

Study on Risk Identification and Developing Risk
Management Strategies for the Non-Clinical Departments
of Thumbay Hospital, Ajam, UAE

By

Sheeba

*Dissertation submitted for the partial fulfillment of the
MBA Hospital and Health Management*

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Sheeba**, student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone dissertation training at **Thumbay Hospital, Ajman(UAE)** from **2nd March, 2016 to 24th May, 2016**.

The Candidate has successfully carried out the study designated to her during dissertation training and her approach to the study has been sincere, scientific and analytical. This training is in fulfillment of the course requirements.

I wish her success in all her future endeavors.



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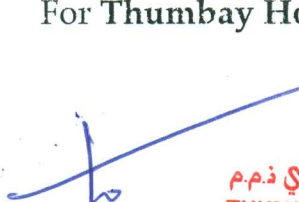
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This is to certify that **Dr. Sheeba** holder of Indian Passport Number N4821457 was working in our institution as Management Trainee from 2nd March 2016 till 24th May 2016, as a part of dissertation of her MBA - Hospital & Health Management program. She has completed the assigned project in the department of Quality Assurance.

We wish her all the best.

For Thumbay Hospital, Ajman



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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **“A study on Risk Identification and Developing Risk Management Strategies for the Non-Clinical Departments of Thumbay Hospital, Ajman”** submitted by **Dr. Sheeba** Enrollment No. **IIHMR-U/MBA-HM/2014-2016/19-0211** under the supervision of **Dr. Anoop Khanna** for award of MBA in Hospital and Health Management of the University, carried out during the period from **2nd March, 2016 to 24th May, 2016** 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.

Sheeba
28/5/2016
Signature

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TABLE OF ABBREVIATIONS

S. No.	Abbreviations	Full Forms
1	CSSD	Central Sterile Supply Department
2	OPD	Out Patient Department
3	QCO	Quality Control Officer
4	MRD	Medical Record Department
5	HR	Human Resource
6	CNO	Chief Nursing Officer
7	IPSGs	International Patient Safety Goals
8	SOPs	Standard Operating Procedures
9	HIMS	Hospital Information Management System
10	LIMS	Laboratory Information Management System
11	SSN	Senior Staff Nurse
12	MET call	Medical Emergency Team call(Code Blue)
13	FIFO	First In First Out

Chapter 1-INTRODUCTION

Managing the unexpected is an essential everyday concern in high-risk organizations such as hospitals. Modern medicine has led to increasingly complex forms of treatment and processes of care (Matthas Brinar, 2010). This results in a range of opportunities for improved care, but also increases the risk of adverse events and patient harm. The standardization and the accreditation drive, especially led by the international sector has also played a key role in sensitizing hospitals about the risk management concept in the recent years. Moreover, the rapid rise in the incidence of occupational hazards, avoidable mishaps, hospital malpractices, sentinel events and consumer litigations have re-emphasized the importance of having a comprehensive risk management programme in hospitals.

Risk is defined as a probability or threat of damage, injury, liability, loss, or any other negative occurrence that is caused by *external or internal vulnerabilities*, and that may be avoided through preemptive action. (Ghatala, Risk Management in Hospitals , August 2012). Risks associated with patient care can never be completely eliminated; therefore, risk management plays a crucial role in enabling hospitals to provide safe and quality care to the patients.

The concept of risk management has been used in banking and insurance services since the early 1970's. Risk management activities were inducted into the health care industry in response to the growing national malpractice insurance costs. As of the 1970's, the risk management function essentially comprised of Quality Assurance nurses performing incident report and trending in acute care hospitals, but there was little to no proactive prevention or control activities. In today's scenario, due to increasing competition in the medical marketplace, the implementation of risk management strategies has received increased attention by health care managers.

Risk management is the identification, assessment, and prioritization of risks (defined in ISO 31000 as the effect of uncertainty on objectives) followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events^[1] or to maximize the realization of opportunities. Risk management should:

- create value – resources expended to mitigate risk should be less than the consequence of inaction
- be an integral part of organizational processes
- be part of decision making process
- explicitly address uncertainty and assumptions
- be a systematic and structured process
- be based on the best available information
- be tailorable
- take human factors into account
- be transparent
- be dynamic, iterative and responsive to change
- be capable of continual improvement and enhancement

One of well-known ways of implementation of risk management process in an organization is the “Risk Register”.

The process of development of risk register broadly includes (Guo, December 2015):

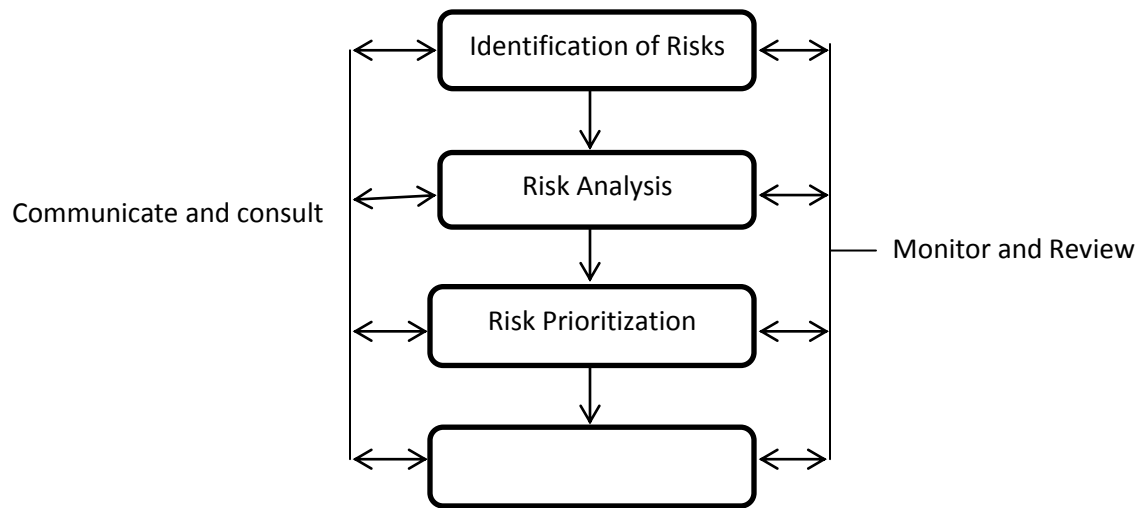


Figure1- Risk register development process

Chapter 2 - LITERATURE REVIEW

It is reported that the origins of risk identification stem from gambling back as far as the 1600s (Mobey, 2002). As far back as the 1990's concerns in the United States of America were being expressed regarding the rate of medical errors in healthcare leading to long term injury and death of patients. The Institute of Medicine's report 'To Err Is Human' (Kohn, 1999) estimated that as many as 98,000 Americans die each year due to medical error with total national costs of \$50 billion on account of adverse events. To address the issue of preventable error and risk management The Quality in Healthcare in America Committee of the Institute of Medicine (IOM) recommended the implementation of internal control measures to safeguard against the likelihood of errors occurring.

The Canadian health care system experienced a similar situation in Winnipeg in 1994 when children died during or following heart surgery (Gillies, 2005). The Australian Council for Safety and Quality in Health Care (ACSQHC) published a report 21 in 2002 on adverse events in Obstetrics and Gynecological services in a Western Australian hospital where one or more clinical errors occurred in more than 47% of cases with 50% of these being very serious (Gillies, 2005). The most recent report from the ACSQHC (2013) states that up to 1.5 million Australians suffer harm each year due to taking a medicine, adverse event rates in hospitals surprisingly appear to remain unchanged over the previous decade (Sheps, 2011). Abrahamson et al (2013) go so far as to say healthcare is lagging behind other safety critical organizations in error reduction suggesting the reason being that healthcare works off a singularly skilled 'heroic practitioner' approach to safety.

Although risk register maintenance and management is recognized for being the role of the local manager (Developing and Populating a Risk Register-Best, 2009) it takes effective leadership to introduce this concept and embed it in practice. It is an integrated practice that requires commitment at every level of the organization to embrace and support its success in implementation, both bottom up and top down (McElhinney, 2003). Currently in Ireland, the HSE guidance on populating risk registers is in accordance with the Australian / New Zealand (AS / NZS) 4360:2004 Risk Management Standard. There is however a revised version, the AS / NZS 31000:2009 (Joint Technical Committee 03 – 007, Risk Management, 2010) outlining the need to develop an 'Enterprise – wide Risk Management Framework'. This further confirms the value for shared leadership across organizations to ensure effective risk management. Senior executives, middle and line managers along with each individual are all accountable for patient safety and indeed safety of their staff.

Robust risk management processes are required in healthcare in order that risk identification and analysis can be achieved to prevent and reduce the incidence of error. Risk registers are integral in this process in that early identification and sharing of knowledge supports organizational risk profile priority. Adverse event rates are unacceptably high in healthcare throughout the world. In all of the reports and inquiries into adverse events reviewed, each one reported poor leadership skills, negative organizational culture and ineffective communication to be factors contributing to poor quality care. One critical success factor is hinged on the presence of the next and all are intertwined. Without effective leadership or a just culture or effective open communication, errors and loss of life will continue to occur as lessons

will not be learnt. What is clear is that risk management and risk register population are the responsibility of all, top down and bottom up, from 'sharp enders' or frontline clinical staff to the 'blunt end' or governance level (Sheps, 2011).

A system approach to medical error and its reduction is crucial. To meet such important objective, establishment of a risk management system is necessary (World Health Organization, 2005). Risk management in health care is defined by clinical and administrative activities undertaken to identify, evaluate, and reduce the risk of injury to patients, staff, and visitors and the risk of loss to the organization itself (The Joint Commission's Annual Report on Quality and Safety, 2007). 7 steps in the Risk Management process are establishment the context, identifying, analyzing, evaluating, and treating the risks, continuous monitoring and review, and communication and consultation (Tasmanian CT review team, 2003).

While risk managers have the main responsibility to identify risks, it would be difficult for them to detect every single risk throughout an entire organization. Instead, providers, staff members and leaders should be able and encouraged to report observed risks. Creating a "just" culture, a non-punitive environment in which people feel comfortable speaking up about areas of risk or near misses is crucial. Patient safety is everyone's responsibility; patients and families should also "speak up" and be active participants in their healthcare

Risk management is a line management responsibility and consequently the line manager is responsible, in consultation with his/her staff, for the development of a risk register in their area of responsibility. The risk register when complete should be brought to the attention of all employees working in the service in a clear and understandable manner taking into account their level of training, knowledge and experience. A critical part of the risk register is an action plan to address the additional controls identified as required to reduce the risk to an acceptable level. Additional controls (actions) identified as being required that cannot be managed at the service level at which they have been identified should be referred to the next level of management in order that decisions can be taken to manage them. Such decisions may involve the allocation of required resources, the provision of required authority or to escalate the action to a higher level of management. A risk that cannot be completely eliminated must, nevertheless, be recorded in the relevant risk register along with a list of controls to be in place to reduce the risk to an acceptable level. These accepted risks will be monitored by the relevant service on a regular basis (Health Service Executive, April 2009).

Chapter 3- RATIONALE

Given that each healthcare organization faces unique challenges, not preparing for potential issues can have significant, long-term effects. Neglecting to have comprehensive risk management plans in place can compromise patient care, increase liability risks, and result in financial losses. Thus, potential risks have to be evaluated and measured in terms of their potential negative effects. Based on the risk assessment, an organization-specific management plan should be developed, implemented, and monitored.

This study is likely to help the hospital in the following ways:

1. **Enhance patient safety:** A well implemented risk management programme improves better patient safety and satisfaction (Mitigating Risk in Healthcare, 2010). For example, a well implemented medication error prevention programme means lesser incidences of medication errors, better clinical outcomes, improved patient safety, lesser grievances and litigation, better image of the hospital and more referrals.
2. **Improve financial outcomes:** A comprehensive risk management programme shall improve the financial outcomes of the hospital as the risks if not treated and fixed, shall eventually add to the hospital's costs of providing healthcare by increasing the incidence of preventable errors. (McCaughey, 2006)
3. **Better information for decision making:** The process that we shall undergo in identifying, assessing and prioritizing risks will highlight requirements that the organization should review and prioritize. By stepping through the process and continually reviewing these decisions over time we will enhance the capacity of the board to make decisions based on facts rather than speculations.
4. **Improve reputation:** By moving to limit risks, the organization shall show to the wider community that it places value on everyone's participation and involvement. This shall enhance organization's capacity to present a professional image. It will enable the hospital to promote that it has strong standards of behavior, reassuring the staff that they are cared for in a professional manner and assisting the organization to structure itself to run effectively and efficiently.
5. **Better asset management and maintenance:** Setting up a risk management register will help list all the physical assets owned by the organization. It also encourages staff to act when the asset poses a danger.

