

CHAPTER

Availability of Drugs, Medicines, Equipment and other Consumables

4

4.1 Introduction

The Government had set up TSMSIDC Limited (Corporation), as a Centralised Agency in 2014 with the objective to procure and manage drugs & medicines and equipment & instruments at fair and reasonable prices for all the Government Medical Institutions. The Corporation was to procure all essential drugs, medicines and equipment & instruments, hospital supplies, reagents & spares and execute Annual Maintenance Contract (AMC)/Comprehensive Maintenance Contract (CMC), through e-procurement portal in compliance with the provisions of Procurement Policy, October 2009¹ and 2012² of erstwhile Government of Andhra Pradesh.

Ensuring uninterrupted availability of drugs in the public health system is one of the key parameters of a well-functioning health system. Spending on drugs constitutes a substantial proportion of OOPE on healthcare for patients. Free provision of essential drugs in public health facilities brings huge savings to the patients without much burden on the Government, since bulk procurement of generics costs only a small fraction of the cost of branded drugs. Free Drugs Service Initiative of Government of India (GoI) is not about drug procurement and provisioning alone but is also expected to ensure a responsive supply of quality drugs to Health Facilities (HFs) and promote rational drug use.

One of the targets of the Sustainable Development Goals 3 is to “achieve universal health coverage, including financial risk protections, access to quality essential healthcare services and access to safe, effective, quality and affordable, essential medicines and vaccines for all”.

Government of Telangana had implemented a Supply Chain Management (SCM) Application called “e-Aushadhi”, to address the process of online indenting, distribution and prescription audit of drugs and surgicals, from peripheral to State level. This system acts as a track-n-trace mechanism for each and every drug/surgical right from procurement to supply to end user (citizen).

The operationalisation of e-Aushadhi portal in Central Medicine Stores (CMSs) and Health facilities started at CMS level in June 2015 and in the health facilities in May 2016 respectively.

4.2 Procurement Policy for Availability of Drugs, Medicines and Consumables

The following objectives were sought to be achieved through this Procurement Policy Framework:

- a) Only medicines essential for the effective delivery of medical and health services shall be procured.

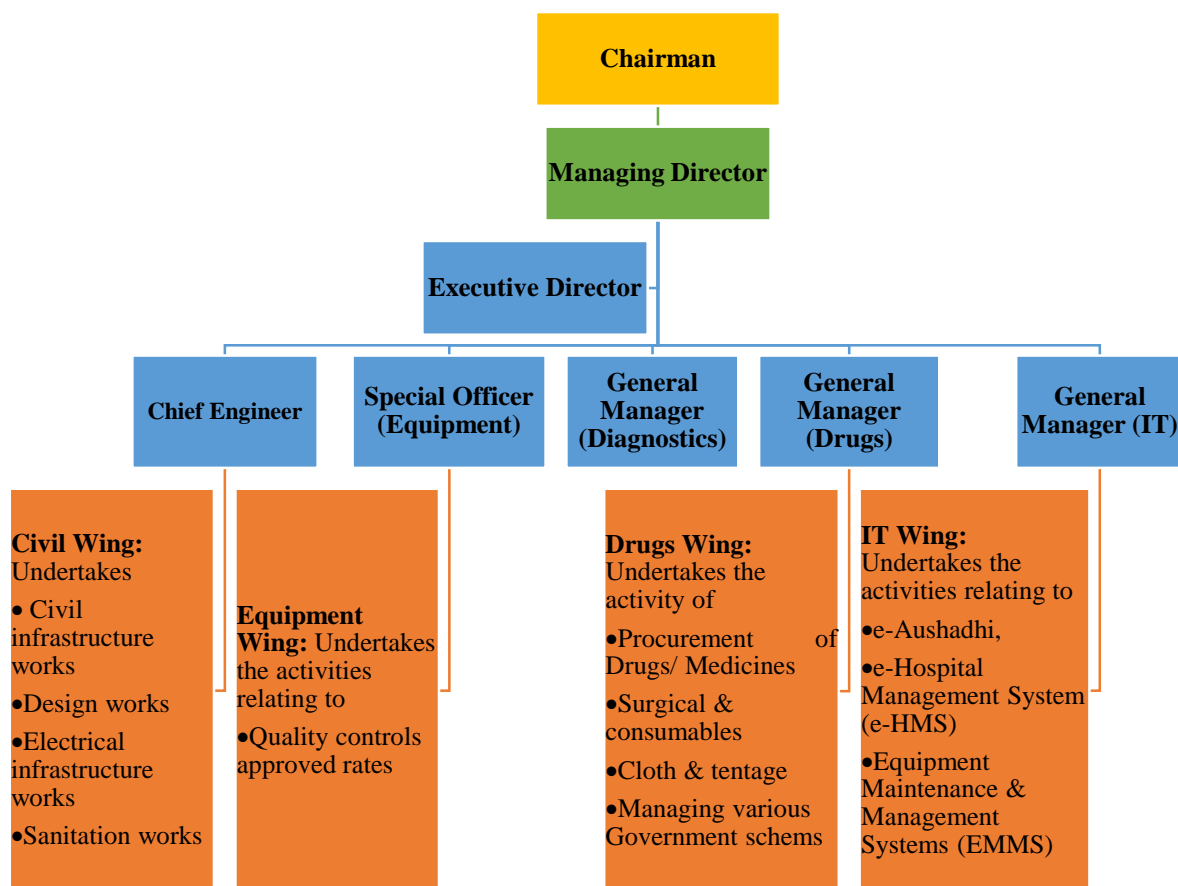
¹ G.O.Ms.No. 1357, Health, Medical and Family Welfare (M1) Department, dated 19 October 2009

² G.O.Ms.No. 30, Information Technology & Communications Department, e-Procurement, dated 9 August 2012

- b) The budget provided for procurement of medicines shall be apportioned equitably among the various health facilities.
- c) The procurement shall be effected as per a prescribed calendar for ensuring timely availability.
- d) The procurement procedure shall be efficient and transparent.
- e) A significant emphasis shall be laid on quality of medicines procured.
- f) The medicines procured shall be stored in proper conditions, transported and delivered to health facilities systematically at their door step.
- g) An environment is created for promoting the rational use of medicines.
- h) A comprehensive information system for managing the entire cycle of procurement shall be established.

TSMSIDC undertakes its activities through Drugs Wing, Civil Wing, Equipment Wing, IT Wing, Establishment Wing and Finance Wing etc.

Chart 4.1 – Organisational Chart



Source: TSMSIDC website

The Budget available for Drugs and Medicines under various heads of the HM&FW Department under the State Budget shall be apportioned between the Head of Departments (HoDs) in the manner shown in **Table 4.1:**

Table 4.1 – Apportionment of Drugs and Medicines Budget between HoDs of the HM&FW Department

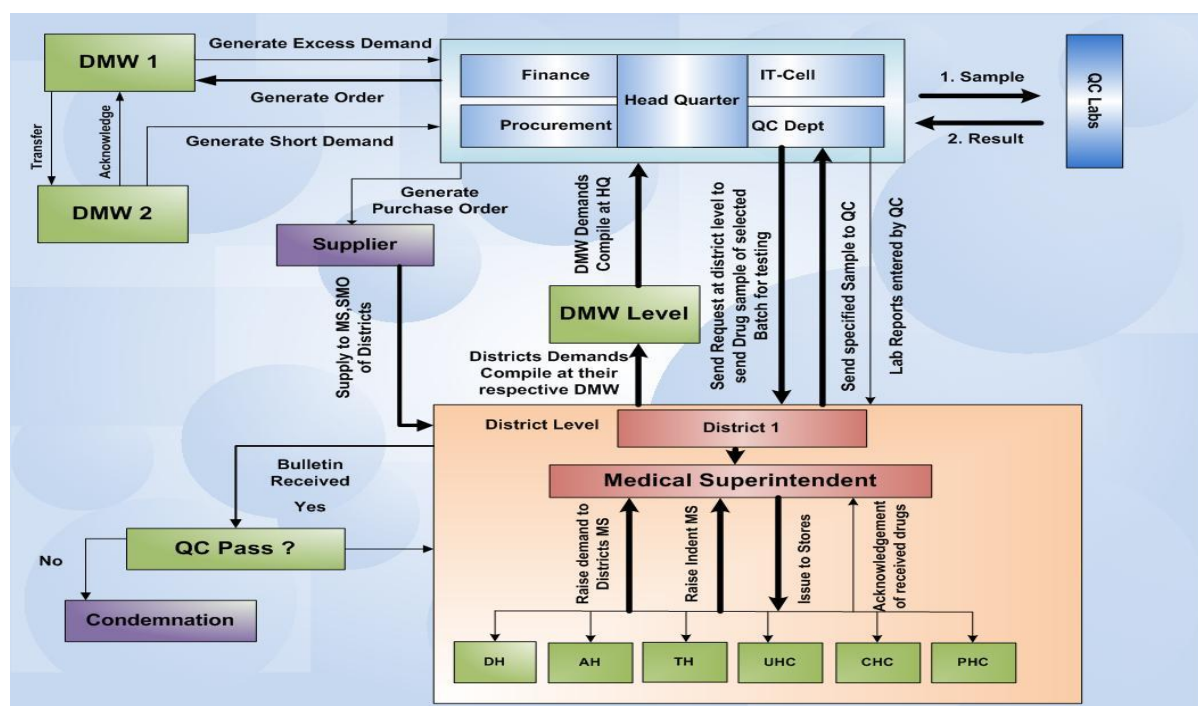
Name of the HoD	State budget available for drugs and medicines under HM&FW Department to be apportioned between HoDs upto 10-12-2019 in percentage terms	State budget available for drugs and medicines under HM&FW Department to be apportioned between HoDs from 11-12-2019 in percentage terms
Director of Medical Education	40%	39%
Director of Health	40%	38%
Commissioner, TVVP	18%	22%
Director, IPM	2%	1%

Source: Procurement Policy of Government of Telangana issued vide G.O.Rt.No. 1357, Health, Medical and Family Welfare (M1) Department, dated 19 October 2009 and further orders issued vide G.O.Ms.No.88, Health Medical and Family Welfare (C2) Department dated 11 December 2019

4.3 Procurement Process

The operations of the TSMSIDC as regards the procurement of Drugs and Medicines is depicted in the flow diagram below:

Chart 4.2 – Flow diagram of TSMSIDC procurement process



Source: Gap analysis document of e-Aushadhi DMW: District Medical Warehouse

Para 4.1 to Para 4.2 of the Procurement Policy (2009 and 2012) prescribes the timelines for estimation and indenting. Procurement should be effected according to a prescribed calendar for ensuring timely availability. The Corporation should be formulating a bid document for procurement of medicines through the e-Procurement platform to cover both centralised and decentralised procurement with a view to enhancing the efficiency and transparency of procurement, to ensure an effective contract management and above all to guarantee quality of medicines procured.

During the period 2016-22, tenders were invited for procurement of drugs and medicines. After finalisation of the tenders, a rate contract was entered into with the firms/agencies for the supply of the quantity of medicines, surgical and consumable items, duly indicating the timelines within which it was required to be supplied.

4.3.1 Periodical Review of Essential Medicines List

The essential medicines must be available at all the health facilities as per need, in suitable quantities and dosage forms. Accordingly, the Standing Expert Committee³ was constituted to finalise the list of Essential Medicines List (EML) and Additional Medicines List (AML) initially and to update it once in two years or more frequently as needed, keeping in view the WHO norms, Standard Treatment guidelines also through extensive consultations with specialists and super-specialists working in the public sector hospitals in Telangana State. The Committee shall also take into consideration the regional variations in the requirement of medicines based on the prevalence of certain diseases in specific areas of the State.

Accordingly, Government issued orders in July 2016 and the amended list was issued in January 2017 for 923⁴ items of drugs. Further, the list was revised to 720⁵ items in December 2019. Though the Corporation was to get the EML/AML reviewed and updated once in two years, it was observed that the review of EML/AML was done only twice i.e., in 2015 and 2019 till date.

Government in its response (August 2023) stated that, as per the latest procurement policy, periodical review of lists is decentralised, which is being done by a Standing Expert Committee and that the recent revision of the list happened in June 2022.

4.4 Procurement of Drugs and Medicines

4.4.1 Annual Indents

As per Para 4.1 of the Procurement Policy (2009), the Medical Officer or the Superintendent in-charge of the Health Facility should estimate the annual requirement of various medicines from the Essential Medicines List (EML) and Additional Medicines List (AML) as per the prescribed methodology and submit it to their respective HoDs *viz.*, Directorate of Public Health (DoPH), Telangana Vaidya Vidhana Parishad (TVVP), Director of Medical Education (DME) and Institute of Preventive Medicine (IPM) through CMS established in the Districts by 31st March of each year, in respect of the next procurement year (i.e. 1st July to 30th June of the next year). The individual indents of the Health facilities should be scrutinised and consolidated by the HoDs in the month of April every year to enable the Corporation to initiate the procurement process of the ensuing procurement year. The HoD should take steps to maintain the required proportion between the essential categories of medicines, based on the degree of essentiality, criticality for

³ consisting of 19 members with the Director of Medical Education being the Chairman, Managing Director, TSMSIDC as Member Convenor and 16 other members and WHO/other Consultants nominated by TSMSIDC

⁴ EML - 530, AML – 331 and Schemes – 62

⁵ EML - 338, AML – 382

healthcare and disease burden. The HoD should also indicate a quarterly delivery schedule to enable effective inventory management at the Corporation level.

During the years 2017-18 to 2021-22, it was observed that in contravention to Para 4.1 of the Procurement Policy (2009), indents were submitted throughout the year instead of by 31 March every year. The number of health facilities that had not submitted their indents ranged between 160 (out of 1,300 health facilities amounting to 12 per cent for 2021-22) and 422 (out of 1,385 health facilities amounting to 30 per cent of total health facilities during 2018-19) (details vide *Appendix 4.1*).

