CONFIDENTIAL
EVALUATION REPORT

For: Clinical & Performance Audit of MTI-Hayatabad Medical Complex, Peshawar, KPK

MARCH 16-19, 2017
Shifa Foundation, Islamabad
Hayatabad Medical Complex
Acknowledgment

Shifa Foundation would like to acknowledge and thank the openness and straightforwardness by the management of HMC. Without their support and openness, this report would not have been possible. The management of HMC provided access to every individual and area in the institute to ensure that the report gives a true picture of the MTI and its affiliated institute.
Executive Summary

This report gives an independent opinion of third-party evaluators, who conducted an evaluation of the operational, clinical and educational activities of Hayatabad Medical Complex and its allied institutions. The benchmark used for the evaluation of the Hayatabad Medical Complex and its allied institutions are the standards by Joint Commission International for Academic Medical Centers, 5th Edition as agreed upon in the terms of reference.

In order to provide autonomy to the Government owned Medical Teaching Institutions and their affiliated teaching hospitals in the Province of the Khyber Pakhtunkhwa and to regulate on sound physical and technical footings the service being rendered by these institutions and to improve performance, enhance effectiveness, efficiency and responsiveness for the provision of quality healthcare services to the people of the Khyber Pakhtunkhwa MTI Act 2015 were enacted. The HMC notified its own regulations very recently in January 2017. Moreover, Medical Director is to be advised on the clinical matters by the Clinical Executive Board and Hospital Director is to have a Hospital Management Committee. The structure needs to be further strengthened and matured whereby, the information flows from top to bottom and vice versa seamlessly.

From the paradigm of “Structure, Process, Outcome”, although the organization is focusing on placing its structure in place. Still a lot of work needs to be done to improve the structures of the hospital.

Institution’s Strengths:
The institution has its strengths, including but not limited to:
- Dynamic and involved leadership.
- Recent improvements in Facility & Infrastructure
- Sound backing by laws and regulations
- Active Board of Governors
- Staff’s interest and involvement in clinical & performance audit preparation
- Medical leadership committed to changes necessary for improved patient safety

Governance and Leadership:
Strong governance and leadership was the strong point of the MTI. Governance and leadership had chalked out a strategic plan, with tangible targets defined. Work has been done on the strategic plan and results were evident during the survey. Since the challenges faced by the leadership were that of infrastructure development and other operational issues – the strategic plan reflected so. However, the policies and procedures needs review and further improvement (apart from SOP document and procedures for procurement) and committees established.

At the completion of the current strategic planning period, it is recommended that in the next strategic plan, a focus on objective Quality and Patient Safety program also be included in it.
Areas of Improvement:
While keeping in view the state of transition of the institution from the older system to the newer MTI system and the unique challenges that the institution faces on a daily basis, areas of improvement are identified in this report. The areas for improvement in this report are identified based on the standards by Joint Commission International for Hospitals (5th Edition).

Facility Management and Safety
The facility was generally in good condition in terms of its infrastructure – where renovation had taken place, and plans available to improve the older parts of the facility too. It was a very positive sign that Facility Management concept has been introduced in the MTI with a facility manager in-charge of the facility management program. Although, the facility had improved significantly in terms of its infrastructure, a lot of work and effort still needs to be put in to improve it further so that requirements can be met. Examples included pressure differentials in different parts of the hospital and other engineering controls to reduce the risk of infections. The facility management programs need to be developed, with a focus on preventative maintenance to reduce the breakdown of equipment – biomedical, electrical and mechanical.

Clinical Care
Although standardized forms and other tools were developed; consistency, training and uniformity can be improved across the hospital. Moreover, since no monitoring mechanism exists for patient record completion and standardization, practices were found inconsistent in the hospital, e.g. surgical consent compliance was found very well, but anesthesia and other high-risk procedure consents process were lacking. Moreover, supervision and counter-signature by senior medical staff members (Senior Registrars and Consultants) is an area that is highlighted in this report. The hospital also needs to work on the triage mechanism in the emergency department.

Medication Management
Pharmacy and Therapeutics Committee exists in the hospital but its role would require strengthening. Storage conditions of medications in the hospital are not according to the manufacturer’s guidelines, adversely affecting efficacy of the medications. Moreover, expiry mechanism of medications needs to be defined as instances of expired medications were found during the survey. High-alert medications are to be defined in the hospital and managed accordingly. No process of appropriateness review was found in the hospital. Lastly, no mechanism exists in the hospital to collect information about adverse drug events, and their patterns so that they can be acted upon for improving medication safety.

Infection Control
An infection control committee exists in the hospital and infection control manual prepared with some policies, however no formal infection control program exists in the hospital. A risk assessment related to infection control practices need to be carried out at least annually. Hand-hygiene, an important component of patient safety – no support mechanism exists in the form of alcohol based hand-rubs or adequate supplies of soap and water supply. No data on infections is being tracked in the hospital. Engineering structures in place would require a review to ensure that it supports the hospital’s infection reduction strategies. Lastly, sterilization techniques for instruments used in the units and in the OR require a review as they are not compliant with infection control guidelines.
Medical Education
HMC being a renowned institution in the province for medical education is serving the province with passion. Renowned clinicians are involved in teaching and training of medical students and trainee medical officers. However, in order to standardize the medical education at the level of hospital, some policies and procedures are required to be in place so that the students’ role, level of documentation, level of supervision can be monitored in the hospital at the unit level.

Even though level of supervision for each level of medical student is defined by CPSP, no documentation was available in the units to know the level of supervision for each medical trainee officer. Other data on the education programs, e.g. passing rates, etc. is maintained at the appropriate institution level.

Staff Qualification and Education
Even though, HR practices were followed. However, for doctors, the hospital’s privileging and credentialing committee is still in its infancy. The policies and procedures have to be in place to ensure standardized, objective, evidence-based procedure to authorize medical staff members to admit and to treat patients and/or to provide other clinical services consistent with their qualifications. No privilege delineation process was found which is standardized, objective, and evidence-based; and no mechanism was found to ensure that the clinical privileges of all medical staff members are made available by printed copy, electronic copy, or other means to those individuals or locations (for example, operating room, emergency department) in the hospital in which the medical staff member will provide services. No process was found to ensure that each medical staff member provides only those services that have been specifically granted by the hospital.
## Acronyms and Glossary

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<th>Acronym</th>
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<tr>
<td>MSDS:</td>
<td>Material Safety Data Sheets</td>
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<td>LASA:</td>
<td>Look alike Sound Alike</td>
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<td>ESI:</td>
<td>Emergency Severity Index</td>
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<tr>
<td>A &amp; E Department:</td>
<td>Accident and Emergency Department</td>
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<td>PPE:</td>
<td>Personal Protective Equipment</td>
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<tr>
<td>PPM:</td>
<td>Policy &amp; Procedure Manual</td>
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<tr>
<td>PPM:</td>
<td>Periodic Preventive Maintenance plan</td>
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<tr>
<td>PESCO:</td>
<td>Peshawar Electric Supply Company</td>
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<td>PIPFA:</td>
<td>Pakistan Institute of Public Finance Accountants</td>
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<tr>
<td>PCR:</td>
<td>Patient Clinical Records</td>
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<tr>
<td>ESTACODE:</td>
<td>Civil Establishment Code</td>
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<tr>
<td>IPSG:</td>
<td>International Patient Safety Goals</td>
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<td>ACC:</td>
<td>Access to Care &amp; Continuity</td>
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<td>PFR:</td>
<td>Patient &amp; Family Rights</td>
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<tr>
<td>AOP:</td>
<td>Assessment of Patients (Lab &amp; Radiology)</td>
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<td>Care of Patients</td>
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<td>Quality &amp; Patient Safety</td>
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<td>PCI:</td>
<td>Prevention &amp; Control of Infections</td>
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<td>GLD:</td>
<td>Governance, Leadership &amp; Direction</td>
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<td>FMS:</td>
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<tr>
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<td>Staff Qualification &amp; Education</td>
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<tr>
<td>MOI:</td>
<td>Management of Information</td>
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<td>MPE:</td>
<td>Medical &amp; Professional Education</td>
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<td>HRP:</td>
<td>Human Subjects Research Program</td>
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<td>FMS:</td>
<td>Financial Management Systems</td>
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Clinical and Performance Audit of 3 MTIs - Hayatabad Medical Complex

Background

The government of Khyber Pakhtunkhwa granted autonomy to the Government owned Medical Teaching Institutions (MTIs) and their affiliated teaching hospitals in the Province of the Khyber Pakhtunkhwa under the Khyber Pakhtunkhwa Medical Teaching Institutions Reforms Act, 2015. The Act was passed as a means to improve performance, enhance effectiveness, efficiency and responsiveness for the provision of quality healthcare services to the people of the Khyber Pakhtunkhwa.

The Act has been implemented in the Lady Reading Hospital, the Hayatabad Medical Complex, the Hayatabad Medical Complex, Peshawar the Mardan Medical Complex, Mardan and Ayub Teaching Hospital, Abbottabad. Teaching and training of medical students is also covered under various provisions of the Act. The Act mandates an effective monitoring system for the MTIs. Each Medical Teaching Institution shall be accountable to Government for its performance and shall regularly provide performance based data at set intervals based on Government's set performance monitoring format for the Medical Teaching Institutions.

Rationale

According to the provisos of the Khyber Pakhtunkhwa Medical Teaching Institutions Reforms Act, 2015, the Government plans to periodically evaluate the performance of the Medical Teaching Institutions against the set targets related to efficiency, effectiveness and equity. This shall be achieved by various monitoring means including Performance Audit of clinical & administrative aspects planned on a quarterly basis. The objective of the audit is to allow for Shifa Foundation to express an opinion regarding the performance of the activities of the hospitals given autonomy under the Khyber Pakhtunkhwa Medical Teaching Institutions Reforms Act, 2015.
Introduction

This report provides an analysis and evaluation of the current situation and prospective opportunities for patient safety and quality improvements resulting from a three-day operational assessment conducted by Dr. Zeeshan Bin Ishtiaque, Mr. Taimoor Shah, Mr. Jamal Afridi, Mr. Muhammad Ali, Mr. Umar Farooq, Mr. Kaleem ur Rehman and Ms. Arooj Ishtiaque, on **March 9-11, 2017** at Hayatabad Medical Complex in Peshawar, KPK, Pakistan.

Objectives

The objectives of this consultation include:

- Assess current compliance to indicators stated in the terms of reference (TORs)\(^1\) in congruence with *Joint Commission International Accreditation Standards for Hospitals, Fifth Edition*.
- Observe, assess and evaluate current health care operations in relationship to meeting organizational goals of quality and patient safety.
- Identify important organizational and systems issues related to safety, quality of care, treatment and services and interfaces between those processes.
- Baseline data gathering for Chapters of medication management and use
- Propose opportunities for improvement against stated standards

Methods of Analysis

- Utilization of an organization-specific agenda\(^2\) for on-site evaluation
- Use of tracer methodology as a key evaluation tool
- Systems analysis of strategic and significant topics (essential to the provision of care and service)
- Assessment of organizational approach in areas such as leadership, patient safety, infection prevention and control, medication management, use of data, environment of care through interactive conferences (identified in the agenda)

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\(^1\)Annex 01: Terms of Reference shared by Health Care Commission (HCC)

\(^2\)Annex 02: Agenda for the MTIs
Area Assessed and Proposed Solutions

Please note that Joint Commission International Accreditation Standards for Hospitals, Fifth Edition, was used as a reference. While not listed in any particular order, this report addresses overall issues. Specific details related to the standards, compliance, and any areas and departments of note in the organization were discussed during daily debriefings.

The “Area Assessed” highlighted in the report below represents the key areas of concern which leadership at all levels—governance, senior management, and the organized medical staff—must work together to resolve. Leaders create a culture of quality and safety by demonstrating their commitment to the organization, developing and maintaining a positive environment, and encouraging open, honest and thorough communication with all staff. It is leadership’s responsibility to support their staff and organization by providing adequate resources, educational opportunities, and appropriate oversight. The issues noted serve as a guide to assist the leadership in working toward these goals.
### Detailed Relationship Model

<table>
<thead>
<tr>
<th>Elements of Measurement</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>International Patient Safety Goals (IPSG)</strong></td>
<td>This Chapter encapsulates the correct identification of patients, Effective Communication, Improvement in the Safety of High-Alert Medications, Ensure Correct-Site, Correct-Procedure, Correct-Patient Surgery, Reduce the Risk of Health Care–Associated Infections, Reduce the Risk of Patient Harm Resulting from Falls.</td>
</tr>
<tr>
<td><strong>Access to Care &amp; Continuity of Care (ACC)</strong></td>
<td>This Chapter focuses on patient transfer, referral and discharge, handing and taking over, ensuring patient safety during transfer by coordination and proper documentation throughout the processes involved.</td>
</tr>
<tr>
<td><strong>Assessment of Patients (AOP)</strong></td>
<td>This Chapter focuses on assessment of patient OPD/IPD/ER/Lab, Radiology and blood bank.</td>
</tr>
<tr>
<td><strong>Care of Patients (COP)</strong></td>
<td>This Chapter encapsulates activities basic to patient care, including processes for planning and coordinating care, monitoring results, modifying care, and conducting follow-ups. It also includes high-risk care services, nutrition care, pain management, and end-of-life care.</td>
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<tr>
<td><strong>Anesthesia &amp; Surgical Care (ASC)</strong></td>
<td>This chapter focuses on anesthesia and surgical care which include preoperative assessment, anesthesia assessment, time out, surgical site marking, sign in and sign out, intra operative monitoring, surgeon brief operative notes, post-surgical plan by doctor and nurses, post anesthesia care unit criteria &amp; assessment.</td>
</tr>
<tr>
<td><strong>Medication Management &amp; Use (MMU)</strong></td>
<td>It includes selection and procurement of medication, storage requirements and conditions, cold chain etc.; medication prescription, transcribing, dispensing, administration and monitoring processes, Adverse drug reporting, Adverse event reporting. Existence &amp; processes of Pharmacy and therapeutic committee review and actions.</td>
</tr>
<tr>
<td><strong>Patient &amp; Family Education (PFE)</strong></td>
<td>The chapter focuses on the identification and planning of educational needs and how to give and evaluate educate process at each level e.g. Brochure and other information for education and communication (IEC).</td>
</tr>
<tr>
<td><strong>Quality Improvement &amp; Patient Safety (QPS)</strong></td>
<td>This Chapter encapsulates the structure, leadership, and activities to support the data collection, analysis and improvement for the identified priorities—hospital wide and department- and service-specific. This includes the collection and analysis of data on, and response to, hospital wide sentinel events, adverse events, and near-miss events. It Further captures the central role of coordinating all the quality improvement and patient safety initiatives in the hospital and providing guidance and direction for staff training and communication of quality.</td>
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<tr>
<td>Chapter Name</td>
<td>Description</td>
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<tr>
<td>Prevention &amp; Control of Infections (PCI)</td>
<td>This Chapter encapsulates the methods a hospital uses to design and implement a program to identify and reduce the risk of patients and staff acquiring and transmitting infections. Areas covered include the process for reporting infections and the types of ongoing surveillance activities that are in place.</td>
</tr>
<tr>
<td>Governance, Leadership &amp; Direction (GLD)</td>
<td>This Chapter encapsulates the following processes which must be successfully performed by leadership:</td>
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<td></td>
<td>▪ Planning and designing services—defining a clear mission, including a vision of the future and the values that underlie day-to-day activities</td>
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<td></td>
<td>▪ Directing services—developing and maintaining policies, providing an adequate number of staff, and determining their qualifications and competence</td>
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<td></td>
<td>▪ Integrating and coordinating services—identifying and planning the clinical services required and integrating and coordinating those services within and between departments</td>
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<td></td>
<td>▪ Improving performance—leaders’ critical roles in initiating performance and maintaining a hospital’s performance improvement activities</td>
</tr>
<tr>
<td>Facility Management &amp; Safety (FMS)</td>
<td>This Chapter measures the hospital’s maintenance of a safe, functional, and effective environment for patients, staff members, and other individuals. Areas addressed include emergency preparedness, security, safety, life safety, medical equipment, utility systems, hazardous materials, and waste management.</td>
</tr>
<tr>
<td>Staff Qualification &amp; Education (SQE)</td>
<td>This Chapter encapsulates sections on human resources planning; staff orientation, training, and education; staff competence assessments; handling staff requests; and credentialing and privileging of licensed independent practitioners, nurses, and other practitioners.</td>
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<tr>
<td>Management of Information (MOI)</td>
<td>This Chapter emphasizes to address how well the hospital obtains, manages, and uses information to provide, coordinate, and integrate services using different methods, whether paper-based or electronic.</td>
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<tr>
<td>Medical Professional Education (MPE)</td>
<td>Medical &amp; Professional education details the framework for including medical education into the quality &amp; patient safety activities of academic medical centre hospitals</td>
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<tr>
<td>Human Subjects &amp; Research Program (HRP)</td>
<td>HRP focuses on how research activities are executed and their overseeing mechanism. Human subject research protection is ensured to evaluate all processes which are involved in research are within the benchmarked ethical boundaries. It focuses on all research related hazardous material, medication, instruments and adverse events that should be integrated with hospital relevant programme.</td>
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The section below contains chapters against their status:
Chapter: International Patient Safety Goals (IPSG)

Area Assessed:
➤ The hospital develops and implements a process to improve accuracy of patient identifications.

Status:

- [Observation]: The hospital informally identified name, and admission number for identifying patients; however, neither policy existed nor patients were identified using these identifiers before providing treatments and procedures. During different patient tracers, it was also observed that the patients were not being identified before blood transfusion in pre/post-operative areas, medication administration and labor and delivery.
- [Recommendation]: It is recommended to formulate a formal policy and staff needs to be trained to identify patients using two identifiers. The practice of identifying patients using bed number, room and ward needs to be discouraged.

Area Assessed:
➤ The hospital develops and implements a process to improve the effectiveness of verbal and/or telephone communication among caregivers.

Status:

- [Observation]: The hospital did not implement a process to manage and improve the effectiveness of verbal and/or telephone communication among caregivers. There was no process how to document and read back the complete verbal order. During communication with the hospital staff it was found that they were not aware of any formal/informal process of the same.
- [Recommendation]: It is recommended that the complete verbal order should be documented and read back by the receiver and confirmed by the individual giving the order. The complete telephone order should also be documented and read back by the receiver and confirmed by the individual giving the order. Also, the complete test result should be documented and read back by the receiver and confirmed by the individual giving the result.

Area Assessed:
➤ The hospital develops and implements a process for reporting critical results of diagnostic tests.

Status:

- [Observation]: During communication with the hospital staff it found that they were not aware of any formal/informal process of reporting critical results. Moreover, the hospital
had not defined critical values for each type of diagnostic test (different sections of laboratory, radiology or other tests). The process by whom and to whom critical results of diagnostic tests needed to be reported was not identified.

**[Recommendation]:** A formal process for the reporting & documentation of critical values should be in policy/documented form. In that process, the hospital needs to identify all the critical values for each type of diagnostic test. Furthermore, the staff needs to be trained on the reporting & documentation of critical values.

### Area Assessed:

→ The hospital develops and implements a process for handover communication.

### Status:

**[Observation]:** Critical content was communicated between health care providers during handovers of patient care. Examples included handovers among doctors and nurses where in some cases verbal handover was done or in others a note was documented in the patient’s chart; however, this process was not standardized and consistent to ensure and support a consistent and complete handover process.

**[Recommendation]:** It is recommended that the hospital develops standardized forms, tools, and methods to support a consistent and complete handover process and ensure staff is trained on the tools and methods. The data from handover communications should be tracked and used to improve approaches to safe handover communication.

### Area Assessed:

→ The hospital develops and implements a process to improve the safety of high-alert medications.

### Status:

**[Observation]:** The hospital did not have a list of all high-alert medications, including look-alike/sound-alike (LASA) medications – and no process to manage the high alert medications in the hospital. The medication was not stored as per the standard guidelines for storing LASA and high alert medications.

**[Recommendation]:** It is recommended that a list of all high-alert medications is developed and strategies are implemented to improve the safety of high-alert medications, which include specific storage, prescribing, preparation, administration, and monitoring processes. The location, labeling, and storage of high-alert medications, including look-alike/sound-alike medications, must be uniform throughout the hospital. The staff needs to be trained and the process needs to be implemented across the hospital to ensure safety of high-alert medications.
Area Assessed:
The hospital develops and implements a process to manage the safe use of concentrated electrolytes.

Status:

- **[Observation]**: The hospital did not have a process to prevent inadvertent administration of concentrated electrolytes. The hospital had not identified patient care areas identified as clinically necessary where concentrated electrolytes could be stored. Specific storage, labeling, prescribing, preparation, administration and monitoring processes for concentrated electrolytes were neither formulated nor staff were trained on the processes. It was found that multiple concentrated electrolytes were stocked at unit par levels.

- **[Recommendation]**: It is recommended that the concentrated electrolytes are present only in patient care units identified as clinically necessary. Concentrated electrolytes that are stored in patient care units should be clearly labeled and stored in a manner that promotes safe use.

Area Assessed:
The hospital develops and implements a process for ensuring correct-site, correct-procedure, and correct-patient surgery.

Status:

- **[Observation]**: The hospital’s standard operating procedure required that the surgical site marking needed to be done; however, surgical site marking was not practiced as observed during patients’ tracers.

- **[Recommendation]**: It is recommended that the hospital identifies a consistent and uniform instantly recognizable mark for surgical- and invasive procedure–site identification throughout the hospital. Surgical- and invasive procedure–site marking should be done by the person performing the procedure and involves the patient in the marking process. The hospital should also develop a checklist or other process to document, before the procedure, that the informed consent is appropriate to the procedure; that the correct site, correct procedure, and correct patient are identified; and that all documents and medical technology needed are on hand, correct, and functional.

