Chapter IV

Availability of Drugs, Medicines, Equipment and other consumables

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Andhra Pradesh Medical Services and Infrastructure Development Corporation (APMSIDC) procured 70 to 88 per cent types of required drugs and medicines during the period 2018-22 and 65 to 88 per cent types of required surgical items during the period 2017-22. The indenting of drugs and surgical items was not made on need basis and the supplies were not made to Health Care Facilities (HCFs) as indented and the whole process was carried out on ad-hoc basis without any standardised protocol. Since Director of Public Health and Family Welfare (DPH&FW) and Andhra Pradesh Vidya Vidhana Parishad (APVVP) did not seek earmarked funds for local purchases, they were not given provision for purchase of emergency drugs during the period 2017-18 to 2021-22. Thus, the HCFs under their control were neither provided with all the drugs nor given the provision for the local purchase. Medical Equipment worth of ₹4.77 crore were lying idle at nine selected HCFs due to non-availability of manpower, incomplete civil works and non-availability of accessories.

4.1 Introduction to Andhra Pradesh Medical Services and Infrastructure Development Corporation

Efficient procurement, distribution and utilisation of medicines, equipment and consumables are key parameters in providing quality services in Health Care Facilities (HCFs).

The government of AP adopted a centralised model of procurement and management of medicines, equipment and consumables. Andhra Pradesh Medical Services and Infrastructure Development Corporation (APMSIDC) is entrusted with (i) procurement and distribution of medicines, surgical items, and medical equipment and (ii) providing infrastructure *etc.*, to the HCFs in Andhra Pradesh. The medicines are procured by APMSIDC and distributed to HCFs through Central Drug Stores (CDS) located in various districts and medical equipment which is required for health facilities are also procured and arranged to be installed. Brief History of APMSIDC is given in *Appendix 4.1*.

4.2 Utilisation of funds

During the years from 2017-18 to 2021-22, an amount of ₹2,187.80 crore was provided in the Budgets for procurement of medicines and equipment. However, an amount of ₹2,041.90 crore only was released to APMSIDC, of which ₹1,716.33 crore (78 *per cent*) only was utilised. Government while furnishing the reply (August 2023) accepted the fund utilisation and furnished the releases made by the Government as detailed in *Table 4.1*.

						(₹ in Crore)
Year	Opening	Budget	Funds	Funds	Funds	Funds
	Balance	Provision	Released	utilized	unutilised	lapsed
2017-18	219.88	411.17	325.27	244.50	80.77	10.19
2018-19	290.46	482.30	482.30	294.33	187.97	16.54
2019-20	461.89	288.33	228.33	294.25	(-)65.92*	Nil
2020-21	395.98	486.00	486.00	433.24	52.76	0.54
2021-22	448.19	520.00	520.00	450.01	69.99	Nil
Total			2,041.90	1,716.33	391.49	27.27

Table 4.1: Utilisation of Funds

*Excess utilised funds were drawn from previously available funds. Source: Budget Release Orders and data provided by APMSIDC

It was observed that an amount of ₹27.27 crore lapsed over the years. It was further observed that the available funds were not fully utilised in any of the years except in 2019-20, in which excess expenditure was met from the funds accumulated previously. This indicates absence of coordination among various organs involved in the budgetary process.

Government had not furnished any material facts about these improper provisions and utilisations in its reply.

4.3 **Procurement of medicines**

As per Para 4.1 of Procurement Policy (2009) of GoAP, the Medical Officer or Superintendent in-charge of HCF shall estimate the annual requirement of various types of medicines from the Essential Medicines List (EML) and Additional Medicines List (AML).

The estimated requirement of the next procurement year⁸⁸ shall be submitted to HoDs⁸⁹ by 31st March of each year. Keeping in view of the budget estimated to be available in the ensuing year, the HoDs shall limit the quantities of medicines to be indented. The HoDs shall indicate a quarterly delivery schedule to enable effective inventory management at APMSIDC level.

As per Procurement Policy (2009)⁹⁰ of GoAP, APMSIDC has to ensure timely availability and adequate quantities of required medicines in all HCFs. Based on purchase orders placed by APMSIDC, the supplier firms directly supply the medicines and surgical items to Central Drug Stores in Divisions. The medicines and surgical items are stored in the warehouses and issued to the HCFs as per the indents placed by them.

⁸⁸ from 1st July of the year to 30th June of next year

⁸⁹ Directorate of Medical Education, Directorate of Health and AP Vaidya Vidhana Parishad.

⁹⁰ GO Rt No.1357, Health, Medical & Family Welfare (M1) Department, dated 19 October 2009

We observed that the formula⁹¹ mentioned in Procurement Policy (2009) for estimation of annual requirement of Medicines during 2017-18 to 2021-22 was not followed by all test checked HCFs and instead, requirement of medicines was being placed based on previous years/previous quarters consumption. This resulted in short supply of Medicines and surgical items discussed in the *Paragraph 4.3.1*.

