Gap Analysis in Emergency and Accident Department

Internship Training
at
District Hospital Amreli, Gujarat

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Under the guidance of
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TO WHOMSOEVER MAY CONCERN

This is to certify that Dr. Hemant Kumar Jain student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management and Research, Jaipur has undergone internship training in District Hospital Amreli, Gujarat from 03 February to 15 May 2014.

The candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirement.

I wish him all the success in all his future endeavors.

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The Certificate is awarded to

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In recognition of having successfully completed his
Internship in the department of

Emergency and Accident department

And has successfully completed his project on

Gap Analysis in Emergency and Accident Department

3rd February to 30 April, 2014

District Hospital, Amreli

He comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning

We wish him all the best for future endeavors

Resident Medical officer
District Hospital Amreli
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Regional Deputy Director
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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "Gap Analysis in Emergency and Accident Department submitted by Dr. Hemant Kumar Jain, Enrollment No. IIHMR/PGDHM/2012-14/17-1342 under the supervision of Mr.Vijay Pratap Raghuvanshi for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 3rd February 2014 to 30th April 2014 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature

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PGDHM

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Abbreviation

AMC	**Annual Maintenance Contract**
BHT	Bed Head Ticket
BP	Blood Pressure
BPL	Below Poverty Line
CEmOC	Comprehensive emergency obstetric neonatal care
CPR	Cardiopulmonary Resuscitation
ENT	Ear, Nose, Throat
HIV	Human immunodeficiency Virus
ICU	Intensive care unit

IMR	Infant Mortality Rate
IPHS	Indian Public Health Standard
IUD	Intra Uterine Device
JSSK	Janani-Shishu Suraksha karyakram
LAMA	Leave Against Medical Advise
MMR	Maternal Mortality Rate
MTP	Medical Termination of Pregnancy
OT	Operation Theater
PDCA	Plan, Do, Check, Act
PNDT	Pre-Natal Diagnostic Technique
PPE	Personal protection Equipment
RBSK	Rastriya Bal Swasthy karyakarm
RMNCHA	Reproductive Maternal Neonatal Child Health and Adolescent
RSBY	Rashtriya Surksha Bima Yojana
RTI	Reproductive Tract Infection
SMART	Smart, Measurable, Attainable, Relevant, Time based
SOPs	Standard Operating Procedures
TPR	Tempreature, Pulse, Respiration
UPS	Uninterrupted Power Supply

Introduction

Death is the most tractable outcome of care. It is easily measured, of undisputed importance to everyone, and is common in hospital settings. Mortality rates, especially overall hospital mortality rates, have therefore become the natural focus for measurement of clinical quality.

District hospital has the all secondary level of healthcare facility institute, sanctioned by the government of Gujarat. District hospital has 220 bedded, with 5 beds in the emergency and accident department and linked with the operation theater (OT). Emergency and accident department is placed at ground floor and near by the entrance of the hospital but it is different building from the hospital main building. There is linkage with the road connectivity with other facility like laboratory and pharmacy.

In 2013-2014 the death rate of the emergency department at district hospital was 16.36 percent which comparable high with the other hospital in Gujarat. There was 296 deaths in that year and 155 deaths in emergency and accident department. There can be so many causes behind these deaths but this study focus on the gaps in the emergency and accident department according to the Indian Public Health Standards (IPHS) Guidelines. This study done to find out the gap in the process of providing care to the patient.

Problem statement: Increasing the deaths in emergency department of civil Hospital.

Research question: why deaths are increasing?

Aim: To find out the gaps in the emergency department.

Objectives:

- To analyze the physical facility of the emergency department
- To analyze the competency of the personnel working in the emergency department.

Literature review:

- A study on Framework for Building Competency: Improving the Quality of Care at the Primary Health Level in India (March 2010)[P.H. Rao] A number of independent observations and research studies (Koenig and Khan, 1999) postulated that lack of competence among the service providers is the principal cause of the abnormally high failure rate of sterilizations, infection rate after MTP/sterilization, absence of screening/checking for reproductive tract infection (RTI) before inserting IUDs, improper methods used for drawing medicine from vials by nurses, and repeated use of needles and syringes, laparoscopes, razor blades, and enema sets.

- The study on nursing manager competencies at lowa, California in December 2010. [linda kay chase, under supervision of professor sue Moorhead]

descriptive study reflects on the ever-shifting sands of the nurse manager role. The national survey is based on the katz (1995) conceptual framework of interrelated technical, human and conceptual competencies. An instrument developed by the investigator and get validated by expert's panel of American Organization of Nurse Executive. The findings suggest the highest self-reported nurse manager competency ratings included effective communication, retention strategies, effective discipline and decision-making. In contrast, the lowest self-reported nurse manager competencies included nursing theory, case management and the research process.

- The study on Nursing competency and organizational climate as perceived by staff nurses in a Chinese university hospital at China in September 2007[Ying l, Kunaviktikul W, Tonmukayakal] Nursing competency is important to ensure patient safety and improve the quality of nursing care. Based on competency-based human resource management strategies, the organizational climate can positively influence nursing competency. This descriptive, correlational study examined the relationship between nursing competency and the organizational climate. The sample consisted of 243 staff nurses who completed the questionnaire worked at one university hospital in Liao Ning Province. The findings showed that there was a significantly moderate positive relationship between nursing competency and organizational climate. The study results suggested that Chinese nurse managers should maintain and provide a positive organizational climate to improve nursing competency.

- The study on "Concept analysis of competency" in wiley periodical inc. at Tamilnadu in 2008[lawrette axley]. Competency is essential to the profession of

nursing, and providing a clear theoretical definition of competency is only the first step. The competency of all nurses and healthcare providers must be assessed to provide safe care, protect the public, and maintain the credibility of nurses. Standards must be established and adhered to both in practice and evaluation of competency.

- The guidebook of Indian public health standard, ministry of health and family welfare government of India, for 101 to 200 bedded district hospital January 2007.

- Assessor's guidebook for quality assurance in district hospitals 2013 volume 1, Ministry of Health and Family Welfare, Government of India.

Methodology

a. Type of study:-

    - A Cross sectional, analytic study was done in the emergency and accident department.

b. Location of the study: -

    - Study was conducted at District Hospital, Amreli, Gujrat.

c. Study subjects: -

    - Emergency staff (Doctors and nurses)
    - Patient relative

d. Sampling technique:-

- Samples were drawn by random sampling method with the help of the excel sheet for Record Review.
- All the staff has been interviewed.
- Random sampling has been done for patient interview, when the one patient interview was completed, next patient is followed from the reception.

e. Sample Size:-

- Total 120 sample selected for record review and patient relatives interview
- All the staff covered for interview.
- Total 38 patient was observed.

f. Data (information) to be collected:-

- Primary and secondary data

Tools and Technique

The checklist has been drawn from the assessor's guidebook for quality assurance in district hospital, Ministry of Health and Family Welfare and National Rural Health Mission. The checklist has made after considered the Indian Public Health Standard and covered the all concern areas of emergency and accident department.

The main pillars of Quality Measurement Systems are Quality Standards. There are seventy standards, defined under the proposed quality measurement system. The standards have been grouped within the eight areas of concern. Each Standard further has specific measurable elements. These standards and measurable elements are checked in each department of a health facility through department specific checkpoints. All Checkpoints for a department are collated, and together they form assessment tool called 'Checklist'. Scored/ filled-in Checklists would generate scorecards

Scoring has been done based on the Rating scale:-

0	1	2
Non compliance	Partially compliance	Fully compliance

Checklist has been divided on the following area of concern

1. Service Provision
2. Patient Rights
3. Inputs
4. Support Services

5. Clinical Services
6. Infection Control
7. Quality Management
8. Outcome

Service Provision

Apart from the curative services that district hospitals provides, Public hospitals are also mandated to provide preventive and promotive services. Reproductive and Child Health services are now grouped as RMCH+A, which are major chunk of the services. These services are also priority for the government, so as to have direct impact on the key indicators such as MMR and IMR.

This area of concern measures availability of services. “Availability” of functional services means service is available to end-users because mere availability of infrastructure or human resources does not always ensure into availability of the services. For example, a facility may have functional OT, Blood Bank, and availability of Obstetrician and Anaesthetist, but it may not be providing CEmOC services on 24x7 basis. The facility may have functional Dental Clinic, but if there are hardly any procedures undertaken at the clinic, it may be assumed that the services are either not available or non-accessible to users. Compliance to these standards and measurable elements should be checked, preferably by observing delivery of the services, review of records and checking utilisation of the service.

Compliance to following standards ensures that the health facility is addressing this area of concern-

Standards	Elements
Standard 1: The facility provides	The standard would include availability Surgical procedures, Intensive care and Emergency Care under

Curative Services	different specialities e. g. Medicine, Surgery, Orthopaedics, Paediatrics etc. Each measurable element under this standard measures one speciality across the departments
Standard 2: The facility provides RMNCHA Services	This standard measures availability of Reproductive, Maternal, New-born, Child and Adolescent services in emergency and accident departments of the hospital. Each aspect of RMNCH+A services is covered by one measurable element of this standard.
Standard 3: The facility Provides diagnostic Services	It covers availability of Laboratory, Radiology and other diagnostics services in the emergency and accident departments
Standard 4: The facility provides support services	The standard measures availability of support services like dietary, laundry and housekeeping services at the facility.
Standard 5: Health services provided at the facility are appropriate to community needs.	The standard mandates availability of the services according to specific local health needs. Different geographical area may have certain health problems, which are prevalent locally.

Patient Rights

Mere availability of services does not serve the purpose until the services are accessible to the users, and are provided with dignity and confidentiality. Access includes Physical access as well as financial access. The Government has launched many schemes, such as JSSK, RBSK and RBSY, for ensuring that the service packages are available cashless to different targeted groups. There are evidences to suggest that patients' experience and outcome improves, when they are involved in the care. So availability of information is critical for access as well as enhancing patients' satisfaction. Patients' rights also

include that health services give due consideration to patients' cultural and religious preferences.

Brief description of the standards under this area of concern are given below –

Standards	Elements
Standard 1: The facility provides the information to care seekers, attendants & community about the available services and their modalities	Measures availability of the information about services and their modalities to patients and visitors. Measurable elements under this standard check for availability of user-friendly signage's, display of services available and user charges, citizen charter, enquiry desk and access to his/her clinical records.
Standard 2: Services are delivered in a manner that is sensitive to gender, religious and cultural needs, and there are no barriers on account of physical economic, cultural or social reasons.	This standard ensure that the services are sensitive to gender, cultural and religious needs. This standard also measures the physical access, and disable-friendliness of the services, such as availability of ramps and disable friendly toilets. Last measurable element of this standard mandates for provision for affirmative action for vulnerable and marginalized patients like orphans, destitute, terminally ill patients, victims of rape and domestic violence so they can avail health care service with dignity and confidence at public hospitals.
Standard 3: The facility maintains privacy, confidentiality & dignity of patient, and has a system for guarding patient	This standard measures the patient friendliness of the services in terms of ensuring privacy, confidentiality and dignity. Measurable elements under this standard check for provisions of screens and curtains, confidentiality of patients' clinical information,

related information.	behaviour of service providers, and also ensuring specific precautions to be taken, while providing care to patients with HIV infection, abortion, teenage pregnancy, etc.
Standard 4: The facility has defined and established procedures for informing patients about the medical condition, and involving them in treatment planning, and facilitates informed decision making	This standard mandates that health facility has procedures of informing patients about their rights, and actively involves them in the decision-making about their treatment. Measurable elements in this standards look for practices such informed consent, dissemination of patient rights and how patients are communicated about their clinical conditions and options available. This standard also measures for procedure for grievance redressed. Compliance to these standards can be checked through review of records for consent, interviewing staff about their awareness of patients' rights, interviewing patients whether they had been informed of the treatment plan and available options.
Standard 5 The facility ensures that there are no financial barrier to access, and that there is financial protection given from the cost of care.	This standard majorly checks that there are no financial barriers to the services. Measurable elements under this standard checks for availability of drugs, diagnostics and transport free of cost under different schemes.

Inputs

This area of concern predominantly covers the structural part of the facility. Indian Public Health Standards (IPHS) defines infrastructure, human resources, drugs and equipment requirements for different level of health facilities. Quality standards given

in this area of concern take into cognizance of the IPHS requirement. However, focus of the standards has been in ensuring compliance to minimum level of inputs, which are required for ensuring delivery of committed level of the services. The words like ‘adequate’ and ‘as per load‘ has been given in the requirements for many standards &measurable elements, as it would be hard to set structural norms for every level of the facility that commensurate with patient load. For example, a 100-bedded hospital having 40% bed occupancy may not have same requirements as the similar hospital having 100% occupancy. So structural requirement should be based more on the utilization, than fixing the criteria like beds available. Assessor should use his/her discretion to arrive at a decision, whether available structural component is adequate for committed service delivery or not.

Standards	Measurable Element
Standard 1:- The facility has infrastructure for delivery of assured services, and available infrastructure meets the prevalent norms	Measures adequacy of infrastructure in terms of space, patient amenities, layout, circulation area, communication facilities, service counters, etc. It also looks into the functional aspect of the structure, whether it commensurate with the process flow of the facility or not. Minimum requirement for space, layout and patient amenities are given in some of departments, but assessors should use his discretion to see whether space available is adequate for the given work load. Compliance to most of the measurable elements can be assessed by direct observation except for checking functional adequacy, where discussion with staff and hospital administration may be required to know the process flow between the departments, and also with in a department.
Standard 2:- The facility ensures the physical safety of the	Physical safety of the infrastructure. It includes seismic safety, safety of lifts, electrical safety, and general condition of hospital infrastructure**.**

infrastructure.	
Standard 3:- The facility has established Programme for fire safety and other disaster	It is concerned with fire safety of the facility. Measurable elements in this standard look for implementation of fire prevention, availability of adequate number of fire fighting equipment and preparedness of the facility for fire disaster in terms of mock drill and staff training.
Standard 4: The facility has adequate qualified and trained staff, required for providing the assured services to the current case load	Measures the numerical adequacy and skill sets of the staff. It includes availability of doctors, nurses, paramedics and support staff. It also ensures that the staff have been trained as per their job description and responsibilities. There are two components while assessing the staff adequacy - first is the numeric adequacy, which can be checked by interaction with hospital administration and review of records. Second is to access human resources in term of their availability within the department. For instance, a hospital may have 20 security guards, but if none of them is posted at the labour room, then the intent of standard is not being complied with. Skill set may be assessed by reviewing training records and staff interview and demonstration to check whether staff have requisite skills to perform the procedures.
Standard 5: The facility provides drugs and consumables required for assured services.	Measures availability of drugs and consumables in user departments. Assessor may check availability of drugs under the broad group such as antibiotics, IV fluids, dressing material, and make an assessment that majority of normal patients and critically ill patients are getting treated at the health facility.
Standard 6: The facility has equipment& instruments required for assured list of services.	It is also concerned with availability of instruments in various departments and service delivery points. Equipment and instruments have been categorized into sub groups as per their use, and measurable elements

	have been assigned to each sub group, such as examination and monitoring, clinical procedures, diagnostic equipment, resuscitation equipment, storage equipment and equipment used for non-clinical support services. Some representative equipment could be used as tracers and checked in each category.

Supportive Services

Support services are backbone of every health care facility. The expected clinical outcome cannot be envisaged in absence of sturdy support services. This area of concern includes equipment maintenance, calibration, drug storage and inventory management, security, facility management, water supply, power backup, dietary services and laundry. Administrative processes like RKS, Financial management, legal compliances, staff deputation and contract management have also been included in this area of concern.

