



**SPECIAL STUDY REPORT**  
**ON**  
**FUNCTIONING OF KARACHI**  
**INSTITUTE OF HEART DISEASES IN**  
**PROVISION OF CARDIAC TREATMENTS**  
**AS PER SPECIFIED STANDARDS**

**AUDIT YEAR 2017-18**

**AUDITOR-GENERAL OF PAKISTAN**

## **PREFACE**

The Auditor-General conducts audit subject to Articles 169 and 170 of the Constitution of the Islamic Republic of Pakistan 1973 read with sections 8 and 12 of the Auditor- General’s (Functions, Powers and Terms and Conditions of Service) Ordinance 2001 and Section 116 of Sindh Local Government Act 2013. The Special Study on “Functions of Karachi Institute of Heart Diseases in provision of Cardiac Treatments as per Specified Standards” was carried out accordingly.

The Directorate General Audit, Local Councils Sindh conducted Special Study on the “Functions of Karachi Institute of Heart Diseases in provision of Cardiac Treatments as per Specified Standards” during March and April 2018 with a view to report significant findings to stakeholders. Audit examined the economy, efficiency, and effectiveness of the hospital. In addition, Audit also assessed, on test check basis whether the management complied with applicable laws, rules, and regulations in managing the hospital. The special study report indicates specific actions that, if taken, will help the management realize the objectives of the hospital.

The Special Study report is submitted to the Governor of the Sindh in pursuance of Article 171 of the Constitution of the Islamic Republic of Pakistan, 1973 read with Section 116 of the Sindh Local Government Act 2013, for causing it to be laid before the Provincial Assembly of the Sindh.

Dated:       ,2019  
Islamabad

**(Javaid Jehangir)**  
Auditor General of Pakistan

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## **ABBREVIATIONS AND ACRONYMS**

ACS	Acute Coronary Syndrome
CABG	Coronary Artery Bypass Grafting
CCU-I	Coronary Care Unit-I
CCU-II	Coronary Care Unit-II
CDGK	City District Government Karachi
CVD	Cardio Vascular Disease
ED	Executive Director
ICCU	Intensive Cardiac Care Unit
K.I.H.D	Karachi Institute of Heart Diseases
KMDC	Karachi Medical and Dental College
NICVD	National Institute of cardiovascular Diseases
OPD	Out Patient Department
OT	Operation Theatre
POL	Petrol Oil & Lubricant
SPSS	Special Package for the Social Sciences

## **EXECUTIVE SUMMARY**

The Directorate General Audit, Local Councils, Sindh conducted Special Study on Functioning of Karachi Institute of Heart Diseases in provision of cardiac treatments as per specified Standards, during March & April, 2018. The main objectives of the study were to ascertain: 1) quality of stents implanted to patients 2) emergency response time given to cardiac patients, 3) quality of care/service in cardiac coronary unit, 4) availability of cardiac medicines, 5) availability and proper functioning of Karachi Institute of Heart Diseases laboratory, 6) quality of cardiac equipment and their functional status, 7) skills/qualifications of emergency Doctor and staff, 8) referral system of Karachi Institute of Heart Diseases, 9) cost of different types of cardiac operations and procedures, 10) overall Sanitation condition of the hospital, 11) waste disposal procedure of hospital. The study was conducted in accordance with the INTOSAI Auditing Standards.

Karachi Institute of Heart Diseases, being the second in number after National Institute of cardio/vascular Diseases for treatment of heart patients in Karachi, building of Karachi Institute of Heart Diseases was constructed by defunct Karachi Metropolitan Corporation and inaugurated as maternity home on 13th June 1974. Later on the defunct Karachi Metropolitan Corporation established Karachi Medical and Dental College and this building was converted into its temporary campus and was inaugurated by the then Prime Minister of Pakistan on 27th November, 1991. When the main campus of Karachi Medical and Dental College has been established in North Nazimabad, it was decided by the then Nazim of the City District Government Karachi to establish an institute of heart disease. Karachi Institute of Heart Diseases started functioning on 3rd June 2005. Karachi Institute of Heart Diseases comprises of 170 beds along with fully equipped Emergency Room, Cardiac Care Unit, Medical Wards, Surgical Wards, Private Wards, Intensive Care Unit, Two Cardiac Catheterization Laboratories, Two Surgical Theaters, diagnostic facilities and Nuclear Imaging Department, Rehabilitation Center, Research Department and Laboratory for routine investigations. The main functions of the institute are to undertake modern treatments of cardiovascular diseases, carryout research, prevention and control of cardiovascular diseases, undertake training of medical students and nurses both undergraduate and postgraduate level and develop itself into a center of excellence for treatment of cardiovascular diseases.

## **Key Audit Findings**

The main study findings are that the management failed to maintain machines related to diagnosis of cardiac treatments & mechanical ventilators in coronary care unit. There was non-availability of essential medicines and stents in hospital store. The audit observed that lack of preparedness in case of emergency. Procurement of medicines was made through local purchases instead of calling tender. There was insufficient staffing in Coronary Care Units and lack of capacity building. There was no waste management plan and waste disposal facility. There was suffocation in wards in the evening. The management failed to conduct research and development work, increase hospital revenue despite capability. The private laboratories have been encouraged to function by keeping their hospital laboratories dysfunctional. Besides, weak internal controls were observed.

## **Recommendation**

The study mainly recommends for proper maintenance and availability of machines, availability of essential drugs. This will enhance the preparedness and appropriate response time in emergency cases. The management should procure medicines through open competitive bidding, the number of duty doctors and nursing staff in wards should be increased. Capacity building of doctors and nursing staff should be ensured. Waste Management Plan should be put in place and implemented accordingly. Besides the audit recommends the management should have revisited the planning mechanism, organizational structure, staffing requirement, lines of communication & coordination, mode of recruitment and optimum budgeting requirements.

## **SECTIONS**

## **1. INTRODUCTION**

The Directorate General Audit, Local Councils, Sindh conducted Special Study on Functioning of Karachi Institute of Heart Diseases in provision of cardiac treatments as per specified Standards, during March & April, 2018.

Karachi Institute of Heart Diseases (K.I.H.D) is one of the main tertiary care teaching hospitals. The building of K.I.H.D constructed by defunct Karachi Metropolitan Corporation (KMC) and inaugurated as maternity home on 13<sup>th</sup> June 1974. Later on the defunct KMC established Karachi Medical and Dental College (KMDC) and this building was converted into its temporary campus and was inaugurated by the then Prime Minister of Pakistan on 27<sup>th</sup> November, 1991. When the main campus of KMDC had been established in North Nazimabad, it was decided by then Nazim of the City District Government Karachi (CDGK) to establish an institute of heart disease.

K.I.H.D started functioning on 3<sup>rd</sup> June 2005. The main functions of the institute are to undertake modern treatments of cardiovascular diseases, carryout research, prevention and control of cardiovascular diseases, undertake training of medical students and nurses both undergraduate and postgraduate level and develops itself into a center of excellence for treatment of cardiovascular diseases.

### **1.1 Purpose of organization**

- 1.1.1 To provide state of the art diagnostic and treatment facilities to cardiac patients regardless of their ability to pay
- 1.1.2 To develop strategies for prevention of cardiovascular diseases
- 1.1.3 To provide teaching and training facilities to under graduate medical students as well as post graduate fellows and paramedical staff
- 1.1.4 To develop this institute as a center of excellence for research and development in the field of Cardiology

### **1.2 Regulatory Frame Work**

- 1.2.1 Sindh Local Government Act, 2013
- 1.2.2 Bye Laws of K.I.H.D
- 1.2.3 Sindh Councils Unified Grade Services Rules, 1982
- 1.2.4 Sindh Government Councils Employees Rules, 2017
- 1.2.5 Sindh Local Councils Accounts Rules, 1985



- 1.2.6 Sindh Financial rules
- 1.2.7 Sindh Treasury Rules
- 1.2.8 Sindh Public Procurement Rules, 2010
- 1.2.9 Instructions issued by Government of Sindh in managing tertiary care hospital
- 1.2.10 Office memo random issued by Finance division from time to time for pay and allowances

### **1.3 Checking for legal aspects of Hospital**

Karachi Institute of Heart Diseases was established under the provisions of Sindh Local Government Ordinance 2001. The then Nazim now days Mayor Karachi had been delegated the powers to administer and look after the departments of health and education.

## **2. STUDY DEFINED**

### **2.1 Purpose of Study**

The study objectives were to ascertain as to whether the hospital:

- 2.1.1 Provides state of the art diagnostic and treatment facilities to cardiac patients regardless of their ability to pay
- 2.1.2 Develops strategies for prevention of cardiovascular diseases
- 2.1.3 Provides teaching and training facilities to under-graduate medical students as well as post-graduate fellows and paramedical staff
- 2.1.4 develops institute as a center of excellence for research and development in the field of Cardiology

### **2.2 Scope of Study**

The main study scope was:

- 2.2.1 to scrutinise record maintained at office of the Executive Director K.I.H.D
- 2.2.2 To review the financial record of the hospital for the financial years from 2014-15 to 2016-17

- 2.2.3 However, no financial and administrative record except Income and Expenditure Statement for the financial year 2016-17, detail of machines and statistical data available at the official website was produced to audit.

