

## Awareness of health care staff regarding indicated and contraindicated medication during pregnancy at Kirkuk city hospitals

### Article information

#### Article history:

Received January 2, 2019

Accepted January 20, 2019

Available online June 1, 2019

DOI: [10.33899/mjn.2019.160083](https://doi.org/10.33899/mjn.2019.160083) ©2020, College of Nursing, University of Mosul.

[Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

[https://mjn.mosuljournals.com/article\\_160083.html](https://mjn.mosuljournals.com/article_160083.html)

Darya Yaseen Mustafa<sup>1</sup>

DhiaaAlrahman H. Abdullah<sup>2</sup>

### Abstract

**Background:** pregnant women may need medication to manage some of problems occurring during pregnancy. Some of medication considered safe and other unsafe, medical and nursing staff should aware of safe and unsafe medication to prevent further damage to the pregnant women.

**Objectives:** to assess healthcare worker awareness regarding indicated and contraindicated medication during pregnancy at Kirkuk city hospitals.

**Methodology:** A quantitative design using descriptive study was carried out at Kirkuk city hospitals from 1st of October, 2017, up to the 1st of October, 2018. A non-probability (purposive) sample of (86) staff working in maternity units was used. A constructed questionnaire was used for the purpose of the study which consisted of two parts: the demographic data of the sample, and the awareness of healthcare worker regarding indicated and contraindicated medication during pregnancy. The data were collected through the use of self-administration techniques they were analyzed through the application of descriptive statistical analysis and inferential statistical data analysis.

**Results:** The findings of the study indicated that (60.5%) of the samples were working in Kirkuk general hospital, (55.8%) were between age group (20-29 years), (57%) of the sample were nurses, (53.5%) of them were having 1-5 years of experience, and (58.1%) do not training in medication session.

**Conclusions:** most healthcare worker unaware of indicated and contraindicated medication during pregnancy.

**Keys;** awareness, indicated medication, contraindicated medication, pregnancy.

<sup>1</sup> MSc Science in Nursing/ lecturer Assistant /College of Nursing/ University of Kirkuk / E. mail: darya \_yasin@yahoo.com

<sup>2</sup> MSc Science in Nursing /lecturer/College of Nursing/ University of Kirkuk / E. mail: Dhiaa\_h33@yahoo.com

## 1. Introduction

Pregnancy period considered developmental issues occurs to women after conception. During this period pregnant woman may affect by some gynecological and medical problem. Therefore they need medical treatment and medical advices. Medication intervention required to treat these problems. There are many drug indicated for uses and other contraindicated for uses during pregnancy. As stated by Sharma et al and Nielsen et al, Pregnancy is a special physiological condition where drug treatment presents a special concern because physiology of pregnancy affects the pharmacokinetics of medications used and certain medications could cause harm to the fetus due to the potential teratogenic effects of the drug and the physiological adjustments in the mother, in response to pregnancy<sup>(1,2)</sup>. Many of pregnant women having chronic diseases such as Diabetes Mellitus, Hypertension, depression, Epilepsy and nutritional imbalance these diseases needing adjustment therapy.

Pharmaco-epidemiological studies can help in minimizing the inherent risk of drug use in pregnancy, by establishing a profile of drug consumption, by evaluating the existing health

services and by investigating the interventional measures<sup>(3)</sup>

Pregnancy is a very crucial part of life for the both mother and baby so it's very important for the pregnant mothers to follow up during the gestation period. The most important thing is the medication is undergoing as the drugs containing the mixture of chemicals when interact together may cause the teratogenic effect to the baby. So it is very important for the health care professionals and pregnant woman to know which drugs can be taken and which should be avoided during this period therefore this review gives insight of the drugs which are safe and unsafe during pregnancy to increase the awareness<sup>(4,5)</sup>. Physician, nurses and other health care worker should aware the risks of the contraindication of the prescribed medication during pregnancy as stated by Andrade et al 2006 and Lee et al 2006 that the appropriate dispensing is one of the key steps for rational drug use including minimizing the use of teratogenic drugs during pregnancy. It is necessary that a drug dispenser should have relevant and updated knowledge and skills regarding dispensing of drugs during pregnancy.<sup>(6,7)</sup>.