We also observed that e-aushadhi, the software application being used for the procurement and distribution of medicines, did not incorporate the formula prescribed in the Procurement Policy (2009). The HCFs upload the demand by restricting themselves to the extent of budget and medicines available in the portal and not according to the actual requirement as there was no such provision in the application. The supply chain mechanism can be seen in *Appendix 4.2*.

4.3.1 Coverage and issue of medicines/surgical items

Essential medicines⁹² are the medicines that address the priority health care requirements of a given population in HCF service area. A Standing Expert Committee⁹³ is responsible for preparation of Essential Medicines List (EML), Additional Medicines List (AML), Essential Surgical List (ESL) and Additional Surgical List (ASL) which shall be published widely for information of doctors working in HCFs and shall also be published on the website of Government for wide publicity. APMSIDC mandates procuring all medicines and surgicals listed in EML/ AML and ESL/ASL and supply of the same based on the demands of HCFs.

It was stated by APMSIDC that during the years 2017–18 to 2021–22, only 69.7 *per cent* to 88 *per cent* of the required essential and additional medicines and 65 *per cent* to 88.2 *per cent* of the required essential and additional surgical items were made available to HCFs through centralised procurement as detailed in *Table 4.2*.

		No. of types	of medicines	5	No. of typ			
Year	Requirement	Procured	not	Availability	Requirement	Procured	not	Availability
			procured	(in per cent)			procured	(in per cent)
2017-18	564	Data not made available to audit			357	232	125	65.0
2018-19	564	393	171	69.7	357	246	111	68.9
2019-20	608	535	73	88.0	357	283	74	79.3
2020-21	608	533	75	87.7	357	315	42	88.2
2021-22	608	524	84	86.2	372	328	44	88.2

Table 4.2: Availability of medicines & Surgical items

Source: APMSIDC records

APMSIDC did not provide reasons for not procuring the remaining medicines and surgicals. Thus, the objective of the Procurement Policy, which emphasises availability of medicines and surgicals in all HCFs, was not fulfilled by the APMSIDC.

⁹¹ Qe = [Q x (1.1 + V)] - B Qe: Quantity of estimated annual requirement of each medicine. Q: Quantity consumed (under CDS+DPS+HDS) during last year (April to March) (in case of PHC it includes consumption of sub-centres) B: Opening Balance of each medicine (excluding expired medicines) V: Vacancy factor (only for PHCs/CHCs and APVVP Hospitals and not for Tertiary Hospital)

⁹² Those medicines that are selected through an evidence-based process with due regard to Public Health relevance, quality, safety, efficacy, and comparative cost effectiveness.

⁹³ Director of Medical Education (Chairperson), Director of Health, Commissioner, APVVP, Director of IPM, MD, APMSIDC (Member Convener), Director General, Drugs Control Administration, etc., as members and three Professors of Surgery, Professor of Pharmacology, three Professors of Medicine, Medical Officers / Superintendents of hospitals, etc., as nominated members

We observed in eight-test checked PHCs that medicines and surgical items were not issued by APMSIDC as indented as detailed in *Table 4.3*.

			8								
placed	by test supplied			Partially Supplied		Partially supplied (in <i>per cent</i>)		Totally Supplied		Totally Supplied (in <i>per cent</i>)	
Medicines	Surgicals	М	S	M	S	M	S	М	S	M	S
(M)	(S)										
731	184	18	14	656	169	89.74	91.85	57	1	7.80	0.54
728	178	49	9	679	166	93.27	93.26	0	3	0.00	1.69
896	183	44	7	849	176	94.75	96.17	3	0	0.33	0.00
856	288	32	29	821	259	95.91	89.93	3	0	0.35	0.00
966	196	33	19	929	177	96.17	90.31	4	0	0.41	0.00
4,177	1,029	176	78	3,934	947	94.18	92.03	67	4	1.60	0.39
	placed checked Medicines (M) 731 728 896 856 966	(M) (S) 731 184 728 178 896 183 856 288 966 196	placed by test checked PHCssupplet supplet supplet medicinesMedicinesSurgicalsM(M)(S)-7311841872817849896183448562883296619633	placed by test checked PHCssuppliedMedicinesSurgicalsMS(M)(S)77731184181472817849989618344785628832299661963319	placed by test checked PHCssuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSuppliedSupplied72811831447414474343485628832293292932966119633199293232	$\begin{array}{c c c c c c } \begin{tabular}{ c c c c } \hline Placed by test \\ \hline checked PHCs \\ \hline \end{tabular} \begin{tabular}{ c c c c } \begin{tabular}{ c c c c } \begin{tabular}{ c c c c } \begin{tabular}{ c c$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c } \begin{tabular}{ c c c c } \hline Placed by test \\ checked PHCs \\ \hline \begin{tabular}{ c c c c } \hline \begin{tabular}{ c c c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supplied & Supplied \\ \hline \begin{tabular}{ c c } Supplied & Supp$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $

Table 4.3: Supply of indented medicines/surgical items to PHCs

Source: Data from e-Aushadhi portal made available by APMSIDC

Thus, during the years 2017-22, 94.18 *per cent* of essential medicines were partially supplied; 4.22 *per cent* were not supplied and only 1.60 *per cent* were totally supplied against the requirement placed by the selected PHCs. In respect of surgicals, 92.03 *per cent* were partially supplied; 7.58 *per cent* not supplied and only 0.39 *per cent* were totally supplied against the requirement.

Further, we observed in the twelve checked GGHs/AHs/CHCs that medicines and surgical items were short issued by APMSIDC as indented as detailed in *Table 4.4*.

Year	Total requisitions placed by test checked PHCs		placed by test checked supplied Supplied		Partially supplied (in <i>per cent</i>)		Totally Supplied		Totally Supplied (in <i>per cent</i>)			
	Medicines (M)	Surgicals (S)	М	S	М	S	М	S	М	S	М	S
2017-18	2,152	977	93	72	1,950	892	90.61	91.3	109	13	5.07	1.33
2018-19	2,383	1,280	221	65	2,157	1,206	90.52	94.22	5	9	0.21	0.70
2019-20	2,695	1,222	142	111	2,516	1,088	93.36	89.03	37	23	1.37	1.88
2020-21	2,447	1,105	93	119	2,335	978	95.42	88.51	19	8	0.78	0.72
2021-22	2,583	1,296	142	87	2,421	1,200	93.73	92.59	20	9	0.77	0.69
Total	12,260	5,880	691	454	11,379	5,364	92.81	91.23	190	62	1.55	1.05

Table 4.4: Supply of indented medicines/surgical items to CHCs/AHs/DHs/GGHs

Source: Data from e-Aushadhi portal made available by APMSIDC

Thus, during the years 2017-22, 92.81 *per cent* of essential and additional medicines were partially supplied; 5.64 *per cent* were not supplied only 1.55 *per cent* were totally supplied. Further, 91.23 *per cent* of surgical items were partially supplied, 7.72 *per cent* were not supplied and only 1.05 *per cent* were totally supplied against the requirement placed by the selected GGHs/AHs/CHCs. Nine test checked HCFs⁹⁴ were allocated funds worth ₹23.96 crore towards placing indent for medicines and surgicals in e-Aushadhi, out of which ₹18.23 crore was only utilised leaving a balance of ₹5.73 crore unutilised. HCFs attributed non-utilisation of funds to short supply and non-supply of indented drugs by CDSs.

⁹⁴ DH Atmakur, DH Hindupur, DH Tekkali, AH Kadiri, AH Kavali, AH Seethampeta, CHC Kothacheruvu, CHC Naidupeta and CHC Sompeta.

Government replied (August 2023) that a system was developed by APMSIDC to supply the shortfall of drugs and surgical items on fortnightly basis for each CDS in order to improve the supplies.

The indenting of drugs and surgical items was not made on the basis of needs and the supplies were also not made to HCFs as indented. Thus, indenting and supply were carried out on ad-hoc basis without any standardised protocol.

4.3.1.1 Availability of drugs in test checked District Hospitals

IPHS 2012 prescribed 493 types of drugs, lab reagents, consumables and disposables for delivery of minimum assured services in District Hospitals. However, IIPH Hyderabad⁹⁵ selected 151 drugs, lab reagents, consumables and disposables for test check. The category wise availability of drugs, lab reagents, consumables and disposables in three test checked DHs is detailed in *Table 4.5*.

Table 4.5: Availability of Drugs, Lab reagents, Consumables and disposables inthree test checked District Hospitals of Andhra Pradesh

SL No	Categories	No. required as per IPHS 2022	No. of drugs selected for test check	DH Tekkali	DH Atmakur	DH Hindupur
1	Analgesic/ Antipyretics / Anti Inflammatory	11	5	5	5	5
2	Antibodies & Chemotherapeutics	76	20	15	13	10
3	Anti-Diarrhoeal	6	1	1	1	1
4	Dressing Material/Antiseptic Ointment Lotion	24	10	5	6	5
5	Infusion Fluids	14	11	8	9	8
6	Eye and ENT	25	10	4	3	1
7	Anti-histamines/ Anti-Allergic	12	8	6	6	5
8	Drugs acting on Digestive System	20	6	4	5	3
9	Drugs related to Haemopoietic system	4	3	3	2	1
10	Drugs acting on Cardiac vascular system	26	19	11	15	14
11	Drugs acting on Central/ peripheral Nervous system	40	16	8	10	9
12	Drugs acting on Respiratory System	16	5	4	4	4
13	Skin Ointment/ Lotion etc	23	5	4	5	2
14	Drugs acting on Uro-Genital system	5	5	3	4	4
15	Drugs used in obstetrics and Gynaecology	35	8	6	7	6
16	Hormonal Preparation	14	5	4	4	5
17	Vitamins	24	6	5	4	4
18	Other Drugs and Material and Misc. Items	83	8	5	7	5
19	Emergency lifesaving drugs for SNCU	12	0	NA	NA	NA
20	Other Essential Medicines & Supplies for SNCU	23	0	NA	NA	NA
	Total	493	151	101	110	92

