Chapter IV
Delivery of Healthcare Services

Chapter-IV: Delivery of Healthcare Services

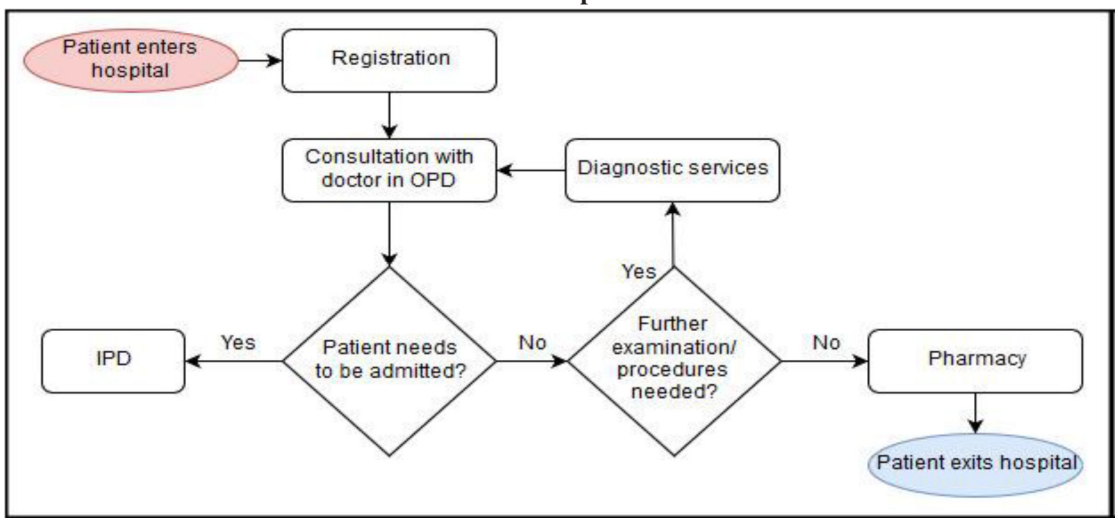
Delivery of quality and timely healthcare services - OPD, IPD, ICU, OT, Trauma and emergency and diagnostic services.

High-quality healthcare services involve the right care, at the right time, responding to the users' needs and preferences, while minimizing harm and wastage of resources. Quality healthcare increases the likelihood of desired health outcomes. Audit observations on delivery of timely and quality healthcare services in the test-checked DHs through line services like Out-Patient Department (OPD), In- Patient Department (IPD), Intensive Care Unit (ICU), Operation Theatre (OT), Trauma & Emergency and Diagnostic services are discussed in the succeeding paragraphs.

4.1 Out Patient Department (Services)

To avail of services in a hospital, patients first register at the registration counter of the hospital. OPD doctors then examine them, and further diagnostic tests are prescribed where necessary, for evidence based diagnosis and/ or drugs are prescribed or admission in IPD is advised based on the diagnosis. The detailed process flow is shown in the chart below:

Chart 4.1: Flow of patient services



The following paragraphs discuss Audit findings pertaining to OPD services like registration, consultation, waiting time and other basic OPD facilities/ services in the test-checked DHs.

4.1.1 Inflow of Patient in OPDs

The year-wise position of patients handled by the OPD clinics of Singtam and Gyalshing DHs is given below:

Table 4.1: Number of Outdoor Patients in District Hospitals

Year	No. of Patients		Percentage increase over 2014-15	
	Singtam	Gyalshing	Singtam	Gyalshing
2014-15	52,827	50,709	--	--
2015-16	72,914	52,031	38	3
2016-17	86,367	51,359	63	1
2017-18	1,04,876	59,188	99	17
2018-19	1,13,408	64,844	115	28

Source: HMIS data

The number of patients visiting Singtam DH for treatment/ medical check-up increased from 52,827 in 2014-15 to 1,13,408 in 2018-19, recording an increase of 115 *per cent* over 2014-15, whereas the number of patients in Gyalshing DH increased by 28 *per cent* during the same period. During 2018-19, the average daily load of patients in the OPD of Singtam DH was about 311 and in Gyalshing it was 178. The average patient load per doctor[1] per day was accordingly 22 and 16 for Singtam DH and Gyalshing DH, respectively. The New STNM Hospital registered a flow of 2,96,852 out patients during the period January 2019 to December 2019, with an average of 813 OPD patients on a daily basis.