Chapter 4- OBJECTIVES

1. To **identify and describe risks** for the non-clinical departments for the register:
The identification of risk, and use of a risk register, enables senior management of the organization to prioritize individual risks and to structure efforts and resources into reducing risk and thereby improve quality and standards of care.
2. To determine **the organization's ability to mitigate the risks** identified i.e. to describe the existing controls (policies, procedures, physical controls etc.) for the risks.
3. To **assess** the identified risks
Involves determining the likelihood of occurrence and the potential impact of these risks.
4. To suggest additional **measures of risk management**:
Once identified and assessed, risks need to be prioritized according to the Initial risk rating. Thereafter, additional control measures shall be suggested for the risks with "High" risk rating (i.e. 16 and above).

Chapter 5- METHODOLOGY

5.1 Study design and methods

- Type of Study: Observational Analytical Study
- Study Location: Following departments at Thumbay Hospital, Ajman(UAE)
 1. CSSD
 2. Biomedical
 3. Housekeeping
 4. Facility Management Services
 5. Nursing
 6. Pharmacy
 7. OPD
 8. Physiotherapy
 9. Patient Affairs Department
 10. Patient Relations Office
 11. Nutrition and dietetics
 12. Human Resource department
- Study Duration: 3 months (March 2016 – May 2016) - The study was carried out during this period but the risks identified, did not exist only for the study period.
- Tools and Techniques:
 - Tool- **Risk Register template**
 - Technique-
 - QCO (Quality Control Officer) meetings.
 - Brainstorming sessions with designated staff of each department.
 - Interviews with Quality Control Officers (QCOs).
 - Process mapping and process evaluation of the departments.
 - Observation during hospital rounds.
 - Tracking Incident Reports for the past 1 year.

The template was explained to all the QCOs in the meeting held on March 2016. Thereafter, the individual departments were visited and the actual as well as potential risks pertaining to the department were identified along with the QCO and other staff members.

5.2 Following are the steps for filling up the template:

- Risk Identification: i.e. identification of the risks that are likely to affect the achievement of the goals of the organization. Includes:
 - What are the risks associated with not carrying out our responsibilities?
 - When, where, why, and how are risks likely to occur?
 - Risk Target (i.e. patient safety risk, employee risk etc.).
 - Nature of risk (physical resource risk, financial risk etc.).
 - Potential consequences if the risk were to materialize.

Process Mapping, Reviewing of departmental responsibilities, Reviewing of organizational standards and SOPs for the departments, reviewing of incident response procedures and analyzing the audit reports aided in the identification of internal risks.

- **Risk Analysis:**

Was done using the **Risk Quantification Scatter Plots** for every department. For this, consequence/impact and likelihood for each risk were identified and hence, initial risk rating was calculated.

Initial Risk Rating= Likelihood*Consequence

Thereafter high, moderate and low risks were identified.

1) For Consequence analyses, consequences were divided on the basis of their seriousness and potential costs into the following categories:

- Insignificant (category 1),
- Minor (category 2),
- Moderate (category 3),
- Major (category 4), and
- Extreme (category 5)

The risks were categorized into the above categories on the basis of following criteria:

Attribute	Insignificant	Minor	Moderate	Major	Extreme
Patient Injury	No Injury	Minor Injury	Temporary Morbidity	Significant Morbidity	Death or permanent loss of function/Disability
Staff injury/ Ill Health	No Injury	(i) Minor Injury/ (ii) Minor Treatment/ (iii) No lost time or restricted duties	(i) Temporary Morbidity/ (ii) Simple Treatment/ (iii) Lost time or restricted duties for 1-2 staff	(i) Significant Morbidity (ii) Hospitalization of 2 staff (iii) Lost time or restricted duties or illness of >2 staff members.	(i) Major permanent loss of function/disability or death (ii) Hospitalization of ≥3 staff members
Visitor Injury	No Injury	(i) Minor Injury (ii) Minor Treatment	(i) Temporary Morbidity/ (ii) Simple Treatment/ (iii) Treatment of upto 1-2 visitors not requiring hospitalization.	(i) Significant Morbidity (ii) Hospitalization of 2 visitors	(i) Major permanent loss of function/disability or death (ii) Hospitalization of ≥3 visitors
Operation Interruption (Critical e.g. water, electricity. Medical gases etc.)	< 1 min	< 5 min	< 10 min	< 30 min	> 30 min
Operation interruption (Non-critical)	< 1 hour	< 1 day	1 – 7 days	> 1 week	Permanent loss of service or facility
Financial Impact	< AED 5K	AED 5K – 10K	AED 10K – 25K	AED 25K – 50K	> AED 50K
Environmental Impact	Nuisance releases	Minor off site release contained without outside assistance.	Moderate off site release contained without outside assistance	Major off site release with no detrimental effect. Fire or other environmental hazard requiring no evacuation.	Toxic release off-site with detrimental effect. Fire or other environmental hazard requiring evacuation.

Attribute	Insignificant	Minor	Moderate	Major	Extreme
Reputation	Minor morale issues; 1-2 staff	Low staff morale within a unit/department	Low morale and dissatisfaction amongst majority of staff	(i) Medium term impact on public memory (ii) Serious staff concern (iii) Corporate image significantly affected.	Enquiry by public body. E.g. Legislative Council, Criminal Prosecution
Media Attention	None	Media Enquiries only	One off-newspaper article or radio/television mention.	Sustained media attention for 3 or more days.	Political Intervention

Table 1- Consequence Table

2) For likelihood analysis, The likelihood of the incidents pertaining to a particular risk was divided into:

- Remote(Category 1)
- Unlikely(Category 2)
- Possible(Category 3)
- Likely(Category 4)
- Almost certain (Category 5)

The risks were categorized into the above categories on the basis of following criteria:

	Actual Frequency	Probability
Almost certain(5)	At least monthly	99%
Likely(4)	Bimonthly	90%
Possible(3)	May occur every 1-2 years	50%
Unlikely(2)	May occur every 2-5 years	10%
Remote(1)	May occur every 5 years or more	1%

Table2- Likelihood Table

The overall risk associated with an event is calculated by multiplying the consequence score by the likelihood score.

When using this process, risks were categorized as follows:

Scores	Inference
1-5	Low Risk
6–15	Moderate Risk
>16	High Risk

Table3-Classification of risks

- Risk Evaluation:
The risk analysis was used to determine whether a risk is acceptable or needs to be eliminated. Risks deemed to be low or acceptable may only need to be minimized via simultaneous monitoring and regular checking, while risks deemed to unacceptable need to be eliminated or avoided.
- Risk Treatment/Elimination:
Appropriate strategies/control measures were suggested for the risks that need to be eliminated.

Chapter 6- FINDINGS AND ANALYSIS

Persons contacted in each department

Department	Primary Person Contacted	Other staff members
CSSD	CSSD Technician	
Maintenance	Assistant manager(Facility Management)	
Housekeeping	Housekeeping supervisor	Assistant housekeeping supervisor
Human Resource	HR officer	HR officer Asst.HR manager
Laboratory	Pathologist	
Nutrition	Clinical Nutritionist	
Patient Affairs department	Executive	
Patient Relations office	Patient Relation Officer	
Medical Records department	MRD officer	
Pharmacy	Pharmacist	
Nursing	CNO	Nursing Educator
Physiotherapy	Physiotherapist/QCO	

Table4-Departments visited and persons contacted

Roles and responsibilities of each department are as follows:

1. CSSD department:

- It caters to the sterile supplies of the entire hospital both to the specialized departments as well as OPD's. Functions of CSSD department-
- Provide sterilized material from the department under controlled conditions so that the incidence of infections can be reduced.
- To ensure that all the raw materials that are supplied to the department, are of appropriate standards.
- Ensure that cleaning procedures are carried out and their effectiveness monitored.
- Washing and decontamination of the instruments which includes receiving, sorting, washing and drying the instruments.
- Packing and sterilizing the instruments which includes lubrication , checking of instruments according to the check list and arranging the instruments and packaging and labeling
- Storage of the instruments and dispatching them.

2. Facility Management Department:

- Organize, control and coordinate the strategic and operational management of hospital buildings and facilities to ensure proper operation of all physical aspects, creating and sustaining safe and productive environments.
- Responsible for financial management, team management, project management, cost effectiveness and sustainability of assets and facilities in hospital.
- Space planning and management.
- Managing soft services.
- Waste management
- Preventive, corrective and predictive maintenance
- Organizational Hygiene including indoor air quality
- Control of substances hazardous to health
- Security and access control
- Maintenance of heating, ventilating, air conditioning and refrigeration systems.
- Responding appropriately to emergencies or urgent issues as they arise.
- Checking that agreed work by staff or contractors has been completed satisfactorily and following up on any deficiencies

3. Housekeeping department:

- To ensure cleanliness and hygiene within and around the hospital premises.
- To ensure that all the housekeeping operations and infection control practices are followed and confirm to the departmental practices.
- To maintain proper co-ordination with the pest control provider, medical and general waste cleaning companies and laundry contractors.
- To check that all the daily consumables and chemicals and maintain the par stock of the items.

4. Human resource Department

- Responsible for the recruitment of the staff and makes sure that protocols and procedures are followed throughout the recruitment process.
- Develop an effective compensation and benefit system that will retain and attract high talent.
- Regularly prepare budget regarding the human resource function and present it to the management for approval in conjunction with the Head of finance.
- Ensure that new employee orientation program for newly recruited employees is in place which includes Mission, vision and value integration.
- Ensure that adequate competent staffs are available for smooth operation and they meet future requirements.
- Ensure that new staffs are adequately assessed for competencies and performance monitored.

5. Laboratory

- Review and monitoring of day to day critical test results.
- Ensure appropriate Lab documentation.
- Quality of the laboratory test result and ensure zero failure in CAP proficiency test.
- Adhere to MOH guidelines and policies during patient care.
- Ensure highest of the quality in testing services adhered to by introducing new tests ,validation, LIMS, External Quality assurance and review of quality control data.

6. Nutrition

- Screen patients according to the nutritional status.
- Prepare the nutritional diagnosis and plan the nutritional care process.
- Keep a constant check on the dietary requirements of the patients during their stay.
- Get the feedbacks from the patients and make changes in the diet if required within the dietary restrictions for patient satisfaction.
- Ensure food handling staff maintains proper grooming standards according to the dietary department regulations.
- Motivate the patient to follow the diet regime (even if it is undesirable) by educating the patients about the benefits of the diet.

7. Patient Affairs Department

- Admission and discharge
- Patient counseling
- Addressing patient grievances
- Verification of legal documents for patient admission
- Participating in promotional activities
- Responsible for inpatient billing services.

8. Physiotherapy

- Provides physical therapy services to the patients in both out-patient and in-patient according to the standards.
- Evaluate and plan treatment as well as document the treatment records.
- Assure that the objectives of the services are efficiently and effectively achieved within the framework of the stated purpose of the organization and in accordance with the safe physical therapy practices.

9. Patient relations office

- Serve as a liaison between the hospital, patient and patient's relatives in resolving patient care problems and communicating hospital policies and procedures regarding patient care.

- Responsible for the effective and efficient management of the appointment system.
- Promoting and guiding patients on various health packages.

10. Medical records department

- Retrieval of medical records for patient care and other authorized use
- Discharge procedure and completion of medical records after an inpatient has been discharged or died.
- Coding diseases and operations of patients discharged or having died
- Filing medical records
- Evaluation of the medical record service
- Completion of monthly and annual statistics
- Medico-legal issues relating to the release of patient information and other legal matters.

11. Nursing

- Patient care during his stay in the hospital
- Perform the technical duties of nursing which includes usage and management of crash cart in emergency scenario , pain assessment and management ,IV therapy and management of the complications, sample collection, safe medication management and use, safe usage and management of narcotics, follow the infection control protocols ,participate in disaster management activities, administration of blood and blood products, etc.
- Identify the dietary need of the patient and communicate to the nutrition department.
- Follow IPSP goals and measures to maintain safety.
- Ensure that clear documents and records are maintained.
- Waste segregation and management
- Management and proper use of equipment.
- Maintenance of the ward stocks.

12. Pharmacy

- Prescription handling- Dispensing of prescribed medications.
- Sales and Promotion
- Inventory management- Includes Purchasing drugs and other supplies, thus ensuring optimum level of inventory to meet the sales requirements of the outlets and adhering to the SOPs to ensure safe storage and dispatch of medicines.
- Staff training and orientation regarding various pharmacy processes.

Risk Identification

Risk Identification in the above departments includes:

- Unique ID: For the purpose of transferring risks elsewhere and also for the purpose of aggregation, every risk on the risk register should have a unique ID reference. Typically this will be a combination of a code representing the department or project together with a reference number.
- Date: This is the date that the risk was initially identified and/or assessed.
- Risk Owner: This is the individual who will be held accountable for the risk and its effective control. The maxim of 'the risk taker is the risk owner' should be adopted.
- Risk Type: Annexure-2(Common Risk Language)
- Risk description: Includes description of the potential consequences if the risk were to materialize; the causal factors that could make the risk materialize; the context of the risk, e.g. is the risk 'target' well defined (e.g. staff, patient, department, hospital, etc.) and the 'nature' of the risk(e.g. financial, safety, physical loss, perception, etc.
- Whether the risk is "Actual" or "Potential": Has the risk occurred in the past (i.e. an 'actual' risk'), or is it a risk that has not materialized to-date, but could at some time in the future (i.e. a 'potential' risk).
- Existing Controls: All the controls that are currently in place to help mitigate the risk, e.g. policies, procedures, physical controls, etc.

