MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

UNIVERSITY OF ALQADISIYAH

COLLEGE OF PHARMACY

Scope On Medication Errors During Pregnancy In A Sample Of Iraqi Two Cities Sammawa & Diwania

Graduation research

Submitted To College Of Pharmacy, University of Al-Qadisiyah

By

Naryman Aziz Abass And Ali Salman Juail

Supervised By

Dr.Bassim I. Mohammad

Professor of Clinical Pharmacology

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(بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ)

(قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا ۖ إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ)

(صدَقَ آللهُ العلـيُّ ألعظيم)

سورة البقرة –الآية 32

Supervisor Certificate

I Certify that this Project

(**Scope on medication errors during pregnancy in a sample of Iraqi two cities Sammawa & Diwania)**

was prepared under our supervision at the College Of Pharmacy, University of Al-Qadisiyah as Graduation research

Signature

Professor

Dr.Bassim I. Mohammad

DEDICATION

To my lovely father,

My great mother,

my family and professors,

and to all who quench homeland with their blood

to make us live peacefully

Naryman Aziz **Ali Salman Juail**

Acknowledgements

Owing to the blessing of GOD , this work has come to light

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Summary

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A formal was used to collect data included the name of pregnant, age, trimester, doctor diagnosis, the drug dispensed and their dose, rout, duration, frequency, strength and notes section. The formal filled during visits of the research team to pharmacies that most of the prescription they dispense are for pregnant women prescribed by a nearby gynecology &obstruct doctors. all prescriptions for pregnant women are accepted in the study, no limitation criteria of age, trimester or health state was used. The prescription analyzed to determine the medication error by research team depending on formal data taken from the dispensed prescriptions and any notes mentioned and medication error classified to groups irrational &inappropriate, ineffective, under prescribing, overprescribing and drug interactions that consist of drug-drug interactions and drug-food interactions. BNF70 and drugs.com drug interaction checker were used to identify the drug interactions.

This study depend on prescriptions from privet clinic only , after checking these prescription its seems that all the 100 prescription have some medical error as mention above in this scope we determine The most common cause high percentage of medication errors And how to deal with such errors in the future.

Research Questions

Q1- Are there any medication errors during pregnancy in Al-Diwania and Al-Sammawa in Iraq?

Q2- What are the Kinds of these medication error?

Q3- What is the impact of these medication error on patient health state?

Chapter One

Introduction

And

Literatures Review

1.1. Medication errors

A medication error can be defined as ‘a failure in the treatment process’ that may harm the patients. Medical error caused 180,000 deaths in 2008 in USA.[1] Medication errors can occur in:

- Choosing a medicine: Irrational (not reasonable medications), Inappropriate (not the suitable medications), ineffective prescribing (giving medication that are ineffective for specified case), under prescribing (recurred medication not given) and overprescribing (prescribing not necessary medication).
- writing the prescription—prescription errors (ex. writing 10mg instead of 100mg) .
- Manufacturing the formulation to be used_ wrong strength, contaminant or adulterants, wrong or misleading packaging (ex. tow medications have similar appearance).
- Dispensing the formulation—wrong drug (ex. exchange the prescriptions of two patients), wrong formulation, wrong label.
- Administering or taking the drug—wrong dose, wrong route, wrong frequency, wrong duration.
- Monitoring therapy—failing to change therapy when required.[2]

An Adverse drug reactions (ADR) is harmful or undesired effect of drugs. it different from medication error , medication error may lead to ADRs and may do not . occasionally a medication error can result in an adverse event that is not an ADR (for example, when a cannula penetrates a blood vessel and a haematoma results).[3]

1.1.2Frequency and outcomes of medication errors

In a survey of 40 000 medication errors in 173 hospital trusts in England and Wales in the 12 months to July 2006, collected by the National Patient Safety Agency, 15% caused slight harm and 5% moderate or severe harm.[4]

1.1.3 Types of medication errors and Prevention of each type :

There are four broad types of medication errors :

A_ Knowledge-based errors (through lack of knowledge)— for example, giving penicillin, without having established whether the patient is allergic.