Source: Hospital records

⁹⁵ Audit engaged Indian Institute of Public Health, Hyderabad for technical support and advise

GoAP has formulated a list of 608 drugs and 372 surgical items required at Government Medical Establishments. The State norms are much higher than IPHS, 2012 norms. However, the shortages in procurement and availability were significant as above.

4.3.2 Local Purchase of Drugs and medicines

As per the Procurement Policy 2009, out of the total budget allotted, ten *per cent* of budget shall be earmarked to HCFs under the control of DH and Commissioner, APVVP and 20 *per cent* under the control of DME for meeting local emergency requirements towards purchase of medicines. We observed that ₹146.16 crore was released during the period from 2019-20 to 2021-22 to HCFs under the control of DME only. APMSIDC stated that since DH and Commissioner, APVVP did not seek earmarked funds for local purchases, they were not provided funds for the same. As a result, HCFs under the control of DH and APVVP were not given provision for purchase of emergency drugs during the period 2017-18 to 2021-22.

Non-release of funds for local purchase of Medicines to HCFs and short supply of medicines by the APMSIDC may lead to adverse events including treatment delays, clinical complications and substandard treatment.

Government replied (August 2023) that a centralised procurement policy with IT system support has been developed to enable the health institutions to raise their indents for emergency medicines and drugs.

Reply is not tenable as the purpose of decentralised procurement system is to procure lifesaving and other medicines under emergency and to overcome the supply deficiencies of essential medicines under centralised procurement. Thus, the objective of decentralisation in procurement is defeated.

4.3.3 Stock out medicines

The Procurement Policy (2009) stipulated that stock for at least three months at CDSs, two months in HCFs of Tribal Areas and one month in HCFs in rural/urban HCFs should be always maintained. Whenever the stocks go below the aforesaid levels, it is the responsibility of APMSIDC to replenish the same either by cross movement or by fresh procurement. The APMSIDC shall design and establish an appropriate system of forecasting demand for each medicine in each HCF in advance to enable timely replenishment. However, we observed in 20 test-checked HCFs that stocks as mentioned in *Table 4.6* were not replenished during the years 2017–18 to 2021-22.

Name of the	No. of	types m	edicines	went out	t of stock	No. of	types of sı	irgicals	went out	t of stock
hospital	2017-18	2018-19	2019-20	2020-21	2021-22	2017-18	2018-19	2019-20	2020-21	2021-22
Tertiary Level Hospitals										
GGH Anantapur	45	56	66	66	59	33	61	58	53	43
RIMS Srikakulam	73	82	113	96	96	60	73	72	54	56
GGH Nellore	59	60	55	41	32	2	2	2	1	2
Primary level Hospitals (PHC)										
Chennur	9	17	19	17	17	3	7	7	16	9
Inamudugu	3	4	3	4	4	4	8	17	9	9
Karjada	7	7	11	8	15	10	20	13	8	5
Kondapuram	4	4	2	7	12	9	5	4	6	4
Kudair	6	8	18	18	24	7	5	15	25	14
Narpala	5	5	6	4	7	5	5	6	8	5
Thummalapenta	0	2	2	0	0	0	0	0	0	0
Urlam	15	12	5	3	6	9	12	5	6	16
			Sec	ondary]	Level Hosp	oitals				
AH Kadiri	17	34	28	26	25	5	12	16	7	7
AH Kavali	33	31	33	23	26	41	17	27	20	17
AH Seethampeta	6	14	21	30	33	32	55	56	42	16
CHC Kothacheruvu	3	2	1	2	2	8	14	4	0	12
CHC Naidupeta	47	49	66	55	62	21	51	45	29	31
CHC Sompeta	3	3	1	0	1	0	0	0	0	0
DH Atmakur	13	17	17	17	9	31	49	46	44	39
DH Hindupur	21	21	30	40	59	19	24	23	20	12
DH Tekkali	9	6	14	6	2	1	63	26	12	1

Table 4.6: Stock out medicines and surgicals in test checked HCFs

Source: Data from e-Aushadhi portal made available by APMSIDC

Thus, drugs and medicines were not made available to HCFs by CDSs as per the Procurement Policy, which impacts service delivery directly. Due to non-availability of CDS data, audit could not ascertain whether CDS maintained the stocks as required in the Policy.

