**THE MINIMUM SERVICE DELIVERY PACKAGE (MSDP) FOR SECONDAY HEALTHCARE FACILITIES IN SINDH PROVINCE: UPDATING THE STANDARDS**

**JOINT COLLABORATION OF**

**SINDH HEALTHCARE COMMISION**

**ENTERPRISE FOR MEDICAL EDUCATION AND RESEARCH (E.M.E.R.)**

**APPNA INSTITUTE OF PUBLIC HEALTH**

**AND**

**UNICEF**

**Message by Secretary of Health**

**Message by CEO SHCC**

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**ACRONYMS**

|  |  |
| --- | --- |
| **ANC** | **Antenatal Care** |
| **AOM** | **Acute Otitis Media** |
| **ARI** | **Acute Respiratory Infection** |
| **ATLS** | **Advanced Thoracic Life Support** |
| **BHU** | **Basic Health Unit** |
| **BLS** | **Basic Life Support** |
| **CCF** | **Congestive Cardiac Failure** |
| **CCHF** | **Crimean Congo Hemorrhagic Fever** |
| **CD** | **Community Dispensary** |
| **CHW** | **Community Health Worker** |
| **CMW** | **Community Midwife** |
| **COM** | **Chronic Otitis Media** |
| **COPD** | **Chronic Obstructive Pulmonary Disease** |
| **DHQH** | **District Headquarter Hospital** |
| **DOH** | **Department of Health** |
| **DVT** | **Deep vein Thrombosis** |
| **EBF** | **Exclusive Breastfeeding** |
| **EML** | **Essential Medicines List** |
| **EPHS** | **Essential Package of Health Services** |
| **EPI** | **Expanded Program on Immunization** |
| **HANDS** | **Health and Nutrition Development Society** |
| **HCDS** | **Healthcare Delivery System** |
| **HDI** | **Human Development Index** |
| **HIV** | **Human Immunodeficiency Virus** |
| **IHD** | **Ischemic Health Disease** |
| **IHS** | **Integrated Health Services** |
| **IU** | **International Units** |
| **IYCF** | **Infant Young Child Feeding** |
| **LBW** | **Low Birth Weight** |
| **LHV** | **Lady Health Visitor** |
| **LHW** | **Lady Health Worker** |
| **LRTI** | **Lower Respiratory Tract Infection** |
| **MCHC** | **Maternal Child Health Center** |
| **MERF** | **Medical Emergency Resilience Foundation** |
| **MI** | **Myocardial Infarction** |
| **MNCH** | **Maternal. Neonatal and Child Health** |
| **MSDP** | **Minimum Service Delivery Package** |
| **NCD** | **Non-Communicable Diseases** |
| **NGO** | **Non-Government Organizations** |
| **NNS** | **National Nutrition Survey** |
| **PDHS** | **Pakistan Demographic Health Survey** |
| **PEI** | **Poverty Eradication Initiative** |
| **PHC** | **Primary Healthcare** |
| **PNC** | **Postnatal Care** |
| **PPHI** | **People’s Primary healthcare Initiative** |
| **PPP** | **Public Private Partnership** |
| **PUD** | **Peptic Ulcer Disease** |
| **RA** | **Rheumatoid Arthritis** |
| **RHC** | **Rural Health Center** |
| **SBA** | **Skilled Birth Attendant** |
| **SRSO** | **Sindh Rural Support Organization** |
| **STI** | **Sexually Transmitted Infection** |
| **TBA** | **Traditional Birth Attendant** |
| **THQH** | **Taluka Headquarter Hospital** |
| **TRF** | **Technical Resource Facility** |
| **UNICEF** | **United Nation’s Children Fund** |
| **URTI** | **Upper Respiratory Tract Infection** |
| **USAID** | **United States Agency for International Development** |
| **UTI** | **Urinary Tract Infection** |
| **WHO** | **World Health Organization** |
| **WMO** | **Woman Medical Officer** |
| **W/V** | **Weight by Volume** |
| **W/W** | **Weight by Weight** |

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**SECTION 1: CONCEPTUAL FRAMEWORK**

* 1. **BACKGROUND: HEALTHCARE SYSTEM ORGANIZATION OF PAKISTAN**

The concept of health care system includes the involvement of the people, organizations, agencies, and resources that provide services to meet the health needs of the individual, community, and population (1). In a balanced health care system people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services, through the different levels and sites of care within the health system (2).

Pakistan has a mixed health system that includes public, parastatal, private, civil society, philanthropic contributors, and donor agencies (Figure 1). In Pakistan, health care delivery to the consumers is systematized through four modes of preventive, promotive, curative, and rehabilitative services. Furthermore, in Pakistan under article 18th amendment the health care services are the obligations of provisional government except for the federal area (3).

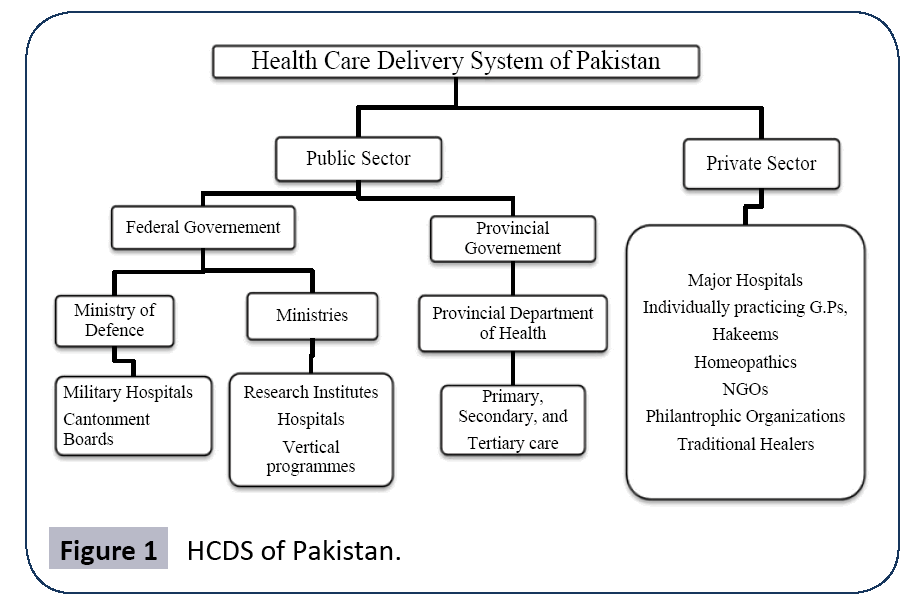
The public health delivery system functions through a three-layer approach primary, secondary, and tertiary (**Figure 1**).

**Primary Health Care (PHC)** – refers to "essential health care" that is based on practical, scientifically sound and socially acceptable methods and technology, which make universal health care accessible to all individuals and families in a community (4). PHC in Pakistan has two components

1. *Community component* of service provision through frontline health workers (Community Health Workers, Lady Health Workers, Community Midwives and Vaccinators) that involves primarily preventive and health promotive services.
2. *Health facility component* including Basic Health Units (BHUs), and Rural Health Centers (RHCs), Maternal and Child Health Centers (MCHCs) and Civil Dispensaries. The MCHCs and Civil Dispensaries are often located in urban and large rural areas.

**Secondary Health Care** – refers to the medical care that is provided by a specialist or facility upon referral from primary care and that requires more specialized knowledge, skill, or equipment than the primary care professional can provide. The Secondary level health facilities in Pakistan include Tehsil Headquarter Hospital (THQH) and District Headquarter Hospital (DHQH). The services provided at the health facilities are primarily curative in nature. The Primary and Secondary Health Care constitutes the District Health Service system.

**Tertiary Health care** – refers to state of the art specialized consultative health care that involves all specialties and sub-specialties supported by availability of required infrastructure, human resource, supplies, medicines and equipment including Hi-tech medical equipment. These tertiary care hospitals are generally located in the provincial capital and ideally expected to receive patients from secondary care hospitals situated in the districts. With few exceptions, these are also affiliated with the medical teaching institutions for graduates and post-graduates.



* 1. **HEALTH PROFILE OF SINDH**

***Population and its distribution***

Sindh is the most urbanized and industrialized province of Pakistan. The Province of Sindh has an area of 140,914 sq. kilometers giving an average population density of 340 persons per square kilometer (5). The estimated population of Sindh in 2017 was 47.89 million (6). Male/Female and Urban/Rural distribution of population is almost equal (Figure 2)

Figure 2: Distribution of Population in Sindh (Source: Census 2017)

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***Major Health Indicators***

Sindh has the 2nd highest Human Development Index (HDI) out of all of Pakistan's provinces at 0.628 (7). In spite of extensive network of health care facilities, health status of the people of the province as a whole is below the desired level. As per the information available in recent Pakistan demographic and health survey and National Nutrition Survey, it has been observed that health indicators in Sindh are at par with national average, however they a below the level of provinces of Punjab and Khyber Pakhtunkhwa.

*Child Health and Nutrition*

According to Pakistan Demographic and Health Survey 2017-18 (8), immunization coverage of all basic vaccines among children in dismally low at 49%. One third of children reported having experienced fever in the last two weeks. Child mortality rates are also unacceptably high. Sindh is severely affected by intensifying malnutrition and stunting indicators. According to National Nutrition Survey 2018, as many as 45.5 per cent children under the age of five are stunted while wasting counts for 23.3 percent children, 41.3 percent are underweight and 5.2 percent are overweight (9).

Maternal Health and Family Planning

Maternal care indicators have improved in Sindh but family planning indicators need a catch up. Three fourths of women have access of skilled birth attendance and most of them deliver in health facility. However, only 20.1% of women utilize public sector health facilities which is indicative of high use of private services. Contraceptive prevalence continue to be low at 30% while fertility rates are very high especially for rural areas.

Communicable and Non-Communicable Diseases

There is dearth of information on burden of communicable and non-communicable diseases and their risk factors. Statistics on risk factors for communicable diseases are alarming. Half of the population has no awareness on mode of transmission of tuberculosis. Although access to improved water source and sanitation have improved, only percent of the population has access to safe drinking water sources (10, 11). Moreover, risk factors for non-communicable diseases are also on rise with almost one out of every 6 men using some form of tobacco.

**Table 1: Key Health Indicators of Sindh**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Sindh | Pakistan |  |
| Child Health and Nutrition (Children <5 years) | | |  |  |
|  | Exclusive Breastfeeding | 52.3% | 48.4% | NNS 2018 |
|  | Underweight | 41.3% | 28.9% | NNS 2018 |
|  | Stunting | 45.5% | 40.2% | NNS 2018 |
|  | Wasting | 23.3% | 17.7% | NNS 2018 |
|  | Overweight | 5.2% | 9.5% | NNS 2018 |
|  | Immunization Coverage (12-23 M) | 49% | 66% | PDHS 2017 |
|  | Prevalence of ARI in last two weeks | 14.7% | 13.8% | PDHS 2017 |
|  | Prevalence of Diarrhea in last two weeks | 14.4% | 19.1% | PDHS 2017 |
|  | Prevalence of Fever in the last two weeks | 33.6% | 37.6% | PDHS 2017 |
|  | Under 5 Mortality rate | 77/1000 | 74/1000 | PDHS 2017 |
|  | Infant Mortality Rate | 60/1000 | 62/1000 | PDHS 2017 |
|  | Neonatal Mortality Rate | 38/1000 | 42/1000 | PDHS 2017 |
|  | Perinatal Mortality Rate | 52/1000 | 57/1000 | PDHS 2017 |
| Maternal Health and Family Planning | | | |  |
|  | Antenatal Care by Skilled Provider | 85.7% | 86% | PDHS 2017 |
|  | Low Birth Weight | 22.5% | 22% | PDHS 2017 |
|  | Delivery by Skilled Birth Attendant | 74.8% | 69.3% | PDHS 2017 |
|  | Institutional Delivery | 71.8%  (20.1% in public sector facilities) | 66%  (22.4% in public sector facilities) | PDHS 2017 |
|  | Contraceptive Prevalence Rate | 30.9% | 34.2% | PDHS 2017 |
|  | Total Fertility Rate | 3.6 | 3.6 | PDHS 2017 |
|  | Birth Spacing of minimum two years | 33.1% | 36.6% | PDHS 2017 |
|  | Teenage Pregnancies | 9.9% | 8.1% | PDHS 2017 |
| Communicable and Non-Communicable Diseases | | | |  |
|  | Tobacco Use | 6.7% F  16.3% M | 4.7% F  22.6% | PDHS 2017 |
|  | Overweight | 7.8% F  7.4% M |  | PDHS 2017 |
|  | Using Improved Water Source | 91.3% | 92.6% | NNS 2018 |
|  | Using Improved Sanitation Source | 71.6% | 84.7% | NNS 2018 |
|  | Using Insecticide Treated Nets | 5.2% | 3.6% | PDHS 2017 |
|  | Knowledge on mode of transmission of Tuberculosis | 50.4% F  51.6% M | 55.4% F  52.8% M | PDHS 2017 |

**1.3 SECONDARY HEALTHCARE SERVICES IN SINDH**

Health Services are delivered through Health Department of Sindh, Public Private Partnership PPP, and private organizations/NGOs. The private health services sector is dominated by “clinics”, the small office- based practices of general practitioners. Other private sector facilities include maternal and child health centers (maternity homes), dispensaries and diagnostic laboratories. In addition, there are some large hospitals, mainly run by private owners and NGOs and are located in major cities. The quality of care in the private sector is not standardized and regulated. Healthcare in Sindh is delivered at primary, secondary and tertiary levels though outreach and hospital based services. Secondary healthcare services primarily comprise of Taluka Headquarter Hospitals (THQ’s) and district Headquarter Hospitals (DHQ’s) while there are other hospitals classified as other hospitals in large cities which provide secondary level of care. The DHQ’s are run mainly by department of health with exception of two facilities contracted out to NGO’s. Similarly, some THQ’s in the province have been contracted out to Integrated Health Services.

**Table 2: Secondary Healthcare Facilities in Sindh**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| S.no | **Type of HF** | **HF’s with**  **HANDS/INDUS/PEI** | **HF’s with MERF** | **HF’s with IHS** | **HF’s with Department of Health** | **TOTAL** |
|  | DHQ Hospitals | 1 | 1 | 0 | 13 | 15 |
|  | THQ Hospitals | 0 | 4 | 10 | 38 | 52 |
|  | Other Secondary Care | 2 | 0 | 4 | 48 | 54 |
|  | TOTAL | 3 | 5 | 14 | 99 | **121** |

Source: Department of Health, Sindh 2019

* 1. **CONCEPT AND IMPORTANCE OF MSDP**

The packaging of the health services delivery at various levels of care facilitate in ensuring the availability of the requisite services at that particular level and takes into account the health care needs of the population and the available financial resources. The health service delivery package primarily includes the list of services along with infrastructure, human resource, medicines, supplies and equipment requirements to deliver those services. The standards of service delivery refer to the qualitative aspects of the services that are being provided and sets out the quality protocols for delivery of each service.

