50 Bedded Sub District Hospital
1	Refrigerator 165 litres	2
2	Blood Bank Refrigerator	1
3	ILR	1
4	Deep Freezer	1
5	Coolers*	As per requirement
6	Air conditioners	3

* One cooler per 8 beds in the wards.

XIX Hospital Plants		
S. No.	Name of the Equipment	31-50 Bedded Sub District Hospital
1	Generator 40 / 50 KV	1
4	Portable 2.5 KV	1

XX Hospital Fittings & Necessities		
S. No.	Name of the Equipment	31-50 Bedded Sub District Hospital
1	Ceiling Fans*	20
2	Exhaust Fan*	6

3	Pedestal Fan*	1
4	Wall Fan*	1
5	Hotwater geiser*	1
6	Fire extinguishers*	1
7	Sewing Machine*	1
8	Lawn Mover*	1
9	Aqua guard*	4
10	Emergency trauma set*	1
11	Tube lights*	30
12	Drinking Water Fountain*	1

* To be provided as per need.

XXI Transport		
S. No.	Name of the Equipment	31-50 Bedded Sub District Hospital
1	Ambulance	1
2	Pickup vehicles Maruti (Omni)	1

10. Laboratory Services: Following services will be ensured, for advanced diagnostic tests, a list of National Reference Laboratories has been provided as annexure:

S. No.	Speciality	Diagnostic Services / Tests
I.	CLINICAL PATHOLOGY	
	a. Haematology	Haemoglobin estimation
		Total Leucocyte count
		Differential Leucocyte count
		Absolute Eosinophil count
		Reticulocyte count
		Total RBC count
		E.S.R.
		Bleeding time
		Clotting time
		Peripheral Blood Smear
		Malaria/Filaria Parasite
		Platelet count
		Packed Cell volume
		Blood grouping
		Rh typing
		Blood Cross matching

S. No.	Speciality	Diagnostic Services / Tests
	b. Urine Analysis	Urine for Albumin, Sugar, Deposits, bile salts, bile pigments, acetone, specific gravity, Reaction (pH)
	c. Stool Analysis	Stool for Ova cyst (Eh)
		Hanging drop for V. Cholera
		Occultblood
II.	PATHOLOGY	
	b. Sputum	Sputum cytology

S. No.	Speciality	Diagnostic Services / Tests
III.	MICROBIOLOGY	
		Smear for AFB, KLB (Diphtheria)
		Grams Stain for Throat swab, sputum etc.
		KOH study for fungus
IV.	SEROLOGY	RPR Card test for syphilis
		Pregnancy test (Urine gravindex)
		WIDAL test
		Rapid Test for HIV, HBs Ag, HCV

S. No.	Speciality	Diagnostic Services / Tests
V.	BIOCHEMISTRY	Blood Sugar
		Blood urea
		Serum bilirubin
		Liver function tests
		Kidney function tests
		Blood Cholesterol
		Blood uric acid

Sl. No.	Speciality	Diagnostic Services / Tests
VI.	CARDIAC INVESTIGATIONS	a) ECG
VII.	OPHTHALMOLOGY	a) Refraction by using Snellen's chart
		Retinoscopy
		Ophthalmoscopy
		Syringing
		Tension

IX.	RADIOLOGY	a) Xray for Chest, Skull, Spine, Abdomen, bones
		e) Dental Xray
		f) Ultrasonography*

* In consonance with PC and PNDT Act.

11. ALLOCATION OF BED STRENGTH AT VARIOUS LEVELS:

It should be done as per local needs.

REQUIREMENTS FOR OPERATION THEATRE

S. No	Item	Sub District Hospital
		31-50 Bedded
1	Emergency OT/FW OT	1
2	Ophthalmology /General Surgery	1

12. LIST OF MEDICINES / INSTRUMENTS / EQUIPMENTS /LAB REAGENTS / OTHER CONSUMABLES AND DISPOSABLES FOR DISTRICT HOSPITALS.

Sr. No	Name of the item
A)	Analgesics/Antipyretics/Anti Inflammatory
1	Tab.Aspirin 300mg
2	Tab.Paracetamol 500mg
3	Inj.Diclofenac sodium
4	Tab.Diclofenac sod
5	Tab.Dolonex DT 20mg
6	Tab.Ibuprofen
B)	Chemotherapeutics
7	Inj.Crystalline penicillin 5 lac unit
8	Inj. Benzathene Peniciline
9	Inj.Fortified procaine pen 4 lac
10	Inj.Ampicillin 500mg
12	Inj.Gentamycin 40mg/2ml vial
13	Inj.crystalline penicillin 10 lac unit
14	Cap.Ampicillin 250mg
15	Cap.Tetracycline 250mg
16	Tab.Trimethoprim+Sulphamethazol ss
17	Tab.Ciprofloxacin 250mg
18	Tab.Ciprofloxacin 500mg
19	Inj.Ciprofloxacin 100ml
20	Tab.Erythromycin 250mg
21	Tab.Erythromycin 500mg
22	Syrup Cotrimoxazole 50ml
23	Syrup Ampicillin 125mg/5ml 60ml
24	Inj.Cefoperazone 1Gm
25	Inj.cefotaxime 500mg
26	Tab.Norfloxacin 200mg
27	Tab.Norfloxacin 400mg
28	Tab.Ofloxacin 200mg
29	Inj.Vionocef(Ceffixime)250mg
30	Inj.Amikacin sulphate 500mg
31	Inj.Amikacin sulphate 100mg
32	Cap.Cefodroxyl 250mg
33	Inj.Amoxycillin 500mg
C)	Anti Diarrhoeal

