RESEARCH ARTICLE

ASSESSMENT OF KNOWLEDGE REGARDING COMMON CARDIAC DRUGS AMONG THE STAFF NURSES IN CARDIAC UNITS OF TERTIARY CARE HOSPITAL

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ARTICLE INFO	ABSTRACT
	Introduction: Each cardiac drug has its own pharmacological properties and side effects. Medication safety is a major concern and global issue related to the quality and safety of patient care. The administration of medication is an important aspect of nurse's professional practice. So, nurses should update their knowledge to improve the quality of nursing care. **Materials and Methods:** A descriptive cross sectional research study was designed to assess the knowledge regarding common cardiac drugs among the staff Nurses in Cardiac units and to identify the factors associated with the level of knowledge about common cardiac drugs among the staff nurses in cardiac unit. The sample included 40 staff nurses who fulfilled inclusion criteria. Convenience sampling technique was used to select sample. The data collection was done by using a self-administered questionnaire. **Results:** Out of 40 staff nurses, four (10%) had excellent knowledge, 23 (57.5%) had good level of knowledge, 12 (30%) had average knowledge and only one had poor knowledge on common cardiac drugs. There was no significance relationship between knowledge scores and selected demographic variables like age, sex, year of experience, qualifications and area of work. **Conclusion:** Cardiac nurses should therefore be equipped with updated knowledge on various aspects of drug administration.

INTRODUCTION

Cardiovascular diseases are the major cause of death globally. World health organization (2011) estimated that 7.3 million of these deaths were due to coronary heart disease. More than 80% of the world's deaths from cardiovascular diseases occur in low and middle income countries. If no appropriate action is taken, 20 million people would die from cardiovascular disease every year by 2015. (Global atlas on cardiovascular disease prevention and control, 2011) Cardiac drugs are the part and parcel of emergency and critical care medicine. Each cardiac drugs has its own pharmacological properties and side effects. (Robin Donovan, 2012) Medication safety is a major concern and global issue related to the quality and safety of patient care. (Gladstone, 1995) From an educational point, a theory-practice gap leads nurses to make administration errors. (Cohen, 2007) Nurses need to have knowledge and skills necessary to recognize and respond appropriately, when an emergency occurs. (Elnour *et al.*, 2008)

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Adequate knowledge on pharmacology is very much important to nurses because drug administration is one of the major responsibilities of nurses. Cardiac emergencies can occur at any time in any patients. Familiarity with cardiac drugs can avoid unnecessary medication errors. As the nurses need to deliver safe care to the critical ill patients, they should have a good knowledge on all cardiac drugs and their pharmacological properties.[2]Drugs that affect the function of heart and blood vessels are most widely used in cardiac units. These drugs may exert their primary effect on the blood vessels or on the heart itself. The importance of knowledge on pharmacology for nurses is increasing day by day due to the following reasons i) medication administration is done by nurses, ii) Each hospital uses a variety of drugs for treatment and diagnostic purposes, iii) Therapeutic regimens are changing, iv) Day by day new drugs are adding to the treatment protocol. So, nurses should update their knowledge to improve the quality of nursing care.

MATERIALS AND METHODS

A quantitative descriptive cross sectional research study was designed to assess the Knowledge regarding common cardiac drugs among the staff Nurses in Cardiac units of Tertiary care

Table 1. Demographic variables of staff nurses in cardiac units

N=40

	Demographic variables	Frequency (No.)	Percentage (%)
Age in years	20 -25	10	25
	26 – 30	24	60
	>30	6	15
Sex	Male	16	40
	Female	24	60
Qualification	Diploma	9	22.5
	Degree	22	55
	Postgraduate and above	9	22.5
Work place	Cardiac wards (cardiology wards & CTVS wards)	8	20
	Cardiac ICU (Cardiology ICU, CTVS ICU, CCCU)	15	37.5
	OT & Cath. Lab	17	42.5
Total year of experience	<5 years	29	72.5
	6 – 10 years	8	20
	>10 years	3	7.5

Table 2. Level of Knowledge on common cardiac drugs among the staff nurses

N=40

Leve of knowledge	Frequency (No.)	Percentage (%)
Excellent	4	10
Good	23	57.5
Average	12	30
Poor	1	2.5

Hospital, Puducherry. The study objectives were to assess the level of knowledge about common cardiac drugs among staff nurses in cardiac unit and to identify the factors associated with the level of knowledge about common cardiac drugs among the staff nurses in cardiac unit. The setting of the study was cardiology wards, cardiothoracic and vascular surgery wards, cardiothoracic and vascular surgery intensive care unit, cardiothoracic and vascular surgery operation theaters, cardiac cauterization laboratories and cardiac critical care unit. Inclusion criteria for sampling was nurses working in cardiac units and nurses who were available at the time of data collection. The sample included 40 staff nurses who fulfilled inclusion criteria. Convenience sampling technique was used to select samples. The tool used for data collection includedi) demographic variables such age, gender, place of work, education details and total year of experience, part ii) structured questionnaire was used to assess the level of knowledge on common cardiac drugs among the staff nurses. It consists of 25 multiple choice questions with four responses. Each correct answer was given one mark and no negative score was assigned for wrong answers. The scores were categorized such as <10 stated in poor knowledge; 11-15 noted as adequate knowledge, 16-20 mentioned as good knowledge and > 20 stated as excellent. The tool was validated by subject experts. The data collection was done after obtaining approval by JIPMER scientific advisory committee and Institute Ethics Committee. The data collection was done by using a self-administered questionnaire.

RESULTS AND DISCUSSION

Table 1 depicts the frequency and percentage distribution of demographic variables of staff nurses working in cardiac units. It shows that 24 (60%) staff nurses were in the age group of 26-30 years and female. Among 40 staff nurses, 22 (55%) were

graduates, 17 (42.5%) were working in OT and Cathlaband 29 (72.5%) had less than five years of experience.

Table 2 shows that out of 40 staff nurses, four (10%) had excellent knowledge, 23 (57.5%) had good level of knowledge, 12 (30%) had average knowledge and only one had poor knowledge on common cardiac drugs. The mean score of the staff nurses who participated in the study was 16.83. The present study finding was supported by Ndosi and Newell who conducted a study on nurses' knowledge of pharmacology behind drugs they commonly administer. The results of their study stated that nurses have inadequate knowledge on mechanism of action and drug interactions. (Ndosi and Newell, 2008) Yousuf, Ali and Samy conducted a study to assess critical care nurses knowledge and practices regarding selected positive inotropics. Their study findings revealed that critical care nurses have got low knowledge and practice scores. This also supported the current study result. (Youssef *et al.*, 2014) The present study findings revealed that there was no significance relationship between knowledge scores and selected demographic variables like age, sex, year of experience, qualifications and area of work. The study findings were supported by Yousuf, Ali and Samyconducted a study to assess critical care nurses' knowledge and practice regarding selected positive inotropics. They found that no significant correlations existed between years of experience, area of work and the level of knowledge and practice regarding selected positive inotropic medications. (Youssef *et al.*, 2014)

Conclusion

Cardiac drugs are dose sensitive and even minor errors in drug administration can lead to potentially fatal adverse effects. Cardiac nurses should be equipped with updated knowledge on various aspects of drug administration. The findings can be used as a motivating factor for staff nurses for gaining more knowledge and they can provide better patient care. The

administers should take measures to conduct periodic evaluation for staff nurses and should arrange for continuing nursing education for the staff nurses in their respective areas. Junior staff nurses should get adequate training before they are posted in cardiac units.

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