The packaging of services may be a minimum collection of basic health services keeping in view the resources of the country to a more comprehensive Essential Package of Health Services covering the broader determinants of health. Countries with limited resources take a start with a basic package and gradually expand their envelope to include all essential services. Moreover, they also change their packages according to changes in burdens of different emerging and re-emerging diseases.

Liberia started with a basic package of health services in 2007 and implemented it in majority of their facilities within a few years. The country saw considerable improvement in standardized medical services, health human resource development and supply chain management systems to ensure the acceleration of health care for all in Liberia. This led to the development of Essential Package of Health Services (EPHS) for secondary and tertiary care, The EPHS for secondary and tertiary care provided a more comprehensive set of services to strengthen key areas that were performing poorly and added new services necessary to address needs at all levels of the health care system (13).

Similarly Nepal also started small with basic service package like safe motherhood and control of communicable diseases and gradually enhanced their package in their Health Plan 2010–2015 to include new services under the reproductive health and child health areas, and new programs on mental health, oral health, environmental health, and community-based new-born care, a community-based nutrition care and support program and a non-communicable disease control component to address changes in demographics and diseases (14). Somalia went one step ahead by not only establishing and enhancing essential health service packages but also setting up bare minimum operational standards for the services proposed (15).

After devolution of health sector to provinces, The provinces of Punjab and Khyber Pakhtunkhwa have developed the MSDP for Primary and Secondary Health facilities between 2012 and 2016 (16, 17). Sind formulated a health sector strategy in 2012 which recommends about formulation of a package at different levels of care within district health system with required resources for needs of rural disadvantaged districts inclusive of the key priority needs. (18).

It is therefore imperative that standards of care at Secondary healthcare are standardized which includes services to be delivered and resources including human resources, drugs, supplies and equipment so that these services are effectively implemented. There is a need to define and document Minimum Health Services Delivery Package (MHSDP) at each level. The provinces of Punjab and KP have already developed their service delivery packages whereas no recent attempts have been made to define such a package in the province of Sindh. There is need for the review of earlier standards available in Sindh and modify them into a practical, acceptable and sustainable package based on consultations with all the relevant stakeholders. With emergence of new dimensions in health systems, such as public-private partnership, it has become imperative to have standard packages of services at different levels with known cost.

**SECTION 2**

**METHODOLOGY OF UPDATING MSDP FOR SECONDARY HEALTHCARE**

**Step 1: Generating List of Services and resources required at Secondary Healthcare**

A list of services and resources required to be implemented at Secondary care level was prepared. Following steps were followed

1. Previous documents on provincial standards and health sector strategy were reviewed to generate the initial list of services and resources required to deliver the services. This included:
2. Zaidi S. Sindh health sector strategy 2012 – 2020
3. Minimum Service Delivery Standards for Health Care Facilities in Sindh-2006
4. Essential Medicines List Department of Health Government of Sindh 2014
5. The list was matched with standards developed by other provinces. This included:
6. Minimum Service Delivery Standards for Primary and Secondary Health Care in Punjab. 2008.
7. Minimum Health Services Delivery Package for Secondary Health Care Facilities in Khyber Pakhtunkhwa 2016
8. The list was shared with core committee of relevant stakeholders to identify any local needs not covered. The core committee comprised of:

* Representative of DG Health Office
* Representatives from Organizations providing secondary care services including IHS and MERF
* Representatives from International Organization supporting the health services in Sindh (WHO/USAID)

1. The list was shared with Service Providers at Secondary Healthcare levels. Two THQ facilities and one DHQ facility were visited in this regard and their feedback was incorporated. The preliminary package was shared with the service providers and managers and their input on services, human resources, essential drugs and equipment was noted. The service providers also provided practical feedback on standards for referral.

**Step 2:** **Development of Minimum Service Delivery Package (MSDP)**

A consultative workshop was held to finalize the standards for the package. The participants included:

1. Members of the core committee of MSDP
2. Administrators of THQ and DHQ Hospitals
3. Specialists in the following disciplines:

* General Medicine
* Pulmonology
* Cardiology
* Dermatology
* Psychiatry
* Gynecology & Obstetrics
* Pediatrics
* Radiologist
* Pathologist
* General Surgery
* Ophthalmology
* ENT
* Orthopedics

The participants were briefed about the project objectives and the methodology of updating MSDP. The preliminary list of services and resources were shared with them. They discussed the package in groups and provided their feedback. Decision on change in any component was reached through general consensus among all.

**Step 3: Validation, Publication and Dissemination of Revised MSDP**

The new package developed will be reviewed by two specialists with previous experience of developing secondary healthcare package and their feedback will be incorporated. Following peer review and approval by technical experts of the health department, the new MSDP for Sindh will be published and disseminated with relevant stakeholders in department of health. A Survey to assess level of adoption and implementation of recommendations in Revised MSDP may be conducted after one year of dissemination.

**Project Timeline**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Aug**  **2019** | **Sep**  **2019** | **Oct**  **2019** | **Nov**  **2019** | **Dec 2019** |
| Project Submission and approval |  |  |  |  |  |
| Review of local documents to generate list of services and resources |  |  |  |  |  |
| Formation of Core Committee |  |  |  |  |  |
| Field Visits to Secondary healthcare centers |  |  |  |  |  |
| Consultative Workshop with core committee and experts |  |  |  |  |  |
| Revision and Finalization of MSDP |  |  |  |  |  |
| Peer Review |  |  |  |  |  |
| Publication and Dissemination |  |  |  |  |  |

**SECTION 3: MSDP FOR SECONDARY HEALTHCARE FACILITIES**

* 1. **THE CONCEPT OF SECONDARY CARE**

**Secondary healthcare** refers to the medical care that is provided by a specialist or facility upon referral from primary care and that requires more specialized knowledge, skill, or equipment than the primary care professional can provide. The Secondary level health facilities in Pakistan include Tehsil/Taluka Headquarter Hospital (THQH) and District Headquarter Hospital (DHQH). The services provided at the health facilities are primarily curative in nature. THQH being situated at the center of district serves as a buffer for DHQs and referral point from different RHCs and BHUs. Therefore the scope of services are accordingly distributed. **Tertiary Health care** refers to state of the art specialized consultative health care that involves all specialties and sub-specialties supported by availability of required infrastructure, human resource, supplies, medicines and equipment including Hi-tech medical equipment. These tertiary care hospitals are generally located in the provincial capital and divisional headquarters ideally expected to receive patients from secondary care hospitals situated in the districts. With few exceptions, these are also affiliated with the medical teaching institutions for graduates and post-graduates.

**Services Recommended at Secondary Level**

|  |  |  |
| --- | --- | --- |
| Service | THQH | DHQH |
| **24 hour Emergency Services** | Yes | Yes |
| **Morning and Evening OPDs/Indoor patient facility** | * Medicine * Cardiology * Dermatology * Pulmonology * **Psychiatry** * Surgery * Orthopedics * Opthalmology * ENT * Dental Surgery * Gynecology & Obstetrics * Pediatrics * Pathology * Radiology & Sonology * Physiotherapy | * Medicine * Cardiology * Dermatology * Pulmonology * **Nephrology (Dialysis)** * **Gastroenterology (Endoscopy)** * **Neurology (if CT is available)** * **Psychiatry** * Surgery * Orthopedics * Opthalmology * ENT * Dental Surgery * Gynecology & Obstetric * Pediatrics * Pathology * Radiology & Sonology * Physiotherapy |
| **Cardiac Services (CCU)** | No | Yes |
| **Diagnostic services** | Yes | Yes |
| **Ambulance Services with EMT’s** | Yes | Yes |
| **Medico legal Services** | Yes | Yes |
| **EPI activities** | Yes | Yes |
| **FP and MCH Services** | Yes | Yes |
| **TB clinic and Malaria Control** | Yes | Yes |
| **Nutrition Support Services** | Yes | Yes |
| **Hepatitis and AIDS control** | Yes | Yes |

3.2 **INFRASTRUCTURE OF SECONDARY FACILITIES**

**Number of Beds and Covered Area**

|  |  |  |
| --- | --- | --- |
|  | **THQ** | **DHQ** |
| Minimum Number of Beds (1 Bed/10000 population) | 50-100 | 100-200 |
| Covered Area  (May be expanded based on need) | 5-10 Acres  435600 sq ft | 15-20 acres  816750 sq ft |

**Distribution of Beds**

|  |  |  |
| --- | --- | --- |
|  | **THQ** | **DHQ** |
| Casualty | 5 | 10 |
| ICU | 2-5 | 5-10 |
| Medicine | 5-10 | 15-20 |
| Surgery | 5-10 | 15-20 |
| Gynecology and Obstetrics | 5-10 | 15-20 |
| Labor Room | 2 | 5 |
| Pediatrics | 5-10 | 15-20 |
| Pediatric Nursery | 2-5 | 5-10 |
| EYE | 5 | 10 |
| ENT | 5 | 10 |
| Orthopedics | 5 | 10 |
| Dentistry Unit | 2 | 5 |
| Dermatology | 2 | 5 |
| Cardiology | 2 | 10 |
| Psychiatry | 2 | 10 |
| Chest/TB | 2 | 5 |
| Dialysis Units | na | 5 |
|  | **50-100** | **100-200** |

