EVALUATION OF KNOWLEDGE ASSESSMENT, TRAININGS & MOCKDRILL ON COMPETENCE & COMPLIANCE WITH NABH STANDARD AMONG HOSPITAL STAFF

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in

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By

Meenal Mahajan

Under the Supervision and Guidance of

Dr Arindam Das

2024

CARE
CHL
HOSPITALS

Dated: 21/06/2024

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Dr. Meenal Mahajan** a student of **MBA-Hospital & Health Care Management of IIHMR University,** has undergone internship in the department of Quality & Accreditation from **15th April 2024** to **15th June 2024**. She was placed by her college as a part of her academic curriculum.

We found her performance satisfactory and we wish her all the best for her future endeavours.

For – CARE CHL HOSPITALS , INDORE

Pooja Jaiswal
AGM-Human Resource

CARE CHL HOSPITALS INDORE

DECLARATION BY STUDENT

I hereby declare that this dissertation titled **"Evaluation of Knowledge Assessment, Trainings and Mock drill on competence and compliance with NABH Standard among hospital staff"** is the Bonafede record of my original researchwork. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Signature

Name of the student

Dr Meenal Mahajan

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that dissertation titled "**Evaluation of knowledge assessment, trainings & mockdrill on competence and compliance with NABH standards**" is a record of the research work undertaken by **Dr. Meenal Mahajan** in partial fulfillment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and ~~his~~/her approach to the research study has been sincere, scientific, and analytical.

Arindam Das, PhD
Faculty Guide
IIHMR University, Jaipur
Date

Dr. Sanjay Gupta
School Dean
IIHMR University, Jaipur
Date 04/07/2024.

ABSTRACT

Introduction:

Ensuring high standards of patient care is crucial & essential in the healthcare sector. The National Accreditation Board for Hospitals & Healthcare providers (NABH) establish stringent quality standards in India, necessitating ongoing staff training for accreditation. This dissertation investigates the effectiveness of knowledge assessments of Trainings & mock drill in enhancing staff competence & compliance with NABH standards. By evaluating performance before and after these training interventions, the study aims to offer insight into effective training practices & their impact on healthcare quality.

Objective:

The thesis aims to evaluate the impact of knowledge assessments, training programs, and mock drills on hospital staff competence and compliance with National Accreditation Board for Hospitals & Healthcare Providers (NABH) standards. It examines the changes in staff adherence to these standards post-intervention and explores how structured training programs influence the overall quality of healthcare delivery in hospitals.

Methodology:

The study employs a pre-test and post-test design to assess the impact of interventions on hospital workforce knowledge and practices at CARE CHL Hospital, Indore. This 200-bedded multispecialty hospital provides a suitable setting for the study, which involves 150-200 staff members directly engaged in patient care. Using a combination of stratified random sampling and systematic sampling techniques, participants were selected based on specific inclusion criteria, such as minimum employment duration and willingness to participate. Data collection was structured into pre-intervention, intervention, post-intervention, and reporting phases, utilizing questionnaires, observational checklists, and standardized knowledge assessments to evaluate the outcomes and appropriate measures will be taken to ensure ethical considerations, such as informed consent, data security, privacy, and confidentiality.

Expected Outcomes:

The study is anticipated to demonstrate that knowledge assessments and training mock drills significantly enhance hospital staff competence and compliance with NABH standards. The pre- and post-intervention evaluations are expected to reveal marked improvements in staff performance, adherence to protocols, and overall quality of patient care. By identifying effective training practices, the research aims to provide actionable insights for hospital administrators to enhance accreditation processes and ensure sustained high standards in healthcare delivery. The findings are likely to underscore the importance of continuous education and practical training in maintaining and improving hospital quality standards.

Conclusion:

This dissertation concludes that knowledge assessments and training mock drills significantly enhance hospital staff competence and compliance with NABH standards, leading to marked improvements in the quality of patient care. By systematically evaluating performance before and after the training interventions at CARE CHL Hospital, Indore, the study demonstrates that structured training programs are effective in promoting adherence to quality standards, thereby fostering better healthcare delivery. These findings underscore the importance of continuous training and assessment in achieving and maintaining high standards of patient care in healthcare facilities.

Keywords:

Competence, Compliance, Knowledge Assessments, Training, Mock Drill, NABH Standards, Patient Care Quality, Pre-Test, Post-Test

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Finally, I would like to thank the entire team at CARE CHL Hospital for their cooperation and assistance, making my internship a fruitful learning experience. Your collaborative spirit and dedication to quality healthcare have greatly inspired me.

I perceive this opportunity as a significant milestone in my career development. It has helped me acquire valuable skills and knowledge, and I will continue to work on their improvement to achieve my desired career objectives

This dissertation would not have been possible without the collective support and encouragement of all these individuals. Thank you all for contributing to my professional growth and the successful completion of this project.

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Abbreviations

AAC: Access Assessment & Continuity of care

COP: Care of Patients

MOM: Management of Medication

PRE: Patient Rights & Education

HIC: Hospital Infection Control

PSQ: Patient Safety & Quality Improvement

ROM: Responsibilities of Management

FMS: Facility Management & Safety

HRM: Human Resources Management

IMS: Information Management System

Chapter 1: Introduction

It is essential to ensure high levels of patient care in the healthcare field. In India, The National Accreditation Board for Hospitals & Healthcare Providers (NABH) has established strict quality benchmarks for which continuous staff training is required if they are to be accredited. This paper is about how effective knowledge assessments and mock drills are when it comes to raising employee's abilities and ensuring they comply with NABH's policies.". By evaluating performance before and after these training interventions, the study aims to provide insights into effective training practices and their impact on healthcare quality.

Problem Being Investigated

A major challenge that many healthcare facilities face is that they do not adhere to NABH standards programmatically due to the differences in the extent of competence and awareness among the personnel. The aim of this research lies in the identification of the means to

the research problem of staff incompetence and lack of compliance whereby the following shall be assessed for their efficiency:

There are many individual methods including; knowledge-based assessments, and simulations.

In their theoretical framework, Kurilovas and Vvein's identify that the problem of student learning in large groups is one of increasing importance in Lithuania.

NABH accreditation is one of the premier quality indicators for the healthcare industry of the country. Achieving this accreditation guarantees that various hospitals offer quality services in handling patients; thus, improving their status and operational efficiency. Nevertheless, sustaining the NABH standards is very demanding, in which hospital staff needs to move through a learning spectrum, informing them about the disease. CARE CHL Hospital

The present study is located in Indore and the setting is a 200-bed multispecialty hospital in which the above role will be performed. useful setting in which to study the effects of training interventions for a large and engaged population healthcare workforce.

The relevance of this study can be summarized in the idea that finding out intervention practices that can be implemented in other facilities that provide healthcare with an aim of improving the level of NABH compliance standards. In this instance it is proving that staff knowledge assessments and mock drill how it positively affects the staff competence and compliance, this study seeks to provide a north to the overall attempt of enhancing healthcare quality in the different sectors of the healthcare delivery system.

Aims and Objectives of the Study

The specific aims and objectives of this study are:The specific aims and objectives of this study are:

Evaluate the effects of the knowledge assessments and the implementation of the training mock drills on the hospital staff competence regarding NABH standards. Assess the increase in the level of hospital staff compliance to NABH standards after use of knowledge assessments as well as also using mock drills. Analyse the connection between structured training programs and knowledge. the effectiveness of the predefined assessments and mock drills and the general quality of the healthcare centers in the operating hospitals.