### Objective of the study:

- 1-To assess the demographical characteristics of the study sample.
- 2-To assess healthcare worker awareness regarding indicated medication during pregnancy.

- 3-To assess healthcare worker awareness regarding contraindicated medication during pregnancy.
- 4-To find out the relationship between demographic data and awareness of the sampl

## 2. Methodology

A quantitative research design by using descriptive study was carried out for medical and nursing staff worked in maternity units from the period of 1<sup>st</sup> of October, 2017, up to the 1<sup>st</sup> of October, 2018 to assess awareness of medical and nursing staff regarding indicated and contraindicated medication during pregnancy period in Kirkuk city hospitals. A purposive (non-probability sampling) was used to select (86) sample both physician a nurses working in maternity units, Through previous review of literature, a questionnaire was constructed for the purpose of the study with self-administration technique to achieve the purposes of the study. The questionnaire were

consist of two parts: first part was demographic data about the sample which consist of (5) items, and second part consist of (22) items represent 22 indicated and contraindicated drugs used during pregnancy. A panel of (11) experts was involved in the determination of the questionnaire content validity. The data collection was performed from the period of 1<sup>st</sup> of December, 2017 up to the 30<sup>th</sup> December, 2017. The data were analyzed through the application of descriptive statistical analysis which include (frequency and percentage,) and inferential statistical analysis which include (ANOVA,T-test

**3.Results**

Table (1) frequency and percentage of the study samples regarding to demographic data

No.	hospital	Frequency	Percentage
1	<b>Kirkuk</b>	<b>52</b>	<b>60.5</b>
2	<b>Azadi</b>	<b>34</b>	<b>39.5</b>
Total		<b>86</b>	<b>100</b>
No.	Age	frequency	percentage
1	<b>20-29</b>	<b>48</b>	<b>55.8</b>
2	<b>30-39</b>	<b>31</b>	<b>36.0</b>
3	<b>40 and more</b>	<b>7</b>	<b>8.2</b>
Total		<b>86</b>	<b>100</b>
No.	Staff	Frequency	Percentage
1	<b>Nursing staff</b>	<b>49</b>	<b>57.0</b>
2	<b>Medical staff (rotator)</b>	<b>24</b>	<b>27.9</b>
3	<b>Medical staff ( permanent)</b>	<b>13</b>	<b>15.1</b>
Total		<b>86</b>	<b>100</b>
No.	Years of service	Frequency	Percentage
1	<b>1-5 yrs</b>	<b>46</b>	<b>53.5</b>
2	<b>6-10yrs</b>	<b>31</b>	<b>36.0</b>
3	<b>11 and more</b>	<b>9</b>	<b>10.5</b>
No.	Training session	Frequency	Percentage
5	<b>present</b>	<b>36</b>	<b>41.9</b>
6	<b>Not present</b>	<b>50</b>	<b>58.1</b>
Total		<b>86</b>	<b>100</b>

Table (1) shows that the study sample were (60.5%) work in Kirkuk general hospital,(55.8%) were between age group 20-29 years old, (57%)were nursing staff, (53.5%) having 1-5 years of experience, ( 58.1%) having training session regarding medication.

