

CHAPTER 4

Availability of Drugs, Medicines, Equipment and Other Consumables

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

Audit noticed deficiencies in the finalisation of tenders in the centralised procurement system. There were instances of non-supply of medicines, consumables and equipment to Health Care Institutions (HCIs). Deficiencies were noticed in the storage facility for drugs and medicines. Medical Equipment were lying idle or non-operational in the test-checked HCIs.

4.1 Procurement process

The PHD, GoM decided (July 2017) to adopt a centralised procurement system, with a view to streamline the procurement process to have uniformity in rates and specifications for drugs, medicines, consumables, and equipment procured as well as to avail the benefit of bulk purchases. Accordingly, an independent procurement cell under Haffkine Bio-Pharmaceutical Corporation Limited (HBPCL), a Government of Maharashtra Company was established (July 2017) for the procurement of drugs, medicines, consumables, and equipment required for HCIs under the jurisdiction of PHD, MEDD and other government departments. The Local Bodies in the State, however, had the option of procuring through HBPCL or through their own procurement system.

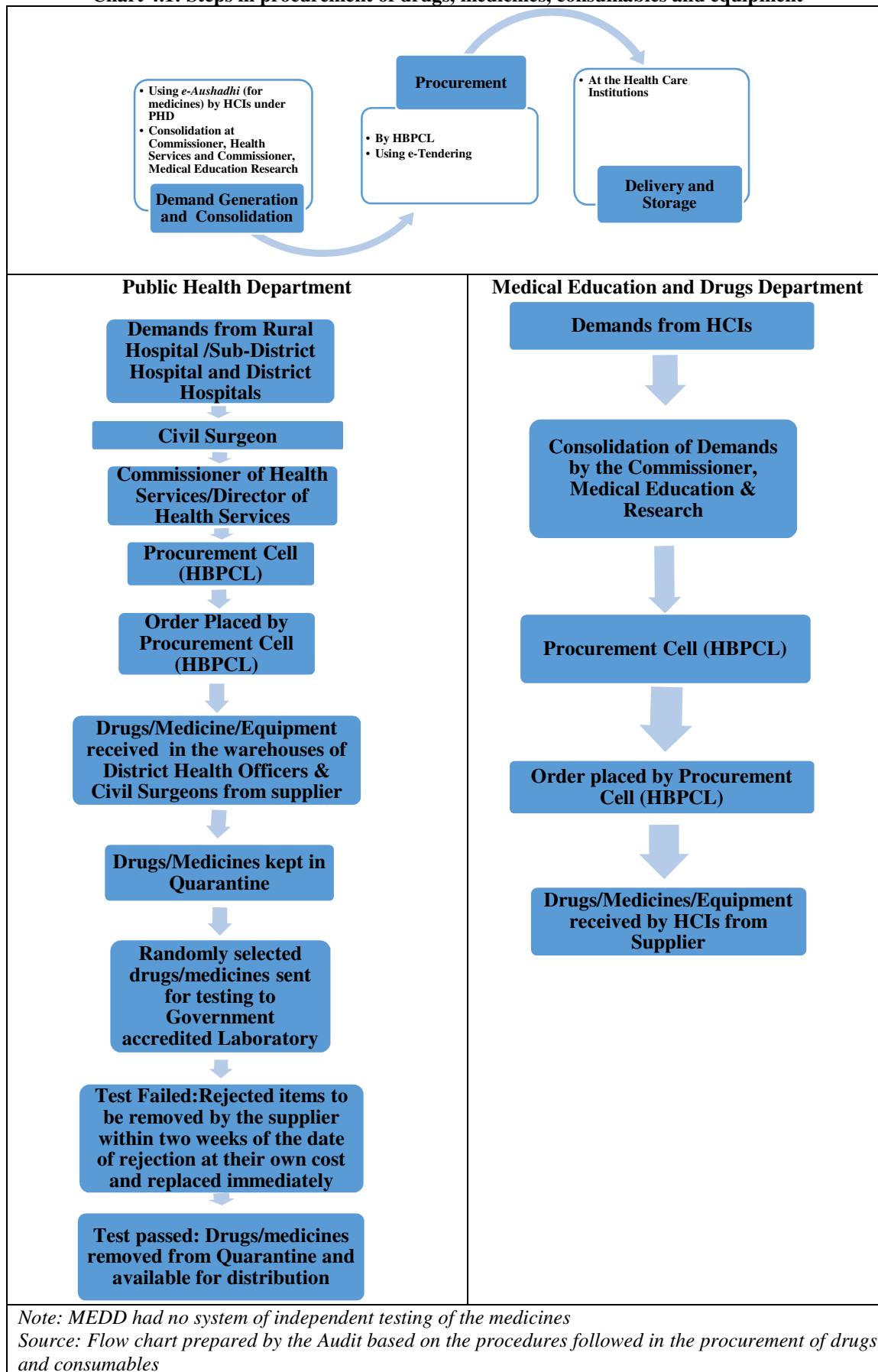
PHD was using *e-Aushadhi* a web-based supply chain management system for inventory management of drugs and consumables. Annual demand for purchase of drugs, medicines and consumables was made through the *e-Aushadhi* system, except for equipment. In respect of equipment the annual demand was made manually.