## **2.3 Beneficiary of Study**

- 2.3.1 General Public
- 2.3.2 Local Government
- 2.3.3 Provincial Government
- 2.3.4 Hospital management
- 2.3.5 Federal Government

## **3 STUDY DESIGN**

### **3.1 Time period**

The Special Study was executed from 19-03-2018 to 02-04-2018 (11 working days).

### **3.2 Data**

The audit initially planned to examine the following data:

- 3.2.1 Organizational Chart, Head of the Department, DDO, Sections and staff working in section along with designation and pay scales
- 3.2.2 Detail of Bank accounts maintained by KIHD with respective Bank statements
- 3.2.3 Detail of grants and donations received by KIHD
- 3.2.4 Detail of expenditure (Head wise) for the financial years 2014-15 & 2015-16
- 3.2.5 Detail of Machines related to Cardiac treatments and their status along with the reasons and dates from when they are not functioning
- 3.2.6 Detail of Human Resources available for Cardiac Treatments, along with their qualifications.
- 3.2.7 Detail of methods adopted for procurement of medicines
- 3.2.8 Internal Monitoring Reports
- 3.2.9 Environmental Assessment Report

### **3.3 Methodology**

The main Special Study Methodology was:

- 3.3.1 Reviewing of previous AIRs
- 3.3.2 Selecting different wards of the hospital which are emergency ward, CCU-I, CCU-II, General ward (male & female), store room, private / semi private rooms, Cath Lab, Operation Theater (OT) and inspection of several machines related to diagnosis and treatments of the cardiac patients
- 3.3.3 Gathering of information through personal interview of officials, physical verifications, visit of different wards along with management and available documents regarding working, effectiveness and availability of human resources, machines and equipment

## **4. DATA ANALYSIS**

- 4.1 Information and Raw data collected by interviews with the management
- 4.2 Collected information and raw data were reconciled with other responsible persons of the hospital
- 4.3 Requisite related documents and defined procedures
- 4.4 Conducted visits within the hospital to verify the reconciled data / information
- 4.5 Raised findings and inquired their clarifications

## **5. STUDY RESULTS**

The audit findings and recommendations in this section were pointed out during May, 2018, but no reply of the management was received. The report was issued to the Principal Accounting Officer/Secretary Local Government on 18-06-2018 with the request to convene the DAC meeting, but the same was not convened.

### **5.1 Hospital Mission**

The mission statement defines what an organization is, why it exists. It communicates the organization's reason for being, and how it aims to serve its key stakeholders i.e customers, employees, investors / donors and other stakeholders like government or communities.

#### **5.1.1 Failure to conduct Research and Development Work**

As per official website of K.I.H.D, one of its missions is “To develop this institute as a center of excellence for research and development in the field of Cardiology”. Further, as per official website of K.I.H.D, objectives of Epidemiology & Research Department are:

- Database will be created, which will include all the clinical data generated in the K.I.H.D
- Hospital based surveillance systems will be created to monitor hospital based mortality/morbidity surveillance system
- Epidemiological/Clinical Research will be conducted on the hypothesis/objectives generated by faculty members
- Collaborative research will be initiated with other hospitals and cardiology institutes at national and international level
- Workshops will be conducted on research methodology, biostatistics, and SPSS to health care providers from all over Pakistan
- Workshops, seminars, and conferences on important clinical topics of cardiology
- Community surveillance system for heart diseases to find out incidence and prevalence of CVD
- Annual research retreat

- Publish a scientific journal from K.I.H.D

Audit observed that the research department was not working in the hospital as audit team requested for the details of research and development work done by K.I.H.D, but the management failed to provide. Audit was of the view that the management had not observed the hospital's mission and this predicts absence of administrative interest for proper operation of the hospital and achievement of its mission. Research plays a vital role in development of new procedures and techniques and cures, non-conducting of research and development work is failure of the management to develop this institute as a center of excellence for research and development in the field of Cardiology.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that serious steps be taken for conducting research and development work for better treatment options of patients.

### **5.1.2 Inability to conduct operations in emergency**

As per official website of K.I.H.D, one of its missions is to provide state of the art diagnostic and treatment facilities to cardiac patients regardless of their ability to pay. Further, as per European Heart Journal, recommendation for the structure, organization, and operation of intensive cardiac care units, "A skilled physician on duty should be present in the Unit at all times. This physician should be able to handle acute cardiac emergencies after short local training and approval for night duties by the director of the unit. An attending cardiologist on call should always be available for consultation and assistance".

Audit observed that many cardiac machines were in operative; one Operation theatre was operational which has the capacity of operating one patient at a time because it has only one O.T table and one O.T light. No specialized facilities were provided to patients in evening/night shifts and all the facilities were being provided during the day time only. Furthermore, it was informed that the hospital had only one Surgeon (Dr. Syed Asadullah Hussaini) who CABG during the period under study. Audit requested several times but the management failed to provide the detail of sanctioned strength of officers and staff, Detail of doctors who performs Angiography, Angioplasty, CABG or any other cardiac treatment procedure along with their schedule and Detail of duty doctors and

nursing staff in wards (shift wise). Audit was of the view that the management failed to observe the hospital's mission and this predicts absence of administrative interest for proper operation of the hospital and achievement of its mission. Hospital is just capable to conduct CABG operations during day time only but not for more than one patient at the same time. Due to non-availability of specialized doctors and specialized facilities and proper operational equipments during evening and night shifts predicted that hospital was not capable to conduct operations for more than one patient at a time brought in emergency during evening/night shifts. Pictorial evidence is attached vide Annexure-I.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that capacity of hospital be enhanced to conduct operations and procedure in emergency day in and day out.

## **5.2 Operation of Machines**

### **5.2.1 Defibrillator machine without battery backup in Emergency Ward**

According to Para 21 of Sindh Service Delivery Standards for Hospitals from Sindh Health Care Commission, "there are clear and documented responsibilities, policies and procedures for procurement, use, maintenance, repair and disposal of equipment to minimize the potential for harm. Para 21.14 states that the regular and routine checks of equipment (equipment audit) are carried out in accordance with the operational manual, maintenance contract and/or a history sheet of the equipment by the Store in-charge".

Audit observed that two (02) Defibrillator machines were present in the Emergency ward, out of which one was out of battery backup. The Defibrillator generates high energy shock which was called defibrillation, and it's an essential life saving step in the chain of survival. The Management tried to hide the actual working status of machines and equipments of the hospital as this machine is not mentioned in the list provided by the management and Audit observed during physical visit. Furthermore, the management provided the current working status of the machines and equipments and failed to provide the report of machines which were not operational during period under the study. Audit was of the view that the management has ignored the repair and maintenance of this important machine which is considered as a life saving equipment in cardiac treatments. Non availability of battery back up the machine has lost its

functionality as well as portability and patients entering/admitting in emergency ward would not be treated properly if defibrillator is required for more than one patient within the ward. Pictorial evidence is attached vide Annexure-II.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that management should take serious efforts for proper availability and functioning of Defibrillator machines in the hospital.

### **5.2.2 Non-functional of mechanical ventilators in emergency ward**

According to Para 21 of Sindh Service Delivery Standards for Hospitals from Sindh Health Care Commission, “there are clear and documented responsibilities, policies and procedures for procurement, use, maintenance, repair and disposal of equipment to minimize the potential for harm. Para 21.14 states that the regular and routine checks of equipment (equipment audit) are carried out in accordance with the operational manual, maintenance contract and/or a history sheet of the equipment by the Store in-charge”.

Audit observed that the ward was not equipped with mechanical Ventilator, which is considered as an essential machine in emergency condition. Audit was of the view that the management has ignored to ensure the availability of mechanical ventilators in emergency ward which is considered as a lifesaving machine / equipment in emergency wards. Non-availability of mechanical ventilators may result into accelerated rates of mortality for the patients who are coming in serious and critical condition in emergency wards.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that management should take necessary steps to ensure availability of sufficient number of ventilators in emergency ward to meet out any emergency.

### 5.2.3 Out of order patient monitors in wards

According to Para 21.14 of Sindh Service Delivery Standards for Hospitals from Sindh Health Care Commission states that, “the regular and routine checks of equipment (equipment audit) are carried out in accordance with the operational manual, maintenance contract and/or a history sheet of the equipment by the Store in-charge”.