Overview of NABH

The National Accord Itation Board of Hospitals & Healthcare Providers (NABH) in India lays out guidelines in its 5th edition; the standards are arranged under ten topical chapters. These are set to maintain quality delivery of healthcare services and protection of patients as achieved in the accredited facilities. Patient centered care and safety is the first chapter where the roles of attendant/caregiver should respect the rights of the patients informed consent. Sections of the book that relate to patient assessment, care continuity, and pharma concentrate on area 2 and involves chapters three to five and management of medication. Chapter 5 and 6 focus on infection control and facility supervision, while the second one is related to the maintenance of management, which focuses on hygiene measures and infrastructures.Chapters 7 to 9 focus on staff qualifications, training, and safety protocols, ensuring competent workforce practices. Finally, Chapter 10 emphasizes continuous quality

improvement through regular audits and feedback mechanisms, promoting sustained excellence in healthcare services. The chapters are illustrated in table 1.1 below. These standards collectively aim to uphold high-quality care standards and improve patient outcomes across healthcare institutions in India.

Table 1.1: Chapters for NABH standards

Category/ Type	**Chapters**
Patient- centric Chapter	AAC COP MOM PRE HIC
Organization centric Chapter	PSQ ROM FMS HRM IMS

Chapter 2: Review of Literature

S. No	**Title of the Study**	**Author and Study Year**	**Methodology and Sampling Technique**	**Salient Features**

1.	To Assess Effectiveness of Plan Teaching Programme on National Accreditation Board for Hospitals and Health Care Providers (NABH) Guidelines Among Newly Recruited Staff Nurses at Krishna Hospital, Karad	Kapurkar KS, Jagadale SA, Babar RV (2015)	Evaluatory survey approach with one group pre-test, post-test design Purposive sampling of 51 newly recruited staff nurses	- Assessed knowledge and practice of NABH guidelines among new nurses - Used questionnaire to measure knowledge and practice scores - Conducted pre-test, implemented teaching program, then post-test - Found majority had average knowledge (19.38%) and practice (17.85%) post-intervention - Knowledge and practice scores improved significantly from pre-test to post-test - Results indicate effectiveness of teaching program in improving NABH guideline awareness
2.	A study to assess the knowledge of NABH accreditation standards and quality improvement among intensive care unit staff	Marry Minolin T, Kamali M, Kalabarathi S (2023)	Quantitative approach with descriptive research design. Simple random sampling of 60 ICU staff nurses.	Assessed knowledge of NABH standards and quality improvement among ICU nurses Used self-structured questionnaire to collect data Found 28.3% had moderately adequate knowledge and 71.7% had adequate knowledge

	nurses			Significant association found between knowledge level and nurse qualification (p=0.050) Recommended continued education on NABH standards for nurses Highlighted importance of accreditation for healthcare quality and patient safety Conducted in ICU of Saveetha Medical College and Hospital Excluded nursing supervisors and matrons from the study
3.	A Study on Quality Improvement and Awareness of NABH Accreditation Standards in A Cardiac Speciality Hospital	N. Junior Sundresh, Anupriya Jose, and Sandeep Muraleedharan (2016)	Descriptive study conducted in a 200-bed super specialty cardiac hospital. Assessment based on NABH pre-accreditation entry level standards. Data collected through observation, interviews, audits, and	Descriptive study conducted in a 200-bed super specialty cardiac hospital. Assessment based on NABH pre-accreditation entry level standards. Data collected through observation, interviews, audits, and structured questionnaires.

			structured questionnaires.	
4.	Training of Hospital Staff to Respond to a Mass Casualty Incident	Edbert B. Hsu, Mollie W. Jenckes, Christina L. Catlett, Karen A. Robinson, Carolyn J. Feuerstein, Sara E. Cosgrove, Gary Green, Otto C. Guedelhoefer, and Eric B. Bass, April 2004.	The Evidence-based Practice Center (EPC) conducted a comprehensive literature search through January 2003 across six electronic databases and selected journals. Abstracts were screened by paired investigators, with articles excluded based on predefined criteria. Eligible studies were reviewed for quality, intervention descriptions, outcomes, and	**Study Selection:** Articles focused on MCI response, involving hospital staff and training evaluation. **Data Extraction:** Assessed study quality, interventions, targeted staff, objectives, and results. **Key Findings:** Effective internal/external communication is crucial. Incident command centers reduce confusion. Disaster drills enhance clinician knowledge. Computer simulations and tabletop exercises offer economical training alternatives. Evaluation methods varied widely, making firm conclusions difficult.

			evaluation methods.	
5.	Impact of Training and Development on Employee Performance	Shafiq, Sumaiya & Hamza, Sahibzada, 2001	The study utilized a convenience sampling technique to select 105 respondents from a private company in Malaysia. Data was gathered using a 25-question Likert-scale questionnaire and analyzed with SPSS, employing descriptive, correlation, and regression analyses.	The research found that among various training types—on-job training, off-job training, job enrichment, and job rotation—only job enrichment significantly impacted employee performance. The study suggests focusing on diverse business sectors for future research and highlights the importance of employee training in organizational success. Other studies from Pakistan and Gauteng Province emphasize training's role in enhancing performance and organizational development, suggesting the need for training programs to evolve with changing business needs.
6.	Education and Training Adaptations for	Perla Boutros, Nour Kassem, Jessica Nieder,	This scoping review analyzed 88 studies to	The review highlights significant disruptions in clinical education due to reduced procedural

	Health Workers during the COVID-19 Pandemic: A Scoping Review of Lessons Learned and Innovations	Catalina Jaramillo, Jakob von Petersdorff, Fiona J. Walsh, Till Bärnighausen, and Sandra Barteit, 2023	assess the impact of the COVID-19 pandemic on medical education and training, focusing on alternative educational approaches like simulation training and virtual learning.	involvement and mentor availability. It underscores the rise of simulation training and virtual learning as crucial tools to mitigate these impacts. Simulation training improved clinical skills and confidence, while virtual learning enhanced theoretical knowledge and global engagement. However, challenges such as limited hands-on practice and internet connectivity issues were noted, emphasizing the need for future research to address these gaps and evaluate long-term outcomes.
7.				
8.				

Chapter 3: Methodology

3.1 Research Aim

- This study aims to evaluate the effectiveness of knowledge assessments and training mock drills in improving the competence and compliance of hospital staff with NABH standards. In other words, they focused on the evaluation of performance indicators that should be measured prior to the training interventions and after it at CARE CHL Hospital Indore the scope of the research aim to find out the effects of the factors. educational activities concerning staff compliance to quality policies and quality outcomes healthcare delivery.

3.2 Research Question:

How do knowledge assessments & training mock drills impact the competence & compliance of hospital staff with NABH standards?

3.3 Objectives:

The Study aims to:

- Assess the influence of knowledge assessments and training, mock drills on hospital staff competence regarding NABH standards.
- Evaluate changes in hospital staff compliance with NABH standards following the implementation of knowledge assessments and mock drills.
- Investigate the relationship between structured training programs, including knowledge assessments and mock drills, and the overall quality of healthcare delivery in hospitals.

3.4 Hypothesis:

Alternative Hypothesis (H1):

Knowledge assessments and training mock drills positively influence the competence and compliance of hospital staff with NABH standards, leading to improvements in patient care

quality.