Government accepted (August 2023) the audit observation and promised future compliance.

Thus, the HCFs were neither provided all the drugs and medicines nor given the provision for local purchase, which would push needy patients to purchase privately.

4.3.4 Distribution of Near-Expiry medicines to the HCFs

As per Para 12.12 of the tender documents of the APMSIDC, if the drug is not consumed prior to its expiry date *i.e.*, six months before expiry, the supplier will be notified about the drugs nearing expiry. Upon receipt of such information, the supplier should replace at his own cost, the drugs nearing expiry with fresh stock of longer shelf life, otherwise the value equal to the cost of the expired quantity will be deducted from the bills or any other amount payable to the firm.

We observed at the selected CDSs at Srikakulam, SPSR Nellore, and Anantapur districts that during the period 2017-22, drugs of value \gtrless 2.14 crore due to expire within six months were distributed to the following selected HCFs as mentioned in *Table 4.7*.

Year	Name of the CDS	Name of the sampled hospitals	Value of the near expiry drugs (₹. in crore)
2017-22	CDS SRIKAKULAM	RIMS Srikakulam; DH Tekkali; CHC Sompeta; PHCs of Urlam, Karajada, Edupuram	1.03
2017-22	CDS NELLORE	PHCs of Inamadugu, Tummalapenta, Chennur; CHC Naidupeta; AH Kavali; DH Atmakur; GGH Nellore	0.55
2017-22	CDS ANANTAPUR	PHCs of Narpala, Kondapuram, Kudair; CHC Kothacheruvu; AH Kadiri; DH Hindupur; GGH Anantapur	0.56
		Total	2.14

Table 4.7: Near	expiry	medicines	in test	checked	drug stores
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Source: data extracted from the documents provided by the CDS

CDSs replied that the drugs were issued to health facilities instead of sending back to the suppliers as per the orders of the APMSIDC. APMSIDC stated that the procedure adopted in e-Aushadhi portal is FIFO⁹⁶ for distribution of the products to meet the demand of HCFs and for utilisation of the same before its expiry. The reply is not tenable as there is a risk of drugs expiring at the premises of HCFs without being replaced and it is an undue favour to the supplier.

Government assured (August 2023) that strict instructions would be issued to all the CDS to send back near expiry drugs to the suppliers and the supplier also will be closely monitored to replace the near expiry drugs in all the CDS.

4.3.5 Quality Control of drugs

Quality control plays a major role in providing high quality drugs to the patients. Ensuring quality of medicines is one of the prime objectives of the procurement policy.

APMSIDC procured 34,262 batches of medicines during the period from 2017-2022 and sent samples randomly from each batch to laboratories for quality testing. Out of the above, 50 batches of medicines were declared as not of standard quality (NSQ) as detailed in *Table 4.8*:

Year	No. of batches of drugs received	No. of batches of drugs from which sample sent for quality testing	No. of batches failed in quality testing				
2017-18	6,595	6,595	16				
2018-19	6,886	6,886	14				
2019-20	5,813	5,813	13				
2020-21	8,464	8,464	4				
2021-22	6,505	6,505	3				
	Total						

Table 4.8: Year-wise statement showing quality testing of medicines by APMSIDC

Source: Data furnished by APMSIDC

⁹⁶ First-in- First-Out

4.3.6 Disposal of expired drugs

As per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, expired medicines and surgical items fall into the category of hazardous waste and wastes generated in CDS establishments must be sent or sold to an authorised user or disposed off in an authorised disposal facility.

We observed that expired drugs were disposed off by burying in landfills in CDS Anantapur (April 2017 to October 2020) and CDS Srikakulam (April 2017 to January 2021).

Government replied (August 2023) that agencies were engaged to dispose the expired medicines and surgical items by following the guidelines of WHO and the process of condemnation was carried out at the premises of the identified vendor.

Reply is not acceptable as it was not supported by any evidence to substantiate the reply.

4.4 **Procurement of Medical Equipment**

As per the Medical Equipment Procurement Policy, 2016⁹⁷, proposals for procurement of medical equipment by any HCF must follow outlines of pre-procurement process, procurement process and post-procurement process as given in *Table 4.9*.