The following table elucidates the risks that were identified in the non-clinical departments of Thumbay Hospital, Ajman.

Unique ID	Date dd/mm/ yy	Risk Owner	Risk type (see common risk language)	Risk description	'Actual' or 'Potential' risk?	Existing Controls
1.Mtnce.1	26/03/16	Assistant Manager (Facilities manageme nt)	Patient care and safety	Risk of harm to patients while renovation/maintenance activities are being carried out in the hospital.	Potential	Prior to renovation procedures , infection control team gives its recommendations which are mandatory to be followed.e.g negative pressure created within the area to be renovated etc.
2.Mtnce.2	26/03/16	Assistant Manager (Facilities manageme nt)	Physical resource	Risk of injury to patients/staff and harm to the physical infrastructure due to fire resulting from: (A) Human negligence (B) Defects in Hospital equipment	Potential	(i) Periodical drill (ii) Routine checklists(to monitor the performance of fire alarm systems) (iii)Preventive maintenance- done on a quarterly basis by an external service provider
			Employee safety			
			Patient care and safety			
3.Mtnce.3	26/03/16	Assistant Manager (Facilities manageme nt)	Physical resource	Risk of interruption in continuity of hospital services due to prolonged disruption of electric supply due to (A) Shortage of supply from local authorities (B)construction work may cause damage to the cables	Actual	(i) Periodical check of the backup sources (once every month) (ii) Routine preventive maintenance being carried out. (iii)3 generators have been installed (another generator takes over immediately when one stops functioning)
4.Mtnce.4	26/03/16	Assistant Manager (Facilities manageme nt)	Patient care and safety	Risk of interruption in providing patient care (esp. in dialysis) due to failure of RO Plant System.	Actual	(i) 2 RO plants – one as a back-up (ii) Routine preventive maintenance. (iii)Periodical certification by the external agency (for samples collected from the hospital) (iv)Regular checks on main joints and tanks.

5.Mtnce.5	26/03/16	Assistant Manager (Facilities management)	Employee safety	Risk of injury/harm to employees due to mishandling of hazardous material • Improper storage • Lack of personal protective equipment • Improper training	Actual	(i)MSDS guidelines are to be strictly followed (ii)Training
6.Mtnce.6	26/03/16	Assistant Manager (Facilities management)	Physical resource	Risk of interruption of water supply due to Local shortages (by the govt.)	Actual	Existing storage capacity enough to maintain water supply for 36 hours (in case of non-availability)
7.Mtnce.7	26/03/16	Assistant Manager (Facilities management)	Physical resource	Risk of patient dissatisfaction due to maintenance of the rooms being compromised because of high occupancy rate.	Actual	None
8.Lab.1	06/04/16	Lab HOD	Patient care and safety	Risk of inadequate assessment of the patients due to lab reports released without cross checking and correlating with previous reports.	Actual	Review and verification done by two individuals (double verification) before releasing of reports- especially infectious diseases.
9.Lab.2	06/04/16	Lab HOD	Patient care and safety	Risk of error in reporting due to mislabeling of samples from the wards.	Actual	Policies and Procedures in place for sample collection and labeling techniques Crosschecking of samples with service request and labels on tubes.
10.Lab.3	06/04/16	Lab HOD	Patient care and safety	Risk of delayed patient care due to sample degradation resulting from improper sample collection technique/storage/transportation resulting in repeated sample collection as in case of hemolysis , inadequate collection(Quantity Not Sufficient) , sample loss	Actual	i) Training of staff on sample collection techniques. ii) Relevant staff to be informed at the earliest to repeat the same in order to avoid delay in reporting.

				etc.		
11.Lab.4	06/04/16	Lab HOD	Employee safety	Risk of harm to employee safety due to spills resulting from improper handling/ storage of the reagents , chemicals, samples etc.	Potential	i) Training to the staff/ departmental orientation of the staff on safe work practices and handling of the chemicals in the laboratory ii) Spill kits (Chemical/blood) available in the laboratory. (iii)Availability of emergency eye shower facility in the laboratory.
12.Lab.5	06/04/16	Lab HOD	Patient care and safety	Risk of delayed patient care esp. in emergency cases due to: stock out of laboratory reagents due to limited supply by the vendor.	Actual	i) Samples of the emergency cases sent to CABRI for analysis in order to avoid any delay. - ii)The concerned department is informed immediately about the delay in reports
13.Lab.6	06/04/16	Lab HOD	Patient care and safety	Risk of delayed patient care esp. in emergency cases due to Equipment/machine breakdown in the laboratory	Actual	i) Preventive maintenance done every 6 months ii) Samples of the emergency cases sent to CABRI.
14.Human Resource. 1	04/07/16	HOD	Human Resource Risk	Risk of non-compliance to regulations due to false documents being submitted by the employees at the time of joining.	Actual	i) Verification of the documents done before joining ii) Background checks of the employees are conducted iii) 3rd party primary source verification of the documents is done.

15.Human Resource. 2	04/07/16	HOD	Human Resource Risk	Risk of loss of productivity in the organization due to high staff turnover in the organization.	Actual	i)Annual Increments ii)Promotions iii)Rewards and recognition being given to employees
16.Pharmacy.1.	04/10/16	Head Pharmacist	Patient care and safety	Risk of delayed patient care due to stock out of essential /critical drugs and other supplies like nebulizing kits/ oxygen cylinders etc.	Actual	i) List of critical items prepared and adequate buffer stock being maintained. ii)Monthly audit
17.Pharmacy.2	04/10/16	Head Pharmacist	Patient care and safety	Risk of patient harm due to dispensing of wrong drug to wrong patients (esp. high alert medication).	Actual	i) Cross matching/Verification of patients' details with prescription while dispensing ii) High Alert drugs sent separately to the nursing station and not along with other drugs. iii) "Yellow Sticker" on high alert and "Red Sticker" on high risk medication.
18.Pharmacy.3	04/10/16	Head Pharmacist	Patient care and safety	Risk of delayed patient care due to bounced prescriptions	Potential	i) List of Out of stock drugs is displayed on HIMS and is updated regularly. ii) Any critical prescribed drug if out of stock can be arranged from the other branches of Thumbay pharmacy or other external pharmacies.
19.Pharmacy.4	04/10/16	Head Pharmacist	Patient care and safety	Risk of harm to the patient as well financial risk to the hospital because of loss of potency of drugs due to improper storage	Potential	i) Proper temperature control of refrigeration for drugs that require cold storage. ii) Medicines stored as per manufacturers' recommendations.
			Financial risk		Potential	
20.Pharmacy.5	04/10/16	Head Pharmacist	Financial risk	Risk of financial loss to the hospital due to expiry of drugs.	Actual	i) FIFO policy ii) Policy of segregation – Drugs with 3 months expiry date are removed from the shelves and stored separately. iii)Physical checking of the

						stock every month and verification with the stock shown in the system
21.PAD.1	04/10/16	HOD	Financial risk	Risk of financial loss /bad debts to the hospital because 1)Money not deposited by the patients who are admitted through accident and emergency 2)Patient transfers to critical care areas from wards but not willing to pay the higher prices associated with it.	Actual	i) Advance amount taken at the time of admission. ii) Patient signs an agreement settlement. iii) The patients' relatives/friends/ employer are contacted in order to settle the outstanding amount. iv).Emergency patients are admitted through special PAD counters
22.PAD.2	14/4/2016	HOD	Patient care and safety	Risks of delay in patient care (admission) because - patients do not carry the id proof/documents required for the admission process.	Actual	i) The Emirates ID is scanned in the OPD and made available to the PAD at the time of admission. ii) Correct information about the admission procedure is communicated by the nursing staff to the patients (in case the patient bypasses the PAD during admission).
23.PAD.3	14/4/2016	HOD	Staff safety	Risk of harm to the safety of employees because of violence/abuse by the patients' because of -Lack of room availability/delay in admission and discharge. -Mis-communication. -Lapses in the clinical and support services.	Actual	i) Patient counseling being done on various issues that arise during the stay of the patient in the hospital. ii) Code white is called in case of physical threat by patients. iii) Four levels of Patient complaint handling mechanism in order to address the patient complaints in an effective and timely manner.

24.PAD.4	14/4/2016	HOD	Integrity risk	Risk of harm to the hospital reputation due to negative media coverage/negative word-of-mouth publicity which can be due to dissatisfaction of patients.	Actual	i) Restricting people to take photos or videos ii) Four levels of Patient complaint handling mechanism in order to address patient complaints in an effective and timely manner. iii) VOC initiative-As a part of this, patients who do not wish to revisit the hospital/recommend the hospital to others is contacted by the PRO and their grievances are attended to.
25.PRO.1	14/4/2016	Patient Relations Officer	Patient care and safety	Risk of corporate and package patient dissatisfaction due to least priority given to them.	Actual	Verbal negotiation
26.PRO.2	06/04/16	Patient Relations Officer	Employee safety	Staff health risk of unavoidable encounter with patients who have communicable diseases such as Hepatitis, TB and etc.	Potential	None
27.MRD.1	06/04/16	MRD In charge	Physical resource risk	Physical resource risk leading to loss of files or delay in retrieval of medical records due to space constraint in MRD department	Actual	Existing records are being shifted to GMU for storage.
28.MRD.2	28/03/16	MRD In charge	Physical resource risk	Risk of loss /damage to patient records due to fire.	Potential	i) Periodic Drills ii) Fire and Safety training to all staff.
29.Nutrtn. 1	28/03/16	HOD Nutrition	Patient care and safety	Risk of wrong diet being served to the patient due to (A) Insufficient information in the patient assessment records. (B)Due to incomplete information provided prior to preparation of food.	Actual	i) Nutritional assessment of every patient ii) Maintain proper communication at all stages of care iii) Training of the staff (for labeling etc.)

				(C)Mix up at the time of serving due to unlabeled food trays.		
30.Nutrtn. 2	28/03/16	HOD Nutrition	Patient care and safety	Risk of food allergy reactions in the patients because of: serving him/her food items to which he is allergic.	Actual	i) Proper training to all staff ii) HACCP has been implemented.
31.Nutrtn. 3	28/03/16	HOD Nutrition	Patient care and safety	Risk of harm to patients due to cross-contamination of raw/cooked food items resulting from improper handling during and after preparation of food items.	Potential	i)Maintain compliance to hand hygiene ii)Training to the staff iii)Monitoring by the supervisor
32.Nutrtn. 4	28/03/16	HOD Nutrition	Patient care and safety	Risk of inadequate patient care due to temperature alteration of the food because of: (A)Café delays (B) Inappropriate temperature settings of the food trolley (C)Inadequate temperature control(holding temperature)after receiving the food from the kitchen	Potential	i)Regular monitoring of temperature settings of food trolleys ii)Temperature check prior to serving food
33.Nutrtn. 5	28/03/16	HOD Nutrition	Patient care and safety	Risk of not serving diet to the patient at appropriate time due to: lack of co-ordination between the staff.	Actual	Diet Requisition Slip
34.Nutrtn. 6	28/03/16	HOD Nutrition	Patient care and safety	Risk of inadequate patient care due to: serving food of substandard quality resulting from physical, chemical and biologically harmful substances present in the food	Actual	i)Food and Hygiene Safety checklist – filled by sensory perceptions of food e.g. smelling etc. ii)Metal detectors used after receiving the food iii)Audit done once every 3 months to ensure the quality of food being served to the patients