Audit observed during the visit of the Emergency ward, Coronary Care Unit-I (CCU-I) and Coronary Care Unit-II (CCU-II) that 06 patients’ monitors were out of order. This results into under capacity working of the hospital despite being capable and wards are not performing at the maximum level at which they can perform. Ideally, every monitor should be working, if one goes down then hospital should have at least two in spare, so that replacement can be done immediately. Hospital should always have more equipment than patients. In case equipment breaks, it would have two or three in spare. Audit was of the view that the management has ignored the availability and the repair & maintenance of this important machine which is very important for continuous monitoring of the patient condition. Accurate and immediate decision-making is crucial for effective patient care and for this purpose electronic patient monitors are used to collect and display physiological data of the patient. Due to non-functioning of the patients monitor machines, 06 beds which are laid for the patients’ treatment and care are kept useless. Detail is as under:

Sr.	Ward Name	Name of machine	Qty out of order	Remarks
1	Emergency ward	Patient monitor	03	03 patient beds are lying vacant
2	CCU I	Patient monitor	01	01 patient beds are lying vacant
3	CCU II	Patient monitor	02	01 patient beds are lying vacant
<b>Total out of order patient monitors</b>			<b>06</b>	

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that immediate action should be taken for dilapidated condition of monitors against the persons at fault and monitors should be repaired at the earliest under intimation to audit.



#### 5.2.4 Deficiency of mechanical ventilators in Coronary Care Unit

According to Para 8.3 (Facilities & Equipments) of Sindh Service Delivery Standards for Hospitals from Sindh Health Care Commission, “Safe and adequate facilities and equipment are provided to meet the needs and volume of patients attending the emergency services /casualty department”.

Audit observed that K.I.H.D have two Coronary Care Units i.e. CCU-I & CCU-II, which comprises 19 beds and 15 beds respectively. During visit of CCU-I and CCU-II it was seen that 03 mechanical ventilators were available in CCU-I and 04 mechanical ventilators in CCU-II, which were not fulfilling the ideal requirement of ventilators in Clinical Cardiology wards. Besides being under capacitated of mechanical ventilators in CCU-I and CCU-II, 06 mechanical ventilators are available in Operation Theatre (O.T) despite the fact that only one O.T table was placed and only one patient can be treated at a time in O.T. Besides being under capacitated of mechanical ventilators in CCU-I and CCU-II, 06 mechanical ventilators are available in Operation Theatre (O.T) despite the fact that only one O.T table is placed and patient can be treated at a time in O.T. Audit was of the view that the management has ignored the importance of equipments and machines related to health services which indicates serious negligence of management in proper operating of this state owned hospital. Accurate and immediate decision-making is crucial for effective patient care and for this purpose electronic patient monitors are used to collect and display physiological data of the patient. This results into under capacity working of the hospital due to non-availability of required numbers of ventilators in CCU-I and CCU-II. Detail of Mechanical Ventilators in CCU-I and CCU-II were as under:

Sr.	Ward Name	Name of Machine	# of Beds	# of Available Mechanical Ventilators	Ideal Availability of Mechanical Ventilators	# of Deficit Mechanical Ventilators
1	CCU I	Mechanical Ventilators	19	03	06 (1 / 3 beds)	03
2	CCU II		15	04	05 (1 / 3 beds)	01
<b>Total</b>			<b>34</b>	<b>07</b>	<b>11</b>	<b>04</b>

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that extra five ventilators be shifted from O.T room to CCU wards in order to ensure judicious use of ventilators on need basis and audit also recommends that responsibility may be fixed against persons at fault for this lapse.

### **5.2.5 Non-maintenance of machines related to diagnosis of cardiac treatments**

According to Para 12.4 of Sindh Service Delivery Standards for Hospitals from Sindh Health Care Commission,” Safe and adequate facilities and equipment are provided to meet the needs and volume of patients served by the laboratory. Furthermore, Para 12.4.3 states that the staff has access to sufficient laboratory equipment to carry out their jobs safely.

Audit observed that under mentioned machines related to diagnosis of cardiac treatments were out of order. The hospital has failed to execute service agreement(s) with qualified vendor(s) for their proper maintenance during period under special study. Due to nonfunctioning of several machines and equipments the hospital is not only unable to maximize its performance but also endangering the life of patients who are brought for diagnosis and treatment. Furthermore, the detail of availability of machines and their functioning during the period of study has not been provided to audit. Audit was of the view that the management has ignored the importance of equipments and machines related to health services which indicates the negligence of management in proper operating of this state owned hospital. In context of a hospital, ensuring that equipment is available and reliable is one factor that adds value to the health care services provided by a hospital. Therefore, effective and appropriate maintenance practices on the hospital equipment contribute to improved efficiency within the health sector resulting in improved and increased health outcomes, and a more sustainable health service. Pictorial evidence is attached vide Annexure-II.

<b>Department</b>	<b>Equipment</b>	<b>Qty (Total)</b>	<b>Qty (out of order)</b>
Emergency	Patient monitor	17	03
	ECG Machine	03	01
CCU I	Patient monitor	17	01
CCU II	Patient monitor	13	02
ECHO Department	ECHO machine	06	03
ETT	ETT Treadmill	02	01

Department	Equipment	Qty (Total)	Qty (out of order)
	Holter monitor	04	01
	Ambulatory BP	04	03
Thallium Scan	ETT Treadmill	02	01
CT Angio	CT Angio machine	01	01
Cath Lab	Angiography machine	05	03
Operation Theatre	Heart Lung Machine	05	02
ESMR	ESMR	01	01
CSSD	Autoclave sterilizer	03	01
<b>Total</b>		<b>83</b>	<b>24</b>

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that out of order machines be repaired at the earliest for better management and treatment of cardiac patients.

### **5.2.6 Non-maintenance of machines despite availability of funds**

As per financial statement for the financial year 2016-17 of K.I.H.D there are savings of Rs3.990 million (approx). Further, according to K.I.H.D bylaws, K.I.H.D is an autonomous body and can utilize the self-generated revenue for its operations and maintenance.

It was informed by the management that the major problem of the institution is non-availability of funds for administrating the hospital. During the interviews with the management it was also revealed that the savings of funds generated from hospital own sources were invested into fix deposit account of a commercial bank for earning of profit/interest instead of utilizing the self-generated revenue for its operations and maintenance. The management provided the detail of income & expenditure from hospital own sources for the financial year 2016-17 and failed to provide detail of sources mentioned above for the period under study. Audit was of the view that the management has ignored the importance of equipments and machines related to health services which indicates the negligence of management in proper operating of this state owned hospital. Non-functioning of machines despite the availability of self-generated revenue reflects that management was not serious in operating and administrating the hospital in a better way.

[Amount in rupees]

Sr.	Month	Income	Expenditure	Savings
1	Jul-16	3,300,200	2,606,568	693,632
2	Aug-16	4,405,250	2,567,413	1,837,837
3	Sep-16	3,787,450	3,347,933	439,517
4	Oct-16	4,044,550	844,417	3,200,133
5	Nov-16	4,483,300	0	4,483,300
6	Dec-16	3,411,500	0	3,411,500
7	Jan-17	2,968,550	2,455,904	512,646
8	Feb-17	3,274,350	5,609,348	-2,334,998
9	Mar-17	4,273,700	8,114,863	-3,841,163
10	Apr-17	3,780,150	5,044,209	-1,264,059
11	May-17	4,069,350	6,894,720	-2,825,370
12	Jun-17	2,702,850	3,024,864	-322,014
<b>Total</b>		<b>44,501,200</b>	<b>40,510,239</b>	<b>3,990,961</b>

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that responsibility may be fixed against persons at fault. Besides, immediate steps be taken for maintenance of machines for better management and treatment of cardiac patients.

### **5.3 Availability of Essential Medicine**

Essential drugs are those that satisfy the health care needs of the majority of the population; they should therefore be available at all times, in adequate amounts and in the appropriate dosage forms.

#### **5.3.1 Non-availability of essential medicines**

According to Para 14.3 of Sindh Service Delivery Standards for Hospitals from Sindh Health Care Commission, “the stock is stored and managed to ensure that medications are current, kept safe and are continuously available to meet the needs of clinical staff and patients. Furthermore, Para 12.1 states that the medical testing laboratory is managed by a suitably qualified and registered pathologist, experienced medical technologist or other suitably qualified and registered laboratory scientist.

Audit observed that essential medicines related to Cardiac treatment were not available in CCU-II, such as Ascard, Lowplat, Angesid. Moreover, the essential medicines were not available in hospital store i.e. Pain Relievers, Blood Thinning Medications, Nitroglycerin and Stents. Furthermore, management failed to produce the record of availability and utilization of medicines received from the Pharmacy Store. It was evident from non-availability of medicines that the medicines required for patients were provided by the patient's attendants/families. Audit was of the view that the management has failed to ensure the availability of essential medicines in hospital which indicates the negligence of management in proper arrangement of medicines.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that prompt measures be taken for availability of essential medicines in CCU, besides fixation of responsibility against persons at fault.

### **5.3.2 Procurement of medicine from local manufacturers instead of multinational manufacturers**

It is established fact that medicines of multinational companies have more potency and efficacy than drugs of locally manufactured medicines.

Audit observed during visit of pharmacy storeroom that many available medicines were procured from local manufacturers instead of multinational manufacturers. Further it was informed that the medicines pertaining to local manufacturers were procured by Senior Director, Health, KMC. However, K.I.H.D management purchased medicines produced by multinational manufacturers through local purchase. Audit was of the view that the management has compromised on the efficacy level of medicines provided to the patients, as the efficacy level of medicines manufactured by local manufacturers will be less than the medicines manufactured by multinational manufacturers. K.I.H.D treats very crucial organ of human body and any lapse in medication would put the life of the patients in danger. Pictorial evidence of local manufactured medicines in store is provided vide Annexure-IV.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that medicines should be purchased from International manufacturers through inviting open tenders by adopting prescribed procedures.