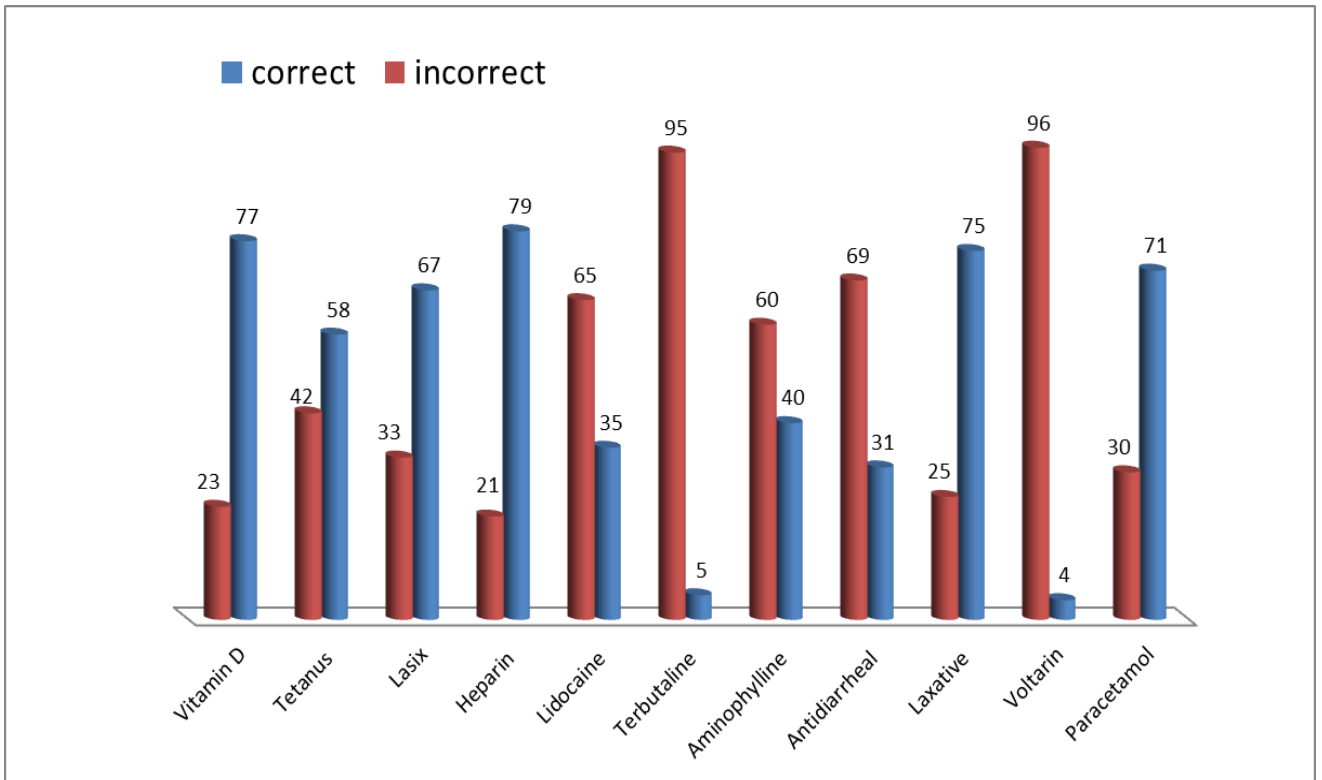


Figure 1: Awareness of health care provider regarding indicated medication during pregnancy