* 1. **List of Services at Secondary Care Level**

1. **Services to be provided by Medical and Allied Department (OPD/Inpatient/Emergency)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Responsibility** | **THQ** | **DHQ** |
| **RESPIRATORY DISORDERS** | | | |  |
|  | Common Cold//URTI | Medicine/Paeds Department | YES | YES |
|  | Bronchiectasis/LRTI/Pneumonia | Medicine/Paeds Department | YES | YES |
|  | Diptheria | Medicine/Paeds Department | YES | YES |
|  | Pertusis | Medicine/Paeds Department | YES | YES |
|  | Tuberculosis | Chest/TB Department | YES | YES |
|  | Chronic Bronchitis | Chest/TB Department | YES | YES |
|  | COPD | Chest/TB Department | YES | YES |
|  | Asthma | Chest/TB Department | YES | YES |
|  | **Respiratory Distress**  **Emphysema**  **Fibrosis** | Medicine/Paeds Department | NO-  Refer to DHQ or Tertiary Care Unit | YES |
|  | **Conditions to be Referred to Tertiary Care/Specialized Care**  Above common conditions not responding to treatment  All conditions requiring Ventillatory support  Suspected Cancer | | | |
| **GASTROINTESTINAL DISORDERS** | | | | |
|  | Acute Gastroenteritis | Medicine/Paeds Department | YES | YES |
|  | Hepatitis A and E | Medicine/Paeds Department | **YES** | YES |
|  | Hepatitis B and C Management  **(Initial referral for detailed lab work)** | Medicine/Paeds Department | YES  **All THQ;s shall be sentinel sites** | YES |
|  | Cholera | Medicine/Paeds Department | YES | YES |
|  | Typhoid | Medicine/Paeds Department | YES | YES |
|  | Amebic Dysentery | Medicine/Paeds Department | YES | YES |
|  | Worm Infestation | Medicine/Paeds Department | YES | YES |
|  | Gastritis/PUD | Medical Department | YES | YES |
|  | Irritable Bowel Syndrome | Medical Department | YES | YES |
|  | Chronic Diarrhea | Medicine/Paeds Department | YES | YES |
|  | Acute pancreatitis | Medicine/Paeds Department | YES | YES |
|  | **Conditions to be Referred to Tertiary Care/Specialized Care**  Above common conditions not responding to treatment  All conditions requiring ventillatory support  Suspected Cancer  Inflammatory Bowel Disease  Advanced Liver disease with complications | | | |
| **CARDIAC AND ENDOCRINE DISORDERS** | | | | |
|  | Hypertension | Medical/Cardiology Department | YES | YES |
|  | Hyperlipidemia and Obesity | Medical/Cardiology Department | YES | YES |
|  | Diabetes Mellitus (Both Type 1 and Type 2) | Medical/Paeds Department Medical Department | YES | YES |
|  | Hypothyroidism | Medical/Paeds Department Medical Department | YES | YES |
|  | Angina/IHD (stabilization/follow-up) | Cardiology Department | YES | YES |
|  | CCF (stabilization/follow up) | Cardiology Department | YES | YES |
|  | **Conditions to be Referred to Tertiary Care/Specialized Care (NICVD)**  Above common conditions not responding to treatment  All conditions requiring Ventillatory support  Congenital Heart Disease  Rheumatic Heart Disease  CCF/MI (After initial stabilization and treatment)  DVT  Pulmonary Edema  Thyroid Disorders (if investigations are not available) | | | |
|  | | | **THQ** | **DHQ** |
| **NEUROLOGICAL DISORDERS** | | | |  |
|  | Headache | Medical/Neurological Department | YES | YES |
|  | Heatstroke | Medical/Neurological Department | YES | YES |
|  | Meningitis (uncomplicated) | Medical/Neurological Department | YES | YES |
|  | Dogbite | Medical/Neurological Department | YES | YES |
|  | Snakebite | Medical/Neurological Department | YES | YES |
|  | Seizures/Epilepsy | Medical/Neurological Department | YES | YES |
|  | Acute poisoning/intoxication | Medical/Neurological Department | YES | YES |
|  | Stroke- Initial Work up | Medical/Neurological Department | NO | YES (if CT available) |
|  | Stroke- rehabilitative management | Medical/Neurological Department | YES | YES |
|  | Poliomyelitis- rehabilitative management | Medical/Neurological Department | YES | YES |
|  | Cerebral Palsy- rehabilitative management | Medical/Neurological Department | YES | YES |
|  | **Conditions to be Referred to Tertiary Care/Specialized Facilities**  Above common conditions not responding to treatment  All conditions requiring ventillatory support  Suspected Cancer  **Poliomyelitis (For initial work up and diagnosis)**  **Cerebral palsy (For initial work up and diagnosis)**  **Stroke (if CT is not available)**  **Hemorrhagic and Complicated Stroke**  **Status Epilepticus (after initial management with Phenytoin)**  **Complicated Meningitis**  **Tetanus**  **Gullian Bar Syndrome**  **Multiple Sclerosis** | | | |
| **FEBRILE DISORDERS** | | | |  |
|  | Malaria | Medical Department/Paeds | YES | YES |
|  | Dengue | Medical Department | YES | YES |
|  | CCHF | Medical Department | YES | YES |
|  | Chickenguniya Fever | Medical Department | YES | YES |
|  | **HIV AIDS (Initial referral for investigations)** | Medicine | **Ref to sentinel site** | **Ref to sentinel** |
|  | **Conditions to be Referred to Tertiary Care/Specialized Care**  Above common conditions not responding to treatment  Hemorrhagic Fevers requiring transfusion  All conditions requiring ventillatory support  Suspected Neglaria | | | |
| **SKIN DISORDERS** | | | |  |
|  | Eczema/Dermatitis | Medical/Derma Department | YES | YES |
|  | Scabies | Medical/Derma Department | YES | YES |
|  | Fungal Infection | Medical/Derma Department | YES | YES |
|  | Impetigo | Medical/Derma Department | YES | YES |
|  | Chicken Pox | Medical/Derma Department | YES | YES |
|  | Measles | Medical/Derma Department | YES | YES |
|  | Alopecia Areata | Medical/Derma Department | YES | YES |
|  | Psoriasis | Medical/Derma Department | YES | YES |
|  | Melasma | Medical/Derma Department | YES | YES |
|  | Seborrheic Dermatitis | Medical/Derma Department | YES | YES |
|  | Onchomychosis (Nail) | Medical/Derma Department | YES | YES |
|  | Lichen Planus | Medical/Derma Department | YES | YES |
|  | Milia Rubra | Medical/Derma Department | YES | YES |
|  | Moluscum Contagiosum | Medical/Derma Department | YES | YES |
|  | Leishmaniasis | Medical/Derma Department | YES | YES |
|  | **Conditions to be Referred to Tertiary Care**  Above common conditions not responding to treatment  All conditions requiring ventillatory support  Skin Cancer  Leprosy | | | |
| **NEPHROLOGICAL DISORDERS** | | | |  |
|  | UTI | Medical/Nephrology | YES | YES |
|  | STI | Medical/Nephrology | YES | YES |
|  | **Acute Nephritis** | Dialyisis Unit | NO | YES |
|  | **Chronic renal failure** | Dialyisis Unit | NO | YES |
|  | **Conditions to be Referred to Tertiary Care**  Above common conditions not responding to treatment  All conditions requiring ventillatory support  Suspected Cancer | | | |
|  | | | **THQH** | **DHQH** |
| **SPECIFIC PEDIATRIC DISORDERS** | | | |  |
|  | Early Neonatal Care | Paeds Department | YES | YES |
|  | Neonatal Jaundice | Paeds Department | YES | YES |
|  | Birth asphyxia/Sepsis/Prematurity  LBW Baby | Paeds Department | YES | YES |
|  | Immunization | Vaccination Room | YES | YES |
|  | Acute and Chronic Malnutrition | Paeds Department | YES | YES |
|  | Micronutrient deficiency (Vitamins A, C, D, K) | Paeds Department | YES | YES |
|  | Zinc Deficiency | Paeds Department | YES | YES |
|  | Anemia | Paeds Department | YES | YES |
|  | Iodine Deficiency | Paeds Department | YES | YES |
|  | Thalassemia (Long term management) | Paeds Department | NO | YES  (if blood bank is available) |
|  | **Conditions to be Referred to Tertiary Care/Specialized care**  Thalassemia (for initial diagnosis)  Congenital Anomalies  Kernicterus  Haemophilia and Bleeding disorders  Above common conditions not responding to treatment  All conditions requiring ventillatory support  Suspected Cancer | | | |
| **MENTAL HEALTH DISORDERS** | | | |  |
|  | Depression | Psychiatry Department | YES | YES |
|  | Anxiety | Psychiatry Department | YES | YES |
|  | Bipolar Disorder | Psychiatry Department | YES | YES |
|  | Schizophrenia | Psychiatry Department | YES | YES |
|  | Substance Abuse | Psychiatry Department | YES | YES |
|  | Child and adolescent behavior disorders | Psychiatry Department | YES | YES |
|  | PTSD | Psychiatry Department | YES | YES |
|  | **Conditions to be Referred to Tertiary Care/Specialized care**  Suicidal Ideation  Acts of Self harm  Above common conditions not responding to treatment or requiring long term admission | | | |
| **RHEUMATOLOGICAL DISORDERS** | | | |  |
|  | Arthritis | Medicine | YES | YES |
|  | Tuberculosis arthritis | Medicine | YES | YES |
|  | Rheumatoid Arthritis | Medicine | YES | YES |
|  | Gout | Medicine | YES | YES |
|  | **Conditions to be Referred to Tertiary Care**  SLE | | | |
| **BLOOD DISORDERS** | | | | |
|  | Anemia (micro, normo and macrocytic ) | Medicine | YES | YES |
|  | Hemolytic anemia (Long term management) | Medicine | YES | YES |
|  | Bleeding disorders (Long term management) | Medicine | YES | YES |
|  | **Conditions to be Referred to Tertiary Care**  Bleeding Disorders (Initial diagnosis)  Hemolytic anemia (Initial Diagnosis)  Hemotological malignancy  All conditions requiring ventillatory support | | | |
| **PHYSIOTHERAPY SERVICES** | | | |  |
|  | Frozen shoulder | Physiotherapy Department | YES | YES |
|  | Backache therapy | Physiotherapy Department | YES | YES |
|  | Post-fracture therapy | Physiotherapy Department | YES | YES |
|  | Therapy of joints | Physiotherapy Department | YES | YES |
|  | Short wave diathermy | Physiotherapy Department | YES | YES |
|  | Physiotherapy for chest | Physiotherapy Department | YES | YES |
|  | Mobilization  (postoperative and post stroke) | Physiotherapy Department | YES | YES |
| **MEDICOLEGAL SERVICES** | | | |  |
|  | Routine Medicolegal | Medicolegal Department | YES | YES |
|  | Specialized medico-legal including re-  examination, | Medicolegal Department | YES | YES |
| **PREVENTIVE SERVICES** | | | |  |
|  | Education and BCC on:  Prevailing communicable and Non Communicable diseases  Hygiene and Sanitation  IYCF/RI | Medical OPD | YES | YES |

1. **Services to be provided by Surgery and Allied Departments**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Responsibility | THQ | DHQ |
| **GENERAL PROCEDURES AND SURGERIES** | | | |  |
|  | Dressings | General Surgery | YES | YES |
|  | Superficial abscesses/ Cysts/ Cavity/abscesses | General Surgery | YES | YES |
|  | Wedge resection | General Surgery | YES | YES |
|  | Venous cut down, | General Surgery | YES | YES |
|  | Trucut Biopsy, FNAC D/D, Skin lesion Biopsy | General Surgery | YES | YES |
|  | Cauterization of viral warts | General Surgery | YES | YES |
|  | Simple Mastectomy | General Surgery | YES | YES |
|  | Excision of Fibro adenoma Breast | General Surgery | YES | YES |
|  | Upper Gastrointestinal  Endoscopy (UGIE) with biopsy | Gastroenterologist | Referred to DHQ | YES |
|  | Gastrojejunostomy | General Surgery | YES | YES |
|  | Lower Gastrointestinal Endoscopy (LGIE) Colonoscopy with biopsy | Gastroenterologist | Referred to DHQ | YES |
|  | Lateral Internal Sphincterotomy | General Surgery | YES | YES |
|  | Perinanal Abscess/Fistula | General Surgery | YES | YES |
|  | Haemorrhoidectomy, | General Surgery | YES | YES |
|  | Hernioraphy/Herniotomy/ Mesh repair of inguinal /Ventral Hernias/ Incisional Hernia (open) | General Surgery | YES | YES |
|  | Open Appendectomy | General Surgery | YES | YES |
|  | Cholecystectomy | General Surgery | YES | YES |
|  | Feeding Jejunostomy  Illeostmy/Colostomy | General Surgery | YES | YES |
|  | Pneumoperitonium with end organ damage | General Surgery | YES | YES |
|  | Splenic Rupture (Spontaneous) | General Surgery | YES | YES |
|  | Mesenteric Adenitis | General Surgery | YES | YES |
|  | Hemorrhoidal Band Ligation | General Surgery | YES | YES |
|  | Wound Debridement | General Surgery | YES | YES |
|  | Pilonidal Sinus | General Surgery | YES | YES |
|  | Cystitis, Urinary Tract Infection, Ureteric colic, Acute urinary retention | General Surgery/Urosurgery | YES | YES |
|  | Circumcision | General Surgery/Urosurgery | YES | YES |
|  | Urethral dilatation | General Surgery/Urosurgery | YES | YES |
|  | Supra-pubic catheterization | General Surgery/Urosurgery | YES | YES |
|  | Vasectomy | General Surgery/Urosurgery | YES | YES |
|  | Varicocele | General Surgery/Urosurgery | YES | YES |
|  | Hydrocele | General Surgery/Urosurgery | YES | YES |
|  | Undescended Testes (UDT), | General Surgery/Urosurgery | YES | YES |
|  | **Conditions to be Referred to Tertiary Care/Specialized Care**  Hiatus Hernia  Rectal Prolapse  Pneumoperitonium with end organ damage  Thyroidectomy  Varicose Veins Surgery  Peritonitis Retroperitoneal hemorrhage  Intestinal Obstruction/ Diverticulitis  Pancreatectomy  Colectomy  Gastrectomy  Conditions requiring Intubation/Ventilation  All Cancer Surgeries | | | |
|  | | | **THQH** | **DHQH** |
| **OPTHALMOLOGICAL CONDITIONS** | | | |  |
|  | Mild Trauma | Eye Department | YES | YES |
|  | Foreign Body/Orbital Fracture | Eye Department | YES | YES |
|  | Refraction | Eye Department | YES | YES |
|  | Conjuctivitis/Blepheritis/Keratitis/Dacreocystitis | Eye Department | YES | YES |
|  | Squint Surgery | Eye Department | YES | YES |
|  | Cataract (without phaeeco) | Eye Department | YES | YES |
|  | Glaucoma (Trabeculectomy) | Eye Department | YES | YES |
|  | Pterygium Surgery | Eye Department | YES | YES |
|  | Chalazion Surgery | Eye Department | YES | YES |
|  | Dacleocystorhinostomy | Eye Department | YES | YES |
|  | Ptosis/Entropion/Ectropion | Eye Department | YES | YES |
|  | **Conditions to be Referred to Tertiary Care**  Blunt trauma/Penetrating trauma  NLD Block (Pediatric)  Advanced Glaucoma  Non-resolving vitreous hemorrhage  Retinal disorders/Diabetic retinopathy  Laser Surgery  All Cancers | | | |
| **ENT CONDITIONS AND PROCEDURES** | | | |  |
|  | URTI/Rhinitis/Sinusitis/Pharyngitis | ENT Department | YES | YES |
|  | Epistaxis | ENT Department | YES | YES |
|  | Granulomatous conditions of nose & PNS | ENT Department | YES | YES |
|  | Nasal & facial trauma | ENT Department | YES | YES |
|  | Smell disorders | ENT Department | YES | YES |
|  | Common Nasal Boil | ENT Department | YES | YES |
|  | Adenoids & Tonsils & its surgeries | ENT Department | YES | YES |
|  | Voice disorders | ENT Department | YES | YES |
|  | Deep neck abscesses | ENT Department | YES | YES |
|  | laryngo-tracheal & neck trauma, Tracheostomy | ENT Department | YES | YES |
|  | Dysphagia | ENT Department | YES | YES |
|  | Otitis Externa/AOM/COM | ENT Department | YES | YES |
|  | Wax in the ear | ENT Department | YES | YES |
|  | **Conditions to be Referred to Tertiary Care**  Head and Neck Surgeries  Cochlear implant  Sinus Surgeries  Obstructive sleep apnea  Otosclerosis  Advanced Facial Trauma  All Cancers  Conditions requiring Ventilatory Support | | | |
| **ORTHOPEDIC CONDITIONS AND PROCEDURES** | | | |  |
|  | Bone Cyst | Orhtopedics | YES | YES |
|  | Carpal tunnel lesion | Orhtopedics | YES | YES |
|  | Amputation (Minor) | Orhtopedics | YES | YES |
|  | Osteoporosis | Orhtopedics | YES | YES |
|  | IGTN | Orhtopedics | YES | YES |
|  | Tendinitis | Orhtopedics | YES | YES |
|  | Bursitis/Excision of Bursa | Orhtopedics | YES | YES |
|  | Rickets/Osteomalacia | Orhtopedics | YES | YES |
|  | Septic arthritis | Orhtopedics | YES | YES |
|  | Osteomylitis | Orhtopedics | YES | YES |
|  | Knee and Hip osteoarthritis | Orhtopedics | YES | YES |
|  | Club Foot Clinics | Orhtopedics | YES | YES |
|  | Fractures and Dislocation  Fixation and Reduction | Orhtopedics | YES | YES |
|  | BLS  ATLS (initial stabilization and referral) |  |  |  |
|  | **Conditions to be Referred to Tertiary Care/Trauma Center**  Severe Burns  Severe Injuries/Head Spinal Injuries (after initial DCS)  Congenital deformities  Cancers  Conditions requiring Ventilatory support | | | |
|  | | | **THQH** | **DHQH** |
| **UROSURGERY** | | | |  |
|  | Cystoscopy | Urosurgery | YES | YES |
|  | Urethral Dilation | Urosurgery | YES | YES |
|  | Cytostomy | Urosurgery | YES | YES |
|  | Lithotripsy | Urosurgery | YES | YES |
|  | Lithoclast | Urosurgery | YES | YES |
|  | Optical Urethrotomy | Urosurgery | YES | YES |
|  | TURP (DHQ Only) | Urosurgery | NO | YES |
|  | TURBT (DHQ only) | Urosurgery | NO | YES |
|  | **Conditions to be Referred to Tertiary Care**  Congenital deformities  Cancers  Conditions requiring Ventilatory support | | | |
| **DENTAL CONDITIONS AND PROCEDURES** | |  |  |  |
|  | Caries | Dental Department | YES | YES |
|  | Gingivitis | Dental Department | YES | YES |
|  | Periodontitis | Dental Department | YES | YES |
|  | Crowning/ Dentures/ braces, | Dental Department | YES | YES |
|  | Pulpitis/Periodontitis/Pericoronitis, | Dental Department | YES | YES |
|  | Gingivitis, | Dental Department | YES | YES |
|  | Cellulitis (oral), | Dental Department | YES | YES |
|  | Alveolitis (dry socket), | Dental Department | YES | YES |
|  | Abscess (periapical) | Dental Department | YES | YES |
|  | Post-Operative (extraction) bleeding | Dental Department | YES | YES |
|  | Simple Fractures | Dental Department | YES | YES |
|  | Missing teeth | Dental Department | YES | YES |
|  | Oral cyst | Dental Department | YES | YES |
|  | Filling | Dental Department | YES | YES |
|  | Root Canal | Dental Department | YES | YES |
|  | Scaling + Root Planning | Dental Department | YES | YES |
|  | Extraction | Dental Department | YES | YES |
|  | Biopsy | Dental Department | YES | YES |
|  | Closed Reduction (Inter Maxillary Fixation) | Dental Department | YES | YES |
|  | Crown/Bridges (if lab support is available | Dental Department | YES | YES |
|  | **Conditions to be Referred to Tertiary Care**  CANCERS  IMPLANT PLACEMENT  CBCT SCAN  ORTHOGNATHIC SURGERIES  FACIAL TRAUMA ( complex, Open reduction + fixation) | | | |