### **5.3.3 Non-availability of follow-up medicines in store**

According to Para 14.1 of Sindh Service Delivery Standards for Hospitals from Sindh Health Care Commission,” The pharmaceutical service is managed and organized to provide efficient and effective pharmaceutical services through rational use of drugs within the hospital”. According to Para 14.3,” Stock is stored and managed to ensure that medications are current, kept safe and are continuously available to meet the needs of clinical staff and patients”.

Audit observed during visit of pharmacy storeroom that follow up medicines for patients were not available in stores. Long term follow up medicines are essential to control and manage cardiac diseases. Similarly, other public hospitals such as NICVD also provide follow up medicines to patients free of cost. Audit was of the view that the management has ignored the availability of mandatory follow up cardiac medicines in hospital medical store which indicates the negligence of management in proper arrangement of medicines. K.I.H.D cures very sensitive and crucial organ of human body and any lapse in medication will endanger the life of the patients especially if the patient is poor and unable to purchase medicines from open market.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that immediate measures be taken for supply of medicines in store for provision of follow up treatment of patients.

### **5.3.4 Procurement of medicines through local purchases instead of calling tender**

As per Rule – 17 (1) of Sindh Public Procurement Rules, 2010 “Procurements over one hundred thousand rupees and upto one million rupees shall be advertised by timely notifications on the Authority’s website and may in print media in the manner and format prescribed in these rules”. Further, Rule – 4 of Sindh Public Procurement Rules, 2010 states that “While procuring goods, works or services, procuring agencies shall ensure that procurements are conducted in a fair and transparent manner and the object of

procurement brings value for money to the agency and the procurement process is efficient and economical”. Moreover, according to CDGK Notification No: Nazim/City/Secy/7942/2005 dated 30-062005, Amendment No.4: “The Executive Director K.I.H.D empowered to utilize maximum Rs 5lacs at a time however its approval will be obtain in next session of the governing body”.

It was informed by the management that there are two main sources of procurement of medicines for the hospital, one is from KMC main Depot whose procurement is being done by Sr. Director Health, KMC and the second is through local purchases. It was further informed that main depot has not provided medicines from last few years and to meet the requirements and medicines were purchased through petty / local purchases of Rs.25,000/- per week. Audit team requested the management to provide the copy of payment vouchers and their supporting bills but the management failed to produce the same till finalization of special study. Audit was of the view that the management has failed to follow the Govt. rules and instructions which depict weak internal control and weak financial management in administrating the hospital. The Executive Director K.I.H.D is empowered to utilize maximum Rs 500,000/- at a time and can call open tenders upto that limit instead of purchasing of medicines of Rs.25,000/- per week. Procurement through open tenders would cause competition amongst the manufacturers / suppliers and not only save the funds but will be helpful in proper availability of medicines and effectiveness of stores as well.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that open tenders be invited for procurement of medicines in bulk rather than relying on quotations by violating SPPRA rules.

#### **5.4 Human Resource Management**

Human resource management can contribute to overall success in multiple ways. In case of hospital industry, Human resource management is a key when it comes to maintaining effective services, attracting talented employees, and promoting a positive, professional atmosphere and workplace safety.

### **5.4.1 Inappropriate staffing in coronary care units**

As per European Heart Journal on recommendation for the structure, organization, and operation of intensive cardiac care units, “The ICCU should be staffed by at least one physician for every three to four patients, including the Unit director. The director of the Unit should be a board certified cardiologist, specially trained and accredited as an acute cardiac care specialist, as cardiologists are the physicians better trained to assist patients with ACS and life-threatening cardiac diseases. Moreover, “The ICCU will employ only registered nurses. At least 75% of them should have completed formal intensive care training (which includes formal cardiology training).” Furthermore, the nursing staff should be constructed of at least 2.8 nurses per bed, to cover three shifts per day, so that the minimal number of nurses in a given time will be at least one nurse per two beds during day time and one per three beds during night shift.

Audit observed that one duty Doctor and 04 nurses were available in CCU-I and one duty Doctor along with 03 nurses were available in CCU-II, which consists of 19 beds and 15 beds respectively. This shows that the doctor and patient ratio as well as nurse and patient ratio was not followed by the management accordingly. Furthermore, the hospital management remained unable to provide sanctioned strength versus actual working strength as well as duty register / roster & detail of qualifications of Doctors for all shifts for the period under study to audit. Audit was of the view that the management has failed to engage appropriate number of doctors and nursing staff in the wards. The deficiency of doctors and nursing staff in such a critical ward had endangered the admitted patient’s life. CCU is a ward where patients need more attention and care of the doctor and nursing staff and any lapse would be resulted into causalities or loss of life.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that international standards be followed for patient doctor ratio for better care of patients to ensure any incidence or loss of human life.

## **5.5 Waste Management**

Hospitals are important sites for the generation of hazardous waste. Each hospital has its own profile for the generation and transportation of waste. It is extremely important to manage hospital generated waste properly in order to avoid health and environmental risks.



### **5.5.1 Non-availability of hospital waste facility**

The Sindh Hospital Waste Management Rules, 2014, rule 2 (g) states that “Hospital Waste Facility” means a suitable thermal, chemical, irradiation, incineration, filtration, autoclaving, destruction, shredding, microwaving, encapsulation or other treatment method, or by a combination of such methods involving proper validation and monitoring procedures; Furthermore, as per Govt. of Pakistan, Ministry of Environment, S.R.O.1013 (1)/2005 dated 3<sup>rd</sup> August, 2005, Hospital waste management rules 2005, rule 19(4) states that “No waste shall be stored at central storage facility for more than twenty four hours.”

Audit observed while reviewing the statistical data placed on the official website of K.I.H.D that daily hundreds of patients visit the hospital through OPD and emergency ward and undergoes several procedures and lab tests. It is obvious that plenty of hazardous waste would have been generated due to hundreds of medical procedures and lab tests on daily basis, but contrary to the Government rules the hospital does not have its own incinerator for proper destruction of its wastes. Audit physically verified and found that no record for waste disposal was being maintained by the management and chances of keeping waste for more than a week cannot be ignored. Furthermore, no documented evidence was produced that the hospital waste was sent to KMDC for incineration. Audit was of the view that the management remained unable to follow the procedures of incineration set by Government. Working of hospital without waste facility and keeping the hospital waste for more than twenty four hours within hospital premises was violation of Government rules. It indicates severe negligence of management with regard to overall waste management of the hospital and the environmental impacts of the hazardous wastes of the hospital.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that proper measures be taken for waste collection and its timely disposal and subsequent incineration process.

### **5.5.2 Non-preparation of Hospital Waste Management Plan**

The Sindh Hospital Waste Management Rules, 2014, rule 4(1) state that “A Hospital Waste Management Plan shall be based on internationally or nationally recognized environmental management practices, standards, which shall efficiently and

effectively address the hospital waste”. Furthermore, as per The Sindh Hospital Waste Management Rules, 2014, rule 4 (3) The Waste Management Plan shall be regularly monitored, reviewed, revised and updated and submitted to the Agency on annual basis.

Audit observed that the hospital do not have a waste management plan. The waste collected from wards was kept in a store room with in the premises of the Hospital (First floor, Phase I). The Waste collected from wards through a contractor “M/S Allied Enterprises” and the management paid an amount of Rs.8.653 million to M/s. Allied Enterprises against Janitorial & Washing services during the financial year 2016-17. Copy of agreement was not produced to audit therefore audit could not verify the correctness of payments made to the contractor. Audit was of the view that the management remained fail to prepare waste management plan which shows poor internal control/administrative management control. Working of hospital without waste management plan leads to lack of seriousness of management towards sanitation of the hospital and payments made to M.S Allied for janitorial services are without calculations.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that waste management plan should be prepared for ensuring proper sanitation of hospital to prevent the patients from other diseases.

### **5.5.3 Non-segregation of Hospital Waste**

The Sindh Hospital Waste Management Rules, 2014, rule 5 states that “Risk waste shall be separated from non-risk waste at the point where the waste is generated by a doctor, nurse, or other personas per Hospital Waste Management Plan and Schedule-I”. Moreover, The Sindh Hospital Waste Management Rules, 2014, rule 3 states that “Every hospital owner, occupier, operator shall be responsible for the management of the hospital waste generated by it till its final disposal in accordance with the provision of the Act and these rules.”

Audit observed that all types of wastes were collected without segregation in yellow colored buckets (danger box) within the wards and were kept in a designated store room. Furthermore, no segregation of waste was witnessed by audit at the time of disposal of waste from K.I.H.D to K.M.D.C Audit was of the view that the management failed to follow the procedures of incineration set by Govt. which predicts weak internal and administrative management controls. Non segregation of waste in violation of Govt.

rules indicated lack of seriousness of management towards environmental impacts of the hazardous wastes of the hospital. Pictorial evidences of non-segregated waste are attached vide Annexure-V.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that hospital waste be segregated in the light of hospital waste management rules and its disposals at a safe manner be ensured.

