Internship Training

at

Artemis Hospital,Gurgaon

An Assessment of the Drug Handling System in IPD at Artemis Hospital Gurgaon

By

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PG/21/119

Under the guidance of

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(Completion of Dissertation from respective organization)

The certificate is awarded to

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in recognition of having successfully completed his/her

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Title-

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and has successfully completed his/her Project on

Title of the Project

An Assessment of the Drug Handling System in IPD at Artemis Hospital Gurgaon

Date – 13 May 2023

Organisation – Artemis Hospital, Gurgaon

She comes across as a committed, sincere & diligent person who has

a strong drive & zeal for learning.

We wish him/her all the best for future endeavors.

Training & Development

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Annexure F

FEEDBACK FORM

Name of the Student: Tanvi Malviya.

Name of the Organisation in Which Dissertation Has Been Completed:
Artemis Hospitals

Area of Dissertation: Entire Hospital.

Attendance: Ok

Objectives achieved: Study of Drug Distribution System Throughly done.

Deliverables: Errors found in Drug Distribution System are identified & suggestion for improvement are accepted.

Strengths: Team player, Sincere.

Suggestions for Improvement: Need focus on minute errors & handwriting.

Suggestions for Institute (course curriculum, industry interaction, placement, alumni):
- Provide traing for advanced MS Excel in College apart from Powerpoint, Word.
- Work on placements.

Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation)

For Artemis Medicare Services Ltd.

15/5/2023.

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This is to certify that **Tanvi Malviya** student of PGDM (Hospital & Health Management) from International Institute of Health Management Research, New Delhi has undergone internship training at Artemis Hospital, Gurgaon from 13/02/2023 to 13/05/2023.

The Candidate has successfully carried out the study designated to him during internship training and his/her approach to the study has been sincere, scientific and analytical. The Internship is in fulfillment of the course requirements.

I wish him all success in all his/her future endeavors.

Dr. Sumesh Kumar

Associate Dean, Academic and Student Affair
IIHMR, New Delhi

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Certificate of Approval

The following dissertation titled "**An Assessment of the Drug Handling System in IPD at Artemis Hospital Gurgaon**" at **ARTEMIS HOSPITAL,GURGAON** as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of PGDM (Hospital & Health Management) for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted. Dissertation Examination Committee for evaluation of dissertation.

Name	Signature
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INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH, NEW DELHI

CERTIFICATE BY SCHOLAR

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This is to certify that **Ms. Tanvi Malviya** has successfully completed her internship in the Department of **Supply Chain** from **February 13, 2023** till **May 13, 2023.**

During her training, she was found to be sincere and hardworking.

We take this opportunity to wish her all the best in her future endeavours.

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This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Institute Mentor Name,
Dr Sumant Swain
Designation, Assistant Professor.
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Organization Mentor Name

ABSTRACT

Statement of the problem:

"An assessment of the drug handling system in IPD at Artemis Hospital"

Background:

In any hospital, drug distribution is a crucial component. A potentially chaotic environment can gain some structure via a well-organized drug distribution. Medication for nearly every conceivable condition is typically kept on hand in drug distribution centers. Numerous investigations have shown that nurses' level of practice is often insufficient..

Objectives

1) To develop a standard operating protocol for drug distribution system for Asian Heart Hospital

2) To assess the level practice of nurses and hospital regarding organized drug distribution system

3) To recommend course of action for adoption to SOPs for identified gaps in practices.

Assumption

It is presumable that nurses are inefficient in their use of the drug delivery system.

Methods:

In order to create a protocol, descriptive design was employed to evaluate the organized drug delivery method practiced by nurses. Nurses who work in hospitals were the study's target demographic 50 nurses in all were chosen using the purposive sample technique. The information was gathered using an observational checklist. With the help of mentors and subject-matter experts in

the domains of nursing and medicine, the tool's validity was confirmed and its reliability was examined. The Artemis Hospital served as the study's location.

Results:

- The overall mean practice score of the subjects was 13.86, the mean Percentage was 51.3and SD was 13.7
- Out of the 50 subjects 21(42 percent) have unsatisfactory level of practice i.e. less than 50%and 29 (58 percent) have moderately satisfactory practice levels i.e. 51-75%.
- These findings show that no subjects have satisfactory practice levels i.e. above 75%.
- There was significant association found with practice score of the subjects and age as wellas area of working of the subjects.

Interpretation and Conclusion:

This study demonstrated that none of the participants had an acceptable degree of practice in drug distribution, and it emphasizes the significance of training the staff nurses about the use of an organized drug distribution system.

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ABBREVATIONS

AMS – Assistant Medical Superintendent

Cath Lab – Catheterization Laboratory

CSSD – Central Sterilization Supply Department

CT – Computerized Tomography

EDP – Electronic Data Processing

ENT – Ear, Nose & Throat

ERCP – Endoscopic Retrograde Cholangiopancreatography

GS – General Surgery

Gyn – Gynecology

HDU – High Dependency Unit

ICU – Intensive Care Unit

ICCU – Intensive Coronary Care Unit

IPD – Inpatient Department

MICU – Medical Intensive Care Unit

MRD – Medical Records Department

MRI – Magnetic Resonance Imaging

OPD – Out Patient Department

Ophth – Ophthalmology

Ortho – Orthopedics

ACKNOWLEDGEMENT

I put effort on this project. However, without the generous support and assistance of many people within the organization, it would not have been feasible. I want to express my sincere gratitude to each and every one of them.

I owe a huge debt of gratitude to Mr. Rakesh Mohanty and the SUPPLY CHAIN TEAM for their direction, continual oversight, and provision of the information I needed to complete the project.

The direction and assistance from all the pharmacy department staff, especially Mrs. Santoshi Kumar and Mr. Pawan Saini, as well as the nursing department head and Mr. Ashish (Nursing Educator), who contributed to this initiative, were essential to its success. I appreciate each and every staff member at Artemis Hospital for their constant support and help.