Procurement Cell, HBPCL used e-Tendering system, a web-based system of GoM, for all tenders having an estimated value of above ₹ three⁵² lakh.

The broad steps involved in the procurement of drugs, medicines, consumables and equipment for the HCIs are shown in **Chart 4.1**.

⁵² The amount of ₹ three lakh was increased to ₹10 lakh from May 2021.

Chart 4.1: Steps in procurement of drugs, medicines, consumables and equipment



4.2 Purchase of drugs, medicines, consumables and equipment

The annual demand for drugs, medicines, consumables and equipment of respective HCIs is consolidated by the Commissioner of Health Services (CHS) under PHD and the Commissioner of Medical Education and Research (CMER) under MEDD. The annual demand is then submitted to respective administrative departments for approval.

In respect of PHD, the CHS, on allocation of budget for procurement, transfers 90 per cent of grants to HBPCL and balance 10 per cent of grants to HCIs concerned for local purchases. However, in respect of MEDD, the entire grants were being transferred directly to the HCI concerned, who in turn, transfers 90 per cent of grant to HBPCL by retaining 10 per cent for local purchase.

All procurements were made through the tendering process as laid out in the Government Resolution of 1 December 2016. In case of emergency, the HCIs make local purchases from the local vendors out of the 10 per cent fund retained by them. The year-wise details of funds received *vis-à-vis* expenditure incurred by the HBPCL during 2017-18 to 2021-22 are shown in **Table 4.1**. The year-wise funds received, expenditure incurred, and balance are shown in **Appendix 4.1**.

Table 4.1: Funds received *vis-à-vis* expenditure incurred by HBPCL
(₹ in crore)

Year	Funds received	Supply order issued	Expenditure incurred	Refund, if any	Balance
2017-18	483.94	303.82	257.96	102.03	123.95
2018-19	794.31	597.51	354.98	33.01	406.32
2019-20	824.7	550.33	467.67	24.47	332.56
2020-21	1,650.32	1,006.17	807.78	0.14	842.40
2021-22	544.78	522.01	197.73	0	347.05
Total	4,298.05	2,979.84	2,086.12	159.65	2,052.28

Source: Information furnished by HBPCL

As seen from **Table 4.1**, as against ₹ 4,298.05 crore received from PHD and MEDD, HBPCL placed supply orders for ₹ 2,979.84 crore. Out of the supply orders of ₹ 2,979.84 crore, supplies amounting to ₹ 2,086.12 crore were received. Further, funds amounting to ₹ 2,052.28 crore (48 per cent) were lying idle with HBPCL.

4.3 Drugs and Medicines

The deficiencies noticed in the procurement of drugs and medicines are discussed in succeeding paragraphs.

4.3.1 Non-supply of medicines and consumables

Funds are transferred by Commissioner of Health Services and HCIs under MEDD to HBPCL for procurement of medicines and consumables. The details of medicines and consumables demanded by the CHS and supplied by the HBPCL during 2017-18 to 2021-22 was not available with CHS.

The status of medicines and consumables demanded and supplied was provided by 12 test-checked HCIs under MEDD. The details are shown in **Appendix 4.2**.