Standards	Measuring element
Standard 1: The facility has established Programme for inspection, testing and maintenance and calibration of Equipment.	It is concerned with equipment maintenance processes, such as AMC, daily and breakdown maintenance processes, and calibration and availability of operating instructions. Equipment records should be reviewed to ensure that valid AMC is available for critical equipment and preventive / corrective maintenance is done timely. Calibration records and label on the measuring equipment should be reviewed to confirm that the calibration has been done. Operating instructions should be displayed or should readily available with the user.
Standard 2: The facility has defined procedures for storage,	It is concerned with safe storage of drugs and scientific management of the inventory, so drugs and consumables are available in adequate quantity in

inventory management and dispensing of drugs in pharmacy and patient care areas.	patient care area. Measurable elements of this standard look into processes of indenting, procurement, storage, expired drugs management, inventory management, stock management at patient care areas, including storage at optimum temperature. While assessing drug management system, these practices should be looked into each clinical department, especially at the nursing stations and its complementary process at drug stores/Pharmacy.
Standard 3: The facility provides safe, secure and comfortable environment to staff, patients and visitors.	This standard is concerned with providing safe, secure and comfortable environment to patients as well service providers. The measurable elements under this standard have two aspects, - firstly, provision of comfortable. Work environment in terms of illumination and temperature control in patient care areas and work stations, and secondly, arrangement for security of patients and staff. Availability of environment control arrangements should be looked into. Security arrangements at patient area should be observed for restriction of visitors and crowd management.
Standard 4: The facility has established Programme for maintenance and upkeep of the facility	This standard is concerned with adequacy of facility management processes. This includes appearance of facility, cleaning processes, infrastructure, and maintenance, removal of junk and condemned items and control of stray animals and pest control at the facility.
Standard 5: The facility ensures 24X7 water and power backup as per requirement of service delivery, and support services norms	This Standard covers processes to ensure water supply (quantity & quality), power back-up and medical gas supply. All departments should be assessed for availability of water and power back-up. Some critical area like OT and ICU may require two-tire power backup in terms of UPS. Availability of central oxygen and vacuum supply should especially be assessed in critical area like OT and ICU.

Standard 6: The facility ensures clean linen to the patients	This Standard is concerned with the laundry processes. It includes availability of adequate quantity of clean & usable linen, process of providing and changing bed sheets in-patient care area and process of collection, washing and distributing the linen. Besides direct observation, staff interaction may help in knowing availability of adequate sets of linen and work practices. An assessment of segregation and disinfection of soiled laundry should be undertaken. Observation should be recorded if laundry is being washed at some public water body like pond or river.
Standard 7: The facility is compliant with all statutory and regulatory requirement imposed by local, state or central government	This Standard is concerned with compliances to statuary and regulatory requirements. It includes availability of requisite licenses, updated copies of acts and rules, and adherence to the legal requirements as applicable to Public Health Facilities.
Standard 8 Roles & Responsibilities of administrative and clinical staff are determined as per govt. regulations and standards operating procedures.	This Standard is concerned with processes regarding staff management and their deployment in the departments of a facility. This includes availability of Job descriptions for different cadre, processes regarding preparation of duty rosters and staff discipline. Staff can be interviewed to assess about their awareness of job description. It should be assessed by observation and review of the records. Adherence to dress-code should be observed during the assessment.
Standard 9 The facility has established procedure for monitoring the quality of outsourced services and adheres to contractual obligations	This standard measures the processes related to outsourcing and contract management. This includes monitoring of outsourced services, adequacy of contact documents and tendering system, timely payment for the availed services and provision for action in case for inadequate/ poor quality of services. Assessor should review the contract records related to outsourced services, and interview hospital

	administration about the management of outsource services.

Clinical Care

The ultimate purpose of existence of a hospital is to provide clinical care. Therefore, clinical processes are the most critical and important in the hospitals. These are the processes that define directly the outcome of services and quality of care. The Standards under this area of concern could be grouped into three categories. First, nine standards are concerned with those clinical processes that ensure adequate care to the patients. It includes processes such as registration, admission, consultation, clinical assessment, continuity of care, nursing care, identification of high risk and vulnerable patients, prescription practices, safe drug administration, maintenance of clinical records and discharge from the hospital.

Second set of next seven standards are concerned with specific clinical and therapeutic processes including intensive care, emergency care, diagnostic services, transfusion services, anaesthesia, surgical services and end of life care.

The third set of seven standards are concerned with specific clinical processes for Maternal, New-born, Child, Adolescent& Family Planning services and National Health Programmes. These standards are based on the technical guidelines published by the Government of India on respective programmes and processes.

It may be difficult to assess clinical processes, as direct observation of clinical procedure may not always be possible at time of assessment. Therefore, assessment of these standards would largely depend upon review of the clinical records as well. Interaction with the staff to know their skill level and how they practice clinical care (Competence testing) would also be helpful. Assessment of theses standard would require thorough domain knowledge.

Standards	Measurable Elements
Standard 1 The facility has defined procedures for registration, consultation and admission of patients.	This standard is concerned with the registration and admission processes in hospitals. The Assessor should review the records to verify that details of patients have been recorded, and patients have been given unique identification number. Staff should be interviewed to know, whether there is any fixed admission criteria especially in critical care department.
Standard 2 The facility has defined and established procedures for clinical assessment and reassessment of the patients.	This standard pertains to clinical assessment of the patients. It includes initial assessment as well as reassessment of admitted patients.
Standard 3 The facility has defined and established procedures for continuity of care of patient and referral	This Standard is concerned with continuity of care for the patient's ailment. It includes process of inter-departmental transfer, referral to another facility, deputation of staff for the care, and linkages with higher institutions. Staff should be interviewed to know the referral linkages, how they inform the referral hospital about the referred patients and arrangement for the vehicles and follow-up car. Records should be reviewed for confirming that referral slips have been provided to the patients.
Standard 4 The facility has defined and established procedures for nursing care	Measures adequacy and quality of nursing care for the patients. It includes processes for identification of patients, timely and accurate implementation of treatment plan, nurses' handover processes, and maintenance of nursing records and monitoring of the patients. Staff should be interviewed and patients' records should be reviewed for assessing how drugs distribution/administration endorsement and other procedures like sample collection and dressing have been done on time as per treatment plan. Handing-over

	of patients is a critical process and should be assessed adequately. Review BHT for patient monitoring & nursing notes should be done.
Standard 5 The facility has a procedure to identify high risk and vulnerable patients.	This standard is concerned with identification of vulnerable and High-risk patients. Review of records and staff interaction would be helpful in assessing how High-risk patients are given due attention and treatment.
Standard 6 The facility follows standard treatment guidelines defined by state/Central government for prescribing the generic drugs & their rational use.	Standard 6 is concerned with assessing that patients are prescribed drugs according standard treatment guidelines and protocols. Patient records are assessed to ascertain that prescriptions are written in generic name only.
Standard 7 The facility has defined procedures for safe drug administration	Standard 7 concerns with the safety of drug administration. It includes administration of high alert drugs, legibility of medical orders, process for checking drugs before administration and processes related to self-drug administration. Patient's records should be reviewed for legibility of the writing and recording of date and time of orders. Safe injection practices like use of separate needle for multi-dose vial should be observed.
Standard 8 The facility has defined and established procedures for maintaining, updating of patients' clinical records and their storage.	Standard 8 is concerned with the processes of maintaining clinical records systematically and adequately. Compliance to this standard can be assessed by comprehensive review of the patients' record.
Standard 9 The facility has defined and established procedures for	Standard 9 measures adequacy of the discharge process. It includes pre-discharge assessment, adequacy of discharge summary, pre-discharge

discharge of patient.	counselling and adherence to standard procedures, if a patient is leaving against medical advice (LAMA) or is found absconding. Patients' record should also be reviewed for adequacy of the discharge summary.
Standard 10 The facility has defined and established procedures for Emergency Services and Disaster Management.	Standard 10 is concerned with emergency clinical processes and procedures. It includes triage, adherence to emergency clinical protocols, disaster management, processes related to ambulance services, handling of medico-legal cases, etc. Availability of the buffer stock for medicines and other supplies for disaster and mass casualty needs to be found out. Interaction with staff and hospital administration should be done to asses overall disaster preparedness of the health facility.
Standard 11 The facility has defined and established procedures of diagnostic services.	Standard 11 deals with the procedures related to diagnostic services. The standard is majorly applicable for laboratory and radiology services. It includes pre-testing, testing and post-testing procedures. It needs to be observed that samples in the laboratory are properly labelled, and instructions for handling sample are available. The process for storage and transportation of samples needs to be ensured. Availability of critical values and biological references should also be checked.

Standard 12 The facility has defined and established procedures for Blood Bank/Storage Management and Transfusion.	Standard 12 is concerned with functioning of blood bank and transfusion services. The measurable elements under this standard are processes for donor selection, collection of blood, testing procedures, preparation of blood components, labelling and storage of blood bags, compatibility testing, issuing, transfusion and monitoring of transfusion reaction. The assessor should observe the functioning, and interact with the staff to know regarding adherence to standard procedures for blood collection and testing, including preparation of blood components, storage practices, as per standard protocols. Record of temperature maintained in different storage units should be checked. The staff should also be interacted to know how they manage if certain blood is not available at the blood bank. Records should be reviewed for assessing processes of monitoring transfusion reactions.
Standard 13 The facility has defined and established procedures of Surgical Services.	This standard concerned with the procedure for emergency surgeries, availability of surgeon on call/on duty and for arranging logistic.
Standard 14 The facility has defined and	This standard concerned with end of life care and management of death. Records should be reviewed for

established procedures for end of life care and death	knowing adequacy of the notes. Interact with the facility staff to know how news of death is communicated to relatives, and kind of support available to family members.

Infection Control

The first principle of health care is “to do no harm”. As Public Hospitals usually have high occupancy, the Infection control practices become more critical to avoid cross-infection and its spread. This area of concern covers Infection control practices, hand-hygiene, and antisepsis, Personal Protection, processing of equipment, environment control, and Biomedical Waste Management.

Standard 1 The facility has infection control Programme and procedures in place for prevention and measurement of hospital associated infection.	Standard 1 is concerned with the implementation of Infection control programme at the facility. It is includes existence of functional infection control committee, microbiological surveillance, measurement of hospital acquired infection rates, periodic medical check-up and immunization of staff and monitoring of Infection control Practices. Hospital administration should be interacted to assess the functioning of infection control committee. Records should be reviewed for confirming the culture surveillance practices, monitoring of Hospital acquired infection, status of staff immunization, etc. Implementation of antibiotic policy can be assessed though staff interview, perusal of patient record and usage pattern of antibiotic.
Standard 2 The facility has defined and Implemented procedures for ensuring hand hygiene practices and antisepsis.	Standard 2 is concerned with practices of hand-washing and antisepsis. Availability of Hand washing facilities with soap and running water should be observed at the point of use. Technique of hand-washing for assessing the practices, and effectiveness

	of training may be observed.
Standard 3 The facility ensures standard practices and materials for Personal protection.	Standard 3 is concerned with usage of Personal Protection Equipment (PPE) such as gloves, mask, apron, etc. Interaction with staff may reveal the adequacy of supply of PPE.
Standard 4 The facility has standard procedures for processing of equipment and instruments.	Standard 4 is concerned with standard procedures, related to processing of equipment and instruments. It includes adequate decontamination, cleaning, disinfection and sterilization of equipment and instruments. These practices should be observed and staff should be interviewed for compliance to certain standard procedures.
Standard 5 Physical layout and environmental control of the patient care areas ensures infection prevention	Standard 5 pertains to environment cleaning. It assesses whether lay out and arrangement of processes are conducive for the infection control or not. Environment cleaning processes like mopping, especially in critical areas like OT and ICU should be observed for the adequacy and technique.
Standard 6 The facility has defined and established procedures for segregation, collection, treatment and disposal of Bio Medical and hazardous Waste.	Standard 6 is concerned with Management of Biomedical waste management including its segregation, transportation, disposal and management of sharps. Availability of equipment and practices of segregation can be directly observed. Staff should be interviewed about the procedure for management of the needle stick injuries. Storage and transportation of waste should be observed and records are verified.

Quality Management

Quality management requires a set of interrelated activities that assure quality of services according to set standards and strive to improve upon it through a systematic

planning, implementation, checking and acting upon the compliances. The standards in this area concern are the opportunities for improvement to enhance quality of services and patient satisfaction. These standards are in synchronization with facility based quality assurance programme.

Standard 1 The facility has established organizational framework for quality improvement	Standard 1 is concerned with creating a Quality Team at the facility and making it functional. Assessor may review the document and interact with Quality Team members to know how frequently they meet and responsibilities have been delegated to them. Quality team meeting records may be reviewed.
Standard 2 The facility has established system for patient and employee satisfaction	Standard 2 is concerned with having a system of measurement of patient and employee satisfaction. This includes periodic patients' satisfaction survey, analysis of the feedback and preparing action plan. Assessors should review the records pertaining to patient satisfaction and employee satisfaction survey to ascertain that Patient feedback is taken at prescribed intervals and adequate sample size is adequate.
Standard 3 The facility has established internal and external quality	Standard 3 is concerned with implementation of internal quality assurance programmes within departments such as EQAS of diagnostic services,

assurance Programmes wherever it is critical to quality.	daily round and use of departmental check-lists, EQUAS records at laboratory, etc. Interview with Matron, Hospital Mangers etc. may give information about how they conduct daily round of departments and usage of checklists.
Standard 4 The facility has established, documented implemented and maintained Standard Operating Procedures for all key processes and support services.	Standard 4 is concerned with availability and adequacy of Standard operating procedures and work instructions with the respective process owners. Display of work instructions and clinical protocols should be observed during the assessment.
Standard 5 The facility map s its key processes and seeks to make them more efficient by reducing non value adding activities and wastages	Standard 5 concerns the efforts' made for the mapping and improving processes. Records should be checked to ensure that the critical processes have been mapped, wastes have been identified and efforts are made to remove them to make processes more efficient.
Standard 6 The facility has established system of periodic review as internal assessment, medical	Standard 6 pertains to the processes of internal assessment, medical and death audit at a defined periodicity. Review of Internal assessment and clinical audit records may reveal their adequacy and

& death audit and prescription audit.	periodicity.
Standard 7 The facility has defined and Established Quality Policy & Quality Objectives.	Standard 7 is concerned with establishment and dissemination of quality policy and objectives in the hospital. The staff may be interviewed regarding their awareness of Quality policy and Objectives. Review of records should be done for assessing that Quality objectives meet SMART criteria, and have been reviewed periodically.
Standard 8 The facility seeks continually improvement by practicing Quality method and tools.	Standard 8 is concerned with the practice of using Quality tools and methods like control charts, 5-'S', etc. The Assessor should look for any specific methods and tools practiced for quality improvement.

Outcomes

Measurement of the quality is critical to improvement of processes and outcomes. This area of concern has four standard measures for quality- Productivity, Efficiency, Clinical Care and Service quality in terms of measurable indicators. Every standard under this area has two aspects – Firstly, there is a system of measurement of indicators at the health facility and secondly, how the hospital meets the benchmark.

Standard 1 The facility measures Productivity Indicators and ensures compliance with State/National benchmarks	Standard 1 is concerned with the measurement of Productivity indicators and meeting the benchmarks. This includes utilization indicators like bed

	occupancy rate and C-Section rate. Assessor should review these records to ensure that theses indictors are getting measured at the health facility.
Standard 2 The facility measures Efficiency Indicators and ensure to reach State/ National Benchmark	Standard 2 pertains to measurement of efficiency indicators and meeting benchmark. This standard contains indicators that measure efficiency of processes, such as turnaround time, and efficiency of human resource like surgery per surgeon. Review of records should be done to assess that these indicators have been measured correctly.
Standard 3 The facility measures Clinical Care & Safety Indicators and tries to reach State/National benchmark	Standard 3 is concerned with the indicators of clinical quality, such as average length of stay and death rates. Record review should be done to see the measurement of these indicators.
Standard 4 The facility measures Service Quality Indicators and endeavours to reach State/ National benchmark	Standard 4 is concerned with indicators measuring service quality and patient satisfaction like Patient satisfaction score and waiting time and LAMA rate.

Technique

1. **Observation**– Compliance to many of the measurable elements are assessed by directly observing the articles, processes and surrounding environment. Few examples are given below –
    a) Enumeration of articles like equipment, drugs etc. Display of signages, work instructions, important information.
    b) Facilities - patient amenities, ramps, complaint-box, etc.
    c) Environment – cleanliness, loose-wires, seepage, overcrowding, temperature control, drains etc.
    d) Procedures like measuring BP, counselling, segregation of biomedical waste.