Pre-Procurement	 The Primary and secondary HCFs take into account all requirements while preparing indent/requisition for required items. The consolidated indents are placed before the District Equipment Management Committee (DEMC). The DEMC compiles all the indents and prioritises. The requirement of the medical colleges is validated by the Medical College Equipment Committee. For standardisation of the indenting process, a State Level Needs Assessment committee (SNAC) validates and approves the requirements.
Procurement	 Procurement of equipment has three distinct pathways depending upon the value of the equipment, associated human resource skills needs and complexity in installation and operations of the equipment. Equipment of high investment and those requiring special skills such as Haemodialysis machine, Computed Tomography (CT), Magnetic Resonance Imagining (MRI) <i>etc.</i>,
	 These services are engaged through Public Private Partnership (PPP) contracts. Equipment of low to moderate value: Generally all equipment routinely used in hospitals as shared resource, requiring minimal training and routine maintenance shall be procured by the APMSIDC. Innovations & pilots: GoAP permits APMSIDC to procure innovative products in a limited quantity from Central Government Public Sector Units, Autonomous Institutions established by an Act of Parliament and IITs.
Post-Procurement	APMSIDC was entrusted with the responsibility of setting up and running of all kinds of modern medical equipment facilities.

 Table 4.9: Outlines of three Processes of Procurement Policy

Source: Medical Equipment Procurement Policy, 2016

In this connection Audit observed the following:

⁹⁷ GO Ms No.7, dt.13.01.2016.

4.4.1 Non-constitution of Needs Assessment Committee

Equipment planning is an essential component of the public health planning process. The decision to purchase medical equipment should be based on the need, usage of the existing equipment, availability of technical manpower, recurring cost to maintain the equipment, services being proposed to be provided to the patients and availability of resources.

For standardisation of the indenting process, a State-level Needs Assessment Committee (SNAC) should be constituted under the chairmanship of the Commissioner, Health, Medical& Family Welfare. SNAC should consider the requirements and finalise the indents once every six months.

APMSIDC also confirmed that no indents were received through SNAC.

Government accepted (August 2023) the audit observation and stated that CHFW would be requested to constitute SNAC to assess the requirement before sending their indents.

4.4.2 Equipment lying idle in selected DHs / AHs/CHCs

During the inspection of selected DH/AH/CHCs, it was observed that equipment worth ₹4.77 crore, as shown in *Table 4.10*, was lying idle due to non-availability of trained manpower, incomplete civil works, and non-availability of accessories:

					(In ₹					
		V	alue of equipmer	it						
Name of the facility	> 5years	<5 and >3 years	<3 and > 1 year	< 1 year	Total					
District Hospitals (DHs)										
DH, Hindupur		75,88,998			75,88,998					
DH, Tekkali				46,41,970	46,41,970					
DH, Atmakur			1,31,72,288	1,10,880	1,32,83,168					
Area Hospitals (AHs)										
AH, Seethampet		11,14,400		1,07,32,583	1,18,46,983					
AH, Kavali			8,96,000	37,80,291	46,76,291					
AH, Kadiri			26,25,600		26,25,600					
	С	ommunity Healt	h Centres (CHC	s)						
CHC, Sompeta	4,59,300			12,09,600	16,68,900					
CHC, Naidupeta			1,64,125	12,09,600	13,73,725					
Total	4,59,300	87,03,398	1,68,58,013	2,16,84,924	4,77,05,635					

Table 4.10: Idle equipment in the selected health facilities

(I., =)

Source: Text-checked health facilities



Figure 4.1: Upper GI endoscope received in 2020 at DH, Atmakur, SPSR Nellore district kept idle due to the non-availability of a General Physician/General Medicine Doctor (July 2022)

Government accepted (August 2023) the audit observation and stated that, in respect of DH Atmakur, the General surgeon was sent for training to administer endoscopy and the reply was silent about other Health Facilities.

There is no systematic need assessment of equipment in HCFs, even though the procurement policy had laid out clear guidance. The ad-hoc procedure coupled with lack of human resources, adequate space and financial resources to operate the equipment in HCFs resulted in idling of equipment.

4.4.3 Rate contracts not concluded for routinely required equipment in hospitals.

As per the Procurement Policy 2016⁹⁸, all equipment routinely used in HCFs shall be procured by APMSIDC by undertaking rate contracts valid for a period of three years for each category of equipment. For executing the rate contracts, APMSIDC should assess the annual requirement of each category of equipment and declare this in the rate contract process to obtain best market rates by volume. After conclusion of rate contracts, APMSIDC shall only place orders to approved vendors at rates agreed under the rate contract process.

We observed that some items such as (-)80 degrees refrigerators, X-ray machines, ECG machines, bio-safety cabinets *etc.* were procured by calling tenders every time.

Government accepted (August 2023) the audit observation and stated that rate contracts were finalised for a few items only and majority of the items were procured on onetime basis based on the indents received from the requestioning department. From December 2022 onwards, tenders were invited to procure all items through Rate Contracts only in respect of common items.

However, APMSIDC did not furnish any documents to support their reply.