I would also like to express my gratitude towards **Dr. Sumant Swain (Mentor)** for their kind co-operation and encouragement at each step, which helped me in completion of this project.

HOSPITAL PROFILE

- Established in 2007, Artemis Hospital is a super-specialty hospital in Gurgaon, Delhi.
- It is also Gurgaon's first hospital to receive JCI and NABH accreditation.
- It was given the WHO's "Asia Pacific Hand Hygiene Excellence Award" in 2011.
- The hospital offers top-notch medical facilities for a variety of departments, such as cardiology, neurology, orthopaedics and joint replacement, urology, obstetrics and gynaecology, gastroenterology, oncology, etc.
- It is intended to be one of the most cutting-edge hospitals in India, offering a depth of experience in a range of cutting-edge medical and surgical interventions as well as a full range of inpatient and outpatient services.
- The hospital was given the Kayakalp Award for Excellence in 2019 by the Quality Council of India in collaboration with the Ministry of Health & Family Welfare, Government, for fostering cleanliness, hygiene, and infection control.
- Artemis has tied up with some of the leading travel companies in India to facilitate smooth travel and stay arrangements for its international patients.
- It has deployed highly advanced infrastructure and equipment in domains and departments such as prognostic, diagnostic and therapeutic imaging.
- Designed as one of the most advanced hospitals in India, Artemis provides a depth of expertise in the spectrum of advanced medical & surgical interventions, a comprehensive mix of inpatient and outpatient services.

CHAPTER 1: INTRODUCTION

Drug distribution in any hospital, emergency procedures are a crucial component. A potentially chaotic environment can gain some structure via a well-organized drug delivery. Emergency drugs are often kept on hand at drug distribution centres to cover practically any eventual emergency. They also include a variety of different tools, such as a resuscitation kit that is divided into drawers and modules for intubation, intravenous access, and other procedures.

A well organized drug distribution can save a lot of time & confusion during an emergency, which in turn can save a life. Some drug distributions are organized into drawers with color code for different types of situations.

Cardiac arrest happens frequently in hospital emergency departments, intensive care units, and other places. In order to prevent lasting brain cell damage when this occurs, appropriate care must be given within a short period of time. Drug distributions are utilised by designated teams of nurses and doctors in order to expedite the supply of essential medications and equipment. In a hospital context, drug distribution systems should ideally guard against medication errors. When mistakes do happen, the system should aid in their early identification, allowing corrective action to be taken to stop them from happening again and to lessen any negative impact they may have on the patient. Systems for distributing hospital medications should make it easier to allocate and utilise resources in the best way possible. The Canadian Society of Hospital Pharmacists as the drug distribution system of choice in organized healthcare settings because it provides improvements in medication safety, overall system efficiency, job satisfaction, and effective use of human resources.

Responsibilities of the nurse in charge are restocking of drug distribution immediately after every shift, verifying contents of the cart with the supply personnel, verifying the presence and expiry date of all items on carts at least every month, reporting to supply department if expiry date is exceeded or seal is broken.

It frequently leads to confusion when the initial medications to be provided were in one drawer while an equally crucial piece of equipment was in another drawer because of the large number of people on an emergency team and the requirement for speed in the delivery of care. The equipment box's design made it hard to access more than one drawer at once, which resulted in significant delays. Additionally, these carts were organised so that first-use medications were in a particular cabinet and respirator supplies were in another drawer, etc. This necessitates continuously opening and closing each drawer.

Here it was felt that a study was needed to assess the knowledge about the full potential of drug distribution system among nurses. Further, the study will go into the existing drug distribution practices among the nurses. This would help in bringing out the need for organized drug distribution system awareness among nurses on the need & importance of drug distribution system.

CHAPTER 2: RATIONALE OF THE STUDY

A hospital's drug distribution system is crucial. A potentially chaotic environment can gain some structure via a well-organized drug distribution. Usually, drug delivery centres have enough prescription drugs on hand to cover practically any eventuality. Numerous investigations have shown that nurses' level of practise is often insufficient.. To find the awareness andpractice level of nurses, this study was conducted. A study was done to determine the relationship between selected variables and how nurses distribute drugs, as well as to create a methodology for organised drug distribution.

CHAPTER 3: REVIEW OF LITERATURE

According to a study on rational drug prescribing and dispensing in outpatients in a tertiary care teaching hospital of western Nepal by Alam et al which concludes that there is a need for educational intervention for prescribers and both managerial and educational intervention for the hospital nurses and pharmacists to improve prescribing and dispensing emergency drug in IPD during emergency conditions. It was a cross-sectional, descriptive study with findings as a total of 247 prescriptions were randomly selected for analysis, wherein 720 drugs were prescribed. Only 15% of drugs were prescribed by generic name, 21.67% of the total drugs consisted of fixed-dose combinations, only 40% of drugs were from the Essential drug list of Nepal and 29.44% (n=212) were from the WHO Essential drug list. It was found that more than half (54.17 %) of the drugs were from the Nepalese National Formulary and 35.69% were from the WHO model formulary. Dermatological products were most commonly prescribed followed by drugs acting on the central nervous system, antimicrobials, and drugs acting on the cardiovascular system. Among the drugs dispensed, 79.16% were orally followed by topical (18.19%) and parenteral forms (2.98%). The diagnosis was mentioned only in

3.23% (n=8) of the prescriptions and the average cost per prescription was found to be 241.11 Nepalese rupees (US$ 3.26). It was found that the pharmacist labeled only 0.4% of the medication envelopes with the name of the patient. However, 82.6% of the medication 22 envelopes were labeled with the name of the drug and 87.0 % with drug strength. Only 53.8% (n=133) of the patient knew both the duration of the therapy and the administration time of drugs.

