

Chapter 4 – Availability of Drugs, Medicines, Equipment and Other Consumables

The State neither framed a procurement policy nor set up a Centralised Procurement Body for procurement and distribution of drugs, consumables and equipment. Procurement of drugs and equipment by Public Health Institutions (PHIs) in the State was fraught with inadequate quality controls and delays.

In 10 to 83 per cent of prescriptions in the test-checked PHIs under Directorate of Health Services (DHS) and in Goa Medical College and Hospital (GMCH) during May to July 2022, all the prescribed drugs were not available. Forty three to 76 per cent of the drugs required as per Indian Public Health Standards (IPHS) norms were not available in the test-checked PHIs under DHS during 2020-21.

There were delays in finalisation of tenders in GMCH and DHS, which affected the availability of drugs, consumables and equipment in PHIs. Gaps in availability of equipment required at GMCH as per National Medical Commission (NMC) norms and in test-checked PHIs under DHS as per IPHS norms were noticed.

Lack of policy or mechanism for testing of each batch of drugs received from the suppliers by DHS and GMCH led to drugs being distributed without testing, exposing patients to health risks. Gaps in availability of infrastructure as per norms for storage of drugs at GMCH and in test-checked hospitals under DHS were noticed.

4.1 Procurement of drugs, equipment and consumables

As per the National Health Policy (NHP), 2017 (Para 17) a well-developed public procurement system is a pre-requisite for providing free drugs through the public sector. A procurement policy that ensures economic, efficient and timely procurement of all necessary drugs, surgical items, consumables and equipment of assured quality and their availability in all PHIs, is an integral part of such a system.

Further, the Free Drug Service Initiative (FDSI) guidelines, 2015 of Ministry of Health and Family Welfare (MoH&FW), GoI stipulate that in the States where autonomous bodies such as corporations have not been set up for centralised procurement of medicines, a Centralised Procurement Body must be set up at the State level to procure and distribute essential generic drugs and strengthen the process of quality control and to ensure uninterrupted availability of drugs. Further, the guidelines advocate use of IT enabled systems for real-time status of drugs and vaccines to help in better planning, execution and control on demand and supply at all the levels.

Audit observed that the State neither framed a Procurement Policy nor set up a Centralised Procurement Body for procurement and distribution of drugs, consumables and equipment. The procurement and distribution of drugs, consumables and equipment in the State were processed through tenders and local purchases separately by DHS¹ and GMCH². Audit noticed that these procurements were fraught with inadequate quality controls and delays as discussed in succeeding paragraphs.

The Director, DHS stated (February 2023) that the process for formulation of Drug and Procurement Policy has been initiated.

Recommendation 6: The State Government may frame a comprehensive procurement policy for drugs, consumables and equipment in PHIs and consider setting up a Centralised Procurement Body, to ensure quality, timeliness, efficiency and economy in procurement.

4.2 Availability of drugs and medicines

4.2.1 Assessment of availability of medicines based on prescriptions

The NHP, 2017 (Para 3.3) recommends the provision of free drugs in all public hospitals to ensure access and financial protection to patients while seeking secondary and tertiary medical care.

Audit test-checked 224 prescription slips during May to July 2022 in the following five test-checked PHIs to ascertain the availability of free drugs and medicines prescribed to the Out-Patient Department (OPD) patients as detailed below in **Table 4.1**:

Table 4.1: Provision of free drugs to patients in hospitals and health centres as checked during May to July 2022

| Name of test-checked units | No. of prescriptions checked | No. of prescriptions for which all prescribed drugs were available | <i>Per cent of prescriptions for which all prescribed drugs were available</i> |
|-----------------------------------|-------------------------------------|---|---|
| NGDH, Mapusa | 35 | 6 | <i>17.14</i> |
| SDH, Chicalim | 34 | 16 | <i>47.05</i> |
| CHC, Pernem | 30 | 27 | <i>90.00</i> |
| CHC, Canacona | 30 | 24 | <i>80.00</i> |

¹ DHS procured drugs and consumables through tendering process. The Medical Stores Depot (MSD) wing in DHS assesses the requirement of drugs and consumables based on the demands received from peripheral hospitals/health centres and tenders are floated. Purchase Committee of DHS finalises the tender and the MSD wing issues supply orders. The drugs and consumables are then stored in the MSD. On receipt of indent from peripheral hospitals/health centres, MSD wing in DHS supplies the drugs and consumables.