35.HK.1	16/03/16	Housekeeping supervisor	Patient care and safety	Risk of harm to patients/employees from the hazardous materials (used for cleaning in patient care areas) which are stored in the trolley.	Actual	Housekeeping trolley is always kept locked
36.HK.2	16/03/16	Housekeeping supervisor	Patient care and safety	Risk of physical injury as a result of falls because of wet and slippery floors after/during cleaning.	Actual	i) Caution boards in place while cleaning the floors. ii) Cleaning of half side of the corridor at a time keeping the other half functional.
			Employee safety			
37.HK.3	16/03/16	Housekeeping supervisor	Employee safety	Risk of harm to employee safety due to electrical shocks while using electrical equipment for cleaning.	Potential	i) Preventive maintenance done for all equipment. ii) Employees instructed to check the equipment carefully before using it. iii) Safety shoes (having insulated soles) are worn by the housekeeping staff.
38.HK.4	16/03/16	Housekeeping supervisor	Employee safety	Risk of occupational hazards: Needle Stick Injuries; Infections to the housekeeping staff during waste collection, segregation and disposal.	Actual	i) Training on collection, segregation and disposal of bio-medical waste given to all employees (at the time of joining) ii) Heavy Duty Gloves given to the staff. iii) Staff uses PPE while handling linen, waste etc. of infected cases and cleaning rooms of infected cases. iv) Sharp container disposed off when it is 3/4 th filled.
39. HK.5	04/12/16	Housekeeping supervisor	Physical resource	Risk of fire due to corrosive and inflammable materials being stored in wooden boxes in the housekeeping stores	Potential	None
40.Physiotherapy.1	04/12/16	HOD	Patient care and safety	Risk of patient injury in the form of sudden shock or burn during delivery of electrotherapy modalities mostly using electrical	Actual	Periodic preventive maintenance

				stimulator.		
41. Physiotherapy.2	04/12/16	HOD	Patient care and safety	Risk of patient injury due to falls resulting from: (A) Inadequate ventilation and lighting (B) Mal-functioning of equipment like treadmills etc.	Potential	i) Adequate ventilation and lighting ii) Periodic preventive maintenance
				Risk of falls resulting from (D) Patient transfer(s) from OPD to gym because of: - High patient traffic in the area (it being the main hospital OPD entrance) - Slippery (tiled) flooring in the corridor	Potential	i) Traffic flow to be controlled. ii) Flooring of the corridor to be changed.
				Risk of falls resulting from I Improper functioning of wheels and brakes of recliner couches.	Actual	Monitoring the patient while the therapy is going on
42. Physiotherapy.3	7/4/2016	HOD	Patient care and safety	Risk of harm to patients safety due to therapeutic intervention being applied to the patient where it is contra-indicated (e.g. chest physiotherapy in patients with pulmonary embolism, pneumothorax, fractured rib etc.)	Potential	Complete and accurate initial assessment
43. OPD.1	7/4/2016	OPD Manager	Patient care and safety	Risk of transmission of infection to the pediatric patient/families due to the presence of wall mounted toys which serve as a common source of infection	Actual	i) Regular disinfection of the fixtures and toys. ii) Observing hand hygiene practices
44. OPD.2	7/4/2016	OPD Manager	Patient care and safety	Risk of falls in the outpatient settings due to Slippery floors/Tiles	Actual	None
			Employee safety			

45.OPD.3	7/4/2016	OPD Manager	Patient care and safety	Risk of delay in access and continuity of patient care due to non-availability of doctors despite of duty rostered and appointments made prior.	Actual	Patient is referred to the other doctor within the same specialty (at the earliest)
46.OPD.4	07/04/16	OPD Manager	Patient care and safety	Risk of harm to the patient security due to unguarded OPD entrance	Actual	None
47.Nursing.1	16/4/2016	Chief Nursing Officer	Patient care and safety	Risk of inadequate nursing care due to Incompetent / inexperienced nurses recruited, Lack of training for the nurses, Lack of specialization training programme in the market, lack of supervision, lack of motivation, lack of communication skills, computer skills High attrition/turnover of nurses.	Actual	(i). During recruitment two round of interviews are conducted (ii). Nurses are deployed bases on their skills and experience. (iii). Conduct well defined and documented departmental orientation programme for all new staff (iv). Develop in – house specialized training programmes such as Clinical record documentation training programme, HIMs training programmes, soft skills development programmes etc. (v). Hold regular meeting with charge nurses (vi). Reward and recognize good performers
48.Nursing.2	16/4/2016	Chief Nursing Officer	Patient care and safety	Risk of patient safety incidents like fall, wrong patient identification, adverse events, sentinel events etc. due to non-compliance to existing policies and procedure, lack of awareness/ training, lack of supervision and negligence	Actual	(ii) Regular trainings to staff on policy and procedures are provided (iii) Proper mix of manpower is ensured (experienced and new/junior) (iv) Counsel errant staff

49.Nursing.3	16/4/2016	Chief Nursing Officer	Patient care and safety	Risk of inadequate assessment of patients due to wrong labeling of samples.	Actual	Cross checking of samples with service request and labels on tubes.
50.Nursing.4	16/4/2016	Chief Nursing Officer/ HR	Employee safety	Risk of staff safety incidents (e.g. needle stick, fall, exposure to radiation,) due to • Non-compliance to policy and procedures & Faulty Practices • Lack of awareness/ training • Lack of supervision • Negligence	Actual	(i) For preventing Needle Stick Injuries • Training to staff on segregation and safe disposal of biomedical waste • Mechanism for reporting and timely follow-up of all needle stick and other sharps-related injuries. • prompt removal of filled sharps disposal boxes (ii) For preventing exposure to radiation Use of lead apron while entering radiation zone
51.Nursing.5	16/4/2016	Chief Nursing Officer	Patient care and safety	Risk of hospital acquired infection (HAI) to patients and staff due to A)Non-compliance to policy and procedures on infection control, B)Lack of awareness/training, C)Lack of supervision D)Negligence	Actual	(i) Well defined infection control manual as per Centre for Disease Control's and JCI guidelines is maintained (ii) An infection control committee with regular meeting has been formulated (iii) Training to all staff on infection control protocol is provided. (iv) Infection control audit is conducted. (v) Infection related quality indicators (i.e. ventilator associated pneumonia (VAP), urinary tract infection (UTI), surgical site infection (SSI), central line related blood stream infection (CRBI), biomedical waste

						management (BWM)) are monitored (vi) Hepatitis B vaccination to all new nurses are given (vii) Hand disinfectant/hand rub is provided to all staff (viii) Hand hygiene practices followed.
52.Nursing.6	16/4/2016	Chief Nursing Officer /HOD Pharmacy	Patient care and safety	Risk of medication errors due to A)Lack of awareness/training, B)Lack of supervision, C)Negligence D)Prescription errors E)Verbal orders F)Emergency/panic situation G)Non-availability of prescribed drugs H)Expired/poor quality drugs	Actual	(i) A well-defined SOP on medication administration is maintained. (ii) Training to all new staff on medication administration protocol is provided (iii) All medication before administration by a clinical pharmacist is practiced (iv) Training on high risk and high alert medication policy is defined and provided. (v) Patients on infusion regularly monitored. (vi) Allergies of patients during initial nursing assessment confirmed and monitored. (vii) Training to/sensitize doctors on prescription related errors is provided (viii) Policies on verbal /telephonic orders is maintained and adhered to. (ix) Training to staff on emergency response (e.g. MET call) is provided (x) Escalate to treating doctor for substitute if prescribed drugs are not available (xi) Expiry date of all drugs in the wards regularly checked. (xii) medications are

						stored as per guideline (xiii) medical record audit performed regularly (xiv) Incident reporting and corrective measures are performed
53.Nursing.7	16/4/2016	Chief Nursing Officer/Bio Med	Patient care and safety	Risk of mismanagement or improper use of equipment due to (A) Lack of awareness/training, (B) Lack of supervision (C) Emergency/panic situation (D) Negligence (E) Disoriented patients	Actual	(i) Regular training to staff on equipment is provided. (ii) Functionality of equipment is checked daily. (iii) Staff on usage of equipment regularly supervised. (iv) Training to staff on equipment during emergency situation is provided. (v) Incident reporting is done and corrective measures are taken (vi) Proper placement of equipment is ensured.
54.Nursing.8	16/4/2016	Chief Nursing Officer/HOD Accounts	Financial	Risk of ward stocks not being accounted for Error or omission	Actual	(i) Stock control measures are maintained and adhered to. (ii) Co stock checks against inventory lists and controlled drug records are checked. (iii) incident reporting is done and corrective measures for missing items are taken
55.Nursing.9	16/4/2016	Chief Nursing Officer	Patient care and safety	Risk of inaccurate or incomplete documentation due to A) Lack of awareness of protocols, B) Shortage of staff, Ignorance, C) Computer not available timely, D) Emergency/panic situation,	Actual	(i) Documentation is done as per departmental protocol (ii) Training to all new and existing staff in HIMS (iii) Adequate staff for every shift (iv) Staff supervision on a daily basis (v) Incident reporting done and corrective

				D)Improper handover		measures are taken.
56.Nursing.10	02/04/16	Chief Nursing Officer	Financial	Risk of inaccurate and/or incomplete charging due to A)Negligence, B)Lack of computer skills, C)Shortage of staff, D)Computer not available timely	Actual	(i)All order entries are checked before submitting IP clearance form (ii) Training to all staffs in HIMS (iii) Adequate staff for every shift
57.Biomedical.1	02/04/16	Sr.Biomedical Engineer	Employee safety	Risk of employee injury in form of burns, asphyxia etc. -while handling/transporting high pressure cylinders containing oxygen, air and nitrous oxide.	Potential	i) Cylinders are transported in a properly restrained and upright position. ii) Checking the valve of the cylinder before it is transported. iii)Checking that the cylinders have not been tempered with and safe to handle
58.Biomedical.2	02/04/16	Sr.Biomedical Engineer	Patient care and safety	Risk of delay in patient care and safety due to -breakdown of critical equipment and hence increased downtime.	Actual	i)Regular preventive maintenance ii)Standby machines
59.Biomedical.3	02/04/16	Sr.Biomedical Engineer	Employee safety	Risk of infection of the staff - while repairing infected equipment (e.g. blocked spittoon in dental department)	Actual	Use of Personal protective equipment by the staff while handling
60.Biomedical.4	02/04/16	Sr.Biomedical Engineer	Patient care and safety	Risk of delayed patient care due to -non availability of the parts of equipment/s - non-cooperation of the supplier.	Actual	Contact the freelancer supplier so that the equipment parts are available