Prevention strategies: taking enough information about the medication and the patient , Computerized prescribing systems, bar-coded medication systems and enrolling pharmacist and nurse in prescribing process can help to intercept such errors.

B_ Rule-based errors (using a bad rule or misapplying a good rule)—for example, injecting diclofenac into the lateral thigh rather than the buttock.

Prevention strategies: computerized prescribing systems, good rules and education help to avoid these types of error.

C_ Action-based errors (called slips)—for example, picking up a bottle containing diazepam from the pharmacy shelf when intending to take one containing diltiazem.

Prevention strategies: cross-checking, labelling medicines clearly and using identifiers, such as bar-codes .

D_ Memory-based errors (called lapses)—for example, giving penicillin, knowing the patient to be allergic, but forgetting.

Prevention strategies: These are hard to avoid; they can be avoided by computerized prescribing systems and by cross-checking.[5]

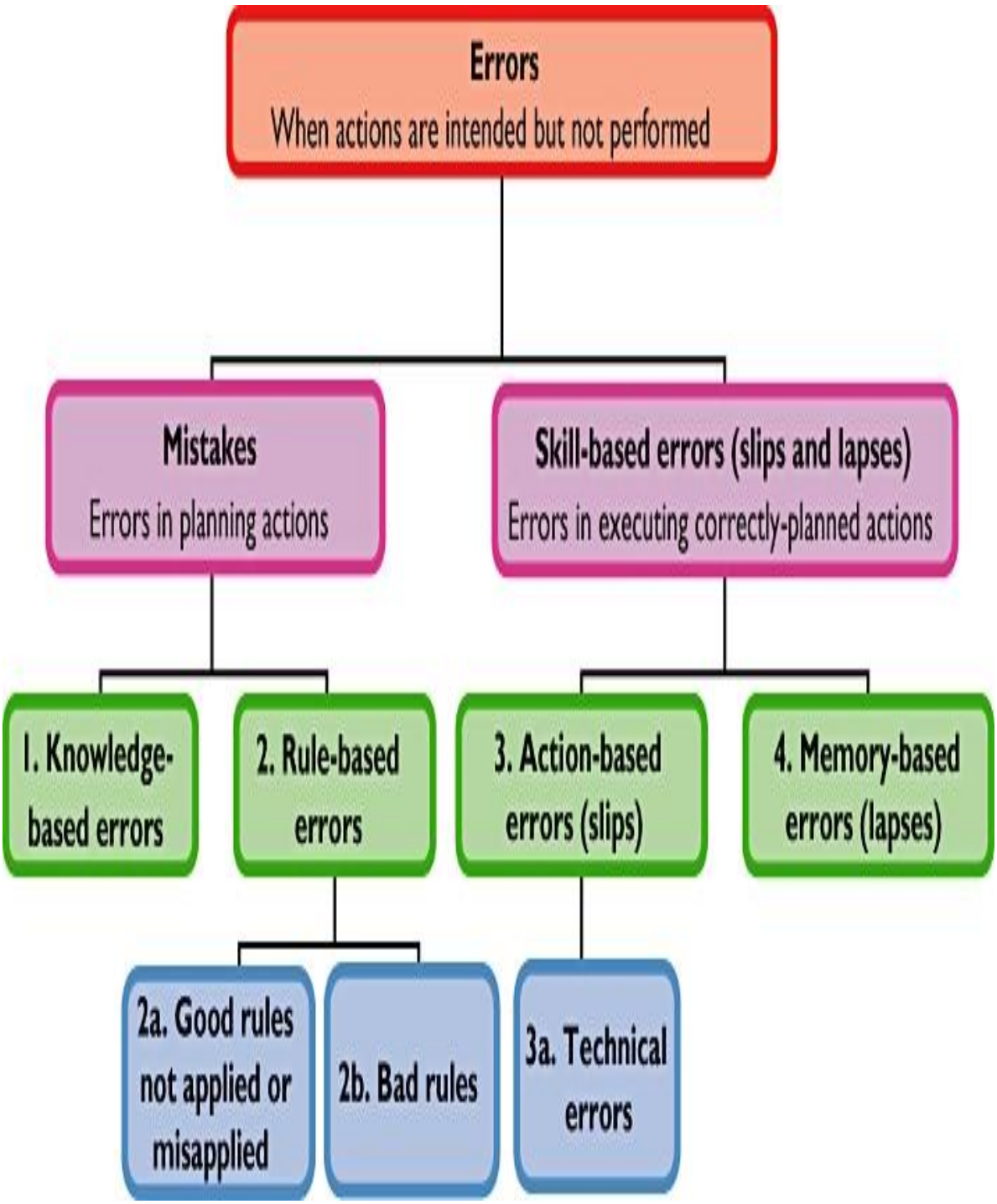

Figure 1 :Classification of medication errors depending on their causes.

1.1.4 Prescribing faults

Prescribing faults, a subset of medication errors, should be distinguished from prescription errors. A prescribing fault is ‘a failure in the prescribing [decision-making] process that may leads to harm to the patient. It four types include[2]:

- **Irrational and inappropriate prescribing:** Not all rational medications are appropriate . for example paracetamol may be rational for patient with headache but it inappropriate if patient already on paracetamol prescribed by another Prescriber.[2]

- **Ineffective prescribing:** Ineffective prescribing is prescribing a drug that is not effective for the indication in general or for the specific patient for example giving oral medication for patient suffering sever nausea and vomiting or Treating Viral Infections with Antibiotics.

- **Underprescribing:** Underprescribing is the case when appropriate and rational medication are not prescribed or given by lower dose than optimal for example reducing anticonvulsant dose during pregnancy could result in breakthrough seizures, which are more harmful for the embryo than properly managed continued use of these known teratogenic drugs.