Both the DHs did not have any system to record details of OPD patients referred to higher health centres from the OPD clinics. Hence, the number and details of patients who were outright referred to other centres after examination by the doctors/ specialists in the DHs were not available on record.

4.1.2 Non-computerisation of Registration Management System in DHs

Registration is a process of enrolling patients into the records of the hospital to provide services and keep track of various services that are availed by each patient. This is also the first step to generate a medical record of the patient in which all medical details of the patient are documented.

Audit noticed that in both DHs, the patient's details' (name, age, gender and address) were recorded manually in the OPD counter in a register. Plain paper slips were issued to the patients affixed with patient details and a registration number. The DHs had no system of recording patients' details in digital form in a computerised system. Nor was there any system to record the subsequent lab tests, medicines prescribed and results of tests/ diagnosis.

Thus, in absence of vital information which could be used for tracking health of patients and helpful for analysis in future, was not be utilised.

New STNM Hospital

- Patient data stored in digital manner.
- After registration, patients were given OPD cards with a registration number.

[1] *Total available doctors (including specialists) in the DHs as per IPHS. Where there were excess doctors (for example - dentists), only number of doctors as per the IPHS have been reckoned.*

While accepting the Audit comments, the Department stated (June 2020) that in absence of fully digitized Hospital Information System, complete data could not be maintained and few OPDs, not maintaining proper record were instructed to add the column for diagnosis in the OPD register for tracking and future reference.

4.1.3 Availability of basic facilities in OPD

As per the IPHS, OPD facility in a DH should be planned keeping in mind maximum peak hour patient load and should have scope for future expansion. OPD should have approach from main road with signage visible from a distance. Reception and Enquiry/'May I Help desk' should be available with competent staff fluent in local language. Services available at the hospital should be displayed at the Inquiry. Name and contact details of responsible persons like Medical Superintendent, Hospital Manager, Causality Medical Officer, Public Information Officer, *etc.* should be displayed. Waiting Spaces with adequate seating arrangements should be provided.

Patient amenities like potable drinking water, functional and clean toilets with running water and flush, fans/ coolers, seating arrangement as per load of patient should be available. The clinics should include General, Medical, Surgical, Ophthalmic, ENT, Dental, Obstetrics &Gynaecology, Post-Partum Unit, Paediatrics, Dermatology & Venereology, Psychiatry, Neonatology, Orthopaedic and Social Service Department.

Audit observed that :

- The OPD counter for registration of patients in Singtam DH was located outside the hospital building in a tin roofed open structure with no proper sitting/ waiting area for the patients and their attendants/ relatives. There was also no scope for future expansion.
- The OPD counter in Gyalshing DH was located within the Hospital building and had proper and adequate arrangement for sitting/ waiting comfort of the patients and their attendants coming to the hospital for treatment.

	
OPD Registration Counter, Singtam DH	**OPD Registration Counter, Gyalshing DH**

- Most of the OPD clinics in the New STNM Hospital did not have adequate seating arrangement for patients, though it was a new hospital. Further, there was no provision of ceiling fans in the Registration Counters, Waiting Areas for patients and public in general.

- OPDs in both DHs had approach from main road with signage visible from a distance. Reception and Enquiry/May I Help desk were available with staff fluent in local language.
- Services available at the hospital were displayed at the Enquiry. Contact details of Medical Superintendents were found displayed. Patient amenities like potable water, functional and clean toilets with running water and flush were available.
- Both the DHs had clinics for General, Medical, Ophthalmic, ENT, Dental, Obstetrics & Gynaecology, Post-Partum Unit, Paediatrics, Dermatology & Venereology, Psychiatry, Neonatology, Orthopaedic and Social Service Department. However, full range of services under the above-mentioned streams could not be provided by both the sampled DHs due to non-availability of essential required equipment as discussed in Paragraph 3.4.1.
- The OPD hours in the DHs and New STNM Hospital started from 9 a.m. and stretched upto 3 p.m. from Monday to Friday and 9 a.m. to 1 p.m. on Saturday. During Sundays and holidays, the OPD opened for 1 hour from 9 a.m. to 10 a.m.

Conclusion

Two test-checked DHs namely Singtam and Gyalshing had inadequate registration counters as against the requirements. OPD counter for registration of patients in Singtam DH was located outside the hospital building in a tin roofed open structure with no proper sitting/ waiting area for the patients and their attendants/ relatives. Most of the OPD clinics in the New STNM Hospital also did not have adequate seating arrangement for patients despite being a newly planned hospital. Further, except for the New STNM Hospital, the registration of patients was not computerised in the two DHs. Both the DHs did not have system to record details of OPD patients referred to higher health centres from the OPD clinics.