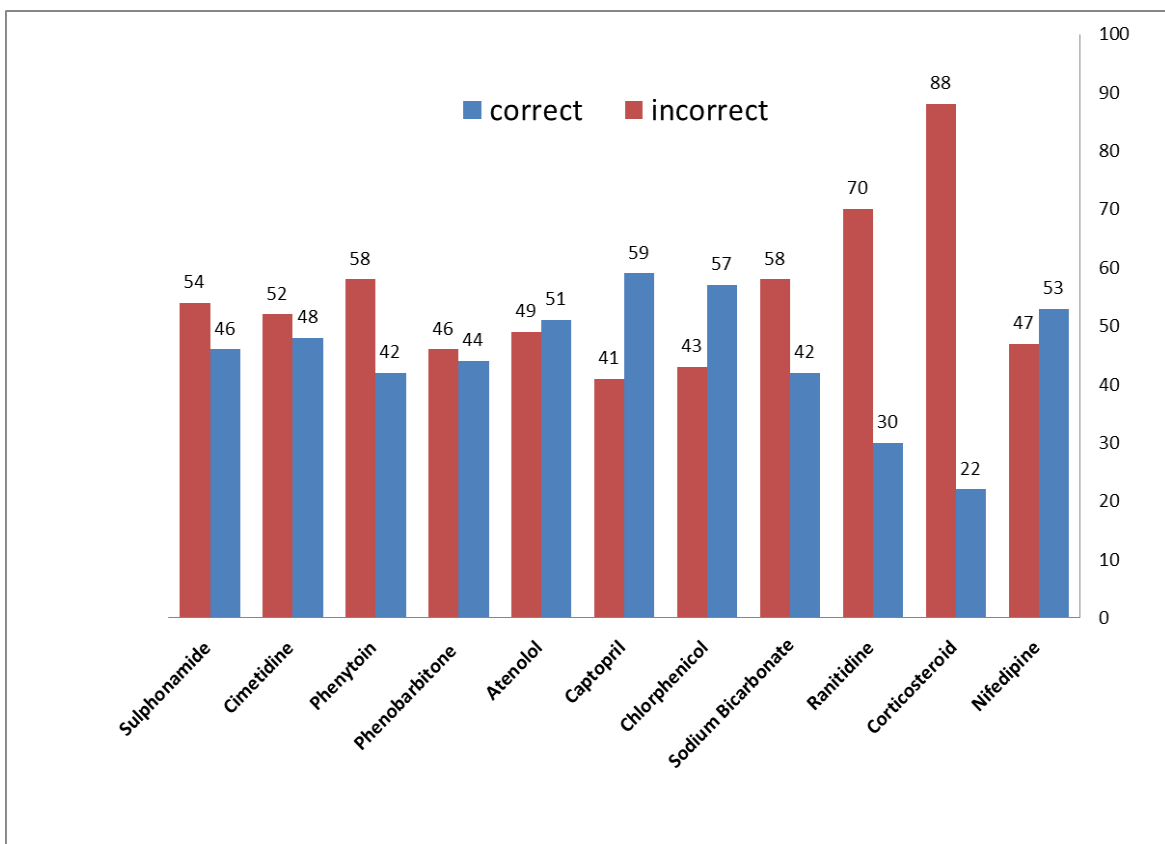


Figure 1: Awareness of healthcare provider regarding contraindicated medication during pregnancy

Table (2) One-way analysis of variance for the differences between staff awareness and their demographical data (age, experience, and staff).

category	S.O.V	Sum of square	df	Mean square	F. Obs.	Sig.
age	Between Groups	7.513	12	.626	1.434	.171
	Within Groups	31.882	73	.437		
	Total	39.395	85			
experience	Between Groups	5.921	12	.493	0.882	.568
	Within Groups	40.835	73	.559		
	Total	46.756	85			
staff	Between Groups	7.293	12	.608	1.119	.358
	Within Groups	39.638	73	.543		
	Total	46.930	85			

F critical = 1.83 Table (2) shows that there is no significant relationship between the (age, experience, and staff) domain and their awareness, at  $P \leq 0.05$

Table (3) comparison of health care staff awareness regarding to their (hospital and training session)

category	item	No.	X	SD	T. obs.
hospital	Kirkuk	52	10.2692	2.9112	0.119
	Azadi	34	12.5882	3.0163	
session	Present	36	12.5833	2.97009	0.979
	Not present	50	10.1800	2.90454	

T critical = 1.980  
Df = 84

Table (3) shows that there is no significant differences between (hospital and session) domain and their awareness of the sample at  $P \text{ value} \leq 0.05$