⁹⁸ Para 2.1(ii)

4.4.4 Short levy of liquidated damages-equipment supplied during the COVID-19 period ₹0.86 crore

As per clause 23 of General conditions of the contract(GCC) of the tender documents, if the supplier fails to deliver any or all of the goods within the time period specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price as liquidated damages, a sum equivalent to 0.5 *per cent* of the delivered price of the delayed Goods or unperformed Services for each week of delay or part thereof until actual delivery or performance, up to a maximum deduction of ten *per cent* of total Contract value. Once the maximum is reached, the purchaser may consider termination of the contract. As per Clause 5 of the Invitation of Bids of the tender document, the period of delivery means delivery and installation of the equipment.

We observed from the purchase orders of the equipment placed during the period March 2020 to July 2021 that while calculating LDs, the delivery date was taken as reference instead of the date of installation.

Thus, APMSIDC imposed liquidated damages worth $\gtrless 0.55$ crore only instead of $\gtrless 1.41$ crore over the purchase orders of the equipment worth $\gtrless 34.49$ crore as the period of delivery includes both the installation and supply. This has resulted in non-deduction of LDs worth $\gtrless 0.87$ crore.

Government replied (August 2023) that during COVID pandemic, in view of urgency and as per instructions of State Level Procurement Committee (SLPC) material received was stocked in godowns at some places. Material was supplied to required hospitals as per the need directly from godowns. In view of pandemic conditions, the supply/ delivery date of material was taken for imposing liquidated damages. Further, it was stated that ratification orders would be obtained to consider the date of supply for levy of liquidity damages.

4.5 Availability of Drugs in test checked Health Care Facilities

Audit examined (June-September 2022) the availability of drugs for 10 ailments/diseases selected from the view of mandatory services to be provided in the hospitals in the nine-test checked secondary HCFs.

4.5.1 Availability in Secondary Healthcare

Speciality wise drugs selected for test check is shown in *Table 4.11* and drug wise availability in test checked secondary Healthcare facilities are given in *Appendix 4.3*.

Table 4.11: Category wise number of drugs checked for its availability in test checked Hospitals

SI No	Name of the area	No. of drugs selected for test check
1	Pregnancy and childbirth	8
2	Child health (Newborn/Infant/under five)	5
3	Diabetes	4

Sl No	Name of the area	No. of drugs selected for test check			
4	Hypertension	8			
5	Cardiovascular diseases	10			
6	Diarrhoea	3			
7	Malaria	2			
8	Pneumonia (Both children & adults)	10			
9	Bite injuries (Snakes and dogs)	2			
10	Psychiatric conditions	5			

Source: IIPH, Hyderabad selected these drugs

Pregnancy and childbirth

- Tab. Nitrofurantoin, the first line antibiotic in management of urinary tract infections during pregnancy was not available in five⁹⁹ out of nine¹⁰⁰ test checked Hospitals.
- Injection Iron Dextran/Iron Sorbitol, to treat moderate anaemia especially in pregnancy was not available in DH Atmakur.

Child Health (Newborn/Infant/under five)

- ➢ Injection Isolyte-P, a primary fluid to treat childhood conditions (fluid resuscitation) was not available in DH Tekkali.
- Injection Benzyl/benzathine penicillin, a commonly used injectable antibiotic to treat the paediatric infections like pneumonia, rheumatic fever, diphtheria and syphilis, was not available in nine¹⁰¹ test checked hospitals.

Pneumonia

Syrup Cotrimoxazole 50ml to treat childhood pneumonia was not available in five¹⁰² hospitals

Cardiovascular diseases

- Injection Noradrenaline, a life-saving drug injection essential for treatment of cardiovascular disease was not available in four¹⁰³ out of nine test checked hospitals
- Tablet Digoxin, used to treat Cardiac arrest and superficial bleeding was not available in CHC Kothacheruvu and DH Tekkali.
- Tablet Clopidogrel Bisulphate I.P 75mg used to treat serious or lifethreatening problems with heart and blood vessels in patients who had stroke,

⁹⁹ DH Tekkali, DH Atmakur DH Hindupur, DH Kadiri, CHC Kothacheruvu

¹⁰⁰ CHC Sompeta, CHC Naidupeta, CHC Kothacheruvu, AH Seethampeta, AH Kavali, AH Kadiri, DH Tekkali, DH Atmakur, DH Hindupur

¹⁰¹ CHC Sompeta, CHC Naidupeta, CHC Kothacheruvu, AH Seethampeta, AH Kavali, AH Kadiri, DH Tekkali, DH Atmakur, DH Hindupur

¹⁰² DH Tekkali, CHC Sompeta, CHC Kothacheruvu, AH Kavali, AH Kadiri

¹⁰³ CHC Sompeta, CHC Kothacheruvu, CHC Naidupeta, AH Kadiri

heart attack or severe chest pain, was not available in four¹⁰⁴ out of nine hospitals.

Diabetes

Injection Dextrose 10 per cent 500 ml bottle, used as a fluid replacement therapy to provide energy and to prevent fluid loss (dehydration), was available in only two¹⁰⁵ out of nine hospitals.