Area Assessed:
The hospital develops and implements a process for the time-out that is performed in the operating theatre immediately prior to the start of surgery to ensure correct-site, correct-procedure, and correct-patient surgery.

Status:

- **[Observation]**: The hospital did not have a process to conduct and document a time-out procedure before starting a surgical/invasive procedure.
**[Recommendation]:** It is recommended that a formal policy on conducting time-out needs to be formulated and the staff needs to be trained on the process. The process should at least include that the full surgical team conducts and documents a time-out procedure in the area in which the surgery/invasive procedure will be performed, just before starting a surgical/invasive procedure. The components of the time-out must include at least correct patient identification, correct side and site, agreement of the procedure to be done, and confirmation that the verification process has been completed. It is also recommended that when surgery is performed, including medical and dental procedures done in settings other than the operating theatre, the hospital should also develop a uniform process to ensure the correct site, correct procedure, and correct patient.

**Area Assessed:**

⇒ The hospital adopts and implements evidence-based hand-hygiene guidelines to reduce the risk of health care–associated infections.

**Status:**

**[Observation]:** The infection control representative initiated the hand-hygiene program and started trainings of the staff on hand hygiene; however, hand-washing and hand-disinfection procedures were not used in accordance with hand-hygiene guidelines throughout the hospital. It was observed that hand sanitizers were placed in different areas across the hospital, however, some of them were out of order and some of them were not refilled.

**[Recommendation]:** It is recommended that this program needs to be formalized; resources required needs to be identified, staff needs to be sensitized and trained on the importance of hand-washing and hand-disinfection. The hospital needs to adopt and implement currently published, evidence-based hand-hygiene guidelines and implement an effective hand-hygiene program throughout the hospital.

**Area Assessed:**

⇒ The hospital develops and implements process to reduce the risk of patient harm resulting from falls.

**Status:**

**[Observation]:** There was no process for fall risk assessment.

**[Recommendation]:** It is recommended that the hospital implements a process for assessing all inpatients and those outpatients whose condition, diagnosis, situation, or location identifies them as at high risk for falls. The hospital should also develop criteria and implement a process for the initial and ongoing assessment, reassessment, and intervention of inpatients and outpatients identified as at risk for falls based on documented criteria. Measures need to be implemented to reduce fall risk for those identified patients, situations, and locations assessed to be at risk.
Chapter: Access to Care and Continuity of Care (ACC)

**Area Assessed:**

- Patients who may be admitted to the hospital or who seek outpatient services are screened to identify if their health care needs match the hospital’s mission and resources.

**Status:**

- **[Observation]:** The patients were screened to identify if their healthcare needs match the hospital's mission and resources; however, there was no formal document identifying the scope of services and the services which were not available in the hospital.
- **[Recommendation]:** It is recommended that the scope of service document needs to be developed and staff needs to be made aware and a formal/informal process needs to be developed for patients whose clinical needs does not match hospital’s mission and resources.

**Area Assessed:**

- Patients with emergent, urgent, or immediate needs are given priority for assessment and treatment.

**Status:**

- **[Observation]:** The hospital developed a process for triaging patients with emergent, or urgent needs. Some of the Staff was not trained to use the criteria to triage patients.
- **[Recommendation]:** It is recommended that the hospital finalizes which triage evidence-based triage process to use to prioritize patients with immediate needs. The differences in the policy document needs to be rectified; staff should be trained on how to use the criteria. So that patients are prioritized based on the urgency of their needs. The process needs to be identified how emergency patients are assessed and stabilized within the capacity of the hospital prior to transfer to other hospitals. Stabilizing treatment provided prior to transport should also be documented.

**Area Assessed:**

- The hospital considers the clinical needs of patients and informs patients when there are waiting periods or delays for diagnostic and/or treatment services.

**Status:**

- **[Observation]:** The hospital did not have long waiting periods; however, in cases where there were waiting periods or delays for services (e.g., plastic surgery), there was no formal process to inform inpatients and outpatients about the reasons for the delay or wait The delay was not documented in the patient file.
- **[Observation]:** In Institute for Kidney Diseases (IKD) there is no process to inform inpatient and outpatient about the reasons of delay.
▪ **Recommendation**: It is recommended that a process needs to be developed to inform patients about the reasons for the delay or wait, they also need to be provided with information on available alternatives consistent with their clinical needs. This information needs to be documented in the patient record.

**Area Assessed:**

- The hospital has a process for admitting inpatients and for registering outpatients.

**Status:**

- **[Observation]**: The outpatient and inpatient registration process was standardized. The hospital had a process for admitting emergency patients to inpatient units. Staff were familiar with and follow the admission and registration processes.

**Area Assessed:**

- Patient needs for preventive, palliative, curative, and rehabilitative services are prioritized based on the patient’s condition at the time of admission as an inpatient to the hospital.

**Status:**

- **[Observation]**: The hospital did not have a formal process to prioritize patients based on the patient’s condition at the time of admission as an inpatient to the hospital.
- **[Recommendation]**: It is recommended that the hospital needed to identify the screening assessment to help staff identify the patient’s needs. The service or unit selected to meet these needs should be based on the screening assessment findings. This will help to prioritize preventive, curative, rehabilitative, and palliative services.

**Area Assessed:**

- At admission as an inpatient, patients and families receive information on the proposed care, the expected outcomes of care, and any expected cost to the patient for care.

**Status:**

- **[Observation]**: The patient and family were provided with information at admission. The information included proposed care, expected outcomes of care and any expected costs to the patient or family. The information given to the patient was not documented in patient file.
- **[Recommendation]**: The information provided should be documented in the patients record.
Area Assessed:

-The hospital develops a process to manage the flow of patients throughout the hospital.

Status:

- [Observation]: The hospital did not have a formal process to support the flow of patients.
- [Recommendation]: It is recommended that the hospital plan and provide for the care of patients needing admission who are boarded in the Emergency Department, including identifying a time limit for boarding. The process should also be identified for situations when bed space is not available on the desired service or unit or elsewhere in the hospital. The effectiveness of flow processes should be reviewed to identify further improvements.

Area Assessed:

- Admission to units providing intensive or specialized services is determined by established criteria.

Status:

- [Observation]: The hospital’s standard-operating-procedure had established entry criteria for admission to intensive and specialized services; however, this was not implemented as observed during patient tracers of various critical care units and medical record review.
- [Recommendation]: It is recommended that entry and/or transfer criteria for admission to intensive and specialized services needs to be reviewed. The criteria should utilize prioritization, diagnostic, and/or objective parameters, including physiologic-based criteria. Individuals from intensive/specialty units should be involved in reviewing/developing the criteria. Staff should be trained to apply the criteria. The records of patients who are admitted to units providing intensive/specialized services should contain evidence that they meet the criteria for services.

Area Assessed:

- Discharge from units providing intensive or specialized services is determined by established criteria.

Status:

- [Observation]: The hospital’s standard-operating-procedure did not have discharge criteria from intensive and specialized services or units to other wards.
- [Recommendation]: It is recommended that the hospital develop discharge and/or transfer criteria from intensive and specialized services or units to a different level of care. The criteria should include the criteria used for admission to the next level of care. Individuals from intensive or specialty units should be involved in developing the criteria. Staff should be trained to apply the criteria. The records of patients who are transferred or discharged from units providing intensive or specialized services should contain evidence that they no longer meet the criteria for services.
Area Assessed:
The hospital designs and carries out processes to provide continuity of patient care services in the hospital and coordination among health care practitioners.

Status:
- **[Observation]**: The patient’s record(s) was available to those practitioners who were authorized to have access and need it for the care of the patient. However, the records in many instances were not complete and lacked vital information for patient care such as prescription & diagnostics.
- **[Recommendation]**: It is recommended that the patient’s record(s) should be up to date. Continuity and coordination of care processes should be supported by the use of tools, such as care plans, guidelines, or other such tools.

Area Assessed:
During all phases of inpatient care, there is a qualified individual identified as responsible for the patient’s care.

Status:
- **[Observation]**: The hospital had identified faculty members/registrars/medical officers/training medical officer for specified wards/units/rooms. However, no process is defined in formally transferring the responsibility for coordination of care from individual to individual. The patients were largely unaware of their primary physician.
- **[Recommendation]**: It is recommended that the process needs to be identified for transferring the responsibility for coordination of care from individual to individual. The process should also identify how these individuals assume the transferred responsibility and document their participation or coverage.

Area Assessed:
Information related to the patient’s care is transferred with the patient.

Status:
- **[Observation]**: The patient’s record or a summary of patient care information was transferred with the patient to another service or unit in the hospital.
- **[Recommendation]**: It is recommended that the summary should contain the reason for admission, the significant findings, any diagnosis made, any procedures performed, any medications and other treatments and the patient’s condition at transfer.
Area Assessed:

There is a process for the referral or discharge of patients that is based on the patient’s health status and the need for continuing care or services.

Status:

- **[Observation]**: Patients were referred and/or discharged based on their health status and needs for continuing care. The patient’s readiness for discharge was determined by the use of indications that ensure patient safety. However, discharge planning was not consistent throughout the hospital and not being documented. The mechanism for dealing with LAMA – (leave against medical advice) patients is not defined.

- **[Recommendation]**: It is recommended that planning for referral and/or discharge should begin early in the care process. The process needs to be identified for patients being permitted to leave the hospital during the planned course of treatment on an approved pass for a defined period of time.

Area Assessed:

Patient and family education and instruction are related to the patient’s continuing care needs.

Status:

- **[Observation]**: Patients and families were educated about patient’s continuing care needs; however, this informal process needed improvement as well as documentation.

- **[Recommendation]**: It is recommended that process needs to be strengthened for patient and family education about the safe and effective use of all medications, potential side effects of medications, safe and effective use of medical technology, proper diet and nutrition, rehabilitation techniques and prevention of potential interactions with over-the-counter medications and/or food.

Area Assessed:

The hospital cooperates with health care practitioners and outside agencies to ensure timely referrals.

Status:

- **[Observation]**: Patients were referred to outside hospitals for services which were not provided in the hospital. Additionally, the instances for referral cases were not identified by the hospital.

- **[Recommendation]**: It is recommended that the process of referrals need to be properly identified. The discharge planning process should include the need for both support services and continuing medical services.
**Area Assessed:**

- The complete discharge summary is prepared for all inpatients.

**Status:**

- **[Observation]:** The discharge summary was prepared for inpatients but the process was not consistent. Discharge summary when prepared was handed over to patients and part of the medical records.

- **[Recommendation]:** It is recommended that the discharge summary should be prepared for all inpatients and should include the reason(s) for admission, diagnoses, and comorbidities, significant physical and other findings, diagnostic and therapeutic procedures performed, significant medications, including discharge medications, the patient’s condition/status at the time of discharge, contain follow-up instructions.

**Area Assessed:**

- Patient education and follow-up instructions are given in a form and language the patient can understand.

**Status:**

- **[Observation]:** Patient education and follow-up instructions were given to patients; however, the process was inconsistent.

- **[Recommendation]:** It is recommended that follow-up instructions are provided in writing and should include any return for follow-up care and when to obtain urgent care.

**Area Assessed:**

- The clinical records of inpatients contain a copy of the discharge summary.

**Status:**

- **[Observation]:** A discharge summary was sometimes prepared by doctors but the process was not consistent.

- **[Recommendation]:** It is recommended that a discharge summary is prepared by a doctor for all inpatients. A timeframe should be identified for completing the discharge summary and placing copy of the completed discharge summary in the patient's record in a time frame identified by the hospital.
Chapter: Patient and Family Rights (PFR)
Chapter: Patient and Family Education (PFE)

Area Assessed:
> The hospital is responsible for providing processes that support patients’ and families’ rights during care.

Status:

- [Observation]: During interviews with the leadership, it was evident that the leadership was working to protect and advance patient and family rights and they consider it as their primarily responsibility. The leadership understood patient and family rights in relation to the cultural practices and patients served. However, no formal bill of rights was found during the tracer.
- [Recommendation]: It is recommended that the hospital defines the bill of rights and responsibilities of the patients. The bill of rights should include their right to refuse or to discontinue treatment and the hospital’s responsibilities related to such decisions and the consequences of their decisions; patient’s right to assessment and management of pain; patient’s right to assessment and management of the dying patient’s needs. Training session of staff should be carried out so that they are knowledgeable about patient rights and can explain their responsibilities in protecting patient rights.

Area Assessed:
> The patient’s rights to privacy and confidentiality of care and information are respected.

Status:

- [Observation]: The patient’s rights to privacy and confidentiality was understood by the leadership as evident in various interviews with the leadership. However, during care process, due to limitations in the hospital, patient privacy and confidentiality was not compliant fully. During patient tracers, it was observed that patient privacy from other staff, patients and family members were compromised.
- [Recommendation]: It is recommended that patient’s expressed need for privacy is respected for all clinical interviews, examinations, procedures/treatments, and transport. Effort should be made to ensure confidentiality of patient information as much as possible. A process needs to be identified how patient’s information will be released (if required).

Area Assessed:
> Patients are informed about all aspects of their medical care and treatment.

Status:

- [Observation]: Patients were informed of their medical conditions and any confirmed diagnosis, planned care and treatment(s), expected outcomes of care and treatment, any
unanticipated outcomes of care and treatment such as unanticipated events during surgery or with prescribed medications or other treatments. However, situations where informed consent will be required from the patients were not defined and not practices accordingly.

- **66 out of 70 (94%)** patients in given units were found who have been educated about their diagnosis and care plan.

**[Recommendation]**: It is recommended that the hospital needs to identify how and when patients are told when informed consent will be required and the process used to give consent.

**Area Assessed:**

- The hospital informs patients and families about their rights and responsibilities to refuse or discontinue treatment, withhold resuscitative services, and forgo or withdraw life-sustaining treatments.

**Status:**

- **[Observation]**: The hospital had not identified its position & decision-making process on withholding resuscitative services and forgoing or withdrawing life-sustaining treatments and handling the situation is left to individual care-providers.

- **[Recommendation]**: It is recommended that hospital develops a policy whether withholding resuscitative services are allowed or not. If yes, what would be the process that would be followed to withhold such resuscitative services.

**Area Assessed:**

- The hospital informs patients and families about its process to receive and to act on complaints, conflicts, and differences of opinion about patient care and the patient’s right to participate in these processes.

**Status:**

- **[Observation]**: The hospital had a process for voicing complaints, conflicts, and differences of opinion. They were investigated by the hospital. Complaints, conflicts, and differences of opinion that arose during the care process were resolved. However, the process was not fully mature yet as there lacked evidence that all complaints were logged, analyzed and tracked. Instances were found that complaints were unattended for longer period of time.

- **[Recommendation]**: It is recommended that this process needs to be further strengthened and formalized. Availability of forms should be ensured and patients need to be facilitated to raise their complaints. The time period for closing these complaints need to be identified and monitored for compliance. It is recommended that Patients should be informed about the process for voicing complaints, conflicts, and differences of opinion. The patients and families should be made to participate in the resolution process.
Area Assessed:

Informed consent is obtained before surgery, anesthesia, procedural sedation, use of blood and blood products, and other high-risk treatments and procedures.

Status:

- **[Observation]**: Consent was obtained in 43 out of 67 (64% compliance) cases observed during the tracer, before surgical or invasive procedures.
- Consent was obtained in 17 out of 47 (36% compliance) before anesthesia.

No consent policy was found during the tracer, including that of blood and blood products and any high-risk treatment in the hospital.

- **[Recommendation]**: It is recommended that Consent is obtained before surgical or invasive procedures. Consent should be obtained before anesthesia and procedural sedation, before the use of blood and blood products. It is recommended that the hospital should list those additional procedures and treatments that require separate consent. It is also recommended that consent should be obtained before the addition of other high-risk procedures and treatments.
Chapter: Assessment of Patients (AOP)

Area Assessed:
The patients cared for by the hospital have their healthcare needs identified through an assessment process that has been defined by the hospital.

Status:
- **[Observation]**: The patients cared for by the hospital had their healthcare needs identified through an assessment process; however, this was done inconsistently. The content of assessment varied throughout the hospital and compliance with documentation of the assessment inconsistent.
- **[Recommendation]**: It is recommended that the minimum content of assessments for inpatients should be defined for each clinical discipline that performs assessments and specifies the required elements of the history and physical examination. Only qualified individuals permitted by licensure, applicable laws and regulations, or certification should perform the assessment. The hospital should also identify the information to be documented for the assessments.

Area Assessed:
The patient’s medical needs are identified from the initial assessments, which are completed and documented in the clinical record within the first 24 hours after admission as an inpatient or earlier as indicated.

Status:
- **100 out of 129 (77% compliance)** inpatient charts had documented initial medical history within 24 hours.
- **93 out of 129 (72% compliance)** inpatient charts had documented examination within 24 hours.
- **78 out of 129 (60% compliance)** inpatient charts had documented plan within 24 hours.
- Only 7% charts were found with registrar signed/stamped notes.
- Evening round was documented in **34 out of 129 (26% compliance)** by the Senior Registrar on daily basis.

Area Assessed:
All inpatients and outpatients are screened for pain and assessed when pain is present.

Status:
- **[Observation]**: No process was found to screen patients for pain, and no patients out of 123 observed were screened for pain.
**Recommendation:** It is recommended that pain screening should be identified. When pain is identified from the initial screening exam, a comprehensive assessment of the patient’s pain should be performed.

**Area Assessed:**

⇒ All patients are reassessed at intervals based on their condition and treatment to determine their response to treatment and to plan for continued treatment or discharge.

**Status:**

- **Observation:** Patients were reassessed to determine their response to treatment and plan for continued treatment and/or discharge.
- **Recommendation:** It is recommended that patients should be reassessed to determine their response to treatment and plan for continued treatment and/or discharge. Patients should be reassessed at intervals based on their condition. Physicians should reassess patients at least daily, including weekends, during the acute phase of their care and treatment and the reassessments should be documented in the patient record.

**Area Assessed:**

⇒ Laboratory services are available to meet patient needs, and all such services meet applicable local and national standards, laws, and regulations.

**Status:**

- **Observation:** It was found that laboratory services are meeting the applicable local and national standards, laws, and regulations. However, laboratory has no ISO15189 certification from PNAC.
- **Recommendation:** It is recommended that Laboratory services should be available to meet the needs related to the hospital’s mission and patient population, the community’s health care needs, and emergency needs, including after normal hours.
- **Recommendation:** It is recommended that experts in specialized diagnostic areas should be contacted when needed. It is recommended that outside sources, when required, should be selected based on an acceptable record and compliance with laws and regulations. It is recommended that patients should be informed about any relationships between the referring physician and outside sources of laboratory services to avoid any conflict of interest.

**Area Assessed:**

⇒ The clinical laboratory and other laboratory services throughout the hospital are under the direction and oversight of one or more qualified individuals.

**Status:**

- **Observation:** It was found that a qualified individual is overseeing all clinical laboratory services.
Area Assessed:

⇒ All laboratory staff have the required education, training, qualifications, and experience to administer and perform the tests and interpret the results.

Status:

- **[Observation]**: There was no documented evidence for the ongoing training and planned schedule for training and education. There was no mechanism for competency assessment and competence based assignment.
- **[Recommendation]**: It is recommended that all laboratory staff should have the required credentials and competencies to administer, perform, and interpret tests and it is documented. Moreover, it is recommended that staff performing point-of-care testing should have the required qualifications and training to administer point of care tests.

Area Assessed:

⇒ A laboratory safety program is in place, followed, and documented, and compliance with the facility management and infection control programs is maintained.

Status:

- **[Observation]**: No formal safety program was identified in the laboratory. Staff working in laboratory was exposed to various hazards in the laboratory, including hazardous material, hazardous gases, formalin and other hazards. No risk assessment was identified during the survey and availability of PPMs, spill-kits or other safety measures accordingly.
- **[Recommendation]**: It is recommended that a laboratory safety program should addresses potential safety risks in the laboratory and other areas outside the laboratory where laboratory services are provided. It is recommended that the program should be part of the hospital’s facility management and infection control programs (see sections below) and reports to the hospital safety structure at least annually and when any safety events occur. It is recommended that identified safety risks should be addressed by specific processes and/or devices to reduce the safety risks. It is recommended that laboratory staff should be oriented to safety procedures and practices and receive ongoing education and training for new practices and procedures.

Area Assessed:

⇒ The laboratory uses a coordinated process to reduce the risks of infection as a result of exposure to biohazardous materials and waste.

Status:

- **[Observation]**: No process was identified during the survey that assures reduction in risk of infection as a result of exposure to biohazardous material and waste. (see above).
- **[Recommendation]**: It is recommended that the laboratory should have a defined process for reducing the risks of infection. It is recommended that infections acquired in the laboratory should be reported, as defined in the policy, and in compliance with applicable
laws and regulations. It is recommended that when problems with practice are identified, or accidents occur, corrective actions should be taken, documented, and reviewed.

Area Assessed:
➔ Laboratory results are available in a timely way as defined by the hospital.

Status:

[Observation]: Timelines for lab reports are not defined and there is no mechanism for measuring turnaround time to find out what percentage of tests are performed within the prescribed and expected timeframe.

[Recommendation]: It is recommended that the hospital should establish the expected report time for results. It is recommended that the timeliness of reporting of urgent/emergency tests should be measured. It is recommended that laboratory results should be reported within a time frame to meet patient needs.

Area Assessed:
➔ All equipment and medical technology used for laboratory testing is regularly inspected, maintained, and calibrated, and appropriate records are maintained for these activities.