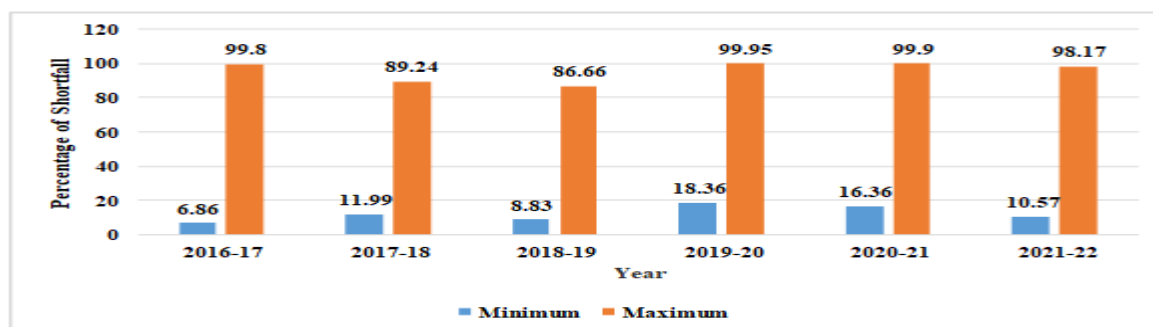
Government in its response stated (August 2023) that, as per the new Procurement Policy, "Essential Medicines List (EML)" items are centrally procured based on consumption and 3 month's stock is being maintained at CMS level. Audit however observed non-availability of medicines in CMS and non-supply to the health institutions as commented upon in para 4.4.9.

4.4.1.1 Non-receipt of Annual indents from the health institutions

During the years 2017-18 to 2021-22, it was observed that, either the indents were submitted throughout the year or not submitted by some of the health facilities.

This resulted in huge gap between indent and issue of Drugs and Medicines, Material and Supplies (M&S) and Cloth, Tentage and Stores (CTS) to Health facilities. The shortfall in the issue of the top 50 indented medicines by the Health facilities during the period from 2016-17 to 2021-22 are detailed below:

Chart 4.3- Minimum and Maximum percentage of shortage of top 50 indented medicines



Source: e-Aushadhi database

Government in its response stated (August 2023) that, as per the new Procurement Policy, "Essential Medicines List (EML)" items are centrally procured based on consumption and 3 month's stock is being maintained at CMS level. "Additional Medicines List-Centralised Procurement (AML-CP)" items are being procured by TSMSIDC which are specialty items and large quantities are required across all hospitals.

"Additional Medicines List-Decentralised Procurement (AML-DCP)" items are being procured at health facility level as they are required for fewer hospitals in smaller quantities, for which 20 per cent/20 per cent /5 per cent drug budget is sanctioned to the DME/TVVP/DH respectively.

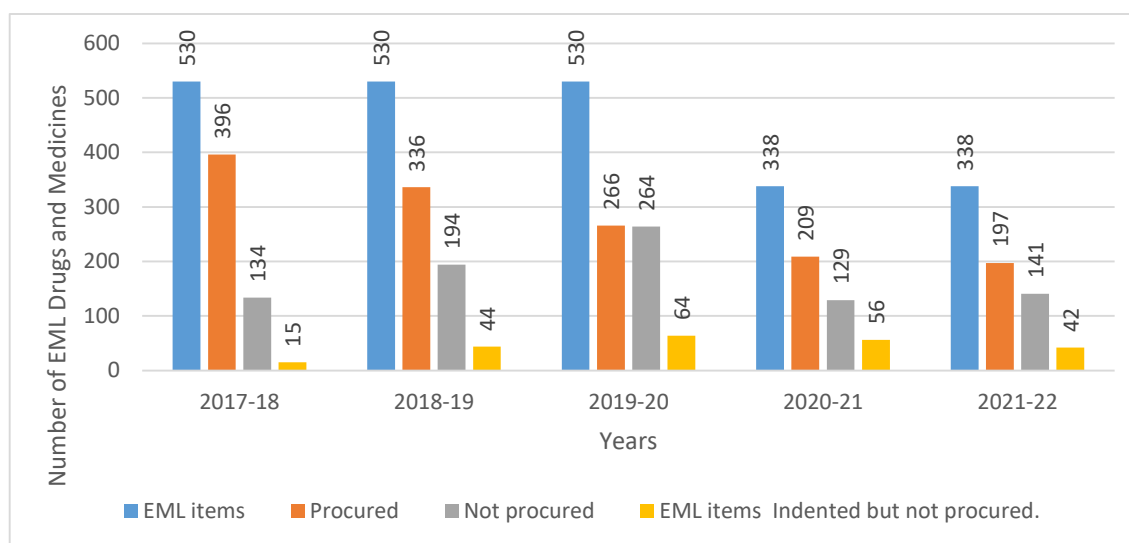
Audit observed that, the decentralised budget available to health facilities was meagre for procuring non supplied drugs and medicines by CMSs through decentralised purchase as commented upon in para 4.4.9.

4.4.2 Non-procurement of EML drugs by the Corporation

EML list had been reduced from 530 to 338 after December 2019. Corporation had not procured all the EML items, which resulted in the non-availability of items in the health facilities.

The details of EML items as per the approved list, procured and not procured, are given in the graph.

Chart 4.4 – Procurement and Non-procurement of EML Drugs and Medicines



Source: e-Aushadhi database

It is seen from the above chart that, 530 items are required to be procured as per the approved EML list 2015, while items procured are 396, 336 and 266 during 2017-18, 2018-19 and 2019-20 respectively and out of 338 items required to be procured as per the approved EML list 2019, items procured are 209 and 197 during 2020-21 and 2021-22 respectively. It was also observed that, although indents were received in respect of EML items i.e., 15 (2017-18), 44 (2018-19), 64 (2019-20), 56 (2020-21) and 42(2021-22) respectively, the same were not procured by the Corporation.

This resulted in the non-procurement of items ranging from 134 (25 per cent during 2020-21) to 264 (50 per cent during 2019-20) during these years.

Government in its response stated (August 2023) that, as per the revised list, there were 296 EML items and that currently rate contract was available for 294 items. Out of this, 283 items stocks are available, which worked out to 96 per cent items availability. Telangana currently stands at 3rd position in the Drugs & Vaccines Distribution Management System (DVDMS) Monthly State Rankings given by MoHFW, GoI.

No specific response has been furnished by the Government regarding non-procurement of all the approved EML drugs during the period from 2017-22.

4.4.3 EML medicines indented but not procured by the Corporation

There were indents of the drugs and medicines with indented quantities ranging from one lakh or more than one lakh, but the same were not procured by the Corporation.

Examples of EML medicines indented but not procured during the period 2017-18 to 2021-22 are given below.

Table 4.2 - Non-procurement of EML Drugs and Medicines

Year	Item Brand ID	Drug Name	Indented Quantity
2017-18	10100031	Diclofenac Sodium 100mg SR	1,56,10,600
	10100170	Cefixime Tablets 200mg	1,18,40,551
2018-19	10100031	Diclofenac Sodium 100mg SR	1,79,24,600
	10100349	Aluminium Hydroxide + Magnesium Hydroxide Tablets	2,19,38,505
2019-20	10100176	Ceftriaxone Injection 1gm	25,23,29,716
	10100536	Methyl Cobalamin Tablets	3,48,27,801
2020-21	10100529	B Complex therapeutic Tablets	21,21,45,017
	10101158	Ferrous salt (A) + Folic acid (B)	9,03,46,602
2021-22	10100529	B Complex therapeutic Tablets	13,77,26,182
	10107548	Aluminium Hydroxide + Magnesium Hydroxide Tablets (Each tablet contains, Acetyl salicylic acid-350mg, Aluminium Hydrochloride-90mg, Magnesium Hydrochloride-90mg)	1,22,22,726

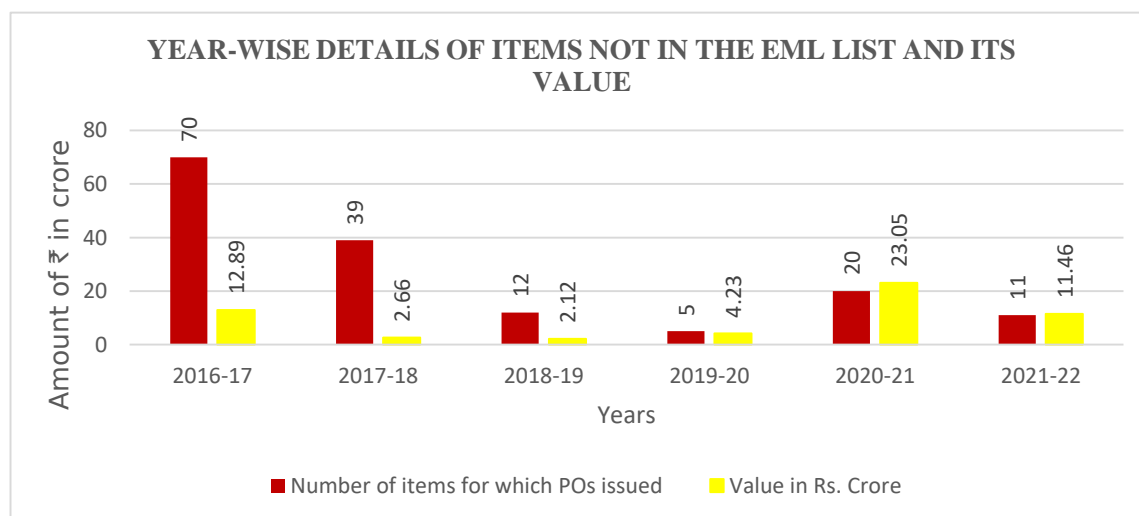
Source: e-Aushadhi database

The above table indicates that the top 10 indented medicines were not procured by the Corporation as requisitioned by the health facilities.

Government in its reponse stated (August 2023) that, currently, the EML items were being procured based on the consumption as per the new procurement policy.

4.4.4 Procurement of items by the Corporation that were not in approved EML list

Chart 4.5 - Procurement of Non-EML Drugs and Medicines



Source: e-Aushadhi database

The Corporation procured Non EML items (excluding COVID drugs) in contravention to the para 9(vi)⁶ of Government orders of approved list of New Essential Medicines and Additional Medicines 2015. During the period 2016-17 to 2021-22, 157 POs valued at ₹56.41 crore were issued.

Government in its response stated (August 2023) that, in the same EML 2015 under para 6, the Government has permitted the TSMSIDC to procure the medicines other than the EML for National programs such as National Disease Control Programs, NTEP, NLEP, NHM and other requirements of State Departments like Rural Development, ICDS, EHS etc based on the requirement from HOD's.

Government response had not provided specific reasons in respect of non-EML items procured other than the National programme mentioned above.

4.4.5 Drugs and Medicines suppliers not blacklisted despite multiple quality failure

As per Para 12.7 read with Para 13.5.7 of the tender document⁷, whenever a particular Drug of a particular batch is declared as Not of Standard Quality (NSQ), then that drug will be blacklisted against that firm. As per Para 12.8 of the tender document, if two or more drugs of any firm are blacklisted, then that firm will be blacklisted.

The Central Drugs Standard Control Organisation (CDSCO), Hyderabad and Drugs Control Administration (DCA), Hyderabad are the competent authorities to check the quality of drugs and randomly pick up certain samples from Government/Private Hospitals/Manufacturing Units/Wholesale and Retail Chemists and Unlicensed Dealers including CMSs. Results of analysis are sent or given to the respective institutions where the samples have been picked up.

Test-check of three⁸ CMSs revealed that, during the period 2016-17 to 2021-22, 35 drugs and medicines received from 23 suppliers were picked up by the Drug Inspectors of CDSCO/DCA and declared as NSQ after testing by respective authorities. Out of 35 products to be blacklisted, only 20 products were blacklisted by the Corporation as detailed below.

Table 4.3 - Details of NSQ products and blacklisting of Firms involved

Number of drugs/products found to be NSQ	Number of products blacklisted	Number of products not blacklisted
35	20	15

Source: Information furnished by the Department

In addition to the above, CDSCO informed that another three drugs and medicines were declared as Not of Standard Quality received from another three⁹ suppliers. However, only one drug was blacklisted (2018-19) by the Corporation.

⁶ GO.Ms.No.9 dated 27.02.2016 of Health Medical and Family Welfare (C2) Department, Government of Telangana

⁷ Pertaining to procurement of drugs and Medicines

⁸ CMSs: Hyderabad, Mahabubnagar and Warangal

⁹ Anod pharma Pvt Ltd, Greenland organics and Adroit Pharmaceuticals Pvt Ltd

Government in its response furnished the details of action taken in respect of 17 products.

Government response has been considered for 14¹⁰ products. However, documents in support of three products (tender document in respect of two products and recovery particulars in respect of one product procured on nomination basis) were not furnished to Audit.

4.4.6 Non-execution of Purchase Orders by the Suppliers

As per Clause 4.2 of the Tender Document, if the vendor fails to deliver any or all the goods or perform the services within the time period(s) specified¹¹ in the Contract, Liquidated Damage should be imposed by the Corporation as per the conditions of the agreement.

Audit observed that as against 16,016 POs issued by the Corporation, drugs were supplied in respect of 13,950 POs and drugs were not supplied in respect of 2,066 POs. Further, noticed that the Corporation had not levied penalty of ₹42.87 crore on the suppliers as per the tender conditions.

Corporation replied (August 2022) that due to COVID-19 pandemic, Force Majeure clause in the tender document was not invoked to ensure the availability of stocks of some other drugs by the same suppliers, no action was initiated against suppliers.