² GMCH procured drugs, surgical items and consumables through tendering process and local purchases. The annual requirements are assessed by the Central Pharmacy and submitted to Drugs Purchase Committee (DPC) for approval. The tenders are called and finalised by the DPC. The purchase section issues supply orders as per the periodic indents placed by the Central Pharmacy of the GMCH.

| Name of test-checked units | No. of prescriptions checked | No. of prescriptions for which all prescribed drugs were available | Per cent of prescriptions for which all prescribed drugs were available |
|----------------------------|------------------------------|--|---|
| GMCH | 95 | 75 | 78.95 |
| Total | 224 | 148 | 66.07 |

(Source: Patient Satisfaction Survey conducted by Audit in the test-checked units)

As per the above table, it is seen that all the prescribed drugs were available in 66 per cent of the test-checked cases in five PHIs during May to July 2022. Non-availability of drugs ranged from 10 to 83 per cent in the test-checked PHIs under DHS and GMCH.

The Director, DHS stated (November 2023) that the department ensures timely supply and availability of maximum essential drugs, but it is the responsibility of the hospitals/centres to lift all the stock as per requirement from Medical Store Depot and to maintain adequate buffer stock of the same at their hospitals/centres.

The Dean, GMCH accepted the audit observation and stated (October 2023) that the observation was noted and that GMCH was trying to provide a 100 per cent free medicines to all patients under treatment there.

In regard to reply from DHS, the responsibility of ensuring availability of all medicines prescribed cannot be solely fixed on the hospitals. System may be put in place for monitoring the indents raised by hospitals and availability of drugs therein by DHS centrally for ensuring timely processing and delivery of drugs against the indents raised.

4.2.2 Availability of drugs and consumables at test-checked units under DHS

Test-check of availability of drugs and consumables for the year 2020-21 in the four test-checked units as per IPHS norms is detailed below in **Table 4.2:**

Table 4.2: Details of availability of drugs and consumables in test-checked hospitals/health centres during 2020-21

| Particulars | NGDH, Mapusa | SDH, Chicalim | CHC, Pernem | CHC, Canacona |
|--|--------------|---------------|-------------|---------------|
| Number of drugs and consumables required as per IPHS norms | 530 | 441 | 176 | 176 |
| Number of drugs and consumables available | 179 | 107 | 99 | 100 |
| Number of drugs and consumables not available | 351 | 334 | 77 | 76 |

(Source: Information collected from test-checked hospitals/CHCs)

As per the table above, during 2020-21:

- Sixty six per cent and Seventy six per cent of the required drugs and consumables were not available in test-checked NGDH, Mapusa and SDH, Chicalim respectively.

- In the two test-checked CHCs, 44 *per cent* and 43 *per cent* of the required drugs and consumables were not available.

No reply in this regard was furnished by the Department.

Recommendation 7: The State Government may ensure the availability of the full range of required drugs in all PHIs as well as the provision of free drugs to patients as envisaged in NHP.

4.3 Delays in procurement process

Audit observed delays in the processing of tenders for drugs, consumables and equipment by GMCH and DHS which are brought out in the succeeding paragraphs.

4.3.1 Delay in finalisation of tenders by DHS and GMCH

During 2016-22, DHS procured drugs and consumables amounting to ₹ 233.44 crore through tenders/limited tender/quotation. The tender process for 2018-19 was initiated in June 2017³ and finalised in April 2018. The tender process for 2020-21 was initiated in March 2021 and finalised in September 2022. Thus, there were delays in finalisation of tenders for procurement of drugs and consumables by DHS leading to shortages in availability of medicines in test-checked PHIs.

In the case of GMCH, during 2016-22, out of the total procurement of ₹ 334.37 crore, 61.42 *per cent* procurement was through open tender/limited tender/quotations at discounted rates, while the rest was through local purchase. Audit observed undue delay in finalisation of tenders for procurement of drugs, medicines and consumables by GMCH. The process of tendering for medicines for the years 2016-17 and 2018-19 started in June 2016 and June 2018 respectively and were completed after more than one year⁴ in August 2017 and in July 2019 respectively. During the period pending finalisation of tender, the requirement was met through extension of previous tender and local purchases.

³ Tender for the year 2017-18 initiated by DHS in June 2017; Tender floated in September 2017 for 841 items; technical bid/financial bids opened in October 2017/December 2017 and the Government accorded A.A & E.S in April 2018 for ₹ 37.74 crore with tender validity up to April 2020.

⁴ Tender for the year 2016-17 floated by GMCH in June 2016 at an estimated cost of ₹ 28.00 crore; Technical bid/financial bid opened in August 2016/ May 2017 and the Government accorded AA & ES in August 2017 for ₹ 16.73 crore with validity up to November 2018. Due to this delay, the requirements for the years 2017-18 were not assessed and tendered.

