Management Control Framework In 5 Corporate Hospitals Of Delhi

Dr. Bhintra Thakur, Dr. Samragi Madan, Dr. Harish Satia

Abstract: Management Control is one of the most debated topics in the recent times. It has been associated with decentralization of work amongst employees to achieve desired objective consistently. Hospitals rely highly on management control systems for efficient functioning of the organization. Every hospital has different types of policies and regulations and they must comply with the rules and regulations for better functioning of the hospital. This paper discusses about gaps in each area of 5 corporate hospitals of Delhi and to suggest reforms to improve the overall functioning of the healthcare organization.

Keywords: SOPs, Control Framework, Non-Compliance, Quality

1. INTRODUCTION
Management is about organizing people in a manner that helps the organization achieve specific objectives. The management process wants to ensure different parts work together to achieve these goals. Management control is very important in any organization that performs its functioning by decentralizing the work between the manpower. Management control systems maintain the organization’s plan. This indicates that the strategy or plan is first established through a formal and rational process, and this strategy then dictates the design of the firm’s management systems. Another perspective is that strategies occur over experimentation, which is predisposed by the firm’s management systems. Management control systems can affect the progress of strategies. Management in any organization is simply the act of getting people together to accomplish desired goals. Management is completely done by planning, organizing, staffing, directing and controlling of an organization or the people who are working in Organization for achieving the goal. A control framework is a type of structure that organizes and classifies an organization’s functional internal controls, and procedures, set up to make an association worth and limit hazard. Planning and controlling in health care have received an increased amount of attention over the last ten years, both in practice and in the literature. This attention is due to an increase in demand for health care and increasing expenditures. Thus the health care organizations are trying to restructure processes more efficiently and effectively. Healthcare management is the area which consists of leadership, management, health care systems, hospitals, and hospital networks. Hospital Management is a resource for anyone with managerial responsibilities in a hospital to provide the most active patient care. Every hospital must comply with different types of policies and regulations and must follow all the rules and regulations for better management of the hospital.

The maintenance of policies and rules ensures to reduce the risk of accidents, improves efficiency, and helps to keep a good working environment for patients, staff, and visitors. For better functioning of the hospital and better quality of patient care, there are few guidelines which must follow by each key area. If the area is functioning according to the SOP compliance then the area gets compliance according to the performance which are 0=Noncompliance, 5=partial compliance, 10=Full compliance, NA=Not applicable.

2. AIM OF THE STUDY
To determine the gaps in each area for improvement of quality management and uniformity in performance in 5 different corporate hospitals of Delhi.

OBJECTIVES OF THE STUDY
- To find out non-compliance score of each hospital.
- Identify gaps in each area of hospitals.
- To calculate average non-compliance percentage in each area of the hospitals.
- To make report after analysis for betterment in future quality management of hospitals.

3. SIGNIFICANCE OF STUDY: -
The Management plays a very crucial role in hospital by improving patient care with the means of compliance protocol. SOPs aim to achieve consistency in performance of a particular function and acts as a reference for medical professionals to perform a function or task. This study is focused on 17 key areas which are related to the hospital function. This study focuses on the improved result which gives through SOPs guidelines. Specific area related guidelines are constructed and have to be followed by each key area which is Medical Admin, Consent, MTP, HR, MRD, Biomedical waste, Narcotics, High-risk meds, Blood bank, Biomedical Engineering, CSSD, Surgical safety checklist, OT, ER, Radiology, Quality, Organ transplantation. The compliance protocol not only benefits the organization but also benefits the patients, for which if not followed will destruct the quality of patient care and functionality of the hospital.