#### **5.5.4 Non-maintenance of waste record**

Rule 11(1) of the Sindh Hospital Waste Management Rules 2014, state that “Every Hospital shall maintain records related to the management of hospital waste in accordance with these rules.” Further, ibid Rule 11(2) states that “All records shall be subject to inspection and verification by the Agency at any time.”

Audit observed while reviewing the statistical data/reports of K.I.H.D that daily hundreds of patients visits the hospital through (OPD) and emergency ward who undergoes several procedures and lab tests and masses of waste would be generated due to medical procedures and lab tests on daily basis and the waste was being transported for incineration without any record by the management. On requisition of waste disposal record by audit, a single paged unsigned sheet was produced as a sample. Audit verified the procedure on 18-04-2018, but no entry of waste was found on that sheet. Audit was of the view that in violation of Government rules, waste management record was not maintained by the management for the period under study. Audit was of the view that the failure of management had not followed the procedures of incineration set by Government that predicts weak internal/administrative management controls. The management willfully failed to maintain waste disposal record. It indicates absence of interest of management towards environmental impacts of the hazardous wastes of the hospital in the society. Furthermore, non-maintaining of the record of hospital waste may lead towards to the chances of sale of hospital’s waste into market could not be ruled out. Pictorial evidence is attached vide Annexure-VI.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that hospital waste record should be maintained properly for safeguarding of environmental hazards.

### 5.5.5 Non-vaccination of the staff engaged in waste collection

The Sindh Hospital Waste Management Rules, 2014, rule 12 states that “A course of Hepatitis B vaccine should be offered to all employees responsible for managing of hospital waste who are at risk of exposure to human blood, blood products, or body secretions and the 5 employees may also be intimated from time to time for tetanus, diphtheria, and polio. In facilities where employees are in contact with animals and their wastes, employees shall be offered rabies vaccine.

Audit observed that the management has failed to safe guard the persons engaged in waste collection and disposal of the hospital. The persons were not provided proper safety material such as hand wash soaps / liquids, gloves, masks and apron at the time of collection and disposal of waste. Further, the management failed to provide the detail of different vaccination courses offered to persons from time to time who were engaged in collecting and disposal of waste. Audit was of the view that the management had failed to follow the procedures of incineration set by Government which shows administrative management failure. Pictorial evidences are attached vide Annexure-VII.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that proper measures need be taken for safeguard of the persons who were involved in waste collection and its disposals by providing necessary safety material under intimation to audit.

### 5.5.6 Improper disposal of hazardous sharps

As per schedule I of The Sindh Hospital Waste Management Rules, 2014:

Category Number	Type of Waste	Category Color Coding	Container Type	Treatment	Disposal
3.	<b>Sharp</b> (whether infected or not, needles, syringes, scalpels, infusion sets, saws and	Red	Disinfected container High Density plastic Container	All shall be cut or broken and rendered non reusable at the point of use;	Landfill

Category Number	Type of Waste	Category Color Coding	Container Type	Treatment	Disposal
	knives, blades, broken glass and any other item that could cut or puncture).		resistant to penetration and leakage.	disinfection by chemical treatment autoclaving/micro waving and mutilation/ shredding.	

Audit observed that in violation of defined Govt. procedure, the syringes were not properly disposed off and were kept in danger boxes without breaking the needles and the same were sent for incineration without breaking the needles of the used syringes. Furthermore, the Govt. recommends the disposal of sharps by dumping into landfill site but the management sends all disposed sharps to KMDC for incineration process. Audit was of the view that the management failed to follow the procedures of incineration set by Government which predicts weak internal/administrative management controls. Management has shown severe negligence in this regard and increased the chances of reusing of used syringes as well as the chances of selling of used sharps into open market. Pictorial evidence is attached vide Annexure-VIII.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that proper measures need to be taken for safe disposal of syringes in order to avoid infections and other deadly diseases.

### 5.5.7 Non-organizing waste management team

As per Govt. of Pakistan, Ministry of Environment, S.R.O.1013 (1)/2005 dated 3rd August, 2005, Hospital waste management rules 2005, rule 4 states that "The Medical Superintendent shall constitute a waste management team comprising the following by whatever designation called namely:-

- |                              |          |
|------------------------------|----------|
| a) Medical Superintendent    | Chairman |
| b) Heads of all departments  | Member   |
| c) Infection control officer | Member   |
| d) Chief Pharmacist          | Member   |
| e) Radiology officer         | Member   |
| f) Senior Matron             | Member   |

- |  |        |
|--|--------|
| g) Head of administration  | Member |
| h) Hospital Engineer   | Member |
| i) Head of sanitation staff  | Member |
| j) Other hospital staff members as the Medical Superintendent may designate. | Member |
| k) A public representative of District Administration                        | Member |
| l) A representative of Provisional Agency concerned                          | Member |

Audit observed that in violation of above defined Govt. rule the management failed to constitute waste management team. Further, in absence all the functions and duties of waste management team were left un-attended. Audit was of the view that the management failed to follow the procedures of incineration set by Government which shows weak administrative management controls. Management had shown severe negligence regarding overall waste management of the hospital and had completely failed to safeguard the patients and society from the dangerous environmental impacts of the hazardous wastes.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that waste management team be activated for better sanitation facilities at hospital.

## **5.6 Hospital Management**

### **5.6.1 Suffocation in wards in the evening**

According to Para 23 of Sindh Service Delivery Standards for Hospitals from Sindh Health Care Commission,” The hospital’s physical environment contributes to the safety and well-being of patients, staff and visitors. Furthermore, Para 23.5 states that the environment in all patient areas is clean, well lit, ventilated with adjustable controls for lighting and heating, and decor is in good repair.

Audit observed during the visit of new building that proper room temperature was not maintained in male ward. It was informed by the management that that the air conditioner plant of the hospital for new building had been switched off after 4 P.M due to non-availability of the air conditioner plant operators for evening and night shifts.

Audit further observed that General OPD, Hospital pharmacy section, laboratory (private), Administration branch, Accounts branch and two wards (01 male & 01 female), both comprising 20 beds each exists in that area. It was noticed from the current scenario that air conditioner plant remained operational till the administrative officer(s) and staff present. Afterwards the patients are left to suffer suffocation in the wards due to non-functioning of air conditioner plant. Audit was of the view that the management failed to take care of the cardiac patients admitted in wards. This predicts lack of administrative control in the hospital. Suffocation in wards was very alarming and may lead the condition of a cardiac patient to destabilization instead of recovering. Pictorial evidence is attached vide Annexure-IX.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that necessary measures should need to be taken for making of Air Conditioning plant in operational condition to reduce the suffocation after 4 PM in hospital.

### **5.6.2 Un-satisfactory Sanitation Condition of the Hospital**

According to Para 14.1 of Sindh Service Delivery Standards for Hospitals from Sindh Health Care Commission, "All hospital facilities, equipment and supplies are kept clean and safe for patients, visitors/attendants and staff".

Audit observed that during the financial year 2016-17 management paid an amount of Rs.8.653 million to M.s Allied Enterprises against Janitorial & Washing services. Audit team visited hospital several times and observed that despite outsourced janitorial services, general condition of sanitation and cleanliness of the hospital was not up to the mark, such as dirty bed sheets and curtains in emergency room. Management failed to provide copy of agreement with Allied Enterprises for the period under study, therefore audit is unable to comment of the correctness of payments made to the contractor. Audit was of the view that the management failed to maintain cleanliness within the wards of the hospital which will not only affect the health of patients but also the health of their attendants/staff and shows administrative control lapse.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that cleanliness should be maintained in hospital to save the patients and their attendants from other diseases.

### **5.6.3 Non-availability of proper waiting area for attendants**

The European Heart Journal on recommendation for the structure, organization, and operation of intensive cardiac care units, recommends construction of Family waiting room for ICCU and intermediate CCU.

Audit observed that the family waiting room / area was not available along with CCU-I and CCU-II. Audit witnessed that few cemented benches were constructed at the Corridor of Phase-I building and few wooden benches were placed at garden in front of the same building. Audit was of the view that the management has ignored the importance of waiting rooms for the attendants of the patients in CCU-I and CCU-II. This shows lack of administrative support to the patients and their attendants.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that proper waiting area / rooms may be constructed to properly facilitate the patient's attendants.

## **5.7 Financial Management**

Financial management is one of the most important responsibilities of owners and business managers. They must consider the potential consequences of their management decisions on profits, cash flow and on the financial condition of the organization. The activities of every aspect of a business have an impact on the company's financial performance and must be evaluated and controlled by the business owner / managers.

### **5.7.1 Non-realization of revenue due to non-utilization of private/semi private rooms**

According to Rule-23 of General Financial Rules, Volume-I, every Government officer should realized fully and clearly that he will be held personally responsible for any loss sustained by Government through fraud or negligence on his part and that he



will also be held personally responsible for any loss arising from fraud or negligence on the part of any other Government officer to the extent to which it may be shown that he contributed to the loss by his own action or negligence.