3.4 Materials & Methods:

- **STUDY DESIGN:** Pre-test & Post-test study design.

- **SETTING:** The study is carried out in CARE CHL Hospital, Indore.
  It is 200 bedded, multispecialty hospital with huge number of active health workforce & other hospital staff.

Study Population: Hospital workforce

3.5 **Inclusion criteria:**

- Hospital staff working in departments directly involved in patient care (e.g., doctors, nurses, technicians).
- Staff members who have been employed at the hospital for a minimum duration to ensure familiarity with NABH standards and hospital protocols.
- Staff members are willing to participate in the study and attend the knowledge assessments and training mock drills.

3.6 **Exclusion criteria:**

- Hospital staff on leave or absent during the study period.
- Staff members who are unable or unwilling to participate in the interventions or assessments due to personal reasons or conflicting schedules.

3.7 **Study tools:** Questionnaire (Pre- & Post- questionnaire form), Observational checklist, Standardized knowledge assessment test

- **Duration of Study:** 60 days
- **Sample Size:** 150-200 people
- **Sampling Technique:**

  Type of sampling technique study to be employed: Combination of:

- **Stratified Random Sampling**
- **Systematic Sampling**

➢ **Data Collection Procedure**:

Data is being collected in various phases:

1. Pre- intervention Phase
2. Intervention Phase
3. Post- intervention Phase
4. Reporting & Dissemination

➢ **Data Analysis Plan:**

- The data analysis plan will use a combination of descriptive and inferential statistics to evaluate the effectiveness of knowledge assessments and training mock drills.
- MS Excel will be the primary software for statistical analysis, with a significance level set at 0.05.
- The analysis will include pre-test and post-test comparisons, subgroup analysis, and thematic analysis of qualitative feedback to provide a comprehensive evaluation of the training interventions.
- Paired sample t- test will be conducted for statistical analysis.

Chapter 4: Result & Analysis:

After the analysis of the above study, it has been observed that the training & mockdrills significantly enhanced the knowledge

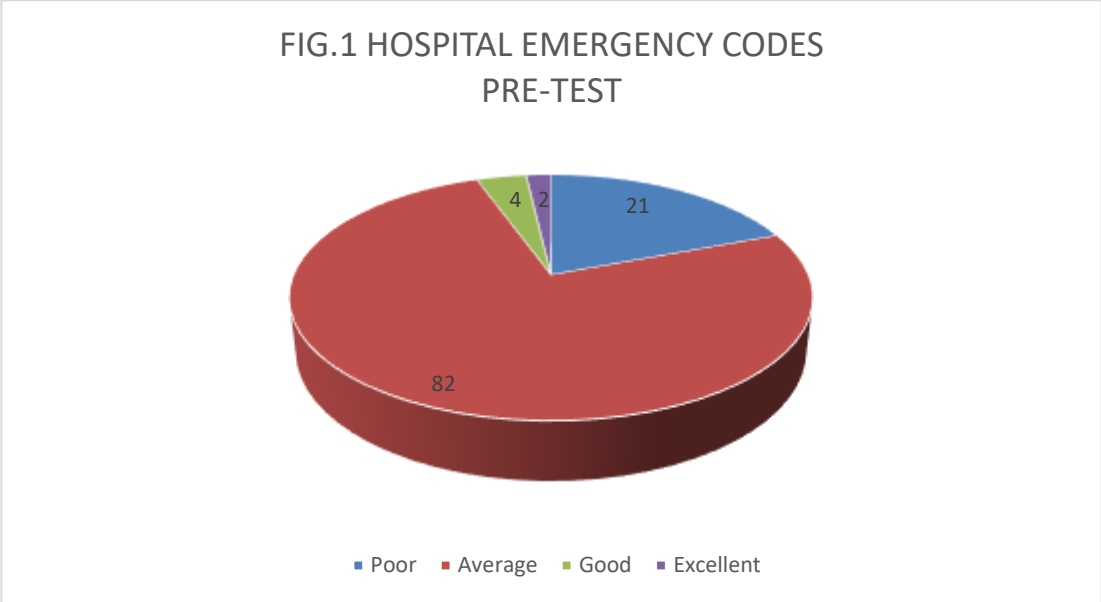
Analysis of Emergency codes trainings:

1) Hospital Emergency Codes:

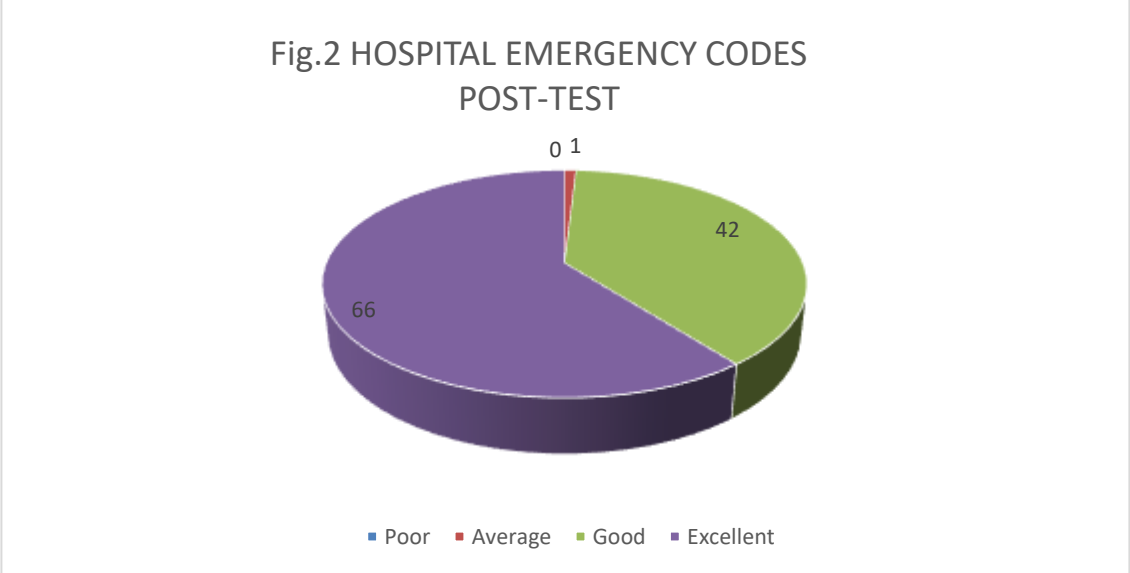
- 7 Emergency codes are taken into consideration.
- Training was given to 109 Healthcare staff.
- Pre- questionnaire form was given followed by training.
- Further post-questionnaire form was given.
- Based on the marks obtained in pre- & post- test, the rating was given, respectively.
- Rating Scale:

Marks Range	Grade
0-3	Poor
4-6	Average
7-8	Good
9-10	Excellent

Pre-Test:



Post- Test:



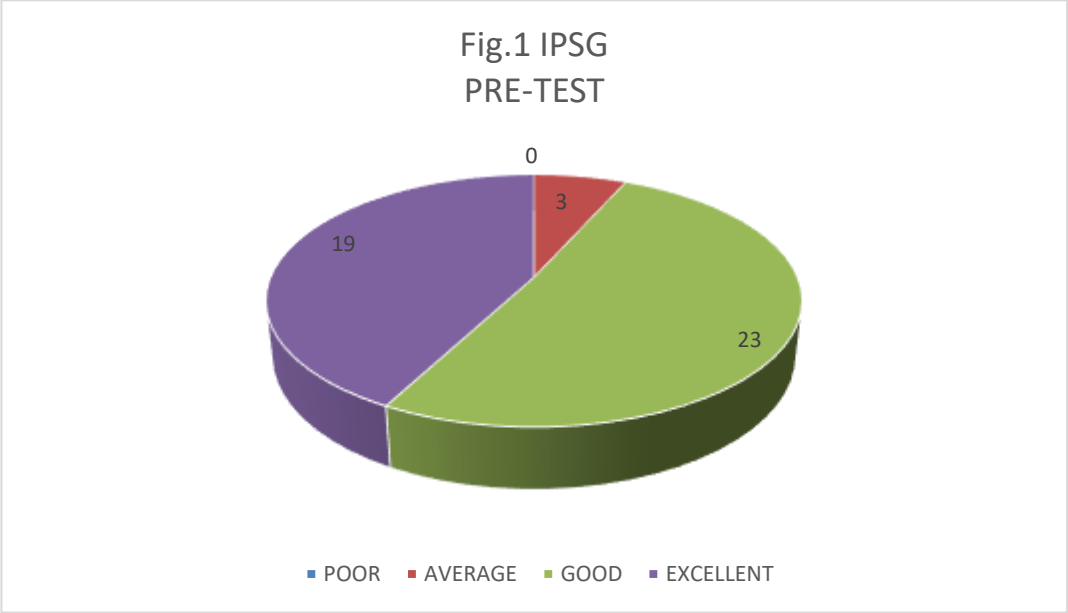
It is observed that 59% increase in excellent grade & 34% increase in good grade. As a result of training, hospital staff found more equipped with these skills.

Analysis of IPSG trainings:

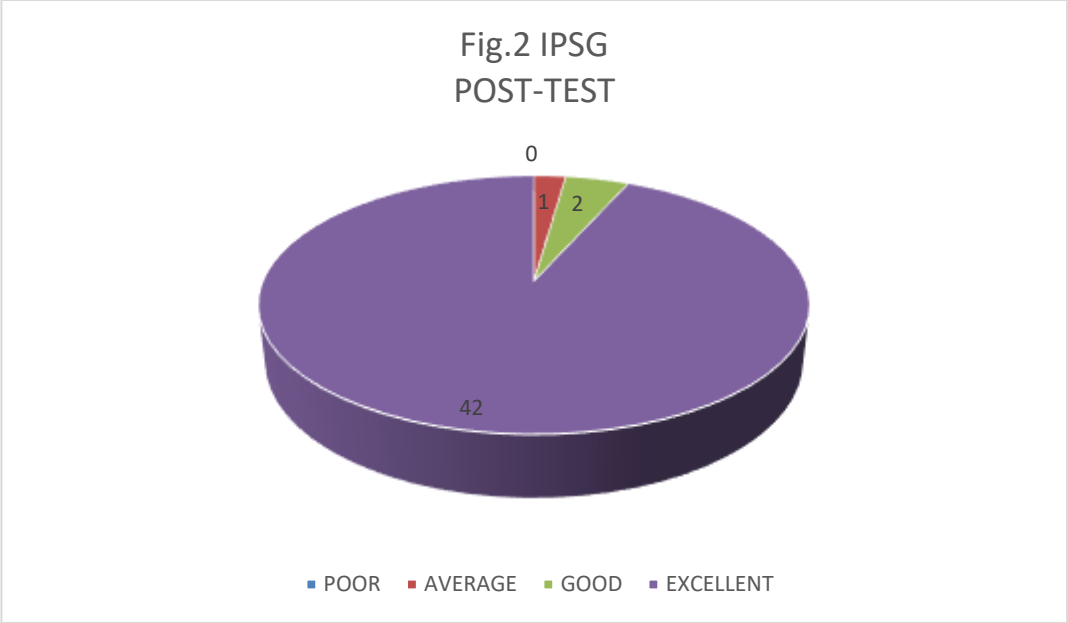
- IPSG training was given to 45 healthcare staff.
- Pre- questionnaire form was given followed by training.
- Further post-questionnaire form was given.
- Based on the marks obtained in pre- & post- test, the rating was given respectively.
- Rating Scale:

Marks Range	Grade
0-3	Poor
4-6	Average
7-8	Good
9-10	Excellent

Pre-test:



Post-test:



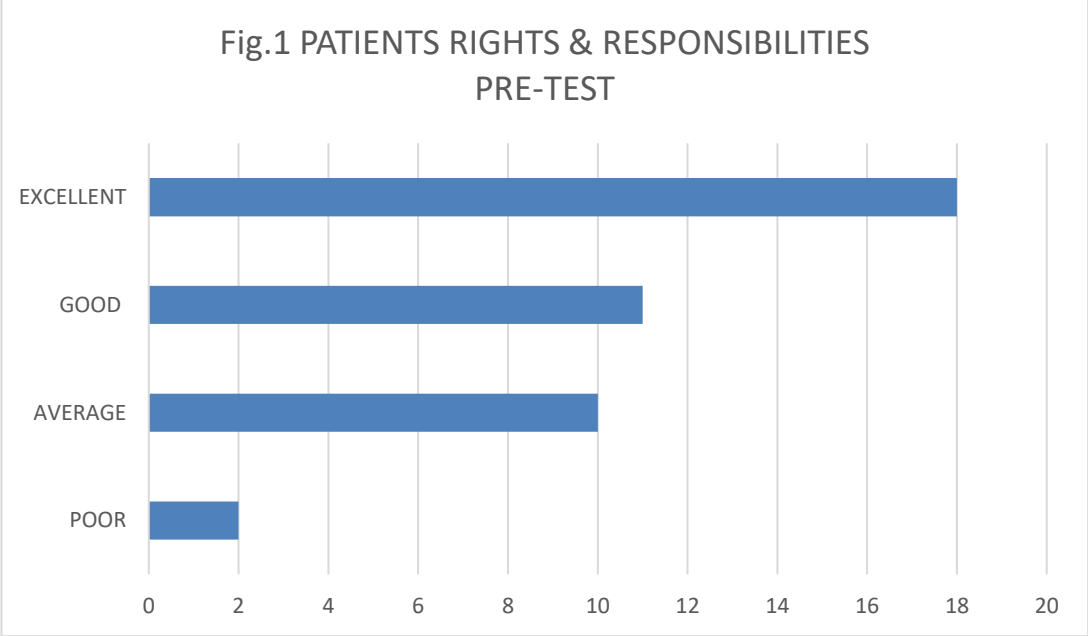
It is observed that 51% increase in excellent grade after the training.