As seen from **Appendix 4.2**, 71 per cent of the items demanded by the test-checked HCIs were not supplied by HBPCL during 2017-18 to 2021-22.

MEDD stated (January 2023) that GoM has appointed a consultant to prepare a Standard Operating Procedure for procurement procedure, which would be implemented shortly.

Recommendation 6: The procurement process of HBPCL may be streamlined to ensure timely availability of medicines, consumables and equipment to the Health Care Institutions.

4.3.2 Delay in finalisation of Rate Contract

Central Purchase Department (CPD) of Brihanmumbai Municipal Corporation (BMC) purchases required medicines, surgical items and other supplies for the hospitals under its jurisdiction on Rate Contracts (RCs). The RCs in BMC are generally valid for a period of two years from the date of approval of Standing Committee of BMC.

Audit noticed instances of delays in finalisation of RCs in respect of eight out of 12 schedules after the expiry of the earlier RC, as shown in **Table 4.2**.

Table 4.2: Delay in finalisation of Rate Contract by BMC

Sr. No.	Schedule No.	Items in schedule	Last RC period	New RC period	No. of months for which RC was not available
1	1	Injections and Vaccines	24 July 2019 to 23 July 2021	7 March 2022 to 6 March 2024	7 months
2	2	Tablets and Capsules	14 January 2020 to 13 January 2022	e-Tendering under progress	3 months as of May 2022
3	3	Cream, drops, ointments, oral liquid, lotion, syrups, etc.	26 February 2020 to 25 February 2022	e-Tendering under progress	2 months as of May 2022
4	6	Laboratory chemicals, stains and reagents	27 September 2017 to 26 September 2019	21 January 2022 to 20 January 2024	27 months
5	7	Surgical, Dressings	17 October 2017 to 16 October 2019	5 April 2022 to 4 April 2024	29 months
6	8	Needles and syringes	8 November 2017 to 7 November 2019	14 May 2021 to 13 May 2023	17 months
7	10	Laboratory articles, Dispensaries, etc.	31 May 2019 to 30 May 2021	e-Tendering under progress	11 months as of May 2022
8	11	Rubber goods	27 September 2017 to 26 September 2019	31 December 2021 to 30 December 2023	26 months

Source: Information furnished by BMC

As seen from **Table 4.2**, there was a delay in finalisation of RC for a period ranging between two months to 29 months. Due to expired RCs, the HCIs had to resort to local purchases to cater its requirement.

The Deputy Dean, CPD, BMC stated (May 2022) that there are approximately 1,552 items under various schedules and approximately 532 bidders participated in the bidding due to which works related to various tendering formalities like

finalisation of agreements, bank guarantee and deposits have increased. In the meanwhile, due to pandemic situation, the finalisation was further delayed.

The reply is not acceptable since RCs had expired at different periods and the CPD had sufficient time to finalise the RC before its expiry.

4.3.3 Availability of Essential Medicine

Drawing an essential medicines list (EML) is expected to result in better quality of medical care, better management of medicines and cost-effective use of healthcare resources.

The decision about which medicines are essential remains a national responsibility based on the country's disease burden, priority health concerns, affordability concerns, etc. The Ministry of Health and Family Welfare, GoI issued (2015) National List of Essential Medicines (NLEM). It was also directed that the list of essential medicines should be prepared at level of facility. Scrutiny of records revealed that the test-checked HCIs under PHD, MEDD and Municipal Corporations had prepared list of essential drugs. According to the NLEM 2015, 376 medicines are listed for 30 therapeutic use.

Similarly, Commissioner of Health Services, Maharashtra also prepared a list of 198 types of medicines for different therapeutic use as Essential Drug List. Out of 198 essential drugs 88 and 70 types of drugs were marked as vital drugs for hospitals (DH/GH, SDH, WH and RH) and PHCs respectively in e-Aushadhi system.

Out of 84 test-checked HCIs under PHD, 49 HCIs provided the data relating to availability of vital drugs. Scrutiny of records of 49 HCIs revealed that there was shortfall in the availability of vital drugs which ranged between 11 per cent (Amravati) and 54 per cent (Jalgaon) as shown in **Table 4.3**.