CHAPTER 4: OBJECTIVES

Statement of the Problem:

"T**o study the handling of the drug distribution system in IPD and to assess the level ofpractice in nurses in Artemis Hospital.**

General Objective-

- To study the awareness regarding the handling of the drug distribution system in hospitals
- To assess the level of practice in nurses in Artemis Hospital, Gurgaon.

Specific Objectives:

- To develop a standard operating protocol for drug distribution
- To study the hospital SOP and gaps in drug distribution practices.
- To recommend a course of action for the adoption of new SOPs for identified gaps in practices.

CHAPTER 5: METHODOLOGY

RESEARCH METHODOLOGY-

- **Study design**: The study type will be descriptive and cross sectional in nature.
- **Study location**: Artemis Hospital
- **Study population**: The study population will be the hospital nurses at Artemis Hospital Gurgaon.
- **Selection criteria of population**:

- Inclusion criteria- Demographic, Clinical and Geographic Characteristics are eligible Criteria.
- Exclusion criteria- Any acute or chronic condition that would limit the ability to participate in this study. And refusal to give informed consent.

- **Study Time**: The total time period of this will be 3 months i.e. 80 days from 14/02/2023 to 15/05/2023.

Data Collection tools and techniques

- **Sample Size**: The total sample size would is 50 hospital nurses.
- **Study Tool**: Semi-structured questionnaire will be used for this study to assess knowledge and practices among Nursing staff for handling and distribution of drugs.
- **Sampling Technique**: Convenient sampling will be carried out for the study based on the availability of the Nurses.
- **Data analysis**: Data analysis will be done through SPSS.

Ethical consideration: The study will be conducted after obtaining approval from the Students Ethical Review Board. All data collected will be kept confidential and will be

used only for the purpose of research. The participation of the respondents will be completed on a voluntary basis. Written consent will be obtained from each respondent who will be willing to participate.

Expected Outcomes:

The study analysis will help to minimize errors in the flow of drug handling systems which includes storage, and dispensary mainly focusing on the flow of Drugs in the IPD area. And also include some details about the overall SCM Flow in Artemis Hospital.

CHAPTER 6: STUDY FINDINGS

RESULTS

Our research issues are not resolved by the data in and of themselves. Typically, the volume of data gathered during a study is too large to be accurately explained through casual perusal. The data must be processed and analyzed in some manner so that the relationship between the variables may be identified in order to properly respond to the research question. The term "analysis" refers to a variety of closely related procedures that are carried out with the goal of condensing the gathered data and arranging the facts such that they provide answers to the research questions.

This section presents the analysis and interpretation of data collected from 50 staff nurses in order to assess the practice regarding the drug distribution system. The data collected were organized, tabulated, analyzed and interpreted by means of statistical tables and graphs.

Also some define terms for better understanding.

- Satisfactory – That indicate that the drug handling system is functioning as it should, with no errors or issues.
- Moderately Unsatisfactory - with due reason not up to mark.

  REASON:

- dispensing an incorrect medication,
- dosage strength or dosage form;
- Miscalculating a dose and failing to identify drug interactions or contraindications.

Figure 1:

Association between Age and practice level on Emergency drug distribution system

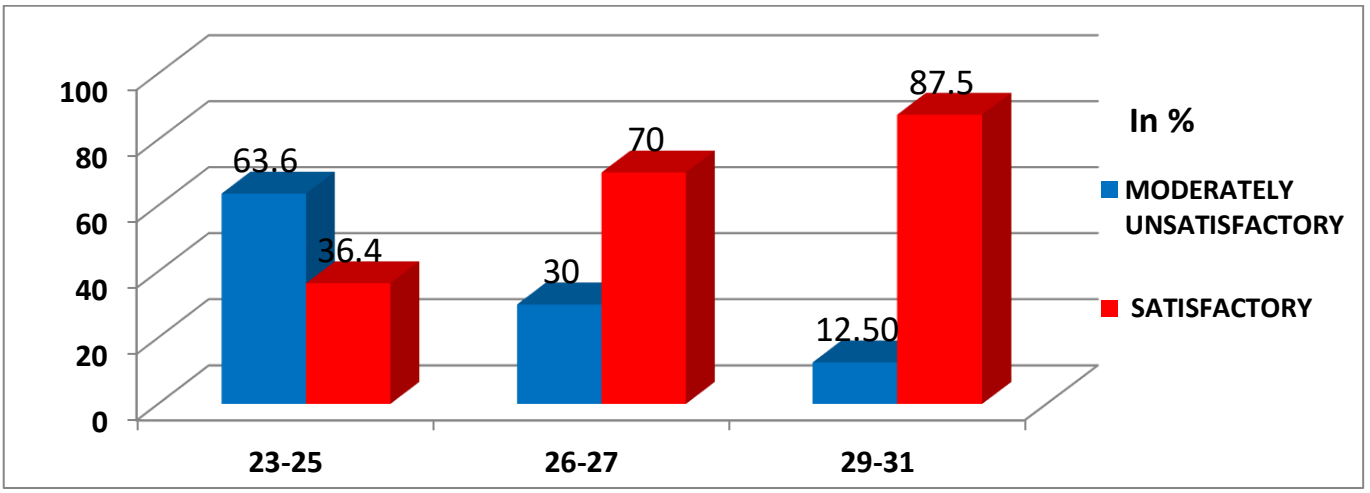


Figure 1 shows that in age group of 23-25 , 63.6% of nurses are moderately unsatisfactory & 36.4 % of nurses are satisfactory. In age group of 26-27, 30% of nurses are moderately unsatisfactory and 70% are satisfactory. In age group of 29-31, 12.5 % nurses are moderately unsatisfactory & 87.5% are satisfactory.