Status:

[Observation]: The hospital does not have an organized program for calibration and maintenance. No central inventory of all medical equipment used in the laboratory was found nor was any periodic preventative maintenance program found. No mechanism was found where recalls and failures are tracked and acted accordingly.

[Recommendation]: It is recommended that the laboratory should develop, implement, and documents a program to manage laboratory equipment and medical technology. The program should identify how laboratory equipment and medical technology to be selected and acquired. It is recommended that there should be documented inventory of all laboratory equipment and medical technology. It is recommended that laboratory equipment and medical technology should be inspected and tested when new and according to age, use, and manufacturers’ recommendations thereafter and the inspections should be documented. It is recommended that laboratory equipment and medical technology should be calibrated and maintained according to manufacturers’ recommendations, and the calibration and maintenance are documented. It is recommended that the hospital should have a system in place for monitoring and acting on laboratory equipment and medical technology hazard notices, recalls, reportable incidents, problems, and failures.
Area Assessed:
❖ Essential reagents and other supplies are regularly available and evaluated to ensure accuracy and precision of results.

Status:

▪ [Observation]: Reagents were available during the survey but no evidence was found of evaluation for accuracy and precision of results.
▪ [Recommendation]: It is recommended that essential reagents and supplies should be identified and that the laboratory should have and follow written guidelines for evaluation of all reagents to provide for accuracy and precision of results.

Area Assessed:
➢ Procedures for collecting, identifying, handling, safely transporting, and disposing of specimens are established and implemented.

Status:

▪ [Observation]: Although samples were handled for collection, identification, transportation and disposing, no formal guidelines were found during the survey. Lack of formal guidelines poses the risk of inconsistency of the processing, jeopardizing the safety of the staff and accuracy of results.
▪ [Recommendation]: It is recommended that procedures should be established and implemented for the ordering of tests, collection and identification of specimens, transport, storage, and preservation of specimens. It is recommended that procedures should be established and implemented for the receipt and tracking of specimens.

Area Assessed:
➢ Established norms and ranges are used to interpret and to report clinical laboratory results.

Status:

▪ [Observation]: It was found that ranges were defined against each test result.

Area Assessed:
➢ Quality control procedures for laboratory services are in place, followed, and documented.

Status:

▪ [Observation]: It was observed that quality control procedures are followed and documented
Area Assessed:
➤ There is a process for proficiency testing of laboratory services.

Status:

- **[Observation]:** It was found during the tracer that the laboratory does not participate in any proficiency testing program.
- **[Recommendation]:** It is recommended that the laboratory should participate in a proficiency-testing program, or an alternative, for all specialty laboratory services and tests. It is recommended that for each specialty, subspecialty, analyze, or test, the laboratory’s proficiency testing results meet satisfactory performance criteria in accordance with laws and regulations. Moreover, it is recommended that the laboratory should maintain records of its participation in a proficiency-testing program.

Area Assessed:
➤ A qualified individual is responsible for blood bank and/or transfusion services and ensures that services adhere to laws and regulations and recognized standards of practice.

Status:

- **[Observation]:** Blood bank services were observed, and the processes were in accordance with the laws and regulations. However, storage of blood products procedure had observations: temperature monitoring for stored blood products were in place but maximum and minimum and maximum ranges were not defined. It was also found that multiple times temperature deviations were noted and actions could not be ascertained from the record.
- **[Recommendation]:** It is recommended that the blood bank should have established, implemented, and documented processes for all processes of blood and blood product handling.

Area Assessed:
➤ Radiology and diagnostic imaging services are available to meet patient needs, and all such services meet applicable local and national standards, laws, and regulations.

Status:

- **[Observation]:** Radiology services are available and functional in the hospital, however, PNRA inspection reports were not found during the survey.
- **[Recommendation]:** It is recommended that radiology and diagnostic imaging services should meet applicable local and national standards, laws, and regulations.
Area Assessed:
➢ A qualified individual(s) is responsible for managing the radiology and diagnostic imaging services.

Status:

- [Observation]: Although a qualified Radiologist heads the Radiology Department, no document was found to reflect the job responsibilities of the Chief of Radiology.
- [Recommendation]: It is recommended that the job responsibilities of the Chief of Radiology include: responsibilities for developing, implementing, and maintaining policies and procedures; administrative oversight; maintaining quality control programs; recommending outside sources of radiology and diagnostic imaging services (if any); and monitoring and reviewing all radiology and diagnostic imaging services.

Area Assessed:
➢ Individuals with proper qualifications and experience perform diagnostic imaging studies, interpret the results, and report the results.

Status:

- [Observation]: No document was found during the survey that defines the required qualification or competence of radiology technicians, involved in performing of tests. Radiologists and post-graduate trainees had their qualifications defined and adhered to.
- [Recommendation]: It is recommended that staff with proper qualifications and experience should perform diagnostic and imaging studies and that is reflected in the competency assessment of those staff.

Area Assessed:
➢ Radiation safety program is in place, followed, and documented, and compliance with the facility management and infection control programs is maintained.

Status:

- [Observation]: No radiation safety program was found in place in the hospital. Numbers of radiation workers in the hospital were not defined, nor were radiation exposure measurement system found in place (dosimeters, radiation monitors). No radiation dosage calculation was done nor was any evidence found of staff rotation based on radiation dosage exposure.
- [Recommendation]: It is recommended that a radiation safety program should be in place that addresses potential safety risks and hazards encountered within or outside the department. It is recommended that the safety program should be part of the hospital’s facility management and infection control programs, and the program should provide reports to the hospital safety structure at least annually and when any safety events occur. It is recommended that identified radiation safety risks should be addressed by specific processes or devices that reduce safety risks (such as lead aprons, radiation badges, and the like). It is recommended that radiology and diagnostic imaging staff should be oriented to
safety procedures and practices and receive ongoing education and training for new procedures, equipment, and medical technology.

Area Assessed:

Radiology and diagnostic imaging study results are available in a timely way as defined by the hospital.

Status:

- **[Observation]**: During the survey, no document was found defining timelines for the diagnostic imaging and the timing of the test measurement not found.
- **[Recommendation]**: It is recommended that the hospital should establish the expected report time for results. It is recommended that the timeliness of reporting of urgent/emergency studies should be measured. It is recommended that radiology and diagnostic imaging study results should be reported within a time frame to meet patient needs.

Area Assessed:

All equipment and medical technology used to conduct radiology and diagnostic imaging studies is regularly inspected, maintained, and calibrated, and appropriate records are maintained for these activities.

Status:

- **[Observation]**: The hospital does not have an organized program for calibration and maintenance. No central inventory of all medical equipment used in the radiology was found nor was any periodic preventative maintenance program found. No mechanism was found where recalls and failures are tracked and acted accordingly.
- **[Recommendation]**: It is recommended that radiology and diagnostic imaging should develop, implement, and document a program to manage equipment and medical technology identifying how radiology equipment and medical technology should be selected and acquired. It is recommended that there should be documented inventory of all radiology equipment and medical technology. It is recommended that radiology equipment and medical technology should be calibrated and maintained according to manufacturers’ recommendations. It is recommended that the hospital should have a system in place for monitoring and acting on radiology equipment and medical technology hazard notices, recalls, reportable incidents, problems, and failures.
Area Assessed:

- X-ray film and other supplies are regularly available.

Status:

- [Observation]: During the survey, x-ray films and other supplies were found to be available for radiology operations.

Area Assessed:

- Quality control procedures are in place, followed, and documented.

Status:

- [Observation]: Quality control procedures for radiology services were not in place and documented.
- [Recommendation]: It is recommended that the hospital should establish and implement a quality control program for the radiology and diagnostic imaging services. It is recommended that quality control should include validating test methods, daily surveillance and documentation of imaging results, testing reagents and solutions and documenting test results and rapid correction and documentation when a deficiency is identified.
Area Assessed:
➤ There is a process to integrate and to coordinate the care provided to each patient.

Status:

- [Observation]: Care planning and delivery was found to be integrated and coordinated among settings, departments, and services.
- [Recommendation]: It is recommended that the results or conclusions of any patient care team meetings or other collaborative discussions should be documented in the patient’s record.

Area Assessed:
➤ The hospital develops and implements a uniform process for prescribing patient orders.

Status:

- [Observation]: No uniform process was found in the hospital for prescribing patient orders. Although majority of the orders are documented in the patient’s record, they were not found in uniform location in the patient’s record.
- [Recommendation]: It is recommended that the hospital develops and implements a uniform process for prescribing patient orders. Diagnostic imaging and clinical laboratory test orders include a clinical indication/rationale when required for interpretation. Orders are prescribed only by those qualified to do so. Orders are found in a uniform location in patient records.

Area Assessed:
➤ Clinical and diagnostic procedures and treatments performed, and the results or outcomes, are documented in the patient’s record.

Status:

- [Observation]: Procedures and treatments performed were documented in the patient’s record.
- [Recommendation]: It is recommended to document the person requesting, and the reason for requesting the procedure or treatment in the patient’s record. The results of procedures and treatments performed should also documented in the patient’s record.
Area Assessed:
- The care of high-risk patients and the provision of high-risk services are guided by professional practice guidelines, laws, and regulations.

Status:

[Observation]: Even though, the hospital did not formally define high risk patients and services, care process was identified to be different from normal population. For example, in Gynae Ward, protocols were defined and practices as below are in place:
- The head of department supervises development and implementation of protocols and procedures related to their practices and care of women in labor.
- International infection control guidelines were enforced inside the operating and recovery rooms.
- Life support training of staff was conducted.
- Pediatricians were identified to be called in emergencies.
- The department had most of the equipment, medications and tools that meet the needs of patients, including,
  - Cardio-tocography machines
  - Pulse oximetry
  - Adequate light source.
  - Amnihooks, Vacuum extractor and forceps
  - Infant resuscitation equipment and supplies
- Finding and documentation of APGAR Score was practiced.
- Initial neonatal assessment took place.
- A labor register was maintained, which includes
  - Method of delivery
  - Date & Time of delivery
  - Name of consultant and assistants
  - Neonatal outcome
  - Status of placenta and membranes

However, certain areas, especially coordination with pediatric department would require attention, as the following practices were not observed:
- A qualified physician physical presence in the delivery rooms.
- A qualified pediatrician/neonatologist presence in caesarean section deliveries.
- Certified pediatricians and nurses in neonatal resuscitation program. However, basic class trainings were conducted from time to time.
- Specific criteria for admission and discharge based on the gestational age of mothers, department's design and available resources.
- Automated blood pressure monitoring machines.
- Intravenous infusion pumps.

[Recommendation]: It is recommended that hospital leadership should identify the high-risk patients and services. When high-risk services are provided by the hospital, leadership establishes and implements guidelines and procedures for those services and for the care of high-risk patients. Staff have been trained and use the guidelines and procedures for care. Hospital leadership identifies additional risks that may affect high-risk patients and services. Evaluation of the high-risk services is included in the hospital’s quality improvement program.
Area Assessed:
➔ Clinical staff are trained to recognize and respond to changes in a patient’s condition.

Status:

▪ **[Observation]**: Informal process which is not uniform throughout the hospital was found for staff to recognize and respond to patient whose condition changes. However, no formal process was found, where the changes in patient’s condition are identified as red-flags and uniform response undertaken for them.

▪ **[Recommendation]**: It is recommended that the hospital develops and implements a systematic process for staff recognition of and response to a patient whose condition appears to be worsening. The hospital develops and implements documented criteria describing early warning signs of a change or deterioration in a patient’s condition and when to seek further assistance. Based on the hospital’s early warning criteria, staff seek additional assistance when they have concerns about a patient’s condition. The hospital informs the patient and family how to seek assistance when they have concerns about a patient’s condition.

Area Assessed:
➔ Resuscitation services are available throughout the hospital.

Status:

▪ **[Observation]**: Resuscitation services are available in the form of healthcare providers in the unit. However, no uniform mechanism of a Code Blue team or equivalent was found in the hospital, nor was central record of ACLS or equivalent training available for healthcare providers.

▪ **[Recommendation]**: It is recommended that medical technology for resuscitation and medications for basic and advanced life support are standardized and available for use based on the needs of the population served. In all areas of the hospital, basic life support is implemented immediately upon recognition of cardiac or respiratory arrest, and advanced life support is implemented in fewer than 5 minutes.

Area Assessed:
➔ Patients at nutrition risk receive nutrition therapy.

Status:

▪ **[Observation]**: No mechanism was found to assess nutrition risk of patients to receive nutrition therapy.

▪ **[Recommendation]**: It is recommended to use a collaborative process to plan, to deliver, and to monitor nutrition therapy. The patient’s response to nutrition therapy is monitored and documented in the patient record.
Area Assessed:

Patients are supported in managing pain effectively.

Status:

- **[Observation]**: The hospital has no process to identify patients in pain (see above), and hence no uniform and standardized process to manage pain effectively.
- **[Recommendation]**: It is recommended that based on the scope of services provided, the hospital has processes to identify patients in pain. When pain is an expected result of planned treatments, procedures, or examinations, patients are informed about the likelihood of pain and options for pain management. Patients in pain receive care according to pain management guidelines and according to patient goals for pain management. Based on the scope of services provided, the hospital has processes to communicate with and to educate patients, staff and families about pain.

Area Assessed:

The hospital addresses end-of-life care.

Status:

- **[Observation]**: Staff was educated about the unique needs of patients and their families at the end of life.
- **[Recommendation]**: It is recommended that the end-of-life care provided by the hospital addresses dying patients’ needs. The quality of the end-of-life care is evaluated by family and staff.

Area Assessed:

Care of the dying patient optimizes his or her comfort and dignity.

Status:

- **[Observation]**: For patients observed during the survey, interventions were taken to manage pain and primary or secondary symptoms.
- **[Recommendation]**: It is recommended that symptoms and complications are prevented to the extent reasonably possible. Interventions address patient and family psychosocial, emotional, and spiritual needs regarding dying and grieving. Interventions address patient and family religious and cultural concerns. The patient and family are involved in care decisions.
Chapter: Anesthesia and Surgical Care (ASC)

**Area Assessed:**
- Sedation and anesthesia services are available to meet patient needs, and all such services meet professional standards and applicable local and national standards, laws, and regulations.

**Status:**

- **[Observation]:** Sedation and anesthesia services are available in the hospital but the hospital has not defined the areas where sedation and anesthesia should be given.
- **[Recommendation]:** Sedation and anesthesia services should meet professional standards and applicable local and national standards, laws, and regulations. Sedation and anesthesia services should be available for emergencies after normal hours of operation. Outside sedation and anesthesia sources should be selected based on the recommendations of the leader of sedation and anesthesia services based on acceptable records of performance, and compliance with applicable laws and regulations.

**Area Assessed:**
- A qualified individual(s) is responsible for managing the sedation and anesthesia services.

**Status:**

- **[Observation]:** Chief of Anesthesia is managing the sedation and anesthesia services.
- **[Recommendation]:** Sedation and anesthesia services should be uniform throughout the hospital. Sedation and anesthesia services should be under the direction of one or more qualified individuals. Their Responsibilities for recommending outside sources of sedation and anesthesia services should be defined as well.

**Area Assessed:**
- The administration of procedural sedation is standardized throughout the hospital.

**Status:**

- **[Observation]:** Procedural sedation is not standardized throughout the hospital. No documentation is found to identify where procedural sedation may occur, who among the non-anesthesia doctor is allowed to prescribe sedation and who among the staff is trained to monitor patients undergoing procedural sedation. Moreover, patients are not monitored during procedural sedation.
- **[Recommendation]:** It is recommended that the administration of procedural sedation should be standardized throughout the hospital. It is recommended that Standardization of procedural sedation should include identifying and addressing at least:
  a) Areas in the hospital where procedural sedation may occur;
  b) Special qualifications or skills of staff involved in the procedural sedation process;
  c) The differences between pediatric, adult, and geriatric populations or other special considerations;
▪ **[Recommendation]:** It is recommended that Emergency medical technology and supplies should readily available and customized to the type of sedation being performed and the age and medical condition of the patient. It is recommended that an individual with advanced life-support training must be immediately available when procedural sedation is being performed.

**Area Assessed:**

⇒ Practitioners responsible for procedural sedation and individuals responsible for monitoring patients receiving sedation are qualified.

**Status:**

▪ **[Observation]:** Staff competencies were not defined and no evidence for staff was found for anesthesia and sedation monitoring

▪ **[Recommendation]:** It is recommended that health care practitioners responsible for providing procedural sedation should be competent in at least
  a) techniques and various modes of sedation;
  b) pharmacology of sedation drugs and the use of reversal agents;
  c) monitoring requirements; and
  d) response to complications.

▪ **[Recommendation]:** It is recommended that the individual responsible for patient monitoring during procedural sedation should be competent in at least
  a) monitoring requirements;
  b) response to complications;
  c) use of reversal agents; and
  d) recovery criteria

▪ **[Recommendation]:** It is recommended that procedural sedation competencies for all staff involved in sedation should be documented in the personnel files.

**Area Assessed:**

⇒ Procedural sedation is administered and monitored according to professional practice guidelines.

**Status:**

▪ **[Observation]:** We did not find assessment forms for sedation.

▪ **[Recommendation]:** It is recommended that there should be a pre sedation assessment performed and documented that includes at least
  a) identify any airway problems that may influence the type of sedation used;
  b) evaluate at-risk patients for appropriateness of procedural sedation;
  c) plan the type of sedation and the level of sedation the patient will need based on the procedure being performed;
  d) safely administer sedation; and
  e) interpret findings from patient monitoring during procedural sedation and recovery.
[Recommendation]: To evaluate risk and appropriateness of procedural sedation for the patient, it is recommended that a qualified individual should monitor the patient during the period of sedation and should document the monitoring. It is recommended that established criteria (Modified Alderate Score) should be used and documented for the recovery and discharge from procedural sedation.

Area Assessed:
➤ The risks, benefits, and alternatives related to procedural sedation are discussed with the patient, his or her family, or those who make decisions for the patient.

Status:

[Observation]: For patients observed during the tracer, there was no document found which reflects education provided to the patient.
[Recommendation]: It is recommended that the patient, family, and/or decision makers should be educated on the risks, benefits, and alternatives of procedural sedation. It is recommended that the patient, family, and/or decision makers should be educated about post procedure analgesia. It is recommended that a qualified individual should provide the education.

Area Assessed:
➤ A qualified individual conducts a pre-anesthesia assessment and pre-induction assessment.

Status:

[Observation]: It was found during surgical patient Tracer/Files review that pre-anesthesia and pre-induction assessment were not documented in many cases.
[Recommendation]: It is recommended that a pre-anesthesia assessment should be performed for each patient. It is recommended that a separate pre-induction assessment should be performed to reevaluate patients immediately before the induction of anesthesia. It is recommended that the two assessments should be performed by an individual(s) qualified to do so and document patient record

Area Assessed:
➤ Each patient’s anesthesia care is planned and documented, and the anesthesia and technique used are documented in the patient’s record.

Status:

[Observation]: During surgical patient files review, as no assessment was done, it was found that anesthesia technique and care plan was not documented
[Recommendation]: It is recommended that the anesthesia care of each patient should be planned and documented in the patient’s record. It is recommended that the anesthesia agent, dose (when applicable), and anesthetic technique should be documented in the patient’s anesthesia record. It is recommended that the anesthesiologist and/or nurse anesthetist and anesthesia assistants should be identified in the patient’s anesthesia record.
Area Assessed:
The risks, benefits, and alternatives related to anesthesia are discussed with the patient, his or her family, or those who make decisions for the patient.

Status:

▪ [Observation]: During surgical patient file tracer, it was found that there is no record for education provided to the patient regarding anesthesia.
▪ [Recommendation]: It is recommended that the patient, family, and/or decision makers should be educated on the risks, benefits, and alternatives of anesthesia. It is recommended that the patient, family, and/or decision makers should be educated about postoperative analgesia. It is recommended that the anesthesiologist or another qualified individual should provide and document the education.

Area Assessed:
Each patient’s physiological status during anesthesia and surgery is monitored according to professional practice guidelines and documented in the patient’s record.

Status:

▪ [Observation]: During OR tracer, it was observed that during anesthesia, patient physiological status was not monitored. Although intra-anesthesia monitoring record was found for patient undergoing surgery, it needs to be improved.
▪ [Recommendation]: It is recommended that the frequency and type of monitoring during anesthesia and surgery should be based on the patient’s pre-anesthesia status, the anesthesia used, and the surgical procedure performed. It is recommended that monitoring of the patient’s physiological status should be consistent with professional practice. It is recommended that the results of monitoring should be consistently documented in the patient’s record.

Area Assessed:
Each patient’s post-anesthesia status is monitored and documented, and the patient is discharged from the recovery area by a qualified individual or by using established criteria.

Status:

▪ [Observation]: In Post Anesthesia Care Unit, it was observed that patients are monitored in post anesthesia area but the monitoring was not documented.
▪ [Recommendation]: It is recommended that monitoring findings should be documented in the patient’s clinical record. It is recommended that patients should be discharged from the post anesthesia unit (or recovery monitoring is discontinued) in accordance with the alternatives described following:
  a) The patient should be discharged (or recovery monitoring is discontinued) by a fully qualified anesthesiologist or other individual authorized by the individual(s) responsible for managing the anesthesia services.
b) The patient should be discharged (or recovery monitoring is discontinued) by a nurse or similarly qualified individual in accordance with post anesthesia criteria developed by hospital leadership, and the patient’s record contains evidence that criteria are met.

- **[Recommendation]**: It is recommended that time recovery is started and time recovery phase is complete should be recorded in the patient’s record.

**Area Assessed:**

- The risks, benefits, and alternatives are discussed with the patient and his or her family or those who make decisions for the patient.

**Status:**

- **[Observation]**: During surgical patient tracer and file review it was found that consents were available in the patient’s file (see statistics above). The consent forms however were improperly filled.