1. **Maternal and Child Health Services**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  | Responsibility | **THQH** | **DHQH** |
| **ANTENATAL CARE** | | | |  |
|  | ANC Card and Check-ups   * Pregnancy Test * ANC Card and Check ups * Iron/Folic Acid Supplements * Tetanus immunization * Malnutrition * Deworming * Management of Malaria/UTI/STI * Identification of high risk pregnancies * Vitamin A Deficiency | Gynecology and Obstetrics | YES | YES |
|  | Rhesus (Rh) incompatibility, | Gynecology and Obstetrics | YES | YES |
|  | Hypertensive disorders of Pregnancy | Gynecology and Obstetrics | YES | YES |
|  | Management of, Ectopic pregnancy | Gynecology and Obstetrics | YES | YES |
|  | Incomplete Abortion | Gynecology and Obstetrics | YES | YES |
|  | APH | Gynecology and Obstetrics | YES | YES |
|  | GDM |  |  |  |
|  | IUGR |  |  |  |
|  | **Conditions to be Referred to Tertiary Care**  Placenta Accreta  Cardiac Disorder  Uncontrolled Diabetes  Uncontrolled Hypertension  Renal Disorder  Severe IUGR  Autoimmune disorder | | | |
| **DELIVERY CARE** | | | |  |
|  | * NVD and Assisted Delivery * Parenteral Oxytocin * DNC * Suturing | Gynecology and Obstetrics | YES | YES |
|  | Complicated Labor/Prolonged labor | Gynecology and Obstetrics | YES | YES |
|  | Transfuse safe blood (haemorrhage/blood loss) | Gynecology and Obstetrics | YES | YES |
|  | Manage 3rd degree cervical and vaginal tears | Gynecology and Obstetrics | YES | YES |
|  | Management of prolapsed cord, | Gynecology and Obstetrics | YES | YES |
|  | Management of shoulder dystocia, | Gynecology and Obstetrics | YES | YES |
|  | Caesarean section | Gynecology and Obstetrics | YES | YES |
|  | Eclampsia | Gynecology and Obstetrics | YES | YES |
|  | Uncomplicated Uterine rupture |  |  |  |
|  | **Conditions to be Referred to Tertiary Care**  Placenta Accreta  Autoimmune disorders  Cardiac/Renal disorders  Hemotologic disorder  Pulmonary hypertension | | | |
|  | | | **THQH** | **DHQH** |
| **POSTNATAL CARE** | | | |  |
|  | * Iron/Folic acid supplementation * Anti-Biotics | Gynecology and Obstetrics | YES | YES |
|  | Postpartum Blues | Gynecology and Obstetrics | YES | YES |
|  | PPH/Shock | Gynecology and Obstetrics | YES | YES |
|  | Puerpural Sepsis | Gynecology and Obstetrics | YES | YES |
|  | Family planning   * Counseling on Spacing * Provision of Contraceptives (Pills/Condoms/Injections/IUD) | Gynecology and Obstetrics | YES | YES |
|  | Tubal ligation | Gynecology and Obstetrics | YES | YES |
|  | Early Newborn Care   * Clean Airway/Cord Clamp * Weighing the baby * KMC * Initiation of BF * Immunization * Resuscitation if required |  | YES | YES |
|  | **Conditions to be Referred to Tertiary Care/Specialized Care**  VVF  Post-Eclamptic Fits  Postpartum cardiomyopathy | | | |
| **GYNECOLOGICAL CONDITIONS** | | | |  |
|  | Simple Molar Pregnancy | Gynecology and Obstetrics | YES | YES |
|  | Menstrual disturbances | Gynecology and Obstetrics | YES | YES |
|  | Pelvic inflammatory disease (PID), | Gynecology and Obstetrics | YES | YES |
|  | Ovarian cyst and adnexal masses (simple) | Gynecology and Obstetrics | NO | YES |
|  | Uterus fibromyoma (Work-up) | Gynecology and Obstetrics | NO | YES |
|  | Prolapse and trans- vaginal operations, | Gynecology and Obstetrics | YES | YES |
|  | **Conditions to be Referred to Tertiary Care/Specialized Care**  Infertility  All Cancers  Uterine/Adnexal masses  Advanced Endometriosis  Deep vein thrombosis (DVT) | | | |

1. **Diagnostic Services**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  | THQH | DHQH |
| **HEMATOLOGY** | | | |
|  | CBC | YES | YES |
|  | ESR | YES | YES |
|  | Reticulocyte count | YES | YES |
|  | PT, APTT | YES | YES |
|  | MP | YES | YES |
| **BIOCHEMISTRY** | | | |
|  | FBS, RBS | YES | YES |
|  | Lipid Profile | YES | YES |
|  | UCE | YES | YES |
|  | LFT’s | YES | YES |
|  | Serum amylase/Lipase | YES | YES |
|  | Beta HCG | YES | YES |
|  | Calcium | YES | YES |
|  | Uric acid | YES | YES |
|  | Vitamin B12 | YES | YES |
|  | Vitamin D | YES | YES |
|  | Thyroid profile | Preferred | Preferred |
|  | Urine DR | YES | YES |
|  | Stool DR | YES | YES |
| **MICROBIOLOGY** | | | |
|  | Blood C/S | YES | YES |
|  | Urine C/S | YES | YES |
|  | Stool C/S | YES | YES |
|  | Sputum C/S | YES | YES |
|  | AFB Smear | YES | YES |
|  | Gram Stainning | YES | YES |
| **SEROLOGY** | | | |
|  | RA Factor | YES | YES |
|  | Pregnancy Test | YES | YES |
|  | HBs Ag, Anti HCV | YES | YES |
|  | Anti HIV | YES | YES |
|  | CRP | YES | YES |
|  | Gene Expert | YES | YES |
|  | Dengue NS 1 antigen/Dengue antibody (ICT) | YES | YES |
|  | H Pylori (ICT) | YES | YES |
|  | VDRL | YES | YES |
|  |  | YES | YES |
|  | Blood Bank | YES | YES |
|  | Blood Grouping and Cross Match  Donor screening | YES | YES |
|  | RH Factor |  |  |
|  | Blood storage services | YES | YES |
| **BODY FLUID** | | | |
|  | Pleural Fluid/Ascitic/Percardial |  |  |
|  | ABG’s |  |  |
|  | Pap Smear |  |  |
| **RADIOLOGY SERVICES** | | | |
|  | X ray Chest/ Abdomen (Erect and Supine) | YES | YES |
|  | X-ray spine.hands/pelvis/joints/limbs | YES | YES |
|  | Ultrasound  Chest/orbit/Abdomen/ Pelvis | YES | YES |
|  | Barium swallow meal/ follow through/enema | YES | YES |
|  | Intravenous  Urography (IVU) | YES | YES |
|  | Doppler Ultrasound | YES | YES |
|  | TVS | YES | YES |
|  | ECG/Echocardiograph | YES | YES |
|  | CT scan | NO | Preferred |

1. **Immunization Services**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **THQH** | **DHQH** |
|  | Tuberculosis (BCG) | YES | YES |
|  | Diptheria | YES | YES |
|  | Pertussis | YES | YES |
|  | Tetanus | YES | YES |
|  | Hepatitis B | YES | YES |
|  | Meningitis (HIB) | YES | YES |
|  | Pneumonia (HIB/PCV) | YES | YES |
|  | Diarrhea (ROTA) | YES | YES |
|  | Measles | YES | YES |
|  | Typhoid (TCV) | YES | YES |
|  | Polio (OPV/IPV) | YES | YES |

* 1. **HUMAN RESOURCES**

|  |  |  |
| --- | --- | --- |
|  | THQ | DHQ |
| **MANAGEMENT** | | |
| Medical Superintendent | 1 | 1 |
| Deputy Medical Superintendents (Admin) | 1 | 1 |
| Deputy Medical Superintendent (Services) | 1 | 1 |
| Nursing Superintendent | 1 | 1 |
| Accounts Officer | 1 | 1 |
| Senior Clerk | 1 | 1 |
| Accountant | 2 | 2 |
| Store Keeper/Warehouse Warden | 1 | 1 |
| Drivers (24/7 Ambulance Services) | 3 | 6 |
| Naib Qasid/Office Assistants | 5 | 10 |
| **DOCTORS** | | |
| Specialist Physician | 1 | 2 |
| Cardiologist | 1 | 1 |
| Chest Specialist | 1 | 1 |
| Dermatologist | 1 | 1 |
| Nephrologist | Optional | 1 |
| Psychiatrist | Optional | 1 |
| Psychologist | Optional | 1 |
| Neurologist | Not Required | 1  (Subject to availability of EEG/ CT Scan Facility) |
| Gynecologist | 2 | 3 |
| Pediatrician | 2 | 3 |
| Surgeon | 2 | 3 |
| Anesthetist (at-least 1 per OT) | 2 | 3 |
| Orthopedic Surgeon | 1 | 1 |
| Gynecologist | 1 | 2 |
| Ophthalmologist | 1 | 1 |
| ENT Specialist | 1 | 1 |
| Dental Surgeon | 2 | 3-4 |
| Pathologist | 1 | 2 |
| Radiologist | 1 | 2  4 (if CT facilities are available) |
| Sonologist | 1 Male  1 Female | 2 |
| Medical Officers (1 per 10 beds) | 10 | 20 |
| Female Medical Officer (1 per 10 beds) | 10 | 20 |
| Medico legal Officers | 2 | 2 |
| **PARAMEDICS** | | |
| LHV/Midwife | 2 | 4 |
| Staff Nurse (1 per 10 beds) | 10 | 20 |
| OPD Assistants/Ward Boys (1 per OPD) | 10 | 20 |
| OR Manager | 1 | 1 |
| Senior Technician | 1 | 1 |
| OR Storekeeper | 1 | 1 |
| OT Technician (1 per OR) | 3 | 6 |
| OT Assistant (1 per OR) | 3 | 6 |
| Anasthesia Technician | 1 | 2 |
| Dental Technician | 2 | 4 |
| Ophthalmic Technician | 2 | 2 |
| Audiologist | 1 | 1 |
| Physiotherapist | 2 | 4 |
| Nutritionist | 1 | 2 |
| Laboratory Technician | 2 | 4 |
| ECG Technician | 2 | 4 |
| Blood Bank Technician (if blood bank is available) | 1 | 2 |
| Laboratory Assistant | 2 | 4 |
| Phlebotomist | 2 | 4 |
| X-Ray Technician | 2 | 4 |
| Ultrasound Technician | 1 | 2 |
| Echocardiographer | 1 | 2 |
| CT Technician (if CT is available) | Na | 2 |
| Dialysis Technician | Na | 2 |
| Pharmacist | 2 | 4 |
| Dispenser | 2 | 4 |
| Senior Store Keeper | 1 | 1 |
| Computer Operator | 1 | 2 |
| Vaccinator | 2 | 2 |
| Biomedical Engineer | 1 | 1 |
| **SUPPORT STAFF** | | |
| Guards | 10 | 20 |
| Plumber | 1 | 2 |
| Electrician | 1 | 2 |
| Ayas | 3 | 6 |
| Sweeper | 5 | 10 |
| Mali | 1 | 2 |
| Dhobi | 2 | 4 |
| Stretcher Bearer | 2 | 4 |