4. REVIEW OF LITERATURE:-
According to this study, the research on quality enhancement and performance estimation on health care
sector and on hospital, there seems, by all accounts, to be a need to consolidate the different models or ways to deal with execution and quality improvement. This paper introduces a knowledge-based system for assessing the performance of a hospital utilizing a model dependent on the Singapore Quality Honor (SOA) criteria and the decent scorecard (BSC) approach. A particular contextual analysis of a public division hospital in Singapore is given to outline how the SQA and the BSC can be incorporated to help a public sector hospital implement and oversee performance-based programs. Generally, while confinements and usage difficulties exist, the starter results propose that hospital can likewise utilize this way to deal with their preferred position, yielding supportive improvement in patient fulfillment and better inter-departmental correspondence. A particular contextual analysis of a public division hospital in Singapore is given to outline how the SQA and the BSC can be incorporated to help a public sector hospital implements and oversee performance-based programs. Generally, while confinements and usage difficulties exist, the starter results propose that hospital can likewise utilize this way to deal with their preferred position, yielding supportive improvement in patient fulfillment and better inter-departmental correspondence. Through this system, hospital can make on better quality choices dependent on structured measurement and knowledge. (Clare et al, 2002). According to this research Quality parameters are essential to health care managers as they could deliver valuable insight into how care is being introduced. Quality parameters are measures of health care quality that may employ comfortably available health facility administrative information (e.g. Inpatient records). In healthcare, clinical and performance indicators are factors that can be measured and might act as hints to the satisfactory of care, this is, and they are not classic Measures. Indicators can act as an important flag for any situations that is probably incorrect and need to be additional analyzed, indicating both the presence and absence of potentially bad practices or results. Indicators want to be dependable and applicable, where reliability refers to steadiness of dimension and validity refers back to the degree to which an indicator measures what it’s far meant to degree. Performance signs have been increasingly utilized in many nations to measure and enhance the excellent of hospitals. They can be utilized for public reporting (to give clearness in health care), quality improvement, comparisons (benchmarking/score), pay-for-performance, or studies and also can be of wonderful significance for the surveillance of health care quality. This paper explains the expansion of a framework for the invention and analysis hospital quality indicators. The framework consists of a hard and fast of countywide and global evaluated measures that may be calculated the usage of already to be had data. The evolved web-based totally framework is intuitive, consumer-friendly and is being continuously advanced the use of customers’ feedback. It considers chance elements and allows comparing measures between time periods and additionally between hospitals and areas (benchmarking). (Alberto Freitas et al). The main region behind this study is to present application of logical framework for implementing continuous quality improvement across all departments in a tertiary care hospital. Logical framework analysis was implemented within three numerous settings, particularly, intensive care unit, surgical ward, and psychiatric ward. Firstly problem trees are advanced in order to determine the basis reasons of quality issues, unique to the three settings. Second, objective tree are fashioned suggesting answers to the best issues. Third, project plan template the usage of logical framework (LOGFRAME) is created for every placing. LFA proved to be efficient to analyze quality problems and propose improvement measures objectively.LFA enables managers to find an integrated view of performance. It also gives a basis for additional quantitative research on quality management throughout the recognition of key routine indicators and facilitates the advancement of a business case for improvement. (Sandra C Buttigieg, et al, 2016).

6. RESEARCH METHODOLOGY

6.1 INCLUSION CRITERIA: -
In this study, 17 key areas were included, and each area has a different checklist which has to be followed by each area. 17 key areas which are included in this study were: - Medical Admin, Consent, Medical termination of pregnancy, Human Resource, Medical Record Department, Bio-Medical Waste, Narcotics, High-Risk Meds, Blood Bank, Biomedical Engineering, Central Sterile Service Department, Surgical Safety Checklist, Operation theater, Emergency room, Radiology, Quality, Organ Transplant.

6.2 RESEARCH DESIGN:-
Analytical Research

6.3 SAMPLING TECHNIQUE:-
Convenience Sampling

6.2 DATA COLLECTION TOOL
This study had done on 5 different hospitals and 17 key areas had been included in this study, data had been collected from every single hospital from January to December (2018). Based on hospital data final summary and result has come out.

6.3 PROCEDURE
One-year survey of data from 5 different hospitals was tracked for 17 key areas from January’18 to December’18. SOP compliance report was compiled for each checklist of every key area.

7. DATA ANALYSIS
1. MEDICAL ADMIN: -
In medical admin area 2 hospitals had non compliance of >5% and 3 hospitals had non compliance <5%. Key reasons identified were: -
1. All deaths were not screened within 7 days in CTOT and Transplant cases.
2. All Code Blues of the month in Emergency Department were not analyzed as a new ER physician had joined.
3. Monitor compliance to de-escalation protocol as per the AMS Guidelines were not being followed in wards.
4. Quality team did not update List of High-Risk Procedures for the Hospital.

2. CONSENT: -  
Non compliance in consent received by the patient was observed in only 1 hospital with a score of 7%. Key reasons were:
1. In cases of Adolescents, non compliance owing to non-availability of immediate family members.
2. When a patient cannot give Informed Consent, surrogate consent according to Hierarchy of consent was not obtained.

3. MEDICAL TERMINATION OF PREGNANCY: -  
No non-compliance identified in any hospital.

4. HUMAN RESOURCE: -  
All hospitals showed high non compliance score with highest of 12% and minimum being 6%. Key issues were:
1. Doctors awaiting registration for highest qualification with either MCI/SMC.
2. Renewal of registration with SMC/MCI was pending.
3. Only 50% of healthcare professionals existing/new were ACLS/BLS trained for working in ER, ICU & Cath Lab.
4. Verification of credentials of all new Doctors, Nurses & Technicians was pending as verification was being carried out by third party.