Analysis of Patients' Rights & responsibilities:

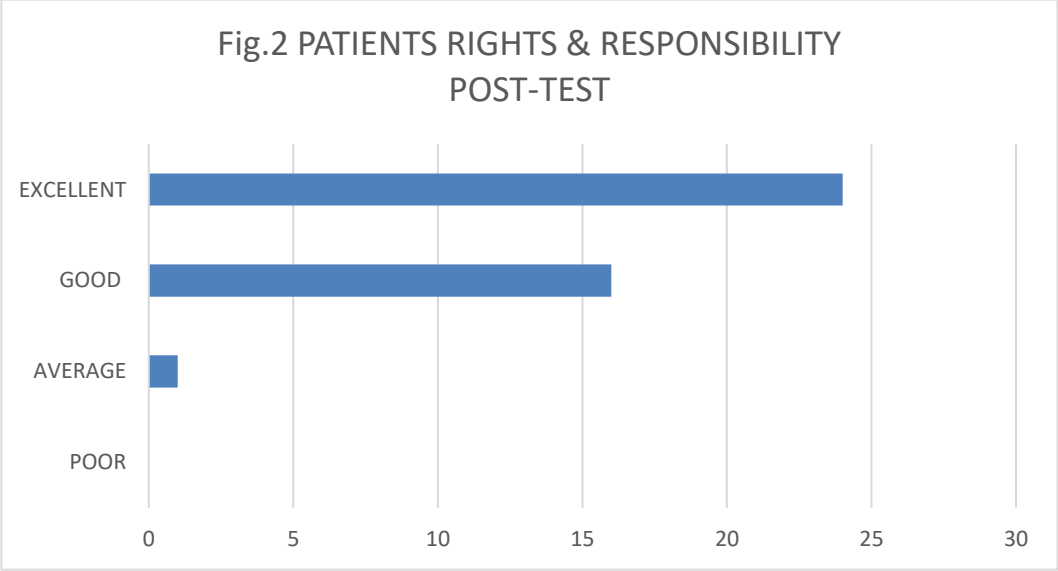
- IPSG training was given to 41 healthcare staff.
- Pre- questionnaire form was given followed by training.
- Further post-questionnaire form was given.
- Based on the marks obtained in pre- & post- test, the rating was given respectively.
- Rating Scale:

Marks Range	Grade
0-2	Poor
3	Average
4	Good
5	Excellent

Pre-test:



Post- Test:



The analysis assess the level of knowledge gained by staff, their ability to apply this

knowledge in real-world scenarios, and the overall impact of the training on patient care.

The results of this study demonstrate that knowledge assessments and training mock drills significantly enhance hospital staff competence and compliance with NABH standards. The post-intervention improvements in knowledge, adherence to protocols, and overall healthcare quality underscore the effectiveness of structured training programs. These findings provide actionable insights for hospital administrators to implement continuous education and practical training to maintain high standards of patient care.

Chapter 5: Discussion

The purpose of this research is therefore to assess the efficiency of the knowledge assessments and training mocks. livens in the developments of hospital staff competency and their overall level of conformance to NABH standards. The such findings can give useful information regarding structured training interventions' outcomes. Report aims to identify the factors that influences the healthcare quality for patients at CARE CHL Hospital Indore.

Enhancement in Staff Competence

The results established that the test scores post intervention were higher as compared to pre test results: 60 A passing outcome evident that testers showed a surge in staff competence. after the formal training and the simulated exercises that are usually imparted on the trainees. The pre-intervention phase revealed difference of the extent of familiarity with NABH standards among the staff along with the extent to which they complied with the same.

Nevertheless, post-intervention knowledge enhancement scores highlighted significant changes in the participants' scores. and their use in the present practice of business as well. This indicates that knowledge assessments and Other initiatives can help to create positive changes with different stakeholders for the achievement of the intended goals & mock drills do indeed fill the gap in the perception and level of preparedness of the staff regarding NABH protocols.

Improvement in Compliance with NABH Standards

Enhancement of patient OHS by increasing the overall compliance with set NABH standards Compliance to the NABH standards also saw a general tendency of improving after the intervention had been Conducted. Prior to the training program, variability was observed concerning the implementation of the quality standard procedures presented certain problems in providing high quality of patient care. The structured training; exercise of structured BK

in the form of knowledge tests and mock drills afforded staff more definition. which leads to the clients having a clear comprehension of what is being expected of them, as well as what practice they need to undertake to meet legal obligations. The improved the level of observed compliance rates after intervention proves that education is a continuous process. experience in gaining and maintaining accreditation procedures practical application.

Relationship Between Training Programs and Healthcare Quality

The study also took a closer look at the general effects of training programs to the quality of healthcare delivery. These findings suggest that increasing the competence of its staff and following the guidelines can improve the company's performance. can be associated directly with the enhancement of patient care quality. Only to note that structured training systems are also helpful. provide more information to its staff members but at the same time foster organizational learning and accountability. Such an approach to training guarantees that such staff is always in a position to know about all the crucial. consequently we can say that health care students are more prepared and knowledgeable in the best practices of different health care situations and scenarios which results in improved patient health, Thus there is a close relationship between organizational culture and patient health.

Practical Implications for Hospital Administration

The conclusions of this research are important for practical application in the activity of hospitals and their administrative staff. Firstly, they point out the need for conducting training programs, which should be permanent and systematic. foundation on which lasting standards in patient treatment can be preserved. Administrators should prioritize
The two quality improvement approaches that have been implemented in the facilities include;

- Continuing education/updates which includes;

- Practical drills which include;

Secondly, the qualitative assessment of the study emphasizes the significance for the present education problem-solving to adapt the systematic synthesis of a combined set of

knowledge.

actual assessments and mock drills that will enhance the training the employees undergo. That's why such a dual submission strategy is not only appropriate.

does not only check the theoretical knowledge, but it also checks the practical implication, making it more comprehensive index of staff capability and preparedness.

Challenges and Limitations

However, the study encountered some difficulties In spite of the study's positive findings. The readiness among the staff limitations were the failure by some participants to complete the required tests and the variation in the subjects' availability throughout the study period. However, the study was only conducted at a single hospital which may constrain the generalisation of the findings external validity of the presented results to other healthcare organizations. Future research could expand the generalization of the scope to multiple hospitals and various contexts to establish the efficacy of the findings regarding these training interventions across the contexts.

Chapter 6: Conclusion and Recommendations

The results of this study show that knowledge assessments and training mock drills are substantially of improving the level of competence ad, more importantly, the readiness of the hospital staff to adhere to the NABH standards. The pre-test and post test assessments at CARE CHL Hospital Indore substantiate the changes observed were quite significant changes in the staff for the better with regard to the set standards of operation after the training interventions. According to the findings, structure training programmes are useful in enhancing on adherence to quality standards, hence enhancing the delivery of health services. This research emphasises the paramount importance of being able to continuously educate oneself as well as receive practical training so as to be able to maintain adherence of health care organizations to high levels of patient treating.

Recommendations

1. **Implement Regular Training Programs:** Put in place Regular Training Programs: It is highly necessary that health care centers support knowledge assessment and training mock drills occasionally to ensure that their workers continue to have the desired skills and meet NABH regulations. This activities should become part and parcel with medical practitioners' continuous professional development programs in the facility..
2. **Tailor Training to Specific Needs:** Customize Training According to Focused Objects: In respect to pre-intervention assessments, tailor training programs to meet specifically identified needs and missing elements. This will assist in overcoming distinct challenges faced by different departments and staff categories.
3. **Encourage Continuous Learning:** To encourage continuous learning, hospitals should foster a culture of continuous learning through the provision of updated educational materials and resources on NABH standards. This can take the form of workshops, seminars and online courses..