2. **Record Review** – It may not be possible to observe all clinical procedures. Records also generate objective evidences, which need to be triangulated with finding of the observation. For example on the day of assessment, drug tray in the labour room may have adequate quantity of Oxytocin, but if review of the drug expenditure register reveals poor consumption pattern of Oxytocin, then more enquiries would be required to ascertain on the adherence to protocols in the labour room. Examples of the record review are given below -
    a) Review of clinical records - delivery note, anesthesia note, maintenance of treatment chart, operation notes, etc.
    b) Review of department registers like admission registers, handover registers, expenditure registers, etc.
    c) Review of licenses, formats for legal compliances like Blood bank license and Form ‘F’ for PNDT.
    d) Review of SOPs for adequacy and process.

e) Review of monitoring records – TPR chart, Input/output chart, culture surveillance report, calibration records, etc.

f) Review of department data and indicators

3. **Staff interview** –Interaction with the staff helps in assessing the knowledge and skill level, required for performing job functions. Examples –

   Competency testing – Quizzing the staff on knowledge related to their job.

   a) Demonstration – Asking staff to demonstrate certain activities like hand-washing technique, new born resuscitation etc.

   b) Awareness - Asking staff about awareness off patients' right, quality policy, handling of high alerts drugs etc.

   c) Attitude about patient's dignity and gender issues.

   d) Feedback about adequacy of supplies, problems in performing work, safety issues, etc.

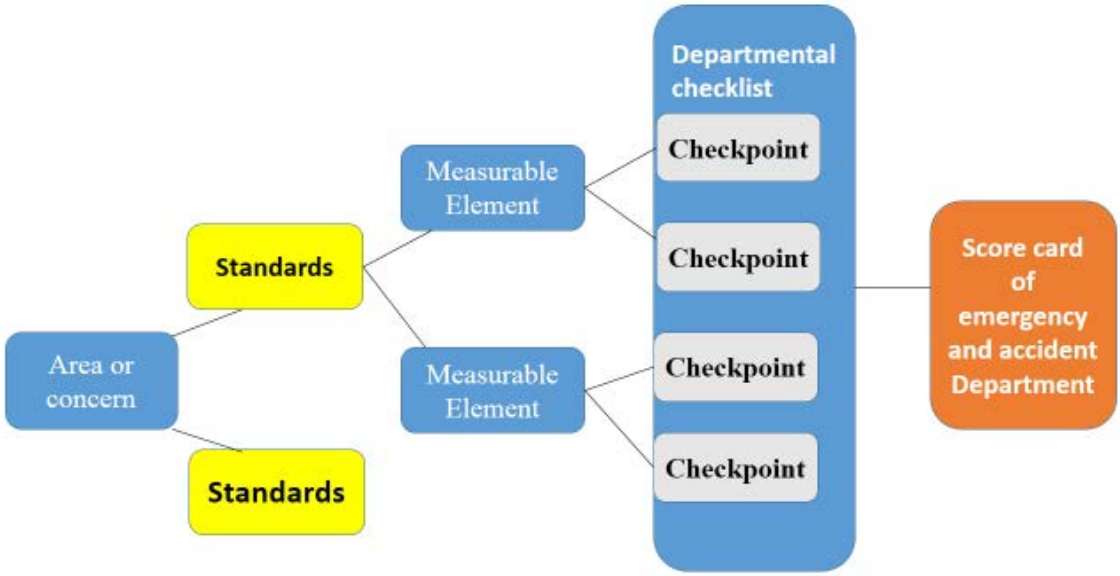
4. **Patient / Client Interview**– Interaction with patients/clients may be useful in getting information about quality of services and their experience in the hospital. It gives us users' perspective. It should include –

   a) Feedback on quality of services staff behavior, food quality, waiting times etc.

   b) Out of pocket expenditure incurred during the hospitalization.

   c) Effective of communication like counselling services and self-drug administration

Functional Relationship between Components of Quality Measurement System



Ethical consideration

- Consent has taken before face to face interview of staff, patient, patient relatives and permission has taken by chief district medical officer for the study.
- Participation was purely voluntary, No pressure or inducement of any kind was applied to encourage an individual to become included in the study.
- Before participation, all patients were notified about the study's aim, objectives, and methods.
- Every participant had the right to abstain from participation and to terminate participation at any time.
- The identity of individuals from whom information is obtained in the course of the study was kept strictly confidential. No information revealing the identity of any individual was included in the final report or in any other communication prepared in the course of the study.

Analysis

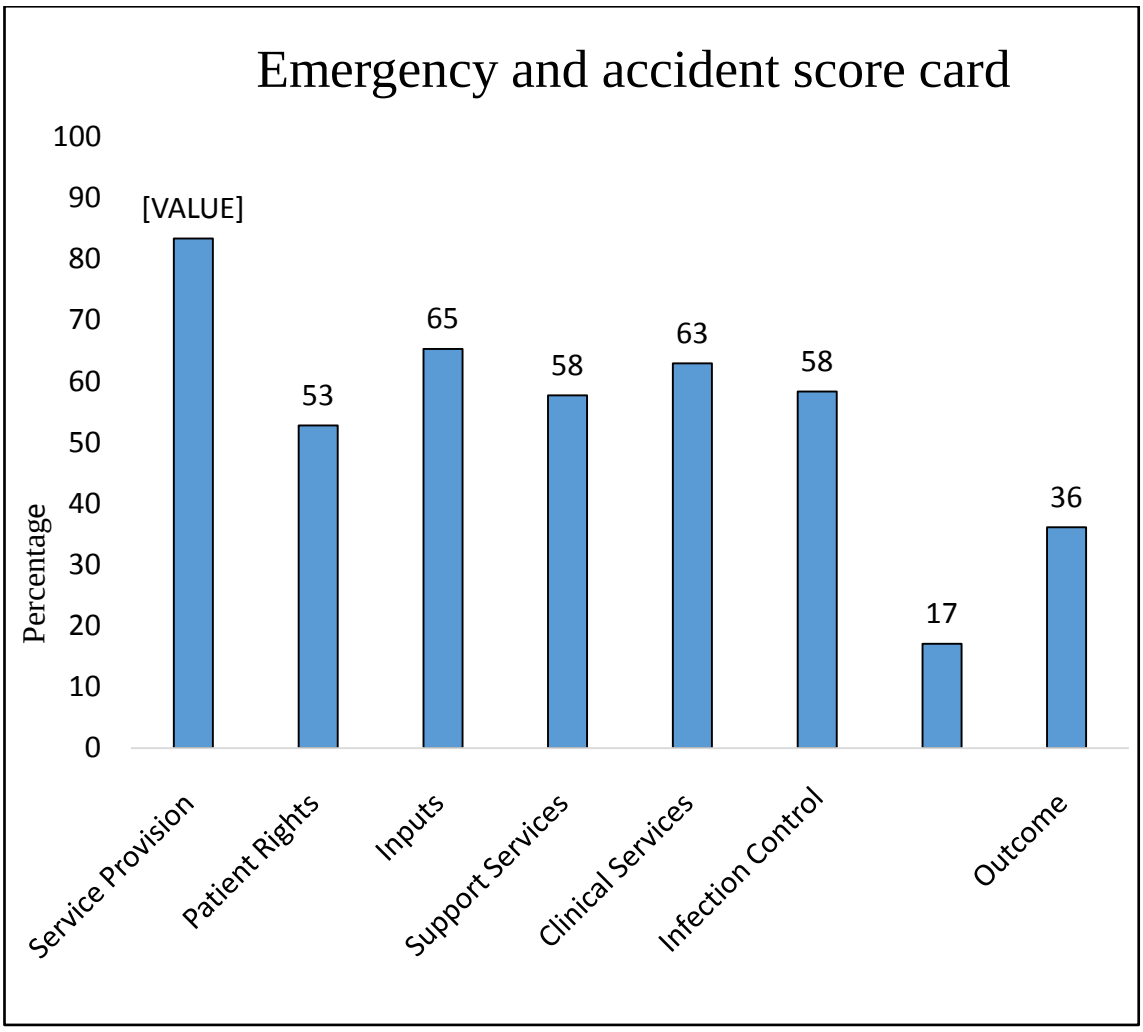
After collection of data of all the measurable elements and checkpoints and marking compliance, mean has calculated with the help of Microsoft Excel 2013.

Then scores of the department has calculated and all checkpoints have equal weightage to keep scoring simple. After scoring, the final score has calculated in the percentage with the help of the following formula:-

$$\frac{\text{Score obtained X 100}}{\text{No of checkpoint in checklist X 2}}$$

Result

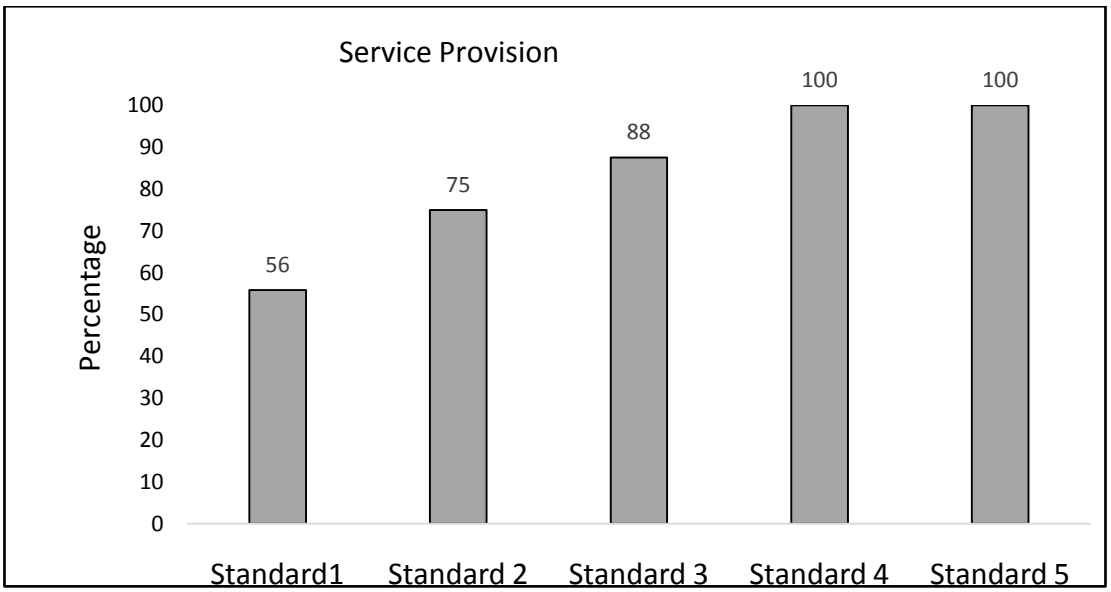
The score has been obtained at the each checkpoint mention in the checklist and after analysis the result has presented in the bar diagram. The quality score for the emergency and accident department is 57 percent and the quality score according to the area of concern are following:-



The result shows that the hospital providing the almost all the facility or the service provision, inputs and the clinical services score is more than 60 percent but the other areas like supportive services, infection control and the patient right is less than 60 percent and the quality management score is very less so there is huge gap between the standards and the present condition of the emergency and the accident department as the quality score.

Quality score according each area of concern are follow:-

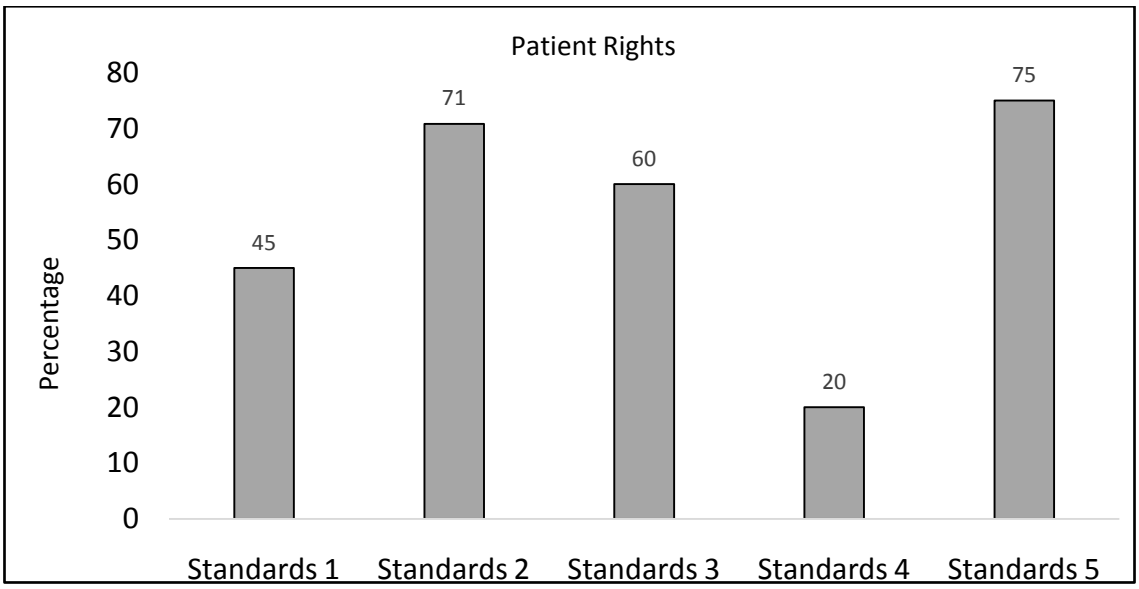
1. Service Provision



The bar chart shows that standard 4 supportive services and Standard 5 procedures for local emergencies were available at the hospital. Standard 3 diagnostic services were available at the hospital but not proper linkage to X-ray. Standard 2 RMNCHA Services were available at the hospital but emergency obstetrics and gynaecology services were not provided at the emergency and accident department.

All the medical, surgical, emergency Obstetrics and gynaecology, emergency ENT and Ophthalmology procedures were available at the hospital but Paediatric, Psychiatric specialist were not available. There was not separate dressing and injection rooms available in the emergency and accident department.

2. Patient Rights



The figure shows that standard 1 for patient right, neither emergency department board nor directional signage's were available at hospital main entrance. List of Services display were not at the prominent place for the emergency department patient. Names of the emergency staff, list of the essential drugs and important number including ambulance, police and blood Bank were not displayed.

According to Standard 2 Separate room for the examination of rape case, demarcated separated observation room, separate toilets for male and female were not available. There was no direct accessibility of ambulance at triage area of the emergency.

Standard 3 were not fully implemented, No privacy at the examination and procedure room were provided to the patient. Behaviour of the staff were not empathic and courteous while delivering the services. Privacy and confidentiality were not maintain of HIV, Rape, Suicidal, domestic violence and psychotic cases.

According to the standard 4 there were no display of the patient rights and responsibility and most of the staff were not aware about the patient rights and responsibilities. There

was no complaint box and display of grievance redressal and whom to contact is displayed.

Standard 5 Patient party has spent on purchasing the drugs and diagnostics from outside the Hospital.