Tender for the year 2018-19 floated by GMCH in August 2018; technical bid/financial bid were opened in October 2018/February 2019 and the Government accorded AA & ES in July 2019 for ₹ 21.75 crore with validity up to April 2022. Due to this delay, the requirements for the years 2019-20 were not assessed and tendered.

The Dean, GMCH stated (October 2023) that the tendering process of medicines, drugs, chemicals and orthopaedic implants for the period 2023-24 to 2025-26 has been finalised within a period of less than eight months.

However, the fact remained that GMCH failed to finalise the tender before the expiry of the validity period of previous tender observed during the audit period.

The Director, DHS stated (November 2023) that the tendering process was delayed due to requirement of permissions from the Government at multiple levels.

The reply is not tenable because procurement of drugs, *etc.*, are done by the department every year and there should have been proper planning to avoid such delays.

4.3.2 Delays in procurement of equipment

DHS procured 202 items of medical equipment valuing ₹ 24.08 crore and GMCH purchased 171 items valuing ₹ 52.70 crore during the period 2016-21⁵. Out of these, Audit test-checked the procurement process of 10 medical equipment worth ₹ 26.07 crore (detailed in **Appendix 4.1**) and observed the following:

- The process of procurement of equipment took nine months to over two years from the date of tendering to the date of installation.
- One equipment⁶ required urgently took one year and seven months for procurement and installation.
- Similarly, in two other cases⁷, around two years was taken for procurement and installation.

The Dean, GMCH in his reply stated (October 2023) that the delay in purchase of equipment was contingent on factors such as creation of civil infrastructure for installation of equipment, NIT approval from PHD and Finance Department and Expenditure Sanction from Finance Department.

The reply is not tenable as the process of procurement is a regular job for the department and the delay could have been avoided by proper planning.

4.3.3 Delay in supply of drugs, surgical items and consumables by the suppliers

As per tender condition issued by DHS for supply of drugs, surgical items and consumables, the suppliers were required to ensure delivery of the goods within a period of 30 days from the receipt of the supply order.

⁵ DHS did not furnish data for 2016-17; GMCH did not furnish data for 2017-18.

⁶ Procurement of Operating Microscope for Department of Ophthalmology, GMCH.

⁷ For procurement of Lab scan 3D system, GMCH took two years and four months and for seven 'Multi-para monitors' for Department of Surgery, GMCH took one year and eight months for procurement.

DHS⁸ issued 2,691 Purchase Orders (POs) during the period from October 2016 to March 2022 against which 7,925 batches of drugs were received. Only 2,041 out of 7,925 batches of medicines/drugs were received within the stipulated period of 30 days. For the remaining 5,884 batches, the medicines/drugs were received with delays ranging between 1 and 1,291 days.

The Director, DHS replied (November 2023) that the department does not allow large delays in supplies and that supplies are taken as per requirements/consumption and considering space availability.

This response of DHS is not acceptable as the delay in supply of medicines ranged up to 1,291 days which was way beyond the deadline of 30 days.

4.4 Quality Control

Free Diagnostics Service Initiative (FDSI) guidelines stipulate that random samples of each batch of drugs received from the supplier should be drawn for testing and sent to National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited empanelled laboratories for analysis. The drug samples should be tested by the empanelled laboratories within a reasonable time frame of 30 days. Only batches which ‘pass’ the testing will get a ‘release’ confirmation for distribution to the patients. Audit findings related to quality control of drugs in PHIs in the State are discussed below.

4.4.1 Absence of quality control mechanism in drugs for PHIs for the State

The State did not have a policy or mechanism for quality control of drugs procured and supplied by either DHS or GMCH. Audit, however, noticed that Directorate of Food and Drugs Administration (FDA) was testing the samples of drugs from PHIs.

Audit observed that during the period 2016-22, FDA tested 316 samples (5.80 *per cent*) out of the 5,455 batches of drugs procured by DHS and 55 samples (0.16 *per cent*) out of the 35,281 batches procured by the GMCH. There was no system in GMCH to send any drug on its own to FDA for testing while DHS sent 65 samples on its own accord to FDA for testing.

Audit also noticed that out of the 371 samples collected from GMCH and DHS during the period 2016-22 by FDA, 17⁹ drugs were found to be of ‘Not of Standard Quality’ (NOSQ). As FDA took 12 days to 78 days to intimate the test reports, by that time most of the sub-standard medicines were already issued to the patients.

