



पत्र क्रमांक / 1564 / HSS / SHRC / 2023
प्रति,

रायपुर, दिनांक : 12/10/2023

अपर मुख्य सचिव (छ.ग. शासन)
स्वास्थ्य एवं परिवार कल्याण विभाग
मंत्रालय, महानदी भवन, अटल नगर
नवा रायपुर (छत्तीसगढ़) 492002

विषय:—राज्य के सामुदायिक स्वास्थ्य केन्द्रों (CHCs) में महत्वपूर्ण डॉयग्नोस्टिक सेवाओं की उपलब्धता पर अध्ययन के प्रतिवेदन बाबत।

विषयांतर्गत लेख है कि छत्तीसगढ़ की शासकीय स्वास्थ्य संस्थाओं में उच्च गुणवत्ता की उपचार सेवाएँ प्रदाय करने हेतु उनमें डॉयग्नोस्टिक सेवाओं की उपलब्धता बढ़ाएँ जाने की आवश्यकता है। वर्तमान में अधिकांश जिला अस्पतालों में मूलभूत जाँच सेवाएँ उपलब्ध हैं किन्तु सामुदायिक स्वास्थ्य केन्द्र (CHC) स्तर पर डॉयग्नोस्टिक सेवाओं की उपलब्धता पर ध्यान केन्द्रित किए जाने की आवश्यकता है।

उपरोक्त संदर्भ में राज्य के सामुदायिक स्वास्थ्य केन्द्रों (CHCs) में महत्वपूर्ण व मूलभूत डॉयग्नोस्टिक सेवाओं की उपलब्धता पर राज्य स्वास्थ्य संसाधन केन्द्र द्वारा एक अध्ययन किया गया है।

उपरोक्त अध्ययन का प्रतिवेदन अवलोकनार्थ एवं अग्रिम चर्चा हेतु संलग्न कर प्रेषित है।

संलग्न:—उपरोक्तानुसार।

Muni
12/10/23

कार्यकारी संचालक
राज्य स्वास्थ्य संसाधन केन्द्र
छत्तीसगढ़

पत्र क्रमांक / / HSS / SHRC / 2023
प्रतिलिपि :-

रायपुर, दिनांक :

1. संचालक, स्वास्थ्य सेवाएँ, संचालनालय, स्वास्थ्य भवन, अटल नगर, नवा रायपुर, छ.ग. की ओर सूचनार्थ।
2. मिशन संचालक, राष्ट्रीय स्वास्थ्य मिशन, स्वास्थ्य भवन, अटल नगर, नवा रायपुर, छ.ग. की ओर सूचनार्थ।

कार्यकारी संचालक
राज्य स्वास्थ्य संसाधन केन्द्र
छत्तीसगढ़

**Availability of Essential Diagnostics Tests
in Block Public Health Laboratories (CHC) of Chhattisgarh**

Assessment Report - September 2023

Prepared by: State Health Resource Centre, Chhattisgarh

Summary of findings:

- 31 CHCs were visited in September 2023 to examine availability of 21 most important tests.
- On an average, the CHCs are able to provide 13 out of the 21 important tests examined.
- All the CHCs were doing Complete Blood Count (CBC) and Sickle cell screening by solubility test. The functionality of other basic tests was lower. Renal function test (RFT), Liver test (LFT) and Lipid profile are conducted in 65%, 65% and 48% of the sampled CHCs. Availability of Electrophoresis test is very poor in most CHCs.
- In terms of volume (no. of patients tested), most CHCs are yet to achieve closer to the required number of tests. 43% of the CHCs achieve half of the expected volume for CBC test. For RFT and LFT, only 15% of CHCs were achieving half of the volume. Only 8% of CHCs were achieving half of the benchmark volume for Lipid profile tests.
- Maximum CHCs have CBC and semi-auto analyzer machines for conducting the basic tests. Last year CGMSC supplied reagents reached 44% of CHCs in case of CBC. But the other important reagents (LFT, RFT and Lipid profile) reached around 30% of the CHCs. This shows that even when reagents became available in CGMSC, many CHCs were not aware of it and did not indent. In some districts, the CMHO stores indented on behalf of CHCs. But there were a large number of CHCs where neither the CMHO store or the CHC indented reagents.
- Among 31 visited CHCs none of them were doing ultrasonography, though USG machine was available in 4 CHCs (Kartala, Kurud, Pathariya, Akaltara). X-ray was conducted in 30 CHCs.