Audit observed that the hospital has private/semi private rooms which were inaugurated during Nov 2015, and were found unutilized till the conduct of special study. Furthermore, it was witnessed that the private rooms are not just left unutilized but their condition is getting worse day by day and many rooms were not in condition that they can be utilized for admitting patients. It need additional funds to restore the rooms in operating condition. Audit was of the view that management has failed in generating additional revenue and safeguarding the hospital's property which reflects weak financial management and due to absence of administrative interest for proper operations of the hospital. Hospital can generate more revenue by admitting wealthy patients in private / semi private rooms and the amount can be utilized to improve the quality of care and services of the hospital. The management not only failed to generate income from private rooms but also failed to safe guard the hospital's property. Pictorial evidence is attached vide Annexure-X.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that immediate steps should be taken to increase revenue of hospital by utilizing its full capacity of private rooms.

### **5.7.2 Working of private laboratory with in hospital premises**

According to 21.14 of Sindh Service Delivery Standards for Hospitals from Sindh Health Care Commission, " Regular and routine checks of equipment (equipment audit) are carried out in accordance with the operational manual, maintenance contract and/or a history sheet of the equipment by the Store in-charge". Moreover, Para 12.4 states that Safe and adequate facilities and equipment are provided to meet the needs and volume of patients served by the laboratory.

Audit observed that a private laboratory was operating in the hospital and all types of tests and procedures were undertaken by the said private laboratory. It was informed that previously K.I.H.D operated its own laboratory at very cheap rates, but it was closed because it was unable to meet its expenses from the revenue generated by it. Therefore, it was decided to start a private laboratory at revised rates of different tests. It

was further informed that the Private laboratory contributes certain percentage of its sales amount into the revenue account of the K.I.H.D. Audit asked the management to provide the detailed procedure and amount that was contributed to K.I.H.D by the private laboratory during the period under special study but the management failed to provide the required documents to audit. Audit further asked the management to provide the documents related to following information but the management remained unable to provide the same.

- When hospital laboratory was inaugurated and when it was closed.
- Copy of approval to close hospital laboratory and opening of a private laboratory along with its correspondence.
- Detail of laboratory tests conducted by hospital laboratory and their charges.
- Detail of laboratory tests conducted by private laboratory and their charges.
- Are the tests conducted by private laboratory are reliable?
- Detail of staff who was working at hospital laboratory and their status along with the detail of salaries paid during period under special study.
- Define the procedure of private laboratory waste disposal and what are the controls of hospital.
- Detail of accreditation from the concerned authority.

Audit was of the view that the operation of a private laboratory in Government hospital was failure of management in safeguarding the hospital's interests. It shows weak financial management and absence of administrative interest for proper operations of the hospital. In the absence of related information and proper justification from the management, it is evident that the management willfully handed over the hospital laboratory to a private laboratory and bearing additional burden of salaries of staff who related to the hospital laboratory. The appointment of staff for Hospital laboratory was made incompetently, who were unable to operate the laboratory in economic and efficient manner. Pictorial evidence is attached vide Annexure-XI.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that hospital should have its own laboratory rather than handing over of laboratory to private persons.

## **5.8 Hospital Logistics**

### **5.8.1 Non-availability of ambulance service**

Ambulance services are the primary providers of a 24/7 response to medical and trauma related emergencies. They provide a disciplined and organized system, allowing a timely response of appropriately qualified health care workers – often to potential or confirmed medical emergencies.

During Special Study on Functioning of Karachi Institute of Heart Diseases in provision of cardiac treatments as per specified Standards, it was informed that the hospital do not have its ambulance service and private ambulance services are utilized by people to shift their patients to the hospital but during the visit of the hospital audit witnessed that two ambulances were parked in the parking area. Further scrutinizing of budget figures for the year 2016-17, audit observed that the hospital had following budgeted figures, but actual releases made by Government to K.I.H.D and actual expenditure incurred, detail of ambulances and their log books for the period under special study were not provided to audit.

- Petrol, Diesel & Lubricant Rs1.500 million
- Salaries for Driver Rs. 1.940 million
- Salaries for Ambulance attendants Rs.1.384 million
- Etc. related to Ambulance service.

It is added here that ambulance service is also required for those patients in emergency whose treatment is not possible in K.I.H.D and the Surgeon. Doctor refers them to any other hospital for treatment. In such cases every passing second is crucial for life saving of patients and due to non-availability of ambulances time will be wasted in arranging private ambulances. Audit was of the view that the management has failed to provide ambulance service to patients. It predicts absence of administrative interest for proper operation of the hospital and achievement of its mission. Ambulance service is also one of the mandatory components of a hospital because in transfer of Emergency Medical Services, time plays a very important role to the patients as early as possible to for immediate treatment in the nearest Hospital where the facility is available on required basis and only delay may cost the patient's life. Pictorial evidence is attached vide Annexure-XII.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC

meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that hospital must have its own ambulance service for timely shifting of patients in shortest possible time.

### **5.8.2 Carrying out of sterilization process without documentation**

As per Punjab Healthcare Commission, Minimum Service Delivery Standards & indicators for hospital, Indicator 91 states that, Regular validation tests for sterilization are carried out and documented.

Audit observed that the sterilization department (old building) has only one Sterilization machine. The audit was unable to verify the process of sterilization but Audit observed that date of sterilization and their expiry were not mentioned on the packaging and record of sterilization was not maintained by the department. Audit was of the view that the management failed to maintain record of sterilization process. Pictorial Evidence is attached vide Annexure-XIII.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Audit recommends that due sterilization process should be observed strictly and proper documentation may be made to reduce chances of risk of infection.

## **5.9 Production of Record**

### **5.9.1 Non Production of Record**

According to AGP Ordinance Section 14 (2) the officer Incharge of any office or department shall afford all facilities and provide record for audit inspection and comply with requests for information in as complete a form as possible and with all reasonable expedition. (3) Any person or authority hindering the auditorial functions of the Auditor General regarding inspection of accounts shall be subject to disciplinary action under relevant Efficiency and Discipline Rules, applicable to such person.

The management of the K.I.H.D failed to provide access to following record during the course of Special Study of K.I.H.D for the period 2014-15, 2015-16 and 2016-17 despite of several visits. Detail is as under:

1. Organizational Chart, Head of the Department, DDO, Sections and staff working in section along with designation and pay scales.
2. Copy of standards followed by K.I.H.D.
3. Copy of documents regarding affiliation with medical collage / University / Higher Education Commission.
4. Detail of Bank accounts maintained by K.I.H.D along with their respective Bank statements.
5. Detail of release of funds to K.I.H.D by Government against annual budget
6. Detail of grants and donations received by K.I.H.D.
7. Detail of any other national or international source of funds received by K.I.H.D.
8. Detail of Revenue generated by General & Paying Patients (head wise) for the financial year 2014-15.
9. Detail of revenue.
10. Detail of expenditure (Head wise) for the financial years 2014-15 & 2015-16.
11. Detail of Machines related to Cardiac treatments and their status along with the reasons and dates from when they are not functioning.
12. Detail of Human Resources utilized by K.I.H.D for Cardiac Treatments, along with their qualifications.
13. Detail of new appointment during period under audit.
14. Promotion, Transfer and staff on deputation in and out of the department.
15. Retirement during period under audit, Pension cases.
16. Detail of Contracts for establishment, services and works & development.
17. Detail of methods adopted for procurement of medicines.
18. Detail of doctors who performs Angiography, Angioplasty, CABG or any other cardiac treatment procedure and their schedule.
19. Detail of research conducted by K.I.H.D and Collaborative research with other hospitals and cardiology institutes at national and international level.
20. Detail of ambulances and their status along with their log books.
21. Detail of trainings of doctors and staff related to Cardiac treatments.
22. Detail of duty doctors and nursing staff in wards (shift wise)
23. Detail of current Status of patients served and number of appointment issued related to Angiography, Angioplasty, CABG or any other cardiac treatment procedure
24. Statistical data regarding number of patients admitted (Ward wise / procedure wise)
25. Detail of tenders awarded and copies of indents against which medicines, stents or any other equipment were handed over to K.I.H.D
26. Copies of indents (receiving) of medicines from Main Depot of KMC
27. Register / record of consumption of medicines and other items received in Pharmacy store (stock register)

28. Copies of payments vouchers for Janitorial & washing, Supply of Oxygenator, Supply of Medical Gas, Purchase of medicines, PINST & SSGC
29. Does the hospital have a complaint and redressal system? And what are the steps taken by the management against complaints during period under audit?
30. Dead stock register
31. Internal monitoring Reports
32. Environmental assessment Report

Audit was of the view that the non-submission of record resulted into non-transparency in public expenditure. Deviation from prescribed rules constituted weak administrative management and internal control.

The irregularities were pointed out to the management during the month of June, 2018, but no reply has been furnished to this office. The PAO convened the DAC meeting on 04.01.2019, but the management failed to attend the meeting.