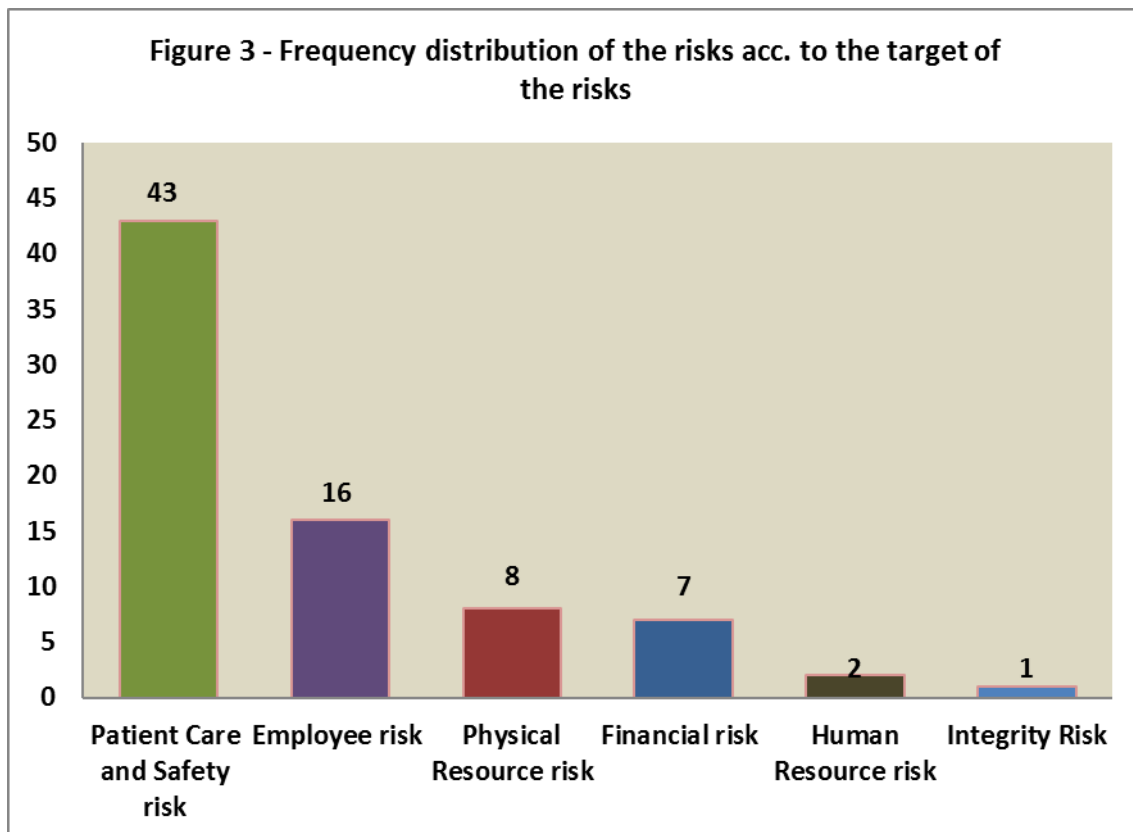
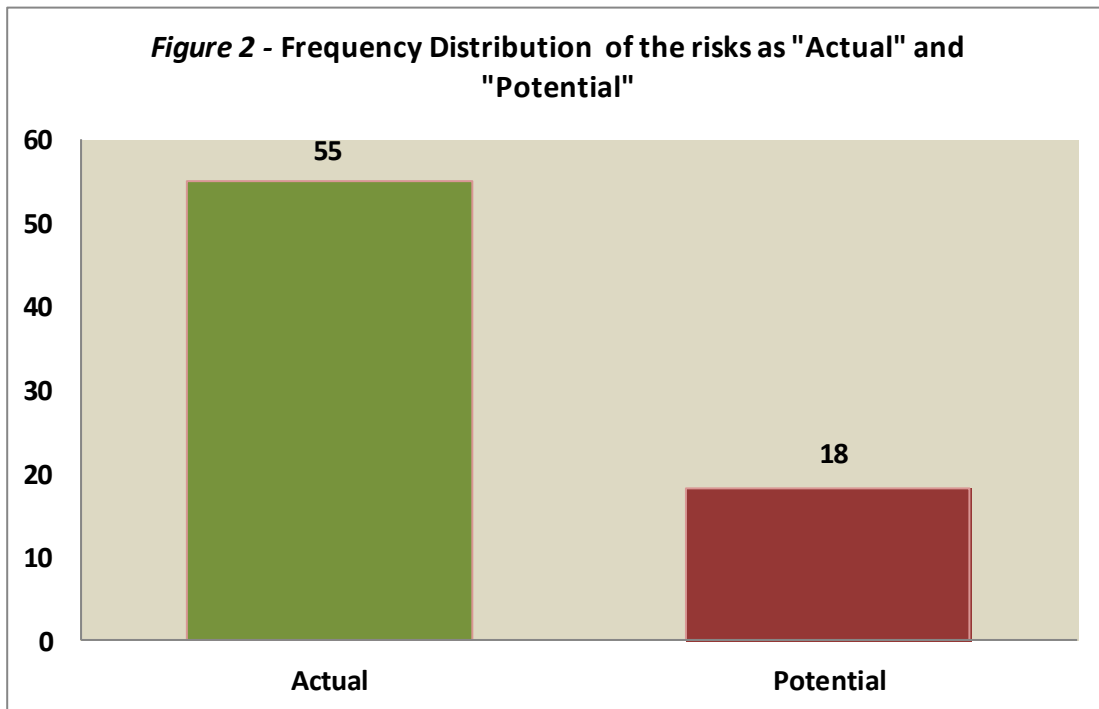
61.Biomed.5	02/04/16	Sr.Biomedical Engineer	Patient care and safety	Risk of delayed or inadequate patient care due to malfunction of the equipment	Actual	Preventive maintenance done for all critical equipment every 6 months which includes checking the performance of the machines through the analyzers.
62.Biomed.6	31/03/2016	Sr.Biomedical Engineer	Patient care and safety	Risk of delay in surgical procedures due to non-availability of portable N2O cylinders in the OT complex.	Actual	Biomedical Department maintains adequate buffer stock in the manifold room.
63.CSSD.1	31/03/2016	CSSD supervisor	Employee safety	Risk of needle stick injury to the staff which is due to -Improperly segregating the instruments before the process of sterilization starts. -Improper handling of the instruments while receiving them for decontamination.	Actual	i) PPE ii) Awareness amongst the staff members to be cautious while segregating and packing unsterile instruments. iii) Collection containers that are used are puncture resistant ,leak resistant
64.CSSD.2	31/03/2016	CSSD supervisor	Employee safety	Risk of chemical hazards to the staff due to -splash or spillage which may occur due to improper handling of the chemicals while diluting them.	Potential	i) PPE are made available and used. ii)MSDS guidelines being followed
65.CSSD.3	31/03/2016	CSSD supervisor	Physical resource	Risk of hazard due to -bursting of valves of the equipment (as a result of voltage fluctuation) -Frayed cables of the instruments.	Potential	Preventive maintenance by maintenance and biomedical department
66.CSSD.4	31/03/2016	CSSD supervisor	Patient care and safety	Risk of harm to the patient safety -due to improper sterilization which may occur as a result of failure of quality indicators.	Actual	System Recall policy:

67.CSSD.5	31/03/2016	CSSD supervisor	Patient care and safety	Risk of harm to patient safety due to improper sterilization in dental department	Actual	All the dental equipment to be sent to CSSD department for sterilization
68.Maintenance.8	26/4/2017	Assistant Manager (Facilities management)	Financial risk	Risk of financial loss to the hospital due to (a) Thefts/pilferage of hospital possessions. (b) Mishandling /Misuse of hospital assets.	Actual	i) All the exits are guarded ii) CCTV surveillance throughout the hospital iii) Comprehensive incident reporting system in place and corrective measures taken for missing items reported. iv) Well developed inventory management system in place.
69.Disasters	26/4/2016		Financial risk	Risk of financial loss to the hospital in the form of -Cost to the hospital to replace the lost property -Cost to repair the damaged property -Cost to set up temporary replacements. due to natural disasters like sandstorms, internal floods etc.	Actual	i) For Employee Safety Training to the staff given. Use of PPE Co-ordination with the Department of Preventive Medicine, MoH (UAE) Co-ordination with govt., local authorities. (ii) For patient safety Provision of distribution of masks to all the employees, patients and the visitors in case of occurrence of sandstorm. Co-ordination with local and govt. authorities(civil defense)
			Patient care and safety	Risk of injury / harm to the patient care and safety due to natural hazards like epidemics, sandstorms & internal floods etc.		
			Employee safety	Risk of injury/harm to the employee safety due to natural hazards like epidemics, sandstorms & internal disasters etc.		

70. Creche.1	26/4/2016			Risk of transmission of infection to the children in crèche due to: i) Overcrowding of children in the crèche. ii) Lack of hand washing / hand hygiene practices being observed before and after diaper change iii) Lack of awareness among the staff regarding sources of spread of infection. iv) Lack of awareness on cleaning of biological spill like vomitus. v) No designated area for diaper change vi) Lack of cleaning schedule for the objects kept in the creche which can be a potential source of infection.	Actual	i) Regular facility audits being done. ii) Training of the staff being carried out. iii) Objects which can be a source of infection like drawings pasted on walls removed.
71.Creche .2	26/4/2016			Risk of harm to the safety of the children due to: proper evacuation process not in place i.e. i) Emergency exit doors blocked by pediatric cots ii) No emergency lights in place to facilitate the evacuation process.	Potential	None

Table5- Risk Identification

Risk Analysis



Prioritization of Risks (Department-wise)