34	Tab.Metronidazole 200mg
35	Tab. Metronidazole 400mg
36	Syrup. Metronidazole
37	Tab. Furazolidone 100mg
38	Tab. Diolaxanide Fuzate
39	Tab. Tinidazole 300mg
D)	Dressing Material/Antiseptic lotion
40	Povidone Iodine solution 500ml
41	Phenyl 5litr jar(Black Phenyl)
42	Benzalkonium chloride 500ml bottle
43	Rolled Bandage a)6cm
	b)10cm
	c)15cm
44	Bandage cloth(100cmx20mm) in Than
45	Surgical Guaze (50cmx18m) in Than
46	Adhesive plaster 7.5cm x 5mtr
47	Absorbent cotton I.P 500gm Net
48	P.O.P Bandage a) 10cm
	b)15cm
49	Framycetin skin oint 100 G tube
50	Silver Sulphadiazene Oint 500gm jar
51	Antiseptic lotion containing :
	a) Dichlorometxylenol 100ml bot
	b) Haffkinol 5litre jar
52	Sterilium lotion
53	Bacillocid lotion
52	Infusion fluids
54	Inj. Dextrose 5% 500ml
55	Inj. Dextrose 10% 500ml bottle
56	Inj. Dextrose in Normal saline 500ml bt
57	Inj. Normal saline (Sod chloride) 500ml
58	Inj.Ringer lactate 500ml
58	Inj.Mannitol 20% 300ml
60	Inj.Water for 5ml amp
61	Inj.Water for 10ml amp
62	Inj.Dextrose 25%100ml bot
63	I.V.Metronidazole 100ml
64	Inj.Plasma Substitute 500ml bot
65	Inj.Lomodex
F)	Other Drugs & Material
66	All Glass Syringes 2ml

	5ml
	10ml
	20ml
67	Hypodermic Needle (Pkt of 10 needle)
	a)No.19
	b)No.20
	c)No.21
	d)No.22
	e)No.23
	f)No.24
	g)No.25
	h)No.26
68	Scalp vein sets no a)19
	b)20
	c)21
	d)22
	e)23
	f)24
	g)25
	h)26
69	Gelco all numbers
70	Tab.B.Complex NFI Therapeutic
71	Tab.Polyvitamin NFI Therapeutic
72	Inj.Dexamethasone 2mg/ml vial
73	Inj.Vitamin B Complex 10ml
74	Inj.B12 Folic acid
75	Surgical Gloves a)6 "
	b)6.1/2"
	c)7"
	d)7.5"
76	Catgut Chromic a)1 No.
	b)2 No.
	c)1-0 No
	d)2-0 N0
	e)8-0
77	Vicryl No.1
78	Sutupak 1,1/0,2,2/0
79	Prolene
80	X Ray film 50 film packet(in Pkt) size
	a)6.1/2x8.1/2"
	b)8"x10"

	c)10"x12'
	d)12"x15"
81	Fixer
82	Developer
83	CT Scan film
84	Ultrasound scan film
85	Dental film
86	Oral Rehydration powder 27.5g
87	Ether Anaesthetic 500ml
88	Halothane
G)	Eye Drops
89	Sulphacetamide eye drops 10% 5ml
90	Framycetin with steroid eye drops 5ml
91	Framycetin eye drops 5ml
92	Ciprofloxacin eye drops
93	Gentamycin eye drops
H)	Other Material
94	Rubber Mackintosh Sheet in mtr
95	Sterile Infusion sets(Plastic)
96	Antisera I) A 5ml
	II)B 5ml
	III)D 5ml
	IV)AB 5ml
97	Inj.MethylErgometrine 0.2mg/amp
98	Inj.Streptokinase 7.5lac vial
99	Inj.Streptokinase 15lac vial
100	Inj.PAM
101	Tab.Antacid
102	ARS
103	Syp.Antacid
104	Inj.Rabipur
105	Inj.Ranitidine 2ML
106	Tab.Ranitidine
107	Tab.Omeprazole
108	Cough syrup 5litre Jar
109	Cough syrup with Noscapine 100ml
110	Coir Mattress
111	Inj.Lignocaine 1%
112	Inj.lignocaine 2%
113	Inj.Lignocaine 5%
114	Inj.Marcaine

115	Inj. Diazepam
116	Inj. Salbactum+Cefoperazone2Gm
117	Inj. Amoxicillin with clavutanite acid 600mg
118	Cap.Amoxicillin250+cloxacillin 250
119	Inj. Cefuroxime 250/750
120	Tab. Pefloxacin 400mg
121	Tab. Gattifloxacin 400mg
122	Tab. Valdecoxib 20mg
123	Tab. Atrovastatin 10mg
124	Sy. Himalt-X
125	Sy. Protein (Provita)

D)	Antibiotics and Chemotherapeutics
1	Tab.Chloroquine phosphate 250mg
2	Inj.Chloroquine phosphate
3	Inj.Quinine
4	Tab.Erythromycine Esteararte 250mg
5	Syp.Erythromycine
6	Tab.Phenoxymethyl Penicillin125mg
7	Cap.Rifampicin
8	Tab.Isoniazid 100mg
9	Tab.Ethambutol 400mg
10	Cap.Neomycin
11	Inj.Benzathine penicillin 12lac
J)	Antihistaminics/anti-allergic
12	Inj.Pheniramine maleate
13	Tab.Diphenhydramine (eqv.Benadryl)
14	Tab.Cetirizine
15	Tab.Chlorpheniramine maleate 4mg
16	Tab.Diethylcarbamazin
K)	Drugs acting on Digestive system
17	Tab.Cyclopam
18	Inj.Cyclopam
19	Tab.Bisacodyl
20	Tab.Perinorm
21	Inj.Perinorm
22	syrup.Furazolidone
23	Inj.Prochlorperazine(Stemetil)
24	Tab.Piperazine citrate
25	Tab.Mebendazole 100mg