3. Inputs

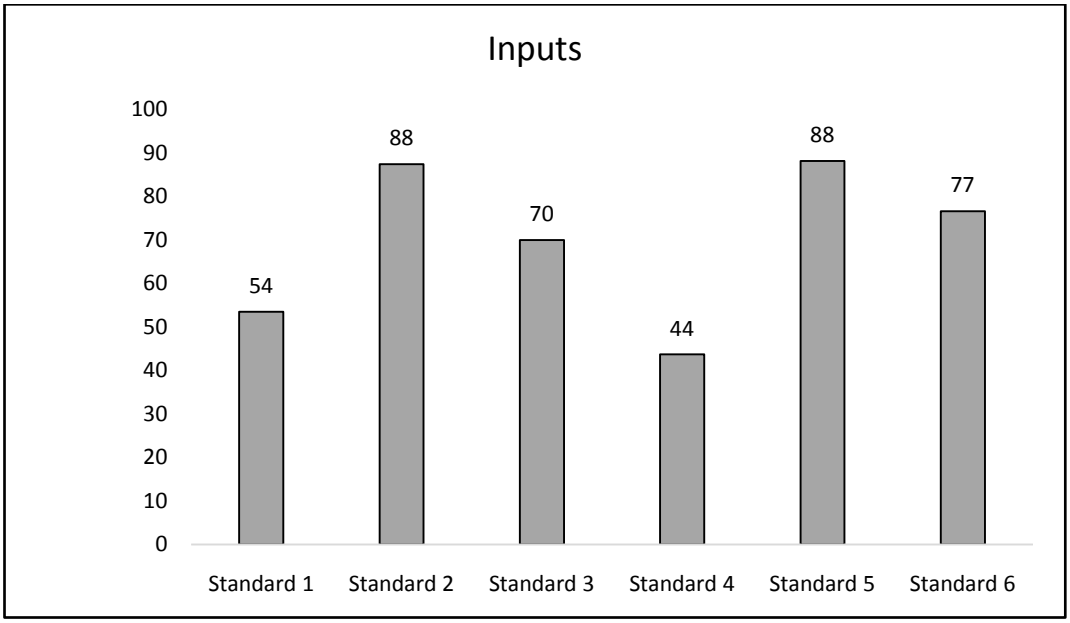


Figure no. showed that from standard 1 there were only 5 beds available in emergency and not availability of buffer beds for handling mass causality and disaster, not proper linkage with labour room, indoors and laboratory. There was not unidirectional flow of services and no clean and dirty utility room available in emergency department.

According to standard 2 physical safeties, at few places in emergency department where temporary connection has given and the wiring was hanging in the ward.

Standard 3 – programme for fire safety and other disaster there were no emergency exit displayed and fire extinguishers were available but staffs were not trained to use those devices.

From standard 4 there was shortage of nursing staff in emergency ward, only one nursing staff was available and no dresser was available. Nursing staff were not trained for triage and mass casualty management, basic life support, bio medical waste management, infection control, hand hygiene and patient safety.
Emergency staff was not skilled for resuscitation, use defibrillator and maintaining the clinical records.

Standard 5 drugs and consumables required for assured list of services. Hormonal preparation drugs and megsulf, plasma expander was not available.

According to Standard 6, equipment for sterilization and disinfection (boiler) were not available, electrical fixtures for equipment like suction, monitor and defibrillator not in appropriate quantity. Equipment for resuscitation and monitoring the patient in the ambulance were not available. Furniture in emergency department was not in adequate quantity.

4. Support Services

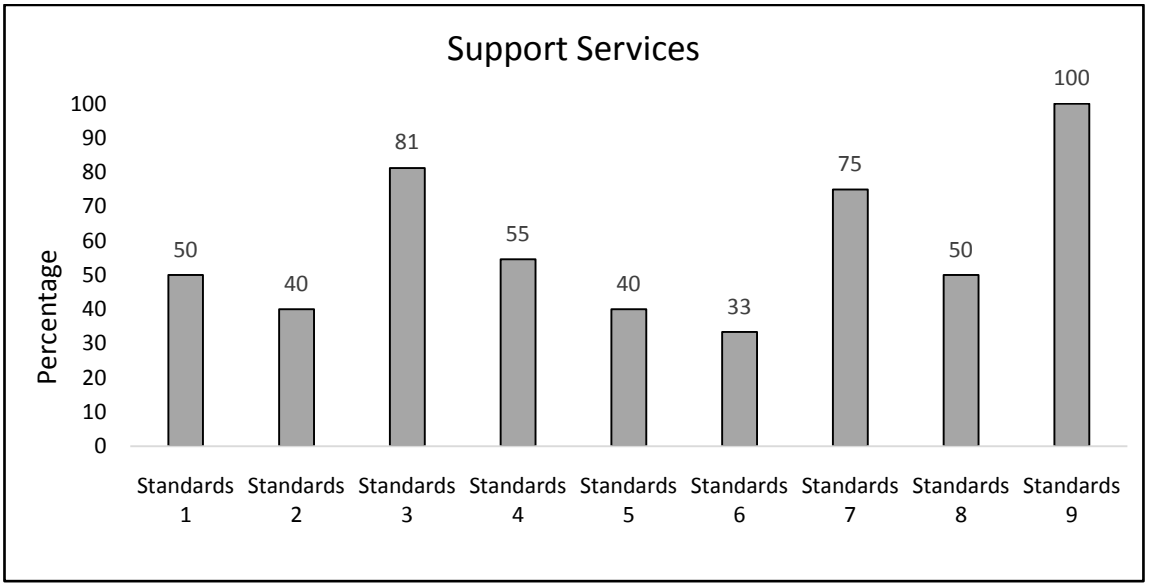


Figure no. Shows that standard 1 were not fully compliance and there were no process for inspection, testing, calibration and maintenance of the equipment. Operating and maintenance instructions were not available with the users of equipment.

According to the standard 2 concerned with storage and inventory management were not fully compliance in the emergency department. Records for drugs expiry and near expiry drugs were not maintained. Expiry dates for drugs tray at emergency were not maintain and expiry drugs were there during the observation. There was no practice of calculating and maintaining buffer stock in emergency department as well as in ambulance. Stock and expenditure register of drugs, consumables and procedure for replenishing drugs tray emergency in ambulance were not there in the department.

Temperature of the refrigerators as per storage requirement and records were not maintained. Narcotics and psychotropic drugs were not in lock and key.

Standard 3 for safety of staff, patient and visitors, Visitors were not restricted at resuscitation and procedure area, and procedures for handling mass situation and violence in emergency were not there. Female staffs do not feel secure at work place.

The standard 4 concerned with the maintenance and upkeep of the facility. Patient care areas were not clean and hygienic and infrastructure was not adequately maintained there were cracks chipping of plaster, patient bed were painted, matters were not intact properly and there was some junk material found in department.

According to standard 5 ensure 24X7 water and power backup. Centralised/local pipes Oxygen and vacuum supply were not available, emergency power backup was not there in emergency.

Standard 6 ensures clean linen to the patient. Linen was not changed after change shift of each patient. There was no system to check cleanliness.

Standard 7 ensure facility is compliant with all statutory and regulatory requirement imposed by local, state or central government. Some of the emergency staff were not aware of the requirement of medico legal cases.

Standard 8 for roles and responsibility of administration and clinical staff are determined as per government and regulations and standard operating procedures. Most of the staff from emergency department were not aware about their roles and responsibilities, and there was no system to verify the attendance register. Doctors and the supportive staff were not adhere to their respective dress code.

According to standard 9 monitoring the quality of outsourced services. There was no system to check the quality of the work done by the contractual staff.

5. Clinical Services

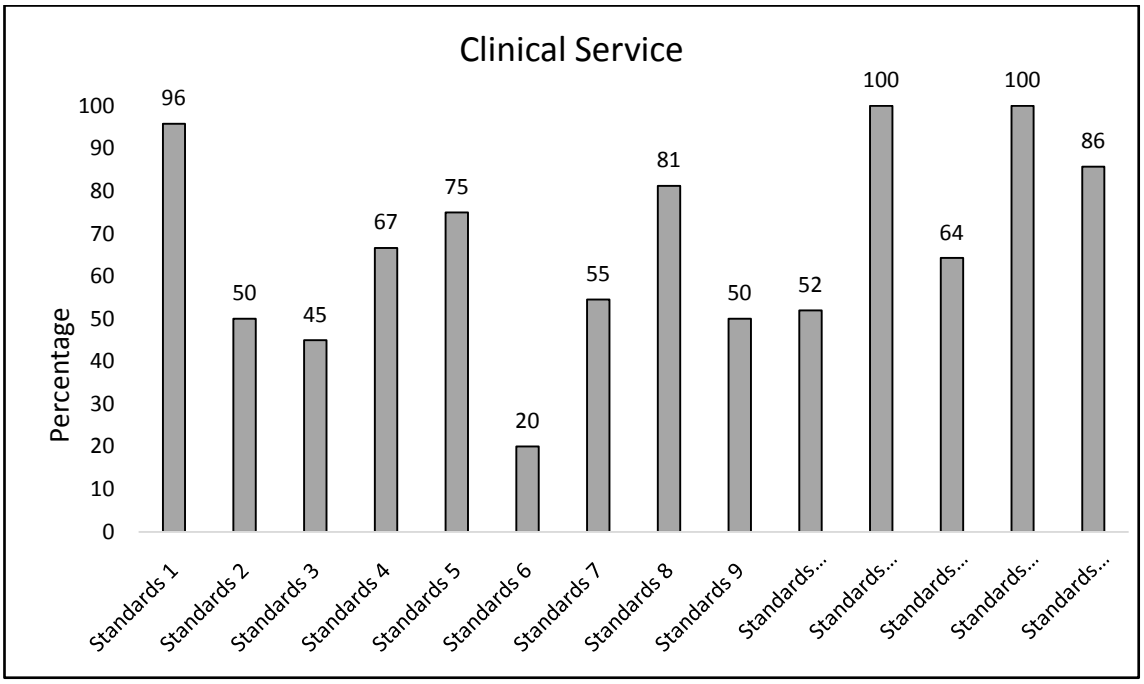


Figure no. shows that standard 1 for defined the procedure for registration, consultation and admission of the patients. Only extra beds, trolley beds were not available in case of high occupancy or mass casualty

According to the standard 2 there were no criteria of procedure for taking full assessment of the patient and initial assessment was not taking place, and there was no schedule for reassessment of patient under observation.

The standard 3 defined the continuity of care of patient and referral. There was no procedure for consultation of patient to other specialist and hand over for patient transfer from emergency to other department. Advance communication was not done

with higher centre and lower centre for transfer the patient. Emergency department has functional linkages to lower facilities but not functioning properly and there was no follow up after refer the patient to the higher centre. Doctors and nurses were not designated for each patient admitted to emergency ward.

Standard 4 for procedure for nursing care. There was no proper process for ensuring the identification of the before any clinical procedures and no procedure to take verbal order. There was no procedure to give hand over at bed side. Nursing notes were not maintain adequately.

Standard 5 ensure the procedure to identify high risk and vulnerable patients. There were no triage system to ensure the high risk medical emergency and treatment given on priority patient.

According to standard 6 ensure the standard treatment guidelines defined by the state/central government. Neither the standard treatment guidelines were available at the point of use nor was the staff aware about that. There were no availability drugs formulary at emergency.

Standard 7 defined procedure for safe drug administration. There was no process for identify and cautious administration of the high alert drugs in emergency ward. Medical advice and procedures were not accompanied with date, time and signature, and some time the prescription writing of the doctor were not comprehendible for the clinical staff. Single dose vial were used more than one time and in multi dose vial the needle was found in the septum, and resister of adverse drugs reaction was not maintaining properly. There was no system to ensure the administration of right drug to right patient.

Standard 8 defined the procedure for maintaining, updating of patients clinical records and their storage. There was no form format system to take the initial assessment of patient in emergency ward.

Standard 9 defined the procedure for discharge of patient. Discharge summary were not providing and treating doctor were not informed before discharge the patient. There was no procedure to take assessment before discharge from emergency, sometime the patient were not consulted before discharge.

Standards 10 defined the procedure for emergency and disaster management. Emergency has not implemented the system of sorting the patient. Triage area were not marked and protocols were not displayed. Emergency protocol were not displayed at the point of use and was not procedure of CPR. Lines of authority were not defined for disaster time and there were no buffer stock of medicine and other supplies maintained. The role and responsibility of staff at disaster time were not defined. Staff was not aware of disaster plan. Staff those accompany the patient in ambulance were not trained with basic life support training and there was no daily checklist of all equipment and emergency medicine in the ambulance as well as in ward. Transfer register were not maintained to record the detail of the referred patient.

Standard 11 defined the procedures for diagnostic services. This standard was fully implemented in emergency ward.

Standard 12 defined the procedure for blood bank/storage management and transfusion. There were proper procedure for issuing the blood promptly for life saving measures and consent was taken before transfusion. No equipment was available to measure the

temperature before transfuse the blood to the patient. Minor and major blood transfusion reaction register was not maintaining properly and not defined person to report at emergency.

Standard 13 defined the procedures of surgical services. There were proper procedure to call surgeon in night and responsibilities were defined to make the arrangement of logistics in emergency.

Standard 14 defined procedure for end of life care and death. There was proper procedure to defined death of the patient and procedure for registering brought in dead, and death cases as medico legal cases. Proper procedure for issued the death certificate and proper procedure for handling over the dead body.

There was no standard procedure of removal of life sustaining treatment.

6. Infection Control

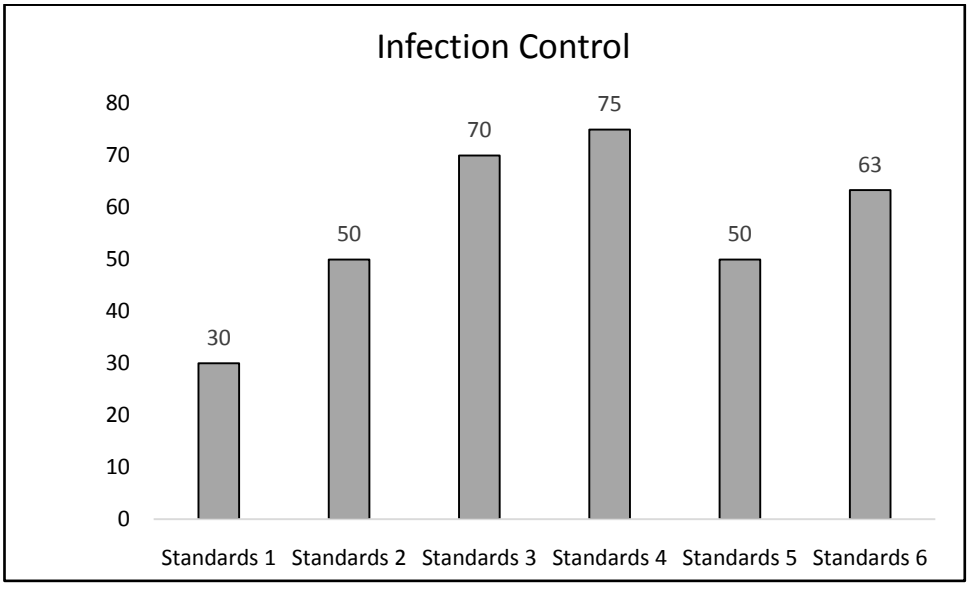


Figure no. shows that standard 1 defined procedure in place for prevention and measurement of hospital associated infection and infection control program. There was not regular monitoring of infection control practices like proper hand washing and

infection control audit at periodic interval. Doctors were not aware of hospital antibiotic policy. There was no procedure for immunization of the staff and periodic checkups of the staff.

Standard 2 defined and implementation procedures for ensuring hand hygiene practices and antiseptic. There was availability of wash basin, soap, running water but not availability of antiseptic solution and alcohol based hand rub. Staff were when to wash hand but display board was not available at the point of wash basin, and staff were not adhere to the 6 step of hand washing.

Standard 3 ensures standard practices and materials for personal protection. Gloves, mask were available at the point of use and there was no use of gloves and mask after used. There was no compliance of wearing and removing the gloves and not availability of personal protective kit for infectious patient like HIV Kit.

Standard 4 defined standards procedures for processing of equipment and instruments. There was no standards for decontamination of operating and procedure surfaces and decontamination of instrument after used. Emergency staff was not aware of method and contact time for decontamination and chemical sterilization. There was not proper handling of soiled and infected linen.

Standard 5 defined the physical layout and environment control of the patient care areas ensures infection prevention. There was not availability of disinfectant as per requirement. Staff was not trained for spill management and to prepare the cleaning solution as per the standard procedures. Standard procedure of mopping and scrubbing were not followed (unidirectional mopping from inside out) and cleaning equipment

like broom was used in patient care area. There were no defined list of infectious disease require special precaution and barrier nursing, even nursing staff was not trained for nursing barrier.