* 1. **ESSENTIAL DRUGS AND SUPPLIES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **THQH** | | **DHQH** |
| 1. **ANALGESICS & ANTIPYRETICS** | | | | |
|  | Tab Acetyl Salicylic Acid dispersible tab 300 mg | YES | | YES |
|  | Tab Acetyl Salicylic Acid suppository 50 to 150 mg | YES | | YES |
|  | Tab: Diclofenac 50mg | YES | | YES |
|  | Inj: Diclofenac 75mg in 3 ml | YES | | YES |
|  | Diclofenac Gel 3% w/w | YES | | YES |
|  | Diclofenac suppository | YES | | YES |
|  | Tab Ibuprofen 200, 400 mg | YES | | YES |
|  | Syrup Ibuprofen 200 mg / 5 ml | YES | | YES |
|  | Ibuprofen Gel 10%w/w | YES | | YES |
|  | Tab Naproxen 250, 500 mg | YES | | YES |
|  | Tab Meloxicam 7.5, 15 mg | YES | | YES |
|  | Tab Paracetamol 500 mg | YES | | YES |
|  | Syp: Paracetamol 125 mg/5ml | YES | | YES |
|  | Paracetamol Suppository 100 mg | YES | | YES |
|  | Inj Paracetamol 150mg/ml | YES | | YES |
|  | Inj Tramadol HCI | YES | | YES |
|  | Injection Ketorolac (Toradol) | YES | | YES |
|  | ***OPIOD ANALGESICS*** |  | |  |
|  | Morphine Sulfate or hydrochloride amp 10 mg in 1 ml | YES | | YES |
|  | Pethidine hydrochloride amp 50 mg/ml in 2 ml | YES | | YES |
|  | Nelbuphine hydrochloride amp 10 mg/ml, 20mg/ml | YES | | YES |
|  | Pentazocine injection 30 mg/ml | YES | | YES |
|  | Midazolam inj 1mg/ml | YES | | YES |
|  | ***MEDICINES TO TREAT GOUT*** |  |  | |
|  | Tab Allopurinol 100, 300 mg | YES | | YES |
| 1. ANTI-ALLERGICS AND MEDICINES USED IN ANAPHYLAXIS | | | | |
|  | Chlorpheniramine (hydrogen maleate) Tab 4 mg | YES | | YES |
|  | Chlorpheniramine (hydrogen maleate) Injection 10mg/ml | YES | | YES |
|  | Chlorpheniramine (hydrogen maleate) Syrup 2 mg/5ml | YES | | YES |
|  | Loratidine Tab 10 mg | YES | | YES |
|  | Loratidine Syrup 1 mg/ml | YES | | YES |
|  | Dexamethasone (disodium phosphate) Tab 0.5mg | YES | | YES |
|  | Dexamethasone (disodium phosphate) Injection 4 mg/ml | YES | | YES |
|  | Epinephrine (adrenaline) Ampoule 1 mg/ml | YES | | YES |
|  | Hydrocortisone (sodium succinate) Injection 100,250 mg | YES | | YES |
|  | Prednisolone Tab 5 mg | YES | | YES |
|  | Cetrizine Tab 10 mg | YES | | YES |
|  | Cetrizine Syrup 5mg/5ml | YES | | YES |
|  | Promethazine (HCL) Tab 25mg | YES | | YES |
|  | Promethazine (HCL) Syrup 25mg/5ml | YES | | YES |
|  | Promethazine (HCL) Injection 25mg/ml in 2ml | YES | | YES |
| 1. ANTI-INFECTIVES | | | | |
|  | Amoxicillin (trihydrate) Tab/Cap 250, 500 mg | YES | | YES |
|  | Amoxicillin (trihydrate) Syrup 125 and 250 mg/5ml | YES | | YES |
|  | Amoxicillin (trihydrate) Injection 250,500 mg | YES | | YES |
|  | Amoxicillin + Clauvulanic Acid Tab 125+31.25 mg | YES | | YES |
|  | Amoxicillin + Clauvulanic Acid Tab 250+62.5mg | YES | | YES |
|  | Amoxicillin + Clauvulanic Acid Inj 1 gm | YES | | YES |
|  | Ampicillin (sodium) Cap250, 500 mg | YES | | YES |
|  | Ampicillin (sodium) syrup125 and 250 mg/5ml | YES | | YES |
|  | Ampicillin (sodium) Injection 250,500 mg and 1 gm | **YES** | | **YES** |
|  | Amikacin sulfate inj 500 mg, 1gm | **YES** | | **YES** |
|  | Cloxacillin Cap 250/500 mg | **YES** | | **YES** |
|  | Cloxacillin Suspension 125/250 mg/5 ml | **YES** | | **YES** |
|  | Azithromycin Cap 250,500 mg | **YES** | | **YES** |
|  | Azithromycin Suspension 125mg/5ml | **YES** | | **YES** |
|  | Benzathine Penicillin Injection 0.6, 1,2 m IU | **YES** | | **YES** |
|  | Chloramphenicol Cap 250 mg | **YES** | | **YES** |
|  | Chloramphenicol (palmitate) Syrup 125 mg/5 ml | **YES** | | **YES** |
|  | Chloramphenicol (sodium succinate) Injection 1 gm | **YES** | | **YES** |
|  | Ceftriaxone (sodium) Inj 250, 500 mg and 1 gm | **YES** | | **YES** |
|  | Cefixime Syp 100/200 mg/5ml | **YES** | | **YES** |
|  | Cefixime\* (trihydrate) Cap 400 mg | **YES** | | **YES** |
|  | Ciprofloxacin (hydrochloride) Tab 250, 500 mg | **YES** | | **YES** |
|  | Levofloxacin tab 250,500 mg | **YES** | | **YES** |
|  | Calrithromycin tab 500 mg | **YES** | | **YES** |
|  | Clindamycin Cap 150, 300 mg | **YES** | | **YES** |
|  | Clindamycin Inj 150 mg/ml | **YES** | | **YES** |
|  | Cotrimoxazole  sulfamethoxazole + trimethoprim) Tab 400+80 mg | **YES** | | **YES** |
|  | Cotrimoxazole  sulfamethoxazole + trimethoprim) Syrup 200 mg + 40 mg/5 ml | **YES** | | **YES** |
|  | Doxycycline (hyclate) Cap 100 mg | **YES** | | **YES** |
|  | Doxycycline Syrup 25mg/5ml | **YES** | | **YES** |
|  | Gentamicin (sulfate) Inj 40, 80 mg | **YES** | | **YES** |
|  | Metronidazole (benzoate) Tab 200,400 mg | **YES** | | **YES** |
|  | Metronidazole (benzoate) Syrup 200 mg/5ml | **YES** | | **YES** |
|  | Metronidazole (benzoate) Infusion 5 mg/ml in 100 ml | **YES** | | **YES** |
|  | ***FOR DRUG RESISTANT BACTERIA*** |  | |  |
|  | Nitrofurantoin Tab 100 mg | **YES** | | **YES** |
|  | Procaine benzylpenicillin Injection 1,3 m IU | **YES** | | **YES** |
|  | Phenoxymethylpenicillin (potassium) Tab 250/500 mg | **YES** | | **YES** |
|  | Phenoxymethylpenicillin (potassium) Syrup 125 mg/5ml | **YES** | | **YES** |
|  | Inj: Vancomycin 500mg | **YES** | | **YES** |
|  | Triple antibiotic for vaginal discharge |  | |  |
|  | Inj: Vancomycin 1gm | **YES** | | **YES** |
|  | Inj: Linezolid | **YES** | | **YES** |
|  | Inj Tazocin | **YES** | | **YES** |
|  | Inj: Impenem/Meropenem | **YES** | | **YES** |
|  |  |  | |  |
| 1. **ANTI-TUBERCULOSIS MEDICINES (AS PER PTP GUIDELINES)** | | | | |
|  | Ethambutol Tab 400 mg | **YES** | | **YES** |
|  | Ethambutol Syrup 25mg/ml | **YES** | | **YES** |
|  | Isoniazid Tab/Syp 50, 100, 300 mg | **YES** | | **YES** |
|  | Pyrazinamide Tab 500 mg | **YES** | | **YES** |
|  | Rifampicin Cap/Syp 150, 300, 450,600 | **YES** | | **YES** |
|  | Streptomycin Injection 1 gm | **YES** | | **YES** |
|  | Ethambutol + Isoniazid Tab 400+150 mg | **YES** | | **YES** |
|  | Isoniazid + Rifampicin Tab 75 + 150; 150 + 300mg | **YES** | | **YES** |
|  | Isoniazid + Pyrazinamide + Rifampicin Tab 75 + 400 + 150 mg | **YES** | | **YES** |
|  | Rifampicin + Isoniazid +Pyrazinamide + Ethambutol Tab 150+75+ 400+250mg | **YES** | | **YES** |
|  | Ethambutol + Isoniazid + Rifampicin Tab 275 + 75 + 150 mg | **YES** | | **YES** |
| 1. **ANTI-FUNGALS/ANTI-VIRALS** | | | |  |
|  | Cap Fluconazole 50, 150 mg | **YES** | | **YES** |
|  | Syp Fluconazole 50mg/5ml | **YES** | | **YES** |
|  | Inj Fluconazole 2mg/ml | **YES** | | **YES** |
|  | Nystatin Tab 500000 IU | **YES** | | **YES** |
|  | Nystatin Oral Drops 100000 IU/ml | **YES** | | **YES** |
|  | Nystatin Pessary 100000 IU |  | |  |
|  | Tab Clotrimazole 500 mg Vaginal tab | **YES** | | **YES** |
|  | Clotrimazole 1% Vaginal Cream | **YES** | | **YES** |
|  | Tab Acyclovir 200mg | **YES** | | **YES** |
|  | Syp. Acyclovir 200mg/5ml | **YES** | | **YES** |
|  | Acyclovir Cream 5% w/v | **YES** | | **YES** |
|  | Anti Virals for Hepatitis C  Tab Sobosbuvir 400mg  Tab Sobosbuvir 400mg +Ledipasvir 90mg  Tab Sobosbuvir 400mg +Daclatasvir 60mg  Tab Sobosbuvir 400mg +Simeprevir 90mg  Tab Ribavirin  Combo of Dasabuvir+Ombitasvir+Paritaprevir | **YES** | | **YES** |
|  | Anti Virals for Hepatitis B  Inj Interferon  Tenofovir  Emtricitabine  Entecavir  Lamivudine  Telbivudine  Adefovir | **YES** | | **YES** |
| 1. **ANTI-MALARIALS** | | | | |
|  | Chloroquine (phosphate or sulfate) Tab 150 mg (VIVAX) | **YES** | | **YES** |
|  | Primaquine (diphosphate) Tab 15 mg (VIVAX) | **YES** | | **YES** |
|  | Artesunate+Sulphadoxine+Pyrimetha mine Co-blister / combined therapy Tab 50+500+25mg (FALCIPARUM) | **YES** | | **YES** |
|  | Artesunate+Sulphadoxine+Pyrimetha mine Co-blister / combined therapy Tab 100+500+25mg (FALCIPARUM) | **YES** | | **YES** |
|  | Artemether amp 80mg/ml in 1 ml **(SEVERE MALARIA)** | **YES** | | **YES** |
|  | **Artemether+Lumefantrine tab 20+120mg** | **YES** | | **YES** |
| 1. **ANTHELMINTICS** | | | | |
|  | Mebendazole (chewable) Tab 500 mg **only for adults** | **YES** | | **YES** |
|  | Albendazole Tab 200 mg | **YES** | | **YES** |
|  | Albendazole Syrup 100mg/5ml | **YES** | | **YES** |
|  | Pyrantel (pamoate) Tab 250 mg | **YES** | | **YES** |
|  | Pyrantel (pamoate) Syrup 250 mg/5ml | **YES** | | **YES** |
|  | Inj amphotericin B 50 mg in vial | **YES** | | **YES** |
|  | Inj Sodium stibogluconate 100mg/ml in 30mlvial | **YES** | | **YES** |
| 1. **DRUGS USED IN RESPIRATORY DISORDERS** | | | | |
|  | Ipratropium Bromide 250mcg/ml/Atrovent Solution for Nebulization | **YES** | | **YES** |
|  | Solbutamol (sulfate) Tab 2,4 mg | **YES** | | **YES** |
|  | Solbutamol (sulfate) Inj 50 mcg in 5ml | **YES** | | **YES** |
|  | Solbutamol Inhalation aerosol 100mcg per dose | **YES** | | **YES** |
|  | Solbutamol Solution 5 mg/ml for Nebulization | **YES** | | **YES** |
|  | Beclomethasone disproportionate Inhalation aerosol 50 mcg per dose | **YES** | | **YES** |
|  | Aminophylline Injection 25mg/ml | **YES** | | **YES** |
|  | Aminophylline Tab 100 mg | **YES** | | **YES** |
|  | Ammonium Chloride + Chloroform + Menthol  Diphenhydramine + Sodium Citrate  131.5mg/5ml + ml mg/5ml + 1mg/5 + 13.5mg/5ml + 55mg/5ml | YES | | YES |
|  | Dexomethorphan + Diphenhydrimine anti-tussive syrup 12.5 mg+12.5mg/5ml | YES | | YES |
| 1. **GASTROINTESTINAL DRUGS** | | | | |
|  | NG Feed Solutions ENSURE/GLUCERNA | **YES** | | **YES** |
|  | Hyoscine (Butylbromide) Tab 10 mg | YES | | YES |
|  | Hyoscine (Butylbromide) Inj 20mg/ml | YES | | YES |
|  | Phloroglucinol Tab 80+80 | YES | | YES |
|  | Metoclopramide (hydrochloride) Tab 10 mg | YES | | YES |
|  | Metoclopramide (hydrochloride) Syrup 5mg/5ml | YES | | YES |
|  | Metoclopramide (hydrochloride) Inj 5mg/ml | YES | | YES |
|  | Inj: Gravinate | YES | | YES |
|  | Inj Ondansteron | YES | | YES |
|  | Dimenhydrinate tab 50 mg | YES | | YES |
|  | Omeprazole Cap 10, 20, 40 mg | YES | | YES |
|  | Inj Omeprazole 20, 40 mg | **YES** | | **YES** |
|  | Ranitidine Inj 25 mg/ml in 2 ml | YES | | YES |
|  | Ranitidine Tab 150, 250 mg | YES | | YES |
|  | Aluminium Hydroxide + Magnesium Trisilic Tab 250+500 mg | YES | | YES |
|  | ORS (Low osmolarity) Sachet with 20 mg Zinc dispersible tab | YES | | YES |
|  | Bisacodyl Tab 5 mg | YES | | YES |
|  | Glycerin Suppository | YES | | YES |
|  | Ispaghol Husk | YES | | YES |
|  | Sodium Phosphate Enema 7.2gm/120ml | YES | | YES |
|  | Lactulose syp 3.35g/5ml in 120ml | YES | | YES |
|  | Magnesium oxide and hydroxide suspension 7.9%w/v | YES | | YES |
| 1. **DRUGS ACTING ON ENDOCRINE SYSTEM AND IMMUNOSUPPRESSIVES** | | | | |
|  | Tab Glibenclamide 5 mg | YES | | YES |
|  | Tab Metformin HCl 500 mg | YES | | YES |
|  | Tab: Glimipride 2mg | YES | | YES |
|  | Insulin Regular (Human) 100 IU vial | YES | | YES |
|  | Insulin Premixed (Human) 30/70 100 IU vial | YES | | YES |
|  | Levothyroxine tab 50, 100 mcg | YES | | YES |
|  | Propylthiouracil tab 50 mg | YES | | YES |
|  | Azathioprine (As sodium salt) Tab 50 mg | YES | | YES |
|  | Azathioprine (As sodium salt) Inj 50 mg in vial | YES | | YES |
|  | Ciclosporin Capsule 25 mg | YES | | YES |
|  | Biperiden Inj 5 mg (lactate) in 1 ml  (Anti parkinson) | YES | | YES |
|  | Biperiden Tab 2 mg (hydrochloride)  (Anti parkinson) | YES | | YES |
|  | Levodopa+carbidopa Tab 100+10 mg or 250+25mg (Anti Parkinson) | YES | | YES |
| 1. **CARDIOVASCULAR AND DIURETICS** | | | | |
|  | Tab Bisoprolol 1.25, 5 mg | YES | | YES |
|  | Tab Disprin 300mg | YES | | YES |
|  | Tab Clopidogrel 75mg | YES | | YES |
|  | Tab Digoxin 62.5mcg, 250mcg | YES | | YES |
|  | Inj Digoxin 250mcg/ml | YES | | YES |
|  | Inj Amiodarone 50mg/ml | YES | | YES |
|  | Inj Verpamil 2.5mg/ml | YES | | YES |
|  | Inj Dopamine 40mg/ml in 5 ml vial | YES | | YES |
|  | Inj Dobutamine 50mg/ml in 5 ml vial |  | |  |
|  | Tab Enalapril 2.5, 5 mg |  | |  |
|  | Tab. Captopril 25mg | YES | | YES |
|  | Glyceryl Trinitrate Sublingual 500 mcg | YES | | YES |
|  | Isosorbide dinitrate Sublingual 5 mg | YES | | YES |
|  | Inj Isosorbide dinitrate 1mg/ml | YES | | YES |
|  | Inj Hydralazine 20 mg **(For PIH)** | YES | | YES |
|  | Tab Hydralazine 25, 50 mg **(For PIH)** | YES | | YES |
|  | Methyldopa Inj 250 mg **(For severe PIH)** | YES | | YES |
|  | Methyldopa Tab 250,500 mg**(For severe PIH)** |  | |  |
|  | Hydrochlorothiazide Inj 20 mg | YES | | YES |
|  | Hydrochlorothiazide Tab 25,50 mg | YES | | YES |
|  | Propanolol Tab 10, 40, 80 mg | YES | | YES |
|  | Tab Simvastatin 5, 10, 20, 40 mg | YES | | YES |
|  | Tab Verapmil 40, 80 mg | YES | | YES |
|  | Furosemide Tab 20, 40 mg | YES | | YES |
|  | Furosemide Inj 10 mg | YES | | YES |
|  | Hydrochlorothiazide tab 12.5mg, 25mg | YES | | YES |
|  | Spironolactone 25 mg tab | YES | | YES |
| 1. **ANTIDOTES** | | | | |
|  | Atropine (sulfate) Ampoule 1 mg in I ml | YES | | YES |
|  | Charcoal Activated Powder | YES | | YES |
|  | Diazepam Injection 10 mg | YES | | YES |
|  | Methylthioninium chloride (methylene blue) Ampoule 40 mg/ml in 10 ml | YES | | YES |
|  | Naloxone (hydrochloride) Ampoule 400 mcg in 1 ml | YES | | YES |