- **Overprescribing:** Overprescribing is prescribing a drug in too high a dosage (too much, too often or for too long). In some cases treatment is not necessary at all. For example use of anti-Parkinson’s drugs to treat drug-induced parkinsonism.[2]

1.1.5 Achieving balanced prescribing

Nine questions should be asked before writing a Prescription:

- Indication: is there an indication for the drug?
- Effectiveness: is the medication effective for the condition?
- Diseases: are there important co-morbidities that could affect the response to the drug?
- Other similar drugs: is the patient already taking another drug with the same action?
- Interactions are there clinically important drug–drug interactions with other drugs that the patient is taking?
- Dosage: what is the correct dosage regimen (dose, frequency, route, formulation)?
- Orders: what are the correct directions for giving the drug and are they practical?
- Period: what is the appropriate duration of therapy?
- Economics: is the drug cost-effective?

Each item of this list is related to important step in prescribing process and using this list as guide will improve prescribing .[2]

1.1.6 Detecting and reporting errors

Detection of medical errors are difficult because the person who make error would not report them. The establishment of a blame-free, non-punitive environment can obviate this. The reporting of errors, including near-misses, should be encouraged to identify the most likely errors and made the recurred prevention strategies to avoid them.[6]

1.2 Physiologic and pharmacokinetic changes in pregnancy

There is many physiological changes occur during pregnancy that may affect the pharmacokinetic (absorption, distribution, metabolism, and elimination) of drugs, so the therapy may need to optimized to prevent over or lower treating pregnant women.[7]

1.2.2 Drug absorption

The bioavailability of drug may decrease during early pregnancy because of morning sickness. Therefore, oral medications should be administered when nausea is minimal. Gastric acid production is also decreased during pregnancy, whereas mucus secretion is increased, leading to an increase in gastric pH. These changes can increase ionization of weak acids (e.g., aspirin) and reduce their absorption. on other hand the increased CO during pregnancy and increased the blood flow to gastrointestinal tract allow for increased drug absorption overall. The final effect of pregnancy on drug bioavailability and therapeutic effect is minimal.