26	Syp.Mebendazole
27	Sy.Piperazine Citrate
28	Sy.Pyrantel Pamoate
29	Tab.Belladona
L)	Drugs related to Hoemopoetic system
30	Tab.Ferrous sulphate200mg
31	Inj.Iron Dextran/Iron sorbitol
M)	Eye oint
32	Chloramphenicol eye oint & applicaps
33	Chloramphenicol + Dexamethsone oint
34	Gentamycin eye/ear drops
35	Dexamethasone eye drops
36	Drosyn eye drops
37	Atropine eye oint
N)	Drugs acting on Cardiac vascular system
38	Inj.adrenaline
39	Inj.atropine sulphate
40	Inj.Digoxine
41	Tab.Digoxine
42	Inj.Mephentine
43	Tab.Atenolol
44	Tab.Isoxuprine
45	Inj.Duvadilan
46	Tab.Methyl dopa
47	Tab.Isosorbide Dinitrate(Sorbitrate)
48	Tab.Propranolol
49	Tab.Verapamil(Isoptin)
50	tab.Enalapril2.5/5mg
O)	Drugs acting on Central/peripheral Nervous system
51	Inj.Pentazocine (Fortwin)
52	Inj.Pavlon 2ml amp
53	Inj.Chlorpromazine 25mg(like Largactil)
54	Inj.Promethazine Hcl Phenergan
55	inj.Pethidine
56	Inj.Diazepam 5mg
57	Tab.Haloperidol
58	Inj.Haloperidol
59	Tab.Diazepam 5mg
60	Tab.Phenobarbitone 30mg

61	Tab.Phenobarbitone 60mg
62	Tab.Largactil 25mg
63	Tab.Pacitane
64	Tab.Surmontil
65	Syrup.Phenergan
66	Syrup Paracetamol
67	Ethyl chloride spray
68	Lignocaine oint
69	Gentamycin eye/ear drops
70	Betnesol-N/Efcorlin Nasal drops
P)	Drugs acting on Respiratory system
71	Inj.Aminophylline
72	Tab.Aminophylline
73	Inj.Deriphylline
74	Tab.Deriphylline
75	Tab.Salbutamol 2mg
76	Syrup Tedral
77	Syrup.Salbutamol
Q)	Antiseptic Ointment
78	Furacin skin oint
79	Framycetin skin oint
R)	Drugs acting on UroGenital system
80	Tab.Frusemide 40mg
81	Inj.KCL
82	Liquid KCL
83	Tab.Pyridicil
84	Inj.Frusemide
S)	Drugs acting on Uterus and Female Genital Tracts
85	Inj.Pitocin
86	Inj.Prostodin
87	Tab. Mesoprostol
88	Tab.Duvadilan
89	Inj. Duvadilan
90	Tab.Methyl Ergometrine
91	Tab.Primolut-N
92	Haymycin vaginal tab
93	Inj. Magnesium Sulphate
94	Inj.Ethacredin lact(Emcredyl)
T)	Hormonal Preparation
95	Inj.Insulin Rapid

96	Insulin lente Besal
97	Inj. Cry Insulin
98	Inj. Mixtard
99	Inj. Testosterone plain 25mg
100	Testosterone Depot 50mg
101	Tab. Biguanide
102	Tab. Chlorpropamide 100mg
103	Tab. Prednisolone 5mg
104	Tab. Tolbutamide 500mg
105	Tab. Glibenclamide
106	Tab. Betamethasone
U)	Vitamins
107	Inj. Vit "A"
108	Inj. Cholcalciferol 16lac
109	Inj. Ascorbic acid
110	Inj. Pyridoxin 50mg
111	Inj. Vit K
112	Tab. Vit "A" & "D"
113	Tab. Ascorbic acid 100mg
V)	Other drugs
114	Inj. Antirabies vaccine
115	Inj. Antisnake venom
116	Inj. AntiDiphtheria Serum
117	Inj. Cyclophosphamide
118	Inj. Sodabcarb
119	Inj. Calcium Gluconate
120	Tab. Calcium lactate
121	Tr. Iodine
122	Tr. Benzoin
123	Glcial acetic caid
124	Benedict solution
125	Caster oil
126	Liquid paraffin
127	Glycerine
128	Glycerine Suppositories
129	Turpentine oil
130	Potassium Permanganate
131	Formaldehyde
132	Dextrose Powder
133	Methylated spirit
134	Cotrimazole lotion

135	Cotrimazole cream
136	Tab.Theophylline
137	ECG Roll
138	Burnion Oint
139	Flemigel APC Ointment
140	Syp.Himobin
141	APDYL Cough & Noscopin
142	Tab. Septilin
143	Tab. Cystone
144	Tab. Gasex
145	Syp. Mentat
146	Oint. Pilex
147	Rumalaya Gel
148	Pinku Pedratic Cough Syp.
(W)	Others
1	Tab.Liv52
2	Syrup Liv52
3	Cap. Doxycycline 100mg
4	Inj. Heparin sod.1000IU
5	Tab. Dipyridamol (Like Persentine)
6	Inj. Dopamine
7	Tab. Glyceryl Trinitrate
8	Tab.Amitryptilline
9	Tab.trifluoperazine(1 mg)
10	Tab.Nitrofurantine
11	Inj.Valethemide Bromide(Epidosyn)
12	Inj.Isolyte-M
13	Inj.Isolyte-P
14	Inj.Isolyte-G
15	Cap.Cephalexin 250mg
16	Tab.Taxim
17	Inj.Metaclopramide
18	Tab.Folic acid
19	Inj.Lignocaine Hcl 2%
20	Inj.Nor adrenaline
21	Betadine lotion
22	Tab.stilboesteral
23	Inj.Pyridoxine
24	Hydrogen peroxide
25	Inj.magnesium sulphate