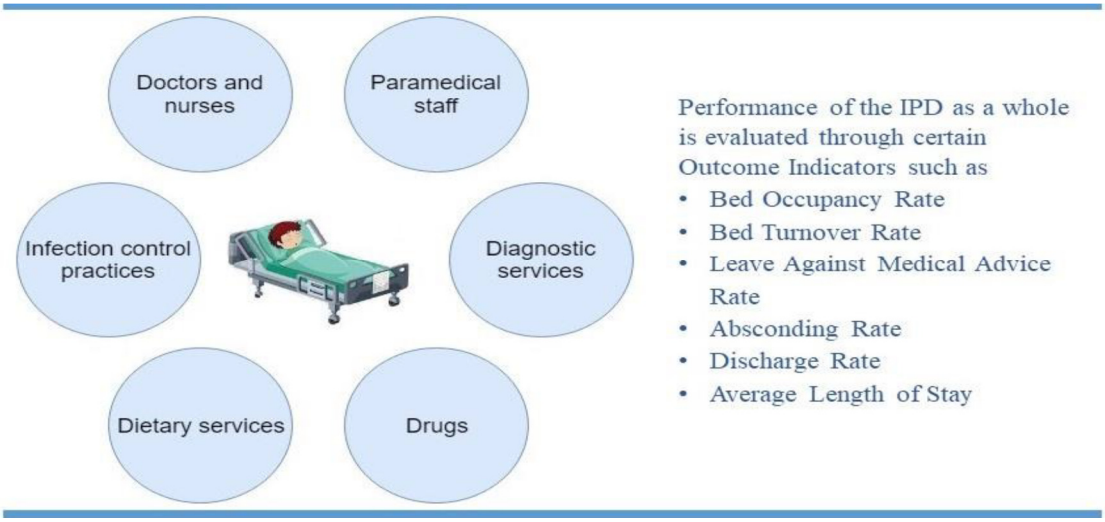
Recommendations

- *The State Government may ensure availability of basic facilities/services in the OPD of each hospital as prescribed in the Assessor's Guidebook for Quality Assurance of Services in District Hospitals, 2013 (Vol-1).*
- *They may ensure documentation/computerisation of referral cases and clinical history of patients.*

4.2 In Patient Department (IPD) Services

Indoor Patients Department (IPD) refers to the areas of the hospital where patients are accommodated after being admitted, based on doctor's/ specialist's assessment, from the OPD, Emergency Services and Ambulatory Care. In-patients require a higher level of care through nursing services, availability of drugs/ diagnostic facilities, observation by doctors, *etc*.

Chart 4.2: IPD services in a hospital



There were seven IPD wards in Singtam DH (Male, Female, Geriatric, Maternity and Gynae, Paediatric, Eye and Emergency) and eight IPDs (Male, Female, Paediatric, Antenatal, Post Natal, Surgical, Emergency and TB Isolation Ward) in Gyalshing DH.

Due to want of Isolation unit, TB patients in Singtam DH were housed in the same floor (in separate rooms) sharing same corridor with General Male and Female Wards, exposing patients and their attendants to the risk of transmission of the disease.

4.2.1 Inflow of patients in IPDs and Bed Occupancy

The table below depicts number of inpatients who were provided medical care and services in the two DHs during the period 2014-19:

Table 4.2: Bed Occupancy in District Hospitals

Year	No. of inpatients		Bed Occupancy Rates (in *per cent*)		Remarks
	Singtam DH	Gyalshing DH	Singtam DH	Gyalshing DH	
2014-15	8,400	6,953	22	19	Singtam DH – 105 functional beds. Gyalshing DH 98 functional beds
2015-16	11,337	12,869	30	36	
2016-17	15,352	13,075	40	37	
2017-18	19,381	11,894	51	33	
2018-19	24,879	15,883	65	44	

Source: HMIS data

- Number of In-patients who were provided services increased from 8,400 to 24,879 in case of Singtam DH (196 *per cent*) and from 6,953 to 15,883 in case of Gyalshing DH (128 *per cent*) during the period 2014-19.
- The Bed occupancy rate accordingly increased from 22 to 65 *per cent* in case of Singtam DH and 19 to 44 *per cent* in case of Gyalshing DH.
- The DHs had not conducted any study or any analysis of the increase of In-patients over the years to review/ augment their facilities to cater to the growing number of patients within their jurisdictions.