Table 4.3: Availability of vital medicines in selected districts as of June 2022

District	Number of test-checked HCIs under PHD	Total No. of vital medicines to be available	Total No. of vital medicines not available	Shortfall percentage
Amravati	3	246	28	11
Chhatrapati Sambhajinagar	9	702	372	53
Jalgaon	10	808	434	54
Kolhapur	11	878	397	45
Nanded	6	528	130	25
Pune	10	808	320	40
Total	49	3,970	1,681	42

Source: Information furnished by test-checked HCIs

As seen from **Table 4.3**, in Chhatrapati Sambhajinagar, Jalgaon, Kolhapur and Pune districts, the average shortfall was 40 per cent and above.

4.3.4 Improper storage of drugs and medicines

As per IPHS, a separate area for the storage of drugs, medicines and consumables should be provided with adequate storage space. The area should be well-lit and ventilated and rodent/pest free. Sufficient number of racks should also be provided. Drugs should be stored properly and systematically in a cool (away from direct sunlight), safe and dry environment. Inflammable and hazardous materials should be secured and stored separately. Near-expiry drugs should be segregated and stored separately.

Joint physical inspection of the Pharmacy section in 50 HCIs revealed that due to shortage of space for storage of medicines and consumables, medicines were kept below the staircase, corridors and other open spaces. Audit also noticed that labeled shelves were not available in nine HCIs, drugs were not stored away from the wall in 14 HCIs, temperature chart for deep freezers was not maintained in 14 HCIs, no separate space for storage of expired drugs was available in five HCIs and poisons were not stored in locked cupboards in eight HCIs.

	
<i>Medicines stored below staircase near electric panel in District Drugs Warehouse, District Health Officer, Chhatrapati Sambhajinagar (2 June 2022)</i>	<i>Plastic cover laid to protect from leakage in PHC, Kasoda, Taluka Erandol, District Jalgaon (17 March 2022)</i>

Recommendation 7: Government may fix responsibility on officials responsible for improper storage of medicines and consumables and ensure that medicines and consumables are stored as per Indian Public Health Standards.

4.4 Quality control

Quality control plays a major role in providing high-quality drugs to patients. As per the terms and conditions of contracts between HBPCCL and the Suppliers, for supply of drug and consumables, after supply of medicines to indenting HCIs, the concerned officer should get the drug samples tested from Government approved laboratory. On testing, if the sample is declared to be Not of Standard Quality or spurious or adulterated or misbranded, such batch/batches will be deemed to be rejected goods. Rejected items must be removed by the supplier within two weeks of the date of rejection at their own cost and replaced immediately. In case the sample fails quality test, the purchaser or consignee is at liberty to make alternate purchase from any other sources and has every right to recover the higher cost, if any, from the supplier.

4.4.1 Sample testing in PHD

In PHD, the samples of batches of drugs and medicines are randomly selected by the concerned HCI and sent to the CHS for further transmission to the lab for testing. The CHS, in turn, sent these samples for testing. After quality of drugs and medicines is approved by the Government approved laboratory, the same are rolled out in the supply chain.

4.4.1.1 Delay in delivery of analysis report of tested samples

PHD, GoM empaneled laboratories for analytical testing of samples of drugs, medicines and consumables. As per conditions stipulated in the empanelment order, the laboratories should furnish the test report within 10 days from the receipt of the samples in the case of tablets, capsules, powder/liquid oral preparations and consumables and 21 days from the receipt of the sample in the case of Intravenous (IV) fluids and injectable, surgical drugs.

As per the information furnished by the Director, Health Services, Mumbai, 17,254 samples were analysed by the empaneled laboratories during 2016-17 to 2021-22. Out of which 14,275 test reports were received within the stipulated time-limit and 2,979 test reports were received after stipulated time-limit. The details of the delay in receipt of test-report after stipulated time-limit is shown in **Table 4.4**.

Table 4.4: Delay in receipt of test-report

Delay Range	No. of samples
Upto one month	2,238
One month to six months	731
More than six months	10
Total	2,979

Source: Information furnished by Director, Health Services, Mumbai

4.4.2 Sample testing in MEDD

Audit noticed that such system of independent testing was not followed in MEDD and the MEDD solely relied on the analysis report provided by the supplier to the HBPCCL. As such, the medicines were supplied to HCIs without any independent testing.