26	Benzyl Benzoate
27	GammaBenzene Hexachloride
28	Inj.Tetglobe
29	Inj.Paracetamol
30	Pilocarpine eye drops 1%
31	Sy.Orciprenaline
32	Suturing needles (RB,Cutting)
33	Inj.Calcium pantothenate
34	Inj.Xylocaine 4% 30 ml
35	Halothane
36	Mixture Alkaline
37	Inj. Phenobarbitone 200mg
38	Inj. B12 (Cynacobalamine)
39	Neosporin, Nebasuef , Soframycin Pow
40	Magnasium Sulphate Powder
41	Furacin Cream
42	Xylocaine jelly
43	Formaldehyde Lotion
44	Cetrimide 100ml bott 3.5%, 1.5% 1
45	Bacitrium powder 10mg botts
46	Bleaching Powder 5 Kg Pkts(ISI Mark)
47	Ether Solvent
48	Sodium Hypochloride Sod. 5 ltrs/1 ltrs
49	Inj. Diphthoria antition ADS)10000I.U
50	Inj. Gas gangrene Antitoxin(AGGS)10000
51	Inj. Hydroxy Progesterone500mg/2ml
52	Inj. Methyl Prednisolon 500mg vial
53	Inj. Multivitamin I.V
54	Inj. Potassium chloride
55	Inj. Quinine Dihydrochloride
56	Tetanus Antitoxin 10000 I.U
57	Inj. Tetanus Toxoid 5ml vial
58	Inj. Theophylline Etophylline
59	Inj. Vitamin A
60	Tab. Ferrous sulphate200mg+Folic acid
61	Tab. Ferrous sulphate 300mg
62	Tab. Griseofulvin125mg
63	Tab. Phenobarbitone 30mg
64	Tab. Phenobarbitone 60mg
65	Tab. Pyridoxin 10mg
66	Tab. Thyroxine sod 0.1mg

67	Warfarin sod 5mg
68	Tab. Alprazolam 0.25mg
69	Tab. Amlodipine 5mg
70	Tab. Amlodipine 10mg
71	Tab. Nefidipine 20mg
72	Tab. Nefidipine 30mg
73	Tab. Riboflavin 10mg
74	Syp. Ferrous Gluconate 100ml bottle
75	Cream Fluconazole 15gm tube
76	Sus. Furazolidone
77	Oint. Hydrocortisone acetate
78	Syp. Isoniazid 100mg/5ml 100ml bot
79	Liquid paraffin
79A	Linctus codein 500ml bot
80	Cream Miconazole 2% 15gm tube
81	Syp. Nalidixic acid
82	syp. Norfloxacin
83	Phenylephrine eye drops
84	Pilocarpine eye drops 2%
85	Syp. Potassium chloride 400ml bot
86	Syp. Primaquine
87	Suspension Pyrantel pamoate
88	Sus Rifampicin
89	Syp. Salbutamol 100ml bot
90	Syp. Theophylline 100ml
90	Syp. Vitamin B. Complex
92	Vit D-3 Granules
93	Ophthalmic & ear drops
94	Glycerine Mag sulphate ear drops
95	Pilocarpine eye drops 4%
96	Oint Acyclovir 3% 5gm tube
97	Benzyl Benzoate emulsion 50ml bot
98	Oint. Betamethasone
99	Cream Clotrimazole skin 1% 15gm
100	Oint Dexamethasone 1%+ Framycetin
101	oint contain clotrimazole+Genta+Flucon
102	Oint Fluconazole 10 mg
103	Cream Framycetin 1% 20gm tube/100gm
104	Lot. Gamma benzene hexachloride 1% bt
105	Glycerine Suppository USP 3gm bott/10
106	Cream Nitrofurazone 0.2% jar of 500g

107	Oint Silversulpadiazene 1% 25g
108	AIDS Protective kit
109	EAR DROP
110	Wax Solvent Eardrops
111	Antifungal 2 Anti biotic Ear Drops (Clohoaimazole PMB)
112	Stewcd & AB Ear Drops

13. Capacity Building

Training of all cadres of workers at periodic intervals is an essential component of the IPHS for sub district hospitals. Both medical and paramedical staff should undergo continuing medical education (CME) at intervals.

Sub District hospitals also should provide the opportunity for the training of medical and paramedical staff working in the institutions below sub district level such as skill birth attendant training and other skill development / management training.

14. Quality Assurance in Service Delivery

Quality of service should be maintained at all levels. Standard treatment protocols for locally common diseases and diseases covered under all national programmes should be made available at all sub district hospitals. All the efforts that are being made to improve hardware i.e. infrastructure and software i.e. human resources are necessary but not sufficient. These need to be guided by standard treatment protocols and Quality Assurance in Service Delivery.

Quality Control

Internal Monitoring

Social audit through Rogi Kalyan Samities / Panchayati Raj Institutions

Medical Audit, Technical Audit, Financial Audit, Disaster Preparedness Audit,
Monitoring of Accessibility and equity issues, information exchange.