**Area Assessed:**

- Information about the surgical procedure is documented in the patient’s record to facilitate continuing care.

**Status:**

- **[Observation]**: During surgical patient tracer, it was found that information about the surgical procedure was documented, i.e. a surgical note was found – however it did not meet the minimum requirements of the standard (see below).

- **[Recommendation]**: It is recommended that surgical reports, templates, or operative progress notes include at least
  a) Postoperative diagnosis
  b) Name of operative surgeon and assistants
  c) Procedures performed and description of each procedure findings
  d) Perioperative complications;
  e) Surgical specimens sent for examination;
  f) Amount of blood loss and amount of transfused blood;
  g) Registry number of all implantable devices; and
  h) Date, time, and signature of responsible physician.

- **[Recommendation]**: It is recommended that the hospital should identifies information that may routinely be recorded in other specific areas of the record. It is recommended that the surgical report, template, or operative progress note should be available immediately after surgery before the patient is transferred to the next level of care.
Area Assessed:

Patient care after surgery is planned and documented.

Status:

- **[Observation]**: It was observed that post-surgical plan was documented in the patient chart, but the practice was *inconsistent* and varied across hospital. In additions, the post-surgical nursing care plan was not in practice.

- **[Recommendation]**: It is recommended that the postsurgical care provided by medical, nursing, and others should meet the patient’s immediate postsurgical needs. It is recommended that the continuing postsurgical plan(s) should be documented in the patient’s record within 24 hours by the responsible surgeon or verified by a co-signature from the responsible surgeon on the documented plan entered by the surgeon’s delegate. It is recommended that the continuing postsurgical plan of care should include medical, nursing, and others as needed based on the patient’s needs. It is recommended that when indicated by a change in the patient’s needs, the postsurgical plan of care should be updated or revised based on the reassessment of the patient by the health care practitioners.

Area Assessed:

Surgical care that includes the implanting of a medical device is planned with special consideration of how standard processes and procedures must be modified.

Status:

- **[Observation]**: Mechanism was available for guiding and documentation about management of implantable devices during the survey.
Chapter: Medication Management and Use (MMU)

Area Assessed:
➔ Medication use in the hospital is organized to meet patient needs, complies with applicable laws and regulations, and is under the direction and supervision of a licensed pharmacist or other qualified professional.

Status:

▪ [Observation]: The pharmacy is led by licensed pharmacist but the pharmacy manual was not found which identifies how medication use is organized and managed throughout the hospital.
▪ [Recommendation]: It is recommended that a licensed pharmacist or other qualified individual should directly supervises the activities of the pharmacy or pharmaceutical service. It is recommended that there should be at least one documented review of the medication management system within the previous 12 months.

Area Assessed:
➔ There is a method for overseeing the hospital’s medication list and medication use.

Status:

▪ [Observation]: A medication formulary was found. No mechanism exists to ensure overseeing the hospital medication list and medication use. Although a Pharmacy and Therapeutic Committee existed in the hospital, they were not providing oversight for the process of addition and deletion of drugs in the formulary list nor is there a mechanism available to monitor that only those drugs on the list (formulary) are used in the hospital.
▪ [Recommendation]: It is recommended that there should be a method for overseeing medication use in the hospital. It is recommended that health care practitioners involved in ordering, dispensing, administering, and patient-monitoring processes should be part of evaluating and maintaining the medication list.
▪ [Recommendation]: It is recommended that decisions to add or to remove medications from the list are guided by criteria and that when medications are newly added to the list, there should be a process or mechanism to monitor how the drug is used and any unanticipated adverse events. It is recommended that the list should be reviewed at least annually based on safety and efficacy information.
Area Assessed:
➡ Medications are properly and safely stored

Status:

▪ [Observation]: During the tracers, it was observed that medications were not properly and safely stored. It was observed during tracers visit to the inpatient units the medications were not under lock and key. Moreover, temperature and humidity were not being monitored for areas where medications were stored to ensure efficacy. Also, it was seen that in the inpatient department, that the medicines were being stored in bulk quantities without defining par levels. This was being done so that would have access to medicines and did not have to wait for it to arrive from the central pharmacy.

▪ [Recommendation]: It is recommended that medications should be stored under conditions suitable for product stability, including medications stored on individual patient care units. It is recommended that controlled substances should be accurately accounted for according to applicable laws and regulations. It is recommended that medications and chemicals used to prepare medications should be accurately labeled with contents, expiration dates, and warnings. It is recommended that all medication storage areas, including medication storage areas on patient care units, should be periodically inspected to ensure that medications are stored properly. It is recommended that medications should be protected from loss or theft throughout the hospital.

Area Assessed:
➡ There is a process for storage of sample medications and nutrition products that require special consideration.

Status:

▪ [Observation]: No mechanism was found for storage of sample medication and nutrition products

▪ [Recommendation]: It is recommended that the hospital establishes and implements a process for how sample medications and nutrition products are stored and controlled.

Area Assessed:
➡ Emergency medications are available, monitored, and safe when stored out of the pharmacy.

Status:

▪ [Observation]: It was observed that list of emergency medication was available in the Standard operating procedure and emergency medication was available in most of the inpatient areas but these medications were not under lock & key and expiry mechanism was not defined.

▪ 67% medications provided were found within the hospital for inpatient admissions.

▪ [Recommendation]: It is recommended that emergency medications should be available in the units where they will be needed or should readily accessible within the hospital to meet
emergency needs. It is recommended that emergency medications should be monitored and replaced in a timely manner after use or when expired or damaged.

Area Assessed:
⇒ The hospital has a medication recall system.

Status:

- **[Observation]:** It was observed that mechanism for medication recalling does not exist. Moreover, tracking of expired medication was not found in the hospital and instances were found where expired medications were found in the units.

- **[Recommendation]:** It is recommended that there should be a medication recall system in place. It is recommended that hospital should establish and implements a process for use of medications known to be expired or outdated. It is recommended that hospital should establish and implements a process for the destruction of medications known to be expired or outdated.

Area Assessed:
⇒ Prescribing, ordering, and transcribing are guided by policies and procedures.

Status:

- **[Observation]:** The Pharmacy manual was not found. Some documents were available which guide the prescribing, ordering & transcribing but it needs to be reviewed.

- **[Recommendation]:** It is recommended that the hospital should establish and implement a process for the safe prescribing, ordering, and transcribing of medications in the hospital. It is recommended that the hospital should establish and implement a process for managing illegible prescriptions and orders, including measures to prevent continued occurrence. It is recommended that Staff should be trained in correct prescribing, ordering, and transcribing processes. It is recommended that Patient records should contain a list of current medications taken prior to admission, and this information should be made available to the pharmacy and the patient’s health care practitioners. It is recommended that initial medication orders should be compared to the list of medications taken prior to admission, according to the hospital’s established process.

Area Assessed:
⇒ The hospital defines the elements of a complete order or prescription.

Status:

- **[Observation]:** It was observed that hospital does not have any document- pharmacy manual which defines the elements of prescription.

- **[Recommendation]:** It is recommended that the hospital should develop and implement a process to manage medication orders that are incomplete, illegible, or unclear. It is
recommended that the hospital should develop and implement a process to manage special types of orders, such as emergency, standing, or automatic stop, and any elements unique to such orders. It is recommended that the hospital should develop and implement a process to monitor the completeness and accuracy of medication orders and prescriptions.

Area Assessed:
⇒ The hospital identifies those qualified individuals permitted to prescribe or to order medications.

Status:

- [Observation]: Although there was a general understanding that only doctors are allowed to prescribe medications, it was not identified in the SOPs who can prescribe medications. Moreover, no list was identified identifying individuals who can prescribe restricted medications.
- [Recommendation]: It is recommended that only those permitted by the hospital and by relevant licensure, laws, and regulations should prescribe or order medications. It is recommended that the hospital should establish and implement a process to place limits, when appropriate, on the prescribing or ordering practices of individuals. It is recommended that the individuals permitted to prescribe and to order medications should be known to the pharmaceutical service or others who dispense medications.

Area Assessed:
⇒ Medications prescribed and administered are written in the patient’s record.

Status:

- [Observation]: It was observed that inpatient medication order and administration record was incomplete. Outpatient medication prescription record was not found in the patient file nor was it standardized.
- [Recommendation]: It is recommended that medications prescribed or ordered should be recorded for each patient. It is recommended that medication administration should be recorded for each dose. It is recommended that medication information should be kept in the patient’s record or inserted into his or her record at discharge or transfer.

Area Assessed:
⇒ Medications are prepared and dispensed in a safe and clean environment.

Status:

- [Observation]: It was observed during tracer visit that medication preparation environment was not safe and clean in the Inpatient units/ER/OR
- [Recommendation]: It is recommended that medications should be prepared and dispensed in clean and safe areas with appropriate medical technology, equipment, and supplies. It is recommended that medication preparation and dispensing should adhere to
laws, regulations, and professional standards of practice. It is recommended that staff preparing sterile products should be trained in the principles of medication preparation and aseptic techniques.

**Area Assessed:**
 Médication prescriptions or orders are reviewed for appropriateness.

**Status:**

- **[Observation]:** It was observed during pharmacy tracer visit that appropriateness review was not done for any medication prescription & sources for drug information was not available.
- **[Recommendation]:** It is recommended that the hospital should define the patient-specific information required for an effective review process, and the source or availability of this information should be available at all times when the pharmacy is open or closed. It is recommended that each prescription or order should be reviewed for appropriateness prior to dispensing and administration and includes elements a) through g) in the intent. Thus, each prescription or order is evaluated for appropriateness. It is recommended that there should be a process to contact the individual who prescribed or ordered the medication when questions arise. It is recommended that individuals permitted to review orders or prescriptions should be judged competent to do so and are provided resources to support the review process. It is recommended that review should be facilitated by a record (profile) for all patients receiving medications, and this record should be available at all times when the pharmacy is open or closed. It is recommended that Computer software, when used to cross-check drugs for drug/drug interactions and allergies, should be current and updated according to the program manufacturer’s recommendations.

**Area Assessed:**
 The hospital identifies those qualified individuals permitted to administer medications.

**Status:**

- **[Observation]:** No document was found which identifies qualified individuals who are permitted to administer medication
- **79%** prescriptions were found with ascribable orders to a qualified person.
- **[Recommendation]:** It is recommended that the hospital should identify those individuals, by job description or the privileging process, authorized to administer medications. It is recommended that only those permitted by the hospital and by relevant licensure, laws, and regulations should administer medications. It is recommended that there should be a process to place limits, when appropriate, on the medication administration of individuals.
Area Assessed:
Medication administration includes a process to verify the medication is correct based on the medication prescription or order.

Status:
- **[Observation]**: Medication administration includes the process for verification of medication prescription but it was not consistent and uniform throughout the hospital.
- **[Recommendation]**: It is recommended that medications should be verified with the prescription or order. It is recommended that the dosage amount of the medication should be verified with the prescription or order. It is recommended that the route of administration should be verified with the prescription or order. It is recommended that medications should be administered on a timely basis. It is recommended that medications should be administered as prescribed and noted in the patient’s record.

Area Assessed:
Medication effects on patients are monitored.

Status:
- **[Observation]**: No process was found for monitoring effects of medications on the patients. No mechanism of reporting of adverse effects of medication was found.
- **[Recommendation]**: It is recommended that medication effects on patients should be monitored. It is recommended that medication adverse effects on patients should be monitored and documented. It is recommended that the hospital should establish and implement a process that identifies those adverse effects that should be recorded in the patient’s record and those that must be reported to the hospital. It is recommended that adverse effects should be documented in the patient’s record as identified. It is recommended that adverse effects should be reported as identified by the process in the time frame required.

Area Assessed:
The hospital establishes and implements a process for reporting and acting on medication errors and near misses.

Status:
- **[Observation]**: No process for reporting and acting on medication errors was found in the hospital. It was observed that hospital has a pharmacy and therapeutic committee but no evidence was found that medication errors were discussed in the committee meeting.
- **[Recommendation]**: It is recommended that the hospital should establish a definition for a medication error and near miss. It is recommended that the hospital should establish and implement a process for reporting and acting on medication errors and near misses. It is recommended that those accountable for taking action on the reports should be identified. It is recommended that the hospital should use medication errors and near misses reporting information to improve medication use processes.
Chapter: Quality Improvement and Patient Safety (QPS)

Area Assessed:
⇒ A qualified individual guides the implementation of the hospital’s program for quality improvement and patient safety and manages the activities needed to carry out an effective program of continuous quality improvement and patient safety within the hospital.

Status:

- [Observation]: The MTI did not have a Quality Manager or equivalent position – which was advertised in the past but no suitable candidate available. Moreover, currently no quality improvement patient safety program existed in the hospital that defined the MTI’s priority areas of focus and progress measured against it.
- [Recommendation]: It is recommended that a Quality Department is established and the team in Quality department get formal training in healthcare quality concepts, so that the program that is developed in the hospital provides support and coordination to department/service leaders for like measures across the hospital and for the hospital’s priorities for improvement. It is also recommended that the Quality department implements a training program for all staff that is consistent with staff’s roles in the quality improvement and patient safety program. It is recommended that the quality department regularly communicate quality issues to all staff.

Area Assessed:
⇒ Quality and patient safety program staff support the measure selection process throughout the hospital and provide coordination and integration of measurement activities throughout the hospital.

Status:

- [Observation]: Currently, there is no formal quality improvement program in place in the MTI.
- [Recommendation]: It is recommended that a formal Quality and Patient Safety Program is implemented in the hospital, supported by the leadership and endorsed by the governance. The program should support the selection of measures throughout the hospital at the hospital wide level and at the hospital department or service level. The quality and patient safety program, coordinated by Quality Department, should provide coordination and integration of measurement activities throughout the hospital and tracks the progress on the planned collection of measure data for the priorities selected.
Area Assessed:

The quality and patient safety program includes the aggregation and analysis of data to support patient care, hospital management, and the quality management program and participation in external databases.

Individuals with appropriate experience, knowledge, and skills systematically aggregate and analyze data in the hospital.

The hospital uses an internal process to validate data.

Status:

- **Observation**: As there is no formal Quality Improvement and Patient Safety Program in place, no evidence of documentation on aggregation and analysis of data was found. However, data was aggregated for presentations on ad-hoc basis.

- **Recommendations**: In the proposed Quality Improvement and Patient Safety program, mechanism is recommended to be devised that there is a process to aggregate data and information supporting patient care, hospital management, professional practice review, and the overall quality and patient safety program. It is proposed that data are aggregated, analyzed, and transformed into useful information to identify opportunities for improvement – and individuals with appropriate clinical or managerial experience, knowledge, and skills participate in the process. Results of analysis are then reported to those accountable for taking action.

- **Recommendation**: It is recommended that data validation is a part of the proposed QIPS program. Data are validated when any of the conditions below are met: a new measure is implemented (in particular, those clinical measures that are intended to help a hospital evaluate and improve an important clinical process or outcome); data will be made public on the hospital’s website or in other ways; a change has been made to an existing measure, such as the data collection tools have changed or the data abstraction process or abstractor has changed; the data resulting from an existing measure have changed in an unexplainable way; the data source has changed, such as when part of the patient record has been turned into an electronic format and thus the data source is now both electronic and paper; or the subject of the data collection has changed, such as changes in average age of patients, comorbidities, research protocol alterations, new practice guidelines implemented, or new technologies and treatment methodologies introduced.

Area Assessed:

The hospital uses a defined process for identifying and managing sentinel events.

Status

- **Observation**: No formal definition of sentinel event was found during the survey. Various incidents were investigated at various levels, but no formal guidelines for managing sentinel events exist.
[Recommendation]: It is recommended that the hospital leadership establishes a definition of a sentinel event that at least includes the following:
  o An unanticipated death, including, but not limited to,
    • Death that is unrelated to the natural course of the patient’s illness or underlying condition (for example, death from a postoperative infection or a hospital-acquired pulmonary embolism);
    • Death of a full-term infant; and
    • Suicide;
  o Major permanent loss of function unrelated to the patient’s natural course of illness or underlying condition;
  o Wrong-site, wrong-procedure, wrong-patient surgery;
  o Transmission of a chronic or fatal disease or illness as a result of infusing blood or blood products or
  o Transplanting contaminated organs or tissues;
  o Infant abduction or an infant sent home with the wrong parents; and
  o Rape, workplace violence such as assault (leading to death or permanent loss of function); or homicide (willful killing) of a patient, staff member, practitioner, medical student, trainee, visitor, or vendor while on hospital property.

[Recommendation]: It is recommended that the MTI completes a root cause analysis of all sentinel events in a time period specified by hospital leadership that does not exceed 45 days from the date of the event or when made aware of the event – and the leadership takes action on the results of the root cause analysis.

Area Assessed:
⇒ The organization uses a defined process for the identification and analysis of near-miss events.

Status:

[Observation]: No reporting mechanism for near-misses was identified during the survey.
[Recommendation]: It is recommended that the MTI establishes a definition of a near miss, defines the type of events to be reported, establishes the process for the reporting of near misses and the data are analyzed and actions taken to reduce near-miss events.

Area Assessed:
⇒ An ongoing program of risk management is used to identify and to proactively reduce unanticipated adverse events and other safety risks to patients and staff.

Status:

[Observation]: No formal risk management program was found during the survey.
[Recommendation]: It is recommended that the MTI adopts a risk management framework with at least the following components:
  o risk identification;
  o risk prioritization;
- risk reporting;
- risk management;
- investigation of adverse events; and
- management of related claims.

**[Recommendation]**: It is recommended that at least annually, a proactive risk-reduction exercise is conducted on one of the priority risk processes.
Chapter: Prevention and Control of Infections (PCI)

Area Assessed:

- One or more individuals oversee all infection prevention and control activities. This individual(s) is qualified in infection prevention and control practices through education, training, experience, or certification.

- There is a designated coordination mechanism for all infection prevention and control activities that involves physicians, nurses, and others based on the size and complexity of the hospital.

Status:

- [Observation]: Infection Control Committee was found to be established in the MTI. A manual existed for the infection control committee but it had limited policies to govern its processes.

- [Recommendation]: It is recommended that the committee meets at regular intervals and redefine its TORs, keeping in view the recommendations in this report and the MTI’s size, complexity of activities, and level of risks, as well as the program’s scope. It is also recommended to revise/review the policies with a multi-disciplinary team.

Area Assessed:

- Hospital leadership provides resources to support the infection prevention and control program.

- The hospital designs and implements a comprehensive program to reduce the risks of health care–associated infections in patients and health care workers.

- All patients, staff, and visitor areas of the hospital are included in the infection prevention and control program.

- The hospital uses a risk-based approach in establishing the focus of the health care–associated infection prevention and reduction program.

Status:

- [Observation]: Infection control manual was available with limited policies (PPEs, Hand Hygiene, etc.) and brochures were found as well. However, no formal infection control program was found during the survey. Individual level of surveillance was done for infection control and improvement; no coordinated effort was found during the survey.

- [Recommendation]: It is recommended that infection control and prevention program is established according to the MTI’s size, complexity of activities, and level of risks, as well as the program’s scope. MTI leadership allocates and approves staffing and resources required
for the infection prevention and control program. It is recommended that a comprehensive PCI program is established that crosses all levels of the hospital, to reduce the risk of health care–associated infections in patients, healthcare workers and visitors. The program incorporates a range of strategies that includes systematic and proactive surveillance activities to determine usual (endemic) rates of infection. The program is also proposed to include systems to investigate outbreaks of infectious diseases. It is recommended that the program is risk based, developed after performing Infection Control Risk Assessment (ICRA). The risk assessment will help the MTI to establish the focus and identify priorities. Strategies are then recommended to be implemented to reduce the rates of the identified priorities. The program should include all patient-care, staff and visitor areas.

**Area Assessed:**

⇒ The hospital tracks infection risks, infection rates, and trends in health care–associated infections to reduce the risks of those infections.

**Status**

- **[Observation]:** No data on infection risks, rates or trends was found during the survey.
- **[Recommendation]:** It is recommended that as part of the MTI’s infection control priority establishment, healthcare associated infection risks are identified for whom risks, rates and trends are tracked. Data is then collected on it and processes are redesigned based on risk, rate, and trend data and information. It is recommended that the MTI assesses the infection control risks at least annually and takes action to focus or refocus the infection prevention and control program.

**Area Assessed:**

⇒ The hospital reduces the risk of infections by ensuring adequate medical technology cleaning and sterilization and the proper management of laundry and linen.

**Status:**

- **[Observation]:** Various methods of cleaning, disinfection and sterilization were found during the survey. In certain areas of the hospital, the cleaning and disinfection techniques were found to be satisfactory, e.g. in CSSD, all the required protocols were followed – chemical indicator used, steam auto-clave record maintained, etc..
- **[Recommendation]:** It is recommended that the MTI establishes standard methods for medical technology cleaning, disinfection, and sterilization, addressing the principles of infection prevention and control. Methods for medical technology cleaning, disinfection, and sterilization are coordinated and uniformly applied throughout the hospital.
Area Assessed:

➤ The hospital identifies and implements a process for managing expired supplies and the reuse of single-use devices when laws and regulations permit.

Status:

▪ **[Observation]**: The MTI staff was knowledgeable on the expiry management of supplies and medications, however, during the audit, several instances of expired medications were found. In most instances, expiry date of the medications was highlighted but no structure mechanism was found to keep track of expiry dates of medication and other supplies. **No mechanism for reuse of single use items** was found during the survey.