Figure-2:

Association between Qualification and practice level on Emergency drug distribution system

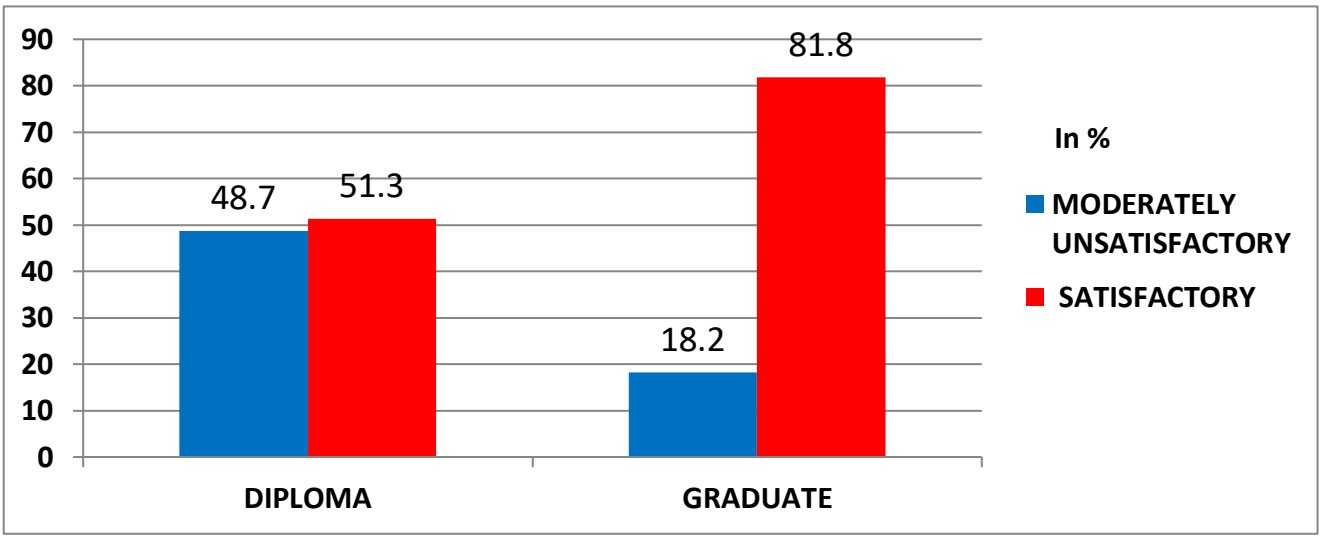


Figure2 shows that 48.7% DIPLOMA holders are moderately unsatisfactory & 51.3 % DIPLOMA holders are satisfactory. In case of graduates 18.2 % are moderately unsatisfactory & 81.8% of nurses are satisfactory.

Figure 3:

Association between Experience and practice level on Emergency crash cart system

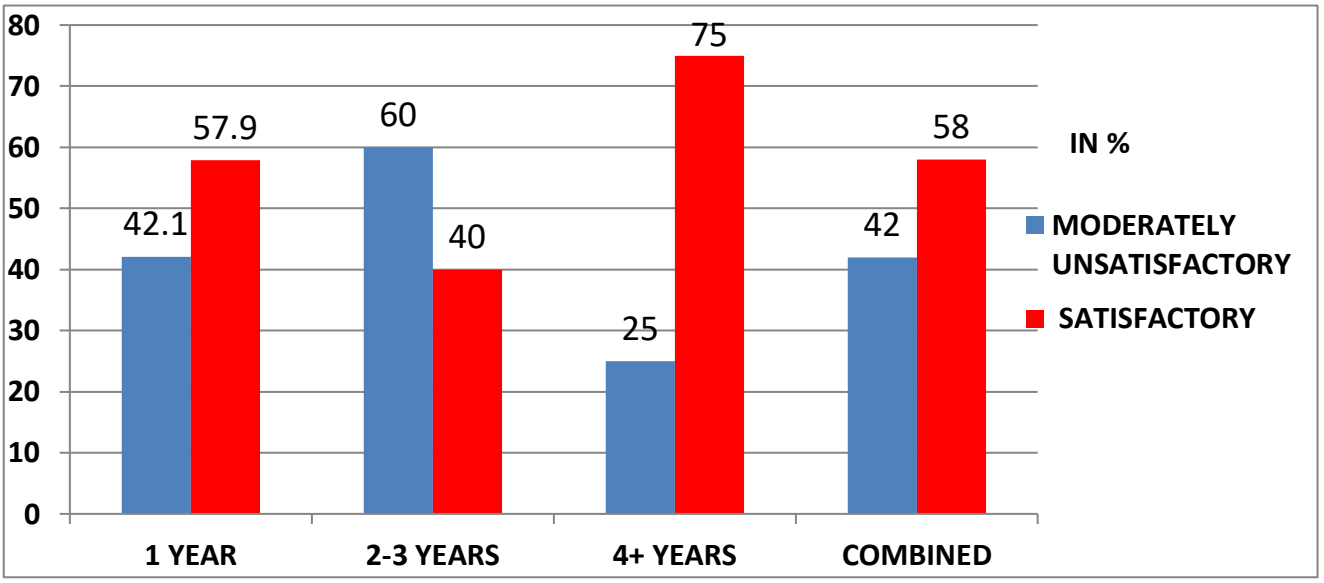


Figure 3:

shows that for 1 years experience nurses 42.1% are moderately unsatisfactory and 57.9% are satisfactory. For 2-3 years experience nurses 60% are moderately unsatisfactory & only 40% are satisfactory. For 4+years experience nurses only 25% nurses are moderately unsatisfactory & 75% of nurses are satisfactory. In combined or total moderately unsatisfactory level is 42% and moderately satisfactory is 58% of nurses.