- The New STNM Hospital registered 17,677 in-patients during 2019. On an average, 48 patients were being admitted daily in the in-patient Department of the Hospital.

In none of the three hospitals, any system had been laid down for regulating flow of patients' relatives/attendants by issuing visitors cards and restricting the number of visitors for the patients, to control crowding of the IPDs / Hospital premises.

The Department stated (June 2020) that the inflow of higher number of patients in Singtam DH was due to floating population and also due to admission of patients from other districts as it lies at the border of South district and National Highway. Further, less inflow of patients in Gyalshing DH was due to its remoteness and location not being appropriate.

4.2.2 Referred out Patients

During the period 2016-19, a total of 2,652 in-patients from Singtam DH and 1,411 in-patients from Gyalshing DH were referred to the State Hospital (STNM, Gangtok) due to non-availability of essential services in the DHs (specialists, equipment, trauma services and diagnostic facilities).

During the year 2019, 1,973 patients were referred from the STNM Hospital to higher health facilities (CRH, Tadong and outside State) for medical treatment due to non-availability of required facilities (manpower, equipment, infrastructure, *etc.*) in the hospital.

As the STNM hospital was planned for specialised services and had idle equipment lying, the Department may enquire into these referrals from STNM to other hospitals, for optimal use of resources and in interest of patient convenience and treatment.

4.2.3 Availability of medicines at IPD

Each ward in the IPD maintained a small stock of medicines and consumables in the Nurses Stations, sourced from the main stores of the DHs. Although, stock registers showing medicines received and issued were maintained, patient-wise details of medicines issued based on prescriptions were not recorded. The patient-wise records of medicines prescribed by the doctors was also not maintained in IPD. Hence the status of availability of medicines in the IPDs as per requirement, whether medicines were issued only to the inpatients of respective wards could not be ascertained.

A survey of 66 patients (33 for each DH) done by the audit during December 2019 (Gyalshing DH) and January 2020 (Singtam DH) regarding availability of essential services in the hospitals showed that three patients (five *per cent*) responded that all medicines prescribed to them were available in the DHs, nine patients (13 *per cent*) responded that medicines were mostly available whereas 36 patients (55 *per cent*) responded that medicines were available on few occasions and 18 patients (27 *per cent*) responded that the prescribed medicines were almost never available in the DHs.

The Department needs to advise the DHs to keep stock records of receipt and issue of medicines and monitor the same.

4.3 Referral from CHC and PHC to DHs

The primary responsibility for maternal and infant care in rural areas is with the PHCs and CHCs and generally, only referral cases are handled by the DHs. To have a holistic picture for the State as a whole, Machong PHC and Rhenock CHC within the district hospital radius (Singtam) of the capital district (East District) were test-checked in audit and referral cases, relating especially to maternal and child care issues from these health facilities, were examined. Details of cases which were referred to higher Health facilities (District Hospital Singtam / STNM Hospital Gangtok/Manipal Hospital) for further treatment is shown in the Table 4.3 below:

Table - 4.3 : Details of referral cases of sampled CHC & PHC

Year	CHC			PHC
	Maternal Issues	Child Issues	Others	All referral cases (separate records not maintained for maternal, child & other issues)
2014-15	NA	NA	NA	19
2015-16	61	9	98	22
2016-17	66	18	108	17
2017-18	59	10	180	21
2018-19	40	7	177	09
Total	**226**	**44**	**563**	**88**

The Quality assurance guidelines prescribe that when a patient is referred to a higher level health facility, the hospital authorities are required to inform in advance about the referral of the patient to higher health facilities in order to enable them to avail better medical care. The authorities should also follow-up with the treatment of the referred patients. Audit observed that this requirement was not observed by the PHC/CHC.

Machong PHC acted as referral centre to five sub-centres linked to this PHC. Patients requiring medical care beyond the capacity of the MO / PHC were required to be referred to the Singtam DH. All cases from Machong PHC, however, were being referred to the STNM Hospital, Gangtok instead of DH Singtam due to nearness of STNM Hospital and better health care facilities available there. Moreover, all *referral-in* cases from five PHSCs under Machong PHC were being referred to Pakyong PHC due to topographical advantage and better facilities available in Pakyong PHC. This indicated that the establishment of the PHC at Machong had been done without considering its utility as a higher referral centre to the PHSCs under it.