Hypertension

Tablet Atenolol and Tablet Methyldopa were available in all the nine test checked hospitals. However, Tablet Propranolol was not available in two¹⁰⁶ out of nine hospitals.

Diarrhoea

Inj. Metronidazole 100 ml, ORS were available in all the nine test checked hospitals

Malaria

Tab. Chloroquine phosphate to treat malaria, was not available in four¹⁰⁷ out of nine test checked hospitals.

Bite injuries (by Snakes and dogs)

Anti-Rabies Serum (ARS), Inj. Antirabies vaccine, Inj. Antisnake venom were available in all the nine test checked hospitals.

Government accepted (August 2023) the audit observation and stated that in Area Hospitals all the medicines were now available. As the performance of healthcare facility is directly affected by the supply of essential medicines, Government should ensure the availability of medicines in all HCFs.

4.5.2 Availability of Equipment in Non-Clinical Departments in Medical Colleges

Against the requirement as per MSRR 1999, we observed in test checked GMCs that some equipment were not available in test checked Government Medical Colleges as detailed in *Table 4.12*.

Table 4.12: Shortfall of types of equipment in Non-clinical Departments in test checked Government Medical Colleges

SI. No.	Name of the Department	Types of equipment Required 150/200 admission	availab	ypes of equip le in Governi dical Colleges	nent	No. of types of equipment in shortfall		
			Anantapur	Srikakulam	Nellore	Anantapur	Srikakulam	Nellore
1	Anatomy	38	23	19	29	15	19	9
2	Physiology	85	38	38	34	47	47	51

¹⁰⁴ DH Tekkali, AH Kavali, CHC Kothacheruvu, CHC Naidupeta

¹⁰⁷ AH Seethampeta, AH Kavali, CHC Kothacheruvu, DH Atmakur

¹⁰⁵ AH Seethampeta, DH Hindupur

¹⁰⁶ DH Tekkali and CHC Kothacheruvu

Sl. No.	Name of the Department	Types of equipment Required 150/200 admission	No. of types of equipment available in Government Medical Colleges			No. of types of equipment in shortfall		
			Anantapur	Srikakulam	Nellore	Anantapur	Srikakulam	Nellore
3	Biochemistry	32	10	14	22	22	18	10
4	Pathology	82	26	23	28	56	59	54
5	Microbiology	52	18	18	15	34	34	37
6	Pharmacology	14	14	4	5	-	10	9
7	Forensic Medicine	91	24	33	14	67	58	77
8	Community Medicine	96	75	54	43	21	42	53

Source: Medical College records

Government accepted (August 2023) the observation and promised future compliance.

4.6 Drug Management facilities in test checked Healthcare facilities

As per IPHS, hospital building should be well maintained with no seepage, cracks in the walls, no broken windows and glass panes. There should be no growth of algae and mosses on walls *etc*. Drugs shall be stored in cupboards and protected from water seepage, moisture, dust, insect, rodents *etc*.

4.6.1 Drug management facilities

Parameters such as storing away from water and heat, storing away from walls, storing above the floor *etc.*, are desirable for storage of drugs to maintain the efficacy of the procured drugs before issue to patients. However, we observed that:

> Drugs were stored on the floor in the GGH, Srikakulam as shown in *Figure 4.2*.



Figure 4.2: Drugs kept on the floor at GGH Srikakulam (June 2022)

- Seepage on walls of Pharmacy store at AH Seethampeta is shown in *Figure 4.3*. This may cause short circuits.
- Medicines kept without stacking in CHC Kothacheruvu. This can be seen in Figure 4.4.

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Figure 4.3: Seepage on walls in AH, Seethampeta (June 2022)

Figure 4.4: Medicines without stacking in CHC Kothachervu (August 2022)

Further, Shelves/racks for keeping medicines/drugs were not labelled in four¹⁰⁸ HCFs.

Government in its reply (August 2023) stated that now all the drugs are labelled and kept in the racks in the above facilities. Government further stated that in AH Seethampeta, the construction work is completed in February 2023 and there is no seepage now and the walls are painted. Further Government accepted the observation and stated that in CHC Kothacheruvu, a new building was under construction.

External influences such as humidity, heat, light and cold are factors that can impair the effectiveness of medicines. Guidelines for storing of medicines may be formulated for better administration and storage of medicines in HCFs.

4.7 **Recommendations**

- Government should ensure timely supply of all indented drugs/medicines to all Health Care Facilities.
- Government should ensure that rules regarding near expiry drugs like timely return to supplier for replacement of stock, are followed by all the Central Drug Stores strictly.
- Government should streamline the system for need assessment of equipment to avoid wastage and idling.
- Flexibility should be given to Health Care Facilities to meet emergency needs by providing local purchase budget for drugs and medicines.

¹⁰⁸ DH Tekkali, CHC Naidupeta, CHC Kothacheruvu and AH Kadiri