⁸ In GMCH, PO was manually issued through Purchase section and the batches of drugs received did not have PO number for matching. Hence the delays in supply of a PO could not be ascertained for GMCH.

⁹ 16 pertained to DHS and one pertained to GMCH.

The Dean, GMCH in his reply stated (October 2023) that several measures have been taken to ensure quality control of the drugs and medicines, such as collecting batchwise analytical report from the manufacturer, collecting certificates from the State FDA regarding compliance of WHO Good Manufacturing Practice as laid down in the revised schedule of Drugs and Cosmetics Rules, 1945 and compliance of other relevant provisions of Drugs and Cosmetic Rules, 1945.

The Director, DHS in his reply stated (November 2023) that the DFDA tests random samples of drugs received as per their schedule for total analysis, the reports for which are received later. It was also stated that the matter may be further taken up with the Directorate of Food and Drug Administration, Bambolim.

The reply is not tenable as there is no policy framed for the quality control of drugs procured and supplied by GMCH and DHS. Further, it is to be stated that the percentage of drugs sent to FDA for tests were minimal.

Recommendation 8: The State Government may put in place an appropriate system for quality testing of drugs procured by GMCH and DHS through NABL certified laboratories as per FDSI guidelines.

4.5 Storage

FDSI guidelines issued by GoI and Assessors' Guidebook for Quality Assurance framed by MoH&FW stipulate the basic requirements to be adhered to for storage facilities of drugs and medicines. Storage space shall consist of cold storage (2-8 degree Celsius) and ambient storage (room temperature). The facility should ensure specified place to store medicines with labelled shelves/rack. Drugs are not to be stored on the floor or adjacent to a wall. ILR¹⁰ and deep freezer should have functional temperature monitoring devices. There should be separate shelf/rack for storage of expired drugs.

Audit findings on aspects related to storage of drugs in test-checked PHIs are discussed in subsequent paragraphs.

4.5.1 Inadequate infrastructure for storage of drugs and medicines

i. Central Pharmacy (CP) and Drugs Distribution Counter (DDC) of GMCH:

During joint inspection (May 2022), Audit observed the following:

- Drug stores room was in a shabby condition with damp and soiled walls and drugs were kept on the floor.
- Drugs were also kept in corridor outside the stores room.

¹⁰ Ice lined refrigerator.

- Insulin/vaccines in cold storage room of CP were kept on the floor stacked above one another.
- Only three out of five freezers of DDC displayed temperature and temperature chart was not maintained in both DDC and CP.
- Old records were kept in the stores room of CP along with flammable chemicals.

The Dean, GMCH in his reply (October 2023) agreed to the observation and ensured compliance in the future. It was also stated that necessary steps were already taken for ensuring proper storage of drugs and medicines in the hospital pharmacy such as clearing the area of DDC, informing Goa State Infrastructure Development Corporation (GSIDC) to carry out necessary repair work at Counter, providing pallets to keep medicines above the floor, etc.

However, no evidence of the action taken were furnished to Audit by the GMCH.



ii. Medical Stores Depot, Ponda under DHS:

During joint inspection (August 2022), Audit observed the following:

- Drugs were kept outside the stores room in the corridor in Sub-district hospital, Ponda.
- Drug stores room was in a shabby condition with damp walls.
- Six-drums of 200 litres capacity of Methylated spirit, a highly inflammable spirit was kept along with drugs in the stores room.



iii. Stores room and pharmacy of four test-checked hospitals of DHS:

During joint inspection (June/July 2022), Audit observed the following:

- Drugs were stored in damp and soiled rooms in CHCs, Pernem and Canacona.
- No proper labelling was done to identify storage area of drugs in CHCs, Pernem and Canacona.



Photos 4.5 and 4.6: Medicine boxes dumped on floor in CHC, Pernem



Photo No.4.7 and Photo 4.8: Medicines boxes dumped on floor, soiled walls in drugs stores room. (CHC, Canacona)

The Director, DHS, while agreeing to the observations, in his reply stated (November 2023) that the Directorate was in the process of selecting a suitable premise for setting up the store keeping in mind all the audit observations.

Recommendation 9: The State Government may ensure that infrastructure facilities for storage of drugs and medicines in PHIs are compliant with FDSI guidelines and Assessors' Guidebook for Quality Assurance.

4.6 Medical Equipment

Medical equipment are procured by GMCH for concerned departments on the basis of requests received from the departments through tender process after obtaining requisite approvals from the Government. Similar procurements are done by DHS for its peripheral hospitals based on the requests received from these hospitals.