MEDD stated (January 2023) that HBPCCL has informed the Commissioner, Medical Education and Research to follow procedures for testing of medicines similar to those being followed by Commissioner of Health Service.

In the Exit Conference, the Secretary, MEDD while accepting the facts stated that the Department has initiated the process to empanel laboratories for testing of medicines and drugs.

Recommendation 8: Government may establish standardised quality control mechanism to ensure supply of quality medicines to the patients.

4.5 Availability of essential equipment

IPHS stipulates the equipment norms keeping in view the assured services recommended for various grades (based on number of beds) of District Hospitals. The equipment required are categorised under headings such as imaging equipment, eye equipment, operation theatre equipment, laboratory

equipment, endoscopy equipment *etc.* The availability of essential⁵³ operation theatre equipment and laboratory equipment in the four test-checked District hospitals revealed shortage in the availability of equipment as shown in **Table 4.5**.

Table 4.5: Availability of equipment in test-checked District hospitals

Sr. No.	Particulars	District Hospital, Amravati			District Hospital, Chhatrapati Sambhajinagar			District Hospital, Nanded			District Hospital, Pune			Total		
		Requirement	Available	Shortage	Requirement	Available	Shortage	Requirement	Available	Shortage	Requirement	Available	Shortage	Requirement	Available	Shortage (per cent)
		(in numbers)														
1	Operation Theatre equipment	47	16	31	35	20	15	35	15	20	35	32	3	152	83	69 (45)
2	Laboratory equipment	153	55	98	118	30	88	118	30	88	118	85	33	507	200	307 (61)

Source: Information furnished by concerned District Hospitals

As seen from **Table 4.5**, the shortage in operation theatre equipment was 45 per cent while the shortage in laboratory equipment was 61 per cent in the four test-checked District hospitals.

4.6 Procurement of equipment

The deficiencies noticed in the procurement of equipment are discussed in succeeding paragraphs.

4.6.1 Deficiencies in finalisation of tenders for medical equipment

HBPCL invited 3,028 tenders with an estimated cost of ₹ 1,811.95 crore for procurement of medical equipment during 2017-18 to 2021-22. Of these 3,028 tenders, 890 tenders valued at ₹ 528.60 crore were finalised, responses to 488 tenders involving ₹ 364.11 crore were not received, 842 tenders with an estimated cost of ₹ 357.63 crore were cancelled/withdrawn, while 808 tenders costing of ₹ 561.61 crore were pending for finalisation at various stages of tendering as of May 2022. The age-wise analysis of 808 tenders, which were pending at various stages of tendering is shown in **Table 4.6**.

Table 4.6: Age-wise analysis of tenders pending finalisation

Range of delay	No. of Tender	Amount involved (₹ in crore)
More than four years	18	25.97
More than three years	85	50.75
More than two years	323	169.51
More than one year	346	194.02
Less than one year	36	121.36
Total	808	561.61

Source: Information furnished by HBPCL

⁵³ For 100 to 200 bedded district hospitals, IPHS recommended 17 items of operation theatre equipment and 49 items of laboratory equipment. For district hospitals having more than 300 beds, IPHS recommended 19 items of operation theatre equipment and 58 items of laboratory equipment.

4.6.2 Non-supply of medical equipment in test-checked HCIs

Audit noticed non-supply of equipment such as ventilators, portable X-ray machine, anesthesia workstations, fiber optic bronchoscopy, defibrillator, suction machine, X-ray, CT scan, Electric Hydraulic Gynaecology OT Table, motorised labour table, plasma sterilizer, microscope, *etc.*, in the test-checked HCIs as shown in **Table 4.7**.