Reply of the Corporation is not acceptable, as unexecuted Purchase Orders of 1,431¹² (₹205.14 crore) related to other than the COVID-19 period for which penalty of ₹20.51 crore was not levied.

Government in its response stated (August 2023) that, currently, the penalty for non-execution of POs is being implemented as per tender conditions manually. However, CDAC has been requested to incorporate this provision in e-Aushadhi application on 12 September 2022. Documents in support of recoveries pointed out by Audit was not furnished.

4.4.6.1 Delayed Supply of Drugs by the Suppliers to the CMS

At the time of inviting tenders, a specific clause 4.2 was included for levy of penalty in case of supply of drugs and medicines beyond the timelines specified in the Purchase Order (PO). Penalty conditions regarding levy of penalty for the periods prior to October 2020 and after October 2020 are as follows.

Table 4.4 – Tender conditions for late delivery

Tender period	Timelines	Penalty conditions
Prior to October 2020	Beyond 75 days of issue of PO	Penalty of Liquidated Damages (LDs) at the rate of 0.5 <i>per cent</i> of the value of goods supplied late will be levied for each day of delay or part there of up to a maximum period of 15 days or until a maximum 7.5 <i>per cent</i> of Value of Late Delivered Goods

¹⁰ Declared as Standard Quality - 5; Sub-judice - 4; New tender conditions -2; blacklisted - 3

¹¹ Prior to October 2020: -90 days, After October 2020:- 70 days

¹² Excluding 635 POs of value ₹223.55 crore from 1 Jan 2020 to 30 June 2021 (COVID-19 period)

	Goods not received at drug store within 90 days of issue of purchase order.	Deemed to have been cancelled. On the request of supplier may extend the time subject to levy of penalty of one <i>per cent</i> of the value of goods supplied beyond 90 days for each day of delay or part thereof. In case of failure to adhere the timelines, difference of the cost for which procured in the open market in addition to other penal action.
After October 2020	Beyond 45 days of Issue of the purchase order	Penalty at the rate of 0.25 <i>per cent</i> of the value of goods supplied late will be levied for each day delay up to a maximum period of 10 days and 0.5 <i>per cent</i> per day for next 15 days of Value of goods supplied late
	After 70 days	No amount shall be payable. However, on request may extend the timelines subject to levy of penalty of maximum 10 <i>per cent</i> of the value of goods supplied late

Source: Tender documents

In e-Aushadhi the details *viz.*, date of receipt, quantity received etc., is captured. It was observed that 2,677 POs involving 12,898 batches of drugs and medicines attracted Liquidated Damages (LDs) of ₹28.66 crore as per the tender conditions.

When the issue of details of imposition of penalty on the suppliers was called for, Corporation stated (August 2022) that during the period from March 2020 to January 2022 due to the COVID pandemic, details of payments could not be updated in e-Aushadhi. Corporation had further furnished 7 cases where liquidated damages for an amount of ₹6.88 lakh were recovered for delayed supply leaving a balance amount of ₹28.59 crore. However, recovery particulars of liquidated damages for the balance 2,670 POs called for (September 2022) amounting to ₹28.59 crore was not furnished by the Corporation.

Government in its response stated (August 2023) that, the charges/penalties for supplies are being recovered from the suppliers bills as shown in Supplier Performance Detail Report (SPDR) under LDs clause as per tender condition. The amount shown in LD field under Consolidated Payment Details is being deducted. However, the LD deductions after processing of bills are not entered separately as there is no such provision in e- Aushadhi. The LDs recovered from 2016-22 was ₹25.68 crore. It was also stated that, requests had been placed to CDAC to develop the provision.

Government reply is not acceptable as details of the PO for which LD recoveries were made were not furnished.

4.4.7 Range of delays in supply of Drugs to CMS

Table 4.5 - Range of Delay in supply of Drugs to CMS

Delay in Days taken for supply of drugs	1-30 days	31-60 days	61-90 days	91-120 days	More than 120 days
Number of batches of drugs	8,798	2,078	752	359	911

Source: e-Aushadhi database

Audit observed that 1270 batches of drugs were supplied with delays ranging more than 90 days in respect of which no amount needs to be paid as per the tender conditions for late delivery.

4.4.8 Non-supply of Drugs and Medicines by CMS due to non-availability

Audit observed that, there were indents for the supply of drugs and medicines from the Health Facilities which could not be supplied by the CMSs due to non-availability. The total quantity of drugs and medicines that could not be supplied by the CMSs worked out to the extent of ₹771.75 crore¹³ during the period 2019-22¹⁴. Out of 2,442¹⁵ Drugs and Medicines in the database, only 720 items were procured during the period 2019-22. Further, it was also observed that, Corporation has not procured the required EML drugs prior to pandemic period also.

Government in its response stated (August 2023) that, TSMSIDC could not procure some items due to supplies by firms getting disrupted during the COVID-19 pandemic. RC could not be entered inspite of repeated tenders and certain items may be available in some CMS stores but not at the indented CMS. In such cases, diversions are being taken up.

However, currently 96 per cent items of total EML list and 94 per cent items of AML (CP) are available and ensuring the supplies in time.

4.4.9 Delayed Supply/Non-Supply of Drugs/Consumables to Healthcare Institutions by Central Medical Stores

Due to delays in receiving the drugs from the suppliers and non-execution of Purchase Orders, health facilities experienced non-supply of the indented items. In case of non-availability of drugs at CMS, the requirements are to be met from the decentralised budget allocated to the health facilities. Year-wise details of the indents received by CMS from the health facilities, number of indents for which the stocks were not available at CMS are as shown below.

Table 4.6 – Details of indents received and stocks not available at CMS

Year	No. of indents received	No. of indents where there was no supply by CMS	Non-availability of drugs at CMSs as on the date of issue	% of No. of transactions where drugs was not available at CMSs	Tentative cost of non-available drugs and surgical for which rates available (₹ in crore)	Decentralised budget provided (₹ in crore)
2016-17	3,72,160	57,838	49,280	13.24	344.62	Information not furnished by Corporation
2017-18	4,14,301	1,01,107	72,814	17.57	182.88	
2018-19	4,34,434	1,28,888	95,905	22.07	90.90	
2019-20	6,29,912	2,91,982	2,60,852	41.41	325.46	
2020-21	5,89,347	2,53,678	2,22,609	37.77	341.93	17.88
2021-22	3,60,957	1,61,510	1,52,193	42.16	104.36	34.92

Source: e-Aushadhi database

¹³ Calculated on the basis of Rate Contract available with the Corporation.

¹⁴ Details of the local purchase budget were not made available for the period 2016-17 to 2018-19

¹⁵ which includes EML/AML list, Essential Surgical List, Additional Surgical List, Surgical Instrument List, etc.

It can be observed from the above table that, the decentralised budget available to health facilities was meagre for procuring non supplied drugs and medicines by CMSs through decentralised purchase. The cost of drugs and medicines purchased through decentralised procurement will be much higher compared to bulk purchase of generic drugs made by the Corporation.

4.4.10 Discrepancy in Labelling and Packaging of Drugs and Medicines

A penalty at the rate of two *per cent* on the total value of goods supplied will be levied on packing and labelling deviations¹⁶. A penalty of ₹18.87 crore was attracted in respect of 7420 POs (excluding COVID period POs) towards labelling and packaging deviations. Year-wise details are as follows.

Table 4.7 – Penalty for Labelling and Packaging deviations

Year	Label defect POs	Amount of penalty (₹ in crore)
2016-17	543	1.59
2017-18	2,388	4.72
2018-19	1,827	5.39
2019-20	2,171	4.57
2021-22	491	2.60
Total	7,420	18.87

Audit could not analyse the details of penalty charges (liquidated damages for deficiency in labelling and packing) imposed and recovery particulars during the period 2016-17 to 2021-22 due to the non-availability of data in e-Aushadhi software.

Government in its response stated (August

Source: e-Aushadhi database

2023) that, the audit party calculated the packing deviation amount based on the initial remarks entered by CMS stores in e-Aushadhi which is not the correct procedure because it is to be calculated based on the final QC report given by GM (QC Wing), TSMSIDC as per the relevant tender conditions. It was also stated that, during the period 2016-2022, only an amount of ₹7.84 crore were to be recovered towards packing deviations and the same has been recovered.

However, details of the final QC report given by the GM (QC Wing) were not provided to Audit to verify the Government claim regarding recoveries. Further, recoveries PO-wise were not furnished as a result, Audit is constrained from verifying the recovery details.

4.5 Availability of Essential Drugs, Medicines & Consumables in District Hospitals

Essential drugs and medicines are those which address the priority healthcare requirements of a given population. Scrutiny of the availability of Drugs, Medicines, Consumables and Disposables in the District Hospitals revealed the following:

Table 4.8 - Availability of Drugs, Medicines, Consumables and Disposables in DHs as of May 2023

Drugs/Medicine / Surgical Group Name	Required	BOD	GAD	GAJ	HYD	KDP	MDK	MED	MUL	NRV	NRS	PED	TDR	UT	YB
Anaesthetics	10	3	2	5	3	1	7	3	1	2	2	4	2	4	1

¹⁶ Clause 13.1 of the Tender document

Drugs/Medicine / Surgical Group Name	Required	BOD	GAD	GAJ	HYD	KDP	MDK	MED	MUL	NRY	NRS	PED	TDR	UT	YB
Analgesic, Antipyretic & Anti-Inflammatory Drugs	17	7	9	9	9	8	13	16	10	8	8	8	9	8	8
Anti Malarial	4	0	0	2	0	1	2	1	0	0	0	0	0	2	0
Anti Migraine	2	1	1	1	0	0	1	1	1	0	1	1	1	1	1
Anti Neoplastic and Immuno Suppressant Medicines	3	0	0	1	1	0	1	0	1	1	0	1	0	0	0
Anti Protozoal	1	0	0	0	1	1	0	1	1	1	0	1	0	1	0
Antiallergics & Drugs Used In Anaphylaxis	12	5	8	8	7	4	6	7	5	8	5	8	8	5	6
Antibacterials	7	2	5	5	5	6	6	7	6	4	7	5	5	4	6
Anticonvulsants/Antiepileptics	13	0	1	0	2	0	5	4	0	1	2	2	1	2	0
Antidotes And Other Substances used in Poisoning	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1
Antiinfectives	48	3	3	10	9	7	22	14	5	6	8	10	3	4	3
Antipsychotic	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0
Antiviral	1	0	0	0	1	0	1	1	0	1	1	0	0	0	0
Cardiovascular	24	2	4	6	9	3	15	8	7	4	12	9	4	10	4
Dermatological (Topical)	18	1	1	9	8	5	8	8	11	9	9	11	1	7	7
Disinfectants & Antiseptics	7	3	4	3	3	4	3	6	2	3	5	6	4	2	4
Diuretics	5	0	2	2	2	1	5	2	0	1	2	2	2	2	2
Drugs for Gout & Rheumatoid Arthritis	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0
ENT	19	4	14	12	17	12	18	15	13	17	16	19	14	14	12
Gastrointestinal	9	2	4	4	2	2	8	5	4	3	3	3	4	3	3
Hormones, Other Endocrine Drugs	16	2	8	9	7	9	12	13	12	9	10	9	8	6	7
Immunologicals	4	2	1	1	2	1	1	2	2	1	1	3	1	2	1
Medicines Acting on the Respiratory Tract	20	5	11	11	8	3	11	16	6	8	9	10	11	9	9
Medicines Affecting the Blood	13	2	7	7	5	6	10	6	5	6	6	7	7	9	5
Medicines used in diabetes mellitus	3	1	1	2	1	1	3	0	0	1	1	2	1	2	0
Miscellaneous	2	1	1	1	1	1	0	2	2	1	1	2	1	2	1
New EML group	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0
Ophthalmological	19	2	1	5	3	2	10	1	0	1	1	1	1	1	2
Oxytocics and Antioxytocics	6	1	2	4	5	2	4	3	3	3	3	3	2	3	2
Peritoneal Dialysis Solution	8	4	3	4	4	2	5	4	7	4	6	4	3	3	2
Psycho Therapeutic	2	0	0	1	0	0	2	1	1	0	1	0	0	0	0

**Performance Audit Report on
Public Health Infrastructure and Management of Health Services in Telangana State**

Drugs/Medicine / Surgical Group Name	Required	BOD	GAD	GAJ	HYD	KDP	MDK	MED	MUL	NRY	NRS	PED	TDR	UT	YB
Psychotropic Drugs	4	0	1	4	3	2	2	3	3	3	2	4	1	3	2
Radiology	3	0	2	2	3	1	2	2	3	2	2	3	2	1	2
Surgical and Consumables	6	1	5	4	5	5	5	5	3	1	4	6	5	2	2
Swine flu vaccine	1	1	0	1	1	1	1	0	1	1	1	1	0	0	0
Thyroid and antithyroid medicines	1	0	7	8	0	0	1	1	0	1	0	0	1	0	0
Vitamins And Minerals	17	3	1	8	9	9	12	15	13	8	9	11	7	12	7
Water, Electrolyte & Acid-Base Disturbances	9	0	7	0	8	7	6	7	7	7	5	9	7	8	6
Surgical and Consumables	462	76	95	97	198	68	217	157	96	130	84	171	95	83	79
TOTAL	800	134	213	49	345	176	426	338	232	257	229	337	213	216	185

Source: Data furnished by test checked District Hospitals

Colour code:

Available in 50% and more		Available in more than 25% and less than 50%		Not available in less than 75%	
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It is evident from the table above that, out of 39 therapeutic medicine groups, in 20 groups, medicines were not available across 11 out of 14 District Hospitals.

Government in its response stated (August 2023) that, 96 per cent of total EML and 94 per cent of AML were available. However, Government had not furnished any specific reasons for the issue pointed out by Audit.