Colour Coding	Type of Risk
	High Risk
	Medium Risk
	Low Risk

Figure-4

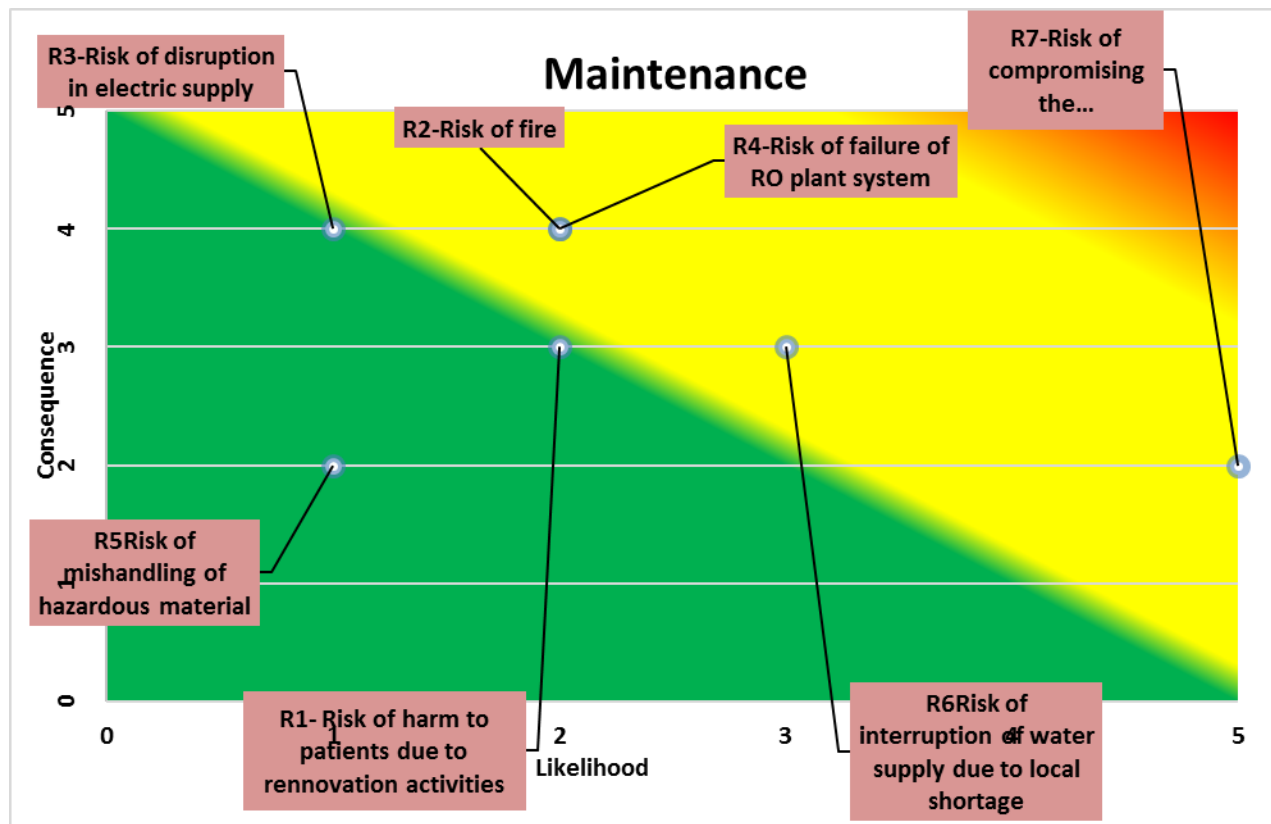


Figure-5

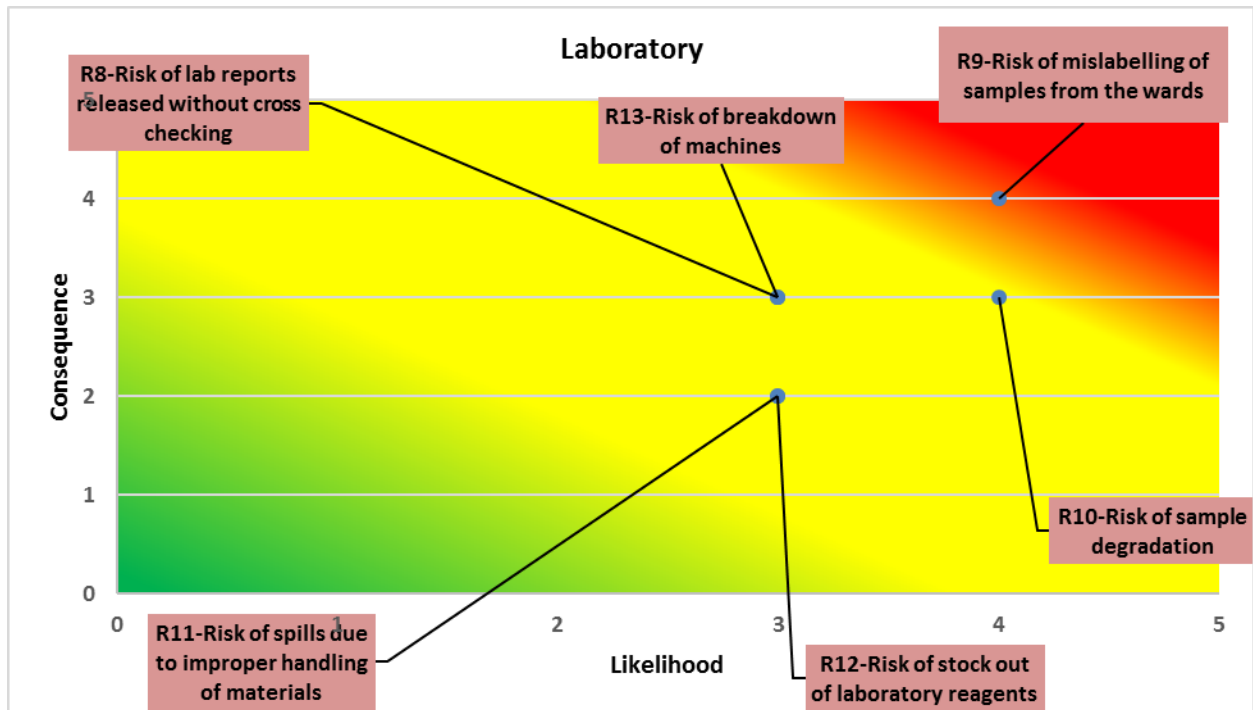


Figure-6

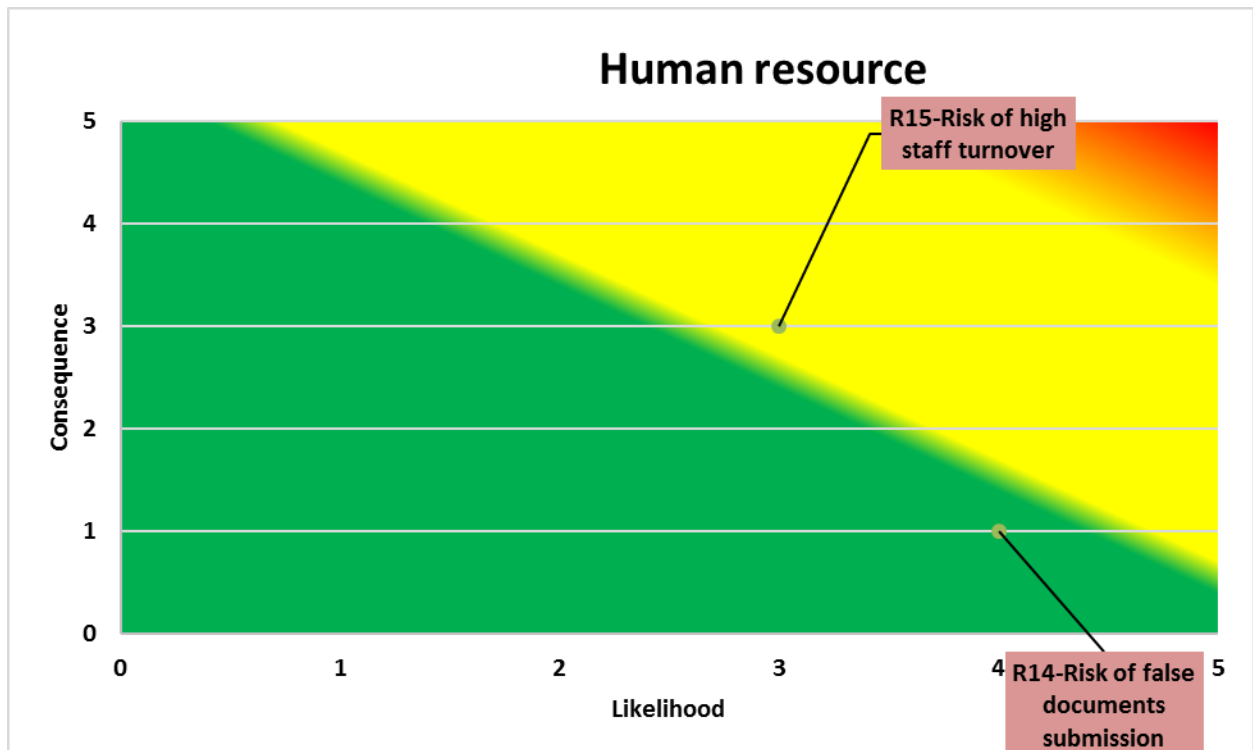


Figure-7

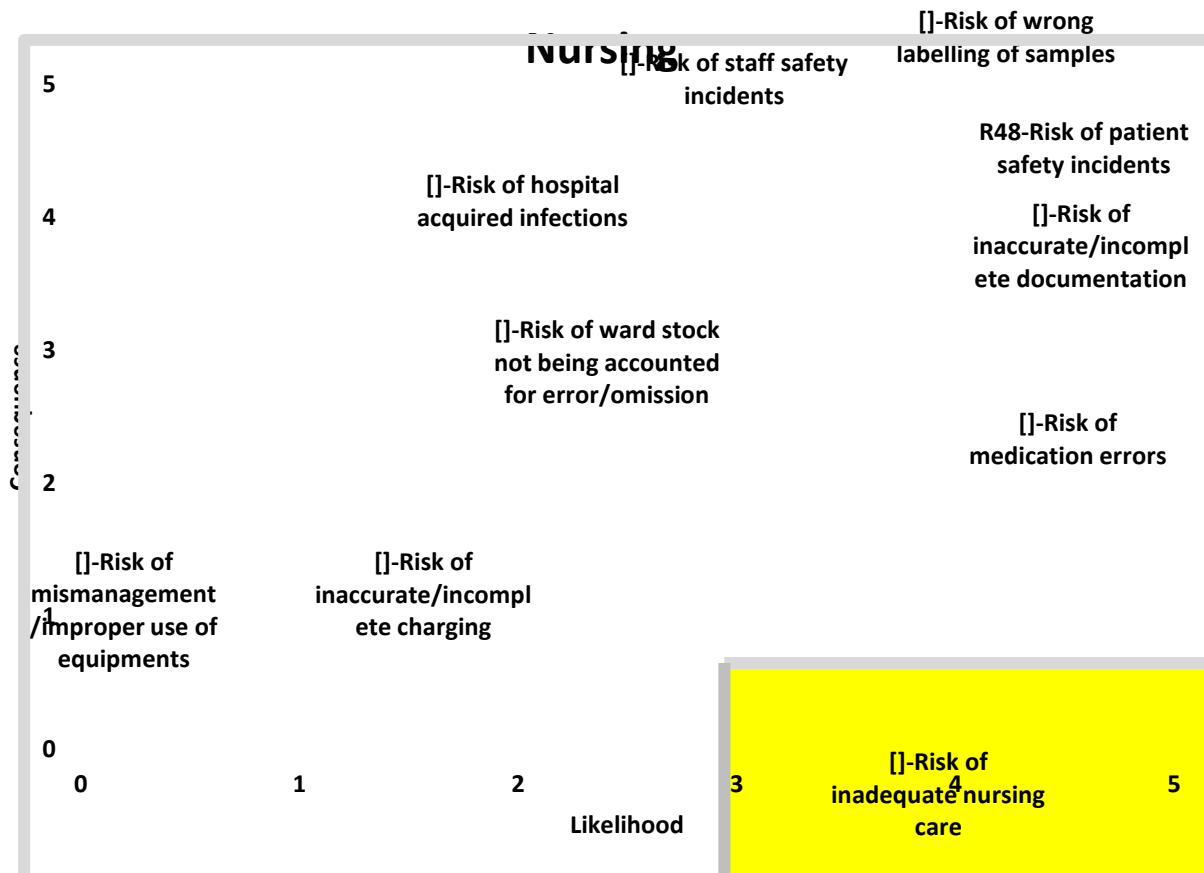


Figure-8

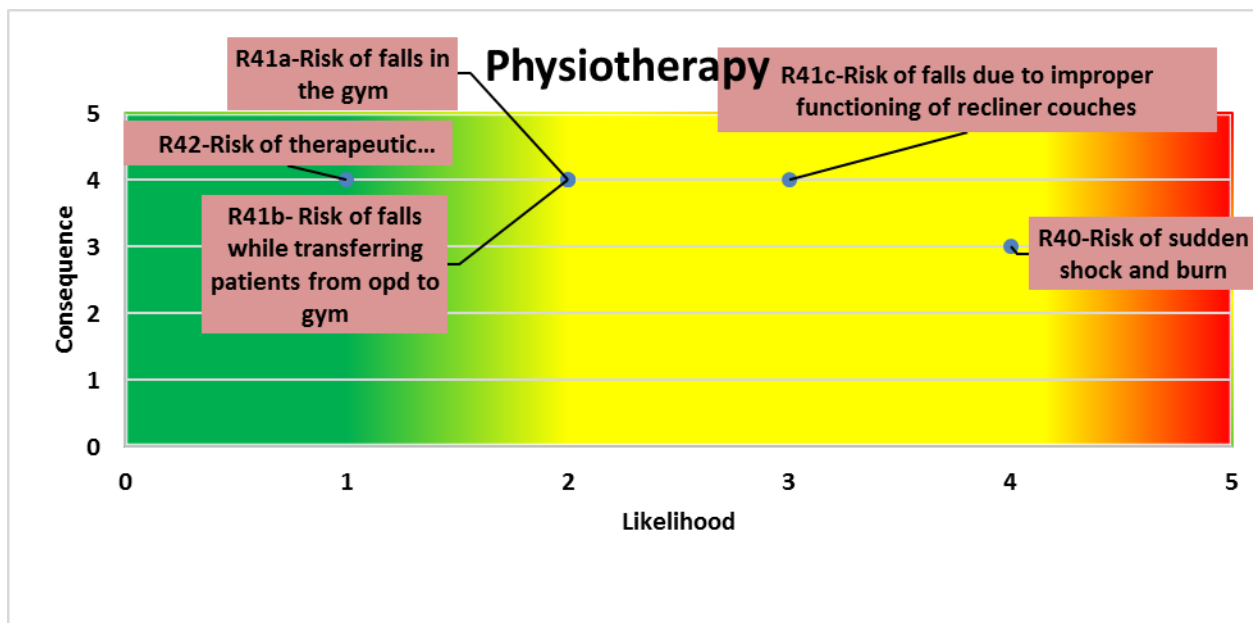


Figure-9

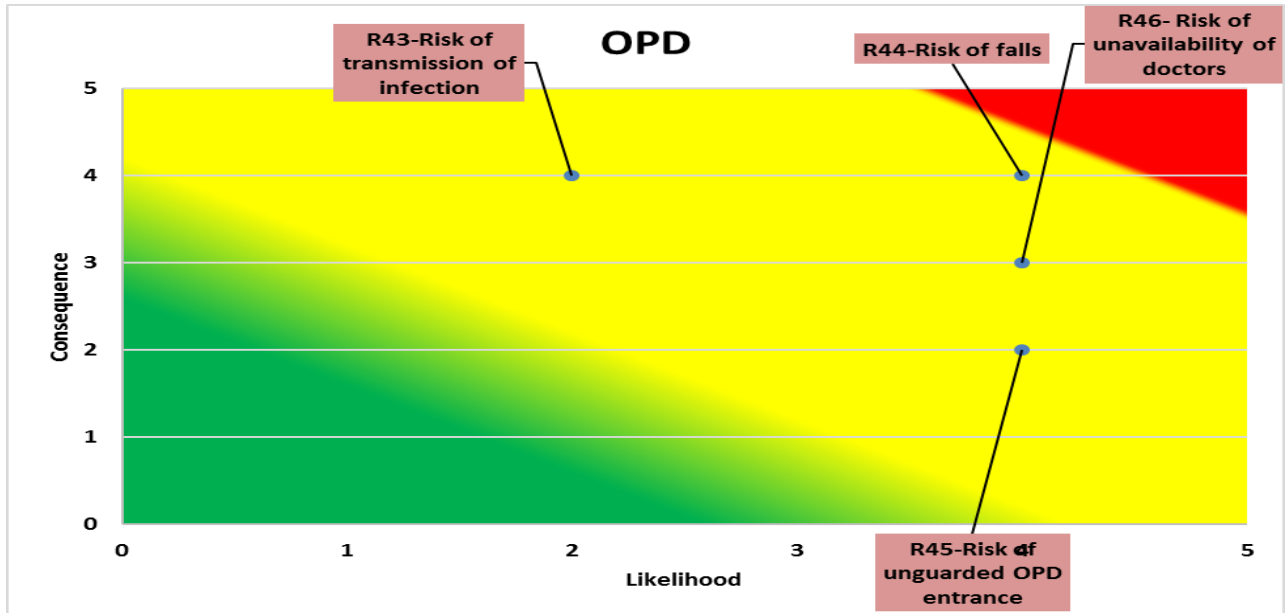


Figure-10

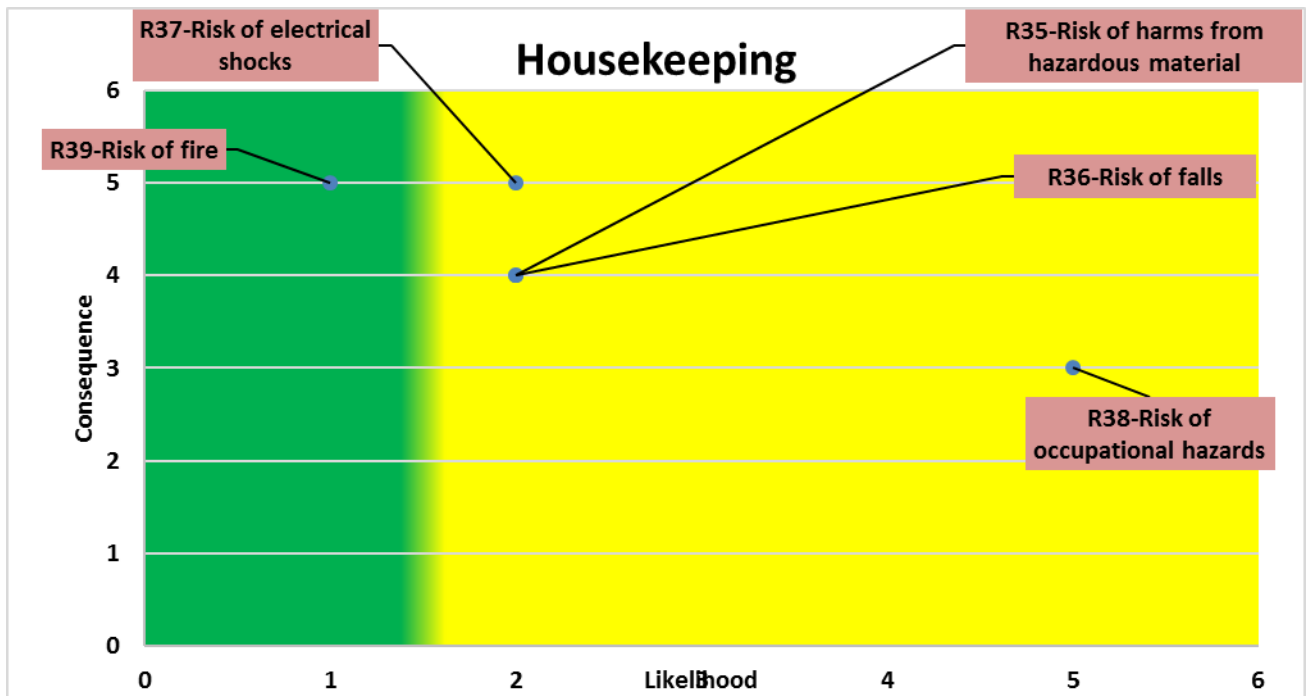


Figure-11

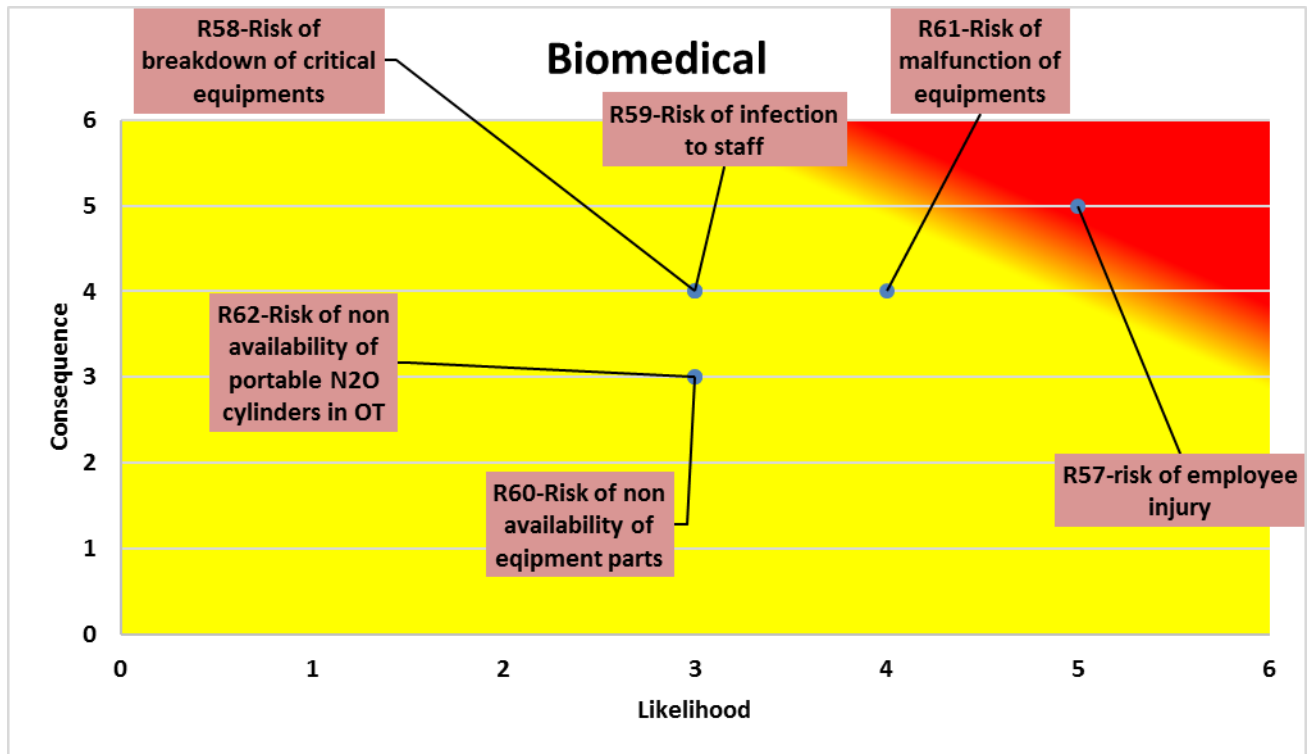


Figure-12

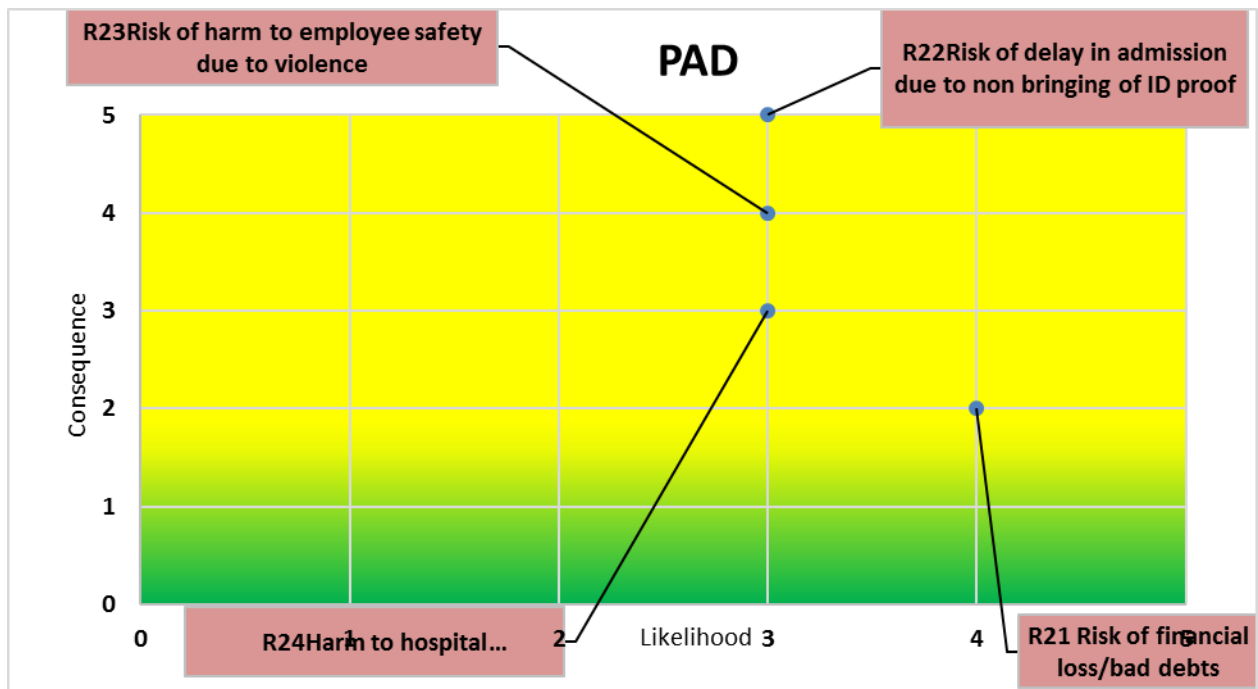


Figure-13

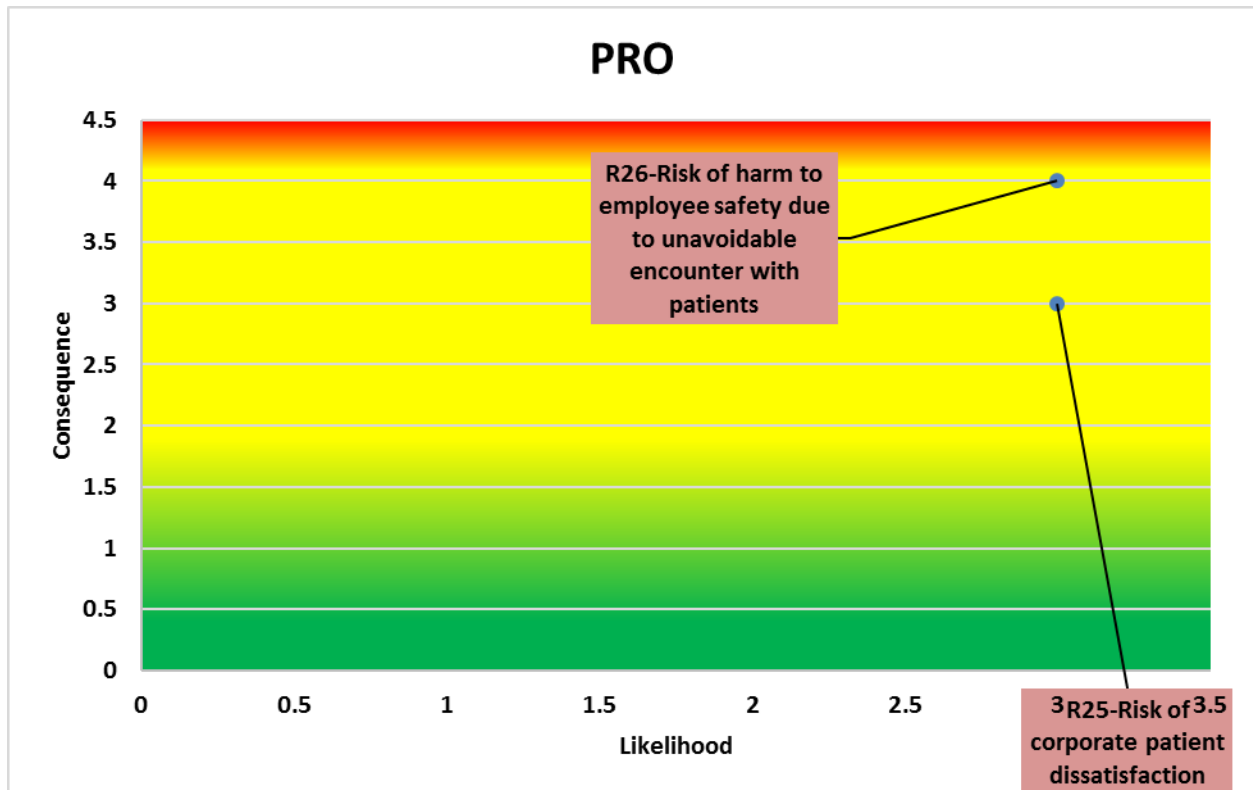


Figure-14

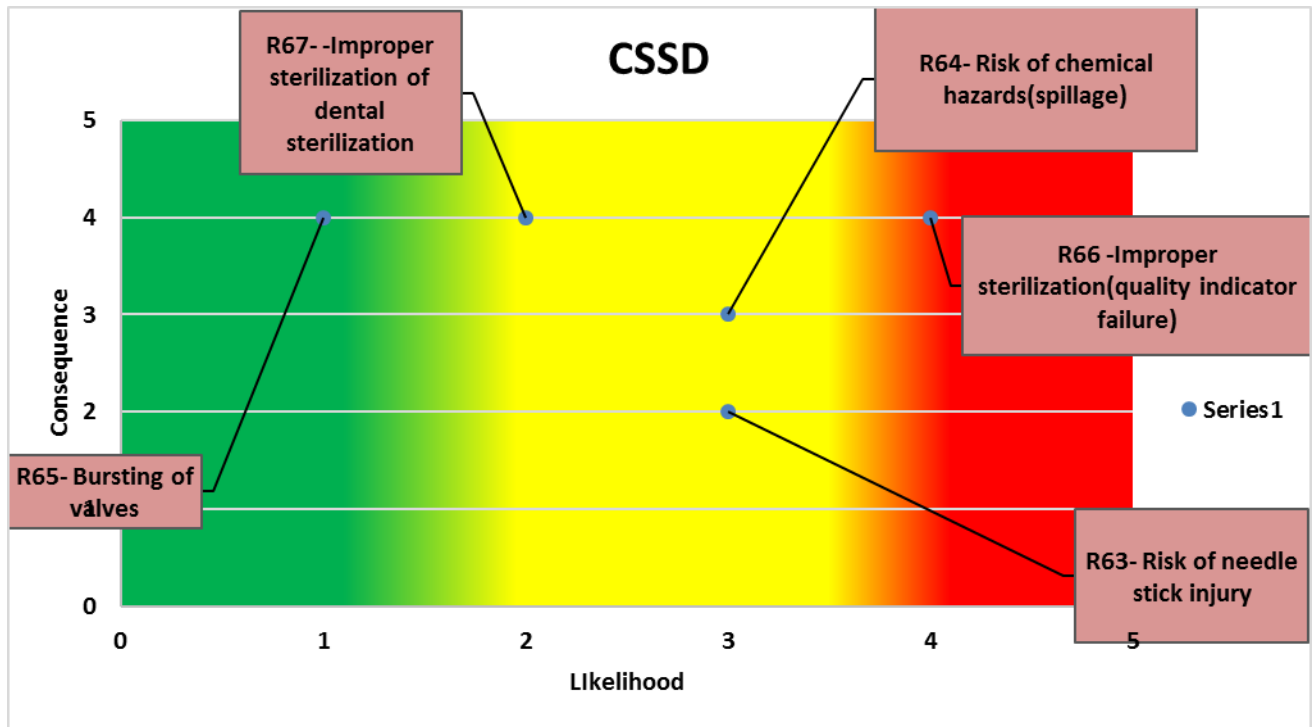
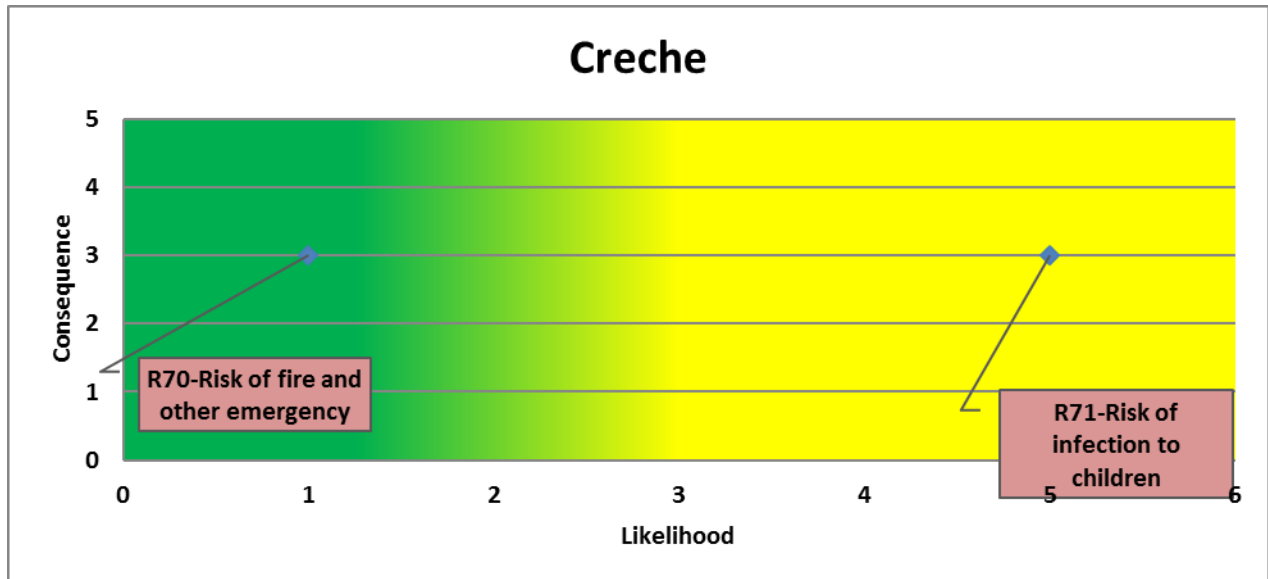


Figure-15



Risk Elimination

The risks with rating ≥ 10 were considered for “**elimination**” while the ones below 10 as initial risk rating were considered “**acceptable**”. However in case of nursing department, even if the initial risk rating was below 10, additional control strategies were suggested as this department serves as the primary point of contact with patients and the slightest of the risks also can have potential long term effects.

Risk Treatment

Additional control measures were suggested for the risks that were to be eliminated.

The following table shows the risks to be eliminated along with the additional control measures/strategies:

S.No.	Risk description	Consequences	Likelihood	Initial Risk rating	Risk reduction strategies/ additional controls required
1	Risk of injury to patients/staff and harm to the physical infrastructure due to fire resulting from: (A) Human negligence (B) Defects in Hospital equipment	5	2	10	Additional training to be provided.
2	Risk of injury/harm to employees due to mishandling of hazardous material • Improper storage • Lack of personal protective equipment • Improper training	4	3	12	A comprehensive training programme to be adopted consisting of: (i) Fire and safety measures (ii) Disaster management (iii) Handling of hazardous materials MSDS guidelines to be strictly implemented.
3	Risk of patient dissatisfaction due to maintenance of the rooms being compromised because of high occupancy rate.	2	5	10	Annual maintenance planner to be strictly implemented
4	Risk of error in reporting due to mislabeling of samples from the wards.	4	4	16	Semi-annual training for relevant staffs.
5	Risk of delayed patient care due to sample degradation resulting from improper sample collection technique/storage/transportation resulting in repeated sample	3	4	12	Semi-annual training for relevant staffs.

	collection as in case of hemolysis , inadequate collection(Quantity Not Sufficient) , sample loss etc.				
6	Risk of delayed patient care due to stock out of essential /critical drugs and other supplies like nebulizing kits/ oxygen cylinders etc.	4	3	12	Buffer stock alert system (IT support)
7	Risk of harm to the safety of employees because of violence/abuse by the patients because of -Lack of room availability/delay in admission and discharge. -Mis-communication. -Lapses in the clinical and support services.	4	3	12	Practice AIDET while communicating with patients.
8	Risk of delay in patient care (admission) because - patients do not carry the id proof/documents required for the admission process.	3	5	15	LED display screens informing the patient to bring their ID at the time of admission
9	Staff health risk of unavoidable encounter with patients who have communicable diseases such as Hepatitis, TB and etc.	4	3	12	Vaccinations or prophylaxis should be given to each staff.
10	Risk of harm to patients due to cross-contamination of raw/cooked food items resulting from improper handling during and after preparation of food items.	3	5	15	i) Holding temperature of the food items to be monitored regularly. ii) Supervision of food service personnel- which shall include work habits, personal hygiene and health.
11	Risk of inadequate patient care due to temperature alteration of the food because of: (A) Café delays (B) Inappropriate temperature settings of the food trolley (C) Inadequate temperature control(holding temperature)after receiving the food from the kitchen	3	5	15	Protected Meal Timings (PTM) to be followed.