Management should justify that why so huge quantum of record and information is not produced to audit. Responsibility shall be fixed against person(s) responsible for lack of co-operation.

## 5.10 Sustainability

The management failed to produce large quantum of related documents and in the light of understanding the condition of the hospital it is evident that the management has failed to achieve the hospital's mission and proper and continuous availability of qualified doctors, nursing staff and medicines. The management has also failed in maintaining of machines & equipments, maintaining proper hospital environment, proper disposal of hazardous hospital waste and providing of other related services to patients and their attendants.

## 5.11 Overall Assessment

- **Relevance:** The hospital is relevant to Government policies, but could not achieve desired results due to non-observing of the efficiency and effectiveness by management.
- **Efficacy:** The efficacy of the Hospital seems highly questionable in the absence of concrete outcomes in achievement of its objectives.
- **Efficiency:** The hospital is not operating efficiently due to unavailability of proper human resource and medicines, non-operating of several machines & equipments, useless procedure of collecting and disposal of hospital waste and improper utilizations of given resources.
- **Effectiveness:** The Hospital proved to be ineffectiveness as it failed to comply its set missions
- **Compliance with rules:** Violations of Government rules and generally accepted principals & procedures were observed.
- **Risk rating :** High

## 6 RECOMMENDATIONS

### 6.1 Recommendations for organization:

- i. Management should justify that why so huge quantum of record and information is not produced to audit. Responsibility shall be fixed against person(s) responsible for lack of co-operation.
- ii. In health-care institutions, machines and equipment plays a key role in quality service delivery. The Management should take serious efforts for twenty four hours/ day proper functioning of all the machines available in the hospital. Funds should be utilized properly and management should prioritize proper functioning of all machines and equipments instead of making any kind of other investments.
- iii. Management should produce Dead Stock register and detailed inquiry should be conducted on the availability of all the machinery of the hospital which were procured since inception.
- iv. To satisfy the health care needs of the population, management should ensure availability of the all types of essential drugs 24 hours/day, 7 days/week in adequate amounts and in the appropriate dosage forms.
- v. The management should purchase medicines by inviting open tenders Instead of buying medicines through petty purchase.
- vi. Management should produce the copy of agreement between M/S Allied Enterprises and K.I.H.D. Intensive inquiry should be conducted on the ground of the agreement that when and why this agreement was executed, as KMC itself provide incineration facility to hospitals, labs / blood banks and General practitioners.
- vii. To provide proper care to patients, management should increase the number of duty doctors and nursing staff in different wards during all shifts.
- viii. For proper patient care and service different types of productive trainings should organized for the doctors and nursing staff.
- ix. Management should prepare it waste management plan, constitute a waste management team. Responsibility should be fixed against the Executive Director for non-following Government instructions.
- x. The management should ensure proper maintenance of waste record and fix responsibility against the Executive Director for non-following Govt. instructions.
- xi. The Hospital waste should segregated before incineration process proper disposal process should be followed as per Govt. instructions. Responsibility should be fixed against the Executive Director for non-following Govt. instructions.



- xii. The management should safe guard the persons engaged in waste collection and disposal of the hospital by providing them proper safety material such as hand wash soaps / liquids, gloves, masks and apron.
- xiii. The management should appoint plant operator(s) for continues working of air conditioner plant in male & female wards.
- xiv. The management should construct proper waiting area / rooms to properly facilitate the patient's attendants.
- xv. The management should start proper research work and Initiate Collaborative research with other hospitals and cardiology institutes at national and international level in the field of Cardiac diseases and treatments.
- xvi. The management should frame guidelines and device a mechanism for proper sanitation and cleanliness in the hospital. A responsible person should be nominates as the incharge of the cleaning process. Further, responsibility should be fixed over the incharge in case of non-observance of cleanliness in the hospital.
- xvii. The management should appoint qualified doctors and confirm their availability all the times in the hospital to take care of High-Risk Obstetric Cases.
- xviii. The management should utilize the private / semi private rooms of the hospital to increase its revenue. Responsibility should be fixed against person(s) responsible for their deterioration.
- xix. The management should justify the audit queries against the working of private laboratory in the hospital despite the fact that the hospital had its own laboratory. In case of failure, responsibility should be fixed against person(s) at fault
- xx. The management should start the ambulance service with already available resources in shape of two ambulances, drivers, POL and keep appropriate monitoring for proper working of the services.
- xxi. The management should ensure proper recording of the sterilization process. Responsibility should be fixed against person(s) at fault for not maintain sterilization record.

## **6.2 Recommendations for policy makers:**

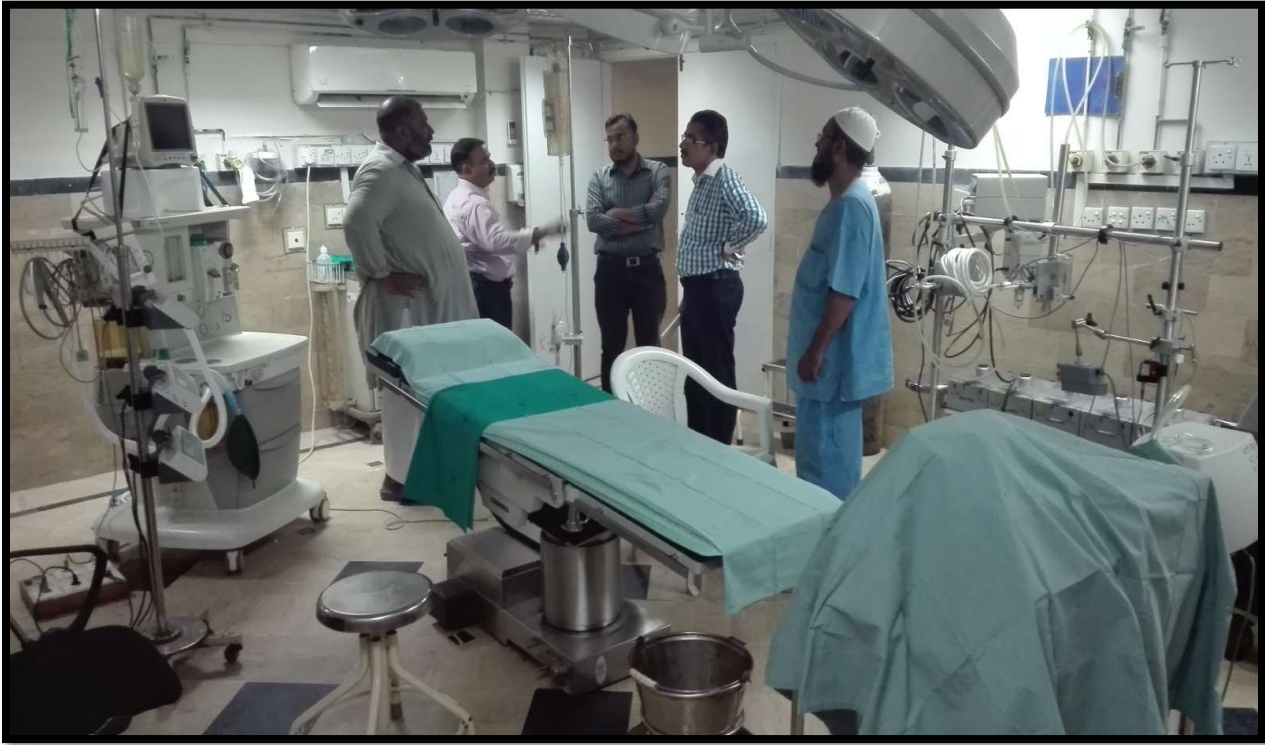
All the necessary approval may be granted to the management for the providing and improvement of the quality service related to diagnosis and treatments of cardiac diseases.

## **ACKNOWLEDGEMENT**

We wish to express our appreciation to the management and staff of K.I.H.D for the assistance and cooperation extended to the auditors during this assignment.