External Monitoring

Monitoring by PRI / Rogi Kalyan Samities

Service / performance evaluation by independent agencies

District Monitoring Committees formed under NRHM shall monitor the upgradation of Hospitals to IPHS. Annual Jansamvad may also be held as a mechanism of monitoring.

Monitoring of laboratory

Internal Quality Assessment Scheme

External Quality Assessment Scheme

Record Maintenance

Computers have to be used for accurate record maintenance and with connectivity to the District Health Systems, State and National Level.

15. Rogi Kalyan Samities (RKS) / Hospital Management Committee (HMC)

Each sub district hospital should have a Rogi Kalyan Samiti / Hospital Management Committee with involvement of PRIs and other stakeholders as per the guidelines issued by the Government of India. These RKS should be registered bodies with an account for itself in the local bank. The RKS / HMC will have authority to raise their own resources by charging user fees and by any other means and utilized the same for the improvement of service rendered by the Sub District Hospital.

16. Citizen's Charter

Each Sub District hospital should display a citizen's charter for the sub district hospital indicating the services available, user fees charged, if any, and a grievance redressal system. A modal citizen's charter is given as under.

OUR MOTTO - SERVICE WITH SMILE

CITIZENS CHARTER

This charter seeks to provide a framework which enables our users to know:

- What services are available in this hospital;
- The quality of services they are entitled to;
- The means through which complaints regarding denial or poor quality of services will be redressed.

Standards of Service:

- This is a District, Sub-district/divisional hospital;
- It provides medical care to all patients who come to the hospital;
- Standards are influenced by patients load and availability of resources;
- Yet we insist that all our users receive courteous and prompt attention.

Locations:

It is located on road in front of

This hospital has-

Doctors: (including residents).

Nurses: (including supervisory staff).
Beds:

Doctors wear white aprons and nurses are in uniform.

All Staff member wear identity cards.

General Information

Enquiry, Reception and Registration Services:

This counter is functioning round the clock.

Location guide maps have been put up at various places in this hospital.

Colour coded guidelines and directional signboards are fixed at strategic points for guidance.

Telephone enquiries can be made over telephone numbers:

....., &, Fax:

Casualty & Emergency Services:

All Casualty Services are available round the clock.

- Duty Doctor is available round the clock.
- Specialist doctors are available on call from resident doctors.
- Emergency services are available for all specialities as listed in the OPD Services.
- Emergency Operations are done in-

OT located on floor of building.

Maternity OT
Orthopaedic Emergency OT
Burns and plastic OT
Main OT for Neurosurgery cases

Emergency Operation Theatre is functioned round the clock.

In serious cases, treatment/management gets priority over paper work like registration and medico-legal requirements. The decision rests with the treating doctor.

OPD Services:

Various outpatient services available in the hospital are detailed below (as available):

OPD	Place	Time of Registration	Time of OPD
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General Medicine

Paediatrics

General Surgery

Paediatric Surgery

Neuro Surgery

Cardiac Surgery

Obstetric & Gynec.

Eye

ENT

Skin

Urology

Cardiology

Psychiatry

Radiotherapy

Neurology

Orthopaedics

Burns & plastics

Dental OPD

ISM Services:

Homeopathic

Ayurvedic

Any other

In OPDs specialists are available for consultation.

OPD services are available on all working days excluding Sundays and Gazetted Holidays.

On Saturdays, the hospital functions from AM to PM.

Medical Facilities Not Available:

Organ Transplantation

.....

.....

.....

Some specialities do not have indoor patients services:

Psychiatry

D-addiction

Dental

Nuclear Medicine

Genetic Counselling

Endochronology

Geriatrics

Laboratory Services:

Routine: Laboratory Services are provided in the field of (as available):

- Bio-chemistry
- Microbiology
- Haematology
- Cytology
- Histopathology including FNAC
- Clinical Pathology

There is a Central Collection Centre for receiving and collecting various specimens for testing. The timings for receiving specimens are 9:00 AM to 11:30 AM.

Emergency: Emergency Laboratory Services are available 24 hours for limited tests relating to clinical pathology and bio-chemistry.

Radio Diagnostic Services:

Routine: These services include:

X-Rays

Ultrasound and

CAT Scan

Routine X-Rays are done from 9:00 AM to 1:00 PM. Registration is done from 9:00 AM to 11:30 AM.

Ultrasound examination is done from 9:00 AM to 4:00 PM.

Emergency: Emergency X-Ray services are also available round the clock. CAT Scan services are also available round the clock.

Indoor Patient Services:

There are total of Wards providing free indoor patient care.

Emergency ward A admits emergency cases for medical problems.

Emergency ward B admits emergency cases for surgical problems.

There is a ----- bedded Intensive Care Unit for care of seriously ill patients.

A ----- bedded Intensive Coronary Care Unit takes care of heart patients requiring intensive treatment.

In the Burns Department, there are ----- bedded Intensive Care Unit to treat seriously injured burns patients.

There are ----- labour rooms for conducting deliveries round the clock.

----- nurseries provide necessary care to the newborns – normal as well those born with disease.

All indoor patients receive treatment under the guidance and supervision during office hours i.e. 9:00 AM to 4:00 PM.

Outside office hours, treatment is given by doctor on duty and specialists are available on call.

Free diet is provided to all patients in the General Wards.

Every patient is given one attendant pass.

Visitors are allowed only between 5:00 PM to 7:00 PM.

Investigations like CAT Scan, Ultra Sound, Barium-meal, ECHO, TMT etc. are charged for as per Government approved rates.

For poor patients, these charges can be waived partially or fully on the recommendation of the H.O.D. by the Additional Medical Superintendent. In case of emergency CMO (on duty) may waive off these charges.