4.5.1 Availability of AYUSH Essential Medicines

The Essential Drugs List in respect of Homeopathy, Unani and Ayurveda finalised (March 2013) by the Department of AYUSH, Ministry of Health and Family Welfare prescribed the number of drugs, viz., Ayurvedic (277 drugs) Unani (288 drugs) and Homeo (257 drugs) to be available in the AYUSH Health institutions. Actual availability of the drugs are indicated in the Table 4.9:

Table 4.9: Availability of AYUSH Essential Medicines in AYUSH Healthcare Institutions

Name of Unit	Number of AYUSH Drugs in EDL	Average Availability of AYUSH Drugs during 2016-21
Government Ayurvedic Hospital Erragadda, Hyderabad	277	109
Government Nizamia General Hospital, (UNANI) Charminar, Hyderabad	288	33
D.K. Government Homeo Hospital, Ramanthapur, Hyderabad	257	257

Source: Data furnished by test checked Hospitals

Colour code:

Available in 50% and more		Available in more than 25% and less than 50%		Not available in less than 75%	
---------------------------	--	--	--	--------------------------------	--

It is evident from the table above that 61 *per cent* of Ayurvedic Essential Drugs and 89 *per cent* of Unani Essential Drugs were not available in Government Ayurvedic Hospital and Unani Hospital respectively.

4.5.2 Undue benefits to suppliers and loss to Corporation for issue of POs at higher rate than the agreed rate contract

Scrutiny of the Purchase Orders revealed that, contrary to the conditions of the agreement, Corporation had issued 87 Purchase orders in respect of 24 items and the excess payment was ₹2.55 crore more than the agreed Rate Contract (RC). The rate difference per each item ranged from ₹1.14 to ₹6,412.69.

The Corporation replied (August 2022) that, there is no price variation between RC rate and PO rate in respect of 75 Purchase Orders and in respect of the remaining 12 Purchase Orders it was stated that the rates of POs were revised and approved in different tenders for different periods.

The Corporation claim is acceptable to the extent of 68 Purchase Orders and the remaining 19 Purchase Orders pertaining to 09 suppliers amounting to ₹1.65 crore is contrary to the claim of the Corporation.

Government in its response stated (August 2023 and September 2023) that, there was no price variation between RC Rate and PO Rate in respect of 19 PO's. However, documents were not furnished in respect of 12 POs only without any details of the final payments made to suppliers in respect of these POs.

4.5.3 Loss due to non-replacement of expired medicines

As per the conditions of tender document (May 2016), the bidder should take back drugs which are not utilised by the Corporation with three months left over shelf-life period under proper acknowledgement and the value of such drugs would be deducted from the payment to be made to the supplier and for this purpose, the Corporation should submit the details in advance to the supplier. The CMSs/Corporation shall issue an Expiry Drugs Clearance Certificate for facilitating the release of the Performance Security Deposit.

On verification of the e-Aushadhi data for the period 2016-22, it was observed that, there were expired drugs valuing ₹390.26 crore at CMSs and health facilities as detailed below:

Table 4.10 – Expiry of Drugs and Medicines

S.No.	Location	Items	₹ in crore
1	CMSs	3,110	44.10
2	Health Facilities	2,51,882	346.16
Total		2,54,992	390.26

Source: e-Aushadhi database

- As per the tender conditions, the Corporation was required to monitor the near expiry drugs so as to ensure that they are returned to the supplier. However, Audit observed that, there was no mechanism for providing alerts about expiry of the drugs in e-Aushadhi application. The Corporation had created the alert only in April 2019. It was also observed that, by the time of creation of alert, drugs to the extent of ₹7.80 crore had already expired in the CMS.
- Even after creation of alert in April 2019, drugs worth ₹36.30 crore were allowed to expire to the end of March 2022 in the CMS.
- This shows that there was no proper monitoring mechanism for return of the expired drugs to the supplier which ultimately resulted in non-utilisation of the drugs.

Government in its response stated (August 2023) that out of the stated ₹390.26 crore, ₹346.16 crore is pertaining to the health facilities which was as per the information in e-Aushadhi. Due to high patient/OP load in the hospitals, it was impossible to enter the consumption details within the existing workflow of "Issue to Patient". Although those medicines were consumed, the data was not updated in e-Aushadhi and hence appearing as expired drugs. However, to address this, the system has been recently updated for hospitals to make bulk entries towards the end of the day. Remaining amount i.e., ₹44.10 crore is corresponding to CMS stores. The expired drugs worth ₹1.88 crore were replaced by concerned firms and ₹21.22 crore has been recovered from the payable bills (or) performance security of the concerned firm.

However, documents in support of the claim of replacement of ₹1.88 crore worth medicines and recovery of ₹21.22 crore related to expiry/near expiry drugs were not furnished PO-wise, Batch-wise. The above audit observation was about the expired drugs in respect of POs issued till March 2022 and the recovery particulars furnished by Government included both near expiry and expired drugs as of July 2023 without any specific mention of Batch or PO. As a result, Audit is constrained from verifying the facts stated in the Government response.

During the field visits, it was confirmed from the CMS and health facilities that there were expired drugs that were not replenished by the suppliers and were being disposed off through the Bio-Medical Waste agency.

There is an inherent need for Government to examine the issue of non-replacement of expired drugs and ensure that timely replenishment of near expiry/expired drugs is done by the suppliers as it causes huge monetary loss to the public exchequer.

4.5.4 Issue of near expiry medicines (shelf life up to 90 days) to health facilities

As per Para 12.11 (Near Expiry Drugs) of tender documents, the bidder should take back drugs under proper acknowledgement, which are not utilised by the Corporation with the 3 months left over shelf life period and the amount should be deducted from the Payment to be made to the supplier.

Drugs and Medicines (706 numbers) worth ₹17.13 crore¹⁷ having leftover shelf life ranging from 1 to 89 days¹⁸ were issued by Central Medicine Stores to 1,259 health facilities during the period 2016-17 to 2021-22.

Government in its response stated (August 2023) that, to monitor the expiry period of the drugs and consumables, it was included in the e-Aushadhi module to exhibit near expiry drugs which is having another 90 day's shelf life to return to the firm as well as to freeze the stocks in e-Aushadhi to avoid further issues. However, if no other batches of these items are available and hospital authorities request to issue these items inspite of lower shelf life due to emergency requirement, they were being issued.

The fact remains that had the department taken timely action to get near expiry drugs replaced with new supplies which would have enhanced shelf life of the drugs.

4.6 Quality Control Mechanism

The Procurement Policy (2009) emphasised that, ensuring the quality was one of its prime objectives. The samples of drugs from each batch should be sent for quality control (QC) checks through the QC wing of the Corporation. There are eight empanelled Laboratories for quality testing of drugs and medicines which are not part of the TSMSIDC.

4.6.1 Issue and consumption of drugs without mandatory testing

Table 4.11 - Issue and consumption of drugs without mandatory testing

Batches sent for QC	Batches returned by Labs without testing	Batches sent to another labs for testing (out of returned batches)	Batches not sent to another labs for testing out of returned batches	Batches issued to Health facilities without even testing (out of the 54) and consumed
32,828	370	316	54	47

Source: e-Aushadhi database

Audit observed that, out of 32,828 batches that were sent for quality testing, 370 batches were returned by the Labs without conducting the quality testing. Of these 370 batches, 316 batches were again sent for testing to other labs and 54 batches were not sent for testing. It was further observed that out of the 54 batches not tested, 47 batches were issued to the health facilities.

Government stated (August 2023) that, out of the 47 batches, 27 batches were sent for testing and were declared as of "Standard Quality". Out of the remaining 20 batches, no

¹⁷ The amount pointed out by Audit in respect of drugs and medicines less than 90 days was ₹26.08 crore which was reduced to ₹17.13 crore

¹⁸ Comprising of 12,617 transactions in the data base

test was conducted citing reasons viz., no testing facility available at empanelled laboratories for 04 batches and for remaining batches no testing was required to be done.

Reply of Government is considered in respect of 15 batches and not acceptable for remaining 32 batches. Out of the 32 batches not accepted, in respect of 11 batches the drugs were issued prior to receipt of QC report and in respect of 21 batches testing was not done even though they were required to be tested mandatorily as per e-Aushadhi provisions.

Issue of drugs without the mandatory testing is fraught with the risk of Not of Standard Quality (NSQ) drugs being consumed by the patients vide para 4.6.3.3.

4.6.2 Issue of Not of Standard Quality drugs to Health Facilities.

Table 4.12 - Issue of Not of Standard Quality drugs to Health Facilities

Authority	Samples sent for testing	Authority to whom sent	Samples declared as NSQ	No. of suppliers involved in drugs declared NSQ	No. of batches issued to health facilities out of NSQ batches
Sent by Corporation	818	DCA, Hyderabad	47	7	3
Collected by CDSCO/DCA	Not available	CDSCO/DCA	37	24	10

Source: Information furnished by the Department

Audit observed that 84¹⁹ samples had been declared as NSQ by DCA/CDSCO of which 13 batches had been issued to the Health Facilities.

Government in its response stated (August 2023) that, whenever, an item is picked by Drugs Inspector and identified as NSQ, those batches will be recalled from the health facilities to CMS stores and destroyed at different site. However, these returned stocks were wrongly shown as “Active” in e-Aushadhi due to the above technical glitch in the application, the CMS stores have issued the batches. However, all the stocks were again recalled immediately and the technical glitch is resolved now.

Government response confirmed the audit observation of issue of Not of Standard Quality drugs to health facilities.

4.6.3 Drugs/Consumables not sent for testing and delay in testing in Laboratories

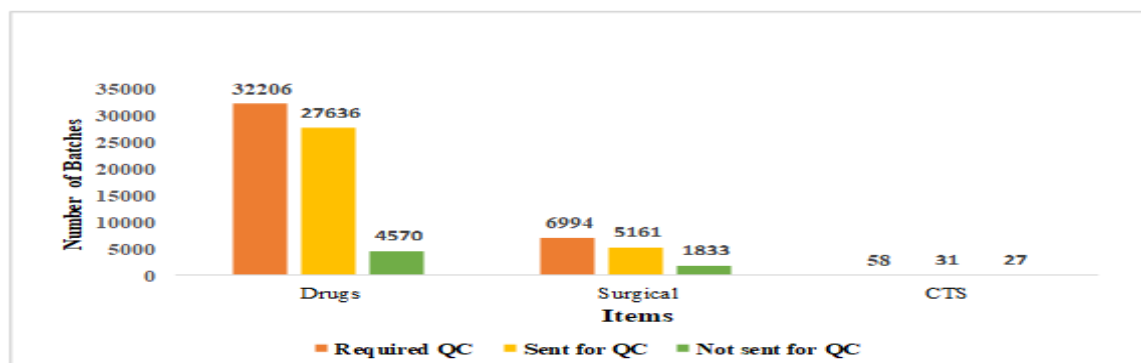
On receipt of the drugs and medicines from the suppliers by the CMS, the system (Quality Control Wing of the Corporation) automatically select the store and batch of medicine for quality check. Then, the Corporation sends the request to CMS In-charge for sending samples for Quality Check (QC). The CMS sends the samples to the Corporation for testing. Quality Control Wing of the Corporation compile all the samples as per batch details and convert each batch with secret number and sends the samples to the empanelled lab for QC testing. The concerned empanelled lab conduct QC testing and send the sample pass or fail report to the Corporation.

¹⁹ involving 31 suppliers

4.6.3.1 Sending of batches for testing

Out of the 39,258 batches of Drugs/ Surgical/CTS items, the Corporation had sent 32,828 for Quality Check, leaving 6,430 batches (16 per cent) not being tested for their quality. The item-wise details are shown in the graph:

Chart 4.6 - Total Number of batches sent for QC testing and not sent for QC testing



Source: e-Aushadhi database

The Corporation replied that they have sent samples from all 6430 batches for quality testing either offline or online. On verification, the reply of the Corporation is not acceptable for 2,635 batches, in the absence of sufficient support documents.

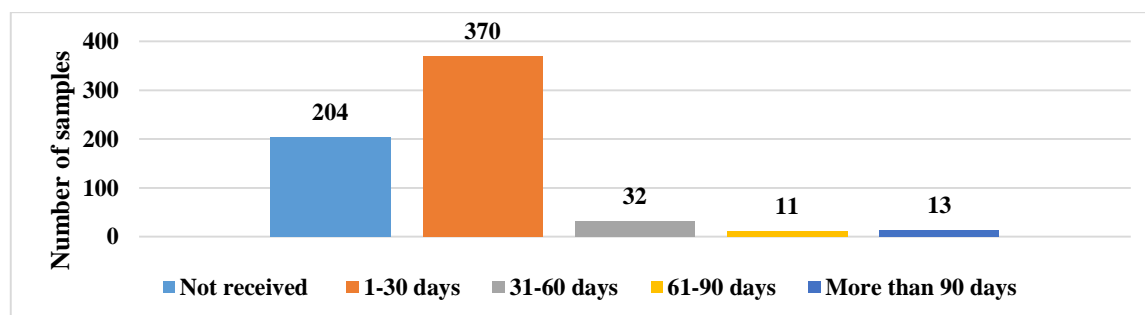
Government in its response stated (August 2023) that, out of 6,430 number of batches not sent for testing, 3,579 were sent to empanelled laboratories of TSMSIDC and 459 batches were sent to DCL Hyderabad. The balance 2,392 batches (6 per cent) were not tested for quality for various reasons like small quantity, cost of the testing is more than cost of procurement etc.

Government reply is not acceptable as testing of the samples from every batch is mandatory as per the Procurement policy.

4.6.3.2 Reports of QC not received/Delay in receipt of QC reports

As seen from the e-Aushadhi data, it was observed that 32,796 drugs and samples were sent for quality check for the drugs received²⁰ up to 21st October 2021. The delays in receipt of 426 reports ranged from 1 to 1,441 days. Details of reports received with delay and not received are as follows.