Graph depicting non compliance scores for medical admin, Consent, MTP and HR areas

5. MEDICAL RECORD DEPARTMENT: -  
In medical record department 2 hospitals showed >5% non compliance score and 3 hospitals scored <5%. Major issues were:
1. Contract with the outsourced vendor was not valid/has been expired/renewal of agreement under process.
2. Proper ICD Coding had not been done for all MLC, Death, Transplant cases.
3. Death Summaries were not received within 2 working days especially for CTVS cases.
4. For Transplant cases, the MRD has to check the recording in the CDs/DVDs (Committee Meeting & Consent) before filing the same. Checking the same was not being done timely.
5. Pending files from MICU, PICU, NSICU, General ward after 2 working days due to incomplete files (consent etc)
6. Monthly Medical record Audit by the Quality Department for prescribed samples, had not been received on time.

6. BIOMEDICAL WASTE: -  
All hospitals had < 5% non compliance score. The lowest being 1%.
Key reasons:
1. Renewal of valid consent from the State Pollution control board to generate, dispose of, etc. the Bio-Medical Waste.
2. Induction training on BMW for all new joinees.
3. Sewage Treatment Plant under renovation.
4. Non implementation of Chlorinated BMW Bags, Blood Bags & Gloves.

7. NARCOTICS: -  
In Narcotics Area 2 hospitals showed >6% non compliance score and 3 hospitals scored <5%. Major issues were:
1. Narcotics license with a (correct name & date has not expired) applied for renewal.
2. For renewal of the recognition as a Recognized Medical Institution not applied before 60 days of expiry date due to late submission Pharmacy license was suspended for few months.
3. Annual Return Submitted according to the financial year not calendar year.

8. HIGH-RISK MEDS: -  
No gaps were identified in high-risk Meds area.
9. BLOOD BANK: -
In Blood Bank area all hospitals had a non compliance score of less than <3%.
Key reasons:
1. Blood bank license issued by Central/State Authority in process.
2. For blood donors, latest questionnaire & latest consent form not received.
3. Blood Bank License was due for renewal/renewal was under process.
4. Few items (reagent, consumables, and medicines) had expired due to non-usage.

10. BIO MEDICAL ENGINEERING: -
No Gaps were identified in Bio Medical Engineering area in any hospital.

11. CENTRAL STERIAL SERVICE DEPARTMENT (CSSD): -
In CSSD area only 1 hospital showed non compliance with a score of 4%.
Reason of non-compliance:
Lot number and date of sterilization was not mentioned in ETO Sterilizer Record File/CSSD Register as printer was under repair.

12. SURGICAL SAFETY CHECKLIST: -
All 5 hospitals had < 6% non compliance score.
Key reasons:
1. Central Surgical Safety Checklist SOP rolled out by MSOG not followed accordingly.

Graph depicting non compliance scores for MRD, Bio Medical Waste, Narcotics and High risk meds areas.

Graph depicting non compliance scores for Blood Bank, Bio medical engineering, CSSD and Surgical safety checklist areas.

13. OPERATION THEATRE: -
In Operation theatre area 3 hospitals had non compliance of .5% and 2 hospitals had non compliance score of <5%.
Key reasons:
1. In renal transplant surgeries patients were accepted in Pre-op area with incomplete informed consent.
2. The Radiation monitoring device (TLD badges) were not worn by all OT staff exposed to x-ray/radiation field.

14. EMERGENCY ROOM: -
In Emergency room only 3 hospitals showed non compliance of 1%.
Reason
In ER, ACLS training was pending for new medical practitioners.

15. RADIOLOGY: -
In Radiology area only in 1 hospital showed non compliance score of 15%, while other 4 hospitals had non compliance of <2%.
Key reasons:
1. Renewal license for CT scan machines from AERB not done timely.
2. Bilingual display of Radiation Safety Signage boards were only in English, at the entrance of the room housing the Radiation Generating Equipment (e.g. X-Ray, Cath Lab, CT scan).
3. Issue of TLD batches for new joinees were pending.
4. The RSO was not monitoring safety & documentation.
5. PNDT Authorities were not being informed timely(within 7 Days) of any changes in concerned staff.
6. At the time of employment of workers in Radiation Area, their dose records and health surveillance reports were not taken from their former employer.