A Staff Nurse is on duty round the clock in the ward.

Admitted patients should contact the Staff Nurse for any medical assistance they need.

Other Facilities:

Other facilities available include:

Cold Drinking Water

Wheel chairs and trolleys are available in the OPD and casualty.

----- Ambulances are available to pick up patients from their places (on payment of nominal charges) and also for discharged patients.

Mortuary Van is available on payment between 9:00 AM to 4:00 PM.

Public Telephone Booths are provided at various locations.

Stand-by Electricity Generators have been provided. Chemist Shops are available outside the hospital. Canteen for patients and their attendants is available.

Lifts are available for access to higher floors.

Adequate toilet Facilities for use of patients and their attendants are available.

Complaints & Grievances:

There will be occasions when our services will not be upto your expectations.

Please do not hesitate to register your complaints. It will only help us serve you better.

Every grievance will be duly acknowledged.

We aim to settle your genuine complaints within 10 working days of its receipt.

Suggestions/Complaint boxes are also provided at various locations in the hospital.

If we cannot, we will explain the reasons and the time we will take to resolve.

Name, designation and telephone number of the nodal officer concerned is duly displayed at the Reception.

Dr.
Designation.....
Tele (O)..... (R)..... (M).....
Meeting Hours..... to

Responsibilities of the Users:

The success of this charter depends on the support we receive from our users.

Please try to appreciate the various constraints under which the hospital is functioning.

On an average more than ----- lacs patients attend the OPD annually and more than ---
----- lacs patients are attended annually in the casualty and emergency wards.

Please do not inconvenience other patients.

Please help us in keeping the hospital and its surroundings neat and clean.

Please use the facilities of this hospital with care. Beware of Touts.

The Hospital is a “No Smoking Zone” and smoking is a Punishable Offence.

Please refrain from demanding undue favours from the staff and officials as it encourages corruption.

Please provide useful feedback & constructed suggestions. These may be addressed to the Medical Superintendent of the Hospital.

- ◆ “No Smoking Please”
- ◆ Don't split here & there
- ◆ Use Dustbin

- ◆ Keep Hospital Clean
- ◆ Give regards to Ladies and Senior Citizens

Guidelines for the Project providing financial support to the selected Government Hospitals for Hospital Waste Management.

The Ministry of Environment & Forests notified the “Bio-Medical Waste (Management & Handling) Rules, 1998” in July, 1998.

In accordance with the rules (Rule 4), it is the duty of every “Occupier”, i.e. a person who has the control over the institution and/or its premises, to take all steps to ensure that the waste generated is handled without any adverse effect to human health and environment. The Rules further state that every Occupier, where required, shall set up requisite bio-medical waste treatment facilities like incinerator, autoclave, microwave system for the treatment of waste, or ensure requisite treatment of waste at a common treatment facility or any other treatment facility. No untreated bio-medical waste shall be kept stored beyond a period of 48 hours (Rules 5 & 6).

The hospitals, nursing homes, clinic, dispensary, animal house, pathological lab, etc. are, therefore, required to set in place the biological waste treatment facilities. It is, however, not incumbent that every institution has to have its own waste treatment facilities. The rules also envisage that common facility or any other facilities can be used for waste treatment. However, it is incumbent on the occupier to ensure that the waste is treated within a period of 48 hours. Schedule VI of the rules also provides the time limits by which the waste treatment facilities are required to be in place.

In connection with the implementation of the Rules, it has been decided to take up pilot projects in selected Government hospitals – Central and State.

AIM: The aim of the scheme is to implement pilot projects to have a demonstration effect by providing financial assistance to identified hospitals/institutions under Central/State Governments for:

1. Purchase of equipments such as:
 - a) Incinerator
 - b) Microwave
 - c) Autoclave
 - d) Shredder
2. Other equipments including colour coded bags and puncture proof containers, protective gears, etc.
3. Civil and electrical works to house and operate the waste treatment facilities.
4. Training
5. IEC activities.

Hospital Waste Management System must be established in accordance with the Bio-Medical Waste (Management & Handling) Rules, 1998 (Annexure).

Segregation must be done at the source of generation of waste. As 80-85% of waste generated in hospitals is non-hazardous or general waste, segregation will reduce the quantum of waste that needs special treatment to only 15-20% of the total waste. The categories for segregation of waste and colour coding and type of container should be as in Schedule 1 and 2 of the Bio-Medical Waste (Management & Handling) Rules, 1998.

The various options for treatment of waste can be selected according to feasibility and type of waste as given in the Schedule – I. The correct colour bag should be used for the particular treatment option.

The various options are:

1. **Incineration:** The incinerator installed must meet the specification and emission standards as given in the Bio-Medical Waste (Management & Handling) Rules, 1998 and must meet the guidelines developed by Central Pollution Control Board for design and construction of bio-medical waste incinerator (circulated to all States/UTs vide letter no. Z.28015/50/2003-H, dated 18.11.2003) – a certificate may be taken from the State Pollution Control Board. Waste category, 1, 2, 3, 5, & 6 as stated in the Schedule – I of the bio-Medical Waste (Management & Handling) Rules, 1998. Wherever common facilities for treatment and disposal of bio-medical waste are available, installation of incinerators by individual hospitals may not be encouraged and such waste should be transported to the common facility for proper treatment.
2. **Autoclaving/Microwaving:** Standards for autoclaving and microwaving are provided in the Bio-Medical Waste (Management & Handling) Rules, 1998. The equipment for autoclaving or microwaving waste should conform to these standards. These options can be selected for waste categories 3, 4, 6, 7 of Schedule – I of the Bio-Medical Waste (Management & Handling) Rules, 1998.
3. **Shredder:** Shredding will cause a reduction in the volume of waste and will also effectively prevent its re-use. It is required for waste category 4 and 7 of the Schedule – I of the Bio-Medical Waste (Management & Handling) Rules, 1998. It should be ensured that waste is disinfected by chemicals/microwaving/autoclaving before shredding.
4. **Needle and Syringe Destroyer:** These units can be used for needles and syringes at the point of use. These will destroy the used needles reducing it to ashes and cut the syringe effectively preventing the re-use.
5. **Transportation of Waste:** Within the hospital in dedicated wheeled containers, trolleys or carts should be used to transport the bins or plastic bags to the site of storage/treatment. The wheeled container should be designed so that waste can be easily loaded, remain secure during transportation, does not have sharp edges and is easy to clean and disinfect.