▪ **[Recommendation]**: It is recommended that a formal expiry tracking mechanism is in place in the MTI for medication and other supplies. Moreover, a mechanism for single-use devices and materials reuse, is developed with at least the following elements:
  - Devices and materials that may be reused;
  - The maximum number of reuses specific for each device and material that is reused;
  - The types of wear and cracking, among others, that indicate the device cannot be reused;
  - The cleaning process for each device that starts immediately after use and follows a clear protocol;
  - Identification of patients on whom reusable medical devices have been used; and
  - A proactive evaluation of the safety of reusing single-use items. The hospital collects infection prevention and control data related to reused devices and materials to identify risks and implements actions to reduce risks and improve processes.

Area Assessed:

➤ The hospital reduces the risk of infections through proper disposal of waste.

Status:

▪ **[Observation]**: Staff at the MTI was knowledgeable about the waste management protocols defined by EPA. **However, sharps were not disposed in puncture-proof containers**, making the waste management a hazardous process. Moreover, **transport of waste to the incinerator can be improved by using covered trolleys to minimize the risk of spread of infections through aerosols**. At the incinerator, **storage of waste** was appropriate with separate storage areas, incinerator staff wore all the required PPEs and incinerator was running at all optimal ranges and no smoke was visible during its operation.

▪ **[Recommendation]**: In order to formalize the good process already in place, it is recommended that a comprehensive waste management plan is developed and documented. The plan to include:
  - Segregation of waste
  - Defining the mechanism for transport of different kinds of waste
  - Defining and revamping the waste storage area near incinerator
  - Defining and making available PPEs for staff during the entire chain of waste management
  - Ensuring that incinerator ash is disposed off safely.
Area Assessed:
➤ The hospital implements practices for safe handling and disposal of sharps and needles.

Status:

- **[Observation]**: The hospital had **not deployed sharp boxes for sharps** disposal making the process hazardous.
- **[Recommendation]**: It is recommended that the hospital adopts puncture proof boxes for transportation of sharps for incinerations.

Area Assessed:
➤ The hospital reduces the risk of infection in the facility associated with mechanical and engineering controls and during demolition, construction, and renovation.

Status:

- **[Observation]**: No mechanism was identified to be in place during the survey for infection control risk assessment during demolition, construction and renovation.
- **[Recommendation]**: Since the MTI is undergoing a lot of renovation, it is recommended that a mechanism is developed where engineering controls are implemented to minimize infection risk in the hospital. Risk criteria is used to assess the impact of renovation or new construction and implements the program when demolition, construction, or renovation take place. The risks and impact of the demolition, renovation, or construction on air quality and infection prevention and control activities are assessed and managed.

Area Assessed:
➤ The hospital provides barrier precautions and isolation procedures that protect patients, visitors, and staff from communicable diseases and protects immunosuppressed patients from acquiring infections to which they are uniquely prone.

Status:

- **[Observation]**: Guidelines were found for barrier and isolation procedures in the MTI. Staff members were knowledgeable about the barrier and isolation precautions. However, no dedicated isolation rooms were identified with proper engineering controls in place. Moreover, the guidelines were **not consistently adhered to** as required Personal Protective Equipment (PPE) were not available to ensure the barrier and isolation.
- **[Recommendation]**: It is recommended that patients with known or suspected contagious diseases are isolated in accordance with recommended guidelines. Patients with communicable diseases are separated from patients and staff who are at greater risk due to immunosuppression or other reasons. As part of the renovation, it is recommended that negative-pressure rooms are developed in the MTI and those are monitored routinely and available for infectious patients who require isolation for airborne infections. If negative-
pressure rooms are not feasible, rooms with HEPA filtration systems with a minimum of 12 air changes per hour may be used. Mechanism is recommended for cleaning of infectious rooms during the patient’s hospitalization and after discharge follow infection control guidelines.

Area Assessed:
➤ Gloves, masks, eye protection, other protective equipment, soap, and disinfectants are available and used correctly when required.

Status

- **[Observation]**: During the survey, brochures on the use of PPEs were available and record of staff training on the PPEs were also available. PPEs were available in certain areas of the MTI as well – however it was not standardized throughout the MTI. Supplies of soap, gloves, eye-protection and other disinfectants were not found in majority of the areas. In few areas of the hospital, hand-rubs were found to be available.
- **[Recommendation]**: Now that PPE standardization effort has been carried out in the form of brochures, it is recommended that the MTI ensures staff training and compliance monitoring on the use of personal protective equipment correct in those identified situations. It is recommended that surface disinfecting procedures are defined and implemented for areas and situations in the MTI identified as at risk for infection transmission. It is recommended that soap, disinfectants, and towels or other means of drying are and available in areas where hand-washing and hand-disinfecting procedures are required.
Chapter: Governance, Leadership, and Direction (GLD)

Area Assessed:

- Governance structure and authority are described in bylaws, policies and procedures, or similar documents.

- The operational responsibilities and accountabilities of the governing entity are described in a written document(s).

Status:

- **[Observation]:** The hospital has a well-defined governance structure, operating under the MTI Act and regulations defined. The document clearly defines the responsibilities and accountabilities of the governance entity. However, no evidence of BoG self-evaluation was found during the survey. Evidence was found of the BoG meeting its responsibility and accountability to review capital and operating budget and major appointments. However, no evidence was found of approval of quality program.

- **[Recommendation]:** It is recommended that the BoG establishes a mechanism for self-evaluation, and evaluation conducted accordingly. Moreover, it is recommended that the BoG reviews the hospital’s quality and patient safety program and approves it formally.

Area Assessed:

- Those responsible for governance approve the hospital’s program for quality and patient safety and regularly receive and act on reports of the quality and patient safety program.

Status:

- **[Observation]:** Since no formal program for Quality and Patient Safety was found, resultantly no evidence was found that the board received reports on the QPS program.

- **[Recommendation]:** It is recommended that as part of the QPS program, it is defined what reports are to be shared with the governance and their frequency. Reports are then shared accordingly and recommendations obtained by the BoG.

Area Assessed:

- A chief executive(s) is responsible for operating the hospital and complying with applicable laws and regulations.

Status:

- **[Observation]:** The position of the education and experience of the chief executive(s) matched the requirements in the position description.
Area Assessed:

➡️ Hospital leadership is identified and is collectively responsible for defining the hospital’s mission and creating the programs and policies needed to fulfill the mission.

Status:

▪ [Observation]: The chief executive(s) and hospital leadership are identified by title and name, and their collective accountabilities are described in written documents.

Area Assessed:

➡️ Hospital leadership plans, develops, and implements a quality improvement and patient safety program.

➡️ Hospital leadership communicates quality improvement and patient safety information to governance and hospital staff on a regular basis.

Status:

▪ [Observation]: No documented Quality Improvement and Patient Safety Program was found during the survey. Although, there were quality initiatives identified during the Quality Management interview, formal program was not found.

▪ [Recommendation]: It is recommended that a formal mechanism be adopted for planning and development of QIPS program. It is recommended that the BoG identify priority areas for the hospital and communicate it to the relevant director (HD/MD/ND/Dean). If a hospital is to successfully initiate and to maintain improvement and reduce risks to patients and staff, leadership and planning are essential. Leadership and planning begins with the governing body of the hospital, along with those who manage and lead the clinical and managerial activities of the hospital on a daily basis. Collectively, these persons represent the leaders of the departments and services of the hospital. Hospital leadership is responsible for establishing and providing ongoing support for an organizational commitment to quality. Hospital leadership develops the quality and patient safety program for governance approval, and through its vision and support, shapes the quality culture of the hospital. Hospital leadership selects the approach to be used by the hospital to measure, assess, and improve quality and patient safety. Also, hospital leadership determines how the program will be directed and managed on a daily basis, such as a quality department, and ensures that the program has adequate resources to be effective. Hospital leadership also implements a structure and process for the overall monitoring and coordination of the program throughout the hospital. These actions ensure coordination among all the department and services in measurement and improvement efforts. Coordination can be achieved through a quality management council/committee, or some other structure. Coordination encourages a system-wide approach to quality monitoring and improvement activities while reducing duplication of effort; for example, two departments independently measuring similar processes or outcomes.
Hospital leadership is also responsible for seeing that at least quarterly quality reports are prepared for governance review and discussion and for seeing that the actions of governance related to the quality program reports are carried out. In addition to the quarterly quality reports, at least once every six months, the quality report to governance includes:

a) The number and type of sentinel events and associated root causes;
b) Whether the patients and families were informed of the event;
c) Actions taken to improve safety in response to events; and if the improvements were sustained;
d) Regular communication of information about the quality improvement and patient safety program to staff is essential. This flow of quality communications is through effective channels, such as newsletters, storyboards, staff meetings, and human resources processes. The information can be about new or recently completed improvement projects, progress in meeting the International Patient Safety Goals, the results of the analysis of sentinel and other adverse events, or recent research or benchmark programs, among others.

**Area Assessed:**

Hospital leadership prioritizes which hospital-wide processes will be measured, which hospital-wide improvement and patient safety activities will be implemented, and how success of these hospital-wide efforts will be measured.

**Status:**

- **[Observation]:** As discussed in the report above, the hospital is already working on quality initiatives and has also advertised the hiring of a health care quality professional, including that on clinical care and facility upgradation. However, formal prioritization of quality initiatives that may not be very resource intensive can lead to better systemwide improvement.

- **[Recommendation]:** Due to staff and resource limitations, not every process within a hospital can be measured and improved at the same time. It is recommended that the hospital leadership is to set hospital-wide measurement and improvement priorities. These are measurement and improvement efforts that impact or reflect activities in multiple departments and services. Hospital leadership provides focus for the hospital’s quality measurement and improvement activities, including measurement and activities regarding the hospital's full compliance with the International Patient Safety Goals. Similarly, hospital leadership may give priority to projects that increase efficiency, reduce readmission rates, eliminate patient flow problems in the emergency department, or create a monitoring process for the quality of services provided by contractors. Hospital leadership considers priorities at a system level to spread the impact of improvements broadly throughout the hospital; for example, improving the hospital’s medication management system. The priority-setting process includes the consideration of available data on which systems and processes demonstrate the most variation in implementation and outcomes. Hospital leadership ensures that clinical research and medical education programs are represented among the priorities.
Area Assessed:
Hospital leadership makes decisions related to the purchase or use of resources—human and technical—with an understanding of the quality and safety implications of those decisions.

Status:

- **[Observation]:** It was found the hospital is already working towards unifying supply-chain process in coordination with Shaukat Khanam, but currently need to be mainstreamed across the hospital. The process traced showed compliance with policies, including receiving in stores.

- **[Recommendation]:** It is recommended that mechanism be developed where purchase process results into a central list of non-perishable items – which can be form of PPM schedule for them later on.

Area Assessed:
Department/service leaders of clinical departments or services select and implement quality and patient safety measures specific to the scope of services provided by the department or service and useful in the evaluation of the physicians, nurses, and other professional staff participating in the clinical care processes.

Status:

- **[Observation]:** The ongoing professional practice review is not practiced for the department’s or service’s physicians.

- **[Recommendation]:** It is recommended that the Department/service leaders implement measures that will be useful in the ongoing professional practice review of the department’s or service’s physicians. Nurse manager ensures the competency of the midwives and nursing staff. Department/service leaders implement measures that will be useful in the performance evaluation of other health professional staff.
Chapter: Facility Management and Safety (FMS)

Area Assessed:

➤ The hospital complies with relevant laws, regulations, and facility inspection requirements.

Status:

- [Observation]: Even though a dedicated facility manager existed and facility was managed on day-to-day basis, no documented facility management plan was found during the survey. Moreover, even though staff was aware of applicable laws and regulations, no consolidated list of applicable laws and regulations was found during the survey.

- [Recommendation]: It is recommended that based on the hospital’s mission, volume and mix of patients, services, and medical technology, facility management plan, with sub-components identified in area assessed below are identified. Moreover, it is recommended that a consolidated list of applicable laws and regulations is made available so that the leadership can ensure that all laws and regulations are complied with – and compliance to the applicable laws and regulations are incorporated into the planning.

Area Assessed:

➤ The hospital develops and maintains a written program(s) describing the processes to manage risks to patients, families, visitors, and staff.

➤ One or more qualified individuals oversee the planning and implementation of the facility management program to reduce and control risks in the care environment.

Status:

- [Observation]: During the survey, it was found facility management team exists and it meets with the leadership as well. However, no formal structure to manage the safety issues related to environment of care was found. Moreover, no written programs for facility management and safety were found during the survey.

- [Recommendation]: It is recommended that based on the hospital size, patient mix and building structure, following documents are created:
  - Hospital Safety Plan
  - Hospital Security Plan
  - Hospital Hazardous Material and Waste Management Plan
  - Hospital Fire Safety Plan
  - Hospital Utilities Management Plan
  - Medication Equipment Management Plan
  - Hospital Emergency Management Plan

Moreover, it is recommended that the Safety Committee of the hospital, be made responsible for oversight of the programs. It is recommended that the safety committee has representation from:
  - Safety
  - Security
Moreover, it is also recommended that an on-going review mechanism of the program is recommended to be developed, where the plans are reviewed at least annually.

Area Assessed:

The hospital plans and implements a program to provide a safe physical facility through inspection and planning to reduce risks.

Status:

- **[Observation]**: During the survey, certain safety measures were observed, e.g. hand rails for patients, warning signs in certain areas, however, no formal safety management program was found. Moreover, there were areas of the hospital, which posed significant safety risk to the patients, visitors and staff, for example:
  - Lose wires hanging in certain areas of the hospital
  - Slippery surfaces in various areas
  - False ceilings damaged, missing or loose in certain areas
  - Broken furniture in older parts of the building
  - Broken tiles in the older parts of the building
  - Lack of PPEs while working in high-risk areas, e.g., generator room, etc.
  - Lack of fire alarm system
  - Lack of nurse call system, especially in washrooms

It was discussed with the staff in-charge of the facility management the hospital is undergoing major renovation project, where certain areas mentioned above are being addressed.

- **[Recommendation]**: It is recommended that the hospital implements a safety program, with components at least:
  - Safety of patient, staff and visitors
  - Safety during construction and renovation
  - Work Permit mechanism with safety risk assessment
  - Warning and directive signs for:
    - Radioactive materials, including warning signs for pregnant women
    - Signs for wet floors during cleaning.
    - No smoking signs.
    - Signs and warning lights for x-ray room(s).
    - Signs to restrict cellular phones in sensitive areas as appropriate, e.g. MRI or critical care units.
    - Directive signs posted as appropriate in the hospital and include:
      - Directional signs.
• Signs to direct staff and patients to the different services in the hospital.
• Fire exit signs.
• Signs to identify floor level at staircases and in front of elevators.
• Signs to instruct staff, patients, and visitors in restricted areas.
• MRI patient safety measures and steel restriction signs.
• Signs for populations with special needs.
  o Other safety measures, to be adopted in the hospital, e.g.
    • Non-slipping floors’ surfaces in patient rooms and washrooms
    • Bars to support patients in rooms and washrooms
    • Bell or a system to call for help.
    • Lock system that allows opening from outside.
  o Specific safety components of laboratory:
    • Eye wash stations.
    • Fire blankets.
    • Fire extinguishers.
    • Emergency shower.
    • Fire resistant safety cabinets for laboratory chemicals.

Area Assessed:

➢ The hospital plans and implements a program to provide a secure environment for patients, families, staff, and visitors.

Status:

▪ **[Observation]**: Given the high-risk nature of the operations and high-risk area that the hospital operates in, there was visible security during the survey. Guards were placed at entrances of the hospital and locations inside the hospital. Moreover, staff was found to be wearing ID badges, distinguishing them from visitors and patients. However, no formal security management plan was found during the survey. Moreover, a large number of patient attendants were found during the survey while there was no access management system at the entrance of the hospital.

▪ **[Recommendation]**: It is recommended that, a formal security management plan is developed for the hospital, with emphasis on:
  o Restricting access to irrelevant people within the hospital, including limiting the number of attendants.
  o Defining in writing list of restricted areas of the hospital and measures utilized for restricting access to the areas.

▪ Policies and procedures for the following are recommended to be developed and implemented:
  o Preventing children and neonates’ abduction.
  o Lost and found items.
  o Safe keeping of patient belongings.
  o Involvement of police in cases of trauma, motor vehicle accidents, and medico-legal incidents.
  o Incidents of violence (violence code).
  o Women and child abuse.
▪ Staff training on their roles in security incidents is recommended
▪ Based on the plan, it is recommended to review the number of security personnel to ensure that they are proportional to the size of the hospital, number of entrances, and the availability of supporting security systems. All security personnel are recommended to receive training on:
  ○ Scope of work and job description.
  ○ Emergency codes.
  ○ Fire safety.
  ○ Their role clearly defined for the following:
    ○ External disaster plan.
    ○ Internal disaster plan.
    ○ No smoking policy.

**Area Assessed:**
→ The hospital plans and budgets for upgrading or replacing key systems, buildings, or components based on the facility inspection and in keeping with laws and regulations.

**Status:**

▪ **[Observation]:** During the survey, areas were identified that the management has a focus on upgradation and improvement. As discussed in the section above, *major renovation projects were planned for the hospital* - however, no documented facility inspection was found.

▪ **[Recommendation]:** It is recommended that as part of the safety program, the hospital develops and implements a comprehensive, proactive risk assessment to identify areas in which the potential for injury exist. Examples of safety risks that pose a potential for injury or harm include sharp and broken furniture, linen chutes that do not close properly, broken windows, water leaks in the ceiling, and locations where there is no escape from fire. This periodic inspection is documented and helps the hospital design and carry out improvements and budget for longer-term facility upgrading or replacement.

**Area Assessed:**
→ The hospital has a program for the inventory, handling, storage, and use of hazardous materials.

→ The hospital has a program for the control and disposal of hazardous materials and waste.

**Status:**

▪ **[Observation]:** During the tracer, *no central definition, repository or plan for hazardous material in the hospital was identified.*

▪ **[Recommendation]:** It is recommended that the hospital develops a complete hazardous material and waste management plan. The plan to include identifying and safely controlling hazardous materials and waste throughout the facility. It is recommended that as per WHO recommendations the list of hazardous materials should include:
- Infectious waste
- Pathological and anatomical waste
- Hazardous pharmaceutical waste
- Hazardous chemical waste
- Waste with a high content of heavy metals
- Pressurized containers
- Sharps
- Highly infectious waste
- Genotoxic/cytotoxic waste
- Radioactive waste

The hospital considers these categories identified by WHO when developing an inventory of hazardous materials and waste. The hazardous waste program starts by doing a thorough search for all areas within the facility where hazardous materials and waste may be located. Documentation of this search should include information about the locations, types, and quantities of hazardous materials and waste being stored and should be updated when the location, storage, type, and quantities of hazardous materials has changed.

The hazardous materials program includes processes for:
- the inventory of hazardous materials and waste that includes the material, the quantity, and the location;
- handling, storage, and use of hazardous materials;
- proper protective equipment and procedures during use, spill, or exposure;
- proper labeling of hazardous materials and waste;
- reporting and investigation of spills, exposures, and other incidents;
- proper disposal of hazardous waste; and
- documentation, including any permits, licenses, or other regulatory requirements.

Information regarding procedures for handling or working with hazardous materials in a safe manner must be immediately available at all times and includes information about the physical data of the material (such as its boiling point, flashpoint, and the like), its toxicity, what effects using the hazardous material may have on health, identification of proper storage and disposal after use, the type of protective equipment required during use, and spill-handling procedures, which include the required first aid for any type of exposure. Many manufacturers provide this information in the form of Material Safety Data Sheets (MSDS).

**Area Assessed:**

- The hospital develops, maintains, and tests an emergency management program to respond to emergencies, epidemics, and natural or other disasters that have the potential of occurring within their community.

**Status:**

- **[Observation]:** No formal documented disaster management program was found during the survey.
- **[Recommendation]:** It is recommended that a comprehensive emergency management plan is developed for the hospital. Community emergencies, epidemics, and disasters may
directly involve the hospital, such as damage to patient care areas as a result of an earthquake, or a flu epidemic that keeps staff from coming to work. The development of the program should begin by identifying the types of disasters that are likely to occur in the hospital's region and what the impact of these disasters would have on the hospital. For example, a terrorism and earthquake is more likely to occur in HMC whereas hurricane and snowstorm is unlikely to occur. Facility damage or mass casualties on the other hand could potentially occur in any hospital. It is just as important to identify the effects of a disaster as it is to identify the types of disasters. This helps in planning the strategies that are needed in the event that a disaster occurs. For example, what is the likelihood that a natural disaster, such as an earthquake, will affect water and power? Could an earthquake prevent staff from responding to the disaster, either because roads are blocked or because they or their family members are also victims of the event? In such situations, staff personal responsibilities may be in conflict with the hospital requirements for responding to an emergency. In addition, hospitals need to identify their role within the community. For example, what resources will the hospital be expected to provide to the community in the event that a disaster occurs, and what communication methods will be used within the community. To respond effectively, the hospital develops a program to manage such emergencies. The program provides processes for:

- determining the type, likelihood, and consequences of hazards, threats, and events;
- determining the hospital’s role in such events;
- communication strategies for events;
- the managing of resources during events, including alternative sources;
- the managing of clinical activities during an event, including alternative care sites;
- the identification and assignment of staff roles and responsibilities during an event; and
- the process to manage emergencies when personal responsibilities of staff conflict with the hospital’s responsibility for providing patient care.

The disaster preparedness program is tested by an annual test of the full program internally or as part of a communitywide test.

Area Assessed:

- The hospital establishes and implements a program for the prevention, early detection, suppression, abatement, and safe exit from the facility in response to fires and non-fire emergencies.

- The hospital regularly tests its fire and smoke safety program, including any devices related to early detection and suppression, and documents the results.