Chart 4.7 - Range of Delay in Sample Testing



Source:- e-Aushadhi database

²⁰ Excluding the required time period of 28 days for the testing from data dump of 2nd December 2021

Government in its response stated (August 2023) that, while migrating from manual process to e-Aushadhi application, the laboratories were not making entries in the application although they have submitted the physical reports in time. The labs were mandated to make the entries in the application and they made the entries at a later time. The original delays in receipt of QC reports range from 1 to 142 days only. The total amount deducted towards penalty during the period 2016-21 was ₹7.38 lakh. Currently, TSMSIDC is ensuring that all the laboratories submit their reports through e-Aushadhi in time.

Government had however not furnished any documentary evidence in support of the submission of reports physically.

4.6.3.3 Issue of Batches before receipt of QC Reports

In violation of the condition of keeping the batches prior to receipt of reports as quarantine, out of 204 batches of drugs for which reports were not received and out of which 158 batches of drugs were issued by CMSs to health facilities during the period April 2016 to November 2021. The balance 46 batches were retained in quarantine.

Government in its response stated (August 2023) that, these batches were issued to the health facilities based on the in-house analytical reports (Certificate of Analysis from manufacturer) due to the emergency requirement at health facility level. However, the analytical reports were received later.

Government response is accepted in respect of 66 batches and the remaining 92 batches were found to have been issued prior to receipt of the QC certificate.

Out of 92 batches issued prior to receipt of QC Reports, seven drugs were declared as NSQ.

Delayed receipt of QC Reports and issue of drugs on the basis of in-house analytical reports of the supplier had a possibility of issue of sub-standard quality medicines to the patients.

4.6.4 Deficiency in Infrastructure at Central Medicine Stores

4.6.4.1 Inadequate storage facilities

The Procurement Policy (2009) stipulates that, the Corporation should take steps to establish a scientific storage system by constructing professionally designed warehouses in all the Districts. It should also develop and adopt good warehouse management practices and an internal supervising system.

Table 4.13 – Inadequate Storage facilities in CMSs

Sl. No.	Provisions	CMS, Hyderabad	CMS, Mahabubnagar	CMS, Warangal
1	Adequate space	No	Yes	No
2	Availability of sufficient racks	No	No	No
3	Available and functioning Air conditioner	Insufficient	Insufficient	Insufficient
4	Available and functioning Refrigerator	Insufficient	Insufficient	Insufficient
5	Room temperature within the required limits	No	No	No
6	Medicines kept haphazardly at various locations	Yes	Yes	Yes

Source:- Information furnished by test checked CMSs

As per Appendix 14, Point no. 2 of National Formulary of India, Drugs must be stored under appropriate storage conditions to minimise deterioration, contamination or damage. To maintain appropriate storage conditions viz., Temperature or humidity-controlled environment, storage places must be equipped with suitable indicators, recorders and/or failure warning devices. They must be checked at appropriate intervals and the results are to be recorded. Recording thermometers should be used. The temperature in uncontrolled storage products should also be monitored. Temperatures of the refrigerators, deep freezers and Relative Humidity in the humidity control area as well as general areas of storage at room temperature should be recorded on a daily basis.

Photographic evidence of poor storage of drugs in CMSs which were taken during the JPV is below:

Photos relating to CMS Hyderabad		
		
Figure 4.1 –Insufficient racks (29 April 2022)	Figure 4.2 –Insufficient racks (29 April 2022)	Figure 4.3 – Non-functional AC (29 April 2022)
		
Figure 4.4 –Non-functional Refrigerator (29 April 2022)	Figure 4.5 –Medicines kept haphazardly (29 April 2022)	
Photos relating to CMS Mahabubnagar		
		
Figure 4.6 – Insufficient racks (19 May 2022)	Figure 4.7 – Non functional AC (19 May 2022)	

		
<p>Figure 4.8 – Recorded room temperature more than normal (19 May 2022)</p>	<p>Figure 4.9 – Medicines kept haphazardly (19 May 2022)</p>	
<p>Photos relating to CMS Warangal</p>		
		
<p>Figure 4.10 – Insufficient space (1 June 2022)</p>	<p>Figure 4.11 – Insufficient racks (1 June 2022)</p>	<p>Figure 4.12 - No AC in Mezzanine Chamber for storing drugs from 8⁰ to 25⁰ Centigrade</p>
		
<p>Figure 4.13 –N Recorded room temperature is 32° which is more than normal of 8° to 24° Centigrade (1 June 2022)</p>	<p>Figure 4.14 — Medicines kept haphazardly (1 June 2022)</p>	

In view of the above photographic evidence, the audit observed that storage of drugs in the test checked CMS was not conducive for orderly storage and as per norms, this type of storage making the drugs susceptible to damages, contamination, theft and risk to the patients.

Government in response stated (August 2023) that, 12 new CMS stores are being constructed. Upon completion of these works, more space and infrastructure will be available at the stores to store the drugs under required storage conditions.

4.6.5 Gaps noticed in e-Aushadhi Application

To address the issue of availability of requisite drugs and medicines in all health facilities at all times, Government of Telangana had implemented e-Aushadhi - Supply Chain Management System for Drugs and Medicines. Centre for Development of Advanced Computing (CDAC), Noida developed (28 July 2014) a comprehensive software solution

to automate the complete Supply Chain Management (SCM) system including Equipment Maintenance and Management System for implementation across the State.

4.6.5.1 Non-updation of payment details

Out of 17,236 Purchase Orders issued for ₹3,596 crore during the period 2016-22, the medicines were received only in respect of 12,641 Purchase Orders²¹ (73 per cent) valued at ₹2,397.26 crore (67 per cent), of which payment of only ₹1,034.40 crore (43 per cent), leaving an amount of ₹1,362.86 crore (57 per cent) due to the contractor to the end of December 2021. The Corporation replied that the processing of bills was done manually and accepted that certain entries were not entered in the payment module of e-Aushadhi which in a way defeated the objective of implementation of the e-Aushadhi application.

Government in its response stated (August 2023) that, all the payments were made for the supplied value to the firms as per tender conditions but the data was not updated in e-Aushadhi due to lack of sufficient training during the initial days and excess workload during COVID-19 pandemic. However, Corporation will ensure that the necessary payment details are entered in the e-Aushadhi Application hereafter.

4.6.5.2 Issue of Drugs without acknowledgement

As per the Para 8.1 of the Technical document pertaining to e-Aushadhi, Acknowledgement, the process is used to acknowledge against the received drugs (indenting health facilities) to the issuing store. After acknowledgement of receipt, the current stock would be updated.

Unless the acknowledgement of the indenting health facility is updated in the Application, the e-Aushadhi database will not get reflected of the availability of the stock to the extent received in the stores of the indenting unit. As a result of this non-acknowledgement, the correct reflection of the available stock at various health facilities is not clearly known.

Government in its response stated (August 2023) that, the acknowledgement was to be done by the health institutions and it was being followed up regularly with health facilities for the acknowledgment after receipts of stocks. A Demi Official letter has also been addressed to the concerned HoDs that further issue of stocks will be stopped to the health facilities if they fail to acknowledge the receipt of stocks in e- Aushadhi.

4.6.5.3 Issue of drugs to patients in bulk quantity

Free provision of essential drugs in public health facilities would reduce the out of pocket expenses of patients to a greater extent. To ensure this, appropriate methods and practices are to be adopted which include rational prescription of drugs and free distribution at Public Health Facilities. Audit observed that, health facilities issued bulk quantities of drugs, injections, ointments and oral solutions to the patients as the controls regarding maximum limit of issue was not fixed in the package.

²¹ Purchase Order detail table

Table 4.14 – Issue of Drugs and Medicines to patients in bulk

Type	Patients	Occasions	Items	Issued Quantity Range
Tablets & Capsules	13,76,438	21,06,893	285	46 to 1,030
Injections	4,05,009	6,16,334	61	2 to 900
Ointments	3,20,916	3,38,685	39	2 to 900
Oral Solution/ Syrup/Suspension	7,41,055	9,47,802	27	2 to 999
Eye Drops/Nasal Drops/Drops	1,56,224	1,59,175	30	2 to 999

Source: e-Aushadhi database

Government in its response stated (August 2023) that, the drugs and medicines disbursement was purely on the advice of Medical Officer and full course of follow up medicines were being issued at the time of discharge itself so that the patient need not come to hospital repeatedly for taking medicines. Document in support of this was not furnished to Audit.

4.6.5.4 Delayed verification and updation of the data of drugs and medicines received from Supplier in e-Aushadhi system

Due to the delay in updating the details of drugs received, the stock quantity procured was not reflected in the system, which defeated the purpose of procurement and consequent issues to the needy patients on time.

The Corporation accepted the observation and assured to avoid such delays in future. However, the need for timely updation of challan details in the system is emphasised as it is the starting point of input control in e-Aushadhi.

4.6.5.5 Non-implementation of e-Aushadhi application upto MDC Level

e-Aushadhi envisages the advantage of a top-down approach from headquarters to the Medicine Distribution Centre (MDC) at the health facility which distributes medicines to patients. However, all the health facilities are not implementing e-Aushadhi up to MDC level. The Corporation accepted that all the health facilities are not implementing the application.

Government in its response stated (August 2023) that, the existing provision i.e., "issue to patient" module in which the health facilities were mandated to update every patient detail, was time consuming.

4.6.5.6 Absence of inputs validation controls

In the absence of input validation controls regarding mandatory filling in of Manufacturing and Expiry dates in e-Aushadhi, the data fields of Manufacturing and Expiry dates were either left blank or equal or the manufacturing date is later than the expiry date in respect of 5,070 records/items. The Corporation replied that the manufacture date field will be updated as a mandatory field in future.

Government in its response stated (August 2023) that, at the beginning of implementation of e-Aushadhi, the validations were not available in the application and suppliers used to

commit errors while making entries. However, currently, the fields "Manufacturing date" and "Expiry date" are mandatory and necessary input validations are also in place.

4.7 Equipment

The Corporation (TSMSIDC) is the nodal agency for procurement of equipment and its maintenance. Corporation did not maintain a comprehensive database of the available equipment and its details, such as e-tendering, contract, Purchase Order details, date of acquisition of the equipment, its location, its value, installation date and working status at various health institutions, etc. In view of this, Audit is constrained in holistically analysing the activities taken up by the Corporation relating to procurement of equipment and its maintenance, deviations, etc.

4.7.1 Process followed for Procurement of equipment

Indents for the purchase of equipment were placed by the respective HODs as per requirements made by the field units. Specifications of the equipment were prepared by the HODs and submitted to the Corporation along with the necessary administrative approvals. Orders for supply were to be finalised and placed by Corporation and payments were made by it. Corporation invited tenders for procurement of the equipment and after scrutiny by the Technical Committee, the purchase was finalised and acceptance of tenders was issued to successful tenderers. Supply of equipment was made directly to the indenting units and payments were made by the Corporation on receipt of supply and installation reports from the indenting hospitals.

When details of the State wide picture of the equipment procured and expenditure incurred during the period 2016-22 were called for, the same were not provided by the Corporation. In view of this, Audit could verify only those Purchase Orders provided to it.

4.7.2 Non-procurement and Delay in procurement of Equipment

4.7.2.1 Gandhi Hospital, Secunderabad – Delayed installation of MRI machine

a) Director of Medical Education requested (October 2020) Corporation for immediate procurement of 3T MRI Machine for the Gandhi Hospital, Secunderabad as the only MRI Machine was not functioning since July 2020. Administrative sanction was issued in December 2020 by the Government.

Scrutiny revealed that the only MRI machine remained non-functional from April 2020 to May 2022. A new MRI machine was installed only in May 2022.

On this being pointed out, it was replied that, Gandhi Hospital being the COVID Nodal Centre for the entire State, the finalisation of the site for installation has taken a certain time for execution of civil and electrical works. Further, it was also stated that the finalised site must be inspected by the successful bidder for the feasibility to apply for AERB procurement permission. The delay in process of procurement and installation defeated the intended benefit to the patients.

Government in its response stated (August 2023) that the equipment was installed on 22 May 2022 with a delay of 38 days for which a LD of ₹40.41 lakh was imposed on the supplier.

b) Director of Medical Education (October 2020) requested to procure Mammography Machine (mandatory as per MCI norms) for the Gandhi Hospital, Secunderabad as the existing equipment was not functioning since 2018.

Scrutiny revealed that the Corporation had not procured the equipment even after two years as at the time of indenting the equipment, the specifications were not finalised by the User Department.

On this being pointed out, it was replied by Corporation that, the concerned hospital authorities informed that detailed specifications would be furnished in due course and the same was not received.

Superintendent of Gandhi Hospital (February 2023) replied that the machine was not working since 2018 and requisition was raised for new equipment. Approximately 100 - 150 cases were being done in a year and 900 - 1000 patients were referred to MNJ and Osmania General Hospital for mammography services.

Government in its response stated (August 2023) that, the Gandhi Hospital was designated as a COVID 19 Nodal centre due to which the requirement was kept on hold by the user department. Fresh indent with specifications was received in May 2023 and the equipment was supplied. Installation will be completed by 15 August 2023.

The non-functioning of the MRI and Mammography Machines was hampering patient care services and impacted teaching imparted to undergraduate and postgraduate students and also resulted in non-compliance to MCI norms.