The assistance will be given direct to the hospital/institute for purchase of equipments for waste treatment facilities/installation of equipment and civil/electrical works to house the waste treatment facilities, training, IEC activities including preparation and

publication of literature, posters, pamphlets, etc. The financial assistance will be limited to Rs.85 lakhs per hospital or Rs.1.50 crore per State/UT. The estimated costs are as under:-

1. Incinerator or Microwave	=	Rs.35.00 lakhs
2. Shredder (Approx. 100 kg to 360 kg./hour)	=	Rs.10.00 lakhs
3. Autoclave (Approx. Cap. Vol. 1015 litres)	=	Rs.30.00 lakhs
4. Waste transportation: Onsite-wheel barrow/wheeled container or similar carriage	=	Upto max. of Rs.50,000.00
5. Civil and Electrical works	=	Rs.2.50 lakhs
6. Literature/IEC/Training of Staff	=	Rs.2.00 lakhs
7. Procurement of equipments like needle shredder puncture proof containers for sharps, colour coded bags, trolleys, protective gears for staff etc. for Disposal of hospital wastes	=	Rs.5.00 lakhs

The following eligibility conditions have to be fulfilled for availing of financial assistance:

- i. The application for financial assistance should be forwarded to this Ministry through the State Government/UT Administration concerned.
- ii. The State Government/UT Administration should ensure that the existing facilities are inspected by a responsible officer and deficiencies pointed out. The proposal for additionalities, if any, in the form of equipment should be, as far as possible, by way of complementary equipments supported by estimates of concerned authorities.
- iii. The cost of equipments to be purchased should be indicated. The equipments will be purchased as per prescribed procedure. These will be entered into an Assets Register to be maintained by the hospital.
- iv. The grant will be subject to the condition that the State Government / UT Administration will give an undertaking that adequate arrangements for running the equipments and their maintenance for disposal of hospital waste shall be made.
- v. The grant will be subject to the condition that the State Government/UT Administration/Hospital will give an undertaking that they will provide the required trained manpower for running of the equipments and their maintenance for proper treatment and disposal for the bio-medical waste.
- vi. The funds sanctioned will be utilized for the purpose for which it is sanctioned.

- vii. The accounts of the hospital about purchase of equipment/maintenance of the equipments/transportation of thw waste/expenditure incurred on civil/electrical works will be audited by the Accountant General of the State Government / UT Administration and its utilization certificate will be forwarded to the Ministry of Health & Family Welfare within a period of six months after the expiry of the financial year during which the grants is sanctioned.

The financial assistance will be limited to Rs.85 lakhs per hospital or Rs.1.5 crore per State/UT. The State/UTs will have the option to choose any equipment (s) from the list above to cover as many hospitals as possible. However, the financial assistance per State will be provided upto a maximum amount of Rs.1.5 crore.

Scrutiny of Applications:

The applications received from the State Government/UT Administrations for setting up of facilities for disposal of hospital waste in the hospitals under their administrative control will be considered in the Ministry in a Committee headed by Additional Secretary and proposals cleared for giving financial assistance. The proposals then will be processed for sanction of financial assistance to the Government Hospitals/institutes. In the case of Central Government Hospitals/Institutions, the Head of the Institutions may send their proposal through Dte.GHS.

The Joint Secretary (Hospital), DDG level officer in the Dte.GHS concerned with hospitals matters will be the Nodal Officer for implementation of the scheme. The proposals will be examined through a Committee consisting of Additional Secretary, Chairman, the Joint Secretary dealing with hospital matters, Joint Secretary (FA) or his representative, DDG level officer dealing with hospitals in Dte.GHS and one representative of Central Pollution Control Board/Ministry of Environment & Forests as members. The Member Secretary of the Committee will be Director/Deputy Secretary dealing with hospital matters. The funds for setting up facilities for disposal of hospital waste will be sanctioned to the State Government/UT Administration/Occupier and it will be implemented by the concerned Government and to the concerned Head of the Hospital in case of Central Government Hospitals/Institutions.