4.3.1 Non-availability of essential facilities in the selected CHC & PHC

The high referral cases from the selected PHC/CHC was due to non-availability of specialty services, non/short availability of equipment and lab investigation and imaging services, non/short availability of essential drugs and consumables, as elucidated below:

- There was no availability of manpower in 10 different cadres of the Rhenock CHC as prescribed by the IPHS such as general surgeon, physician, obstetrician /

gynaecologist, paediatrician, anaesthetist, public health specialist, public health nurse etc. Due to non-availability of essential manpower in such vital areas, the services expected to be rendered by the CHC in terms of the IPHS norms could not be delivered.

- The IPHS prescribed 12 different types of equipment to be available in the CHC. None of the instrument / equipment sets prescribed by the IPHS were completely available with the CHC. The non-availability of equipment / instruments was much more pronounced than the actual availability. There was also no blood storage facility available.
- Out of nine basic instruments / equipment required for the Operation Theatre in the CHC, only four were available, and, out of seven instruments / equipment required for the labour room, only three were available while four were not available.
- Similarly, out of 12 equipment / consumables required for new-born corner in the CHC, eight such equipment / consumable were available while four were not available.
- Out of total 36 laboratory test services to be essentially available in the CHC as per IPHS, only 13 services were available, 5 services were partially available while 18 services were not available at all.
- Shortage of essential equipment and other items such as General equipment, equipment for labour room, Paper Smear, Laboratory, Furniture and medical/surgical items in Machong PHC ranged from zero *per cent* (equipment for operation labour room) to 30 *per cent* (General equipment).
- Against the requirement of 17 laboratory investigations / imaging services, laboratory and imaging services such as Rh Typing, Diagnosis of RTI/STCs with wet mounting, Grams stain, etc, Rapid test kit for faecal contamination of water, Estimation of chlorine level of water using orthotoludine reagent and imaging services were not available in Machong PHC.
- Against the norm of 176 drugs and consumables as per the IPHS, only 34 drugs / consumables were available in the CHC on the date of spot verification by Audit.
- Out of 176 essential drugs / consumables, only 62 drugs were supplied during April 2018 to February 2020 while 114 drugs/consumables were never supplied / received by the CHC.
- Even among the 62 drugs which were supplied during April 2018 to February 2020, majority of the drugs numbering 60 suffered stock-out situations on and off for periods ranging between seven to 365 days.
- Out of 168 essential and lifesaving drugs prescribed by the IPHS for PHCs, only 70 drugs were available in Machong PHC while 98 essential drugs / consumables were not available.

- 15 drugs out of the essential 168 drugs were never received in the PHC during the entire five years 2014-19. Out of the 153 drugs which were received on and off during 2014-19, there was stock-out situation of 44 drugs on one to 14 occasions for periods ranging from 4 days to 1335 days (more than three and half years).

Since CHCs/PHCs are primary units for health services to citizens in interior areas, the non-availability of doctors/equipment and drugs deprived the population of even basic health services and exposed them to inconvenience of travel elsewhere and risk to their lives.

4.4 Intensive Care Unit (ICU)

The IPH Standards envisage that each DH should have an Intensive Care Unit (ICU) to attend critically ill patients such as major medical and surgical cases, head injuries, severe haemorrhage, etc., requiring highly skilled lifesaving medical aid and nursing care. The IPH Standards further provide that the number of beds in the ICU may be restricted initially to five *per cent* of the total bed capacity of the hospital and gradually expanded to 10 *per cent*. Lifesaving equipment such as High End Monitor (HEM), Ventilator, Thrombosis Prevention Device (TPD), Oxygen therapy for each bed and common Ultrasonography (USG) and Defibrillator were essential to save critical patients.

The Singtam DH was established (1978) more than 40 years ago and Gyalshing DH was established (2004) more than 15 years ago. Despite this fact, ICU facilities were not available in the two DHs. The distance from Singtam and Gyalshing DHs to the nearest tertiary facility was about 27 km and 107 km respectively. Non-availability of ICU facilities in these two DHs, specially Gyalshing DH, required critically ill patients of areas falling within jurisdiction of the DHs to travel long distances which could lead to fatalities. The number of such critically ill patients could not be ascertained as details of such patients had not been maintained in the DHs.

A 14-bedded ICU Ward was in operation in New STNM Hospital at Gangtok for providing healthcare services to critically ill patients with major medical and surgical cases, head injuries, severe haemorrhage, etc., requiring highly skilled lifesaving medical aid and nursing care.