Status:

- **[Observation]:** No documented fire safety program was not available during the survey. Moreover, no system for prevention, detection, suppression or abatement was found during the survey. There are fire-extinguishers in certain areas of the hospital, however, no PPM record of theirs was found during the survey. There were remnants of fire management systems installed in earlier years in the MTI, but they were not found to be functional.

- **[Recommendation]:** It is recommended that a formal documented fire management plan be developed for the hospital. Fire is an ever-present risk in a hospital. Thus, the hospital...
needs to plan how it will keep its occupants safe in case of fire or smoke. In addition, non-fire emergencies, such as a toxic gas leak, can pose a threat to occupants. It is recommended that the hospital establishes a program in particular for:
- the prevention of fires through the reduction of risks, such as safe storage and handling of potentially flammable materials, including flammable medical gases such as oxygen;
- hazards related to any construction in or adjacent to the patient-occupied buildings;
- safe and unobstructed means of exit in the event of a fire;
- early warning, early detection systems, such as smoke detectors, fire alarms, and fire patrols; and
- suppression mechanisms, such as water hoses, chemical suppressants, or sprinkler systems.

These actions, when combined, give patients, families, staff, and visitors adequate time to safely exit the facility in the event of a fire or smoke. These actions are effective no matter what the age, size, or construction of the facility. For example, a small, one-level brick facility will use different methods than a large, multilevel wooden facility.

It is proposed that the hospital’s fire safety program identifies:
- the frequency of inspecting, testing, and maintaining fire protection and safety systems, consistent with requirements;
- the program for safely evacuating the facility in the event of a fire or smoke;
- the process for testing all portions of the program during each 12-month period;
- the necessary education of staff to effectively protect and to evacuate patients when an emergency occurs; and
- the participation of staff members in at least one fire safety test per year.

Hospital may also develop a written test for staff to take relating to fire safety as part of testing the program. All inspections, testing, and maintenance are documented.

**Area Assessed:**

⇒ The fire safety program includes limiting smoking by staff and patients to designated non-patient care areas of the facility.

**Status:**

- **[Observation]:** The regulations stipulate that the hospital is a non-smoking facility. However, during the tracer patients and their attendants were found smoking in various areas of the facility. **No smoking signs were not placed** at various locations of the hospital.
- **[Recommendation]:** It is recommended that no-smoking policy be made part of the fire safety program. The fire safety program that addresses limiting smoking
  - Applies to all patients, families, staff, and visitors; and
  - The fire safety program that addresses limiting smoking identifies any exceptions related to patients, such as the medical or psychiatric reasons a patient may be permitted to smoke, and those individuals permitted to grant such an exception. When an exception is made, the patient smokes in a designated, non-treatment area, away from other patients.

**Area Assessed:**

⇒ The hospital establishes and implements a program for inspecting, testing, and maintaining medical technology and documenting the results.
Status:

- **[Observation]**: The hospital has biomedical engineer. It was found that a mechanism exists to respond to breakdown maintenance requests. A written document is generated for breakdown, which upon being addressed was signed for verification by the user generating the request. However, no master plan for equipment preventative maintenance was found during the survey. No master list of medical equipment was found during the survey.

- **[Recommendation]**: To ensure that medical technology is available for use and functioning properly, it is recommended that the hospital performs and documents
  - an inventory of medical technology;
  - regular inspections of medical technology;
  - testing of medical technology according to its use and manufacturers’ requirements; and
  - performance of preventive maintenance.

Medical technology is inspected and tested when new and then on an ongoing basis, according to the technology’s age, use, and manufacturers’ instructions. Inspections, testing results, and any maintenance are documented. This helps ensure the continuity of the maintenance process and helps when doing capital planning for replacements, upgrades, and other changes.

**Area Assessed:**

- The hospital establishes and implements a program to ensure that all utility systems operate effectively and efficiently.

- Utility systems are inspected, maintained, and improved.

Status:

- **[Observation]**: The hospital has utility system for provision of electricity and water. As part of management of utilities, there exists three step-backup for electricity: 2 separate lines from PESCO and stand-by generators. Critical lines are identified for electricity supply to areas at highest risk of electricity failure, e.g. critical care units, operation theaters, elevators, etc. For water, separate tube-wells are installed. The tube-wells are independent of each other and are installed in a fail-safe manner. Record was maintained for the running hours of generators. However, no documented utility management plan was found during the survey. Moreover, in certain areas of utility management, protective equipment for staff was not available for safety. No preventative maintenance program of the utility management program was found for components of the program.

- **[Recommendation]**: It is recommended that utility management program be developed for oversight and management of the program. Moreover, it is recommended that a periodic preventative maintenance plan be developed for components of the utility program.
Area Assessed:

- Designated individuals or authorities monitor water quality regularly.

Status:

- [Observation]: During the survey, no evidence of water-testing was found.
- [Observation]: In IKD water testing is done for electrolytes only, Microbial and endotoxin testing is not done. Moreover, there is no policy and SOP for water testing.
- [Recommendation]: Water quality is prone to sudden change, including changes outside the control of the hospital. Water quality is also a critical factor in clinical care processes, such as renal dialysis. Thus, it is recommended that the hospital establishes a process to monitor water quality, including biological testing of water used in renal dialysis. Actions are implemented when water quality is found to be unsafe. It is recommended that monitoring is performed at least quarterly or more frequently based on conditions of the sources for water, and previous experience with water quality problems. The monitoring can be carried out by individuals designated by the hospital, such as staff from the clinical laboratory, or by public health or water control authorities outside the hospital judged competent to perform such tests. Whether performed by qualified hospital staff or by authorities outside the hospital, it is the responsibility of the hospital to ensure that the testing is completed and documented.
- [Recommendation]: It is recommended that for normal water chemical and biological tests are performed. For water used in dialysis, chemical, biological and endotoxin testing is recommended on at least quarterly basis.
Chapter: Staff Qualifications and Education (SQE)

Area Assessed:
➢ Leaders of hospital departments and services define the desired education, skills, knowledge, and other requirements of all staff members.

Status:

▪ [Observation]: The human resources function is operating with limited scope, i.e. payroll and attendance.
▪ [Recommendation]: The hospital should expand HR function scope by including training and performance management as well.

Area Assessed:
➢ Each staff member’s responsibilities are defined in a current job description.

Status:

▪ [Observation]: The hospital has defined job description for all available positions.
▪ [Recommendation]: The Job Descriptions need to be reviewed on a continued basis in order to incorporate changes in job duties accordingly.
▪ [Recommendation]: It is further recommended that hospital shall have a policy that describes standardized format for a job description and shall include required knowledge, skills and a reporting relationship.

Area Assessed:
➢ Leaders of hospital departments and services develop and implement processes for recruiting, evaluating, and appointing staff as well as other related procedures identified by the hospital.

Status:

▪ [Observation]: The hospital has developed policies for recruitment and selection which are duly approved from Board of Governors (BOG)
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Area Assessed:
The hospital uses a defined process to ensure that clinical staff knowledge and skills are consistent with patient needs.

Status:
- **[Observation]**: The hospital has no standard process in place for ensuring consistency in clinical staff knowledge and skills with patient needs.
- **[Recommendation]**: It is recommended that for all clinical positions, competency requirements be defined. It is to be ensured that staff working in those clinical positions have their competencies assessed and used when transferring staff to another position within the hospital.

Area Assessed:
The hospital uses a defined process to ensure that nonclinical staff knowledge and skills are consistent with hospital needs and the requirements of the position.

Status:
- **[Observation]**: It has been observed that hospital does not have any formal mechanism in place for identifying training and development needs.
- **[Recommendation]**: It is recommended to have a formal procedure in place across the hospital for improving skills, competencies and knowledge in order to meet current patient requirements effectively and efficiently.

Area Assessed:
There is documented personnel information for each staff member.

Status:
- **[Observation]**: The hospital reserved staff personal files.
- **[Recommendation]**: It is recommended to have a policy for files security, maintenance and authorization control, and disposal of personnel files.

Area Assessed:
A staffing strategy for the hospital, developed by the leaders of hospital departments and services, identifies the number, types, and desired qualifications of staff.

Status:
- **[Observation]**: The hospital has a developed staffing plan i.e. **Budget Book** which is duly approved from BOG at the start of the financial year.
Area Assessed:
¬ The staffing strategy is reviewed on an ongoing basis and updated as necessary.

Status:

▪ [Observation]: The annual staffing plan has not been reviewed since the start of the year.
▪ [Recommendation]: It is recommended to review and update staffing plan at least quarterly and as needed.

Area Assessed:
¬ All clinical and nonclinical staff members are oriented to the hospital, the department or unit to which they are assigned, and to their specific job responsibilities at appointment to the staff.

Status:

▪ [Observation]: During the survey, it was observed that hospital didn’t orient new staff members.
▪ [Recommendation]: It is recommended to ensure orientation policy implementation for all new hire across the hospital.

Area Assessed:
¬ Each staff member receives ongoing in-service and other education and training to maintain or to advance his or her skills and knowledge.

Status:

▪ [Observation]: It is observed that hospital randomly send staff to various workshops and trainings from different functions.
▪ [Recommendation]: The hospital shall ensure training and development policy implementation across the hospital.
▪ [Recommendation]: It is further recommended that hospital shall provide training with sufficient frequency in order to meet patient’s needs.

Area Assessed:
¬ Staff members who provide patient care and other staff identified by the hospital are trained and can demonstrate appropriate competence in resuscitative techniques.

Status:

▪ [Observation]: The hospital didn’t train staff on resuscitative techniques
▪ [Recommendation]: It is recommended the hospital shall provide training with sufficient frequency in order to meet staff needs.
Area Assessed:
⇒ The hospital provides a staff health and safety program.

- [Observation]: Hospital has a process in place for pre-employment medical evaluation of all new hires. However, no formal program is in place which identified the hazards that are posed to staff working in various areas of the hospital. Moreover, no mechanism exists stipulating what action staff should take or support that hospital will provide in case staff health and safety is jeopardized during the course of duty.
- [Recommendation]: It is recommended that hospital shall have health and safety program which will include medical evaluation, keeping record of any exposure of needle stick injuries, blood and body fluid exposure or other stuff health and safety incident data.

Area Assessed:
⇒ Medical staff members’ education, licensure/registration, and other credentials required by law or regulation and the hospital are verified and kept current.

Status:

- [Observation]: The hospital ensured valid licensure/registration for all new hires as required by law however, no standard procedure for renewal existed.
- [Recommendation]: It is recommended to have a standard procedure and policy in place for timely renewal in order to fulfill relevant laws and regulation.

Area Assessed:
⇒ There is a uniform, transparent decision process for the initial appointment of medical staff members.

Status:

- [Observation]: The hospital has selection committee comprising of respective HOD and Medical/ Hospital Director for staff recruitment and selection.

Area Assessed:
⇒ The hospital has a standardized, objective, evidence-based procedure to authorize medical staff members to admit and to treat patients and/or to provide other clinical services consistent with their qualifications.

Status:

- [Observation]: The hospital have a privileging and credentialing committee which is still in its infancy, to ensure standardized, objective, evidence-based procedure to authorize medical staff members to admit and to treat patients and/or to provide other clinical services consistent with their qualifications. No privilege delineation process was found which is standardized, objective, and evidence-based; is documented in hospital policies; is active and ongoing as the credentials of medical staff members change; is followed for all
classes of medical staff membership; and can be demonstrated as to how the procedure is used effectively. Moreover, no mechanism was found to ensure that the clinical privileges of all medical staff members are made available by printed copy, electronic copy, or other means to those individuals or locations (for example, operating room, emergency department) in the hospital in which the medical staff member will provide services. No process was found to ensure that each medical staff member provides only those services that have been specifically granted by the hospital.

- **[Recommendation]:** It is recommended that an objective, evidence based procedure for privileging and credentialing be established for all medical staff members which ensure that clinical service is provided consistent with the qualification of the medical staff. Moreover, mechanism needs to be in place to ensure that clinical privileges of staff are available in areas of the hospital where services are provided and that monitoring mechanism exists that medical staff provides only those services for which the medical staff is privileged by the hospital.

**Area Assessed:**

→ The hospital uses an ongoing standardized process to evaluate the quality and safety of the patient care provided by each medical staff member.

**Status:**

- **[Observation]:** No mechanism for on-going professional practice evaluation was found. No process of ongoing monitoring and evaluation composing the process of continuously accumulating and analyzing data and information on the behaviors, professional growth, and clinical results of medical staff members was found.

- **[Recommendation]:** It is recommended that all medical staff members are included in an ongoing professional practice monitoring and evaluation process as defined by hospital policy and standardized at the department/service level. The monitoring and evaluation process should identify areas of achievement and potential improvement related to the behaviors, professional growth, and clinical results of the medical staff member compared to other department/service medical staff members. The clinical results of data and information available on medical staff members are reviewed with objective and evidence-based information, as available, for external benchmarking. The data and information from the monitoring are reviewed at least every 12 months by the individual’s department or service head, and the results, conclusions, and any actions taken are documented in the medical staff member’s credentials file and other relevant files. When the findings affect the appointment or privileges of the medical staff member, there is a process to take action on the findings, and such “for cause” actions are documented in the practitioner’s file and are reflected in the list of clinical privileges. Notification is sent to those sites in which the practitioner provides services.
Area Assessed:

⇒ At least every three years, the hospital determines, from the ongoing monitoring and evaluation of each medical staff member, if medical staff membership and clinical privileges are to continue with or without modification.

▪ [Observation]: The hospital didn’t have a process in place for monitoring and evaluation of staff member’s membership and clinical privileges. Based on that no reappointment process was found in the hospital.

Area Assessed:

⇒ The hospital has a uniform process to gather, to verify, and to evaluate the nursing staff’s credentials (license, education, training, and experience).

Status:

▪ [Observation]: The hospital gathered and verified staff credentials/ employment history before first payroll disbursement.

Area Assessed:

⇒ The hospital has a standardized process for nursing staff participation in the hospital’s quality improvement activities, including evaluating individual performance when indicated.

Status:

▪ [Observation]: During the survey, no formal procedure was found in place for nursing staff participation in system/quality improvement.

▪ [Recommendation]: It is recommended to have a process in place for active participation in quality improvement activities across the hospital. Activities shall be linked with individual performance and shall be documented in individual personal files by Human Resource team.

Area Assessed:

⇒ The hospital has a uniform process to gather, to verify, and to evaluate other health professional staff members’ credentials (license, education, training, and experience).

Status:

▪ [Observation]: The hospital collected staff credentials and majorly verified from primary source.

▪ [Recommendation]: It is recommended to have a standard procedure in place for verifying employment history, credential verification and renewal on timely basis for all staff across the hospital.
Chapter: Management of Information (MOI)

Area Assessed:

➢ The hospital plans and designs information management processes to meet internal and external information needs.

Status:

▪ [Observation]: Although informal processes existed where IT Department provides support to the management and clinical processes of the hospital, no evidence of needs assessment of information requirement was found in the hospital.

▪ [Recommendation]: It is recommended that there should be a process to gather the information needs of the following stakeholders:
  o Those who provide clinical services
  o Those who manage the hospital are
  o Individuals and agencies outside the hospital

All needs and requirements are considered in the planning process; based on the hospital’s size and complexity.

Area Assessed:

➢ Information privacy, confidentiality, and security including data integrity are maintained.

Status:

▪ [Observation]: No written procedures or guidelines were found during the survey that defines the protection of the confidentiality, security, and integrity of data and information.

▪ [Recommendation]: It is recommended that the written process should be in place that protects the confidentiality, security, and integrity of data and information. The process is based on and consistent with laws and regulations, identifies the level of confidentiality maintained for different categories of data and information and those persons who need or have a job position permitting access to each category of data and information are identified. Compliance with the process is monitored regularly.

Area Assessed:

➢ The hospital determines the retention time of records, data, and information.

Status:

▪ [Observation]: No retention period of patient’s record, data and information was found. Moreover, no disposal mechanism was defined against the record.

▪ [Recommendation]: It is recommended that the hospital determines the retention time of patient clinical records and other data and information. It must provide expected confidentiality and security. Records, data, and information are destroyed in a manner that does not compromise confidentiality and security.
Area Assessed:
The hospital uses standardized diagnosis codes, procedure codes, symbols, abbreviations, and definitions.

Status:

- [Observation]: No standardized definitions, diagnosis codes, procedure codes, symbols, abbreviations were found during the tracer.
- [Recommendation]: It is recommended that standardized diagnosis codes, procedure codes, definitions, symbols and abbreviations are used and monitored. Similarly, those standardized symbols and abbreviations not to be used are identified and monitored.

Area Assessed:
The data and information needs of those in and outside the hospital are met on a timely basis in a format that meets user expectations and with the desired frequency.

Status:

- [Observation]: Data and information dissemination took place as per the needs of users in a timely manner.

Area Assessed:
Health information technology systems are assessed and tested prior to implementation within the hospital and evaluated for quality and patient safety following implementation.

Status:

- [Observation]: The formal process of selection, implementation and evaluation of information technology was not in place. However, the hospital is in the process of acquiring Health IT system from Shaukat Khanum Memorial Hospital, whose safety and efficacy has been tested in its environment.

Area Assessed:
Records and information are protected from loss, destruction, tampering, and unauthorized access or use.

- [Observation]: Although for electronic data, passwords were assigned to individuals for protection of data, no process regarding protection of data and records was found or practiced for paper based record. Records were not stored in conditions suitable for storage of paper records.
- [Recommendation]: It is recommended that records and information are protected from loss, damage or destruction, tampering and unauthorized access or use.
Area Assessed:
⇒ Written documents, including policies, procedures, and programs, are managed in a consistent and uniform manner.

Status:

▪ [Observation]: No written guidance document was found that defines the requirements for developing and maintaining policies, procedures, and programs.
▪ [Recommendation]: It is recommended that there should be standardized formats for all similar documents; for example, all policies. The requirements of the guidance document are implemented and evident in the policies, procedures, and programs found throughout the hospital.

Area Assessed:
⇒ The policies, procedures, plans, and other documents that guide consistent and uniform clinical and nonclinical processes and practices are fully implemented.

Status:

▪ [Observation]: SOPs were found during the survey, but other policies and procedures were not found during the survey. Moreover, no evidence was found that staff was trained on the policies and it was not reflected in their actions. Monitoring for implementation of policies was not found.
▪ [Recommendation]: It is recommended that they must be available for staff relevant to their responsibilities. Staff are trained and understand those documents relevant to their responsibilities. The requirements of the policies, procedures, and plans are fully implemented and evident in the actions of individual staff members. The implementation of policies, procedures, and plans is monitored, and the information supports full implementation.

Area Assessed:
⇒ The hospital initiates and maintains a standardized clinical record for every patient assessed or treated and determines the record’s content, format, and location of entries.

Status:

▪ [Observation]: A clinical record was found for only inpatients assessed or treated by the hospital. Unique identifier to the patient was only practiced in one inpatient ward however, every time patient come he/she assigned a new admission number and records were also maintained in new file.
▪ [Recommendation]: It is recommended that the patient clinical records are maintained through the use of an identifier unique to the patient or some other effective method.
Throughout the hospital. The specific content, format, and location of entries for patient clinical records is standardized and determined by the hospital.

**Area Assessed:**

- The clinical record contains sufficient information to identify the patient, to support the diagnosis, to justify the treatment, and to document the course and results of treatment.

- **[Observation]:** Patient clinical records contain patient name to identify the patient, adequate information to support the diagnosis and to justify the care and treatment.

- **[Recommendation]:** It is recommended that patient name and unique registration number should be used for patient identification. Patient clinical records must contain adequate information to document the course and results of treatment.

**Area Assessed:**

- The clinical records of patients receiving emergency care include the time of arrival and departure, the conclusions at termination of treatment, the patient’s condition at discharge, and follow-up care instructions.

**Status:**

- **[Observation]:** The clinical records of emergency patients were not found or maintained.

- **[Recommendation]:** It is recommended to maintain clinical records of all emergency patients. It should include:
  - Arrival and departure times
  - Discharged emergency patients include conclusions at the termination of treatment
  - Discharged emergency patients include the patient’s condition at discharge
  - Discharged emergency patients include any follow-up care instructions.

**Area Assessed:**

- The hospital identifies those authorized to make entries in the patient clinical record.

- **[Observation]:** No hospital policy was found that identifies the authorized individuals to make entries in the patient clinical record.

- **[Recommendation]:** It is recommended that those authorized to make entries and access the patient clinical record are identified in hospital policy. There must be a process to ensure that only authorized individuals make entries and have access to the patient clinical records and also addresses how entries in the patient record are corrected or overwritten.
**Area Assessed:**

➤ Every patient clinical record entry identifies its author and when the entry was made in the record.

**Status:**

- **[Observation]**: The author's name and date time were not found in 5% of clinical record entry.
- **[Recommendation]**: It is recommended that the author's name, date and time can be identified for each patient clinical record entry.

**Area Assessed:**

➤ As part of its monitoring and performance improvement activities, the hospital regularly assesses patient clinical record content and the completeness of patient clinical records.

**Status:**

- **[Observation]**: No policy or mechanism was found regarding monitoring and review of patient clinical records (PCR).
- **[Recommendation]**: It is recommended that a representative sample of active and discharged patient clinical records is reviewed at least quarterly or more frequently as determined by laws and regulations. The review is conducted by physicians, nurses, and others authorized to make entries in patient records or to manage patient records. The review focuses on the timeliness, legibility, and completeness of the clinical record. Record contents required by laws or regulations are included in the review process. The results of the review process are incorporated into the hospital’s quality oversight mechanism.
Chapter: Medical Professional Education (MPE)

Area Assessed:
The hospital’s clinical staff, patient population, technology, and facility are consistent with the goals and objectives of the education program.

