

THE ROLE AND RESPONSIBILITIES OF PHARMACISTS IN VARIOUS ASPECTS OF EMERGENCY UNITS: A REVIEW STUDY

Sandeep Kaur, R.K. Patil, Ramanjeet Kaur, H.C. Patil

Pharm.D (student), Adesh Institute of Pharmacy and Biomedical Sciences, Bathinda

Professor, Department of pharmacy practice, Adesh Institute of Pharmacy and Biomedical Sciences, Bathinda

Associate Professor, Adesh Institute of Pharmacy and Biomedical Sciences, Bathinda

Professor and Principal, Adesh Institute of Pharmacy and Biomedical Sciences, Bathinda

Abstract

The Main purpose of a review study is to find different types of the role of clinical and community pharmacist in the emergency departments. Pharmacists have expertise in medication and their different roles and responsibilities for drug action in the body and mechanism of action. It acts as the link between the public and the doctor. Pharmacists provide information to the patient regarding their medication use and side effects of drugs. During the emergency, pharmacists help to improve quality of life and reduce pharmacoconomics of medicine. All information was collected from different sources such as MEDLINE, PUBMED, and google scholar regarding different roles and responsibilities of a pharmacist in emergency departments in the hospital. From all the investigation, it was found that pharmacists have a distinctive setting in the emergency department for urgent needs. Pharmacists collaborate with other health care professionals for the management or prevention of this crisis during emergency conditions.

Keywords: Clinical Pharmacist, Physician, Emergency Departments

INTRODUCTION

The Main contribution of pharmacists in the different emergency departments in which pharmacists dispense medicine and reduce the chance of Error. Pharmacists improve the quality of life of a patient during an emergency by maintaining appropriate therapy to the patient. In the emergency department, pharmacists reduce the chance of adverse drug effects by reviewing drug therapy given to patients.^[1] Pharmacist is the link between physician and patient. Pharmacists reduce the chance of duplication of medicine. Its main responsibility to evaluate the medicine regimen given to the patient by evaluating the right drug at the right time given to right individual by following methods:

- Estimation or assessment of treatment regimen
- Medication supportive system

- Regular follow up for observance of adverse effects^[2]

In emergency departments, Different diseases the patient came in such as cardiovascular diseases, traumatic and surgical patients, etc. that require Twenty hours care services, but patients don't know the emergency medical care information. Many factors are responsible for increasing the chance of error, such as the multiple numbers of medication use and information regarding the health of the patient. Therefore, clinical pharmacists in the emergency departments have a unique role in drug administration and appropriate treatment and regarding the safety of drugs and cost. Well-trained pharmacists have great information regarding the function of the organ, medicine allergy, drug interaction between two or more drugs and possible side effects of the drugs ^[3] clinical pharmacist team in emergency units act as a rapid response team and works to decrease number of error during an emergency.^[4]

In every hospital the main role of the emergency department is for patient care. Emergency situations help in different crises that occur around the world. The Emergency department provides 24 hours service. It includes physicians, nurses and clinical pharmacists, assistants and other health care professionals. Since 1970 pharmacists have participated in the emergency departments. Therefore, pharmacist intervention in emergency increases quality and reduces adverse effects and drug interaction and cost of therapy and provides adequate treatment to the patient. Pharmacists identified the prescription of the drug and perform following the activities

- Dose of medicine
- Adequate route of administration
- The Complexity of the prescription
- Incomplete information on drug
- Unsuitable ingredient use
- Other medicine-related information such drug interaction, wrong therapy, medicine error.^[5]

During this pandemic many pharmacists and nurses and healthcare professionals work as a frontline for the people for the prevention of infection of the virus. Pharmacists easily identify patients and provide earlier information regarding current status in different countries to the pharmacy and other healthcare professionals. Therefore community pharmacist helps in preparing alcohol-based sanitizer for maintain of proper hygienic condition and ensure that proper mask supply occurs in different cities. ^[6] The American School of Crisis Doctors strategy articulation on clinical drug specialist administrations expresses that clinical drug specialists serve a basic job in guaranteeing productive, protected and powerful prescription use in the ED and hospital advocates wellbeing frameworks to help devoted jobs for drug specialists inside the ED. The EM drug specialist should fill in as an all around incorporated individual from the ED multidisciplinary group who effectively takes an interest in tolerant consideration choices, including revivals, advances of care, and prescription compromise to advance pharmacotherapy for ED patients ^[7].