4.5 Operation Theatre Services

The IPHS guidelines provide that DHs should have Operation Theatres (OTs) equipped with all instruments. The OTs should have the departments of surgery with Central Sterile Supply Department (CSSD) near to the OTs. It further provides that the OTs should have preparatory, pre-operative and post-operative resting rooms.

Gyalshing DH had two OTs – one for Gynaecology& Obstetrics and other General OT. Singtam DH had one OT for Gynaecology & Obstetrics and one for Ophthalmology. The General OT attached with the trauma unit in Singtam DH had not been made fully operational due to delayed completion of construction of Trauma Care Centre and non-procurement of equipment.

Major surgery cases in General OTs of these DHs were not performed as no Surgeon and radiologist were available in the DHs for handling such cases. Only first aid and minor surgical procedures like suturing and dressing of minor injuries, wounds, abscess, etc. were performed in the General OTs. Further only one Anaesthetist (for Gynecology & Obstetrics Department) was available in each DH against the IPHS norm of two Anaesthetists per DH.

Facilities like Central Sterile Supply Department (CSSD), preparatory, pre-operative and post-operative resting rooms were available in both DHs. In the New STNM Hospital, there were 26 functional OTs.

4.6 Emergency Department

Emergency services in DH are provided by Emergency ward or Emergency Room (ER) which is a medical treatment facility specialising in acute care of patients who come in emergency situation. Due to the unplanned nature of patient attendance, the department provides initial treatment to a broad spectrum of ailments and injuries, some of which may be life threatening and require immediate medical attention. Therefore, IPHS envisages 24x7 operational emergency with dedicated emergency room in every district Hospital.

Emergency room was available in all test-checked DHs, however, the following deficiencies were noted as against IPH norms:

- There were no surgeons and anaesthetists available in the DHs for handling major surgical procedures. Hence only minor procedures like providing first aid to victims of accident, clearing / cleaning of wounds / abscesses, suturing etc. could be provided in the Emergency facilities in the DHs.
- Cases requiring major surgeries therefore had to be taken to the tertiary care facility at Gangtok which was 107 km from Gyalshing DH and 27 km form Singtam DH.

4.7 Trauma Care Centre

Road traffic deaths and injuries are unpredictable and preventable. It is an accepted strategy of Trauma Care that if basic life support, first aid and replacement of fluids can be arranged within first hour of the injury (the golden hour), lives of many of the accident victims can be saved.

Audit observed that Trauma care centre was not available in any of the test-checked DH (March 2019)[2]. In the absence of a functional Trauma care centre in the test-checked DHs, patients with serious injuries were referred to higher facilities located within and outside the State/districts thus, losing the golden hour to save the life of the victims.

[2] *A Level II Trauma Care Centre was operational in New STNM Hospital.*

4.7.1 Delay in completion of Trauma care centre at Singtam DH

In Singtam DH, establishment of a Level III Trauma care centre was taken up (November 2016) with a sanctioned cost of ₹ one crore. The building infrastructure, scheduled to be completed by November 2017, was finally completed in December 2019. Equipment for the trauma care centre had not been provided till date (January 2020) and the trauma care building was lying idle.

Idle Trauma Centre Singtam DH

The Department stated (June 2020) that the proposal for Trauma Care Centre for Gyalshing DH is being proposed to GoI, while Trauma Care Centre at Singtam DH has been operationalised and is functional. The reply of the Department is not acceptable in absence of non-provision of equipment by the Department.

4.8 Diagnostic Services

Efficient and effective diagnostic services, both radiological and pathological, are amongst the most essential health care facilities for delivering quality treatment to the public based on accurate diagnosis. The availability of diagnostic services is detailed below:

Table 4.4: Availability Diagnostic Services of Hospitals

Hospital	Availability of diagnostic services							
	Clinical pathology	Haematology Bone Marrow/Sickle Cell Anaemia/Thalassemia	Micro biology	Bio-chemistry	Cardiac	Ophthalmology	ENT	Endoscopy
Singtam DH	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Gyalshing DH	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
New STNM	Yes	Partly available[3]	Yes	Partly available[4]	Yes	Yes	Yes	Partly available[5]

Source: Information from hospitals

Thus, diagnostic services *viz.* ENT and Endoscopy were not available in Singtam DH while Endoscopy facility was not available in Gyalshing DH. The labs in both the DHs were functioning in a same room and did not have separate rooms for Biochemistry, Microbiology and Pathology services, in violation of IPHS norms.