FIGURE 4: Association between area of working & practice level on emergency drug distribution system

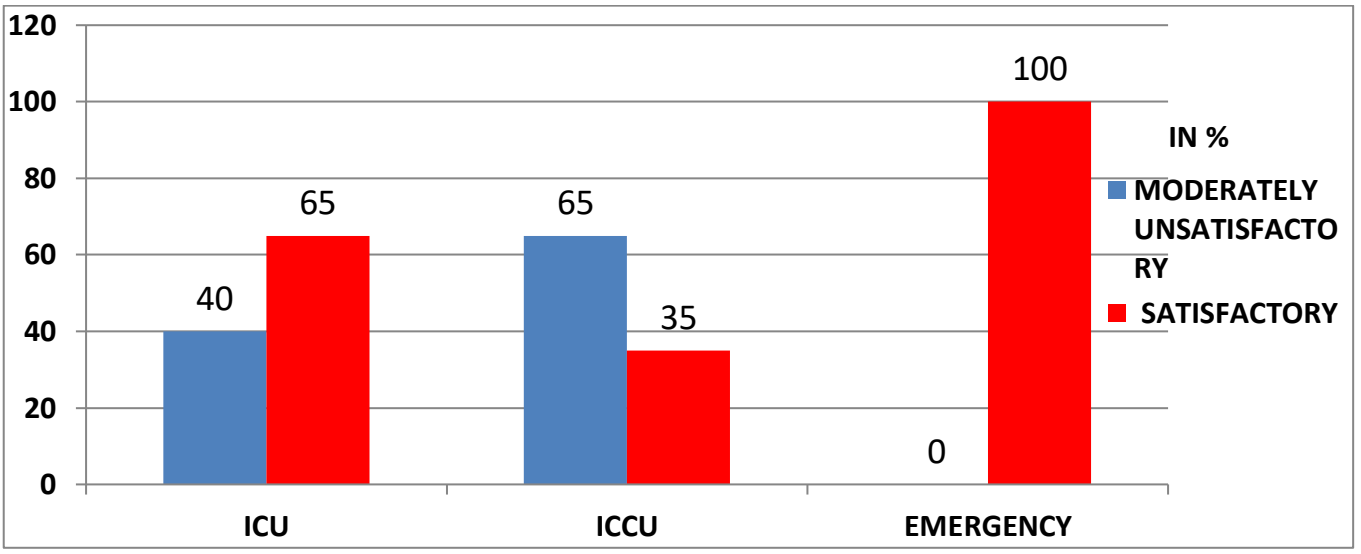


Figure 4 shows that in ICU 40% of nurses are moderately unsatisfactory & 65% nurses are satisfactory. In ICCU 65% are moderately unsatisfactory & 35% of nurses are satisfactory and in case of emergency 0% nurses are moderately unsatisfactory & 100% nurses are satisfactory.

SECTION-B

Table - 1 Assessment of level of Practice on Emergencydrug distribution system among Nurses

Practice Levels	Respondent	
	Number	Percent
Moderately Unsatisfactory (< 50%)	21	42.00
Satisfactory (51-75%)	29	48.00
Total	50	100.00

Table showing the total practice level of the subjects

Table 1 shows that 21(42 percent) of the subjects have unsatisfactory level of practice and 29(58 percent) were moderately satisfactory

Table - 2 Aspect wise Mean Practice on Emergency drug distribution system among Nurses

No.	Practice Aspects	Statements	Max. score	Range score	Practice		
					Mean	Mean %	SD %
I	Location	3	3	1-3	2.72	90.7	19.1
II	Maintenance	11	11	1-10	4.84	44.0	20.5

III	Arrangement	8	8	2-7	5.30	66.3	16.0
IV	Post emergency nursing action	3	3	0-2	0.74	24.7	25.9
V	Credentials ofnurses	2	2	0-2	0.26	13.0	24.3
	Tota l	**27**	**27**	**8-20**	**13.86**	**51.3**	**13.7**

Table 2: Depicts the aspect wise mean practice on emergency drugdistribution system among Nurses.

The above table is interpreted as follows:

- The range of score on location of drug distribution was 1-3. Subjects scored a mean score of 2.72, the mean practice score percent was 90.7 and the standard deviation score was 19.1

- The range of score on maintenance of drug distribution was 1-10. Subjects scored a mean score of 4.84, the mean practice score percent was 44.0 and the standard deviation score was 20.5. The range of score on arrangement of drug distribution was 2-7. Subjects scored a mean score of 5.30, the mean practice score percent was 66.3 and the standard deviation score was 16.0

- The range of score on post emergency nursing action of drug distribution was 0-2. Subjects scored a mean score of 0.74, the mean practice score percent was 24.7 andthe standard deviation score was 25.9 The range of score on credentials of nurses was
- 0-2. Subjects scored a mean score of 0.26, the mean practice score percent was 13.0and the standard deviation score was 24.3

CHAPTER 7: DISCUSSION

The present study was conducted with an objective to evaluate the Artemis Hospital nurses' use of the organised medicine delivery system. A descriptive observational approach and the convenience sampling technique were employed to choose the samples in order to meet the study's objectives. The study was conducted over a period of 20 days. The data was collected from 50 subjects by using observational checklist. The instrument consists of two sections.

Section A: Demographic data
Section B: Checklist to assess the practice of staff nurses regarding drug distribution.

The objective was to assess the practice of nurses regarding organized drug distribution system.

The practice regarding drug distribution system was assessed and tabulated in table 2. It reveals that out of 50 subjects 21 (42%) had moderately unsatisfactory level of practice and 29 (58%)of staff nurses had satisfactory levels. The overall mean practice score percent was 51.3 with a standard deviation of 13.7. These findings show none of the subjects have highly satisfactory level of practice.

The objective was to determine the relationship between nursing practise and a few different variables before creating a standardised medicine distribution protocol.

The relationship of nurse's practice regarding drug distribution system and demographic variables are shown in table 1. There is no significant relationship found with any of the listed demographic variables like professional qualification and total experience.

There was inferential significance found with the age, area of working and practice

of the staff nurses regarding drug distribution.The standard protocol is developed.

Demographic variables of the subjects.