| 1. **ANTICONVULSANTS** | | | | |
|  | Carbamazepine Tab 200 mg | YES | | YES |
|  | Carbamazepine Syrup 100 mg/5ml | YES | | YES |
|  | Phenobarbital (sodium) Tab 30 mg | YES | | YES |
|  | Phenobarbital (sodium) Inj 200mg/ml | YES | | YES |
|  | Phenytoin Sodium Tab 100 mg | YES | | YES |
|  | Phenytoin Sodium Syp 30 mg/5ml | YES | | YES |
|  | Injection phenytoin 250 mg | YES | | YES |
|  | Valproic Acid tab 200, 500 mg | YES | | YES |
|  | Valproic Acid inj 100,200 mg/5ml | YES | | YES |
|  | Magnesium Sulphate Injection 500 mg/ml (only for eclampsia) | YES | | YES |
| 1. **VACCINES AND IMMUNOGLOBULINS** | | | | |
|  | BCG Vaccine | YES | | YES |
|  | Pentavalent Vaccine (DPT+HBV+HIB) | YES | | YES |
|  | Measles Vaccine | YES | | YES |
|  | Polio Vaccine (OPV/IPV trivalant) | YES | | YES |
|  | Pneumococcal Vaccine | YES | | YES |
|  | Tetanus Toxoid | YES | | YES |
|  | Anti-Rabies Vaccine (PVRV) Single Dose Vial | YES | | YES |
|  | Anti-Snake Venum Serum | YES | | YES |
|  | Typhoid Conjugate Vaccine | YES | | YES |
|  | Anti D immunoglobulin 250 mg single dose vial | YES | | YES |
|  | Diptheria antitoxin vial 10,000, 20,000 IU | YES | | YES |
|  | Tetanus Immunoglobulin 500 IU in vial | YES | | YES |
|  | Rabies Immunoglobulin vial 150 IU/ml | YES | | YES |
| 1. **VITAMINS / MINERALS** | | | | |
|  | Ascorbic Acid Ampoule 50,100,500 mcg | YES | | YES |
|  | Calcium Gluconate Inj 100 mg/ml in 10 ml | YES | | YES |
|  | Calcium Lactate Tab 500 mg,1gm | YES | | YES |
|  | Calcium Chloride Inj 200mg/ml | YES | | YES |
|  | Ergocalciferol (Vitamin D) Tab 50000 IU | YES | | YES |
|  | Ferrous salt (Fumerate) Tab equivalent to 60 mg iron | YES | | YES |
|  | Ferrous salt (Fumerate) Syrup 25mg/ml | YES | | YES |
|  | Folic acid Tablets 0.5, 1, 5 mg | YES | | YES |
|  | Ferrous salt + Folic Acid Tablets 60mg iron+400 mcg folic acid | YES | | YES |
|  | Multiple Micronutrients Sachet (UNICEF Approved) | YES | | YES |
|  | Retinol (Vitamin A) Tab 50000, 100000, 200000 IU | YES | | YES |
|  | Zinc Sulphate Tab 20 mg (dispersible) | YES | | YES |
|  | Vitamin K Inj 10 mg | YES | | YES |
|  | B Complex (b1,6,12) Tablets (DRAP Approved) | YES | | YES |
|  | Hydroxycobalmin ampoule 1mg in 1ml | YES | | YES |
|  | Multivitamins Tablets (DRAP Approved) | YES | | YES |
| 1. **MEDICINES AFFECTING COAGULATION** | | | | |
|  | Tab clopidogrel 75, 150,300 mg | YES | | YES |
|  | Inj Heparin Sodium 5000, 20000 i.u/ML | YES | | YES |
|  | Tab: warfarin sodium 1, 2 , 5mg | YES | | YES |
|  | Cap.Tranexaminic Acid 250, 500 mg | YES | | YES |
|  | Inj Tranexaminic Acid 100 mg/ml in 10ml | YES | | YES |
| 1. **PSYCHOTHERAPEUTICS** | | | | |
|  | Alprazolam/clonazepam Tab 0.5 mg | YES | | YES |
|  | Diazepam Tab 2,5 mg | YES | | YES |
|  | Diazepam Inj 10 mg | YES | | YES |
|  | Tab Haloperidol 5, 10 mg | YES | | YES |
|  | Chlorpromazine Hydrochloride Inj 25mg in 2ml | YES | | YES |
|  | Chlorpromazine Hydrochloride Tab 10 mg | YES | | YES |
|  | Amytryptaline Hydrochloride Tab 25 mg | YES | | YES |
|  | Carbamazipine Tab 100,200 mg | YES | | YES |
|  | Chlomipramine Hydrochloride Tab 10, 25 mg | YES | | YES |
|  | Olanzapine tab 5, 10 mg | YES | | YES |
|  | Risperidoen tab 1,2,3 mg | YES | | YES |
|  | Fluphenazine (deconoate or enantate) tab 25 mg | YES | | YES |
|  | Tab fluoxetine 20mg | YES | | YES |
|  | Tab amitryptaline 25mg | YES | | YES |
| 1. **OXYTOCIC AGENTS** | | | | |
|  | Ergometrine ((hydrogen maleate) Inj 200 mcg in 1 ml | YES | | YES |
|  | Misoprostol Tab 200 mcg | YES | | YES |
|  | Oxytocin Inj 10 IU in 1 ml | YES | | YES |
|  | Inj methotrexate | YES | | YES |
| 1. **CONTRACEPTIVES** | | | | |
|  | Condoms | YES | | YES |
|  | Ethynylestradiol + Norethisterone CO Pills 35mcg+1mg | YES | | YES |
|  | Levonorgestrel PO Pills 30 mcg | YES | | YES |
|  | Levonorgestrel EC Pills 750 mg pack of two | YES | | YES |
|  | Copper T / Multiload IUCD 150 mg/1ml | YES | | YES |
|  | DMPA (medroxyprogesterone acetate) Inj 150 mg/ 1 ml | YES | | YES |
|  | Norethisterone enantate Inj 200 mg/ml in 1 ml | YES | | YES |
|  | Estradiol cypionate + medroxyprogesterone acetate Inj 5 mg+25 mg | YES | | YES |
|  | Levonorgestrel releasing implant | YES | | YES |
|  | Estonogestrel releasing implant | YES | | YES |
| 1. **I.V INFUSIONS AND PLASMA SUBSTITUTES** | | | | |
|  | Plasma Expander Infusion  Dextran 6% w/v, Glucose 5% w/v | **YES** | | **YES** |
|  | Mannitol infusion 10% and 20% w/v | **YES** | | **YES** |
|  | ½ Dextrose Solution | YES | | YES |
|  | Glucose / Dextrose Infusion 5,10% | **YES** | | **YES** |
|  | Glucose / Dextrose Ampoule 25% | **YES** | | **YES** |
|  | Normal Saline Infusion 0.9% | **YES** | | **YES** |
|  | Dextrose + Saline Infusion 5 % + 0.9% w/v | **YES** | | **YES** |
|  | Ringer's Lactate Infusion | **YES** | | **YES** |
|  | Potasium Chloride Solution 11.2% in 20 ml | **YES** | | **YES** |
|  | Sodium Bicarbonate Inj 1.4% Isotonic | **YES** | | **YES** |
|  | Water for Injection Ampoule 5 ml, 10 ml | **YES** | | **YES** |
|  | **Intraperitoneal dialysis solution** | **NO** | | **YES** |
| 1. **DERMATOLOGICAL MEDICINES** | | | | |
|  | Benzyl Benzoate Lotion 5% and 25% | **YES** | | **YES** |
|  | Permethrin Cream 5% w/w | **YES** | | **YES** |
|  | Calamine Lotion 15% | **YES** | | **YES** |
|  | Clobetasol (Propionate) Cream 0,05% w/w | **YES** | | **YES** |
|  | Coaltar Lotion 5% | **YES** | | **YES** |
|  | GTN ointment 0.2% | YES | | YES |
|  | Selenium Sulphide detergent based suspension 2% | **YES** | | **YES** |
|  | Hydrocortisone Cream 1% | **YES** | | **YES** |
|  | PolymixineB (Sulphate)+ Bacitracin Zinc ointment 10000 IU/g +500 IU/g | **YES** | | **YES** |
|  | Silver Sulphadiazine Cream 1% | **YES** | | **YES** |
|  | Sodium thiosuphate solution 15% | **YES** | | **YES** |
|  | Xylocaine ointment | **YES** | | **YES** |
| 1. **DISINFECTANTS & ANTISEPTICS** | | | | |
|  | Povidone-Iodine Solution 10% w/v | **YES** | | **YES** |
|  | Hydrogen peroxide |  | |  |
|  | CIDEX | **YES** | | **YES** |
|  | Formalin solution | **YES** | | **YES** |
|  | Chlorhexidine + Ceterimide Solution 1.5% w/v+15%w/v | **YES** | | **YES** |
|  | Halogenated natrium phosphate powder 100 gms | **YES** | | **YES** |
|  | Tincture Benzoin Co Solution 7.5%w/v | **YES** | | **YES** |
|  | Chlorhexidine digluconate (7.1%) **for cord care** Gel equivalent to 4% Chlorhexidine | **YES** | | **YES** |
|  | Alvogyl paste (dental procedures) | **YES** | | **YES** |
|  | Cresophene (thymol + camphor) | **YES** | | **YES** |
| 1. **ANAESTHETICS** | | | | |
|  | ***GENERAL*** | **YES** | | **YES** |
|  | Isoflurane/halothane inhalation | **YES** | | **YES** |
|  | Nitrous Oxide inhalation | **YES** | | **YES** |
|  | Oxygen Gas Cylinder inhalation | **YES** | | **YES** |
|  | Ketamine hydrochloride injection 50mg/ml in 10ml | **YES** | | **YES** |
|  | Thiopental sodium injection 10mg, 20 mg/ml | **YES** | | **YES** |
|  | ***MUSCLE RELAXANTS*** | **YES** | | **YES** |
|  | Atracurium besylate injection 10mg/ml | **NO** | | **YES** |
|  | Neostigmine metilsulfate bromide injection 2.5mg/ml in 1ml | **YES** | | **YES** |
|  | Neostigmine metilsulfate bromide tab 15mg | **YES** | | **YES** |
|  | Suxamethonium chloride ampoule 50mg/ml in 2ml | **YES** | | **YES** |
|  | ***LOCAL*** | **YES** | | **YES** |
|  | Bupivacaine hydrochloride vial 0.25%, 0.5% | **YES** | | **YES** |
|  | Injection for spinal anesthesia amploule 5mg/ml (0.5%) in 4 ml | **YES** | | **YES** |
|  | Lidocaine (hydrochloride) Ampoule 5% in 2ml amp to be mixed with 7.5% glucose solution | **YES** | | **YES** |
|  | Lidocaine (hydrochloride) Topical 2% Gel (15 gm), 4% solution | **YES** | | **YES** |
|  | Lignocaine + Epinephrine (adrenaline)  Dental Cartridge 2% +1:800000 | **YES** | | **YES** |
|  | Benzocaine 20% | **YES** | | **YES** |
|  | Lignocaine + Epinephrine (adrenaline) 2% +1:200000 | **YES** | | **YES** |
|  | Ephedrine hydrochloride amp 30 mg in 1 ml | **YES** | | **YES** |
| 1. **ENT PREPARATIONS** | | | | |
|  | Steroid nasal spray | **YES** | | **YES** |
|  | Boroglycerine ear drops (For Wax Removal) 40% | **YES** | | **YES** |
|  | Plymyxin B Sulphate 1000 IU/ml +  Lignocaine 50mg/ml ear drops 5 ml plastic bottle | **YES** | | **YES** |
|  | Ciprofloxacin (hydrochloride) eye/ear drops 0.3% w/v | **YES** | | **YES** |
|  | Saline nasal drops 0.5% | **YES** | | **YES** |
|  | Nasal Drops Xylometazoline HCl 0.05% | **YES** | | **YES** |
|  | Ephedrine nasal drops 0.5% | **YES** | | **YES** |
|  | Lignocaine topical solution 4% | **YES** | | **YES** |
| 1. **OPTHALMIC PREPARATIONS** | | | | |
|  | Atropine drops | **YES** | | **YES** |
|  | Netamycin drops 5% | **YES** | | **YES** |
|  | Acyclovir drops 3% | **YES** | | **YES** |
|  | Polytear drops (Lubricant) | **YES** | | **YES** |
|  | Olopetidine drops 0.1%,0.2% | **YES** | | **YES** |
|  | Moxyfloxacin drops 0.5% | **YES** | | **YES** |
|  | Latanoprost drops 0.05% | **YES** | | **YES** |
|  | Chloramphenicol eye drops 1%, 0.5% w/v | **YES** | | **YES** |
|  | Gentamicin Sulphate eye drops 0.3% | **YES** | | **YES** |
|  | Polymyxin B Sulphate 10000 IU/gm +  Bacitracin Zinc 500 IU/gm eye drops | **YES** | | **YES** |
|  | Ciprofloxacin (hydrochloride) eye/ear drops 0.3% w/v | **YES** | | **YES** |
|  | Tetracaine hcl drops 0.5% | **YES** | | **YES** |
|  | Tetracycline (hydrochloride) eye drops 0.5% | **YES** | | **YES** |
|  | Tetracycline (hydrochloride) eye ointment 1% | **YES** | | **YES** |
|  | Dexamethasone eye drops 0.1% w/v | **YES** | | **YES** |
|  | Tropicamide 1% w/v | **YES** | | **YES** |
|  | Pilocarpine drops 2%, 4% | **YES** | | **YES** |
|  | Timolol drops 0.25, 5% | **YES** | | **YES** |
| 1. **DISPOSABLE SUPPLIES** | | | | |
|  | Syringe (Autodisable) Sterile packs 1 cc, 5 cc, 10, 20 cc | **YES** | | **YES** |
|  | Disposable Syringe strile packs 50cc | **YES** | | **YES** |
|  | I.V Sets (DRAP approved) Sterile packs | **YES** | | **YES** |
|  | I.V Canula (DRAP approved) Sterile packs 16G, 20 G, 22G,24G | **YES** | | **YES** |
|  | Volumetric Chamber (I.V. Burette) 100 ml size | **YES** | | **YES** |
|  | Scalp Vein Set (DRAP approved) Sterile packs | **YES** | | **YES** |
|  | Adhesive Tape (Hypoallergenic) Roll 1,2 inch | **YES** | | **YES** |
|  | Cotton Bandage Roll 6.5cm\*2m | **YES** | | **YES** |
|  | Absorbant Cotton Wool Pack 500 gm | **YES** | | **YES** |
|  | Examination Gloves Pairs Box of 100 | **YES** | | **YES** |
|  | Sterile surgical caps | **YES** | | **YES** |
|  | Sterile Surgical gloves pairs 7,71/2-6.5,8 | **YES** | | **YES** |
|  | Sterile Gauze dressing Pairs7.5 x 7.5 cm (10 ply) | **YES** | | **YES** |
|  | Silk Gauze dressing 12/pack 0, 1/0, 2/0, 3/0, 4/0 | **YES** | | **YES** |
|  | Liquid Paraffin Gauze (Sterile Packs) | **YES** | | **YES** |
|  | Silk Sutures Sterile Packs 0,1/0,2/0,3/0,4/0, 8/0,10/0 | **YES** | | **YES** |
|  | Chromic Catgut Sterile 0,1/0,2/0,3/0,4/0 | **YES** | | **YES** |
|  | Prolene, Vicry Sterile Sutures 0,1/0,2/0,3/0,4/0, | **YES** | | **YES** |
|  | Plaster of Paris bandage roll 10/20 cm \*6 m | **YES** | | **YES** |
|  | Crepe Bandage7.5, 10 cm x 2.7m | **YES** | | **YES** |
|  | Face Masks Disposable Sterile packs | **YES** | | **YES** |
|  | Blood Lancets Sterile packs | **YES** | | **YES** |
|  | Slides Sterile packs | **YES** | | **YES** |
|  | Spinal needle Sterile packs | **YES** | | **YES** |
|  | Surgical Blades Sterile packs | **YES** | | **YES** |
|  | Skin staplers | **YES** | | **YES** |
|  | Safe Delivery Kits Sterile packs   * 1 Batch soap * 1 Apron * 2 paper towels * 2 pairs of latex examination gloves * 1 plastic under-sheet (1 square meter) * 1 underpad 60\*90cm and 2 alcohol pads * 2 packs of sponges (4 sponges) * 1 sterile bulb sucker * 2 sterile umbilical cord clamp * 1 sterile surgical blade * 2 cotton threads * 1 maternity pad * 1 white polybag for disposal * 1 unbleached dignity drape   1 Instruction sheet | **YES** | | **YES** |
|  | Endotracheal tube Sterile packs set of 12 | **YES** | | **YES** |
|  | Resuscitator Bag with mask Adult/Paeds | **YES** | | **YES** |
|  | Nasogastric tube Adult/Paeds | **YES** | | **YES** |
|  | Folley’s catheter all sizes | **YES** | | **YES** |
|  | Urine Bags sterile packs | **YES** | | **YES** |
|  | Blood Bags sterile packs | **YES** | | **YES** |
|  | Air Way Adult/Paeds | **YES** | | **YES** |
|  | Suction catheter sterile packs | **YES** | | **YES** |
|  | Nelyton catheters | **YES** | | **YES** |
|  | Redivac drains/bottles | **YES** | | **YES** |
|  | Hemorrhoidal band ligator | **YES** | | **YES** |
|  | Trucut Biopsy needle | **YES** | | **YES** |
| **RADIOCONTRAST MEDIA** | | | | |
|  | Amidotrzoate Inj 140mg to 420 mg iodine/ml in 20ml | **YES** | | **YES** |
|  | Barium sulphate acqueous suspension | **YES** | | **YES** |
|  | CT Contrast Lohexol inj 140-350mg iodine/ml in 5ml, 10 ml, 20 ml ampoules | **NO** | | **YES (if CT is available)** |