4. **Monitor and Evaluate Training Effectiveness:** Monitoring and assessing effectiveness of training programs always remain vital and achievable through consistent feedback from participants, intermittent knowledge assessments and performance audits.
5. **Enhance Support Systems:** "Staff support systems should be enhanced through provision of mentorship and guidance by those who have been in the field for long. This will help in strengthening the training concepts and bringing out their practical applications in daily activities."
6. **Promote a Collaborative Environment:** Create a space that encourages collaboration among staff. In such a setting, best practices may be shared, challenges discussed, and compliance with NABH standards achieved as a team effort. Peer support combined with team-based learning enhance the effectiveness of training programmes generally.
7. **Invest in Training Infrastructure:** Set aside enough resources to train infrastructure including simulation labs, training materials and skilled tutors. To fund a state of the art training facility is a guarantee that the personnel acquire the best education and preparation possible.
8. **Regularly Update Training Content:** Guarantee that training materials are updated periodically to mirror the most recent NABH norms and healthcare practices. Adherence to most recent changes in the sector could enable health workers take care of patients who are in critical condition.

References:

- ✓ National Accreditation Board for Hospitals & Healthcare Providers (NABH). NABH 5 STD April 2020 [Internet].[cited 2024 May]. Available from: https://healthcarearchitecture.in/wp-content/uploads/2022/01/NABH-5-STD-April-2020.pdf
- ✓ National Accreditation Board for Hospitals & Healthcare Providers (NABH). Notification for NABH Accreditation Program HCO 5th Edition Guidebook [Internet] 2023. [cited 2024 May]. Available from: https://nabh.co/wp-content/uploads/2023/10/Notification-for-NABH-Accreditation-Program_HCO-5th-Edition-Guidebook.pdf
- ✓ CARE Hospitals. CARE Hospitals Indore [Internet]. [cited 2024 May]. Available from: https://www.carehospitals.com/indore/
- ✓ email A, Ahmad A, Masri A, Cholan N. The Effect of Nurse Led Disaster Drill Training on Knowledge and Practice of Disaster Management among Registered Nurses at Private Hospital. Int J Acad Res Bus Soc Sci. 2023 Jun;13(6). doi:10.6007/IJARBSS/v13-i6/17329.
- ✓ Marry Minolin T, Kamali M, Kalabarathi S. A study to assess the knowledge of NABH accreditation standards and quality improvement among intensive care unit staff nurses.
- ✓ Leveillee M. Evidence-Based Practice Initiative for Staff Training to Reduce Adult Psychiatric Inpatient Restraints & Injuries.

Annexure 1

Study Tool

CARE CHLHI PROCEDURE TO IMPLEMENT PATIENT SAFETY PROGRAMME
INTERNATIONAL PATIENT SAFETY GOALS & SOLUTIONS

- CHLHI Patient safety programme is based on 6 IPSG Goals & Incidence Reporting System

Goal 1: Identify patients correctly
Goal 2: Improve effective communication
Goal 3: Improve the safety of high-alert medications
Goal 4: Ensure safe surgery
Goal 5: Reduce the risk of health care-associated infections
Goal 6: Reduce the risk of patient harm resulting from falls

IPSG Goal 1 - Identify Patients Correctly:

Solutions:

1. ID Bands
2. Use of 2 identifiers e.g. Full name, IPD OR OPD /MRN NO

IPSG 2- Improve Effective Communication:

Solutions:

1. Use of verbal order & Read back policy
2. Adequate Clinical Intervention in response to critical value alert
3. Use of ISBAR Tool for handover.

IPSG Goal 3 – Improve the safety of High Alert medication Solutions

1. Staff made aware a) What is HRM?
   b)List of HRM is identified & available in all departments.
2. All HRM are segregated /stored/labeled as per policy.
3. Drug dilution of infusion based HRM is drafted & available to adhere in HCO.
4. HRM indents are verified before dispensing
5. All HRM drugs are verified (2 step verification) before administration.

IPSG Goal 4- Ensure Safe Surgery:

Solutions: 1.Use of WHO Surgical Safety Checklist

IPSG Goal 5 - Reduce the Risk of Health Care Associated Infections:

Solutions:

1. To adhere to hand hygiene as per WHO guidelines.
2. To adhere to Hand Hygiene programme- Display of 7 steps of Hand Hygiene
   Display of 5moments of Hand Hygiene
   Provision of Handrub at appropriate locations
   Doing Hand Hygiene Compliance Audit
   Random Hand Cultures to check compliance

IPSG Goal 6 - Reduce the Risk of Patient Harm Resulting from Falls:

Solutions:

1. All patients to be assessed for fall risk at the time of assessment & reassessment.
2. Installation of patient safety devices like grab bars,safety bells,bed railing etc
3. Provision for care to vulnerable patients.(monitoring,education)

Pre QUESTIONNAIRE

Pre link https://forms.gle/EgrVHfsmSRqQ7A88

INTERNATIONAL PATIENT SAFETY GOALs

CARE CHL HOSPITALS

Name..... Employee code..... Date...../...../.....

1. Care CHLHI HAS ADAPTED WHICH PATIENT SAFETY GOALS?
   a) International patient safety goals
   b) International patient safety guidelines
   c) International patient security guidelines

2. When do you use two identifiers?
   a) During shifting/transfer of patient from one unit to another
   b) During receiving of patient in ward/ICU
   c) Medication administration
   d) Any Sample collection (Blood, urine, pus etc.)
   e) Labeling of containers used for blood & other specimen with a specific sticker
   f) Prior to any procedure
   g) All the above

3. What are the solutions to achieve patient safety goal " to improve effective communication"?
   a) Use of verbal order & Read back policy
   b) Adequate Clinical Intervention in response to critical value alert
   c) Use of ISBAR Tool for handover.
   d) All of the Above

4. What is full form of LASA?
   .....
   .....

5. What is full form of HRM?
   a) High Risk Medications
   b) High Rate Medication

6. What is the colour code use for labelling LASA medicine?
   a) Green & pink b) Pink & yellow
   b) Yellow & green c) None of the above

7. What is the colour code use for labelling HRM medicine?
   a) Red color b) Green color c) Pink color

8. Whom to report an Incident?
   a) In charges d) Quality Team members
   b) HOD'S e) all of above
   c) Med blaze

9. What are the solutions to achieve patient safety goal "to reduce the risk of hospital acquired infection"?
   a) Follow of 7 steps of Hand Hygiene
   b) Follow of 5moments of Hand Hygiene
   c) Provision of Hand rub at appropriate locations
   d) Doing Hand Hygiene Compliance Audit
   e) All of the above

10. Give two examples of HRM medicines?
    .....

Post QUESTIONNAIRE

Post link-https://forms.gle/[illegible]

INTERNATIONAL PATIENT SAFETY GOALs

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   ....

PRE QUESTIONNAIRE

EMERGENCY CODES

CARE CHL HOSPITALS

Name..... Employee code..... Date...../...../.....