In the present study it was found out that

- 22 (40percent) of the subjects were in the age group of 23-25 years, 20 (40percent) were of 26-28 years and 8(16 percent) of 29-31 years of age.
- 39 (78 percent) of the subjects were diploma and 11 (22 percent) were graduates.
- 20 (40 percent) of the subjects were working in ICU, another 20 (40 percent) were in CCU and 10 (20 percent) were working in Emergency departments.
- 19 (38 percent) were having 1 year of experience, 15 (30 percent) were having
- 2-3 years of experience and 16 (32 percent) of the subjects were having4+years of experience.

LIMITATIONS

- The sample size was less , if it will be more than the accuracy of the result can be increased.
- The time period was less i.e. is 3 weeks , if time period will be increased than theaccuracy of the result can be increased.

CHAPTER 8: RECOMMENDATIONS

Nursing Education: The present study emphasizes on enhancement in the practice of staff nurses regarding organized drug distribution system. In order to achieve these nurse educators should come forward to provide more information and practice opportunities to the student nurses.

Nursing Practice: Nurses are the key person of the health team, who play a major role in the health promotion and maintenance of the health status. The protocol developed in the present study will serve to improve the nurse's practice on drug distribution. In-service education and training programs can be organized to improve the practice levels of the staff nurses.

Nursing Research: The results of this study provide the professionals with a foundation for future research projects. Replicating the study will allow for the generalization of the findings. Since nursing is a field that is constantly changing, the goal of research is to create a body of knowledge in this field. striving for perfection and standard.

1. The study can be replicated on a larger sample in a different setting.
2. Follow up study can be done to evaluate the effectiveness of protocol.
3. A similar study can be conducted on nursing students.
4. A similar study can be conducted to assess the knowledge and practice of nursesregarding drug distribution system

CHAPTER 9: CONCLUSION

The present study was undertaken to evaluate the practice of nurses regarding organizeddrug distribution system and to associate it with a few demographic factors.Objectives of the study were:

- To develop a standard operating protocol for drug distribution system for Artemis Hospital
- To assess the level practice of nurses and hospital regarding organized drug distribution system
- To recommend course of action for adoption to SOPs for identified gaps in practices.

Assumption:

- It is assumed that nurses lack efficiency in utilization of organized drug distribution system.

The following are the conclusions drawn from the study:

- 21 (42percent) of subjects had moderately unsatisfactory level of practice and 29 (58percent)of staff nurses had satisfactory levels. These findings show none of thesubjects have highly satisfactory level of practice regarding organized drug distribution.
- The overall range of practice score was between 8-20, mean practices score percent was 51.3 with a standard deviation of 13.7.
- There is no significant relationship found with any of the listed demographic
- Variables like gender, marital status, professional qualification and total

experience.

- There is significant association found between age, area of working and practiceof the staff nurses regarding drug distribution.
- None of the subjects had satisfactory level of practice (>75 percent)

Informed consent

Introduction and Informed Consent

Namaskar, my name is _____ and I am the student of International Institute of Health Management Research, New Delhi. I am carrying out a study on "An Assessment of the Drug Handling System in Medical Store at Artemis Hospital, Gurgaon" for my dissertation purposes.

In this study, I will ask you questions pertaining to knowledge, the drug distribution system, and practices in this hospital. I will also be collecting information related to this study from other nursing staff members. I would be appreciating your participation in this study.

This survey may take about 30 minutes to complete. Whatever information you provide will be kept strictly confidential. Participation in this survey is voluntary and you can choose not to answer any question or all the questions. However, I hope that you will participate in this survey since your participation is important.

At this time, do you want to ask me anything about the survey? I will address all the concerns.

In case you need more information about the survey, you may contact me at any time.

May I begin the discussion now?

Respondent agrees to be interviewed ……..1 [Start interview]

Respondent doesn't give consent……..2 [End the interview]

Signature of interviewers _____

Date: _____

ANNEXURE

QUESTIONNAIRE

Section-A (Demographic Data)

1. Code Number :
2. Age (Years) :
3. Gender :

A) Male :
B) Female :

4. Marital Status :

A) Single :
B) Married :
C) Widow :

5. Professional qualification :

a) Diploma :
b) Graduates :

6. Total experience (Years) :
7. Area of working (ward) : ICU/CCU/Emergency
8. In- service training undergone :

a) Yes :
b) No :

QUESTIONNAIRE

Section –B (Drug Distribution Checklist) EMERGENCY DRUG DISTRIBUTION CHECKLIST Yes/No

1. Are emergency drug distributions available at emergency treatment areas? ☐ ☐

2. Are the emergency drug distributions conveniently located?

3. Does the emergency drug distribution have a list of medications & I-V fluids?

4. Does the emergency drug distribution have the stock list of equipments?

5. Are the medications & I V fluids were labeled properly?

6. Are the medications arranged according to their actions?

7. Are the drawers of the drug distribution clearly labeled?

8. Are the medications arranged in sequence and in order?

9. Are the medications checked periodically & exchanged based on the expiry date?

10. Are the sterile items checked for package integrity?

11. Is the inventoried equipment checked monthly i.e. laryngoscope batteries working?

12. Is the drug distribution periodically monitored by the ward in charge?

13. Is inventoried equipment checked daily on each shift?

14. Is the equipment inventory documentation updated, as per changes?

15. Is the vital signs monitor checked and appropriately documented for performance on both battery and electrical current?
YES /NO

16. Are the emergency drug distributions accessible to all wards/departments during emergency?

17. Is there skilled nursing personal assigned to monitor drug distribution?

18. Is there a special training certification record maintained in the credential file?

19. Is the in charge paying careful attention to rearrange the drug distribution after each use?

20. Is the oxygen cylinder secured to the drug distribution by a portable stand?

21. Is the oxygen level of all oxygen cylinders checked on a weekly basis?

22. Is the oxygen cylinder check and documented?

23. Are the cylinders serviced on a regular basis?

24. Is the drug distribution kept locked unless in use?

25. Is experience learned from an emergency response discussed openly with other Staff?

26. Are quality improvement processes implemented to promote the emergency response process?

27. Is there sufficient space for storage of drugs?

28. What are the major challenges you faced in this department?

29. What is your suggestions for improvement?

Any other comments:

……
……
……

ANNEXURE

EVALUATION CRITERIA CHECK LIST

Each correct response carries One mark, incorrect response carries

Zero marks.Total Score - 27

Unsatisfactory - < 50%

Moderately satisfactory - 51-75%

Satisfactory - >75%

PROTOCOL

This protocol is a If possible, apply the following advice to build policy and practise for drug distribution.