Suggestions for improvement:

- The department should notify an Essential Diagnostic List for each type of health facility including CHCs.

- Reports of no. of tests done need to be taken in a standard format. Otherwise, there is a lot of confusion about the type of tests a facility should do.
- All the CHCs must indent the reagents directly from CGMSC through DPDMIS portal. For this, instructions need to go from DHS level to all districts.
- All the CGMSC warehouses should maintain the buffer stock of all the diagnostic reagents so that when any CHC indents, CGMSC can supply. The availability of reagents at CGMSC warehouse and at health facility level should be monitored from state level using dashboard and it should be and reviewed weekly.
- Online orientation of doctors can be done on rational use of diagnostic services in their clinical course of action.
- A majority of the machines belong to a single brand and CGMSC is able to provide reagents for that. CHCs which have a different brand machine can be given funds to do local purchase the reagents.
- There should be a system for getting monthly reports of each type of test done by all government health facilities. The functionality and volume of tests done should be reviewed monthly. Availability of diagnostic tests at CHC level should be covered in review of districts.
- There should a clear responsibility allocated to a Deputy Director at state level for diagnostic services. Similarly, each district should have a district nodal officer for diagnostic services. Biomedical engineers posted at districts should be made responsible to assist the nodal officers in monitoring these services.

Main Report

Background: Essential diagnostics is a key service that is needed to provide good quality and rational healthcare. The earlier assessments showed that almost all District Hospitals were providing most of the essential diagnostic tests. The situation of Community Health Centers (CHCs) however was found to be very poor in providing diagnostic tests. Though the required machines were available, there was shortage of reagents.

The assessments mentioned above are more than one year old now. Meanwhile, DoHFW has made efforts to improve diagnostics by improving the availability of reagents through CGMSC. Therefore, the present analysis was done to examine the current availability of important diagnostics tests in a sample number of CHCs.

Objectives: This assessment is meant to answer the following specific questions:

1. Whether the important tests are being performed in CHCs?
2. How adequate is the volume of various tests provided?
3. What are the likely reasons for the gaps in performance?

Data Collection: This analysis focuses on 21 of the basic diagnostic tests. Though a CHC is expected to conduct more than 50 tests, focusing on a smaller number of important tests was essential so that the situation can be assessed quantitatively for each test and in a manner that it can be compared with future assessments.

Data was collected by SHRC from 31 CHCs spread across the state. In addition, reagent procurement and distribution data of CGMSC was analysed.

1. Availability of important diagnostic tests in CHCs

On an average, 13 out of the 21 important tests are available at CHC level.

Most CHCs are able to provide the Complete Blood Count (CBC) test and solubility test for sickle cell screening. These are followed by ESR and RFT (S. Creatine, S. Uric acid and Blood urea) which are provided by around 65% CHCs. Then come the Liver Function Tests (SGPT/SGOT, S. Bilirubin T/D) and some of the Lipid Profile tests (Total cholesterol) that are available in around 60% and 50% of CHCs respectively.

Most of the CHCs are not able to provide Electrophoresis test, HbA1C, Thyroid function test and S. amylase. Regarding diagnostics for Sickle Cell, while the screening test (Solubility test) is available in all CHCs, the lack of absence of confirmatory test (Electrophoresis) in most CHCs is an issue of concern.

Table 1 provides a picture of availability of key tests.

Table 1 – Whether key diagnostic services being provided at CHCs

Type of testing	No. of CHCs (N=31) Providing the service	CHCs (N=31) Providing the service
Complete Blood Count	30	97%
ESR	20	65%
Blood Urea	20	65%
S. Uric Acid	20	65%
S. Creatinine	21	68%
S. Alkaline Phosphatase	16	52%
S. Total Protein	18	58%
S. Albumin	18	58%
S. Bilirubin (T)	20	65%
S. Bilirubin (D)	20	65%
S. SGPT/SGOT	19	61%
S. Total Cholesterol	15	48%
S. Triglyceride	13	42%
S. VLDL	9	29%
S. HDL	13	42%
S. LDL	12	39%
S. Amylase	7	23%
HbA1c	5	16%
Solubility test	29	94%
Electrophoresis	8	26%
Thyroid function test	5	16%

Table 2 provides the status of each CHC regarding the tests not being performed.