Different roles of pharmacist in Emergency Departments

In reducing antibiotic error during prescribing

In emergency conditions, there are many chances of error during prescribing antibiotics. In this pharmacist evaluates errors by reviewing medication charts such as wrong medicine and incorrect dose. Mostly 44% total of type C (continues) and 38% of total type B adverse events occur during emergencies. Pharmacist as a medicine specialist provides important role in correct management therapy for or event infection to patient in antibiotic therapy^[8]

For improving outcomes and costs

Main role and responsibility of the pharmacist is to make sure that the drug is safe and effective to patients due increased cost of medicine day by day pharmacists evaluate medicine cost and use of medication increase every day and medication cost increase. Therefore, there is great pressure on health care professionals and pharmacists to maintain the cost of medication. So, Pharmacists help in cost management and reduce the chance of medication error and adverse drug events. It also reduces the chance of hospital administration of the patient.

In medication error and over the counter prescription

When drug or medicine is given to the patient in an inappropriate way such as wrong dose and wrong drug or wrong route of administration. Therefore, production of adverse effects or toxic effects in patients is called medication error. If adverse events occur increases the chance of cost and hospital administration. The Pharmacist helps in maintenance of such side effects and reduces the time for a long stay in the hospital. Clinical pharmacists reduce the chance of progression of chronic illness. Many people take their medication without a prescription. Pharmacists provide information regarding the use and side effects of drugs to the individual. Thus with the help of recommendation of community pharmacists decrease the chance of ADR and cost-effectiveness. Pharmacist reduce the chance of human error such as giving unsuitable prescriptions to a patient can affect the patient quality. So, pharmacists ensure that appropriate therapy is given to an individual.^[9]

Counselling regarding in emergency contraceptive pills

There is a lack of information regarding use and side effects of contraceptives among individuals. So community pharmacists have a different role in emergency contraception because more than 45% of pregnancies don't have known the use of contraceptives. The Pharmacist directly provided emergency stocks to the women.^[10]

During COVID -19 pandemic

COVID-19 pandemic effect worldwide and clinical pharmacists make sure that proper supply of drugs to the hospitals and other products such as masks and use of hand sanitizers. Another performs that improves patient

knowledge through medication counselling or psychological counselling by telephone method regarding treatment regimen to their therapy. Most pharmacists use mobile phones for giving information to the public for the prevention of spread of virus infection from one individual to another individual and community pharmacists main contribution in reporting suspected cases in the community to different hospitals. Pharmacy improves the medicine or drugs supply services to the pharmacies and hospital during emergency conditions. [11]

Appropriate drug Information and drug utilization review

The Pharmacist is the special skilled worker that adjusts dose and route of administration that are given to the patient appropriately. Pharmacists don't only provide a role in patient safety but also check if the medicine is available in an emergency in the pharmacy. The pharmacist also reviews the patient's medical and medication history and provides information to the health care providers to easily and effectively understand the patient's diseases or conditions. On the other hand, during emergency pharmacists also provide details of drugs to all the nurses that are required during emergency conditions. total 60% nurses received information regarding drugs from the pharmacist. [12]

In different intervention

From investigation, it was found that pharmacists find 8% total route of administration and five percent frequency of medicine and 2-3 percent in pharmacovigilance, allergic intervention. With the help of this type of intervention reduces the chance of pharmaceutical error. They are total. Thirty five dose relation intervention such as unusual dose prescribed, medicine unavailable, drug is given without dosage. [13]

Time for drug administration

Pharmacists ensure that medicine is given to the patient according to the time and determine the time of starting anesthesia and end time of analgesic medication according to the American heart association time for thrombolytic agents is less than 60 minutes from arrival. In emergency units, pharmacists incorporate time management for stroke, trauma patients that increase the quality of life of the individual. [14]

Summery

From all the investigation it was found that pharmacist has distinctive seating in an emergency department for urgent needs. The clinical pharmacist provides support to all members as clinical care. Health care professionals know the value of the pharmacist in medication utilization and review for the safety of the patient. A Pharmacist has also provided unique responsibility for antibiotics in emergency care. Improve the link between physicians and pharmacists can also improve antibiotic utilization in emergency care. Health care provider recommends medication prescription to the patient and pharmacist evaluates all the prescription and ensures that individual follows all the instruction that is provided during their treatment. Therefore, pharmacists as medicine expertise provide a critical role in the healthcare of patients and reduce drug interaction, side

effects improve quality by providing appropriate therapy to the individual. The Main responsibility of the pharmacist during an emergency is to ensure the drug is safe for individuals and reduce the chance of allergy and easily administer a patient without delay time during emergency units. Pharmacists provide different roles during this pandemic for the formulation and discovery of drugs.

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