## **ANNEXURES**

**Inability to conduct operations in emergency**



**Defibrillator machine without battery backup in Emergency Ward**



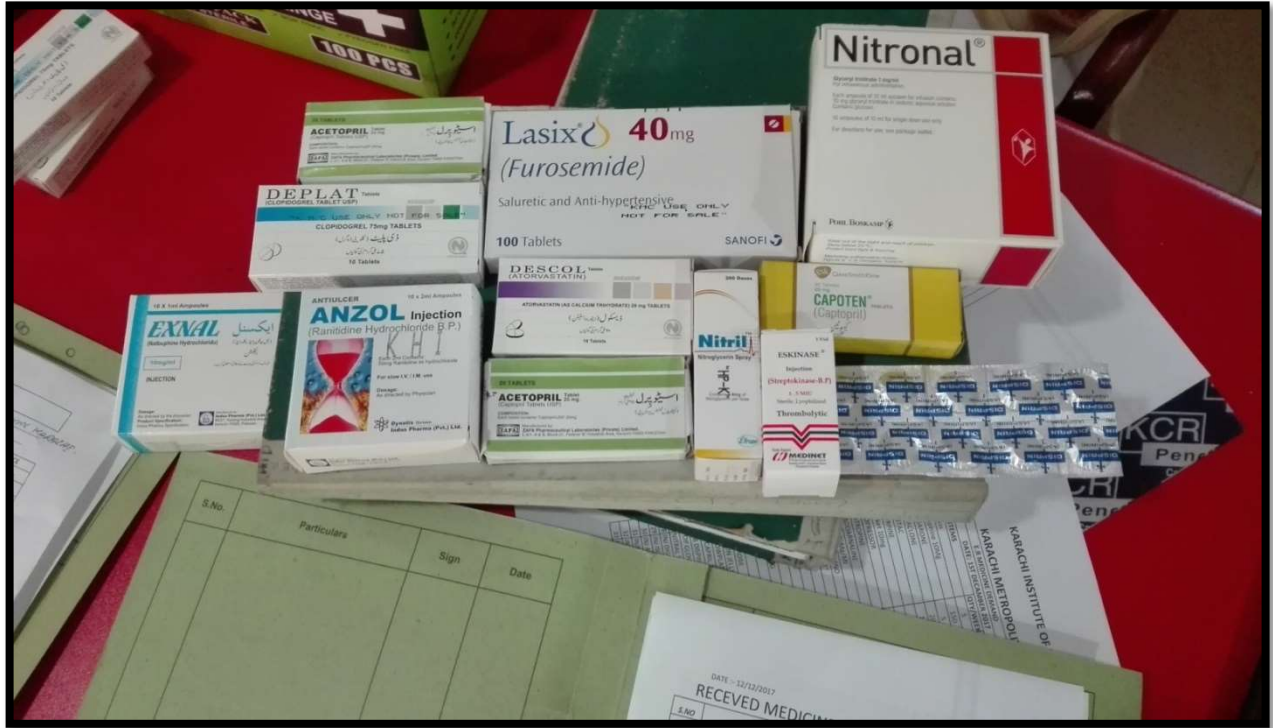
**Non-maintenance of machines related to diagnosis of cardiac treatments**







**Procurement of medicine from local manufacturers instead of multinational manufacturers**





**Non-segregation of Hospital Waste**



Non-maintenance of Waste Record

**Karachi Institute of Heart Diseases**  
**Karachi Metropolitan Corporation.**  
 Waste Items Sheet

S.No	Date	Time	Approximate Weight	Janitriol Supervisor Name & Signature	Driver Name & Signature	Sweeper Name & Signature	K.M.D.C Deptt
	2/4/2022	10:30	7 Kg	Nadeen PJ	Salman	Sono	

**Non-vaccination of the staff engaged in waste collection**





Improper disposal of hazardous sharps



Suffocation in wards in the evening



**Non-realization of revenue due to non-utilization of private/semi private rooms**















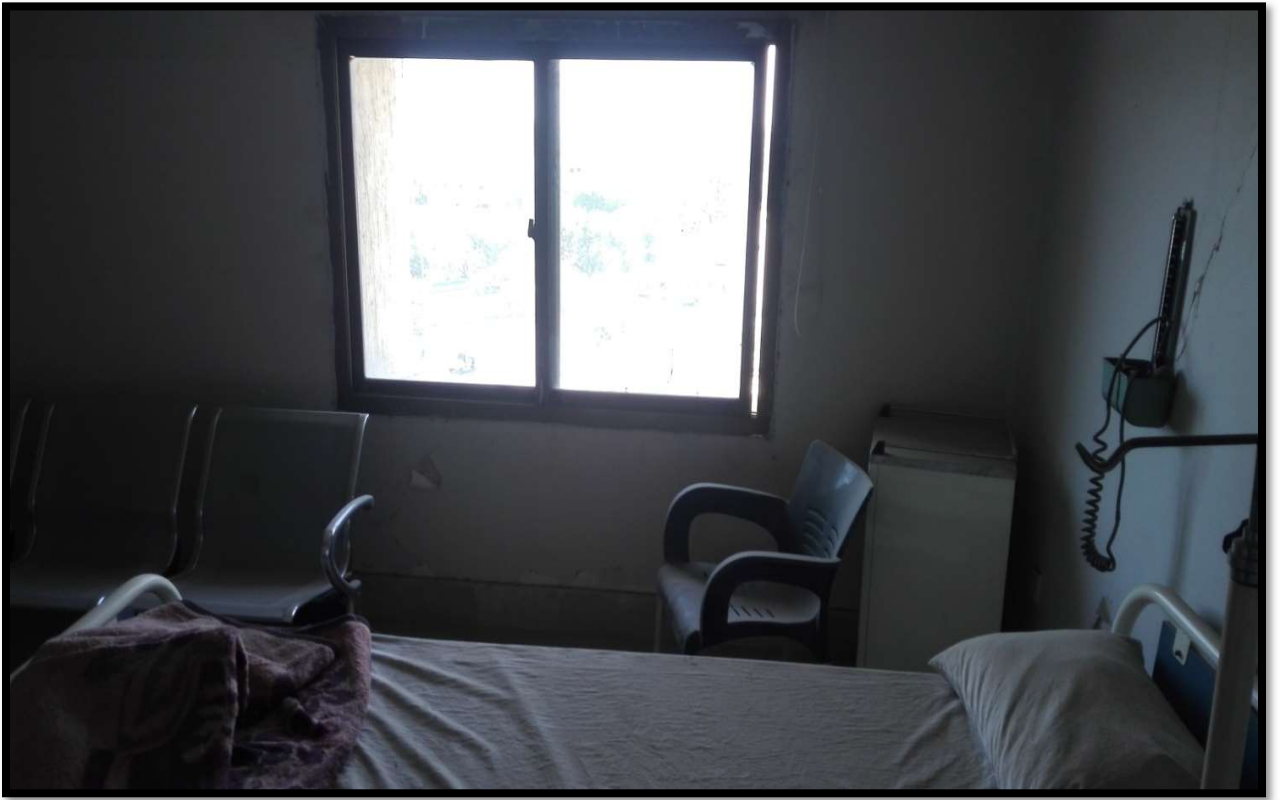














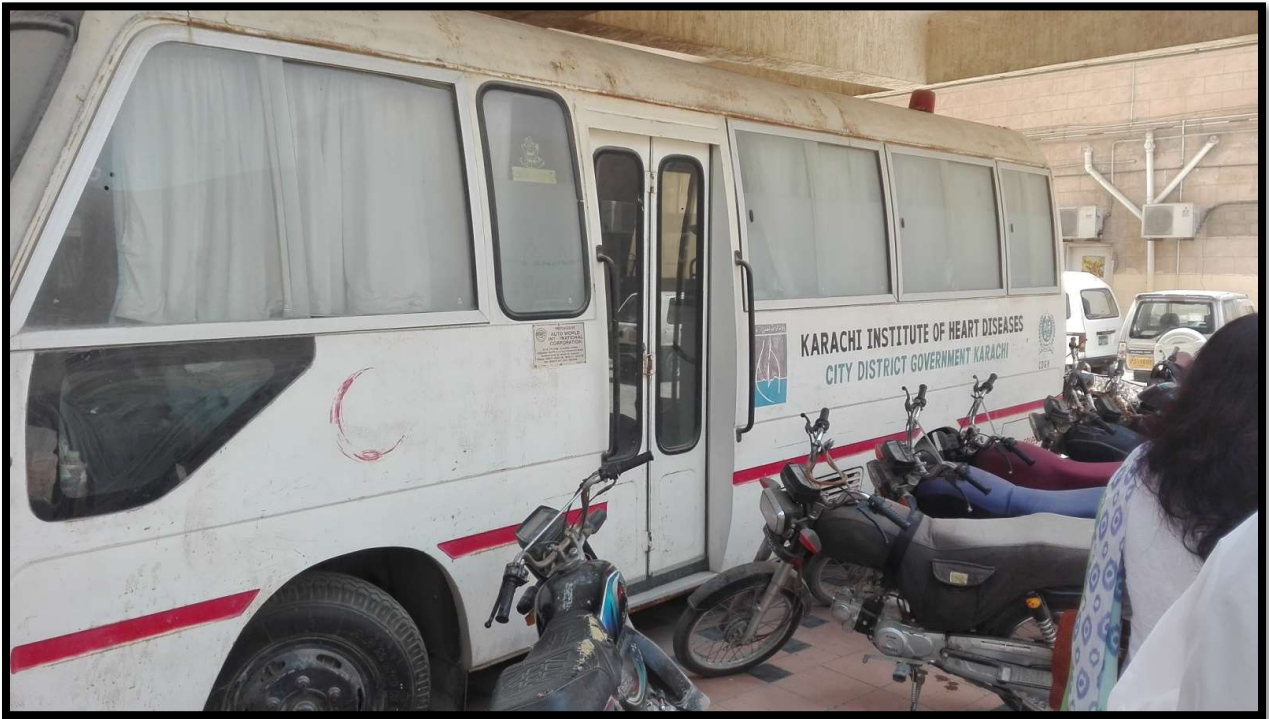


**Working of private laboratory with in hospital premises**



Non-availability of ambulance service





Carrying out of sterilization process without documentation

