4.7.3 Excess supply of Equipment

The Superintendent, Niloufer Hospital (May 2021) requested the Corporation to supply 40 Nos. of Multi-Channel Monitors (MCMs) and 10 Nos. of Transport Ventilators. Against the request of 40 Multi-Channel Monitors, Corporation had supplied 380²² Multi-Channel Monitors valued ₹2.21 crore to Niloufer Hospital during June 2021 - August 2021. It was however observed that, 200 Multi-Channel Monitors were returned by the Hospital on the directions of the Corporation and the balance of 180 Multi-Channel Monitors were remaining with them. Corporation attributed the excess supply of the MCMs to urgency in view of the COVID-19 third wave. It was also stated that the excess MCMs were redistributed among various DHs, AHs, CHCs and other hospitals. Scrutiny of the utilisation of the 180 Multi-Channel Monitors supplied to Niloufer revealed that, 122 Multi-Channel Monitors were installed and were being utilised in various wards. Balance 58 Multi-Channel Monitors valued ₹33.73 lakh was retained in the stores without utilisation since August 2021.

Superintendent Niloufer Hospital confirmed (August 2022) that, 58 Multi-Channel Monitors out of the 180 Multi-Channel Monitors were not being utilised.

²² May 2021: 30; June 2021: 150 and August 2021: 200

Transport Ventilators indented by Niloufer Hospital was not supplied. Regarding procurement and supply of Transport Ventilators, Corporation replied that, they have not been procured.

Government in its response stated (August 2023) that, anticipating the possible surge in paediatric cases during the 3rd wave of COVID 19, all the life saving/monitoring equipment were parked at Niloufer Hospital, as it was the Paediatric Nodal Centre. Subsequently, the equipment was redistributed as per HOD lists. Currently, all the Multi Channel Monitors in Niloufer Hospital are in use. However, details of the utilisation of the 58 Multi-Channel Monitors were not furnished.

Further, Government also stated (August 2023) that, during the pandemic, GoI had supplied 20 numbers of Transport Ventilators to Niloufer Hospital under pandemic international aid and that there was no need for the Corporation to procure.

4.7.4 Shortage of Equipment

The Minimum Standard Requirements (MSR) for the Medical College Regulations, 1999 of MCI prescribes a minimum requirement of equipment for various Departments of Medical Colleges.

On scrutiny of data relating to availability of equipment in non-clinical Departments of OMC, it is revealed that the non-availability/shortage of medical equipment against the prescribed norms in all Departments ranged between 30 to 100 *per cent* as detailed below:

Table 4.15- Shortage of equipment in various Departments of OMC

Sl. No.	Name of the Department	No. of Equipment			
		Required as per MCI norms	Available	Shortage	Shortage percentage
1	Microbiology	33	23	10	30
2	Physiology	84	39	45	54
3	Pathology	55	20	35	64
4	Anatomy	33	22	11	33
5	Biochemistry	30	7	23	77
6	Pharmacology	9	0	9	100
7	Forensic Medicine	80	15	65	81
8	Community Medicine	63	0	63	100
	Total	387	126	261	67

Source: - Information furnished by OMC

Colour code:

Available in more than 50%		Available in more than 25% and less than 50%		Not available in 50% and more	
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Government in its response stated (August 2023) that, required equipment as per the NMC requirement was available in all the Non-Clinical Departments. Documents in support was not furnished to Audit.

4.7.5 Idle Equipment

Scrutiny of records in various Health Facilities revealed that the equipment procured was kept without utilisation due to various reasons. The observations noticed during the test-check are as follows.

4.7.5.1 Idling of equipment in the test checked Health facilities

Audit observed that equipment procured in the test checked Health Facilities were lying idle without installation which hampered the delivery of services. Details of the idle equipment are as follows:

Table 4.16 – Details of the idle equipment

Name of the Hospital	Name of the Equipment	Purpose of acquisition	Date of placing of orders by TSMSIDC	Cost of the Equipment	Date of receipt of equipment	Remarks
Niloufer Hospital	“Ethylene Oxide Sterilizer”	upgrading the Paediatric Centres across Telangana State	July 2021	₹16.99 lakh	August 2021	Superintendent, Niloufer Hospital replied (May 2022) that the machine was not installed due to ongoing construction works. Government in its response stated (August 2023) that the equipment would be put to use upon completion of construction works in August 2023.
GGH, Mahabubnagar	400 mA X-Ray Machines as		M/s MRF foundation	a part of CSR activity	January 2021	Superintendent attributed the non-installation to <ul style="list-style-type: none"> ❖ Technical issues. ❖ Non provision of financial assistance of ₹2.70 lakh for installation of the equipment by DME ❖ Non-calling of tenders for electrical works²³. Government in its response stated (August 2023) that the equipment would be installed on provision of electrical works.
AH, Vanasthalipuram	Solar Lined Ice Bank Blood Refrigerators	To be supplied to Blood Storage Centres in the State for streamlining of blood services	February 2019	₹3.75 lakh	November 2020	Due to the breakdown of certain components the equipment could not be utilised. Government in its response stated (August 2023) that the equipment had been installed on 10 June 2023.
DH Medchal Malkajgiri	Remi Blood bank refrigerated centrifuge and 35 other equipment	For establishment of Blood Bank	Data not available	₹27.56 lakh	January 2018 to May 2022	Equipment lying idle for want of licence from Drugs Control Administration and No Objection Certificate from Telangana State Pollution Control Board. Government in its response stated (August 2023) that the equipment would be put to use after obtaining necessary licences/ NOC from respective authorities.
DH Bodhan	Deep Freezer - 40 degree centigrade and 02 other equipment	For establishment of Blood Bank	Data not available	₹12.27 lakh	November 2018 to July 2019	The Licence authorities informed the Superintendent that the space is not enough for blood components preparation. Government in its response stated (August 2023) that the equipment would be put to use after obtaining necessary licences/ NOC from respective authorities.
DH Narsampet	Refrigerated centrifuge and 04 other equipment	For establishment of Blood Bank	Data not available	₹17.97 lakh	August 2018 to May 2022	Due to pending approval of competent authority for component license, the equipment are kept idle. Government in its response stated (August 2023) that the equipment would be put to use after obtaining necessary licences/ NOC from respective authorities.

Source: information furnished by respective Hospitals

²³ like 3 phase electrical supply, 4 pole MCB with 63 AMP, 35 sq.mm 4 core cable, dedicated earth to the unit etc.

Keeping the equipment idle for long time would make the equipment unfit for use and would deprive the beneficiaries of the intended healthcare services.

4.7.5.2 Area Hospital, Malakpet

During the COVID period, 25 ventilators were supplied to Area Hospital, Malakpet. Scrutiny of records relating to the utilisation of the 25 ventilators supplied revealed the following:

- Five ventilators supplied by the Corporation during May 2021 were not installed and were kept idle for a period of over 23 months from the date of supply. On this being pointed out, it was replied that, the technician had not attended to the work of installation since May 2021.
- Further, it was observed that 20 ventilators worth ₹33.28 lakh supplied in March 2022 were not installed until the end of October 2022. On this being pointed out, it was replied (November 2022) that due to a shortage of accessories the same were kept idle without installation.

Except for addressing a letter (April 2022) to the Corporation, the hospital authorities had not initiated any action to get the installation of all the 25 ventilators done.

Government in its response stated (August 2023) that, the ventilators were supplied by the GoI and there were less number of technicians causing delay in installation and that the ventilators were supplied for COVID preparedness. Ventilators were now in working condition and it was being used for emergency conditions as and when they were needed.

Audit observed that as of July 2023, 20 ventilator sensors were yet to be supplied by the supplier. This raises doubts about the installation of the ventilators. Further, installation reports for ventilators were not furnished to Audit.

4.8 Emergency Response and Health System Preparedness Package (ECRP)

4.8.1 Establishment of Dedicated Paediatric Care Units (DPCUs) & Centre of Excellence (COE) at Niloufer Hospital, Hyderabad

As per the ECRP Guidance Note (July 2021) issued by Ministry of Health and Family Welfare, each District should have at least one Paediatric Care Unit. Establishing Paediatric Care Unit in each District, was priority non-negotiable component of the sanction.

To establish 33 DPCUs and a Centre of Excellence (COE) at Niloufer Hospital, GoI had sanctioned ₹89.65²⁴ crore. The 33 DPCUs were to function as spokes to the Hub (COE) at Niloufer Hospital. State Government directed (October 2021) Mission Director, NHM to

²⁴ 33 DPCUs in State Government Hospitals: - ₹86.90 crore and Centre of Excellence (COE) at Niloufer Hospital: - ₹2.75 crore

release an amount of ₹77.67 crore to the Corporation for procurement and supply of 31 items of equipment²⁵ for the establishment of 33 DPCUs with oxygen-supported beds, Intensive Care Unit (ICU) Beds and Hybrid High Dependency Unit (HDU) Beds and also for the establishment of COE at Niloufer Hospital.

4.8.2 Irregularities in Procurement of Equipment

State Government had approved (October 2021) the procurement of 31 categories of equipment for the DPCUs. The procurement was to be made through Government e Marketplace (GeM) using the resources under ECRP-II which was a mandatory condition that the States needed to adhere to. Out of 31 equipment to be procured, 10 equipment were procured through GeM, 20 through e-procurement platform which was confirmed by the Government in its response (August 2023).

An amount of ₹2.75 crore was earmarked for establishment of COE at Niloufer Hospital which included the amount for establishing the spokes for supporting the DPCUs and software development. As against this allocation, equipment worth ₹19.51 crore (22 per cent) was supplied to the COE at Niloufer Hospital, Hyderabad (details vide *Appendix 4.2*) out of the total amount of ₹89.66 crore for establishment of DPCUs & COE.

While accepting the audit observations, the Corporation replied that equipment was supplied in excess or less to the hospitals for utilisation of the funds of ECRP-II and to complete the target within the due date.

Government in its response stated (August 2023) that, it had proposed to strengthen Niloufer Hospitals as a nodal centre for treatment of Paediatric cases anticipating that children would be affected during COVID 19 third wave. Since a component had been sanctioned by GoI under ECRP-II for establishment of DPCUs, the excess expenditure incurred from ECRP-II funds was sought to be justified.

Government in its response stated (August 2023) that, against the sanctioned 32 DPCUs, 31 were established till date and the remaining DPCU at Malkajgiri was proposed for integration with upcoming Super Specialty Hospital at Alwal. Thus, one of the minimum non-negotiable outputs of ECRP-II for the State had not been achieved.

4.8.3 Equipment in DPCUs

Equipment worth ₹14.65 crore²⁶ was supplied to 14 DHs, of which equipment costing ₹5.75 crore was kept unutilised in 8 test checked health facilities as detailed below:

Table 4.17 - Details of equipment supplied and kept idle in the DHs

Sl. No.	District Hospital	Cost of the equipment supplied	Cost of the equipment kept idle	Reply furnished
1.	BOD	1.34	1.23	Equipment viz., Cots Fowler Paediatric ICU with IV stands, Paediatric Ventilators with NIV mode, Neonatal Ventilators with NIV mode, Paediatric Airvo (HFNC) Machine, Open Radiant Warmers,

²⁵ Sanctioned vide Memo.No.9196/C2/2021 of Health, Medical and Family Welfare (C) Department, dated 11 October 2021

²⁶ DH Bodhan: ₹1.34 crore; DH Jogulamba Gadwal: ₹0.95; DH Gajwel: ₹1.23; DH King Koti: ₹0.13; DH Kondapur: ₹1.39; DH Medak: ₹0.83; DH Medchal Malkajgiri: ₹1.40; DH Mulugu: ₹1.44; DH Narayanpet: ₹0.73; DH Narsampet: ₹1.28; DH Peddapalli: ₹0.04; DH Tandur: ₹0.79; DH Uttoor: ₹1.37 and DH Yadadri Bhuvanagiri: ₹1.73

				Infusion Pumps, Syringe Pumps, 3 Para Monitors, 5 Para Monitor, Oxygen hoods etc., lying idle in the storeroom/RMO quarters/ dilapidated Labour Room Complex without utilisation
2.	GAJ	1.23	0.24	11 Paediatric Airvo Machines not received
3.	MDK	0.83	0.03	3 Para Monitors (9 units not working)
4.	MED	1.40	1.38	Due to lack of space
5.	MUL	1.44	0.04	Cots Fowler Paediatric ICU with IV stands (15 Units) were kept idle due to lack of space
6.	NRY	0.73	0.21	2 Paediatric Airvo (HFNC) machines, 35 Syringe pumps and 12 Open Radiant Warmers kept idle
7.	NRS	1.28	1.20	Due to lack of space
8.	YB	1.73	1.42	Due to lack of space
TOTAL		9.98	5.75	

Source: Information furnished by respective DHs

4.8.3.1 Observations on utilisation of equipment supplied to DHs

Thirty oxygen-supported paediatric beds were supposed to be set up in the DPCU. However, these beds were not established. It was also noted that there was insufficient space available to accommodate all the equipment that was supplied to the DPCU. Additionally, some of the expensive equipment, such as Paediatric Ventilators with NIV mode and Neonatal Ventilators with NIV mode, were left idle. This could have led to potential damage to the equipment and also expiry of warranty period.



Figure 4.15: Paediatric ICU Cots lying at RMO Quarters at DH Bodhan (4 May 2023)



Figure 4.16: Paediatric ICU Cots lying in the dilapidated Labour Room Complex at DH Bodhan (4 May 2023)

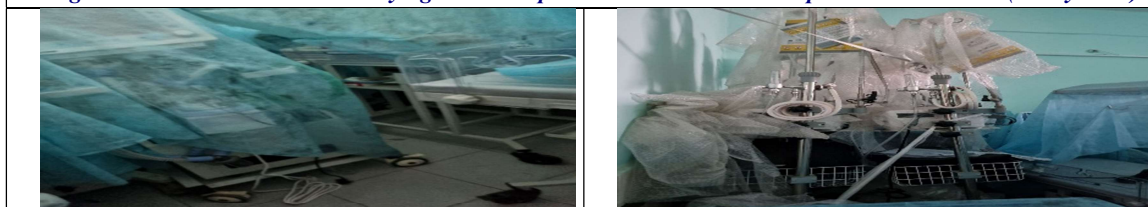


Figure 4.17: Equipment lying idle in the Store-room at DH Bodhan (4 May 2023)



Figure 4.18: DPCU Equipment lying unutilised at DH Bodhan (4 May 2023)



Figure 4.19: DPCU Equipment lying idle at DH Medchal Malkajgiri (8 May 2023)

Government in its response stated (August 2023) that, DPCU beds were established and equipment supplied to DH Malkajgiri were also installed and are in working condition. In respect of DH Bodhan, it was stated that the building was under renovation due to which the equipment was not being used. However, upon completion of the renovation works, the equipment was being used.