REFERRAL LABORATORY NETWORKS

Referral Laboratory Network for Advanced diagnostic facilities

	IDSP Level - 4 Labs					IDSP Level - 5 Labs
	Central Zone	South Zone	North Zone	East Zone	South Zone	

Advance Diagnostic Facilities

Bacterial diagnosis						
Enteric bacteria: <i>Vibrio cholerae</i> , <i>Shigella</i> , <i>Salmonella</i>		CMC Vellore Trivandrum Medical College	PGIMER Chandigarh AIIMS Delhi CRI Kasauli	RMRC Dibrugarh, Cuttack Medical College	KEM Mumbai, AFMC Pune	NICED & NICD
<i>Streptococcus pyogenes</i> and <i>S pneumoniae</i>	Indore Medical College	St. John Medical College, Bangalore	VP. Chest University of Delhi	-	BJ MC	CMC Vellore
<i>C.diphtheriae</i>	BHU	CMC, Vellore	NICD, Delhi	STM, Kolkata	AFMC, Pune	VP Chest Institute, Delhi
<i>Neisseria meningitidis</i> and <i>N. gonorrhoeae</i>	SN Medical College, Agra	State PH Lab Trivandrum	PGIMER Chandigarh	-	Surat Medical College	CMC Vellore & PGIMER Chandigarh
<i>Staphylococcus</i>	BHU	MGR Medical University	Maulana Azad Medical College, Delhi	STM, Kolkata	AFMC, Pune	NICD, Delhi

Tuberculosis	State TB Demonstration & Training Centre (for all zones) ICGEB, Delhi					NTI, TRC
Leptospirosis	DRDE	Virology Institute, Allepey Tamil Nadu University, Chennai VCRC, Pondicherry	AIIMS IVRI	RMRC, Bhubaneswar & Dibrugarh	BJMC	RMRC Port Blair

Viral Diagnosis

Enteric viruses	DRDE	CMC, Vellore	AIIMS & Villupuram Chest Institute	NICED Kolkata	-	EVRC, Mumbai, NIV & NICD
Arboviruses	DRDE	CMC, Vellore	AIIMS & NICD Delhi Chest Institute	NICED Kolkata	-	NIV
Myxoviruses	DRDE	CMC, Vellore	AIIMS & NICD Delhi Chest Institute	NICED Kolkata	-	NIV, HSADL Bhopal
Hepatitis viruses	DRDE	CMC, Vellore	AIIMS ICGEB, Delhi	NICED Kolkata	-	NIV
Neurotropic viruses	DRDE	CMC, Vellore	AIIMS & NICD Delhi	-	-	NIV NIMHANS
HIV	DRDE	CMC, Vellore	AIIMS	-	-	NARI, NICD & NACO ICGEB, Delhi

Parasitic Diagnosis

Malaria	All State Public Health Laboratories	MRC, Delhi ICGEB, Delhi
Filaria	All State Public Health Laboratories	NVBDCP, Delhi VCRC Pondicherry

Zoonoses

Dengue	DRDE	VCRC, Pondicherry Institute of Virology, Aleppey	AIIMS	NICED	NIV	NIV ICGEB, Delhi
JE	DRDE	CRME, Madurai & NIMHANS VCRC, Pondicherry	AIIMS	NICED	NIV	NIV /NICD
Plague	DRDE	NICD Bangalore	NICD, Delhi	-	Haffikins Institute	NICD, Delhi
Rickettsial diseases	DRDE	CMC, Vellore	-	-	AFMC	NICD IVRI

Others of Public Health Importance

Anthrax	DRDE	CMC, Vellore	IGIB	NICED, Calcutta	BJMC	NICD IVRI
Microbial water quality monitoring	NEERI, Nagpur	CMC Vellore, Trivandrum Medical College	PGIMER Chandigarh AIIMS Delhi CRI Kasauli	RMRC, Dibrugarh, Cuttack Medical College	KEM Mumbai, HAFFKIN's, Mumbai AFMC Pune	NICED & NICD

Unknown pathogens	Other laboratories to perform support functions	NIV, NICD, HSADL
Outbreak investigation support	Medical Colleges and state public health laboratories as L3/ L4	NICD, NIV, NICED, VCRC
Laboratory data management	Medical Colleges, state public health laboratories and all the L4 & L5 laboratories (in their area of expertise)	NIV, NICD
Capacity building	All the L4 & L5 laboratories (in their area of expertise)	NIV, NICD
Quality assurance	All the L4 & L5 laboratories (in their area of expertise)	CMC, TRC, NTI, AFMC, NARI, RMRC, Port Blair NIV, NICD
Quality control of reagents & kits evaluation	All the L4 & L5 laboratories (in their area of expertise)	CMC, TRC, NARI, RMRC, Port Blair NIV, NICD, BJMC, NICED

Production & supply of reagents/ kits/ biological/ standard reference materials	-	DRDE, NIV, IVRI, NICED, NICD, MRC, Delhi AFMC, Pune NARI TRC, Chennai RMRC, Port Blair
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Biosafety & bio-containment	Other laboratories to perform support function	HSADL, NIV/MCC, DRDE, NICD
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LIST OF ABBREVIATIONS

BJMC	BJ Medical College
CHC	Community Health Centre
CME	Continuing Medical Education
CSSD	Central Sterile and Supply Department
CRI	Central Research Institute
CRME	Centre for Research in Medical Entomology
DRDE	Defense Research and Development Establishment
ICGEB	International Centre for Genetic Engineering and Bio-technology
EVRC	Enterovirus Research Centre
FRU	First Referral Unit
HSADL	High Security Animal Diseases Laboratory
IGIB	Institute of Genomics and Integrative Biology
IPHS	Indian Public Health Standards
IVRI	Indian Veterinary Research Institute
KEM	King Edmund Memorial Hospital
MRC	Malaria Research Centre
NARI	National AIDS Research Institute
NEERI	National Environmental Engineering Institute
NICED	National Institute of Cholera and Endemic Diseases
NIV	National Institute of Virology
NRHM	National Rural Health Mission
PRI	Panchayati Raj Institution
RKS/HMC	Rogi Kalyan Samiti / Hospital Management Committee
RMRC	Regional Medical Research Centre
STM	School of Tropical Medicines
VCRC	Vector Control Research Centre

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