DEFINITION

Drug distribution

A drug distribution - is a special cart (with drawers) containing emergency drugs and equipment needed for cardiac-pulmonary resuscitation. It provides an easier access to the emergency drugs and equipment.

PURPOSE

To have the drug distribution and Defibrillator constantly ready for use in case oflife threatening condition such as cardiopulmonary arrest. To establish standard practice, which is required to maintain and utilize the drug distribution and the defibrillator. The Drug distribution policy will assist nursing staff to:

- Describe the role of nursing staff in maintaining drug distribution medication andequipment.
- Establish a uniform method of documentation and inspection of emergency medication andequipment.
- Establish a procedure of topping-up (re supplying) drug distribution.
- Establish the quantity of medication and equipment required as well as the location of theseitems in the drug distribution.
- Describe the exact location of the drug distribution.

RESPONSIBILITY

a. All nurses should be familiar with the contents and locations of all medication and equipment in the drug distribution

b. Drug distributions should be available in all clinical areas stocked with medication and equipment needed for immediate emergency interventions. All supplies in the drug distribution should be maintained and topped-up on an ongoing basis. In addition, periodic inspection will assure that there are not outdated drugs and/or supplies in the cart

c. A staff nurse should be responsible for checking the drug distribution including all external contents e.g. oxygen cylinder levels, defibrillator, and document on drug distribution checklist.

d. Drug distribution should be kept locked unless in use. If opened and/or used, the cart should be checked and topped-up (as per institutional policy).

e. The defibrillator shall be checked and appropriately documented for performance on both battery and electrical current once every 24 hours (according to user manual). The defibrillator will remain plugged into an electrical outlet at all times, except during battery testing. The Biomedical Department should be contacted immediately when a defibrillator problem is detected.

f. Sterile items should be checked for package integrity and expiry date. Items with expiry dates within a month should be replaced.

g. Laryngoscopes should be checked prior to placement on the cart.

h. Pharmacy should check all emergency carts for proper medication storage, stock level,and unit inspection log as determined by Pharmacy policy (as per institutional policy).

i. The drug distribution checklists and test load strips should be maintained for each drug distribution for 12 months (after use).

j. Drawers of drug distributions should be clearly labeled to identify contents in general categories e.g. medication, cardiac/chest procedures, circulation, breathing, and airway.

k. The Drug distribution should be kept always in sight and in reachable place.

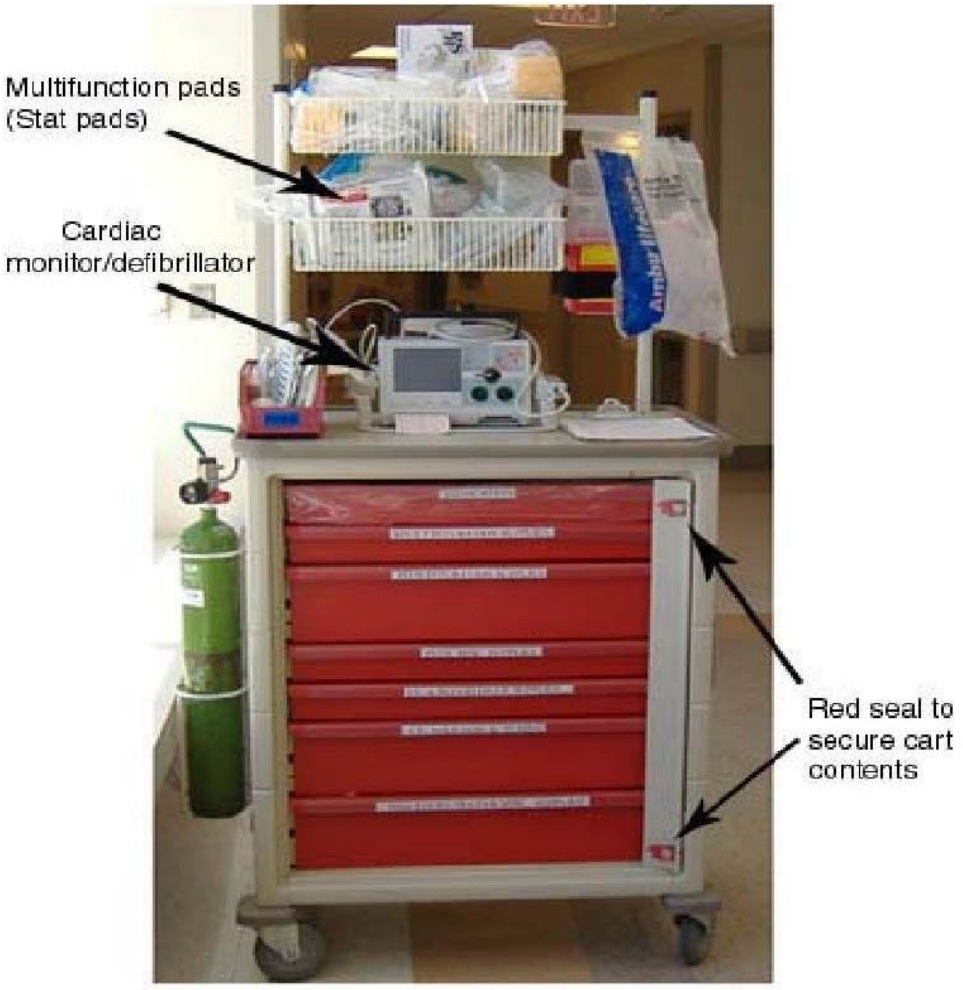
l. The list of medication and equipment to be maintained in the drug distribution should bedetermined by the Cardiopulmonary Resuscitation (CPR) Committee (as per institutional policy).