In New STNM Hospital, diagnostic services such as haematology, bio-chemistry and endoscopy were only partly available. Lab services viz. sickle cell anaemia, thalassemia, serum magnesium, blood gas analyser, estimation of residual chlorine, bronchoscopy, arthroscopy, colposcopy, hysteroscopy, *etc.* were not available. Non-

[3] *Sickle Cell Anaemia and Thalassemia not available.*
[4] *Ictetric index, Serum Magnesium, Blood gas analyser, Estimation of residual chlorine in water, Salt and Urine for Iodine and Iodometry Titration not available.*
[5] *Bronchoscopy, Arthroscopy, Laparoscopy, Colposcopy and Hysteroscopy not available).*

availability of lab facilities was attributed to non-availability of equipment, reagent and trained manpower.

4.8.1 Radiology Services

The role of radiology is central to disease management for the detection, staging and treatment of diseases. Adequate availability of functional radiology equipment, skilled human resources and consumables are the key requirements for the delivery of quality radiology services.

The IPH Standards provide that each DH should have imaging facilities such as X-ray, Portable X-ray, two Ultra-sonography (USG) – one for Gynae and one for other patients, C.T. Scan, Mass Miniature Radiography (MMR) for chest and Barium Meal Test (BMT), etc. Availability of imaging services in the sampled hospitals was as under:

Table 4.5: Availability of Imaging Services of Hospitals

Hospital	X-ray	Portable X-ray	USG		CT Scan	MMR	BMT
			Gynae	Others			
Singtam DH	Yes	No	Yes	No	No	No	No
Gyalshing DH	Yes	No	Yes	No	No	No	No
New STNM Hospital	Yes	Yes	Yes	Yes	Yes	Yes	No

Source: Information from hospitals

Facilities such as Portable X-ray, CT Scan, MMR and BMT were not available in both DHs. In absence of these equipment, the patients had to get necessary testing done from the private labs. Further, only one USG machine for Gynaec cases was available in both the DHs. As a result, general patients (other than gynae cases) had to approach outside labs for tests. There was no radiologist available in the DHs for operating the USG (others) machines.

Audit further observed that:

➢ One X-ray machine (300 MAS) at Gyalshing DH was not functional since March 2016 due to want of repairs. Similarly, one digital X-ray machine (500 MAS) was non-functional since October 2018 in Singtam DH.

Defunct X-Ray machine Singtam DH

Atomic Energy Regulatory Board (AERB) guidelines (August 2004) on licensing of X-ray units stipulate that license for operating radiation installation should be obtained and the X-ray units should adhere to prescribed safety standards, availability of appropriate radiation monitors and dosimeter devices for radiation surveillance. The technicians manning the X-ray units should be provided Thermo Luminescence Dosimeter (TLD) badges to indicate levels of exposure to radiation. The TLD badges were not provided nor any safety certification from the competent authority was obtained in Gyalshing DH. In the absence of TLD badges and safety certification, mandatory surveillance of exposure to radiation to the technicians could not be ensured.

4.9 Quality Assurance of pathology services

In terms of the IPHS, quality checks of pathological tests were to be validated by an External Quality Agency (EQA). The HFW Department had not established any system or procedure for conducting quality checks of pathological tests by EQA as of January 2020.

4.10 Dialysis Unit

The Gyalshing DH had earmarked space for establishing a Dialysis Unit for patients with kidney related ailments. The dialysis room was found locked during Audit inspection. The equipment for the unit had been procured centrally by the Department. The equipment was lying unused in packed condition in the hospital corridor outside the dialysis room. Singtam DH did not have dialysis facility.

		
Biochemistry, microbiology and pathology tests conducted in same room.	**Locked Dialysis room**	**Idle Dialysis Equipment**

The hospital administration of Gyalshing DH stated that the equipment had been brought to the hospital in August 2019 by the supplier. The DH administration was unsure when the equipment would be installed as this was to be done by the supplier engaged by the CHSO.

Due to absence of data on the number of patients requiring dialysis services in the DHs, Audit could not quantify the denial of dialysis services to the critically ill patients requiring such services.

The New STNM Hospital had a dialysis unit for providing health care services to critical patients.