Table 2: CHC wise status of 21 important diagnostic tests

CHC	Out of 21 important diagnostic tests performed at CHC	Name of test not performed at CHC
CHC Ramanujnagar	21	Nil (all the tests are performed)
CHC Kanker	21	Nil (all the tests are performed)
CHC SHANKARGARH	9	Electrophoresis, HbA1C, Alkaline Phosphatase , S. Albumin, S.Total protein, Lipid profile, S. Amylase, Thyroid function test
CHC Rajpur	16	Electrophoresis, HbA1C, Alkaline Phosphatase , S. Amylase, Thyroid function test
CHC KURUD	19	HbA1c,Thyroid Function Test
CHC BHAKARA	0	Electrophoresis,HbA1C, Alkaline, Phosphatase , Renal Function Test, Liver Function Test, Lipid profile, S. Amylase, Thyroid function test
CHC CHHURIYA	2	Electrophoresis,HbA1C,RFT,LFT,Lipid Profile, Serum Amylase, S.Alkaline Phosphatase, Thyroid Function Test.
CHC DONGARGAON	17	Electrophoresis, HbA1C , S. Amylase, Thyroid function test
CHC KARTALA	21	Nil (all the test are performed)
CHC PALI	18	Electrophoresis, HbA1C , Thyroid function test
CHC CHHURA	19	HbA1c,Thyroid Function Test
CHC MAINPUR	18	Electrophoresis, HbA1C , Thyroid function test
CHC Rajim	18	HbA1C , Thyroid function test, Serum Amylase

CHC LORMI	17	Electrophoresis, HbA1C , S. Amylase, Thyroid function test
CHC Patharia	17	Electrophoresis, HbA1C , Thyroid function test, ESR
CHC PATNA	9	Electrophoresis, HbA1C , Thyroid function test, ESR, Lipid Profile, Serum Amylase, Total protein, Serum Albumin
CHC SONHAT	7	Electrophoresis, HbA1C , Thyroid function test, ESR, Lipid Profile, Serum Amylase, Total protein, Serum Albumin, SGOT/SGPT, Alkaline Phosphatase
CHC AKALTARA	2	Electrophoresis,HbA1C,RFT,LFT,Lipid Profile, Serum Amylase, S.Alkaline Phosphatase, Thyroid Function Test.
CHC NAVGARH	1	Electrophoresis,HbA1C,RFT,LFT,S.Alkaline Phosphatase, Serum Amylase, Lipid Profile, Serum Amylase, Thyroid Function Test.
CHC Loing	18	Electrophoresis, HbA1C , Thyroid function test
CHC PUSSORE	18	Electrophoresis, HbA1C , Thyroid function test
CHC NANGOOR	19	Electrophoresis, ESR
CHC BASTAR	19	Electrophoresis, ESR
CHC KOTA	14	Electrophoresis, HbA1C ,ESR Thyroid function test, LFT
CHC Ratanpur	15	ESR,HbA1C,Electrophoresis,S.Alkaline Phosphatase, S.Amylase, Thyroid Function Test
CHC BODLA	2	Electrophoresis,HbA1C,RFT,LFT,Lipid Profile, Serum Amylase, S.Alkaline Phosphatase, Thyroid Function Test.
CHC Pipariya	2	Electrophoresis,HbA1C,RFT,LFT,Lipid Profile, Serum Amylase, S.Alkaline Phosphatase, Thyroid Function Test.
CHC TILDA	11	ESR,Electrophoresis,HbA1c,Lipid Profile, Thyroid Function Test, Serum Amylase
CHC Dharsiwa	11	ESR, Electrophoresis ,Lipid Profile, Thyroid Function Test, Serum Amylase
CHC LODAM	19	Thyroid Function Test,HbA1C
CHC ODGI	1	Electrophoresis,HbA1C,RFT,LFT,Lipid Profile,Serum,Amylase,Alkaline Phosphatase, Thyroid Function Test, ESR.

2. Volume of key tests done by Community Health Centers (CHCs) – Is it adequate?

A benchmark volume of tests was taken for CHCs based on their OPD and IPD numbers. It was found that a very small number of CHCs were able to reach the benchmark. So we took 50% of the above benchmark and found the number of CHCs that were able to achieve it.

The best situation was in case of solubility test where 69% of CHCs were doing in enough numbers. Then came CBC where 43% CHCs could reach half of the benchmark. The other tests were being done in very low numbers.