1.2.3 Drug distribution

The cardiac output and plasma volume increase during pregnancy with parallel increases in total body water and in all body fluid compartments. that will lead to increase volume of distribution for hydrophilic drugs, leading to lower plasma concentrations.

On the other hand, plasma protein binding of drugs decreases during pregnancy due to reduced concentrations of both albumin and alpha 1-acid glycoprotein. Decreased protein binding leads to higher concentrations of free. These changes can be clinically significant for certain drugs. For example, for phenytoin and tacrolimus, efficacy and toxicity are expected to be related to unbound drug concentration in plasma.[7]

1.2.4 Drug metabolism

The activities of CYP3A4 (50–100%), CYP2A6 (54%), CYP2D6 (50%), and CYP2C9 (20%) are all increased during pregnancy (Table 1). Changes in CYP3A4 activity lead to increased metabolism of drugs such as glyburide, nifedipine, and indinavir. By contrast, some CYP isoforms demonstrate decreased activity during pregnancy. The activity of phase II enzymes also increase during pregnancy that increase the clearance some drug that are substrate to this rout of metabolism like lamotrigine leading directly to poorer seizure control.[7]

Table 1: Pregnancy-induced physiologic changes during near term.

System (reference)	Parameter	Non-pregnant	Pregnant
Cardiovascular	Cardiac output [L/min]	4.0	6.0
	Heart rate [beats per min]	70	90
	Stroke volume [mL]	65	85
	Plasma volume [L]	2.6	3.5
Respiratory	Total lung capacity [mL]	4225	4080
	Residual volume [mL]	965	770
	Tidal volume [mL]	485	680
Liver	Portal vein blood flow [L/min]	1.25	1.92
	Hepatic artery blood flow [L/min]	0.57	1.06
Renal	Glomerular filtration rate [mL/min]	97	144
	Serum creatinine [mg/dL]	0.7	0.5

Changes in drug metabolism can have implications for drug dosages in pregnancy. For drugs with a narrow therapeutic window, an increased clearance during pregnancy can lead to sub-therapeutic concentrations and worsening disease control.[8]

1.2.5 Drug elimination

During pregnancy GFR increase to 50% in the first trimester and continue to increase until labor that will increase excretion of drug that solely eliminated by renal glomerular filtration. For example, cefazolin and clindamycin exhibit increased renal elimination during pregnancy. Despite the uniform increase in GFR the net effect of pregnancy on renal elimination is varied for different drugs , for example clearance of lithium is doubled during the third trimester compared to preconception. while the clearance of digoxin, which is 80% renally-cleared, is merely 20–30% higher during the third trimester compared to postpartum.[7]

1.2.6 Tranplacental transfer of drugs

It is clear that any drug or chemical substance administered to the mother is able to cross the placenta to some extent unless it is destroyed or altered during passage, or its molecular size and low lipid solubility limit transplacental transfer. Placental transport of maternal substrates to the fetus and of substances from the fetus to the mother is established at about the 5th week of embryo life. Substances of low molecular weight diffuse freely across the placenta, driven primarily by the concentration gradient. It is important to note, therefore, that almost every substance used for therapeutic purposes can and does pass from the mother to the fetus. Of greater importance is whether the rate and extent of transfer are sufficient to result in significant concentrations within the fetus. Today, the concept of a placental barrier must be discarded.[9]

1.3 The effect of drug on pregnant

the administration of drugs to pregnant may adversely affect the developing fetus . that's effect depends on the stage of development and nature and concentration of drug .On a more positive side, fetal therapy (i.e., treatment of fetal disease in utero by administering the drug to the mother or directly to the fetus) has been recognized recently as a rational approach to treat fetal disease. [9]

Forty years ago, the thalidomide banded by FDA because catastrophe (limb defects) occurred when this drug was administered to pregnant women . then reevaluated and approved by FDA for leprosy. It take many years and birth of thousands of malformed infant before discovering the relationship of thalidomide use and harmful effect on infants.[9]

The direct response to this misadventure led to the promulgation of the drug regulations of 1962 in the United States. According to these regulations, a drug must be demonstrated to be safe and effective for the conditions of use prescribed in its labeling. the drug should be investigated for the conditions of use specified in the labeling, including dosage levels and patient populations for whom the drug is intended.