In the absence of supporting documents, Audit could not verify the claim made in Government response.

High Dependency Unit (HDU) in DH Bodhan: As against the stipulated eight paediatric beds to be available, only four oxygen supported beds that too normal beds with Manifold & Copper Pipeline were made available. No other equipment was available in the HDU.



Figure 4.20: Availability of only four oxygen supported beds (other than paediatric beds) with manifold & copper pipeline against the stipulated eight

4.8.3.2 Establishment of 825 ICU Beds in 10 Medical College attached Hospitals

The Empowered Group²⁷ (EG) of GoI recommended²⁸ to scale-up simple COVID ICUs with threadbare basic requirements, leveraging available infrastructure with make-shift structures at the Medical Colleges, District Hospitals, SDHs, CHCs, etc., duly reserving 20 per cent for the Paediatric ICU beds.

Accordingly, under ECRP-II, GoI sanctioned the establishment of 825²⁹ ICU beds (including 200 beds in NIMS) with three sub-components, in 10 Medical Colleges attached Hospitals at a cost of ₹139.01 crore (@₹16.85 lakh³⁰ per bed).

²⁷ set up on Health System Preparedness on Emergency Management Plan and Strategy

²⁸ with a view to address the unique health challenges posed by peri-urban, rural and tribal areas to tackle the potential upsurge of pandemic in these vulnerable places

²⁹ NIMS: 200 ICU beds; Gandhi Hospital: 100; TIMS: 100; GGH, Mahabubnagar: 100; OGH: 75; GGH, Siddipet: 50; GGH, Nalgonda: 50; RIMS, Adilabad: 50; GGH, Nizamabad: 50 and GGH, Suryapet: 50

³⁰ Oxygen support bed with copper pipeline: - ₹0.80 lakh, Equipment, beds & accessories: - ₹15.50 lakh, Air handling Unit: - ₹0.50 lakh

A proposal was submitted (September 2021) by DME to Government wherein an amount of ₹138.84 crore³¹ was estimated and Government was requested to issue necessary instructions to Corporation to take up civil works and supply of equipment.

State Government directed (October 2021) Mission Director, NHM to release an amount of ₹104.99 crore to the Corporation for the establishment of 625 ICU Beds in nine Medical College attached Hospitals and ₹33.85 crore in respect of 200 Beds in NIMS Hospital to Director, NIMS.

Scrutiny revealed that, as against 32 items of equipment to be procured, one equipment Extra Corporeal Membrane Oxygenation (ECMO) was not procured due to lack of response to the tenders.

Scrutiny of the procured equipment further revealed that, there was no provision for civil works in the Guidance Note. However, based on the proposal submitted (September 2021) by the DME, State Government (October 2021 & March 2022) sanctioned an amount of ₹12.05 crore for civil works in eight³² Medical College attached Hospitals. Of these, works relating to seven³³ Medical Colleges attached Hospitals were completed and handed over during March – September 2022. In respect of NIMS for which an amount of ₹three crore was sanctioned, the works³⁴ were in progress as of March 2023. An amount of ₹8.33 crore was incurred towards all the civil works till date.

Audit observed that, as against 825 ICU beds to be established, 625 ICU beds were established in nine Medical College attached Hospitals. Work was in progress at Nizam's Institute of Medical Sciences (NIMS), Hyderabad for establishment of 200 ICU Beds.

4.8.3.3 Establishment of 90 ICU Beds at 3 District Hospitals – Non-utilisation of funds – ₹15.16 crore

To establish 30 additional ICU beds (including six paediatric beds) each in three³⁵ District Hospitals apart from the places where the DPCUs were established, an amount of ₹15.16 crore was sanctioned in August 2021 with a stipulation that the expenditure to be incurred on the approved items by March 2022.

Audit observed that no expenditure was incurred (as of March 2022) and that the additionally sanctioned beds were not provided at any of the locations.

Government in its response did not furnish any specific reply on the issue and stated (August 2023) that, sufficient ICU beds were already established in these three hospitals during COVID 19 pandemic and hence these works were not required anymore.

4.8.3.4 Non-establishment of Liquid Medical Oxygen (LMO) plants with Medical Gas Pipeline System (MGPS)

Under ECRP-II, GoI had sanctioned the establishment of LMO plants (with MGPS and at least one LMO facility per District) including site preparedness and installation in District

³¹ Civil estimates: ₹12.05 crore; Equipment estimates: ₹110.79 crore and Others: ₹16.00 crore

³² Gandhi Hospital, GGH Mahabubnagar, Osmania General Hospital, GGH Nalgonda, RIMS Adilabad, GGH Nizamabad, GGH Suryapet and NIMS, Hyderabad

³³ Gandhi Hospital, GGH Mahabubnagar, Osmania General Hospital, GGH Nalgonda, RIMS Adilabad, GGH Nizamabad, GGH Suryapet

³⁴ Civil works in Ward Nos. 1,3,4,6,7, P.S. Ward, General Medicine Department, painting works, roof repairs, toilet works were completed and work in ward 2 is in progress.

³⁵ DH, King Koti, DH, Karimnagar and DH, Khammam

Hospitals³⁶ at a cost of ₹26.40 crore (Unit Cost: ₹80 lakh). It was also mentioned in the sanction order that States may prioritise after appropriate gap analysis and propose both LMO plants with Medical Gas Pipeline System (MGPS) in the healthcare facilities where oxygen source is tied up or available through Pressure Swing Adsorption (PSA) plants.

Audit observed that, LMO plants were not established in any of the sanctioned 33 Hospitals. Since LMO plants were not established, an amount of ₹35.57 crore was utilised from ECRP-II funds towards procurement of Oxygen gas for the use of State-run hospitals and NIMS during 2021-22 to treat COVID patients.

Government in its response stated (August 2023) that, despite inviting tenders twice towards establishment of LMO tanks by Corporation on GeM platform, no bidders had participated. It was also stated that the 10 Liquid Oxygen Tanks procured during 2nd phase of COVID were shifted to 10 hospitals to be used as storage tanks.

Government had only enclosed the order detailing the Hospitals where the Liquid Oxygen Tanks were to be established. However, details of neither the hospitals where the tanks were moved nor the installation details were furnished.

One of the minimum non-negotiable outputs of ECRP-II for the State, viz., “At least one LMO plant (with MGPS) in each District” was not complied with till date.

4.8.3.5 Non-utilisation of LMO tanks procured

It was observed that during COVID, Government of Telangana has mobilised 10 LMO empty tanks for transportation of liquid medical oxygen from other States. It was proposed (April 2022) to utilise the above LMO tanks as storage tanks for supplying medical oxygen in eight major hospitals. However, the same were lying idle in the premises of Container Corporation of India (CCI), Sanath Nagar till date.

Government had since accorded (November 2022) administrative sanction for installation of LMO tanks in 10 Government³⁷ hospitals. Pursuant to this administrative sanction, tenders were called (December 2022) for by the Corporation and the work was entrusted to an agency in February 2023.

Government in its response stated (August 2023) that, the existing LMO tanks in eight major hospitals were sufficiently catering to the needs of the patients and the above 10 LMO tanks were proposed for stand-by purpose only.

Thus the proposed objective of utilisation of LMO tanks as storage tanks for supplying medical oxygen in hospitals has not been fulfilled.

4.8.4 Strengthening of RT-PCR Labs

One of the key deliverables under the Resource Envelope approved in respect of the State under ECRP-II was strengthening of RT-PCR labs of all Districts.

³⁶ As per the proposals submitted to GoI, State Government had indicated 33 health facilities as DHs.

³⁷ GGH, Nizamabad; GGH, Mahabubnagar; GGH, Nalgonda; Mahatma Gandhi Hospital, Warangal; PMSSY Hospital, Warangal; NIMS, Hyderabad; Rajiv Institute of Medical Sciences, Adilabad; MNJ Hospital, Hyderabad; GGH, Siddipet and GGH, Khammam

Against the GoI sanctioned amount of ₹5.10 crore, expenditure of ₹24.05 crore was incurred towards establishment of 20 RT-PCR labs, thereby an excess expenditure of ₹18.95 crore was incurred under ECRP-II. Further, two new RT-PCR labs were established by incurring an expenditure of ₹1.83 crore by diverting NHM Interest funds subject to reimbursement from COVID funds.

As the State Government had not provided any funds against GoI sanctioned amount of ₹5.10 crore, the strengthening of RT-PCR labs was done by diversion of interest earned on NHM funds provided by GoI.

Government had not furnished any specific response on this issue.

Thus, one of the minimum non-negotiable outputs of ECRP-II for the State *viz.*, upgradation of the RT-PCR labs for covering all the 33 Districts of the State had been achieved but by incurring an additional expenditure of ₹18.95 crore from ECRP-II and ₹1.83 crore from NHM interest funds.

4.8.5 Functional Hospital Management Information System (HMIS) across all the District Hospitals

GoI sanctioned ₹51.00 crore (Unit cost: ₹50.00 lakh) for implementation of Hospital Management Information System (HMIS) in 102 health facilities of the State under ECRP-II.

For implementation of eHMIS, an agreement was concluded (December 2022) with a delay of 11 to 15 months from the date of sanction of GoI proceedings with Centre for Development of Advanced Computing (CDAC), Noida, Uttar Pradesh in respect of OPD Modules on the lines of eSushrut³⁸ software application (containing 21 modules³⁹) which was customised for Telangana State requirements as part of the TS-eHMIS Pilot project implemented during 2014-17. It was proposed to execute the project in 2 stages. In the First Stage, C-DAC was to replicate 8 Out-Patient flow modules and associated services for one year and in the Second Stage the In-Patient flow modules of the customised eSushrut software would be implemented across the identified 102 hospitals.

Out of 8 O.P. modules of 1st Phase, 2 modules i.e., OP and Emergency Modules were only implemented in 29 DME health facilities from 6th March 2023 and information in respect of implementation of the modules in other Health institutions was not furnished.

Procurement of hardware for eHMIS: C-DAC (March 2022) furnished the requirement of 8 categories of hardware⁴⁰ for 102 health facilities for eHMIS usage. Government (March 2022) issued orders for procurement of hardware equipment through Corporation and released ₹22.09 crore (April 2022) to Corporation for the procurement of equipment through Telangana State Technology Services Limited (TSTSL). It was observed that, except procurement of 1,200 Tabs, none of the other required hardware was procured. Even

³⁸ e-Sushrut C-DAC's Hospital Management Information System is a major step towards adapting technology to improve healthcare. HMIS incorporates an integrated computerised clinical information system for improved hospital administration and patient health care. It also provides an accurate, electronically stored medical record of the patient.

³⁹ Containing 8 OPD modules and 13 IPD modules

⁴⁰ Desktops, UPS, Tablet PC, Laser Printer, Multi-Function Printer (MFP), Barcode Printer, Bar/QR code Reader and Wi-fi Dongle/adaptor

with respect to Tabs, against the indented⁴¹ requirement of 433 Samsung Tabs, 1,200 Tabs were procured thereby resulting in excess procurement of 767⁴² Tabs than indented.

Government had not furnished any specific response on this issue.

4.8.6 Utilisation of funds for healthcare personnel during Covid

Under ECRP-II, an amount of ₹40.35 crore was allocated for the enhancement of Human Resources for utilisation of manpower during the COVID period from 01 July 2021 to 31 March 2022 (9 months). An amount of ₹36.39 crore was incurred towards stipends in respect of 1,119 Medical PG Residents, 270 GNM Nursing students and 380 B Sc Nursing students towards resources for the enhancement of healthcare services in Telangana.

4.8.7 Activities taken up by State Government during the COVID period

4.8.7.1 Availability of Hospitals and Beds

For the treatment of COVID patients, Government of Telangana has identified some hospitals as COVID-19 hospitals and some of the beds in various hospitals for the treatment of patients. Details of number of Beds provided for the treatment of patients are given below.

Table 4.18 - Details of Hospitals and Beds in the State for COVID Patients

Sl.No.	Head of Department	COVID Beds	ICU Beds with Oxygen	ICU Beds with ventilator	ICU Beds without ventilator	Total Beds
1	DME	9,540	7,733	1,413	394	9,540
2	TVVP	5,684	5,266	204	214	5,684
Total		15,224	12,999	1,617	608	15,224

Source :- Information furnished by the Department

Table 4.19 - Details of Beds in the two dedicated hospitals for COVID patients

Sl. No.	Name of the Hospital	Regular beds	ICU Beds with Oxygen	ICU Beds with ventilator	ICU Beds without ventilator	Total Beds
1	TIMS	281	843	137	0	1,261
2	Gandhi Hospital	0	597	622	650	1,869
Total		281	1,440	759	650	3,130

Source :- Information furnished by the Department

4.8.7.2 COVID Tests conducted

Details of COVID-19 tests conducted during the period 2020-21 and 2021-22 are as follows.