1. Please Match "Codes Name" with "When to call" in the following:

	Code Name	Write correct options from i.,ii.,iii, iv, v, vi, vii		When to call
a	CODE BLUE		i.	All Clear
b	CODE RED		ii.	Disruptive or dangerous individuals
c	CODE YELLOW		iii.	Cardio Respiratory Arrest
d	CODE ORANGE		iv.	Fire
e	CODE PINK		v.	Any external disaster leading to mass casualty(E.g. Earthquake, Stampede)
f	CODE WHITE		vi.	Internal disaster e.g. hazardous spill, fall of ceiling etc.
g	CODE VIOLET		vii.	Child / Baby Abduction

2. Which number to call for any Emergency codes?
   a)1166 b) 1116 c) 1666 d)6611

3. Which code is not announced? (Tick Appropriate option)
   a) Code Pink b) Code white c) Code Blue d) Code Violet

4. Match the Type of cylinders used for categories of fire

	Type of Cylinders	Write correct options from i.,ii.,iii. iv		Categories of fire
a	A		i	ELECTRICAL FIRE
b	B		ii	GAS FIRE
c	C		iii	LIQUID FIRE
d	E		iv	SOLID FIRE

5. To check the gauge of Fire extinguisher, Gauge should be on which color? (Tick Appropriate option)
   a) Red b) Green

6. What is the full form of PASS? Please Tick Appropriate Options.
   a) Pull, Aim, squeeze and sweep b) Push, Aim, squeeze and sweep

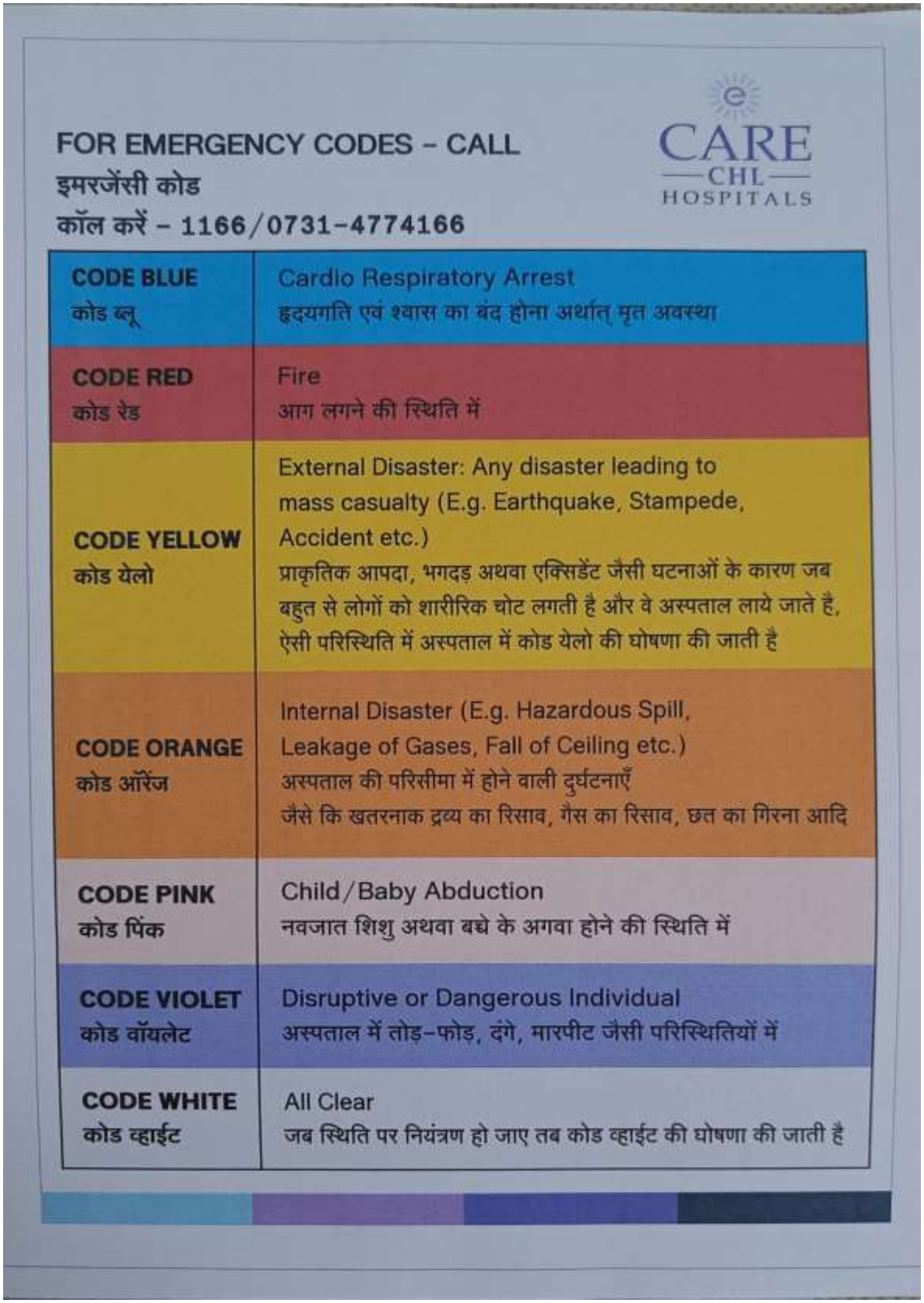
7. Phrase STORK is applicable in Which code? (Tick the appropriate one)
   a) Code pink b) code yellow c) code orange d) code red

8. Please match the following as applicable for Phrase "STORK"?

	Phrase	Write correct options from i.,ii.,iii. iv. v		Options
a	K		i	Search the unit for infant/child including biomedical waste area and Secure the scene.
b	R		ii	Telephone notifications, call emergency number 1166, and announce code pink along with department name
c	O		iii	Obtain information until search party arrives
d	T		iv	Report and Reassign the mother/family to a different room for security purposes
e	S		v	Keep all staff and visitors on the unit until Police arrives. Don't allow anyone to go outside. Police authorities will release staff and visitors at their discretion.

9. Which code is applicable in case you have to deal with DISRUPTIVE OR DANGEROUS INDIVIDUALS? (Tick the appropriate one)
   a) Code Pink b) Code white c) Code Blue d) Code Violet

10. What is the responsibilities of the staff if the patient collapses in your department?
    a. Call 1166, activate code blue, mentioning your department/Location
    b. Check pulse
    c. Start CPR
    d. Get crash cart to the site
    e. Stop lift for the patient
    f. Arrange bed in ICU
    g. All the above



FOR EMERGENCY CODES – CALL
इमरजेंसी कोड
कॉल करें – 1166/0731-4774166

CARE CHL HOSPITALS

CODE BLUE कोड ब्लू	Cardio Respiratory Arrest हृदयगति एवं श्वास का बंद होना अर्थात् मृत अवस्था
CODE RED कोड रेड	Fire आग लगने की स्थिति में
CODE YELLOW कोड येलो	External Disaster: Any disaster leading to mass casualty (E.g. Earthquake, Stampede, Accident etc.) प्राकृतिक आपदा, भगदड़ अथवा एक्सिडेंट जैसी घटनाओं के कारण जब बहुत से लोगों को शारीरिक चोट लगती है और वे अस्पताल लाये जाते है, ऐसी परिस्थिति में अस्पताल में कोड येलो की घोषणा की जाती है
CODE ORANGE कोड ऑरेंज	Internal Disaster (E.g. Hazardous Spill, Leakage of Gases, Fall of Ceiling etc.) अस्पताल की परिसीमा में होने वाली दुर्घटनाएँ जैसे कि खतरनाक द्रव्य का रिसाव, गैस का रिसाव, छत का गिरना आदि
CODE PINK कोड पिंक	Child/Baby Abduction नवजात शिशु अथवा बच्चे के अगवा होने की स्थिति में
CODE VIOLET कोड वॉयलेट	Disruptive or Dangerous Individual अस्पताल में तोड़-फोड़, दंगे, मारपीट जैसी परिस्थितियों में
CODE WHITE कोड व्हाईट	All Clear जब स्थिति पर नियंत्रण हो जाए तब कोड व्हाईट की घोषणा की जाती है