Table 4.7: Non-supply of Medical Equipment in test-checked HCIs

Sr. No.	Name of the HCI	Amount paid for procurement of equipment (₹ in crore)	Period during which paid	Value of equipment not supplied (₹ in crore)	Period of non-supply till March 2022 (months)
1	Cama and Albless Hospital, Mumbai	11.77	June 2018 to June 2021	10.37	9 to 46 months
2	Sassoon General Hospital, Pune	74.19	October 2017 to June 2021	38.98	9 to 54 months
3	B. J. Medical College, Pune	23.05	March 2019 to March 2022	13.02	upto 37 months
4	Chhatrapati Pramilaraje Hospital, Kolhapur	15.29	January 2018 to April 2021	11.85	11 to 51 months
5	Rajashree Chhatrapati Shau Maharaj, Government Medical College, Kolhapur	2.78	June 2018 to March 2022	2.35	upto 46 months
6	Government Medical College, Baramati, District Pune	106.27	March 2019 to March 2021	37.22	12 to 37 months
7	Government Medical College and Hospital, Baramati, District Pune	60.85	Nov 2020 to March 2021	44.23	12 to 17 months
8	Government Medical College and Hospital and Government Cancer Hospital, Chhatrapati Sambhajinagar	102.27	March 2018 to March 2022	64.62	upto 49 months
9	Government Dental College, Chhatrapati Sambhajinagar	10.83	March 2018 to March 2022	9.06	upto 49 months
	Total	407.30		231.70	

Source: Information furnished by the HCIs

As seen from **Table 4.7**, procurement of medical equipment amounting to ₹ 231.70 crores (57 per cent) was still pending and the HCIs were deprived of required equipment even after a lapse of upto 54 months.

4.6.3 Idling/non-commissioning of equipment

Scrutiny of records in the test-checked HCIs revealed medical equipment lying idle or not in working condition. Some of the instances of non-operational/idle equipment noticed in test-checked HCIs are shown in **Table 4.8**.

Table 4.8: Idling/non-commissioning of equipment

Sr. No	Name of the HCI	Name of the equipment	Idle/non-commissioned since	Reason
1	G.T. Hospital, Mumbai	Breath Gas Analyser (non-commissioned)	October 2010	Not commissioned by the supplier.
2	RH, Shikrapur, Pune	Sonography Machine	March 2014	Not in working condition.
3	M. A. Poddar Hospital, Mumbai	Two Sonography Machines	2015	Non-availability of technicians.
4	SDH, Mukhed, Nanded	CT scan Machine (non-commissioned)	March 2015	Not commissioned by the company to whom the work of installation was issued.
5	Y.C.M Hospital, PCMC, Pune	22 types of equipment	2013	Non-availability of spares of equipment.

Source: Information furnished by the HCIs

Audit noticed that two sonography machines at M. A. Podar Hospital, Worli, Mumbai were idle due to the non-availability of technicians.

Recommendation 9: Government may fix responsibility on officials responsible for non-utilisation of equipment and take steps to ensure its commissioning on top priority.

4.7 e-Aushadhi

e-Aushadhi is a web-based supply chain management application software solution for managing Annual Demand, Purchase, Inventory and Distribution of various drugs and consumables.

The drugs/consumables are delivered to the Drug Warehouse headed by the Civil Surgeon (CS) for further distribution to SDHs and RHs, etc. Drug Warehouses headed by the District Health Officer (DHO) distribute drugs/consumables to the PHCs/SCs. On receipt of the drugs/consumables by the Warehouses, the drug details are manually entered into *e-Aushadhi* system by the Pharmacy Officers.

Test-analysis of *e-Aushadhi* data of the seven selected districts relating to central purchases (2016-17 to 2021-2022) indicated errors in the drug details entered into the system. One such error was in respect of the expiry date of the drugs/consumables captured across various CS and DHO. There were 636 entries of same drugs/consumables (having same manufacturers and batch numbers) which had different expiry dates.

Such instances indicate that the data entered into the system was not being adequately monitored. Though, the Department had claimed that the entries are verified and approved by the Medical Officers, it also acknowledged that in case of data errors, corrections are made by the DHS on receipt of email regarding the same from the district stores.

The *e-Aushadhi* system being a critical tool for drug management, it is imperative that the entries in the system are free of errors.

Recommendation 10: Government may consider capturing of drug details automatically from the bar codes present on the supplied items and in case of manual entries, ensure that supervisory authorities are certifying the data correctness. A periodic exercise to identify erroneous information present in the system can also be put in place.