m. The Unit Staff should be responsible for weekly inspection, maintenance and replacement of drugs in the drug distribution (as per institutional policy).

n. The staff nurse should be knowledgeable of the drug distribution contents and location to prevent any delay during cardiac arrest.

o. The staff nurse should be responsible for cleaning the carts, inspecting and replacing emergency drugs as well as checking the defibrillator, cardiac monitor, autoclaved items, and oxygen tank.

DRUG DISTRIBUTION



Drug distribution Drawer

Equipment (external)

Sl.No.	Particulars		Qty
1.	Defibrillator with E.C.G leads	:	1
2.	Electrode Jelly / Pads	:	1
3.	Resuscitation Bag (Mask Valve Bag Set) with different sizes	:	1
4.	Pulse oxy meter	:	1
5.	Resuscitation Record sheet	:	1
6.	Resuscitation board	:	1
7.	I.V. Stand	:	1
8.	Clock timer	:	1
9.	Sphygmomanometer	:	1
10.	Oxygen cylinder on the side of trolley for O2 Administration	:	1
11.	O2 Cylinder Key	:	2

Drug distribution Drawer Emergency Medications

SN Item Stock

01 Adenosine 6mg/2mlvial
02 Amiodarone 150mg/3ml
ampule03 Epinephrine
1mg/Ml1:1000
04 Epinephrine 1 Mg/10ml 1:10000 (Minijet syringe)
05 Magnesium Sulfate 1 Gm/2ml
vial 50%06 Naloxone O.4mg/Ml
1ml Ampule
07 Nitroglycerin (Tridil)
50mg/10ml vial08
Nitroprusside 50mgVial
09 Norepinephrine
4mg/4ml ampule10
Vasopressin 20U/Ml 1mlvial
11 Verapamil (Isoptin)
5mg/2ml vial 12 Sodium
Chloride 0.9% 10ml Flush
13Dobutamine250mg
14Dopamine200mg/5ml
15 Atropine 1mg/10ml
(Minijetsyringe)\
16Atopine0.6mg/l
17Calcium
Chloride10% 18
Calcium
Gluconate10%
19Dextrose5%
20 Lidocaine 100mg/5ml (Minijet
syringe)21Lidocaine 2%(vial)
22Sodium Bicarbonate

8.4% 23Isoprenaline
(Isopril) 2mg/2ml
24Distilled Water vial

NOTE

It is recommended to have more than single dose patient as per Advanced Cardiac Life Support (ACLS) policy. Aspirin, Nitroglycerine tablet and Morphine (if there is a narcotic lock) could be added.

Special medications (Aminophilline, Hydrocortisone, Inderal, Digoxine, Dilitizem, Lasix) couldbe added in critical specialized units preferably in CCU and Accident &
Emergency

Drug distribution Drawer Breathing and Airway Equipment

SN	Item	Stock

1. Oxygen Face Mask (High Flow): Different sizes
2. Oropharangeal Set: Different sizes
3. Laryngoscope Airway: Different sizes
4. Nasopharangeal Airway: Different sizes
5. Laryngeal Mask
6. Lubricant (preferably Lidocaine gel)
7. 2 C Cell Batteries
8. 1 Laryngoscope Light Bulb
9. Mouth Gag
10. Adhesive Tape or pre-made ET Tube Holder
11. Oral Yankauer suction catheter
12. Straight Connector
13. ET Tube: 2 each size
14. Disposable Gloves
15. Megills Forceps
16. Scissor

17. Intubation Stylet: Different sizes
18. Tracheotomy set

Drug distribution Drawer Circulation IV Supplies

SN	Item	Stock
1.	Cannula: 2 each of different sizes	
2.	3-Way Y Stopcocks	
3.	Blood Tubes	
4.	Needles: Different sizes	
5.	Alcohol Swabs	
6.	Betadine swaps (if available)	
7.	Adhesive Plaster	
8.	I.V Set	
9.	Syringes: Different sizes	

Drug distribution Drawer Intra-Venous Solutions

SN	Item	Stock
1.	Lactated Ringers 500ml	
2.	Normal Saline 0.9% 500ml (2 bottles)	
3.	Dextrose 5 % Dextrose 10%	
4.	Dextrose 25%	
5.	Soda bicarbonate	

Drug distribution Drawer Cardiac and Chest

Procedures

SN	Item	Stock
1.	EKG Electrodes	
2.	Sterile gloves, 2 pairs each size - small, medium, and large	
3.	2 Masks with face shields or masks and eye protection	
4.	Scalpels with blades	
5.	Dressings Gauze	
6.	Sharp Box	
7.	ECG paper roll and Jelly	

Note :

Some Drug distribution has limited number of drawers. However, it could be arranged asper the number of drawers available and partition could be improvised.

However, the Drug distribution should be maintained neat and tidy

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CERTIFICATE ON PLAGIARISM CHECK

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Enrollment/Roll No.	PG/21/119	Batch Year	2021 - 23
Course Specialization (Choose one)	Hospital Management	Health Management	Healthcare IT ✓
Name of Guide/Supervisor	Dr./Prof.: Dr. Sumant Swain		
Title of the Dissertation/Summer Assignment	An Assesment of the Drug Handling System in IPD at, Artemis Hospital Gurgaon.		
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Pictorial Journey