12	Risk of not serving diet to the patient at appropriate time due to: lack of co-ordination between the staff.	2	5	10	Communication to be maintained at all stages of patient care.
13	Risk of occupational hazards: Needle Stick Injuries; Infections to the housekeeping staff during waste collection, segregation and disposal.	3	5	15	i) Proper and regular training for all staff ii) Waste shall be transported only in the waste trolleys and general and medical waste shall be transported separately. iii) Disposal of .Sharps container to be properly locked before transportation. iv) Information about the suspected cases to be provided to the housekeeping staff.
14	Risk of fire due to corrosive and inflammable materials being stored in wooden boxes in the housekeeping stores	5	1	5	Such Hazardous materials to be stored in a yellow hazardous metal box.
15	Risk of patient injury in the form of sudden shock or burn during delivery of electrotherapy modalities mostly using electrical stimulator.	3	4	12	Electrical stimulator to be replaced.
16	Risk of falls resulting from Improper functioning of wheels and brakes of recliner couches.	4	3	12	i) Couches to be replaced. ii) Patient to be educated about the risk before commencing the therapy.
17	Risk of falls in the outpatient settings due to Slippery floors/Tiles	4	4	16	i) Holding bars/Railing to be fixed along the sides ii) Gripping anti-skid sand work to be done in the area.
18	Risk of harm to the patient security due to unguarded OPD entrance	3	4	12	Security guard to be employed at the OPD entrance.
19	Risk of infection of the biomedical staff - while repairing infected equipment (e.g. blocked spittoon in dental department)	4	3	12	Vaccination for non-clinical staff /technical staff
20	Risk of employee injury in form of burns, asphyxia etc. -while handling/transporting high pressure cylinders containing oxygen, air and nitrous oxide.	5	5	25	Replace the high pressure cylinders (currently in use) with low pressure cylinders (with wheels).

21	Risk of transmission of infection to the children in creche due to: i) Overcrowding of children in the creche. ii) Lack of hand washing / hand hygiene practices being observed before and after diaper change iii) Lack of awareness among the staff regarding sources of spread of infection. iv) Lack of awareness on cleaning of biological spill like vomitus. v) No designated area for diaper change vi) Lack of cleaning schedule for the objects kept in the creche which can be a potential source of infection.	3	5	15	i) Focused training sessions on spread of infection, Biological spills like vomitus etc. to be organized for the creche staff. ii) A separate area close to the washroom to be identified for diaper change. iii) Regular housekeeping schedule to be followed.
22	Risk of harm to the patient safety -due to improper sterilization which may occur as a result of failure of quality indicators.	4	4	16	Strict monitoring of expiry dates of quality indicators
23	Risk of inadequate nursing care due to Incompetent / inexperienced nurses recruited, Lack of training for the nurses, Lack of specialization training programme in the market, lack of supervision, lack of motivation , lack of communication skills , computer skills High attrition/turnover of nurses.	2	3	6	(i). Conduct specialty based proficiency test during recruitment (ii). Provide regular internal and external CNE programmes to the nurses (iii). Schedule a shift in charge/SSN every shift only for supervision
24	Risk of patient safety incidents like fall, wrong patient identification, adverse events, sentinel events etc. due to non-compliance to existing policies and procedure, lack of awareness/ training, lack of supervision and negligence(nursing)	3	4	12	(i) Follow buddy and mentor system for all new staff (ii) Schedule a SSN in every shift only for supervision
25	Risk of inadequate assessment of patients due to wrong labeling of samples.	3	4	12	(i) Modifications in HIMS: block selecting an Inpatient by room and Bed No. (ii) Modification in existing policy and procedure as per the recommended practices. (iii) Training of staff on sample collection and labeling.