The Department replied (June 2020) that the Dialysis equipment was installed at Gyalshing DH and it would be operational soon. Regarding Dialysis equipment of New STNM Hospital, it was stated that the equipment is meant for use of patients with certain conditions and as of now STNM has not received such patients. It was further stated that since the cost of the consumable items was also too high, equipment has been kept for future use.

The Department's reply is not tenable, since having procured the equipment unless the availability of service is made known to the patients, they will not come forward to avail the services.

4.11 Patient rights

As per IPHS, a citizen's charter is to be displayed for appropriate information to the patients/ beneficiaries visiting the District Hospitals.

During the audit of the sampled DHs, it was noticed that Citizen's Charter had been displayed in the local language where the rights of citizens and facilities available in the hospital were explained. Citizen's charter had not been displayed in New STNM Hospital.

The STNM Hospital authority stated (May 2020) that the order to print the Citizen's Charter has been placed and will be displayed in the Hospital shortly.

4.12 Patient Safety

4.12.1 Firefighting equipment

National Building Code of India 2016, Part 4, Fire and Life Safety requires that fire extinguishers be installed in every hospital, so that the safety of the patients/ attendants/ visitors and the hospital staff is ensured in case of a fire in the hospital premises. Further, NHM Assessor's Guidebook envisages that in every hospital, Standard Operating Procedure (SOP) should be available and a Disaster Management Committee should be constituted.

It was observed that the sampled DHs had fire safety devices installed at appropriate places within the Hospital premises. The fire extinguishers were found to be recharged timely and were found to be within currency period of their life cycle (during joint physical inspection). Yearly mock drills were conducted for handling fire and other disaster situation.

While accepting the Audit observations, the Department stated (June 2020) that SOP will be put in place for training of staff.

4.12.2 Disaster Management Plan

NHM Assessor's Guidebook envisages that in each hospital, a Disaster Management Committee should be constituted, and SOPs should be available in case of disaster situations. The Disaster Management Plan (DMP) was to be developed in the hospital for ensuring preparedness, training of the hospital staff and conducting periodic mock drills in the hospitals.

The DHs had DMP in place but no SOP was developed to train the staff of the hospitals for disaster preparedness and management.

While accepting the Audit observations, the Department stated (June 2020) that SOP will be put in place for training of staff.

Conclusion

Non-availability of ICU/Emergency facilities in these two select DHs, required critically ill patients of areas falling within jurisdiction of the DHs to travel long distances exposing them to risk and inconvenience. Major surgery cases were not performed in General OTs of these DHs due to non-availability of Surgeon and radiologist. The dialysis facilities of Gyalshing DH were not put to use and equipment were lying idle, whereas the facility at STNM hospital was kept idle despite equipment being available for ostensible reason of costly consumables. The Trauma care centres were not available in any of the test-checked DH resulting in patients with serious injuries being referred to higher facilities located within and outside the State/districts, thus, losing the golden hour, to save the life of the victims. In Singtam DH, a Level III Trauma care centre was taken up (November 2016) with sanctioned cost of ₹ one crore, and even though finally completed in December 2019 after delay of two years, was not made functional, till date (January 2020) for want of equipment and the trauma care building was lying idle.

As regards diagnostic services, facilities *e.g.* Portable X-ray, CT Scan, MMR and BMT were not available in both DHs due to which the patients had to get necessary testing done from the private labs. One X-ray machine (300 MAS) at Gyalshing DH was not functional since March 2016 for want of repairs and one digital X-ray machine (500 MAS) was non-functional since October 2018 in Singtam DH.

Further, only one USG machine for Gynae cases was available in both the DHs, as a result general patients (other than gynae cases) had to approach outside agencies for tests. Though the DHs had DMP in place but no SOP was developed to train the staff of the hospitals for disaster preparedness and management.

Recommendations

- *Government may proactively synergise availability of specialised in-patient services alongwith the essential drugs, equipment and human resources in district hospitals.*
- *The Department may make OT/Emergency services available in all the DHs with required manpower, equipment and drugs.*
- *The quality of diagnostic services, which are crucial for patient care and treatment, be made comprehensive as per requirements. The State Govt. /hospital administration must ensure that available equipment is functional and put to use. Regular upkeep and maintenance of diagnostic equipment be ensured.*
- *The Trauma Care centre in Singtam DH be made functional.*
- *The hospitals may rigorously adhere to the National Building Code 2016 to ensure safety of patients/ attendants/ visitors and the hospital staff from fire incidents. The Hospital administration may also ensure adequate documentation of availability of fire safety measures for verification.*