1.3.2 Teratogenic effect of drug

Some drugs act as teratogen. Teratogen is an agent that can disturb the development of the embryo or fetus. Teratogens halt the pregnancy or produce a congenital malformation (a birth defect).

Experiments with animals have provided considerable information concerning the teratogenic effects of drugs. Unfortunately, these experimental findings cannot be extrapolated with certainty from species to species, or even from strain to strain within the same species, much less from animals to humans. Research in this area and the prediction of toxicity in the human are further hampered by a lack of specificity between cause and effect.[9]

been noted as anatomic malformations. It is clear that these are dose and time related and that the fetus is at greater risk during the first 3 months of gestation. However, it is possible for drugs and chemicals to exert their effects upon the fetus at other times during pregnancy. Functional and behavioral changes are much more difficult to identify as to cause and effect. Consequently, they are rarely recognized. heightened awareness on the part of health care providers and recipients will make this task easier.[9]

Dietary supplements as well as complementary or alternative medicine products efficacy is generally unknown, with rare exception, and their safety poorly studied Until enough study are available , women should be advised about current lack of knowledge and cautioned as to their use. A notable exception is folic acid supplementation during pregnancy to prevent neural tube defects.

It is crucial that concern also be given to events beyond the narrow limits of congenital anatomic malformations; evidence exist that intellectual, social, and functional development can also be adversely affected by drug administration during pregnancy. There are examples that toxic manifestations of intrauterine exposure to environmental agents may be subtle, unexpected, and delayed. For example female fetuses exposed to diethylstilbestrol (DES) are at an increased risk for adenocarcinoma of the vagina. This type of malignancy is not discovered until after puberty.

We now realize that drugs considered safe(i.e., not producing anatomic malformations) can still produce more subtle yet permanent alterations in the physiology and biochemistry of the developing perinate. The teratogen appears to produce a programming or imprinting defect in the developing tissue or organ. This defect need not be expressed until adulthood, because the program may not be required until that time. Consequently, in the absence of anatomical defects readily recognized, there is the danger that these late-onset dysfunctions will either be

unrecognized or will be attributed to some other cause.[9]

The physician is confronted with two imperatives in treating the pregnant woman: alleviate maternal suffering and do no harm to the fetus. Until now, the emphasis has been on the amelioration of suffering, but the time has come to concentrate on not harming the fetus. The simple equation to be applied here is to weigh the therapeutic benefits of the drug to the mother against its risk potential to the developing fetus.

1.3.3 Drug classification during pregnancy

Until now, FDA categorized the risks of taking a drug or biological product during pregnancy under a five-letter system (A, B, C, D and X) based on what was known about that product.[10]

Category A

Adequate and well-controlled studies have failed to demonstrate a risk to the fetus in the first trimester of pregnancy (and there is no evidence of risk in later trimesters).

Like folic acid .

Category B

Animal reproduction studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women.

Like amoxicillin .

Category C

Animal reproduction studies have shown an adverse effect on the fetus and there are no adequate and well-controlled studies in humans, but potential benefits may warrant the use of the drug in pregnant women despite potential risks.

Category D

There is positive evidence of human fetal risk based on adverse reaction data from investigational or marketing experience or studies in humans, but potential benefits may warrant use of the drug in pregnant women despite potential risks.
Like phenobarbital .