Table 4.20 - Details of the COVID tests conducted

Year	RT PCR Tests	RAT Tests	Total Tests
2020-21	15,54,715	85,56,504	1,01,11,219
2021-22	44,00,919	1,95,95,910	2,39,96,829
Total	59,55,634	2,81,52,414	3,41,08,048

Source :- Information furnished by the DOPH

⁴¹ As specified in the Government Memo No. 2550/C2/2022-2 of Health, Medical and Family Welfare Department, dated 23 March 22

⁴² 400 Tabs for Basti Dawakhanas and 367 for health institutions

4.8.7.3 Details of Inpatients and Outpatients treated in two Major dedicated COVID Hospitals

In response of COVID-19 pandemic, Government of Telangana established Telangana Institute of Medical Sciences (TIMS) as an exclusive COVID-19 hospital in April 2020. Subsequently, TIMS was proposed to be converted into a Multi Specialty Hospital and Medical Education Research Institute of National eminence from April 2020 with 1,261⁴³ beds. In addition to this Gandhi Hospital, Hyderabad was also declared as a dedicated COVID nodal centre and referral hospital. These two hospitals were declared as dedicated COVID centres for the State.

Table 4.21 - Details of Outpatients and Inpatients who have taken treatment during the period in two dedicated hospitals

Name of the Hospital	Outpatients		In patients		Discharged	
	2020-21	2021-22	2020-21	2021-22	2020-21	2021-22
Gandhi Hospital	1,79,590	2,11,735	71,691	48,084	71,691	48,084
TIMS	1,691	4,502	4,215	6,620	3,987	5,323

Source: Information furnished by the Hospitals

In addition to the above, 59,775⁴⁴ patients were admitted as inpatients for Isolation in Gandhi Hospital.

4.8.7.4 Details of equipment received during COVID by TIMS and Gandhi Hospitals

Details of equipment received including under PM Cares donations and supplied to the above two COVID hospitals are as follows.

Table 4.22 - Details of equipment received during the period April 2020 to March 2022

(₹ in crore)

	TIMS		Gandhi Hospital		Transferred to other hospitals by TIMS	
	Quantity	Value	Quantity	Value	No.of Items	Value
Equipment	-	7.20	-	7.69	77	0.80
Ventilators	218	7.15	486 ⁴⁵	20.83	0	0
Oxygen Cylinders	370	0.42	600	0.37	0	0

Source: information furnished by respective Hospitals

Of the above, the details of equipment not installed and not in working condition are as follows.

⁴³ Regular beds:- 281 , Oxygen beds :- 843 , ICU beds with ventilator :- 137

⁴⁴ 2020-21 :- 41,691; 2021-22 :- 18,084

⁴⁵ 437 ventilators: - ₹18.03 crore

Table 4.23 - Details of equipment supplied but not installed

Sl.No.	Name of the equipment	Date of supply	Quantity	Cost of each item (in ₹)	Cost of the equipment (in ₹)
1	Fixed X-Ray Machine (400 MA)	16.2.21	1	3,59,500	3,59,500
2	Alpha Beds	23.3.22	50	2,788	1,39,400
Total			51		4,98,900

Source: Information furnished by the Hospitals

Table 4.24 - Details of equipment supplied but not in working condition as on March 2023

Sl.No.	Name of the Hospital	Name of the equipment	Date of installation	Quantity	Cost of the equipment (₹ in lakh)
1	Gandhi Hospital	Ventilators	June 2020 & May 2021	71	199.60
	Gandhi Hospital	ECG Machine	October 2021	4	4.04
2	TIMS	5 Para Monitors		3	1.56
Total					205.20

Source: Information furnished by the Hospitals

Table 4.25 - Details of equipment remaining without utilisation in TIMS
(₹ in lakh)

Sl.No.	Name of the Equipment	Quantity	Date of Installation	Cost of equipment
1	Ultrasound Portable Echo machine	1	20-05-2020	12.74
2	CT Machine	1	24-06-2021	186.10
3	Ultrasound machine	1	05-08-2021	18.45
4.	ECG Machine	2	23-08-2021	18.74
5.	Paediatric Video Laryngoscopes	1	13-03-2022	10.08
6.	Intra-Aortic Balloon Pump	1	19-03-2022	35.62
7	Transesophageal Eco Cardiogram	1	23-03-2022	32.00
8.	DVT Pumps	48	19-04-2022	19.20
9.	Visonex Transcranial System (Dolphin/4D)	1	31-03-2022	20.72
Total				353.65

Source: Information furnished by the Hospitals

Audit observed that 51 equipment worth ₹4.99 lakh were not installed. Equipment worth ₹205.20 crore were not in working condition. In TIMS, equipment worth ₹3.54 crore remained without utilisation.

4.9 Other issues

4.9.1 Pressure Swing Adsorption (PSA) plants provided under PMCARES Fund

With a view to ensure the adequate availability of oxygen in hospitals during COVID-19, GoI supplied (June 2021) 50 PSA plants under PMCARES⁴⁶ to be established in Telangana through different agencies⁴⁷ with a condition to install them by 15th August 2021.

Accordingly, the PSA Plants were supplied by the agencies directly to the designated health facilities. Administrative sanction was issued by State Government (September 2021) for ₹13.68 crore for execution of civil, electrical and oxygen pipeline extension works for establishment of PSA plants. Further administrative sanction was issued (December 2021) for ₹5.46 crore for establishing of higher capacity DG sets at the places suggested by the three identified agencies who were entrusted with the responsibility of the PSA plants

Audit observed that, despite the specific instructions of GoI to provide DG sets by August 2021, the installation of DG set was completed within the GoI stipulated timeline in only one hospital while the installation of DG sets in remaining hospitals was completed by October 2022.

Government in its response stated (August 2023) that, as and when PSA plants were established, DG sets were installed and commissioned and currently all the 50 PSA plants were in working condition.

4.9.2 PSA plants provided under Corporate Social Responsibility (CSR)

During COVID, 35 PSA plants with different capacities were received under CSR and were installed at different health facilities.

Audit noticed that Corporation authorities requested (January 2022) for a provision of ₹7.20 crore to provide adequate power supply in four locations and DG sets in 20 locations. Administrative sanction was not received till November 2022 from the Government.

Specific date of installation of the PSA plants and other details were not furnished by the department when called for. In the absence of such information, Audit could not verify as to whether PSA plants are installed and functional.

Government in its response stated (August 2023) that PSA plants established under CSR could be run using the existing DG sets of hospitals and that all the PSA plants were functional. The specific reason for the Corporation authorities requesting for a provision of ₹7.20 crore for the purpose of providing adequate power supply in four locations and for DG sets in 20 locations was not forthcoming from the Government response.

4.9.3 PSA Plants in Government Hospitals under ECRP-II

State Government (June 2021) accorded administrative sanction⁴⁸ for ₹103 crore to Telangana State Industrial Infrastructure Corporation (TSIIC) towards procurement of

⁴⁶ PM's Citizen Assistance & Relief in Emergency Situations Fund

⁴⁷ Defence Research & Development Organisation (DRDO: 35), Central Medical Services Society (CMSS: 4), Others: 11

⁴⁸ G.O.Rt. No. 406 Health, Medical & Family Welfare, Dated 23 June 2021

132⁴⁹ PSA Plants (which was finally revised to 64⁵⁰ PSA plants) together with Annual Maintenance Contract of these PSAs in 129 identified Government Hospitals for a period of 3 years to meet the oxygen requirements for patients.

Of the 64 PSA plants sanctioned, 32⁵¹ plants were installed but were not commissioned due to want of requisite power supply. The remaining 32 plants were not taken up.

Government had not furnished any specific response on this issue.

Thus, the intended objective of establishment of PSA Plants in the health facilities was not achieved.

4.9.4 Non-functional Computed Tomography (CT) Scan equipment

Scrutiny of the information relating to CT Scan equipment available at nine hospitals⁵² revealed the following;

Although the machines suffered a breakdown after September 2017 and subsequent periods, new machines were supplied to only two⁵³ health facilities in August / September 2021. In the remaining other facilities, no action was taken to get it either repaired or to replace the old machines with new CT machines. The existing machines were very old and needed frequent repairs. Thus, the patients of the remaining seven hospitals were deprived of CT Scan facilities during the period of breakdown in these hospitals.

Government in its response stated (August 2023) that, out of the seven hospitals new CT Scan machines were procured and installed at six hospitals except Jangaon. It was also stated that as the DH Jangaon is being upgraded as GGH Jangaon in view of sanction of GMC at Jangaon, necessary equipment required for Teaching Hospital would be provided accordingly. Government had not furnished information about the supply of CT Scan equipment in AH Malakpet.

Government had not provided any documentary evidence of the installation of the CT Scan machines in the six hospitals.

4.9.5 Non-taking up of Civil Works (Storage Godown) under Revised National Tuberculosis Control Programme (RNTCP)

A key deliverable for RNTCP was to ensure an uninterrupted supply of drugs and to ensure the same stocking norms have been developed by Central TB Division (CTD), with a view to meet this end objective. It was planned that, drug stocks equivalent to 10 months of utilisation were to be maintained with implementing States.

At present two⁵⁴ drug storage buildings with a capacity of 600 Sq. ft each are located at State T.B.Training and Demonstration Centre, Erragadda, Hyderabad catering to drug supplies to

⁴⁹ PSA of 1000 LPMs (Litres per Minute): 51; 500 LPMs: 61 and 250 LPMs: 20

⁵⁰ 500 LPMs: 44 and 250 LPMs: 20

⁵¹ 500 LPMs: 15 and 250 LPMs: 17

⁵² DHs: Nalgonda, Khammam, Karimnagar, Tandur and Sangareddy; AHs: Jangaon, Malakpet; Teaching Hospitals: Nizamabad and Mahabubnagar

⁵³ DHs Karimnagar and Sangareddy

⁵⁴ normal drugs (first line), temperature-controlled drugs (2nd line drugs)

entire State needs, which was not sufficient for stocking the buffer stocks as TrueNaat and CBNAAT chips and other costly drugs are to be kept at low room temperature control.

Government in its response stated (August 2023) that, the State has two State level drug stores for the NTEP drugs where stocks of first and second line TB drugs, Truenaat chips and CBNAAT cartridges and other consumables are stored. Presently transportation and stocking of drugs was given to TSMSIDC and there was no space constraint for drug stocking.

Audit raised concern about the stocking of costly drugs in inappropriate temperatures that may affect the quality of the drugs. Government response on this issue was however not furnished to Audit.

4.10 Conclusion

TSMSIDC did not maintain a comprehensive database of the available equipment and its details.

Although the Corporation was to get the EML/AML reviewed and updated once in two years, it was observed that the review of EML/AML was done only twice i.e., in 2015 and 2019 till date.

As against 530 items required to be procured as per the approved EML list-2015, items procured were 396, 336 and 266 during 2017-18, 2018-19 and 2019-20 respectively. Similarly, out of 338 items required to be procured as per the approved EML list-2019, items procured were 209 and 197 during 2020-21 and 2021-22 respectively.

There were also gaps and inadequate validation controls in e-Aushadhi application. All the health facilities are not implementing e-Aushadhi up to the Medicine Distribution Centre (MDC) level.

Essential drugs and medicines are those which address the priority healthcare requirements of a given population and our scrutiny in the District Hospitals revealed that out of 39 therapeutic medicine groups, medicine related to 20 groups were not available across 11 out of 14 District Hospitals.

Out of 16,016 POs issued by the Corporation, drugs were supplied for 13,950 POs leaving 2,066 POs unsupplied. However, penalty on the suppliers were not levied by the Corporation as per tender conditions.

Drugs and Medicines (706 numbers) worth ₹17.13 crore having leftover shelf life ranging from 1 to 89 days were issued by Central Medicine Stores to 1,259 health facilities during the period 2016-22.

Contrary to the agreement conditions, the Corporation issued 19 Purchase Orders beyond the agreed Rate Contract (RC) resulting in an excess payment of ₹1.65 crore to nine suppliers.

As per e-Aushadhi data, expired drugs valued ₹390.26 crore were not got replaced timely with the suppliers causing huge monetary loss to the Government.

Out of the 39,258 batches of drugs/ surgical/ CTS items, the Corporation had not sent 2,392 batches for Quality Check, (6 per cent) not being tested for their quality.

CMS issued 32 batches of drugs without the mandatory testing to Health institutions. It was observed that 84 samples had been declared as NSQ by DCA/CDSCO of which 13 batches had to been issued to the Health Facilities.

In violation of the condition of keeping the batches prior to receipt of reports as quarantined, out of 204 batches of drugs for which reports not received, 158 batches of drugs were issued by CMSs to health facilities during the period April 2016 to November 2021. Delays were also observed in receipt of 426 QC reports with delays ranging from 1 to 1,441 days.

Deficiencies in drugs storage facilities were observed in all the three test checked Central Medical Stores, Hyderabad, Mahabubnagar and Warangal making the drugs susceptible to damages, contamination and theft and risk to the patients.

Emergency COVID Response Package (ECRP)

Against the Minimum Non-Negotiable Outputs of ECRP-II, which required the establishment of 33 DPCUs and LMO Plants, 31 DPCUs have been established so far, with no Liquid Medical Oxygen (LMO) Plants being established. As LMO plants were not established, an amount of ₹35.57 crore was utilised from ECRP-II funds towards procurement of Oxygen Gas for use in State-run Hospitals and NIMS during 2021-22 to treat COVID patients. Upgradation of the RT-PCR labs had been achieved by incurring an additional of ₹18.95 crore.

4.11 Recommendations

- Government may ensure implementation of e-Aushadhi application at all levels as envisaged and efforts may be made to strengthen validation controls in e-Aushadhi system.
- Government may ensure that storage of drugs in CMS stores and health facilities are done appropriately to protect the drugs from deterioration.
- Government may ensure that rules regarding near expiry drugs and its return to supplier timely for replacement of stock are followed by CMSs strictly.
- Essential Medicines List (EML) and Additional Medicines List (AML) should be reviewed and updated at least once in two years or more frequently as needed.