#### 4. Discussion

The safety of medications during pregnancy period is a very important eventual for the pregnant and fetus life. Rational drug use in pregnancy requires the balancing of benefits

and risks accompanying with the use of the drug. Medical and nursing staff should have enough knowledge about dispensing medication to the pregnant woman as well as

pharmacist, in this study and according to the results; health care worker including medical and nursing staff having inadequate awareness regarding indicated and contraindicated medication during pregnancy period. There were many reasons for these results such as most of the study sample has had inadequate years of experience in the medical and nursing field, also more than half of the samples not presented to the training program about medication dispensed to the pregnant women. According to the results of the study healthcare worker revealed low level of awareness regarding indicated and contraindicated medication during pregnancy this because the larger sample of the study were nurses, in Iraq nursing staff haven't authority in dispensing drug to the patients. Lack of communication between healthcare staff and pharmacists, the results is similar with the study conducted by KamuhabwaA and Jalal R 2011 in which the

nurses have inadequate knowledge compared with pharmacist. Healthcare worker may fear from prescribing the medicine mentioned in the tool of the study and believed that it is dangerous to the pregnant women. Also the policy of some hospital in some country may play an important role to prevent prescription of many drugs. In addition the present study result agreement with Angadis in 2014 when he reveal in his study done among healthcare staff about drugs he find that the health care provider un aware about the drugs taking during pregnancy period, Mwidin in 2008 find that the nurses have inadequate knowledge regarding drugs but adequate knowledge about drugs administration and mechanism of action this result may due to the nursing study learning subject not focus on the pharmacological material but focus on drugs administration that lead to to inadequate and unawareness about the drugs as general.

## 5. Conclusions

- 1) Health care worker unaware regarding indicated medication during pregnancy
- 2) Health care worker unaware regarding contra indicated medication during pregnancy

- 3) The relationship between staff awareness and their demographic data( age, experience and staff) were not significant
- 4) The relationship between staff awareness and their demographic data ( hospital and training session ) were not significant

## 6. Recommendations

1. Hospitals and primary health care center should emphasize on establishing continuous training session for medical and nursing staff regarding medication prescription.
2. Highlight on mass media and social media to educate women especially pregnant

about the safe and unsafe medication during pregnancy.

3. Pharmacist should be included in their consultation about prescribing medication to the pregnant
4. Posters and booklet about most dangerous drugs should be available on hand for medical and nursing staff.

3. Carmo T, Nitrini S. Drug prescription for pregnant women: A pharmacoepidemiological study. *Cad Saude Publica* 2004;20:1004-13 .

4. Taking Medicine During Pregnancy 2015. Available at: <http://www.webmd.com/baby/guide/taking-medicine-during-pregnancy>.

5. Drugs contraindicated in pregnancy 2015. Available at: <http://www.empr.com/drugs-contraindicated-in-pregnancy/article/125914/9>

## 7. References

1. Sharma R, Kapoor, B, Verma, U. Drug utilization pattern during pregnancy in North India. *Ind J Med Sci.* 2006; 60(7 (

2. Nielsen G, Nørgard B, Puho E, Rothman K, Sørensen H, Czeizel A. Risk of specific congenital abnormalities in offspring of women with diabetes. *Diabet Med.* 2005 June; 22(6): 693–96.

Knowledge of drug dispensers and pregnant women in Dar es Salaam, Tanzania, 2011, vol. 43(3): pp: 345–349(

9. Angadis SA, Dandagi SR (knowledge regarding teratogenic effect of drugs among staff nurses working in maternity and pediatric wards of K.L.E Dr. probhakarkore charitable hospital Be lgaum, Karnataka, phara Tutor magazine, 2014; 2(12). 150-151

10. Mwidin E, Ndosi and Rob Newell ( Nurse's knowledge of pharmacology behind drugs administered, journal of clinical nursing ,2008; 18 570-580

6. Andrade SE, Raebel MA, Morse AN, Davis RL, Chan KA, Finkelstein JA, et al. Use of prescription medications with a potential for fetal harm among pregnant women. *Pharmacoepidemiol Drug Saf.* 2006;15:546–54. [PubMed]

7. Lee E, Maneno MK, Smith L, Weiss SR, Zuckerman IH, Wutoh AK, et al. National patterns of medication use during pregnancy. *Pharmacoepidemiol Drug Saf.* 2006;15:537–45. [PubMed]

8. Kamuhabwa A and Jalal R, *Indian J Pharmacol, Drug use in pregnancy:*