Standard 6 defined procedure for segregation, collection, treatment and disposal of bio medical and hazardous waste. There was availability of colour coded bins at the point of waste generation, colour coded plastic bags, display of work instructions for segregation and handling of biomedical waste, functional needle cutter. There was no availability of puncture proof box. Staff was not aware of contact time for disinfection of sharps and liquid waste disposal, and was not aware about what to do in condition of needle stick injury and mercury spill.

7. Quality Management

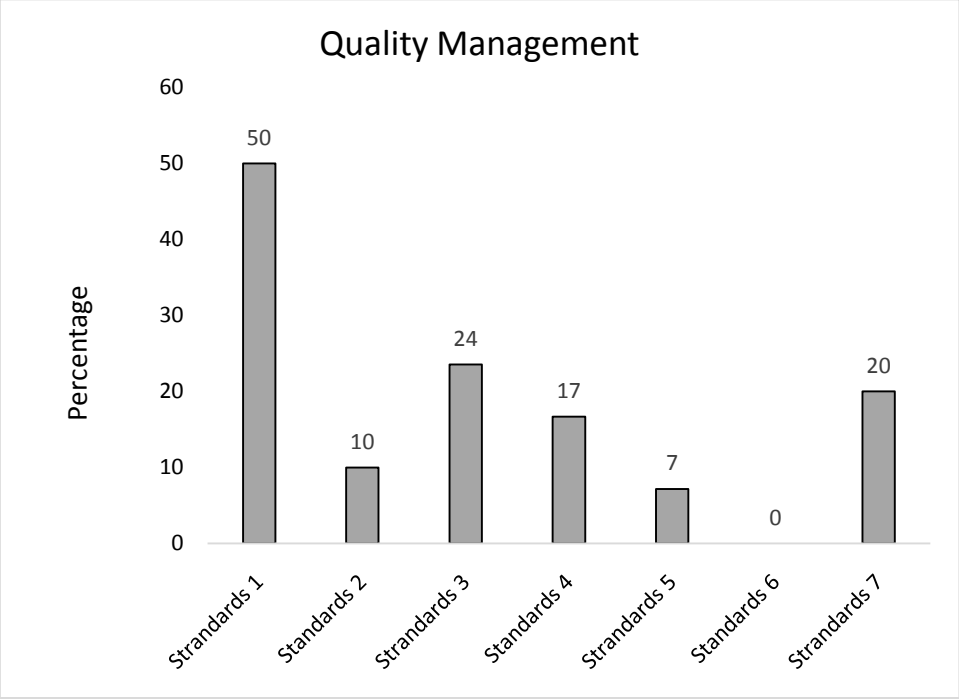


Figure no. shows that standard 1 defined the organizational framework for quality improvement. There was not designated departmental nodal person for coordination quality assurance activities.

Standard 2 established internal and external quality assurance programs wherever it is critical to quality. There was system to take round by the authorized person, procedure to take consent, procedure to handling the brought in dead, storage and release of dead body. There was no system for periodic checkup of ambulance by designated hospital staff. There was no procedure for periodic assessment of preparedness for disaster by competent authority. There was no checklist for monitoring and quality assurance, SOPs for department, procedure for receiving the patient , triage, initial screening of patient, nursing care, transfer to other ward, handling medical records, storage and replenishing the medicine, equipment prevention, disaster management.

Standard 3 defined maps its key processes and seeks to make them more efficient by reducing non value adding activities and wastages. There was no process mapping of critical processes. Non value adding activities were not identified. Some of the process were rearranged in emergency.

Standard 4 defined the system of periodic review as internal assessment, medical and death audit and prescription audit. There was no internal assessment at periodic interval, procedure to conduct Medical Audit, procedure to conduct death audit, action plan prepared, corrective and prevention action taken.

Standard 5 defined quality policy and quality objectives. There was not defined quality objective for emergency.

Standard 6 continually improvement by practicing quality method and tools. There was only 5-S implemented. PDCA, Mistake proofing, Six sigma and 6 tools of quality were not implemented.

8. Outcome

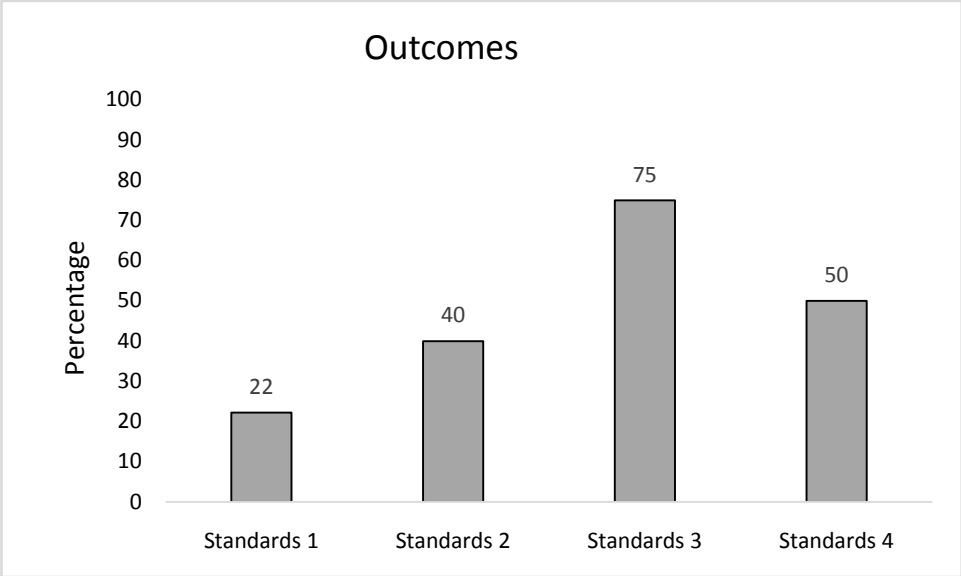


Figure no. shows that standard 1 for measuring productivity indicators and ensure compliance with state/national benchmarks. Indicators, number of trips per ambulance and number of poisoning cases treated per thousand emergency cases were measured. Number of trauma cases, cardiac cases, obstetrics cases, resuscitation done per thousand were not measured. Proportion of patients attended in night and BPL patient were not measured.

Standard 2 for measure the efficiency indicators and ensure to reach state/national benchmark. There was only proportion of cases referred and proportion of patient referred by state/108 ambulance per thousand referral cases, and response time for ambulance, response time at emergency for initial assessment, average turnaround time were not measured.

Standard 3 for measures clinical care and safety indicators and tries to reach state/national benchmark. Indicators, partially compliance of number of adverse events per thousand patients, and fully compliance of death rate.

Standard 4 for measures services quality indicators and endeavors to reach state/national benchmark. Indicator, fully compliance absconding rate, and non-compliance of LAMA rate.

Discussion and Conclusion

The study of gap analysis on emergency and accident department in district hospital. The analysis has done on the concern areas are Services provision, Patient rights, Inputs, Supportive services, Clinical services, Infection control, Quality management, Outcome. The results shows that the quality management score is just 17 percentage and there was huge gap in this area. Then second concern area is outcomes where the hospital should concern more and the score was just 36 percentage. Patient rights, infection control and support services areas are should be next priority for the hospital to improve the overall score.

Service provision

The service provision found that there was no paediatric and psychiatrist, then no separate room for injection and dressing and triage protocol were not implemented, linkage to X-ray.

Patient rights

The gaps in area of patient rights were found that no emergency board and directional board, then displays of the list of available services and available essential drugs, names of emergency department, number of ambulance, police and blood bank was not there. Privacy and confidentiality of the patient were not maintained. Training for patient rights and responsibility were not conducted. Complaint box and grievance redressal system was not compliance.

Inputs

The gaps found in the area of inputs are Extra beds were not available for mass casualty, there were not adequate nursing staff in the ward not proper linkage with laboratory and inpatient wards, training and procedure for triage, training for basic life support and advanced life support for emergency staff. Some of the emergency drugs megsulf, plasma expander were not available at emergency. Equipment for sterilization and disinfectant was not available in emergency ward. Equipment for resuscitation was not available in ambulance. Training for bio-medical waste, infection control, hand hygiene, patient safety were not conducted.

Supportive services

Gaps found in the area of supportive services are Equipment inspection, calibration and maintenance, and operating instruction were not fully compliance in emergency ward. Inventory management was not fully compliance in the emergency ward. Sometimes there was drug stock out, no buffer stock in emergency ward and ambulance. Temperature were not maintain of the refrigerator. Centralized/local pipes Oxygen and vacuum supply were not there. There was no security for the patient, staff and visitors. Linen were not changed after change shift of each patient. Roles and responsibilities of the emergency staff were not defined and staff was not adhere to the dressing code. There was not process to monitor the quality of outsourced services.

Clinical services

Gaps found in the clinical services are full assessment forms were not implemented in the emergency ward. There was no procedure for consultation of patient to other specialist and proper process to hand over the patient from emergency department. Advance communication to higher and the lower center was not there and no follow up

has taken after refer the patient to the higher center. Staff were not designed for each patient. There was no proper process for ensuring the identification of the before any clinical procedures and no procedure to take verbal order. There was no procedure to give hand over at bed side. Nursing notes were not maintain adequately. There were not triage system to ensure high risk emergency and treatment given on priority patient. Standard treatment guidelines were not following at the point of treatment and there was no drug formulary in the hospital. Identify and cautious administration of the high alert drugs were not there in emergency. Single dose vial was used more than one time and register of adverse drug were not maintained, no system to ensure the administration of right drug to right patient. Medical advice and procedure were not accompanied with date, time and signature, and sometimes writing on prescription note were not comprehendible for clinical staff. Discharge summary was not provided to the patient and consultant doctor were not informed before discharge. Emergency disaster plan were not compliance at point of use, staff were not aware of the disaster plan and CPR procedure were not displayed and staff was not trained for that. There was no daily checklist of all equipped and emergency medicine in the ambulance. Transfer register was not maintained to record the detail of the referred patient. There was no equipment to measure the temperature before transfusion of the blood. Blood transfusion reaction register was not maintain. There was no procedure for removal of life sustaining treatment.

Infection control

The Gaps were found in infection areas were not regular monitoring of infection control practices like proper hand washing, no display board of hand washing, no availability of alcohol antiseptic solution. 6steps of hand washing were not followed. Doctors were not aware of hospital antibiotic policy and there was not separate kit available for testing the

infectious patient. Staff were not aware of standards for decontamination and chemical sterilization, standards for mopping and scrubbing, standards for special precaution and barrier nursing. Trainings were not given to the staff about what to do in condition of needle stick injury and mercury spill. Staff was not aware of contact time for disinfection of sharps and liquid waste disposal. There was not availability of puncture proof boxes.

Quality management

The Gaps in area of quality management were not defined Quality objectives. There was not designated departmental nodal person for coordination quality assurance activities. There was no SOPs for department, procedure for receiving the patient, triage, initial screening of patient, nursing care, transfer to other ward handling medical record, equipment prevention, storage and replenishing the medicine, disaster management. No checklist for monitoring the quality assurance was implemented. There was no procedure for medical audit, death audit, action plan prepared, corrective and preventive action taken. Continually quality improvement by using the management tools.

Outcomes

Gaps in the area of Outcomes were the Indicators of productivity, efficiency, clinical care and safety, quality not measured. There was no procedure to measures no. of trips per ambulance, no. of poisoning cases treated per thousand, no. of trauma cases, cardiac cases, obstetrics cases, resuscitation done per thousand patients, response time for ambulance, response time at emergency for initial assessment, average turnaround time, no. of adverse events per thousand patients, LAMA rate.

Conclusion

The overall quality score is 57 percentage after conducted this study. There were huge gap has been identified in each area. Quality standards were not fully compliance in the emergency department. Quality management and outcome score was very low. The hospital is providing all secondary care services except few. There are huge resources but the utilization of those resources with proper procedures and standards are not there. Staff was not oriented for their role and responsibility, and not trained for specific procedures. The approach towards quality in the emergency department were not defined properly. Procedures for the day to day activities were not defined in the way of reduce the wastage in the department.

Recommendations

The emergency department should form the Quality management team and set the goals and objectives for implement the Quality standards in the ward. The team should make the SOPs for emergency department. The team should find out the gaps at the regular interval and implement the checklists for monitoring the process in the ways the standards form for quality treatment. There should be internal and external audit for the all procedures in the ward. Then team should implement the quality tools like PDCA, mistake proofing and try to reach the benchmark. There should be process to measures the indicators to find out the improvement and to compare those indicator to benchmark and analyze the gap and implement the suggestion on those gaps.

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Annexure

National Quality Assurance Standards

Checklist for Accident & Emergency

Reference No.	Measurable Element	Checkpoint	Compliance	Assessment Method	Means of Verification	Remarks
.	Area of Concern - A Service Provision					
Standard A1.	Facility Provides Curative Services					
ME A1.1.	The facility provides General Medicine services	Availability of Emergency Medical Procedures		SI/OB	Poisoning, Snake Bite, CVA, Acute MI, ARF, Hypovolumic Shock , Dyspnoea, Unconscious Patients	
ME A1.2.	The facility provides General Surgery services	Availability of Emergency Surgical Procedures		SI/OB	Appendicitis, Rupture spleen, Intestinal Obstruction, Assault Injuries, perforation, Burns	
ME A1.3.	The facility provides Obstetrics & Gynaecology Services	Availability of Emergency Obstetrics &Gynaecology Procedures		SI/OB	APH, PPH, Eclampsia , Obstructed labour, Septic abortion, Emergency Contraceptives	
ME A1.4.	The facility provides paediateric services	Availability of emergency Paediatric procedures		SI/OB	ARI, Diarrhoeal diseases, Hypothermia, PEM,resustication	
ME A1.5.	The facility provides Ophthalmology Services	Availability of Emergency Ophthalmology procedures		SI/OB	Foreign body and injuries	
ME A1.6.	The facility provides ENT Services	Availability of Emergency ENT procedures		SI/OB	Epitasis, foreign body	
ME A1.7.	The facility provides Orthopaedics Services	Availability of Emergency Orthopaedic procedures		SI/OB	Fracture, RTA, Poly trauma	
ME A1.9.	The facility provides Psychiatry Services	Availability of Emergency Psychiatric procedures		SI/OB	Conversion Reactions, other Psychiatric emergencies Hysteria, mania, psychosis	
ME A1.13.	The facility provides services for OPD procedures	Availability of Dressing room facility		SI/OB	Drainage, dressing, suturing	
.		Availability of injection room facilities		SI/OB	Injection room facility with ARV, ASV and emergency drugs	
ME A1.14.	Services are available for the time period as mandated	24X7 availability of dedicated emergency Services		SI/RR		
ME A1.16.	The facility provides Accident & Emergency Services	Availability of Emergency procedures		SI/OB	Defibrillation, CPR, Mobilization, Chest Tube, Intubations, Tracheotomy, Mechanical Ventilation	

Standard A2	**Facility provides RMNCHA Services**					
ME A2.2	The facility provides Maternal health Services	Availability of Emergency Obstetrics & Gynaecology procedure		SI/OB		
ME A2.4	The facility provides Child health Services	Triage and emergency management of paediatric cases		SI/OB		
Standard A3.	**Facility Provides diagnostic Services**					
ME A3.1.	The facility provides Radiology Services	Availability / Linkage to X-ray & USG services		SI/OB		
		Radiology Services are functional 24X7		SI/OB	Check services are functional at night	
ME A3.2.	The facility Provides Laboratory Services	Availability of Emergency diagnostic tests 24x7		SI/OB	HB%, CPC, Blood Sugar, RDK, Urine Protein, Electrolyte (Na+K)	
ME A3.3.	The facility provides other diagnostic services, as mandated	Availability of Functional ECG Services		SI/OB		
Standard A5.	**Facility provides support services**					
ME A5.3.	The facility provides security services	Availability of Police post		SI/OB		
ME A5.7.	The facility has services of medical record department	Availability of Medico-legal record services		SI/OB		
Standard A6.	**Health services provided at the facility are appropriate to community needs.**					
ME A6.1.	The facility provides curatives & preventive services for the health problems and diseases, prevalent locally.	Availability of specific procedures for local prevalent emergencies		SI/OB	Ask for the specific local health frequent emergencies. See if emergency is ready for it or not.	
.	**Area of Concern - B Patient Rights**					
Standard B1.	**Facility provides the information to care seekers, attendants & community about the available services and their modalities**					
ME B1.1.	The facility has uniform and user-friendly signage system	Availability departmental signage's.		OB	Emergency department board is prominently displayed with facility of illumination in night.	
.		Availability of Directional Signage's.		OB	Direction is displayed from main gate to direct.	
ME B1.2.	The facility displays the services and entitlements available in its departments	List of services including emergencies that are managed at the facility		OB		
.		Names of doctor and nursing staff on duty are displayed and updated		OB		