* 1. **ESSENTIAL EQUIPMENT AND SUPPLIES**

1. **OUTPATIENT FACILITIES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **THQH** | **DHQH** | **REMARKS** |
|  | **GENERAL PROVISIONS** |  |  |  |
|  | Consultation room  Waiting area  Token system  Health education corners with posters.  TV and DVD player in OPDs for showing health education related programs in local languages  Stretcher  Wheel chair  Ramp  Portable emergency light with battery backup  Electric water cooler with filter  Safe Disposal of Waste Facilities  Washrooms for male/female | YES | YES |  |
|  | **Furniture** |  |  |  |
|  | Examination couch  Screen  Chair for the consultant  3 Chairs for the patient and attendant | YES | YES | Items to be available in each OPD room |
|  | **Equipment** |  |  |  |
|  | Stethoscope  Tongue depressor  Thermometer  BP apparatus stand type  Tendon hammer  Measuring tap  Torch  Cotton wool  Spatula  Tuning fork 128 cycles/second  Weighing machine  Examination gloves  Ophthalmoscope  X-ray illuminator double table type  Prescription slips/Stationary | YES | YES | One of each items to be available in each OPD room |
|  | Resuscitation Unit with Defibrillator and ECG monitor  Oxygen cylinder with trolley stand Oxygen flow meter without humidifier,  Oxygen masks all sizes | YES | YES | One in the whole Outpatient Department |
|  | Desktop computer with printer and UPS | YES | YES | One for the whole OPD department |
| **2.** | **CARDIOLOGY** |  |  |  |
|  | ECG machine (for all OPD patients), | YES | YES | One in the whole Outpatient Department |
| **3.** | **GENERAL MEDICAL** |  |  |  |
|  | Pulmonary function unit | YES | YES | One in the whole Outpatient Department |
| **4.** | **PEDIATRIC** |  |  |  |
|  | Paediatric stethoscope  Paediatric weighing machine  BP Apparatus with small cuff Nebulizer  Infantometer  Stadiometer  MUAC Tape  Measuring tape  ARI Timer  Pulse oxymeter | YES | YES | One of each items to be available in each Paediatric OPD room |
| 5. | **DERMATOLOGY** |  |  |  |
|  | Magnifying glass  Woods lamp  Glass slides | YES | YES | One for each Dermatology OPD room |
| 6. | **PSYCHIATRY** |  |  |  |
|  | Wechsler intelligence test with key adult/Children  International personality disorder examination - full version with  interpretation | **NO** | **YES** | One of each item for each Psychiatry OPD room |
| 7. | **GENERAL SURGERY** |  |  |  |
|  | Suture scissors  Clip Remover (staple remover)  Proctoscope  Foley’s Catheter with bag  kidney tray along with a set of dissecting  forceps artery clips and needle holders  Pyodine  Xylocaine | YES | YES | One of each item for each OPD room |
| 8. | **OPTHALMOLOGY** |  |  |  |
|  | ***Refraction System*** |  |  |  |
|  | Autorefractometer with K-reading  Retinoscope  Ophthalmoscope  Refraction box  Snellen s chart  Vision drum  UPS | YES | YES | One of each item for each Eye OPD room |
|  | ***Consultant OPD*** |  |  |  |
|  | Slit lamp  90 D Lens  Applanation  Tonometer,  Torches | YES | YES | One of each item for each Consultant OPD room |
| 9. | **ENT** |  |  |  |
|  | ENT mirror and light source-Headlight Rechargeable autoscope  Tuning forks 512 cycles/second  Audiometer  T microscope  Flexible laryngoscope  Suction machine  C/S sticks | YES | YES | One of each item for each ENT OPD room |
| 10. | **GYNAECOLOGY AND OBSTETRCS** |  |  |  |
|  | **Antenatal clinic** |  |  |  |
|  | Kidney trays  Pap smear kits  Gynae examination kit  Fetoscope/sonic aid  Kit for insertion/removal of IUCD  Delivery kit  Ultrasound | YES | YES | One of each items in each Gynae OPD room |
| 11. | **ORTHOPEDIC** |  |  |  |
|  | POP cutter  Cotton roll  Crepe bandage  Local anesthetic,  Injectable analgesic  Walking AIDS  Cervical Collar  Goneometer  Blocks for limb length  Skin and Skeletal Tractions  Scissor  Gloves  K Wire removal set  Spanners  Club foot equipment  Dressing set  Polysling  Plaster of Paris  Pelvic binder | YES | YES | Items to be available in each Orthopedic OPD room as per requirement |
| 12 | **DENTAL** |  |  |  |
|  | Complete dental unit with X-Ray + suction   * Periapical / bitewing/ occlusal x-rays (machine + films) * OPG + Cephalgram (machine + films) * Lead apron with thyroid collar * X-ray fixer and developer   Examination Instruments/ materials   * Front surface mirror with handle * Sickle probe + tweezers * Instrument tray/kidney tray Bowls * Latex + polythene gloves * Face masks * Cotton roll/gauze   Root Canal Instruments/euipments including   * Local anesthesia plungers (aspirating) * Infiltration + alveolar block needle * Rubber dam kits * High speed + slow speed hand piece * Diamond +carbide burs * Patency stainless steel files * Stainless steel file * Rotary Ni Ti files * Endo motor endo box * Finger spreader * Disposable syringe (5 cc) * Measuring scale (endo ring) * Root canal filling materials + sealer   Filling Instruments   * Excavators * Plastic instrument * Condenser * Plugger * Burnisher * Cement Spatula * Glass slabs * Amalgam gun * Carver * Filling materials ( amalgam, composite, GIC)   Surgical instruments   * Surgical blades + handles * Foreceps for extractions (deciduous + permanent) * Vicryl 3**°**, 4**°** suture * Bone curettes * Closed reduction of fractures (IMF wires + pliers) * Needle holder * Artery forceps * Scissors   Peridontology Instruments   * Hand scalers (sickle + Gracey’s) * Ultrasonic scaler units + tips * Polishing brush + polishing paste   Prosthodontics Instruments   * Mixing bowls + spatula * Impression trays * Wax knife * Wax carver * Modelling wax * Impression materials * Spirit lamp | YES  No | YES  Yes | **Need prosthodontics lab support for dentures/ crowns/ bridges** |