Status:

▪ [Observation]: It was observed that hospital’s clinical staff, patient population, technology, and facility were not consistent with the goals and objectives of the education program.
▪ [Recommendation]: It is recommended that the clinical staff of the hospital should be in adequate number and have the education, training, and competence to support and advance the education of medical students and trainees. It is recommended that hospital’s facilities, technology, and other resources support the education of medical students and trainees. There should be documentation of the qualifications of staff permitted to participate in the research program.

Area Assessed:
The hospital understands and provides the required frequency and interval of medical supervision for each type and level of medical student and trainee.

Status:

▪ [Observation]: Although as part of the CPSP’s procedure for supervision delineation, supervision level is defined for every trainee medical officer – levels of supervisions were not available at the unit level for each medical student and trainee.
▪ [Recommendation]: It is recommended that each medical student and trainee should understand the level, frequency, and documentation of his or her. Moreover, the hospital should provide the required level of supervision for each medical student and trainee. It is recommended that there should be a uniform process for documenting the required supervision that should be consistent within the hospital. It is recommended that patient care records should be reviewed for compliance with the documentation requirements and frequency of supervision.

Area Assessed:
Medical students and trainees comply with all hospital policies and procedures, and all care is provided within the quality and patient safety parameters of the hospital.

Status:

▪ [Observation]: During tracer visits to different inpatient units it was found there was no orientation mechanism on induction of medical students & the medical students as well as the trainees were not aware of the existing policies and Standard Operating Procedures of the hospital.
**[Recommendation]**: It is recommended that all medical students and trainees should be provided an orientation on induction and every unit have their unit specific orientation package. It is recommended that medical students and trainees should be included in the data collection for the hospital’s quality monitoring programs. It is recommended that those supervising medical students and trainees should ensure that the medical students and trainees are knowledgeable of the programs and participate in the programs. Medical students and trainees should demonstrate knowledge of these programs. It is recommended that those supervising medical students and trainees should consider compliance with these programs in their evaluation of medical student and trainee performance.
Chapter: Human Subjects Research Programs (HRP)

Area Assessed:
- Hospital leadership is accountable for the protection of human research subjects.

Status:
- [Observation]: In its allied institute; IKD (Institute of Kidney Disease) the leadership was committed to improve the human research subject. However, the policy manuals for research need to be reviewed. In Hayatabad Medical Complex, during the tracer, no document was found which guides human research subject’s protection. There was a centralized mechanism for overseeing research activities but there was no indemnity insurance or similar protection for human subjects in research.
- [Recommendation]: It is recommended that the hospital leadership establishes and promotes a code of ethical professional behavior for all research activities in the institution. Hospital leadership, verbally and in writing, communicates within the hospital their commitment to protect human subjects research participants and support the code of ethical professional behavior. Hospital leadership identifies the official(s) responsible for maintaining the development of and compliance with all human subject’s research policies and procedures. Hospital leadership assumes responsibility for patient protection irrespective of the sponsor of the research. It is recommended that the hospital leadership provides for indemnity insurance for human subject research in case of adverse events.

Area Assessed:
- Hospital leadership establishes the scope of research activities.

Status:
- [Observation]: No document was found to delineate the scope of research activities in the institution.
- [Recommendation]: It is recommended that Hospital leadership should identify the program scope in terms of drugs, medical devices, testing, and other potential research topics and methodologies, those facilities that will be included in the research function, the qualifications of staff permitted to participate in the research program as principal investigators or other members of the research team and documentation of the qualifications of staff permitted to participate in the research program.

Area Assessed:
- The hospital identifies and manages conflicts of interest with research conducted at the hospital.

Status:
- [Observation]: No evidence was found which reflected management of conflict of interest for research activities.
[Recommendation]: It is recommended that hospital should specify the requirements for managing conflicts of interest, both financial and nonfinancial, specify the individuals, committees, and others for whom the requirements apply, and have an ongoing education and monitoring process to ensure compliance with the requirements.

Area Assessed:
➢ The hospital integrates the human subjects research program into the quality and patient safety program of the hospital.

Status:

[Observation]: As no hospital-wide quality and patient safety program exists, no integration with research program was found. The same holds true for its allied institute: Institute of Kidney Diseases (IKD).

[Recommendation]: It is recommended to develop research program which is a component of the hospital's processes to report and act on sentinel events, adverse events of other types, and the processes to learn from near misses. It is recommended that research program should be included in the hospital's programs for hazardous material management, medical technology management, and medication management. It is recommended that the evaluation of staff participating in the research program should be incorporated into the ongoing monitoring processes of professional performance.

Area Assessed:
➢ The hospital establishes and implements an informed consent process that enables patients to make informed and voluntary decisions about participating in clinical research, clinical investigations, or clinical trials.

Status:

[Observation]: As part of various studies, consent was taken from the patients. However, in the research manual the elements for consent were not defined.

[Recommendation]: It is recommended that Patients asked to participate should be informed about the research, duration of patient’s participation, procedures to be followed, and who to contact with questions about the research. Patients asked to participate should be informed about the expected benefits, potential risks, and alternative treatments and procedures that might also help them. It is also recommended that patients asked to participate should be informed about the extent to which confidentiality of records will be maintained and be informed about the compensation or medical treatments available if injury occurs. It is recommended that patients asked to participate should be assured that participation is voluntary and refusal to participate or withdrawal at any time will not compromise care or access to hospital services.
Chapter: Financial Management (FM)
Hayatabad Medical Complex

Area Assessed:

- Financial Management system (Computerized).
- Number of Periodic reports submitted
- Monthly Reconciliation reports generated.
- Percent Increase in Revenue per year with Breakup of sources.

Status:

- [Observation]: MTI at Hayatabad Medical Complex comprises of Hayatabad Medical Complex (HMC) as parent teaching hospital supported by 4 partially independent institutions namely Khyber girls’ medical college Hayatabad, institute of kidney diseases Hayatabad, Khyber institute of child health Hayatabad, and Pakistan institute of community ophthalmology. According to the MTI act 2015, these institutes are administratively under the Hospital director of HMC. However, during the course of time the board of governors has delegated full administrative powers to these allied institutes. Director finance HMC is the approval authority for the financial transactions and also performs the pre-audit function. The administration of these allied institute reports to the Board of Governors. Currently there are 3 categories of employee in the hospital. Civil servants are 698 in number working under civil servant act 1973. Institutional employees are 637 in number and they are employed under autonomy act 2002. 314 staff is working on fixed pay basis and is employed under the MTI act 2015. The total bed strength of this hospital is 1200.

- [Observation]: The hospital has a functional IT department and currently 86-person staff is working, (21 in HMIS department, 20 cash collectors at cash collection counters, 30 are working in different in-patient departments, and 15 are working in different support/administrative departments). The hospital currently is under process of hiring another 30 cash collectors/computer operators which will bring the total strength of cash collectors to 50 and total strength to 116.

- [Observation]: The hospital over the period has developed an HMIS system where Payroll is generated in dot-net, receipt from operations is managed in Oracle and expenditure is recorded in a fox pro based application. The system is working properly in its discrete sections and reports are compiled by consolidating data in Excel sheets. However, since the last week of January 2017, the Integrated HMIS by SKMCH-RC has been Installed and made functional on trial basis in certain operational areas of the hospital. For this purpose, 21 number staff have been hired and deputed at various workstations and is under training in real time scenario.

- [Observation]: Receipt and payment account is being made manually in excel each month and annually and shared with department of health and finance. The yearly receipt and
payment account statement is reconciled with the treasury under finance department each month. The daily receipts are deposited in the schedule bank on the next day and reconciled with the Bank on monthly basis. Quantitative reconciliation for the stores is done on monthly basis and at close of financial year. The audited accounts are submitted to accountant general office on yearly basis.

- **[Observation]**: In the current phase of operation of the new system; OPD, IPD, Emergency, Radiology, Pathology, Pharmacy, and in-patient and employs record is being maintained. However, a complete general ledger system, payroll, inventory and stores management system, sterilization procedures etc. will be made functional in a phased manner over the period till December 2017. This system, when fully utilized will provide the opportunity to the hospital management for conduct of a clinical audit, because all the electronic patient record will be traceable against the employee through its unique HR number, which is also the login number to the system. The system will also be equipped with storage of electronic record in periodic databases and an archiving system will be made available.

- **[Observation]**: The HMIS is equipped with a backup system that stores and closes the data on 3 shift bases at close of business each day. Both financial and technical data is archived and no further addition/amendment is allowed after close of the business at the end of each day. Since the systems are not linked with the government treasury and other Bank accounts therefore the financial reconciliation is done manually on regular intervals (monthly). The quantitative reconciliation is done manually on monthly basis against the data generated by the system which is reconciled and is duly tallied with physical count.

- **[Observation]**: The system has the inbuilt capability to provide detailed MIS reports on departmental and functional basis. Keeping in view the cultural, technical and other constraints, it will be a challenge for the management to put the system in full operation and provide requisite data to the system to produce accurate and effective reports for decision making purposes. The Integrated HMIS by the SKMCH-RC is designed to comply with the requirements of ISO 2005. Due to a variety of reasons the working environment at the hospital at curative level does not qualify for complete implementation of such an elaborate system. It was reported that some drastic modifications were requested in the electronic patient records pertaining to time controls as the overall environment at the service delivery level is not fast and timely enough to cater for each and every critical time controls.

- **[Observation]**: An increase in revenue from operations of the hospital to a tune of 33% has been observed while comparing the years 2015 and 2016. The reason for increase in revenue can be attributed to increase in the cash counters, revision of rates for users, strengthening the monitoring system at all levels. There are 20 cash collection counters operating in the hospital at present, namely 8 in OPD, 2 in emergency 2 in admissions department, 2 in radiology and 6 in pathology.

- **[Observation]**: The hospital management has adopted the strategy of training the staff of different departments on use of Information and Communication Technology (ICT) instead of creating dependency of the whole operations on IT department. This strategy has paid back due to the fact that the TMOs, HOs are mostly computer literate and provision of facilitation and backstopping by the IT department on the system has empowered them to complete their tasks efficiently. However, to realize the full potential of this highly automated and integrated HMIS; staff at all levels has to be computer literate and the supporting/governing laws and regulations should also be encouraging the automated environment.
[Observation]: As the hospital is well on its way to computerize the MIS system it is recommended that the efforts of the management should further be strengthened by providing orientation sessions for senior management especially clinicians to make them comfortable with the computerized environment. Further, resources should be provided at each data generation center for complete and accurate recording of the data. It is further recommended that a combination of the paper and paper less strategy be used in the near future as shift from one cultural environment to another is always slow and difficult, and the change agents be encouraged.

Area Assessed:

⇒ Internal Audit.

Status:

[Observation]: Internal audit function is defined as “the plan of organization and all the coordinate methods and measures adopted within the business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies.” This definition calls for accounting controls and administrative controls. The accounting controls are expressed in the form of systems of authorization and approval, separation of duties concerned with record keeping and reporting from those of concerned with operations and custody of assets, physical controls over assets and internal auditing i.e. periodic checks. Administrative controls deal with operational efficiency and adherence to managerial policies are expressed in the form of statistical analysis, time and motion studies, performance reports, employee training programs and quality controls.

[Observation]: Internal audit cell in the hospital is made up of specially assigned staff with a main accounting objective of application of internal checks as per the internal control systems devised in various rules and regulations pertaining to funds of public ex-checker and their applications. The internal audit cell draws its authority from the hospital director and its job description and scope of work are described in a short manual drawn in the light of Financial rules, and KPPPR, govt. of KP.

[Observation]: MTI act was enacted with the aim to bring the decision making nearer to the action point and give the decision maker ample space to quicken the whole process of the decision making in all the functional areas including finance.

[Observation]: It was expected that the new management and governance will devise its own regulations in the light of department of finance government of KP, rules which will be reflective of the hospital own working environment and catering for the ever-changing needs whether short or long term.

[Observation]: The internal audit cell is manned by three-person staff and is headed by a qualified person placed by Director General Audit office Peshawar. He is Masters in Commerce and Masters in business Administration. The work in divided in pre-audit and post audit functions. The post audit officer is responsible for design and implementation of effective and efficient internal controls, management reporting, raising and settlement of the audit queries within hospital and with the auditor general office. The audit cell in-charge
reports to the Hospital Director. The pre-audit officer in-charge is responsible for the verification of compliance with the internal controls laid down by the department of finance KP, before transaction is made. This cell is responsible for the internal audit of the allied institutes as well.

- **Observation**: Internal audit queries reported were observed and it was found that number of queries was raised for very substantial amounts, leading to major exceptions in the internal controls. However, it was encouraging to note that these queries were settled at the appropriate levels, over the time.

- **Observation**: It was observed that while the accounting controls as prescribed by different rules and regulations are well enforced, the administrative controls expressed in statistical analysis, performance reports, and quality controls etc. lacks to a varied extent.

- **Observation**: It is recommended that based on the extent of task assigned to this cell, (5 Institutions) the competence of the internal audit staff, the authority given to this department, and the effectiveness with which the internal audit programme is carried out, this cell may be strengthened further in the shape of human and technological resources to undertake its tasks effectively.

- **Observation**: It is further recommended that this cell shall be given complete access to the HMIS and their requirement should be incorporated in the Electronic Data Processing(EDP) system where ever required to make this important function take advantage of the ICT and be more effective and efficient. Particularly, the cell will ensure that a) an adequate division of duties and authorities exists, as per the adopted financial rules and regulations, b) all data is completely and accurately entered and processed, c) permanent data is protected and d) an audit trail exists. As is planned the hospital will be producing financial information by end of the calendar year 2017. The engagement of the auditors with Electronic Data Processing will prepare them to undertake and learn specialized auditing techniques and procedures and become EDP data processing audit specialist, equipped with sufficient technical expertise to make an intelligent analysis of complex computer audit situations.
Area Assessed:

- Financial Management system (Computerized).
- Number of Periodic reports submitted
- Monthly Reconciliation reports generated.
- Percent Increase in Revenue per year with Breakup of sources.

Status:

- **Observation:** The MTI at Hayatabad Medical Complex comprises of Hayatabad Medical Complex (HMC) as parent teaching hospital supported by 4 partially independent institutions namely Khyber girls’ medical college Hayatabad, institute of kidney diseases Hayatabad, Khyber institute of child health Hayatabad, and Pakistan institute of community ophthalmology. According to the MTI act 2015, these institutes are administratively under the Hospital director of HMC. However, during the course of time the board of governors has delegated full administrative powers to these allied institutes and now they are fully autonomous institute enjoying the financial and administrative powers. However, they report to the BOG on all matters.

- **Observation:** The institute has an IT department and a functional HMIS reporting on all the matters including payroll. Expenditure is recorded in approved heads of accounts against the budgeted figures which is reported and reconciled with the Finance Department treasury branch on monthly basis. Record is maintained following the financial rules of the department of finance KP. This institute has its own approved budget under grant in aid by the finance department since July 2010. Director IKD is the drawing and disbursement officer, reporting to the BOG and previously was reporting to the Management council. Receipt and payment account is being made manually in excel each month which is consolidated annually and shared with secretary health and finance. The yearly receipt and payment account statement is reconciled with the treasury under finance department each month. The daily receipts are deposited in the schedule bank on the next day and reconciled with the Bank on monthly basis. IKD maintains MIS in oracle which captures only the receipt from the users.

- **Observation:** Audited reports are submitted to accountant general office Peshawar on yearly basis.

- **Observation:** This is 100 bed hospital with 422 sanctioned positions against which 299 are filled.

- **Observation:** 69% increase in receipts is reported comparing year 2015 with 2016. This tremendous increase is attributed to revision in user charges and increase in patient inflow.
Area Assessed:

Internal Audit.

Status:

- **[Observation]**: The internal audit of the parent institute HMC is responsible for the pre-audit functions. The post audit is done by the auditor general office.
- **[Observation]**: The internal auditor reports to the Director IKD
Khyber Girls Medical College

KGMC

Area Assessed:

- Financial Management system (Computerized).
- Number of Periodic reports submitted
- Monthly Reconciliation reports generated.
- Percent Increase in Revenue per year with Breakup of sources.

Status:

- **Observation**: The MTI at Hayatabad Medical Complex comprises of Hayatabad Medical Complex (HMC) as parent teaching hospital supported by 4 partially independent institutions namely Khyber girls’ medical college Hayatabad, institute of kidney diseases Hayatabad, Khyber institute of child health Hayatabad, and Pakistan institute of community ophthalmology. According to the MTI act 2015, these institutes are administratively under the Hospital director of HMC. However, during the course of time the board of governors has delegated full administrative powers to these allied institutes. Being the joint signatory on the financial transaction the allied institutes financial matters are put to the finance director HMC for formal approval before approval by the respective DDOs of these allied institutions is obtained. Once approved by the DDOs, the files move to the pre-audit cell placed in the HMC for payment orders. The administration of these allied institute reports to the Board of Governors.

- **Observation**: Khyber Girls Medical College was established in 2005 as part of the KMC, as girls’ campus and HMC was declared as the teaching and training institute for the college. It got its autonomous status in July 2010 through administrative order by the secretary health and, later on after the enactment of MTI act it became the allied institute of the MTI HMC in 2015. The PMDC has allowed the enhancement of seats from 50 to 100 during 2015 onwards annually. The total number of staff is 363 in which teaching faculty is 147. The college is also providing M.Phil. facility and currently there are 12 students undergoing the 2 years course, with 10 specialties. Besides the grant in aid from the department of fiancé government of KP, the other source of income of this college is student fee. For the open merit the annual fee is highly subsidized at around 20,000/- For the foreign self-finance students the fee is 6000 US Dollars to maximum of 8 seats. For the local self-finance the fee is 400,000/- rupees maximum seats are 10 per year. This revenue received by the college is deducted from the approved budget sanctioned by the govt. ex-checker, and the balance is released to the college. The total budget released year ending 2016 was Rupees 360 million.

- **Observation**: The college has to match the govt. releases on annual basis as agreed between the finance department and the college. The college also charge and retains the
money from the students on behalf of other institutions like PMDC etc. This function is known as students fund temporally in possession of the college and is deposited in the scheduled banks. As a matter of internal control the practice of depositing govt. dues with the college has been discouraged and now students have to deposit those dues in the govt. treasury and come up with the voucher to the college accounts section.

- **[Observation]**: Audited accounts are submitted to the accountant general office on yearly basis.

- **[Observation]**: The college has no formal IT department. However; a programmer is appointed to organize the software. The payroll is computerized, receipt and payment is maintained in the excel sheet. HR system is yet to be developed and it is planning to have computer system for its whole operations by December 2017. The college is following the provincial financial rules and regulation. Payment and receipts are reconciled with the finance department treasury branch on monthly basis.

- **[Observation]**: The Pakistan Medical and Dental Council (PMDC) has allowed 100 students 2015 (previously 50 students) onwards thus 100% increase in the revenue can be realized subject to the targets agreed with department of finance.

**Area Assessed:**

Internal Audit.

**Status:**

- **[Observation]**: The internal audit cell of the parent institute HMC is responsible for the pre- audit functions. Post audited is done by the auditor general office.

- **[Observation]**: The internal auditor reports to the Dean of the institute.
Area Assessed:

- Financial Management system (Computerized).
- Number of Periodic reports submitted
- Monthly Reconciliation reports generated.
- Percent Increase in Revenue per year with Breakup of sources.

Status:

- [Observation]: Internal MTI at Hayatabad Medical Complex comprises of Hayatabad Medical Complex (HMC) as parent teaching hospital supported by 4 partially independent institutions namely Khyber girls’ medical college Hayatabad, institute of kidney diseases Hayatabad, Khyber institute of child health Hayatabad, and Pakistan institute of community ophthalmology. According to the MTI act 2015, these institutes are administratively under the Hospital director of HMC. However, during the course of time the board of governors has delegated full administrative powers to these allied institutes. Being the joint signatory on the financial transaction the allied institutes financial matters are put to the finance director HMC for formal approval before approval by the respective DDOs of these allied institutions is obtained. Once approved by the DDOs, the files moves to the pre-audit cell placed in the HMC for payment orders. The administration of these allied institute reports to the Board of Governors.

- [Observation]: KICH: The KICH was made operational during financial year 2010-11. The institute is providing teaching and training facilities to the HCP of the province on child health related matters, its objective according to the PC-1 are to a) develop a provincial data base on pediatric morbidity and mortality, b) to establish a pediatric research base to guide evidence based intervention for reducing pediatric morbidity and mortality in the province and c) provide public health education service for disease prevention, child nutrition, protection and child rights and development. The staff strength at the moment is 73 which include 4 teaching staff, 1 epidemiologist and 1 senior instructor pediatrics. The dean is a professor of pediatrics and is on the strength of Khyber girl's medical college whereas the rest are administration and support staff. There are at the moment 10 students enrolled in MSc. Community child health against the 20 students authorized as per prospectus. The minimum qualification for the degree is MBBS and quarterly fee is rs. 55000/- per student ranging over four quarters of 6 months each. The institute maintains manual accounting system as per the govt. of KP finance rules and regulation.

- [Observation]: The total budgeted estimates for the financial year 2016-17 is 298 million Rupees through grant in aid from the fiancé department. Quarterly receipt and payment
account is shared with finance department and reconciled with treasury office at the finance department. Finances are subject to release on submission of quarterly reports duly reconciled with the finance department. The total funds consist of the grant in aid and the receipts from the students as fee.

- **[Observation]:** Audit report is submitted to the accountant general on yearly basis.
- **[Observation]:** Quantitative reconciliation for the stores is done on yearly basis at close of financial year. The Bashir Bilour memorial children hospital is 259 bed tertiary care hospital under construction through PSDP in the precincts of KICH.
- **[Observation]:** The institute is in the process of computerizing its HMIS through MS Mega plus Pakistan. The MIS consist of 13 modules including Finance, SNE, payroll, HR, Degree program, research and development program, inventory, library, pathology, planning and budgeting etc.