.		List of drugs available are displayed		OB		
.		Important numbers including ambulance, blood bank , police and referral centres displayed		OB		
ME B1.5	Patients & visitors are sensitised and educated through appropriate IEC / BCC approaches	IEC Material is displayed				
ME B1.6.	Information is available in local language and easy to understand	Signage's and information are available in local language		OB		
ME B1.7.	The facility provides information to patients and visitor through an exclusive set-up.	Enquiry services are available 24X7.		OB	Enquiry services may be provided by registration clerk/Nurse in a small set up. For large and busy emergency departments there should be dedicated enquiry counter	
ME B1.8	The facility ensures access to clinical records of patients to entitled personnel	Treatment note/discharge note is given to patient		RR/OB		
Standard B2.	**Services are delivered in a manner that is sensitive to gender, religious, and cultural needs, and there are no barrier on account of physical economic, cultural or social reasons.**					
ME B2.1.	Services are provided in manner that are sensitive to gender	Separate room for examination of rape victims		OB		
.		Availability of sexual assault forensic evidence kit		OB		
.		Availability of protocols /guidelines for collection of forensic evidence in case of rape victim		OB /RR		
.		Counselling services are available for rape victim and domestic violence		OB/RR		
.		Availability of female staff if a male doctor examine a female patients		OB/SI		
.		Separate toilets for male and females		SI/OB		
		Demarcated male and female observation areas		OB		
ME B2.3.	Access to facility is provided without any physical barrier & and friendly to people with disabilities	Availability of Wheel chair/ stretcher for emergency		OB		
		Availability of ramps with railing		OB		
		Emergency is located at ground floor		OB		
		Ambulance has direct access to the receiving/triage area of the emergency.		OB	No vehicle parked on the way /in front of emergency entrance. Access road to emergency is wide enough for streamline moment of emergency	
		Availability of disable friendly		OB		

		toilet				
Standard B3.	**Facility maintains the privacy, confidentiality & Dignity of patient and related information.**					
ME B3.1.	Adequate visual privacy is provided at every point of care	Screens provided at emergency		OB	At the examination and procedure area.	
ME B3.2.	Confidentiality of patients records and clinical information is maintained	Confidentiality of patient record maintained		SI/OB		
		MLC cases are kept in secure place beyond access of general public		SI/OB		
ME B3.3.	The facility ensures the behaviours of staff is dignified and respectful, while delivering the services	Behaviour of staff is empathetic and courteous		OB/PI		
ME B3.4.	The facility ensures privacy and confidentiality to every patient, especially of those conditions having social stigma, and also safeguards vulnerable groups	Privacy and confidentiality of HIV, Rape, suicidal cases, domestic violence and psychotic cases		SI/OB		
Standard B4.	**Facility has defined and established procedures for informing and involving patient and their families about treatment and obtaining informed consent wherever it is required.**					
ME B4.1.	There is established procedures for taking informed consent before treatment and procedures	Consent is taken for invasive emergency procedures		SI/RR		
ME B4.2.	Patient is informed about his/her rights and responsibilities	Display of patient rights and responsibilities.		OB		
ME B4.3.	Staff are aware of Patients rights responsibilities	Staff is aware about patient rights and responsibilities		SI		
ME B4.4.	Information about the treatment is shared with patients or attendants, regularly	Patient is informed about her clinical condition and treatment been provided		PI	Ask patients about what they have been communicated about the treatment plan	
ME B4.5.	The facility has defined and established grievance redressal system in place	Availability of complaint box and display of process for grievance redresaal and whom to contact is displayed		OB		
Standard B5.	**Facility ensures that there are no financial barrier to access and that there is financial protection given from cost of care.**					
ME B5.1	The facility provides cashless services to pregnant women, mothers and neonates as per prevalent government schemes	Emergency services are free for all including pregnant woman, neonate and children		PI/SI		
ME B5.2.	The facility ensures that drugs prescribed are available at Pharmacy and wards	Check that patient party has not spent on purchasing drugs or consumables from outside.		PI/SI		
ME B5.3.	It is ensured that facilities for the prescribed investigations are available at the facility	Check that patient party has not spent on diagnostics from outside.		PI/SI		

ME B5.4.	The facility provide free of cost treatment to Below poverty line patients without administrative hassles	Free Emergency Consultation for BPL patients		PI/SI/RR		
.	**Area of Concern - C Inputs**					
Standard C1.	**The facility has infrastructure for delivery of assured services, and available infrastructure meets the prevalent norms**					
ME C1.1.	Departments have adequate space as per patient or work load	Adequate space for accommodating emergency load		OB	1000 square meters per 100 patient daily loads	
		Availability of adequate waiting area		OB		
ME C1.2.	Patient amenities are provide as per patient load	Availability of seating arrangement in the waiting area		OB		
.		Availability of cold Drinking water		OB		
.		Availability of functional toilets		OB		
ME C1.3.	Departments have layout and demarcated areas as per functions	Demarcated trolley bay		OB		
.		Demarcated receiving /triage areas		OB		
.		Demarcated Nursing station		OB		
.		Demarcated duty room for doctor /nurse		OB		
.		Demarcated resuscitation area		OB		
.		Demarcated observation area/beds		OB		
.		Demarcated dressing area /room		OB		
.		Demarcated injection room		OB		
.		Demarcated area for keeping serious patient for intensive monitoring		OB		
.		Demarcated areas for keeping dead bodies.		OB	Separate room or linkage with mortuary/ Post mortem room	
.		Lay out is flexible		OB	All the fixture and furniture are movable to rearrange the different areas in case of mass casualty	
.		Dedicated Minor OT		OB		
.		Shaded porch for ambulance		OB		
.		availability of clean and dirty utility room				
ME C1.4.	The facility has adequate circulation area and open spaces according to need and local law	Corridors at Emergency are broad enough for easy moment of stretcher and trolley		OB	2-3 meter	
ME C1.5.	The facility has infrastructure for intramural and extramural communication	Availability of functional telephone and Intercom Services		OB		

.		The ambulance(s) has a proper communication system(at least cell phone)		OB		
ME C1.6.	Service counters are available as per patient load	Availability of emergency beds as per load		OB	5% of the total beds	
		Availability of buffer beds for handling mass causality and disaster				
ME C1.7.	The facility and departments are planned to ensure structure follows the function/processes (Structure commensurate with the function of the hospital)	Unidirectional flow of services.		OB	Receiving/Triage-Resucitation-observtion beds-Procedures area. There is no crises cross	
.		Separate entrance for emergency department		OB	Entrance of Emergency should not be shared with OPD and IPD	
.		Emergency has functional linkage with Major OT , ICU and labour room , Indoors and laboratories		OB/SI		
		Emergency is located near to the entry of the hospital		OB		
Standard C2.	**The facility ensures the physical safety of the infrastructure.**					
ME C2.1	The facility ensures the seismic safety of the infrastructure	Non structural components are properly secured		OB	Check for fixtures and furniture like cupboards, cabinets, and heavy equipments , hanging objects are properly fastened and secured	
ME C2.3.	The facility ensures safety of electrical establishment	Emergency department does not have temporary connections and loosely hanging wires		OB		
ME C2.4.	Physical condition of buildings are safe for providing patient care	Floors of the Emergency are non slippery and even		OB		
.		Windows have grills and wire meshwork		OB		
Standard C3.	**The facility has established Programme for fire safety and other disaster**					
ME C3.1.	The facility has plan for prevention of fire	Emergency has sufficient fire exit to permit safe escape to its occupant at time of fire		OB/SI		
.		Check the fire exits are clearly visible and routes to reach exit are clearly marked.		OB		
ME C3.2.	The facility has adequate fire fighting Equipment	Emergency has installed fire Extinguisher that is Class A , Class B, C type or ABC type		OB		
.		Check the expiry date for fire extinguishers are displayed on each extinguisher as well as due date for next refilling is clearly mentioned		OB/RR		

ME C3.3.	The facility has a system of periodic training of staff and conducts mock drills regularly for fire and other disaster situation	Check for staff competencies for operating fire extinguisher and what to do in case of fire		SI/RR		
Standard C4.	**The facility has adequate qualified and trained staff, required for providing the assured services to the current case load**					
ME C4.1.	The facility has adequate specialist doctors as per service provision	Availability of specialist Doctor		OB/RR	Check for specialist on call/ full time	
ME C4.2.	The facility has adequate general duty doctors as per service provision and work load	Availability of emergency medical officer		OB/RR		
ME C4.3.	The facility has adequate nursing staff as per service provision and work load	Availability of Nursing staff		OB/RR/SI	At least 2 in day and 1 in night	
ME C4.4.	The facility has adequate technicians/paramedics as per requirement	Availability of dresser /paramedic		OB/SI		
ME C4.5.	The facility has adequate support / general staff	Dedicated 24X7 house keeping staff		SI/RR		
.		availability of dedicated security guards 24X7		SI/RR		
.		Availability of registration clerk		SI/RR		
		Availability of Drivers for Ambulance 24X7		SI/RR		
ME C4.6.	The staff has been provided required training / skill sets	Triage and Mass Casualty Management		SI/RR		
.		Basic life support (BLS)/ Advance life support (ALS)		SI/RR		
.		Bio Medical waste Management		SI/RR		
.		Infection control and hand hygiene		SI/RR		
		Patient Safety				
ME C4.7.	The Staff is skilled as per job description	Staff is skilled for emergency procedures		SI/RR		
		Staff is skilled for resuscitation and use defibrillator		SI/RR		
		Staff is skilled for maintaining clinical records		SI/RR		
Standard C5.	**Facility provides drugs and consumables required for assured list of services.**					
ME C5.1.	The departments have availability of adequate drugs at point of use	Availability of Analgesics/Antipyretics/Anti Inflammatory		OB/RR	Tracers as per State EDL	
.		Availability of Antibiotics		OB/RR	Tracers as per State EDL	
.		Availability of Infusion Fluids		OB/RR	Tracers as per State EDL	
.		Availability of Drugs acting on CVS		OB/RR	Tracers as per State EDL	

.		Availability of drugs action on CNS/PNS		OB/RR	Tracers as per State EDL	
.		Availability of dressing material and antiseptic lotion		OB/RR	Tracers as per State EDL	
.		Drugs for Respiratory System		OB/RR	Tracers as per State EDL	
.		Hormonal Preparation		OB/RR	Tracers as per State EDL	
.		Availability of emergency drugs in ambulance		OB/RR	Tracers as per State EDL	
.		Availability of drugs for obstetric emergencies		OB/RR	Megsulf, Oxytocin, Plasma Expanders	
.		Availability of Medical gases		OB/RR	Availability of Oxygen Cylinders	
		Availability of Immunological		OB/RR	Polyvalent Anti snake Venom, Anti tetanus Human Immunoglobin	
		Antidotes and Other Substances used in Poisonings		OB/RR	Inj. Atropine Sulphate	
ME C5.2.	The departments have adequate consumables at point of use	Resuscitation Consumables / Tubes		OB/RR	Masks, Ryles tubes, Catheters, Chest Tube, ET tubes etc	
.		Availability of disposables at dressing room		OB/RR		
.		Availability of consumables in ambulance		OB/RR	Dressing material / Suture material	
ME C5.3.	Emergency drug trays are maintained at every point of care, where ever it may be needed	Emergency Drug Tray/ Crash Cart is maintained at emergency		OB/RR		
Standard C6.	**The facility has equipment & instruments required for assured list of services.**					
ME C6.1.	Availability of equipment & instruments for examination & monitoring of patients	Availability of functional Equipment &Instruments for examination & Monitoring		OB	BP apparatus, Multiparameter Torch, hammer , Spot Light	
.		Availability of Monitoring equipments in ambulance		OB		
ME C6.2.	Availability of equipment & instruments for treatment procedures, being undertaken in the facility	Availability of dressing tray for Emergency procedures		OB		
.		Dressing tray are in adequate numbers as per load		OB		
		Availability of instruments for emergency obstetrics procedure		OB		
ME C6.3.	Availability of equipment & instruments for diagnostic procedures being undertaken in the facility	Availability of Point of care diagnostic devices		OB	Glucometer, ECG and HIV rapid diagnostic kit	
ME C6.4.	Availability of equipment and instruments for resuscitation of patients and for providing intensive and critical care to patients	Availability of functional Instruments for Resuscitation.		OB	Ambu bag, defibrillator, layrngo scope, nebulizer, suction apparatus , LMA	
.		Availability of resuscitation equipments in ambulance		OB		

ME C6.5.	Availability of Equipment for Storage	Availability of equipment for storage for drugs		OB	Refrigerator, Crash cart/Drug trolley, instrument trolley, dressing trolley	
ME C6.6	Availability of functional equipment and instruments for support services	Availability of equipments for cleaning		OB	Buckets for mopping, mops, duster, waste trolley, Deck brush	
		Availability of equipment for sterilization and disinfection		OB	Boiler	
ME C6.7.	Departments have patient furniture and fixtures as per load and service provision	Availability of patient beds with prop up facility and wheels		OB		
		Availability of attachment/accessories with patient bed		OB	Hospital graded Mattress, IV stand, bed rails, Bed pan	
		Availability of fixtures		OB	Spot light, electrical fixture for equipments like suction, monitor and defibrillator, X ray view box	
		Availability of furniture at emergency		OB	Doctors Chair, Patient Stool, Examination Table, Chair, Table, Footstep, cupboard	
.	**Area of Concern - D Support Services**					
Standard D1.	**The facility has established Programme for inspection, testing and maintenance and calibration of Equipment.**					
ME D1.1.	The facility has established system for maintenance of critical Equipment	All equipments are covered under AMC including preventive maintenance		SI/RR		
.		There is system of timely corrective break down maintenance of the equipments		SI/RR		
		Staff is skilled for trouble shooting in case equipment malfunction		SI/RR		
ME D1.2.	The facility has established procedure for internal and external calibration of measuring Equipment	All the measuring equipments/ instrument are calibrated		OB/ RR		
ME D1.3.	Operating and maintenance instructions are available with the users of equipment	Operating instructions for critical equipments are available		OB/SI		
Standard D2.	**The facility has defined procedures for storage, inventory management and dispensing of drugs in pharmacy and patient care areas**					
ME D2.1	There is established procedure for forecasting and indenting drugs and consumables	There is established system of timely indenting of consumables and drugs		SI/RR	Stock level are daily updated Requisition are timely placed	
ME D2.3.	The facility ensures proper storage of drugs and consumables	Drugs are stored in containers/tray/crash cart and are labelled		OB		
.		Empty and filled cylinders are labelled		OB		
ME D2.4.	The facility ensures management of expiry and near expiry drugs	Expiry dates' are maintained at emergency drug tray		OB/RR		
.		No expiry drug found		OB/RR		