1. IN**PATIENT FACILITIES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **THQH** | **DHQH** | **REMARKS** |
|  | **GENERAL PROVISIONS** |  |  |  |
|  | Ward  Consultant office with bath room  Doctors duty room with bath room  Doctors changing room  Nurses changing room with bath room  Bath Rooms for patients (one/six patients)  Neonatal Carts  Drinking Water Facility | YES | YES | To be available in each inpatient ward |
|  | **Equipment** |  |  |  |
|  | Stethoscope  Thermometer  History Files  Stationary  Syringes  Sticking plaster  BP apparatus stand type  Tendon hammer  Measuring tap  Torch  Cotton wool  Spatula  Tuning fork 128 cycles/second  Weighing machine  Examination gloves  Ophthalmoscope  Portable Defibrillator with ECG monitor Resuscitation unit  Ambu bag  Endotracheal tubes various sizes  Pulse oxymeter  Glucometer with strips  Nasogastric tubes  Foleys/Celestic urinary catheter  I.V cannula various sizes  Central line  Drip stands  Instrument tray/Kidney tray/Bowls, Laryngoscope adult straight & curved Oxygen cylinder with trolley stand  Oxygen flow meter with humidifier, Oxygen flow meter without humidifier  Oxygen masks all sizes  SS urinal/bed pans  Heavy duty suction machine  Light duty nebulizer  Light duty suction units  Refrigerator 12 cf.  Spirometer,  X-ray illuminator double wall type Sterilizing drums  Meigle forceps Portable emergency light with battery backup  General Surgery Dressing Instruments Desktop computer with printer with UPS | YES | YES | Each item should be available in each inpatient ward in quantities ascertained by ward size/need |
| **2.** | **GENERAL MEDICAL** |  |  |  |
|  | Chest drain with under water seal  Three way pleural tape needle  Ascitic tap needle | Yes | Yes | All items to be available in Medicine and Allied ward in quantities |
|  | ECG machine (for all in-patients in the facility) | Yes | Yes | One in each Medicine and Allied ward |
| **3** | **SURGERY AND ALLIED WARD** |  |  |  |
|  | Dressing kit  Drains Different Types  Foley’s Catheter, Drainage Bags  Airways  Chest Drains  Blood Transfusion sets  Gloves (Sterile+Examination)  Proctoscopes  Naso-Gastric Tubes | YES | YES | All items to be available in Surgery and Allied ward in quantities ascertained by need |
| **4.** | **ORTHOPEDIC WARD** |  |  |  |
|  | Fracture bed with frame beam and  pulley | YES | YES |  |
|  | POP cutter, Skin tractor | YES | YES |  |
|  | Walker. Wheel Chair. Elbow crutches | YES | YES |  |
| **5.** | **ENT WARD** |  |  |  |
|  | Rechargeable Autoscope self- illuminating  ENT dressing  Head light electric  Tracheotomy set  Minor procedure room: Light source, items for nasal packing/ear packing and foreign body ear/nose | YES | YES | All items to be available in ENT ward in quantities ascertained by need |
| **6.** | **EYE WARD** |  |  |  |
|  | Direct Ophthalmoscope & retinoscope with charger  Refraction box  Boiler  Eye dressing instruments  Torches  Vision drum  Perkin tonometer  Desktop computer with UPS for data entry | YES | YES | All items to be available in EYE ward in quantities ascertained by need |
| **9.** | **MOTHER AND CHILD WARD** |  |  |  |
|  | ARI timer  Pulseoxymeter  Ultrasound  Butter fly various size  Paediatric urinary catheters  Intensive baby incubator  Oxygen tent paediatric,  BP Apparatus with small cuff  Phototherapy machine  Stethoscope paediatrics  Infant Warmer  Gynae Table  Stethoscopes foetal (aluminium)  Gynae examination kit  Female metal catheter F201, F 203, F204, F28  Ultrasound machine  Nebulizers  Suction Machines- Neonatal, Pediatric  Ophthalmoscope  Neonatal/Pediatric Laryngoscopes with straight and Curved blades  Different sizes endotracheal tubes  (premature, term, neonatal, Child), Auroscopes | YES | YES |  |
|  | Paediatric resuscitation unit | YES | YES |  |
|  | Incubators | YES | YES |  |
|  | Phototherapy units | YES | YES |  |
|  | Oxygen Concentrators | YES | YES |  |
|  | Cardiac Monitors/DC Cardioversion, | YES | YES |  |
|  | Infusion pumps | YES | YES |  |
| 10 | **PSYCHIATRY WARD** |  |  |  |
|  | Wechsler intelligence test with key adult/Children  Progressive matrices with key  Wilconsin cord sorting test with key International personality disorder examination - full version with interpretation | NO | YES |  |
| 11. | **CCU/ICU** |  |  |  |
|  | 10% of total bed strength of the facility  with monitors | YES | YES |  |
| 12. | **OPERATION ROOMS** |  |  |  |
|  | **Infrastructure** |  |  |  |
|  | Anaesthetist office with bath room  Anaesthesia technicians changing room with bath room  Nursing staff changing room with bath room, Pre-med room  central Sterilization room (for the whole hospital)  Scrub room  Recovery room  Patient pre-operative waiting room | YES | YES |  |
|  | **Operation Rooms (ORs) Equipment** |  |  |  |
|  | **General Provision** |  |  |  |
|  | Stethoscope  Stethoscope Paediatric  BP Apparatus mercury stand type  Instrument tray/Kidney tray/Bowls Laryngoscope adult straight & curved Laryngoscope paediatric straight & curved Meigle forceps  Diathermy with appliances  Catheter  Miscellaneous instruments sets  Nitrous oxide cylinder  Oxygen cylinder with trolley stand  Oxygen flow meter with humidifier  Oxygen flow meter without humidifier  Oxygen masks all sizes  SS Basin with stand  SS Urinals/Bed pans  Sterilizing drums  Tracheotomy set  Wt. machine adult  Wt. machine children  X-ray illuminator double wall type  Anaesthesia machine | Yes | Yes | Each item should be available in each OR in quantities ascertained by OR size/need |
|  | Operation table  Defibrillator on trolley  Electric water cooler  Heavy duty suction machine  Infusion pumps  Light duty nebulizer  Mobile OT light with battery  OT ceiling light LED type with satellite and backup power supply  Pulse oximeter  Refrigerator 12 cb. Ft.  Resuscitation unit  Fine Diathermy  NIBP (Non Invasive Monitors Devices)  Electricity back up (UPS/Generator) |  |  |  |
|  | Mobile x-ray 30 | YES | YES |  |
|  | **Sterilization room** |  |  |  |
|  | Autoclave vertical automatic  Autoclave horizontal Hot air oven | YES | YES |  |
|  | **Specialty dependent OR equipment** |  |  |  |
| 13. | **GENERAL SURGERY** |  |  |  |
|  | General Surgery Set  Vascular Repair Set  Proctoscope electric (set)  Sigmoidoscope (fibroptic)  General surgery sets major  General surgery sets minor  Park’s retractor  Band ligator  Probe | YES | YES |  |
| 14. | **EYE OT** |  |  |  |
|  | Binocular loup (2.5 x)  Operating microscope  Phacoemulsifier (preferred)  Bipolar cautery  Autoclave  Hot air oven  Boiler  OT tables-2  Cataract sets-4  DCR sets-2  Glaucoma sets-2  Squint sets-2  Entropion/ectropion sets-2,  Chalasion sets-  Instrument trolleys- 6  drums-4  Cheital foreceps with  container-2  Desktop computer with UPS for data entry | YES | YES |  |
| 15 | **ENT OT** |  |  |  |
|  | Binocular Operating microscope  loops  Head light  ENT surgery instruments major | Yes | Yes |  |
| 16. | **GYNAECOLOGY AND OBSTETRICS** |  |  |  |
|  | Gynaecology Sets  Delivery set normal  Obstructed labour set  Obstetric surgery set minor  Obstetric surgery set major  E&C set | Yes | Yes |  |
| 17. | **ORTHOPEDIC** |  |  |  |
|  | Lead Aprons  Nailing Set  Cannulated Screw Set  Austin Moore and Bipolar implant  Bone graft set  Osteotome set  K Wire set  External Fixators  Set for plating  Orthopaedic surgery set  Orthopaedic Operation Table with Traction,  Bone drill  3.5 mm Ortho Set  4.5 mm Ortho Set  DHS Set  Vascular Repair Set  Pneumatic Tourniquets | Yes | Yes |  |
| 18. | **LABOR ROOM** |  |  |  |
|  | **Infrastructure** |  |  |  |
|  | Doctors duty room with bath room  Doctors changing room  Nurses changing room with bath room  Rooms for patient with a bath room  Delivery tables  Baby warmer  Wheel chair  Stretcher | Yes | Yes |  |
|  | **Equipment** |  |  |  |
|  | Intensive Baby Incubator  Nitrous oxide Cylinder  Nitrous oxide cylinder flow meter  Stethoscope  BP apparatus stand type  Measuring tap  Torch  Cotton wool  weighing machine  examination gloves  Portable Defibrillator with ECG monitor Resuscitation unit  Ambu bag  Endotracheal tubes various sizes  Nursing station  Pulse oxymeter  Glucometer with strips  Foleys urinary catheter  I.V cannula various sizes  Drip stands Instrument tray/Kidney tray/Bowls  Oxygen cylinder with trolley stand  Oxygen flow meter with humidifier  Oxygen flow meter without humidifier Oxygen masks all sizes  Electric water cooler with filter  Heavy duty suction machine  Light duty nebulizer  Light duty suction units  Refrigerator 12 cf. ft.  X-ray illuminator double wall type  Sterilizing drums  Meigle forceps  Portable emergency light with battery backup  Delivery set normal  Obstructed labour set  Mobile OT Light  Vacuum Extractor/Forceps  CTG Machine  Sonic/Doppler Sonic aid  DNC Set  Infant Trolley with Warmer  Infant Sucker Machine  Female metal catheter F201, F203, F204, F28,  Stethoscopes foetal (aluminium)  Hysteroscope | Yes | Yes |  |
| 19 | **EMERGENCY DEPARTMENT** |  |  |  |
|  | **Infrastructure** |  |  |  |
|  | Doctor duty room with bath room  Nursing dressing room with a bath room Patients waiting area  Patient short term stay areA  Day care facility (monitored care for upto 12 hours by house staff),  Minor procedure room | Yes | Yes |  |
|  | **Equipment** |  |  |  |
|  | ***Emergency assessment:*** |  |  |  |
|  | Stethoscope  BP apparatus stand type  Tendon hammer  Measuring tap  Torch  Cotton wool  Spatula  Tuning fork 128 cycles/second  weighing machine  examination gloves  ophthalmoscope  Portable Defibrillator with ECG monitor  Resuscitation unit  Ambu bag  Endotracheal tubes various sizes  Nursing station  Pulse oxymeter  Glucometer  Nasogastric tubes  Foleys/Celestic urinary catheter  I.V cannula various sizes  Central line  Drip stands  Instrument tray/Kidney tray/Bowls, Laryngoscope adult straight & curved  Oxygen cylinder with trolley stand  Oxygen flowmeter with humidifier  Oxygen flow meter without humidifier Oxygen masks all sizes  SS urinal/bed pans  Heavy duty suction machine  Light duty nebuliser  Light duty suction units  Refrigerator 12 cf. ft.  Spirometer  Ray illuminator double wall type  X-ray illuminator double table type  Sterilizing drums  Meigle forcep  Instrument tray/Kidney tray/Bowls, Portable emergency light with battery backup  General Surgery Dressing Instruments Sets  Electric water cooler with filter  Glucometer, Oxygen tent  TV 28 Inch  Nitrous oxide cylinder 240 cft.  Nitrous oxide cylinder flow meter  Desktop computer with UPS and printer |  |  |  |
|  | ECG monitored beds |  |  |  |
|  | X-Ray Unit 500-MA with accessories  (mobile), |  |  |  |
|  | ***Emergency OR/Minor procedure room:*** | | | |
|  | Autoclave horizontal  ECG machine  Diathermy  Mobile OT light  Operation table hydraulic  OT ceiling light with satellite |  |  |  |
|  | Cardiac monitor with defibrillator on  trolley |  |  |  |
|  | ***Support Services*** |  |  |  |
|  | Electric Water Cooler  Stretchers  Wheel chairs |  |  |  |
| 20 | **Laboratory** |  |  |  |
|  | Microscope binocular  3 part hematology auto analyzer  Manual chemistry analyzer  Semi-automatic chemistry analyzer  Pipette set  Refrigerator 12 cub. For kits and reagents  Refrigerator for preserving samples  Glass ware  Blood bank refrigerator  Reagents of tests to be performed  ESR tubes  Neubauer chamber for manual RBC, WBC and platelet count (with required reagents and glassware)  Centrifuge machines  Urinalysis strips  Autoclave  Incubator  Hot air oven  Digital Lab scales  Glucometer  Biosafety cabinet  Computer with printer  UPS  Gas supply  Consumables of intended tests to be performed  Immuno-chromato-graphy devices  Quality controls capability (EQAS/RIQAS)  Out sourcing of specialized testing MOUs with bigger labs  Lab Information System / software |  |  |  |
| 21. | **Radiology** |  |  |  |
|  | X-ray machine |  |  |  |
|  | Colour doppler/Ultrasound Machine, |  |  |  |
|  | Flouroscopy machine |  |  |  |
|  | CT Scan machine 16 slice |  |  |  |
|  | Radiation densitometer  X-Ray Cassettes all sizes  Lead gowns  Gloves  Goggles  Shield set  Hangers x-ray  Ultrasound Machine with four probes (vaginal and abdominal linear and cardiac)  X-Ray Illuminator double wall type  X-Ray Illuminator double table type  Desktop computer with UPS & printer |  |  |  |
| 22. | **Pharmacy** |  |  |  |
|  | Maintenance of stock and inventory  Drugs mentioned in formulary  Refrigerator 12 cb. Ft,  Desktop computer with UPS and printer |  |  |  |
| 23. | **IT Services**  Computerization of hospital services, Computers and networking items |  |  |  |
| 24. | **Safe Waste disposal**  Collection and segregation at the facility |  |  |  |
| 25. | **Mortuary**  Electric skull cutter  Mortuary table  Name plates  Mortuary instruments sets |  |  |  |
| 26 | **Laundry**  Washer  dryer |  |  |  |
| 27 | **Canteen**  Food available for patients, personnel and attendants |  |  |  |
| 28 | **Administration Block** |  |  |  |
|  | **Infrastructure** |  |  |  |
|  | Office Medical Superintendent  Office Deputy Nursing superintendent  Office Superintendent with Sr and Jr clerk  IT office  All offices including A&E  consultant offices and ORs connected through internal telephone from internal exchange |  |  |  |
|  | **Equipment** |  |  |  |
|  | Computer Desktop with UPS and Printer  Scanner  Sound system with speakers to cover all essential areas for internal announcement  DVD Player connected to TV in OPD  A&E, wards and ORs for patient education on common illnesses with emphasis on primary and secondary prevention  Close Circuit TV System  Laptop  Multimedia with overhead project & screen Electric Water Cooler with filter  Refrigerator 12 cu ft  TV LCD 46 inches  Photocopier |  |  |  |
| 29 | **Sets of basic gardening equipment** |  |  |  |
| 30 | **Fire extinguishers** |  |  |  |

**SECTION 4: IMPLEMENTATION PLAN AND PERFORMANCE INDICATORS**

**4.1 Requirements for Successful Implementation**

**Facility Based Services**

1. **Non-availability of doctors/paramedics at secondary healthcare** facilities

* Improved salary packages that are better than tertiary care can help in filling the vacant positions of specialist doctors and paramedics
* A rotation policy of doctors and paramedics posted in tertiary care in which serving one month every year can be made mandatory
* A rotation policy for postgraduate residency programs of all disciplines in which residents shall be made to do 3-months rotation at secondary healthcare centers wherever there is lack of doctors.

1. **Lack of capacity to provide quality of care**

* One of the main reasons of low utilization of public sector facilities is poor quality of care. Strengthening the capacity of healthcare providers to implement the package of services with updated guidelines will be the key to enhance the utilization of secondary care facilities
* Private practice will also need to be regulated and healthcare providers serving in public sector facilities shall be barred from private practice. Introducing evening Outpatient clinics with shared packages between the healthcare providers and hospital management can also reduce the culture of private practice

1. **Lack of focus on preventive care**

* Healthcare providers need to be trained to go extra mile to contribute for adoption of healthy behaviors in public
* The physicians shall work closely with outreach workers for behavior change in the community. Hiring of special health education officers in every facility may also be considered.

1. **Lack of medicines, supplies and equipment to deliver the services**

* It is imperative that medicines, supplies and equipment listed in the package shall be available to healthcare providers
* The estimates of quantities required to meet the needs shall be based on periodic assessment of patient burden of different types of services listed in the package
* The minimum service delivery package shall be revised and updated annually and biannually

**4.2 Performance Indicators**

Performance indicators of implementation of the package are based on logical framework approach:

|  |  |
| --- | --- |
|  |  |
| Inputs | 1. % of positions vacant as per MSDP package 2. Availability of Essential drugs, supplies and Equipment as listed in MSDP 3. % of facilities with infection prevention and proper waste disposal arrangements |
| Processes | 1. Knowledge of HCW’s on delivering the MSDP Services 2. Practices on quality of care including consultation and treatment through observation and prescription analysis 3. Criteria for Referral in referred cases 4. Number of obstetric complications 5. Maternal and Neonatal Case facility rates 6. Waste disposal and infection prevention practices |
| Outputs | Facility Based Services   1. Daily OPD attendance 2. Volumes of Services provided with break-up of different services 3. Lab and radiological services utilization with break-up of each test 4. Bed Occupancy rate 5. Daily emergency services |
| Outcomes | 1. % Utilizing the facility as first choice in the catchment area 2. % of pregnant women delivering in the facility as first choice in the catchment area 3. Vaccination coverage of basic vaccines 4. Prevalence of malnutrition in children under 5 5. Coverage of antenatal care, skilled birth attendance and postnatal care 6. Contraceptive prevalence rate 7. Prevalence of high priority diseases in the community |

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