26	Risk of staff safety incidents (e.g. needle stick, fall, exposure to radiation,) due to ● Non-compliance to policy and procedures & Faulty Practices ● Lack of awareness/ training ● Lack of supervision ● Negligence	3	4	12	Needle Stick Injuries ● Implement the use of devices with safety features and evaluate their use to determine which are most effective and acceptable (i) use of roller for transferring patient (ii) Provide antiskid footwear for staff
27	Risk of hospital acquired infection (HAI) to patients and staff due to A)Non-compliance to policy and procedures on infection control, B)Lack of awareness/training, C)Lack of supervision D)Negligence	3	4	12	(i) Sponsor nurses to external infection control training programs (ii) Inspect various areas according to a defined calendar (iii) Perform annual health check for all staff
28	Risk of inaccurate or incomplete documentation due to A)Lack of awareness of protocols, B)Shortage of staff, Ignorance, C)Computer not available timely, D)Emergency/panic situation, D)Improper handover	3	4	12	Allocate adequate computer stations.
29	Risk of medication errors due to A)Lack of awareness/training, B)Lack of supervision, C)Negligence D)Prescription errors E)Verbal orders F)Emergency/panic situation G)Non-availability of prescribed drugs H)Expired/poor quality drugs	3	5	15	(i)A well-defined SOP on medication administration is maintained. (ii) Training to all new staff on medication administration protocol is provided (iii) All medication before administration by a clinical pharmacist is practiced (iv) Training on high risk and high alert medication policy is defined and provided. (v) Patients on infusion regularly monitored. (vi) Allergies of patients during initial nursing assessment confirmed and monitored. (vii) Training to/sensitize doctors on prescription related errors is provided (viii) Policies on verbal /telephonic orders is maintained and adhered to. (ix) Training to staff on emergency response (e.g. MET call) is provided (x) Escalate to treating doctor for substitute if prescribed drugs are not available (xi) Expiry date of all drugs in the wards

					regularly checked. (xii) medication s are stored as per guideline (xiii) medical record audit performed regularly (xiv) Incident reporting and corrective measures are performed xv) Training on sound-alike and look-alike medication
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Table 6 – Risk Treatment

Chapter 7- CONCLUSION

The risk register is an integral element of decision making and prove to be useful in implementing effective governance mechanism. It enables a strong focus on the management of key risks and issues in a manner that allows a shared understanding of the prioritization of control and mitigation activity in addition to the allocation of appropriate resources. Once an organization has implemented risk Management, it will begin to reap the benefits of improved visibility into all incidents, faster response time to all events, and increased safety in the workforce.

It is regarded as an integral competency of mature organizations. It provides a more coherent management framework, greater clarity in objectives and enhanced accountability and ultimately a much sounder basis for better longer term cost performance. It helps in protecting the organization from the adverse effects of risk .Thus it is very important for a healthcare organization develop and implement a framework for risk management.

Chapter 8 – LIMITATIONS

1. Due to time paucity (the period of dissertation being 3 months), the residual risk i.e. the risk left after the implementation of additional controls/strategies could not be calculated. Hence the effectiveness of the control measures could not be measured.
2. Also the financial resources required to implement the additional controls could not be determined.
3. The risk rating has been done based on perception (despite of standardization provided in Table 1 and table 2) and is likely to differ from department to department.

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