.		Records for expiry and near expiry drugs are maintained for drug stored at department		RR		
ME D2.5.	The facility has established procedure for inventory management techniques	There is practice of calculating and maintaining buffer stock in Emergency		SI/RR		
.		Department maintained stock and expenditure register of drugs and consumables in Emergency		RR/SI		
		There is practice of calculating and maintaining buffer stock in ambulance		SI/RR		
		Department maintained stock and expenditure register of drugs and consumables in ambulance		RR/SI		
ME D2.6.	There is a procedure for periodically replenishing the drugs in patient care areas	There is procedure for replenishing drug tray emergency crash cart		SI/RR		
		There is procedure for replenishing drug tray emergency crash cart in ambulance		OB/SI		
		There is no stock out of drugs		SI/RR		
ME D2.7.	There is process for storage of vaccines and other drugs, requiring controlled temperature	Temperature of refrigerators are kept as per storage requirement and records are maintained		OB/RR	Check for temperature charts are maintained and updated periodically	
ME D2.8.	There is a procedure for secure storage of narcotic and psychotropic drugs	Narcotics and psychotropic drugs are kept in lock and key		OB/SI		
Standard D3.	**The facility provides safe, secure and comfortable environment to staff, patients and visitors.**					
ME D3.1.	The facility provides adequate illumination level at patient care areas	Adequate illumination at procedure area		OB	Resuscitation area, dressing room and examination area	
		Adequate illumination at receiving and triage area		OB		
ME D3.2.	The facility has provision of restriction of visitors in patient areas	Visitors are restricted at resuscitation and procedure area		OB/SI		
ME D3.3	The facility ensures safe and comfortable environment for patients and service providers	Temperature control and ventilation in patient care area		PI/OB	Fans/ Air conditioning/Heating/Exhaust /Ventilators as per environment condition and requirement	
		Temperature control and ventilation in nursing station/duty room		SI/OB	Fans/ Air conditioning/Heating/Exhaust /Ventilators as per environment condition and requirement	
ME D3.4.	The facility has security system in place at patient care areas	There are set procedures for handling mass situation and violence in emergency		SI/OB	See for linkage to police, self protection form staff	
.		Hospital has sound security system to manage overcrowding in emergency		OB/SI		
ME D3.5	The facility has established measure for safety and	Ask female staff whether they feel secure at work place		SI		

	security of female staff					
Standard D4.	**1**					
ME D4.1	Exterior of the facility building is maintained appropriately	Building is painted/whitewashed in uniform colour		OB		
		Interior of patient care areas are plastered & painted		OB		
ME D4.2.	Patient care areas are clean and hygienic	Floors, walls, roof, roof topes, sinks patient care and circulation areas are Clean		OB	All area are clean with no dirt,grease,littering and cobwebs	
		Surface of furniture and fixtures are clean		OB		
		Toilets are clean with functional flush and running water		OB		
ME D4.3.	Hospital infrastructure is adequately maintained	Check for there is no seepage , Cracks, chipping of plaster		OB		
		Window panes , doors and other fixtures are intact		OB		
		Patients beds are intact and painted		OB		
		Mattresses are intact and clean		OB		
ME D4.5.	The facility has policy of removal of condemned junk material	No condemned/Junk material in the Emergency		OB		
ME D4.6	The facility has established procedures for pest, rodent and animal control	No stray animal/rodent/birds		OB		
Standard D5.	**The facility ensures 24X7 water and power backup as per requirement of service delivery, and support services norms**					
ME D5.1.	The facility has adequate arrangement storage and supply for portable water in all functional areas	Availability of 24x7 running and potable water		OB/SI		
ME D5.2.	The facility ensures adequate power backup in all patient care areas as per load	Availability of power back in Emergency		OB/SI		
		Availability of UPS		OB/SI		
		Availability of Emergency light		OB/SI		
ME D5.3.	Critical areas of the facility ensures availability of oxygen, medical gases and vacuum supply	Availability of Centralized /local piped Oxygen and vacuum supply		OB		
Standard D7.	**The facility ensures clean linen to the patients**					
ME D7.1.	The facility has adequate sets of linen	Clean Linens are provided at observation beds		OB/RR		

ME D7.2.	The facility has established procedures for changing of linen in patient care areas	Linen are changed after change shift of each patient or whenever it get soiled		OB/RR		
ME D7.3	The facility has standard procedures for handling , collection, transportation and washing of linen	There is system to check the cleanliness and Quantity of the linen received from laundry		SI/RR		
Standard D10.	**Facility is compliant with all statutory and regulatory requirement imposed by local, state or central government**					
ME D10.1.	The facility has requisite licences and certificates for operation of hospital and different activities	Valid licences for ambulances are available		RR/SI		
ME D10.3.	The facility ensure relevant processes are in compliance with statutory requirement	Staff is aware of requirements of medico legal cases		SI		
Standard D11.	**Roles & Responsibilities of administrative and clinical staff are determined as per govt. regulations and standards operating procedures.**					
ME D11.1.	The facility has established job description as per govt guidelines	Staff is aware of their role and responsibilities		SI		
ME D11.2.	The facility has a established procedure for duty roster and deputation to different departments	There is procedure to ensure that staff is available on duty as per duty roster		RR/SI	Check for system for recording time of reporting and relieving (Attendance register/ Biometrics etc)	
.		There is designated in charge for department		SI		
ME D11.3.	The facility ensures the adherence to dress code as mandated by its administration / the health department	Doctor, nursing staff and support staff adhere to their respective dress code		OB		
Standard D12	**Facility has established procedure for monitoring the quality of outsourced services and adheres to contractual obligations**					
ME D12.1	There is established system for contract management for out sourced services	There is procedure to monitor the quality and adequacy of outsourced services on regular basis		SI/RR	Verification of outsourced services (cleaning/ Dietary/Laundry/Security/Maintenance) provided are done by designated in-house staff	
.	**Area of Concern - E Clinical Services**					
Standard E1.	**The facility has defined procedures for registration, consultation and admission of patients.**					
ME E1.1.	The facility has established procedure for registration of patients	Unique identification number is given to each patient during process of registration		RR		
.		Patient demographic details are recorded in admission records		RR	Check for that patient demographics like Name, age, Sex, Address, Chief complaint, etc.	

ME E1.3.	There is established procedure for admission of patients	There is established criteria for admission through emergency department		SI/RR		
		There is establish procedure for admission of MLC cases as per prevalent laws		SI/RR		
		There is establish procedure for prisoners as per prevalent local laws		SI/RR		
		Admission is done by written order of a qualified doctor		SI/RR		
		There is no delay in treatment because of admission process		SI/RR		
		Time of admission is recorded in patient record		RR		
		There is no delay in transfer of patient to respective department once admission is confirmed		SI/RR		
		Emergency department is aware of admission criteria to critical care units		SI/RR	Like ICU, SNCU, Burn cases	
		Staff is aware of cases that can not be admitted at the facility due to constraint in scope of services		SI		
ME E1.4.	There is established procedure for managing patients, in case beds are not available at the facility	The is provision of extra beds, trolley beds in case of high occupancy or mass casualty		OB/SI		
Standard E2.	**The facility has defined and established procedures for clinical assessment and reassessment of the patients.**					
ME E2.1.	There is established procedure for initial assessment of patients	Assessment criteria of different kind of medical emergencies is defined and practiced		SI/RR	Use of standard criteria of assessment like Glasgow comma scale, Poly trauma, MI, burn patient, paediatric patient, pain assessment criteria etc.	
.		Initial assessment and treatment is provided immediately		OB/RR		
.		Initial assessment is documented preferably within 2 hours		RR		
ME E2.2.	There is established procedure for follow-up/ reassessment of Patients	There is fixed schedule for reassessment of patient under observation		RR/SI		
Standard E3.	**Facility has defined and established procedures for continuity of care of patient and referral**					
ME E3.1.	Facility has established procedure for continuity of care during interdepartmental transfer	There is procedure for hand over for patient transfer from emergency to IPD /OT		SI/RR	Check for how hand over is given from emergency to ward, ICU, SNCU etc.	
.		There is a procedure consultation of the patient to other specialist with in the hospital		SI/RR		

ME E3.2.	Facility provides appropriate referral linkages to the patients/Services for transfer to other/higher facilities to assure their continuity of care.	Patient referred with referral slip		SI/RR		
.		Availability of referral linkages to higher centres.		SI/RR	Check how patient are referred if services are not available	
.		Advance communication is done with higher centre		SI/RR		
.		Referral vehicle is being arranged		SI/RR		
.		Referral in or referral out register is maintained		RR		
.		Facility has functional referral linkages to lower facilities		SI/RR		
.		Check for if there is any system of follow up		RR	Check for referral cards filled from lower facilities	
ME E3.3.	A person is identified for care during all steps of care	Doctor and nurse is designated for each patient admitted to emergency ward		SI/RR		
Standard E4.	**The facility has defined and established procedures for nursing care**					
ME E4.1.	Procedure for identification of patients is established at the facility	There is a process for ensuring the identification before any clinical procedure		OB/SI	Patient id band/ verbal confirmation/Bed no. etc.	
ME E4.2.	Procedure for ensuring timely and accurate nursing care as per treatment plan is established at the facility	Treatment chart are maintained		RR	Check for treatment chart are updated and drugs given are marked. Co relate it with drugs and doses prescribed.	
.		There is a process to ensure the accuracy of verbal/telephonic orders		SI/RR	Verbal orders are rechecked before administration	
ME E4.3.	There is established procedure of patient hand over, whenever staff duty change happens	Patient hand over is given during the change in the shift		SI/RR		
.		Nursing Handover register is maintained		RR		
.		Hand over is given bed side		OB/SI		
ME E4.4.	Nursing records are maintained	Nursing notes are maintained adequately		RR/SI	Check for nursing note register. Notes are adequately written	
ME E4.5.	There is procedure for periodic monitoring of patients	Patient Vitals are monitored and recorded periodically		RR/SI	Check for TPR chart, IO chart, any other vital required is monitored	
.		Critical patients are monitored continually		RR/OB	Check for use of cardiac monitor/multi parameter	
Standard E5.	**Facility has a procedure to identify high risk and vulnerable patients.**					
ME E5.1.	The facility identifies vulnerable patients and ensure their safe care	Vulnerable patients are identified and measures are taken to protect them from any harm		OB/SI	Unstable, irritable, unconscious. Psychotic and serious patients are identified	
ME E5.2.	The facility identifies high risk patients and ensure their care, as per their need	High risk medical emergencies are identified and treatment given on priority		OB/SI		

Standard E6.	**Facility follows standard treatment guidelines defined by state/Central government for prescribing the generic drugs & their rational use.**					
ME E6.1.	Facility ensured that drugs are prescribed in generic name only	Check for BHT if drugs are prescribed under generic name only		RR		
ME E6.2.	There is procedure of rational use of drugs	Check for that relevant Standard treatment guideline are available at point of use		RR		
		Check staff is aware of the drug regime and doses as per STG		SI/RR		
		Check BHT that drugs are prescribed as per STG		RR		
		Availability of drug formulary at emergency		SI/OB		
Standard E7.	**Facility has defined procedures for safe drug administration**					
ME E7.1.	There is process for identifying and cautious administration of high alert drugs	High alert drugs available in department are identified		SI/OB	Electrolytes like Potassium chloride,opiods, Neuro muscular blocking agent, Anti thrombolytic agent, insulin, warfarin, Heparin, Adrenergic agonist etc.	
		Maximum dose of high alert drugs are defined and communicated		SI/RR	Value for maximum doses as per age, weight and diagnosis are available with nursing station and doctor	
		There is process to ensure that right doses of high alert drugs are only given		SI/RR	A system of independent double check before administration, Error prone medical abbreviations are avoided	
ME E7.2.	Medication orders are written legibly and adequately	Every Medical advice and procedure is accompanied with date , time and signature		RR		
.		Check for the writing, It comprehendible by the clinical staff		RR/SI		
ME E7.3.	There is a procedure to check drug before administration/ dispensing	Drugs are checked for expiry and other inconsistency before administration		OB/SI		
		Check single dose vial are not used for more than one dose		OB	Check for any open single dose vial with left over content indented to be used later on	
		Check for separate sterile needle is used every time for multiple dose vial		OB	In multi dose vial needle is not left in the septum	
		Any adverse drug reaction is recorded and reported		RR/SI		
ME E7.4.	There is a system to ensure right medicine is given to right patient	Administration of medicines done after ensuring right patient, right drugs , right route, right time		SI/OB		
ME E7.5.	Patient is counselled for self drug administration	Patient is advice by doctor/ Pharmacist /nurse about the dosages and timings .		SI/PI		

Standard E8.	**Facility has defined and established procedures for maintaining, updating of patients' clinical records and their storage**					
ME E8.1.	All the assessments, re-assessment and investigations are recorded and updated	Assessment findings are written on BHT		RR	Day to day progress of patient is recorded in BHT	
ME E8.2.	All treatment plan prescription/orders are recorded in the patient records.	Treatment plan, first orders are written on BHT		RR	Treatment prescribed in nursing records	
ME E8.3.	Care provided to each patient is recorded in the patient records	Maintenance of treatment chart/treatment registers		RR	Treatment given is recorded in treatment chat	
ME E8.4.	Procedures performed are written on patients records	Any procedure performed written on BHT		RR	CPR, Dressing, mobilization etc	
ME E8.5.	Adequate form and formats are available at point of use	Availability of form formats for emergency		OB/SI	MLC,PIB, Lab /X-ray requisition, death certificate, Initial assessment format, referral slip etc.	
ME E8.6.	Register/records are maintained as per guidelines	Emergency Records are maintained		OB/RR	Emergency register, death register, MLC register, are maintained	
.		All register/records are identified and numbered		OB/RR		
ME E8.7.	The facility ensures safe and adequate storage and retrieval of medical records	Safe keeping of MLC records		OB/SI		
Standard E9.	**The facility has defined and established procedures for discharge of patient.**					
ME E9.1.	Discharge is done after assessing patient readiness	Assessment is done before discharging patient from emergency		SI/RR	See if there is any procedure/protocol for discharging the patient if the condition of patient improves in emergency itself. What is the procedure for discharge for short stay / day care patients	
		Discharge is done by a responsible and qualified doctor		SI/RR		
		Patient / attendants are consulted before discharge		PI		
		Treating doctor is consulted/ informed before discharge of patients		SI/RR		
ME E9.2.	Case summary and follow-up instructions are provided at the discharge	Discharge summary is provided		RR/PI	See for discharge summary, referral slip provided.	
.		Discharge summary adequately mentions patients clinical condition, treatment given and follow up		RR		
.		Discharge summary is give to patients going in LAMA/Referral		SI/RR		
ME E9.3.	Counselling services are provided as during discharges wherever required	Counselling services are provided wherever it is required		SI/PI		

ME E9.4.	The facility has established procedure for patients leaving the facility against medical advice, absconding, etc	Declaration is taken from the LAMA patient		RR/SI		
Standard E11.	**The facility has defined and established procedures for Emergency Services and Disaster Management**					
ME E11.1.	There is procedure for Receiving and triage of patients	Emergency has a implemented system of sorting the patients		SI/OB	As care provider how they triage patient- immediate, delayed, expectant, minimal, dead	
.		Triage area is marked		OB/SI		
.		Triage protocols are displayed		OB		
.		Responsibility of receiving and shifting the patient from vehicle is defined		SI		
ME E11.2.	Emergency protocols are defined and implemented	Emergency protocols are available at point of use		OB	See for protocols of head injury, snake bite, poisoning, drawing etc.	
.		Staff is aware of Clinical protocols		SI/RR		
.		There is procedure for CPR		SI/RR		
ME E11.3.	The facility has disaster management plan in place	Lines of authority is defined		SI/RR		
.		Procedure for internal communication defined		SI/RR		
.		There is procedure for setting up control room		SI/RR		
.		Disaster buffer stock of medicines and other supplies maintained		SI/RR		
.		Role and responsibilities of staff in disaster is defined		SI/RR		
.		Staff is aware of disaster plan		SI/RR		
ME E11.4.	The facility ensures adequate and timely availability of ambulances services and mobilisation of resources, as per requirement	Check for how ambulances are called and patient is shifted		SI/RR		
.		Ambulances are equipped		OB		
.		If the patient is stable then he is transferred in ambulance with the trained driver and one staff from hospital.		SI/RR		
.		If the patient is serious (as decided by the Doctor), then trained driver and one paramedical staff is mandatory to accompany him.		SI/RR		
.		The Patient's rights are respected during transport.		SI/RR		
.		Ambulance appropriately equipped for BLS with trained personnel		OB/RR		
.		There is a daily checklist of all equipment and emergency medications		RR		