16. QUALITY: -
In Quality area 3 hospital showed non compliance score >10% highest were 17% and 2 hospital showed 0% non compliance score.
Key reasons:
1. M &M committee, OT Committee, Ethics committee, HR Committee, Blood transfusion committee, CPR Committee meeting minutes from the respective Convener not received within 7 days.

17. ORGAN TRANSPLANTATION: -
In Organ Transplantation area only 1 hospital showed high non compliance score that is 9% and others hospitals showed 0% non compliance score.
Key reasons:
1. License inspection for renewal was not done.

Graph depicting non compliance scores for Operation theatre, emergency room, radiology, and Quality and Organ transplantation.

8. RESULTS: -
In this case study, data from 5 hospitals was examined from Jan - Dec 2018. The motive has to ascertain the SOP compliance of hospitals and to unfold the reasons behind non-compliance. 17 key areas were covered and studied in depth.
The SOP Areas with their findings are: -

1. Medical Admin - In medical admin area 2 hospitals had non compliance score of >5% and 3 hospitals had non compliance score of <5%

2. Consent - Non-compliance in consent area was observed only in 1 hospital with a score of 7%.

3. Medical termination of pregnancy - No non-compliance identified in any hospital.

4. Human resource: - All hospitals showed high non-compliance score with highest of 12% and minimum being 6%.

5. Medical record department: In medical record department 2 hospitals showed >5% non-compliance score and 3 hospitals scored <5%.

6. Bio-Medical Waste - All hospitals had < 5% non-compliance score. The lowest score being 1%.

7. Narcotics - In Narcotics area 2 hospitals showed >5% non-compliance score and 3 hospitals scored <5%.

8. High-Risk Meds - No non-compliance identified in High-Risk Meds area.

9. Blood Bank - In Blood Bank area, 2 hospitals had shown non-compliance of 3% and remaining 3 hospitals had 0 non-compliance score.

10. Bio Medical Engineering - No non-compliance was identified in Bio Medical Engineering area:

11. Central Sterile Service Department: - In CSSD area only 1 hospital showed non-compliance with score 4%.

12. Surgical Safety Checklist: - All hospitals had < 6% non-compliance score.

13. Operation theatre - In Operation theatre area, 3 hospitals had non-compliance of >5 % and 2 hospitals had non-compliance score of <5%.

14. Emergency room - In Emergency room, 3 hospitals had shown 1% non-compliance score and 2 hospitals had 0 non-compliance score.

15. Radiology - In Radiology area, only 1 hospital had a high non-compliance score of 15% while in others it was <2%.

16. Quality - In Quality area, 3 hospitals had non-compliance score of >10%, highest being 17% while remaining 2 hospital had 0 non-compliance score.

17. Organ Transplantation - In Organ Transplantation area only 1 hospital had high non-compliance score of 9% and other hospitals had 0 non-compliance score.

9. DISCUSSION AND RECOMMENDATIONS
The purpose of this study is to use SOPs guidelines for better functioning of the hospital. Management control is very important in any organization that performs its functioning by decentralizing the work between the manpower. The management control system maintains the organization's plan. Study was focused on 17 key areas of hospital which are: -Medical Admin, Consent, Medical termination of pregnancy, Human Resource, Medical Record Department, Bio-Medical Waste, Narcotics, High Risk Meds, Blood Bank, Biomedical Engineering, Central Sterile Service Department, Surgical Safety Checklist, Operation theater. Emergency room, Radiology, Quality, Organ Transplant. Each area has a different SOPs guideline for better functioning of hospital every area has to
follow these guidelines, if these guidelines are not followed by each area, they will get a score of 0 (noncompliance) and if they are following few guidelines on the basis of this they will get a score of 5 (partial compliance), if area is following all the guidelines they will get score of 10 (full compliance). Based on this compliance score, a report was made and sent back to the hospital for future betterment.

From the above mentioned results we have observed that out of 17 key areas studied, three areas namely – Medical Termination of Pregnancy, High Risk Meds and Bio Medical Department had no compliance issues in any of the 5 healthcare organizations.

Four key areas – Consent, Central Sterile Supply Department, Radiology and Organ Transplantation had compliance breach only in one hospital. The remaining 10 areas under the study had non-compliance issues. The reasons for such non-compliance were studied in detail so that they can be eliminated.