**Area Assessed:**

**Internal Audit.**

**Status:**

- **[Observation]:** Internal audit cell of HMC is looking after the internal audit of the institute. Pre- audit is done through this cell and post audit is done by the auditors of the Auditor general office of KP.
- **[Observation]:** The internal audit cell reports to the dean of the KICH.
Pakistan Institute of Community Ophthalmology

PICO

Area Assessed:

➤ Financial Management system (Computerized).

➤ Number of Periodic reports submitted

➤ Monthly Reconciliation reports generated.

➤ Percent Increase in Revenue per year with Breakup of sources.

Status:

▪ [Observation]: The MTI at Hayatabad Medical Complex comprises of Hayatabad Medical Complex (HMC) as parent teaching hospital supported by 4 partially independent institutions namely Khyber girls’ medical college Hayatabad, institute of kidney diseases Hayatabad, Khyber institute of child health Hayatabad, and Pakistan institute of community ophthalmology. According to the MTI act 2015, these institutes are administratively under the Hospital director of HMC. However, during the course of time the board of governors has delegated full administrative powers to these allied institutes. Being the joint signatory on the financial transaction the allied institutes financial matters are put to the finance director HMC for formal approval before approval by the respective DDOs of these allied institutions is obtained. Once approved by the DDOs, the files moves to the pre-audit cell placed in the HMC for payment orders. The administration of these allied institute reports to the Board of Governors.

▪ [Observation]: PICO was established in 1998 with the technical support of World Health Organization (WHO), International Center for Eye health (ICEH). Initially it was supported by sight savers (UK), Christopher Blindness Mission, CBM Germany; light forth Austria, and others. Since 2010 it is declared by govt. of KPK as autonomous institute and now it is working under the BOG MTI/HMC. The goal of PICO is to prevent blindness and visual impairments and improve quality of life. It is striving to meet this goal through, teaching and training, improved capacities, conduct research to provide evidence, extend eye care to increase access and arrange advocacy campaign to raise awareness and change the policy.

▪ [Observation]: The internal faculty consists of 14 and external faculty strength is 12. The fee structure per course is BVS 258,000 rupees, OTC is rupees 45000, M.Phil is 324000 and MPH is 247,000 rupees.

▪ [Observation]: Increase as per receipt and payment statement in revenue comparing year ending 2015 and 2016 is 9%.

▪ [Observation]: IT department is manned by two persons. Since October 2016 the department has organized under the supervision of a consultant and made operational an MIS system in VB on front end and SQL server in back end as database. The system is called PICOMIS. The following modules are being made operational on test basis since November 2016. Namely HRMI, Students affairs section, library, stores, Examination. The
next phase planned till December 2017 includes online features, accounts for the
government, accounts for the projects sections, transport section and comprehensive eye
care. The strategy adopted by PICO is to train the staff/end user on IT applications for each
section mentioned above.

▪ [Observation]: This institute has its own approved budget consisting of grant in aid from
finance department KPK and its own receipts from students in the form of fee from
students. Director PICO is the drawing and disbursement officer, reporting to the BOG and
previously was reporting to the Management council. Receipt and payment account of
PICO is being made manually in excel monthly and annually and shared with Health
Department, AG office and Finance Department KPK. Development of a computerized
accounting system for PICO accounts is in progress and it is hoped that till September 2017
the manual accounting will be successfully converted into a computerized accounting
system. Receipt and payment of PICO are submitted monthly and reconciled annually with
Finance Department and AG Office. Receipts from students are deposited into Schedule
bank on daily basis and bank accounts are reconciled on monthly basis. The receipt target
from Finance Department is deposited in the Govt. treasury at year end. The budget
released to PICO is subject to the amount of fee deposited in the treasury as an agreed upon
target with the department of Finance for the release of the balance amount as Grant in Aid.

▪ [Observation]: Audited accounts are submitted to the accountant general office on yearly
basis.

Area Assessed:

Internal Audit.

Status:

▪ [Observation]: The internal audit cell of the parent institute HMC is responsible for the
pre- audit functions. The post audit is done by the Auditor General office on annual basis.

▪ [Observation]: The internal auditor reports to the director of the institute.
Conclusion

Shifa Foundation commends the staff of Hayatabad Medical Complex on its efforts to improve its delivery of quality patient care. The consultants wish to thank the senior leadership team including Prof Shehzad Akbar-Hospital/Medical Director Dr. Sherzaman Khan- Planning Officer, Mr. Hizbullah Khan– Nursing Director, the hospital leadership and all the support staff for their gracious consideration and time during the visit, as well as all staff the consultants had the pleasure of working with through education and tracers. In addition, we would like to offer a special thanks to Dr. Mushtaq Khattak- RMO/In charge recruitment cell who coordinated the visit, collected documentation, both prior to and during the consultation, and provided ongoing support.

Implementation of the recommendations outlined in this report should help the organization meet its objectives. If our consultants can be of further help, especially in the areas of concern listed in this report, please contact Umar Amjad at umar.amjad@shifafoundation.org or Zia ur Rehman at zia.ur.rehman@shifafoundation.org.
Annexes
Terms of Reference

Background
The government of Khyber Pakhtunkhwa has granted autonomy to the Government owned Medical Teaching Institutions (MTIs) and their affiliated teaching hospitals in the Province of the Khyber Pakhtunkhwa under the Khyber Pakhtunkhwa Medical Teaching Institutions Reforms Act, 2015. The Act was passed as a means to improve performance, enhance effectiveness, efficiency and responsiveness for the provision of quality healthcare services to the people of the Khyber Pakhtunkhwa.

The Act has been implemented in the Lady Reading Hospital, the Hayatabad Medical Complex, the Hayatabad Medical Complex, Peshawar the Mardan Medical Complex Mardan and Ayub Teaching Hospital, Abbottabad. Teaching and training of medical students is also covered under various provisions of the Act.

The Act mandates an effective monitoring system for the MTIs. Each Medical Teaching Institution shall be accountable to Government for its performance and shall regularly provide performance based data at set intervals based on Government's set performance monitoring format for the Medical Teaching Institutions.

Purpose
According to the provisos of the Khyber Pakhtunkhwa Medical Teaching Institutions Reforms Act, 2015, the Government plans to periodically evaluate the performance of the Medical Teaching Institutions against the set targets related to efficiency, effectiveness and equity. This shall be achieved by various monitoring means including Performance Audit. The Department of Health invites eligible consulting firms (“Consultants”) to provide proposals for providing the Performance Audit Services.

The objective of the audit is to allow for the auditor to express an opinion regarding the performance of the activities of the hospitals given autonomy under the Khyber Pakhtunkhwa Medical Teaching Institutions Reforms Act, 2015. The consulting services (“the Services”) include performance auditing services of public hospitals with teaching activities in the hospitals.

Based on the assessment, the audit could evaluate whether resources are used optimally in terms of human and capital resources, bed occupancy rates, the mix of medical services provided, complexity of services, bed management and overall resource management. Recommendations will be formulated by Consultants in order to improve service provision and hospitals management.

The performance auditing activity methodology and the list of hospitals will be agreed with the department of health KP, the Health Care Commission and the Board of Governors of the respective hospitals.

The estimated duration of the assignment is of two years.
The audit team is required to collectively have all the necessary competence and expertise required for carrying out the audit mission.
Regardless of their nature, the performance audit mission will be entrusted to auditors whose training and experience rises to the complexity level of the performance audit activity. The audit team is required to have modern IT applications and software, as well as methodologies, analysis and sampling methods and checking tools for their IT systems. The leader of the audit team must ensure that the appointed auditors possess the necessary knowledge, skills and competences in order to properly carry out the audit mission. The firm that applies for the provision of the performance audit services must have a team of experts / auditors able to complete tasks outlined in the proposal as part of the bid. One of the proposed experts / auditors will be the team leader responsible for coordinating the audit team, for supervising the activity of drafting the reports in a timely manner and for submitting such reports.

**Terms of Reference**

The short listed Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services.

**Specific**

The objective of the quality audits is to allow for the auditor to report opinion regarding the quality of the services performed by the autonomous hospitals in Khyber Pukhtoonkhwa.

The Consultant/audit firm is expected to identify the quality of the service delivery based on the following aspects:

- Patient Safety
- Access to Care
- Care of Patients
- Anaesthesia and Surgical Care
- Medication Management
- Infection Control and Prevention
- Human Resource and Competency
- Facility Management
- Information Management
- Leadership and Management
- Medical Education Program Management
- Adherence to Medical Staff Bylaws (KPK Health Department)

The Consultant/audit firm is expected to identify quality indicators being adopted by the hospitals related to the aspects outlined above and is able to identify:

- Validity of the indicator
- Data collection methodology
The first audit cycle, to be used as baseline, will be conducted in two months after the award of the consultancy. Subsequently, Performance Audit will be conducted every six months regarding the following indicators.

Key Performance Indicators for Medical Teaching Institutes  
Khyber Pakhtunkhwa  
2016

Measurable; some qualitative indicators too  
Applicable and relevant to MTIs

<table>
<thead>
<tr>
<th>Area/Chapter</th>
<th>Indicator</th>
</tr>
</thead>
</table>
| 1. Patient Safety Goals | a) Patients are identified by at least two identifiers, not including a room number  
b) There is a system of documenting verbal orders  
c) There is a system of informing physicians of critical lab results  
d) There is a system of handling high alert medications  
e) There is a process for ensuring correct-site, correct-procedure, and correct-patient surgery |
| 2. Access to Care | a) The emergency department uses a system (e.g., ESI) to triage patients  
b) Admission to the intensive care units is via written established criteria  
c) Is the HOSPITAL LAB ISO CERTIFIED?  
d) There is regular checking of lab equipment and calibration system |
| 3. Patient and Family Rights | a) Percentage of surgical procedures with an available written consent  
b) Confidentiality of patient information is |
4. Assessment of Patients

- a) Percentage of inpatient charts with documented initial medical history, exam and plan within 24 hours of admission
- b) Percentage of patients with a consultant signed chart for 80% of admission days
- c) Percentage of patients with a registrar signed chart for 100% of admission days.
- d) Evening round is documented by the Senior Registrar on daily basis

5. Anesthesia and Surgical Care

- a) Percentage of patients undergoing surgery with a preoperative anesthesia assessment
- b) Percentage of surgical patients with documentation of risks and benefits of the procedure

6. Medication Management

- a) Percentage of medications provided within the hospital for inpatient admissions
- b) Percentage of prescriptions with ascribable orders to a qualified person.
- c) Prescription of TMOs and HO countersigned by Registrar/Senior Registrar.
- d) Presence of a hospital formulary approved by the pharmacy and therapeutics committee

7. Patient and Family Education

- a) Percentage of patients in a given unit who have been educated about their diagnosis and care plan

8. Quality Performance System

- a) Functionally independent and operational hospital quality management unit?
- b) Number of clinical audits reported per year
- c) Annual patient satisfaction survey?
- d) Number of complaints per 500 beds / 10,000 outpatient visits or other such
| 9. Prevention of Infections | a) Infection control committee present?  
b) At least 4 meetings a year?  
c) Surgical site infection rate  
d) Central line infection rate  
e) Hand hygiene rate via audit |
|----------------------------|------------------------------------------------|
| 10. Governance, leadership, direction | a) At least 4 board meetings with minutes?  
b) Number of members with minimum of 75% attendance?  
c) Strategic Plan (3-5 year) available?  
d) Annual Operational Plan available?  
e) Internal auditor available.  
f) The e-filing system is established and operational |
| 11. Facilities Management | a) The hospital has a fire and safety policy and this is tested at least 4 times a year via evacuation drills  
b) Key utilities (electricity, water, gas, network) have a backup |
| 12. Staff Qualification and Experience | a) Percentage of consultant staff/faculty with formal credentialing  
b) Percentage of nurses with up to date PNC registration  
c) Percentage of physicians with up to date PMDC registration  
d) Percentage of positions with written job descriptions  
e) Annual turnover rate  
f) Percentage of staff with formal annual evaluation |
| 13. Management of Information | a) Availability of an electronic information system?  
b) Percentage of clinical departments using electronic health record |
|-----------------------------|--------------------------------------------------------|
| 14. Management of Professional Education | a) Pass percentage of final year MBBS for the year  
b) Number of student authored papers per 100 students for the year.  
c) No of Departments with notified Core competency.  
d) Percentage of lecture demonstrations relevant to learning Objectives.  
e) Level of Integration of Curriculum. (Harden’s ladder).  
f) No. of students mastering Core Competency.  
g) Percentage of students understanding 75% of a lecture. |
| 15. Research | a) Number of annual international peer reviewed publications per 10 faculty members  
b) Number of annual local/PMDC approved publications per 10 faculty members  
c) Cumulative total of impact factor/per faculty member of all publications from the institution for the year  
d) Total sum of all research grants per faculty member in the year (all sources, HEC, PSF, PMRC, international)  
e) For Publications in Index Medicus linked Journals: No of publications x (5) x (impact factor) x (No of Citations) = Total Marks  
f) For HEC recognised Journals: No of Publications x (1) x (Impact factor) x (No of Citations) = Total Marks.  
g) No of Randomised Control Trials started completed published in Index Medicus linked Journals. 1 Randomised Control trial per 5 years is a MUST! |
<p>| 16. Financial management | a) Financial Management system (Computerized) |</p>
<table>
<thead>
<tr>
<th>Category</th>
<th>Point of Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Generation of additional funds for the hospital</td>
<td>a) Percent increase in revenue from last year</td>
</tr>
<tr>
<td></td>
<td>b) Break up of sources of revenues with percent changes in each from last year</td>
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<tr>
<td></td>
<td>b) Internal Auditor in place</td>
</tr>
<tr>
<td></td>
<td>c) No of Periodic Audit reports submitted</td>
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<tr>
<td></td>
<td>d) Monthly reconciliation reports generated</td>
</tr>
<tr>
<td>18. Human Resource Management</td>
<td>a) Staff turnover rate in the last one year</td>
</tr>
<tr>
<td></td>
<td>b) Staff attrition rate during last one year</td>
</tr>
<tr>
<td></td>
<td>c) Percent of staff provided with approved job descriptions</td>
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<tr>
<td></td>
<td>d) Percent of doctors whose performance for the last year has been evaluated</td>
</tr>
<tr>
<td></td>
<td>e) Percent of staff which received relevant training in the last one year</td>
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<tr>
<td></td>
<td>f) Percent of postings &amp; transfers in last six months</td>
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<tr>
<td></td>
<td>g) Percent of posts that remained vacant for six months or more during the last year</td>
</tr>
<tr>
<td></td>
<td>h) Percentage of filled posts versus sanctioned posts</td>
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<td></td>
<td>i) percentage of Sanctioned posts versus standard posts required as per standards of CPSP/PMDC</td>
</tr>
<tr>
<td>19. Management Information System</td>
<td>a) Whether approved list of indicators(with defined numerators, denominators or indexes) for collection of data available or not</td>
</tr>
<tr>
<td></td>
<td>b) Whether quarterly MIS reports generated or not</td>
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<td></td>
<td>c) Whether annual MIS reports generated or not</td>
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<td></td>
<td>d) Whether Reports are shared with provincial Health Department or not (for evidence base decision making)</td>
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<td></td>
<td>e) Quality of medical records</td>
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<td></td>
<td>f) Presence of a computerized database for collecting detailed clinical &amp; administrative data</td>
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<tr>
<td>20. Procurement and Supply chain</td>
<td>a) Dedicated Supply management cell functional</td>
</tr>
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</table>
| management | b) Annual Procurement plan developed and approved  
c) E-procurement system developed and functional  
d) As per plan procurement is carried out (Quantity)  
e) Timely Procurement of Medicines and reagents is carried out |

| 21. Medical Education | a) Modular/case base medical education system designed  
b) No of research papers published per department per year  
c) Training log books of TMOs maintained/cross checked by academic committee (FCPS)  
d) Training log books of TMOs maintained/cross checked by academic committee (MCPS)  
e) Training log books of TMOs maintained/cross checked by academic committee (locals Diplomas)  
f) Evaluation of supervisors conducted as CPSP standards or designed by hospital PGMI (FCPS)  
g) Evaluation of supervisors conducted as CPSP standards or designed by hospital PGMI (MCPS)  
h) Evaluation of supervisors conducted as CPSP standards or designed by hospital PGMI (local Diplomas)  
i) Sanctioned slots versus filled trainees (FCPS)  
j) Sanctioned slots versus filled trainees (MCPS)  
k) Sanctioned slots versus filled trainees (local diplomas)  
l) Sanctioned slots versus filled trainees (local diplomas)  
m) Scheduled of training (pre-planned) available for each trainee for complete duration of training (except for elective subjects/period of training) FCPS |
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<tbody>
<tr>
<td>n)</td>
<td>Scheduled of training (pre-planned) available for each trainee for complete duration of training (except for elective subjects/period of training) MCPS</td>
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<tr>
<td>o)</td>
<td>Scheduled of training (pre-planned) available for each trainee for complete duration of training (except for elective subjects/period of training) Local Diplomas</td>
</tr>
<tr>
<td>p)</td>
<td>No of Staff assigned to bed as per PMDC criteria</td>
</tr>
<tr>
<td>q)</td>
<td>Ratio of TMOs/bed</td>
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<thead>
<tr>
<th>22. Undergraduate Medical Education</th>
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<tbody>
<tr>
<td>a)</td>
<td>Core Competencies of Fresh Medical Graduate Defined</td>
</tr>
<tr>
<td>b)</td>
<td>Defined Curriculum and Syllabus to achieve the core competencies</td>
</tr>
<tr>
<td>c)</td>
<td>Level of Integration of Curriculum (Hardman Ladder)</td>
</tr>
<tr>
<td>d)</td>
<td>Number of students mastering the core competencies.</td>
</tr>
<tr>
<td>e)</td>
<td>Student feedback on teaching (Rating system)</td>
</tr>
</tbody>
</table>
## Audit Survey Agenda

### Day 1

<table>
<thead>
<tr>
<th>Health Care Quality Consultant</th>
<th>Management Consultant</th>
<th>Financial Consultant</th>
<th>HR Consultant</th>
<th>Social Scientist</th>
<th>Data Analyst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Zeeshan Bin Ishtiaque</td>
<td>Taimoor Shah</td>
<td>Jamal Khan</td>
<td>Muhammad Ali</td>
<td>Kaleem Rehman</td>
<td>Arooj Ishtiaq</td>
</tr>
<tr>
<td>&amp; Umar Farooq</td>
<td></td>
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</table>

- Opening conference and Agenda Review
- Orientation to the Hospital’s Services and the Quality Improvement Program
- Document Review
- Lunch & Prayer Break
- Leadership for Quality and Patient Safety Session
- Tracer Activity
  - Facility Tour
- Department and Service Quality Measurement and Tracer (Finance, HR, Admission and Discharge, Registration etc.)
- Shifa Foundation Internal Meeting
- Meeting with focal persons (as needed, identify needs for the following day)
# Day 2

<table>
<thead>
<tr>
<th>Health Care Quality Consultant</th>
<th>Management Consultant</th>
<th>Financial System Analyst</th>
<th>HR Consultant</th>
<th>Social Scientist</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department and Service Quality Measurement (For Clinical Department s, OPD, IPD, OR, Cath Lab etc.) Room</td>
<td>Facility Management and Safety Document Review room</td>
<td>Financial System Tracer. Review of Financial Information System. Review of Internal Audit Committee Reports, Minutes and Structure,</td>
<td>HR System Tracer for different processes such as Recruitment &amp; Selection, Competency Based Assignment s. Review of measures selected for improvement.</td>
<td>Patient and Attendant interviews, to assess patient equity, Access to Care</td>
<td>Bases for Selecting Indicators will be reviewed.</td>
</tr>
<tr>
<td>Individual Patient Tracer</td>
<td>Facility Tour</td>
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<tr>
<td>Tracer in OR (Anesthesia and Surgical Care, FMS, Infection Control etc. areas will be addressed.</td>
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<tr>
<td>Medication Management System Tracer (includes outpatient tracer and review of medication error data and supply chain integrity)</td>
<td>Quality Program Session (Failure Modes and Effects Analysis (FMEA), Root Cause Analysis (RCA))</td>
<td>Continue</td>
<td>Continue</td>
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</table>

Shifa Foundation Internal Meeting

Meeting with focal persons (as needed, identify needs for the following day)
## Day 3

<table>
<thead>
<tr>
<th>Health Care Quality Consultant</th>
<th>Management Consultant</th>
<th>Financial System Analyst</th>
<th>HR consultant</th>
<th>Social Scientist</th>
<th>Data Analyst</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Daily Briefing</strong></td>
<td></td>
<td>Review of Criteria of Selection for External Auditors, Review of External Audit Reports, Management Letters, Review of the sources of Funds. Room</td>
<td>Staff Qualification and Education Room</td>
<td>Staff Interview for Assessing Fair and Just Culture</td>
<td>Continue</td>
</tr>
<tr>
<td>Infection Control System Tracer Room</td>
<td>Supply chain management and evidence based purchasing session Room</td>
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<tr>
<td><strong>Lunch &amp; Prayer Break</strong></td>
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<td>Continue</td>
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<tr>
<td>Medical Professional Education Leadership Session</td>
<td>Medical Student and Trainee Session Human Subjects Research Leadership Interview Human Subjects Research Process Interview Room</td>
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<tr>
<td><strong>Shifa Foundation Internal Meeting</strong></td>
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<td>Continue</td>
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<td>Continue</td>
<td>Continue</td>
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<tr>
<td>Leadership Exit Session</td>
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