.		Ambulance has a log book for the maintenance of vehicle and daily vehicle checklist		RR		
.		Transfer register is maintained to record the detail of the referred patient		RR		
ME E11.5.	There is procedure for handling medico legal cases	Medico legal cases are identified by on patient records		RR/SI		
.		MLC cases are not delayed because of police proceedings		SI/OB/RR		
.		There is procedure for informing police		SI/RR	Discharge is not done before police consent	
.		Emergency has criteria for defining medico legal cases		SI/RR	Criteria is defined based on cases and when to do MLC	
Standard E12.	**The facility has defined and established procedures of diagnostic services**					
ME E12.1.	There are established procedures for Pre-testing Activities	Container is labelled properly after the sample collection		OB		
ME E12.3.	There are established procedures for Post-testing Activities	Nursing station is provided with the critical value of different tests		SI/RR		
Standard E13.	**The facility has defined and established procedures for Blood Bank/Storage Management and Transfusion.**					
ME E13.8	There is established procedure for issuing blood	There is a procedure for issuing the blood promptly for life saving measures		RR/SI		
ME E13.9	There is established procedure for transfusion of blood	Consent is taken before transfusion		RR		
		Patient's identification is verified before transfusion		SI/OB		
		Blood is kept on optimum temperature before transfusion		RR		
		Blood transfusion is monitored and regulated by qualified person		SI/RR		
		Blood transfusion note is written in patient record		RR		
ME E13.10	There is a established procedure for monitoring and reporting Transfusion complication	Any major or minor transfusion reaction is recorded and reported to responsible person		RR		
Standard E15.	**Facility has defined and established procedures of Surgical Services**					
ME E15.1.	Facility has established procedures OT Scheduling	There is procedure for emergency surgeries		SI/RR	See surgeon is available on call/on duty	
.		Procedure for arranging logistics		SI	Responsibilities are defined and patient is shifted promptly	

Standard E16.	**The facility has defined and established procedures for end of life care and death**					
ME E16.1.	Death of admitted patient is adequately recorded and communicated	Facility has a standard procedure to decent communicate death to relatives		SI		
.		Death note is written on patient record		RR		
ME E16.2.	The facility has standard procedures for handling the death in the hospital	Past history and sign of any medico legal cause is looked for		RR	Check what is policy for registering brought in dead, death cases as MLC	
.		There is criteria for declaring death		SI/RR	ask form how death is declared - Physical examination or ECG is done	
.		Procedure for handing over the dead body		SI		
.		Death certificate is issued		SI/RR		
ME E16.3	The facility has standard operating procedure for end of life support	Patients Relatives are informed clearly about the deterioration in health condition of Patients		PI/SI		
		There is a standard procedure of removal of life sustaining treatment as per law		SI/RR	Check about the policy and practice for removing life support	
		There is a procedure to allow patient relative/Next of Kin to observe patient in last hours		SI/OB		
.	**Area of Concern - F Infection Control**					
Standard F1.	**Facility has infection control program and procedures in place for prevention and measurement of hospital associated infection**					
ME F1.2.	Facility has provision for Passive and active culture surveillance of critical & high risk areas	Surface and environment samples are taken for microbiological surveillance		SI/RR	Swab are taken from infection prone surfaces	
ME F1.4.	There is Provision of Periodic Medical Checkups and immunization of staff	There is procedure for immunization of the staff		SI/RR	Hepatitis B, Tetanus Toxic etc	
		Periodic medical checkups of the staff		SI/RR		
ME F1.5.	Facility has established procedures for regular monitoring of infection control practices	Regular monitoring of infection control practices		SI/RR	Hand washing and infection control audits done at periodic intervals	
ME F1.6	Facility has defined and established antibiotic policy	Check for Doctors are aware of Hospital Antibiotic Policy		SI/RR		
Standard F2.	**Facility has defined and Implemented procedures for ensuring hand hygiene practices and antisepsis**					
ME F2.1.	Hand washing facilities are provided at point of use	Availability of hand washing Facility at Point of Use		OB	Check for availability of wash basin near the point of use	

.		Availability of running Water		OB/SI	Ask to Open the tap. Ask Staff water supply is regular	
.		Availability of antiseptic soap with soap dish/ liquid antiseptic with dispenser.		OB/SI	Check for availability/ Ask staff if the supply is adequate and uninterrupted	
.		Availability of Alchol based Hand rub		OB/SI	Check for availability/ Ask staff for regular supply.	
.		Display of Hand washing Instruction at Point of Use		OB	Prominently displayed above the hand washing facility , preferably in Local language	
ME F2.2.	Staff is trained and adhere to standard hand washing practices	Adherence to 6 steps of Hand washing		SI/OB	Ask of demonstration	
.		Staff aware of when to hand wash		SI		
ME F2.3.	Facility ensures standard practices and materials for antisepsis	Availability of Antiseptic Solutions		OB		
		Proper cleaning of procedure site with antisepesis		OB/SI	like before giving IM/IV injection, drawing blood, putting Interavenous and urinary catheter	
Standard F3.	**Facility ensures standard practices and materials for Personal protection**					
ME F3.1.	Facility ensures adequate personal protection equipments as per requirements	Clean gloves are available at point of use		OB/SI		
.		Availability of Masks		OB/SI		
		Personal protective kit for infectious patients		OB/SI		
ME F3.2.	Staff is adhere to standard personal protection practices	No reuse of disposable gloves, Masks, caps and aprons.		OB/SI		
.		Compliance to correct method of wearing and removing the gloves		SI		
Standard F4.	**Facility has standard Procedures for processing of equipments and instruments**					
ME F4.1.	Facility ensures standard practices and materials for decontamination and clean ing of instruments and procedures areas	Decontamination of operating & Procedure surfaces		SI/OB	Ask stff about how they decontaminate the procedure surface like Examination table , dressing table, Stretcher/Trolleys etc. (Wiping with .5% Chlorine solution	
		Decontamination of instruments after use		SI/OB	Ask staff how they decontaminate the instruments like ambubag, suction cannula, Airways, Face Masks, Surgical Instruments (Soaking in 0.5% Chlorine Solution, Wiping with 0.5% Chlorine Solution or 70%	

					Alcohal as applicable	
		Contact time for decontamination is adeqaute		SI/OB	10 minutes	
		Cleaning of instruments after decontamination		SI/OB	Cleaning is done with detergent and running water after decontamination	
		Proper handling of Soiled and infected linen		SI/OB	No sorting ,Rinsing or sluicing at Point of use/ Patient care area	
		Staff know how to make chlorine solution		SI/OB		
ME F4.2.	Facility ensures standard practices and materials for disinfection and sterilization of instruments and equipments	Equipment and instruments are sterlized after each use as per requirement		OB/SI	Autoclaving/HLD/Chemical Sterlization	
		High level Disinfection of instruments/equipments is done as per protocol		OB/SI	Ask staff about method and time required for bioling	
		Chemical sterilization of instruments/equipments is done as per protocols		OB/SI	Ask staff about method, concentration and contact time requied for chemical sterilization	
		Autoclaved dressing material is used		OB/SI		
Standard F5.	**Physical layout and environmental control of the patient care areas ensures infection prevention**					
ME F5.1.	Layout of the department is conducive for the infection control practices	Facility layout ensures separation of general traffic from patient traffic		OB		
ME F5.2.	Facility ensures availability of standard materials for cleaning and disinfection of patient care areas	Availability of disinfectant as per requirement		OB/SI	Chlorine solution, Gluteraldehye, carbolic acid	
		Availability of cleaning agent as per requirement		OB/SI	Hospital grade phenyle, disinfectant detergent solution	
ME F5.3.	Facility ensures standard practices followed for cleaning and disinfection of patient care areas	Staff is trained for spill management		SI/RR		
.		Cleaning of patient care area with disinfectant detergent solution		SI/RR		
.		Staff is trained for preparing cleaning solution as per standard procedure		SI/RR		
.		Standard practice of mopping and scrubbing are followed		OB/SI	Unidirectional mopping from inside out	
.		Cleaning equipments like broom are not used in patient care areas		OB/SI	Any cleaning equipment leading to dispersion of dust particles in air should be avoided	

ME F5.4.	Facility ensures segregation infectious patients	Emergency department define list of infectious diseases require special precaution and barrier nursing		OB/SI		
		Staff is trained for barrier nursing				
Standard F6.	**Facility has defined and established procedures for segregation, collection, treatment and disposal of Bio Medical and hazardous Waste.**					
ME F6.1.	Facility Ensures segregation of Bio Medical Waste as per guidelines	Availability of color coded bins at point of waste generation		OB		
.		Availability of color coded plastic bags		OB		
.		Segregation of different category of waste as per guidelines		OB/SI		
.		Display of work instructions for segregation and handling of Biomedical waste		OB		
		There is no mixing of infectious and general waste		OB		
ME F6.2.	Facility ensures management of sharps as per guidelines	Availability of functional needle cutters		OB	See if it has been used or just lying idle	
.		Availability of puncture proof box		OB	Should be available nears the point of generation like nursing station and injection room	
.		Disinfection of sharp before disposal		OB/SI	Disinfection of syringes is not done in open buckets	
		Staff is aware of contact time for disinfection of sharps		SI		
.		Availability of post exposure prophylaxis		OB/SI	Ask if available. Where it is stored and who is in charge of that.	
.		Staff knows what to do in condition of needle stick injury		SI	Staff knows what to do in case of shape injury. Whom to report. See if any reporting has been done	
ME F6.3.	Facility ensures transportation and disposal of waste as per guidelines	Check bins are not overfilled		SI		
		Disinfection of liquid waste before disposal		SI/OB		
		Transportation of bio medical waste is done in close container/trolley		SI/OB		
		Staff aware of mercury spill management		SI/RR		
.	**Quality Management**					
Standard G1	**The facility has established organizational framework for quality improvement**					
ME G1.1	The facility has a quality team in place	There is a designated departmental nodal person for coordinating Quality Assurance activities		SI/RR		

Standard G3.	**Facility have established internal and external quality assurance programs wherever it is critical to quality.**					
ME G3.1.	Facility has established internal quality assurance program at relevant departments	There is system daily round by matron/hospital manager/ hospital superitendant/ Hospital Manager/ Matron in charge for monitoring of services		SI/RR		
		There is system for periodic check up of Ambulances by designated hospital staff		SI/RR		
ME G3.2.	Facility has established external assurance programs at relevant departments	There is periodic assessment of preparedness for disaster by competent authority		SI/RR		
ME G3.3.	Facility has established system for use of check lists in different departments and services	Departmental checklist are used for monitoring and quality assurance		SI/RR		
.		Staff is designated for filling and monitoring of these checklists		SI		
Standard G4.	**Facility has established, documented implemented and maintained Standard Operating Procedures for all key processes and support services.**					
ME G4.1.	Departmental standard operating procedures are available	Standard operating procedure for department has been prepared and approved		RR		
		Current version of SOP are available with process owner		OB		
ME G4.2.	Standard Operating Procedures adequately describes process and procedures	Emergency has documented procedure for receiving the patient in emergency		RR		
		Department has documented procedure for triaging		RR		
		Department has documented procedure for taking consent		RR		
		Department has documented procedure for initial screening of patient		RR		
		Department has documented procedure for nursing care		RR		
		Department has documented procedure for admission and transfer of the patient to ward		RR		
		Emergency has documented procedure for Handling medical records		RR		
		Department has documented procedure for maintaining records in Emergency		RR		
		Department has documented procedure to handle brought in dead patient		RR		
		Department has documented procedure for storage, handling and release of dead		RR		

		body				
		Department has documented procedure for storage and replenishing the medicine in emergency		RR		
		Department has documented procedure for equipment preventive and break down maintenance		RR		
		Department has documented procedure for Disaster management		RR		
ME G4.3.	Staff is trained and aware of the standard procedures written in SOPs	Check Staff is a aware of relevant part of SOPs		SI/RR		
ME G4.4.	Work instructions are displayed at Point of use	Work instruction/clinical protocols are displayed		OB	Triage, CPR, Medical clinical protocols like Snake bite and poisoning	
Standard G 5.	**Facility maps its key processes and seeks to make them more efficient by reducing non value adding activities and wastages**					
ME G5.1.	Facility maps its critical processes	Process mapping of critical processes done		SI/RR		
ME G5.2.	Facility identifies non value adding activities / waste / redundant activities	Non value adding activities are identified		SI/RR		
ME G5.3	Facility takes corrective action to improve the processes	Processes are rearranged as per requirement		SI/RR		
Standard G6.	**The facility has established system of periodic review as internal assessment , medical & death audit and prescription audit**					
ME G6.1.	The facility conducts periodic internal assessment	Internal assessment is done at periodic interval		RR/SI		
ME G6.2	The facility conducts the periodic prescription/ medical/death audits	There is procedure to conduct Medical Audit		RR/SI		
		There is procedure to conduct Prescription audit		RR/SI		
		There is procedure to conduct Death audit		RR/SI		
ME G6.3	The facility ensures non compliances are enumerated and recorded adequately	Non Compliance are enumerated and recorded		RR/SI		
ME G6.4.	Action plan is made on the gaps found in the assessment / audit process	Action plan prepared		RR/SI		
ME G6.5.	Corrective and preventive actions are taken to address issues, observed in the assessment & audit	Corrective and preventive action taken		RR/SI		
Standard G7.	**The facility has defined and established Quality Policy & Quality Objectives**					
ME G7.2.	The facility periodically defines its quality objectives and key departments have their own objectives	Quality objective for emergency defined		RR/SI		

ME G7.3.	Quality policy and objectives are disseminated and staff is aware of that	Check of staff is aware of quality policy and objectives		SI		
ME G7.4	Progress towards quality objectives is monitored periodically	Quality objectives are monitored and reviewed periodically		SI/RR		
Standard G8.	**Facility seeks continually improvement by practicing Quality method and tools.**					
ME G8.1.	Facility uses method for quality improvement in services	PDCA		SI/RR		
.		5S		SI/OB		
.		Mistake proofing		SI/OB		
.		Six Sigma		SI/RR		
ME G8.2.	Facility uses tools for quality improvement in services	6 basic tools of Quality		SI/RR		
.	**Area of Concern - H Outcome**					
Standard H1 .	**The facility measures Productivity Indicators and ensures compliance with State/National benchmarks**					
ME H1.1.	Facility measures productivity Indicators on monthly basis	No of Emergency cases per thousand population		RR		
.		No of trips per ambulance		RR		
.		No. of trauma cases treated per 1000 emergency cases		RR		
.		No. of poisoning cases treated per 1000 emergency cases		RR		
.		No. of cardiac cases treated per 1000 emergency cases		RR		
.		No. of obstetric cases treated per 1000 emergency cases		RR		
.		No of resuscitation done per thousand population		RR	Resuscitation should include: Chest Compression, Airway and Breathing	
.		Proportion of Patients attended in Night		RR		
ME H1.2.	The Facility measures equity indicators periodically	Proportion of BPL Patients		RR		
Standard H2 .	**The facility measures Efficiency Indicators and ensure to reach State/National Benchmark**					
ME H2.1.	Facility measures efficiency Indicators on monthly basis	Response time for ambulance		RR		
.		Proportion of cases referred		RR		
.		Response time at emergency for initial assessment		RR		
.		Average Turn Around Time		RR	Average time a patient stays at emergency observation bed	
.		Proportion of patient referred by state owned/108 ambulance per 1000 referral cases		RR		

Standard H3.	**The facility measures Clinical Care & Safety Indicators and tries to reach State/National benchmark**					
ME H3.1.	Facility measures Clinical Care & Safety Indicators on monthly basis	No of adverse events per thousand patients		RR		
.		Death Rate		RR	No of Deaths in Emergency/ Total no of emergency attended	
Standard H4.						
ME H4.1.	Facility measures Service Quality Indicators on monthly basis	LAMA Rate		RR	No of LAMA X 100/ No of Patients seen at emergency	
		Absconding rate		RR	No of Absconding X 100/ No of Patients seen at emergency	

Checklist