Table 3: Volume of Tests conducted by CHCs (average no. of patients tested per month)

Type of testing	Expected number of tests per month in CHC	Average no. of test done in previous month	CHCs achieving at least 50% of the expected volume
Complete Blood Count	300	238	43%
ESR	200	25	5%
Blood Urea	150	40	15%
S. Uric Acid	150	33	10%
S. Creatinine	150	38	14%
S. Alkaline Phosphatase	150	46	19%
S. Total Protein	150	43	22%
S. Albumin	150	65	28%
S. Bilirubin (T)	150	30	10%
S. Bilirubin (D)	150	29	10%
S. SGPT/SGOT	150	42	21%
S. Total Cholesterol	80	23	7%
S. Triglyceride	80	26	8%
S. VLDL	80	5	0%
S. HDL	80	25	8%
S. LDL	80	27	8%
S. Amylase	80	23	14%
HbA1c	150	8	0%

Solubility test	250	227	69%
Electrophoresis	100	51	38%
Thyroid function test	50	6	20%

2. What are the likely reasons for gaps in performance at CHCs?

The case of CBC in CHCs: All CHCs examined here had an automated 3-part CBC except CHC Bhakara and except CHC Odgi, District Surajpur, other CHCs were conducting CBC tests. A similar assessment done two years back also showed that most of the CHCs had CBC machine but only 30% of them were doing CBC test. What made the difference? The improvement is due to better supply of reagent for CBC (lyse and diluent) by CGMSC, directly to CHCs instead of the earlier practice of routing them through the CMHO stores.

The case of biochemistry tests in CHCs: Most of the CHCs, 26 of them also had a semi-automated biochemistry analyzer. But around two-third (65%) of CHCs are conducting Kidney (RFT) and Liver (LFT) tests and almost half (48%) of the CHCs are conducting lipid profile test. The volume covered by CHCs for RFT and LFT tests is only 15% and 10% of the expected volume respectively. The main reason for this gap is the unavailability of biochemistry reagents at CHCs. Although CGMSC had procured the reagents but around half of the CHCs did not indent to receive the reagents.

How Many Lab technicians are present?

As per IPHS standards in FRU-CHC posting of 5 LTs is essential and Non-FRU-CHC should have 4 LTs. Lab. technician status is mentioned in the table below-

No. of Lab Technician	No. of CHC (Total N= 31)
<3	7 (23%)
3	15 (48%)
>3	9 (29%)

How many CHCs were supplied important reagents by CGMSC?

The CHC wise status of important reagents issued by CGMSC in last six months are given in Table 4. Reagents were indented and supplied in two ways – a) directly to CHCs b) supplied to CMHO store. Where the reagent supply was to CMHO store, there was a possibility that some of the CHCs can get missed. But the biggest gap was that in many districts neither the CMHO store or the CHCs directly indented to receive the reagents from CGMSC. The analysis from the table 4 shows that CGMSC has supplied many of the important reagents to less than 35% of the CHCs in the state.

Table 4: Proportion of CHCs supplied important reagents by CGMSC (Out of 193 CHCs)

Reagent Name	Total No of CHCs supplied reagents by CGMSC	Quantity Issued	Proportion of CHCs supplied reagents by CGMSC (out of 193 CHCs)
Albumin	56	508	29%
Alkaline Phosphate	39	171	20%
Amylase	53	499	27%
Bilirubin Kit	57	810	30%
Blood urea	57	807	30%
Cholesterol	38	168	20%
HDL Cholesterol	58	820	30%
Potassium	58	530	30%
SGOT	58	825	30%
SGPT	63	845	33%
Sr. Creatinine	56	804	29%
Triglyceride	62	841	32%
Uric acid	62	831	32%
CBC	34	441	18%
HBA1C Level	38	56	20%

There are a few CHCs conducting biochemistry tests although they have not received the reagents from CGMSC. They have arranged it through local purchase done at district or block level.

User fee: Out of 31 visited CHCs still 10 CHCs are charging user fee to patients. The charges vary from place to place. Charges for some tests are quite high. E.g. some CHCs were charging Rs.70 for CBC, Rs.50 for HbsAg, Rs.40 for the Widal test. Most hospitals claim that they usually waive off the charges for Below Poverty Line (BPL) patients if they bring their ration cards. The actual practice followed for waiving off charges however is not consistent and many times the poor have to either pay or forego the tests. The decision to provide the services free to all patients in government hospitals is likely to help the poor in utilizing the services.

Annexures – Detailed data on reagents supplied by CGMSC and the current stock at CGMSC

Facility wise details of important reagents issued by CGMSC in last six months (April- September 2023) are given in Table 5. In this table reagents supplied to number of CHMO store, DH, CHC and UPHC/PHC is given.