CODE RED ALERT CALL-1166

FIRE SAFETY

Remember the phrase

R-A-C-E

R=RESCUE PATIENTS

First priority move patient safely

Check door for heat

A=ACTIVATE ALARM

Know location of fire alarms

Pull alarm as you rescue patients

C=CONFINE THE BLAZE

Close all the doors

Avoid lifts in evacuation

Use stairs to evacuate

E=EXTINGUISH IF POSSIBLE

Know location of nearest fire extinguishers

Use towel or blanket to extinguish small fire

IF REQUIRED, OPERATE HOSE REEL

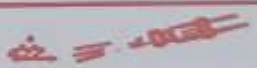
FIRE HOSE REEL

1. OPEN VALVE FULLY

2. PULL OUT HOSE

3. OPEN NOZZLE

4. AIM AT BASE OF FIRE



DO NOT USE ON LIVE ELECTRICAL EQUIPMENT

CARE CHL HOSPITALS, INDORE

CODE RED ALERT CALL-1166
FIRE SAFETY

Fire Extinguisher Parts

ABC CATEGORIES OF FIRE

- A- SOLID FIRE
- B- LIQUID FIRE
- C- GAS FIRE
- E-ELECTRICAL FIRE

OPERATING FIRE EXTINGUISHER

Check the gauge; arrow should be on green part.

If not, then extinguisher will not work properly, get another extinguisher

USING THE EXTINGUISHER

Remember the **P A S S** Word

Pull the pin (or other motion) to unlock the extinguisher.

Aim at the base (bottom) of the fire and stand 6 – 10 feet away

Squeeze the lever to discharge the agent.

Sweep the spray from left to right until the flames are totally extinguished.

GENERAL INSTRUCTIONS

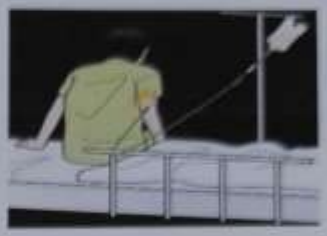
- If fire occurs
- Call 1166
- Announce code red
- Don't use lift
- Take help of fire fighting team in the hospital
- Ensure area is evacuated
- Know locations of extinguishers in your area and evacuation

CARE CHL HOSPITALS, INDORE

WHAT IS AN INCIDENT?

A healthcare incident is **an unintended or unexpected, unfavorable** event (e.g., a medical error, patient injury, or equipment failure) that harms a patient, caregiver, or other individuals—or has the potential to harm them.

Event which is not part of expected/desired patient outcome or routine operations of health care facility.



INCIDENT REPORTING FOR PATIENT SAFETY

To err is human, they say.

- The best thing we can do as humans is to learn from these mistakes and avoid repeating them in the future.

So let's understand :

- Any incident or untoward occurrences must be recorded.
- Think of these reports as a tool to bring you closer to pinpointing opportunities to improve your safety program, helping you create a safer place to work.

PRINCIPLE OT JUST CULTURE

Culture for incident reporting

- ***Just culture*** is a concept related to systems thinking which emphasizes that mistakes are generally a product of faulty organizational cultures, rather than solely brought about by the person or persons directly involved.
- This is in contrast to a "blame culture" where individual persons are fired, fined, or otherwise punished for making mistakes, but where the root causes leading to the error are not investigated and corrected.

DENTIFICATION OF INCIDENT

- Doctors, nurses and other healthcare staff members need to be aware about what is an incident .

- Any unintended or unexpected event that harms a patient or caregiver—or has the potential to harm them.

FEW EXAMPLES OF INCIDENTS IN HOSPITALS

- Tubing Misconnections
- OT: Cautery Burns
- Wrong Procedure
- Medication Errors
- Self Estuation
- Wrong Investigation Requisition
- Wrong Reporting Of Tests
- Bedsore
- Wrong Site
- Falls,
- Bedsore
- Wrong Blood Transfusion
- Blood Body Fluid Exposure
- Needle Stick Injuries
- Wrong Labelling On Histopathology Samples Or Biopsy Samples
- DELINING: Catheter Pulling - Central Line, Urinary Catheters
- Therapeutic Duplication Due To Improper Medical Reconciliation Etc.

TYPES OF INCIDENCES

- NEAR MISS
- NO HARM
- ADVERSE EVENT
- SENTINEL EVENT

NEAR MISS

- Errors that did not result in patient harm, but could have, can be categorized as near misses.
- Near-misses are a subset of incidents where no one got hurt, but only by a pure stroke of luck.
- A near miss, near hit **or close call is an unplanned event that has the potential to cause, but do not actually result in human injury,**

Example:

- *Fungus in iv bottle detected just in time.*
- *Short circuit detected, fire prevented.*
- *Sudden equipment failure but no damage done.*
- *Medication error prevented just before administrating the drug.*

NO HARM

- *A near miss is defined when an error is realized just in the nick of time, and abortive action is instituted to cut short its translation.*
- In no harm scenario, the error is not recognized, and the deed is done, but fortunately for the healthcare professional, the expected adverse event does not occur.

The distinction between near miss and no harm is very important and best exemplified by reactions to administered drugs in allergic patients.

Example:

- *A prophylactic injection of cephalosporin may be stopped in time because it suddenly transpires that the patient is known to be allergic to penicillin (near miss).*
- *If this vital piece of information is overlooked, and the cephalosporin administered, the patient may fortunately not develop an anaphylactic reaction (no harm)*

ADVERSE EVENTS

An injury related to medical management, in contrast to complications of the disease. medical management includes all aspects of care, including diagnosis and treatment, failure to diagnose or treat, and the systems and equipment used to deliver care. adverse events may be preventable or non-preventable.

Example:

medication error causing minor allergy.

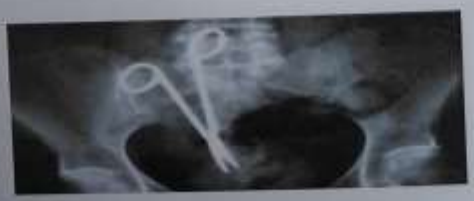
Slip, trip, fall causing minor injuries.

Fall from bed causing minor injuries

Plaster falling on the patient or staff minor injuries.

SENTINEL EVENT

A relatively infrequent, unexpected incident, related to system or process deficiencies, which leads to death or major and enduring loss of function for a recipient of healthcare services.
Major and enduring loss of function refers to sensory, motor, physiological, or psychological impairment not present at the time services were sought or begun. the impairment lasts for a minimum period of two weeks and is not related to an underlying condition.



SENTINEL EVENT

- Medication error causing death / severe complications.
- Wrong site / wrong patients / wrong surgery
- Instrument / sponge left in the surgical site by mistake
- Plaster falling on the head causing death or permanent loss
- Unexpected operative / post-operative death
- Maternal death in a low risk pregnancy
- Patient assault / rape / molestation of a patient
- Change of babies in the nursery
- Fire causing deaths / damage / disruption of functioning

CORRECTIVE ACTIONS

- Immediate response - address the urgent care and support -without waiting for analysis.
- Objective - to improve the quality of patient care services.
- Findings and recommendations -to be communicated to all personnel concerned to correct the systems and processes to prevent recurrences.
- Any change in the policy or procedure needs to be reflected as an amendment in the hospital documentation.