Some important criteria where breach in compliance was observed were:-

1. Medical Admin:-
   - All deaths should be screened within 7 days.
   - Updating the list of High Risk Procedures in a hospital.
2. Human resource
   - All Doctors should be registered for the highest qualification with either MCI/ SMC.
   - All the doctors working in ER, ICU and Cath-Labs should have ACLS training.
   - All healthcare workers should at least be trained in BLS.
3. Blood Bank:-
   - Blood Bank License renewal application should be sent for renewal 3 months before expiry.
   - There should not be any expired items on-board (reagents, consumables, medicines).
   - For blood donors, always use questionnaire & latest consent form as per the SOP.
4. Operation theatre:-
   - Accept patients in the Pre-op-area only with a completed & signed informed consent.
   - The Radiation monitoring device (TLD badges) should wear be worn by every OT staff exposed to x-ray/ radiation field.
   - OT rounds should be conducted as part of OT Committee meeting.
5. Narcotics:-
   - Should have a valid Narcotics license with (correct name & timely renewal).
   - Renewal of recognition as a Recognized Medical Institution should be sent to Controller of Drugs at least 60 days before the expiry of previous/current recognition.
6. Medical record department:-
   - Contract with the outsourced vendor should be valid & not expired.
   - All Death Summaries must be received within 2 working days.
   - Always ensure that consents are complete in all files.
   - Check to ensure that ICD Coding has been done for all files on time.

7. Biomedical waste:-
   - There should be a valid consent from the State Pollution control board to generate, dispose Bi-Medical Waste.
   - In case Registration/License is about to expire after 3 months, the application for renewal of License should be submitted.
   - Initiate the process for phasing out of Chlorinated BMW Bags, Blood Bags &Gloves.
   - Immunization (at least Hepatitis B & Tetanus) to be done for all Health care Workers.
8. Emergency Room:-
   - All staff working in the ER should be trained in ACLS.
9. Radiology:-
   - Crash cart should be maintained and checked on daily basis with proper documentation.
   - Inform PNDT Authorities (within 7 Days) of all changes in concerned staff.
   - Take written consent before performing Pre-natal diagnostic procedures in the prescribed format from all patients (Form-G) & comply with all the terms and conditions of the registration/license.
10. Organ Transplant:-
    - Organ Transplant License should be valid (has correct present hospital name, correct surgeon(s) name, proper signature, license issued for organ applied for, no use of ambiguous term like Homograft/ Intra-Abdominal Organs, etc.).
    - Medical Consents should be signed by the patients themselves (& nobody else), unless the patient is physically or mentally incapable of signing.
11. Quality:-
    - Receive all committee meeting minutes from the respective Conveners on time (within 1 week of meeting).

12. Consent:-
    - In cases of Adolescents, ensure that the consent is signed by both the patient & a parent/guardian.
    - When a patient/individual cannot give Informed Consent, strictly follow consent Hierarchy as defined in the consent SOP, to obtain surrogate consent.

The failure to ensure such compliance poses a continuous problem to the quality of healthcare offered.

**10CONCLUSION:**

In this study we found, some key areas have major non-compliance issues but for better functioning of the hospital, 0% non-compliance should be the target. All these areas are important for proper functioning of the hospital, and will also benefit patients. Progress in compliance can be achieved by taking certain necessary measures and making it a continuous process rather than one time effort. Important aspects which require immediate attention are the following. Updated MCI/ SMC registrations of all doctors with no pending renewals. Timely training in ACLS/BLS of all old and new employees. All Registrations/Licenses should be up to date and application for renewal should be sent 3 months before expiry. Strict implementation of
consent Hierarchy as defined in the consent SOP, to obtain surrogate consent when a patient/individual cannot give Informed Consent. Frequent audit rounds should be conducted to ensure compliance of best practices and to avoid breach in quality. These few factors will improvise the health quality indicators of the hospital by a great deal and also improve compliance score leading to better healthcare provision for patients thereby increasing the efficiency of the hospital.

11. LIMITATIONS OF STUDY
The data had been collected by the auditor and the data was compiled and validated centrally based on their findings, as this was an observational study. All the checklists are given by the Fortis SOPs and have to follow these for better functioning of the hospital.
- The data is collected by the auditor based on which the report has been made.
- As the data was not collected by the researcher personally so there can be any kind of bias.

12. FUTURE PROSPECTS OF STUDY
In this study, 17 key areas were included, and the study had been focused on these 17 areas. Each area has a different Fortis SOPs guideline and these guidelines have to follow by each area. Based on guidelines scores are given and compliance can be checked. In each area, internal auditing must be carried out regularly for better functioning of the area. There are some other key areas which can be included like committees (CPR analysis committee, Radiation committee, Infection control committee, Mortality & Morbidity committee), Anti-microbial stewardship (AMS), Incident reporting, etc.

13. REFERENCES
[2] https://study.com/articles/Medical_Administrator_Salary_and_Career_Information.html