Table 5: Facility wise details of important reagents issued by CGMSC in last six months (As on 6th Oct 2023)

S.NO	Reagent Name	Name of Facility	Total No of Facility	Quantity Issued
1	Albumin	Medical College	2	5
		DH	9	108
		CMHO store	16	730
		CHC	56	508
		Civil hospital	4	9
		PHC	831	2064
		UPHC	70	186
		UHWC	1	2
	Total		989	3612
2	Alkaline Phosphate	Medical College	1	4
		CMHO store	6	23

		DH	28	242
		Civil hospital	2	8
		CHC	39	171
		PHC	1	1
		Total	77	449
3	Amylase	District Hospital	7	40
		CMHO store	13	686
		Civil hospital	4	9
		CHC	53	499
		PHC	814	2033
		UPHC	70	189
		UHWC	1	2
		Total	962	3458
4	Bilirubin Kit direct	Medical College	4	38
		District Hospital	11	242
		CMHO store	16	1138
		CHC	57	810
		Civil Hospital	4	14
		PHC	820	3215
		UPHC	70	304
		UHWC	1	2
		Total	983	5763
5	Blood urea	Medical College	4	39
		District Hospital	8	172
		CMHO store	14	1129
		Civil Hospital	4	14
		CHC	57	807
		PHC	819	3244
		UPHC	70	313
		UHWC	1	2

		Total	977	5720
6	Cholestrol	Medical College	1	4
		District Hospital	24	188
		CMHO store	6	40
		Civil Hospital	2	8
		CHC	38	168
		PHC	1	1
		Total	72	409
7	HDL Cholestrol	District Hospital	12	154
		CMHO store	15	1139
		Civil Hospital	3	10
		CHC	58	820
		PHC	774	3004
		UPHC	68	300
		UHWC	1	2
		Total	931	5429
8	Potassium	CMHO store	13	698
		District Hospital	10	75
		CS	4	9
		CHC	58	530
		PHC	819	2041
		UPHC	70	189
		UHWC	1	2
		Total	975	3544
9	SGOT	Medical College	4	39
		District Hospital	12	184
		CMHO store	15	1144
		Civil Hospital	4	14
		CHC	58	825
		PHC	821	3194

		UPHC	70	305
		UHWC	1	2
		Total	985	5707
10	SGPT	Medical College	4	39
		District Hospital	15	224
		CMHO store	20	1415
		Civil Hospital	4	14
		CHC	63	845
		PHC	822	3212
		UPHC	70	299
		UHWC	1	2
		Total	999	6050
11	Sr. Creatinine	Medical college	4	39
		DH	10	262
		CMHO store	15	1139
		Civil	4	14
		CHC	56	804
		PHC	820	3236
		UPHC	70	313
		UHWC	1	2
		Total	980	5809
12	Triglyceride	District Hospital	16	191
		CMHO store	21	1335
		CS	3	10
		CHC	62	841
		PHC	772	3000
		UPHC	68	300
		UHWC	1	2
		Total	943	5679
13	Uric acid	Medical College	2	10

		District hospital	13	217
		CMHO store	20	1437
		CS	4	14
		CHC	62	831
		PHC	822	3240
		UPHC	70	304
		UHWC	1	2
		Total	994	6055
14	CBC	CMHO store	56	3011
		Medical College		
		DH	10	185
		Civil	1	10
		CHC	34	441
		PHC	59	165
		UPHC	8	41
		UCHC	1	10
		Total	169	3863
15	HbA1C Level 1	DH	17	35
		CMHO store	3	13
		CS	2	3
		CHC	38	56
		PHC	1	1
		Total	61	108
16	HbA1C Level 2	District hospital	15	33
		CMHO store	3	13
		CS	2	3
		CHC	37	55
		PHC	2	2
		Total	59	106

Table 6: Current stock of important reagents at CGMSC warehouses on (6th Oct 2023)