4.6.1 Non-availability of Equipment as per NMC standards in GMCH

NMC norms provide for the minimum requirement of equipment in departments of Medical College and Hospital for efficient functioning. Audit scrutiny of the availability of equipment in eight departments in GMCH revealed significant shortfall of equipment in GMCH as shown in **Table 4.3**.

Table 4.3: Details of non-availability of equipment in clinical departments of GMCH during May to July 2022

| Name of Department | Type of equipment required as per NMC norms | Equipment available as per quantity specified in NMC norms | Equipment available but with shortfall in quantity specified in NMC norms | Equipment not available |
|-----------------------|---|--|---|-------------------------|
| Ophthalmology | 39 | 22 | 08 | 09 |
| Orthopaedic | 25 | 17 | 05 | 03 |
| Surgery | 42 | 30 | 07 | 05 |
| Otorhinolaryngology | 179 | 124 | 27 | 28 |
| Dermatology | 08 | 06 | 00 | 02 |
| Obst. and Gynaecology | 97 | 68 | 12 | 17 |
| Medicine | 53 | 28 | 09 | 16 |
| Anaesthesiology | 51 | 20 | 08 | 23 |
| Total | 494 | 315 | 76 | 103 |

(Source: Information furnished by GMCH.)

As per the above table, out of 494 types of equipment required as per NMC norms, only 315 were available in full quantity, 76 were available with shortfall in the required quantity and 103 equipment were not available.

The Dean, GMCH stated (October 2023) that the necessary equipment as per NMC norms have been installed in multiple departments.

The reply is not tenable as specific department wise availability of equipment have not been furnished.

4.6.2 Non-availability of equipment against IPHS norms in test-checked PHIs under DHS

IPHS prescribes for equipment to be available at the level of hospitals and health centres. Shortages in equipment impact the clinical efficiency and compromise the level of care offered to patients in these PHIs.

Audit test-checked availability of equipment in the four test-checked PHIs. Result of test-check are shown below in **Table 4.4**.

Table 4.4: Details of availability of Equipment in test-checked PHIs during March to July 2022

| Name of facility | Particular | Imaging | Cardio-pulmonary | Labor and Neo-natal | Laboratory | ENT | Ophthalmology | Endoscopy | OT |
|------------------|-----------------------------|--------------|------------------|---------------------|--------------|--------------|---------------|--------------|--------------|
| NGDH, Mapusa | Required | 6 | 15 | 65 | 53 | 20 | 24 | 7 | 24 |
| | Available | 6 | 9 | 51 | 50 | 19 | 22 | 2 | 11 |
| | Not Available | 0 | 6 | 14 | 03 | 01 | 02 | 5 | 13 |
| | Percentage available | 100 | 60 | 78.46 | 94.34 | 95 | 91.67 | 28.57 | 45.83 |
| SDH, Chicalim | Required | 5 | 12 | 20 | 33 | 22 | 9 | 6 | 23 |
| | Available | 2 | 09 | 16 | 14 | 03 | 5 | 0 | 09 |
| | Not Available | 3 | 03 | 04 | 19 | 19 | 4 | 6 | 14 |
| | Percentage available | 40 | 75 | 80 | 42.42 | 13.64 | 55.56 | 0 | 39.13 |
| CHC, Pernem | Required | 9 | NA | 45 | 10 | NA | NA | NA | 11 |
| | Available | 8 | NA | 42 | 8 | NA | NA | NA | 11 |
| | Not Available | 1 | NA | 3 | 2 | NA | NA | NA | 0 |
| | Percentage available | 88.89 | NA | 93.33 | 80 | NA | NA | NA | 100 |
| CHC, Canacona | Required | 9 | NA | 45 | 10 | NA | NA | NA | 11 |
| | Available | 9 | NA | 43 | 10 | NA | NA | NA | 11 |
| | Not Available | 0 | NA | 2 | 0 | NA | NA | NA | 0 |
| | Percentage available | 100 | NA | 95.56 | 100 | NA | NA | NA | 100 |

(Source: Information provided by test checked PHIs)

(NA: Not Applicable)

As per the table above, availability of essential equipment as per IPHS norms was 28.57 to 100 *per cent* in NGDH, Mapusa and zero to 80 *per cent* in SDH, Chicalim. In the selected CHCs, it was 80 to 100 *per cent*.

The Director, DHS replied (November 2023) that equipment/machinery are ordered only against indents received from hospitals/centres under DHS.

The reply is not tenable as the availability of equipment should be as per IPHS norms.