Sl.No	Drug Code	Drug Name	Unit	Ready For Issue	QC Pending
1	REAG101	Calcium-	100 ml	3213	0
2	REAG102	Chloride-	100 ml	1960	0
3	REAG103	LDL Direct-	100 ml	1667	0
4	REAG114	Potassium-	100 ML	1957	0
5	REAG115	Sodium-	100 ml	3239	0
6	REAG116	Total Protein-	100 ml	3810	0
7	REAG480	BLOOD CELL COUNTER REAGENT KIT	1	7484	0
8	REAG127	Creatinine FS-	4 x 50 T	130	0
9	REAG128	Creatinine PAP FS-	4 x 180 T	33	0
10	REAG40	HDL-C Immuno FS-	pack size 4x200T	187	0
11	REAG96	HDL cholesterol kit-	100 ml	3236	0
12	REAG103	LDL Direct-	100 ml	1667	0
13	REAG41	LDL-C Select FS -	pack size - 4x120	169	0
14	REAG14	ALAT GPT)FS IFCC mod.) -	Pack Size 4x200T	129	0
15	REAG146	Potassium FS -	4 x 100 T	144	0
16	REAG93	S. Alkaline Phosphates 100 ml-	100 ml	3811	0
17	REAG152	Total Protein UC FS-	4 x 120 T	142	0
18	REAG155	TruCal Albumin U/CSF-	5 x 1 mL	33	0
19	REAG16	ASATGOT)FS IFCC mod.)-	Pack Size 4x200T	126	0
20	REAG168	TruLab Albumin U/CSF Level 1-	3 x 1 mL	41	0
21	REAG169	TruLab Albumin U/CSF Level 2-	3 x 1 mL	32	0
22	REAG17	Bilirubin Auto Direct FS -	Pack Size 4x200T	126	0
23	REAG18	Bilirubin Auto Total FS -	Pack Size - 4x200T	126	0

24	REAG182	TruLab L Level 1-	3 x 3 mL	33	0
25	REAG187	TruLab One HbA1c level 1-	4 x 0.25 mL	31	0
26	REAG188	TruLab One HbA1c level 2-	4 x 0.25 mL	32	0
27	REAG20	Cleaner A -	pack size -4x60 ml	125	0
28	REAG21	Cleaner B -	pack size - 4x60 ml	126	0
29	REAG22	Cuvettes for Response -	pack size - 16x240 nos	145	0
30	REAG23	Tru Cal U -	pack size- 6x3 ml	137	0
31	REAG25	Creatinine FS pack size-	4x200 T	122	0
32	REAG26	Urea FS PACK SIZE-	4x200 T	127	0
33	REAG27	DS DILUENT -	20L	30	0
34	REAG29	M-6FD DYE -	12mLx4	10	0
35	REAG30	M-6LH LYSE -	1Lx4	171	0
36	REAG32	M-6FN DYE -	12mLx4	10	0
37	REAG33	PROBE CLEANSER -	50ml	11	0
38	REAG34	ALBUMIN FS-	PACK SIZE 4x200T	28	0
39	REAG37	Cholesterol FS -	pack size- 4x200T	126	0
40	REAG40	HDL-C Immuno FS-	pack size 4x200T	187	0
41	REAG41	LDL-C Select FS -	pack size - 4x120	169	0
42	REAG43	Total Protein FS -	pack size - 4x200T	136	0
43	REAG44	Triglycerides FS 10 -	pack size- 4x200T	127	0
44	REAG45	Uric Acid FS TOOS -	pack size- 4x200T	131	0
45	REAG70	Albumin in Urine/CSF FS (Microalbumin) -	pack size 4x100 T	92	0
46	REAG78	oneHbA1c FS -	pack size-4x100 T	30	0
47	REAG81	Sodium FS -	pack size-4x100 T	153	0
48	REAG85	Tru Cal HbA1c Liquid-	pack size4x0.25 ml	32	0

49	REAG87	Blood urea Kit (i) UREA U.V (kinetic) (ii) UREA U.V (kinetic) 100 ml-	100ML	3463	0
50	REAG88	S. CreatinineKit 100 ml-	100ML	3768	0
51	REAG89	URIC Acid test kit 100ml-	100ml	3795	0
52	REAG90	S Bilirubin Kit(i) BilirubinTotal (ii) Bilirubin Direct (iii) Bilirubin Total and Direct 100 ml-	100 ML	3753	0
53	REAG91	S.G.O.T Kit 100 ml-	100 ml	3797	0
54	REAG92	S.G.P.T Kit 100 ml-	100 ml	3787	0
55	REAG93	S. Alkaline Phosphates 100 ml-	100 ml	3811	0
56	REAG94	S. Cholesterol Kit 100 ml-	100 ML	3824	0
57	REAG95	Triglyceride kit 100 ml-	100 ml	3225	0
58	REAG96	HDL cholesterol kit-	100 ml	3236	0
59	REAG98	Albumin-	100 ml	1948	0