Category X

Studies in animals or humans have demonstrated fetal abnormalities and/or there is positive evidence of human fetal risk based on adverse reaction data from investigational or marketing experience, and the risks involved in use of the drug in pregnant women clearly outweigh potential benefits.[11]

In 2015 the FDA replaced the former pregnancy risk letter categories on prescription and biological drug labeling with new information to make them more meaningful to both patients and healthcare providers.[6]

This info include :

- risk summary .
- clinical consideration .
- data collected .
- pregnancy exposure registry [10].

Chapter Tow

Materials And Methods

2.1. Formals and Study Design

A cross-sectional study of medication errors of 100 prescriptions dispensed to a pregnant women in a sample of Iraqi two cities (Sammawa&Diwanyia) during October, 2016.

A formal was used to collect data included the name of pregnant, age, trimester, doctor diagnosis, the drug dispensed and their dose, rout, duration, frequency, strength and notes section.(appendix 1) The formal filled during visits of the research team to pharmacies that most of the prescriptions they dispense are for pregnant women prescribed by a nearby gynecology &obstruct doctors.

All prescriptions for pregnant women are accepted in the study, no limitation criteria of age, trimester or health state was used. The prescription was analyzed to determine the medication errors depending on formal data taken from the dispensed prescriptions and any notes mentioned and medication errors were classified to groups irrational &inappropriate, ineffective, under prescribing, overprescribing and drug interactions (that consist of drug-drug interactions and drug-food interactions).

BNF70[12] and drugs.com drug interaction checker[13] were used to identify the drug interactions. The research was approved by the scientific comity, college of pharmacy, university of Al- Qadisiyah, Iraq. verbal informed consent of the pharmacist was taken.

2.2. Statistics analysis

The data were extracted in Excel sheet using a structured format. The medical error were presented by percentages. The medication errors percent of irrational and inappropriate, overprescribing, under prescribing and ineffective prescribing in the errors section. The drug interaction type percentage also calculated for drug-drug interactions and for the drug food interaction then the percent of each type of drug-drug interaction and the severity of that interactions was calculated.[14]

Chapter Three

Results

Total number of prescriptions involved in the study is 100 prescriptions, they contain 487 medication dispensed to the patients. The total number of medication errors identified was 364, included 110 irrational & inappropriate prescribing times, 47 over prescription of drugs (determined depending on the dose, duration, rout and number of medication given for each case). The under prescribing of medication was lower incidence than over prescribing as 19 times under prescribing of medications was identified. While ineffective prescribing was the lowest incidence of all types as 8 ineffective drugs prescribed in the study cases.

The drug interaction was classified to drug-drug interactions 126 interactions identified and drug food interactions 54 interactions was recorded. 0.8 % of all interactions was major, 76 % moderate and 23% mild. Luminal(Phenobarbital) is the drug that caused the most of medication error that identified as it dispensed 23 times but all of these patient luminal was irrational and inappropriate and it caused the most of interactions recorded as 44 interactions was caused by luminal. While duphaston (Dydrogesterone) was prescribed as tocolytic 21 times, and this considered as irrational & inappropriate prescribing. Duvadilane (isoxsuprine) prescribed irrationally 17 times. the parenteral iron administered without sensitivity test nor calculating the dose depending on the body weight and blood Hb. Most of antibiotics and antifungal prescribed for incorrect duration or dose most of times. The other errors was related to other drugs duration, dose, indication errors.

Table 2: the different medication errors types percentage of a total 487 drugs prescribed.

Type of Error	No. of Error	Percentage
Over prescribing	47	25.5%
Under prescribing	19	10.3%
Ineffective prescribing	8	4.3%
Irrational & inappropriate	110	59.7%

Table 3 : type and percentage of drug-drug interaction of 126 interactions identified.

Drug drug interaction type	No. of interaction	Percentage
Absorption interaction	54	42.8%
Metabolism interaction	37	29.4%
Pharmacodynamics	35	28%
Elimination	0	0%

Table 4 : the severity of drug-drug interaction per 126 interactions identified.

Drug drug interaction Severity	No. of interactions	Percentage
Major interaction	1	0.8%
Moderate interaction	96	76%
Minor interactions	29	23%

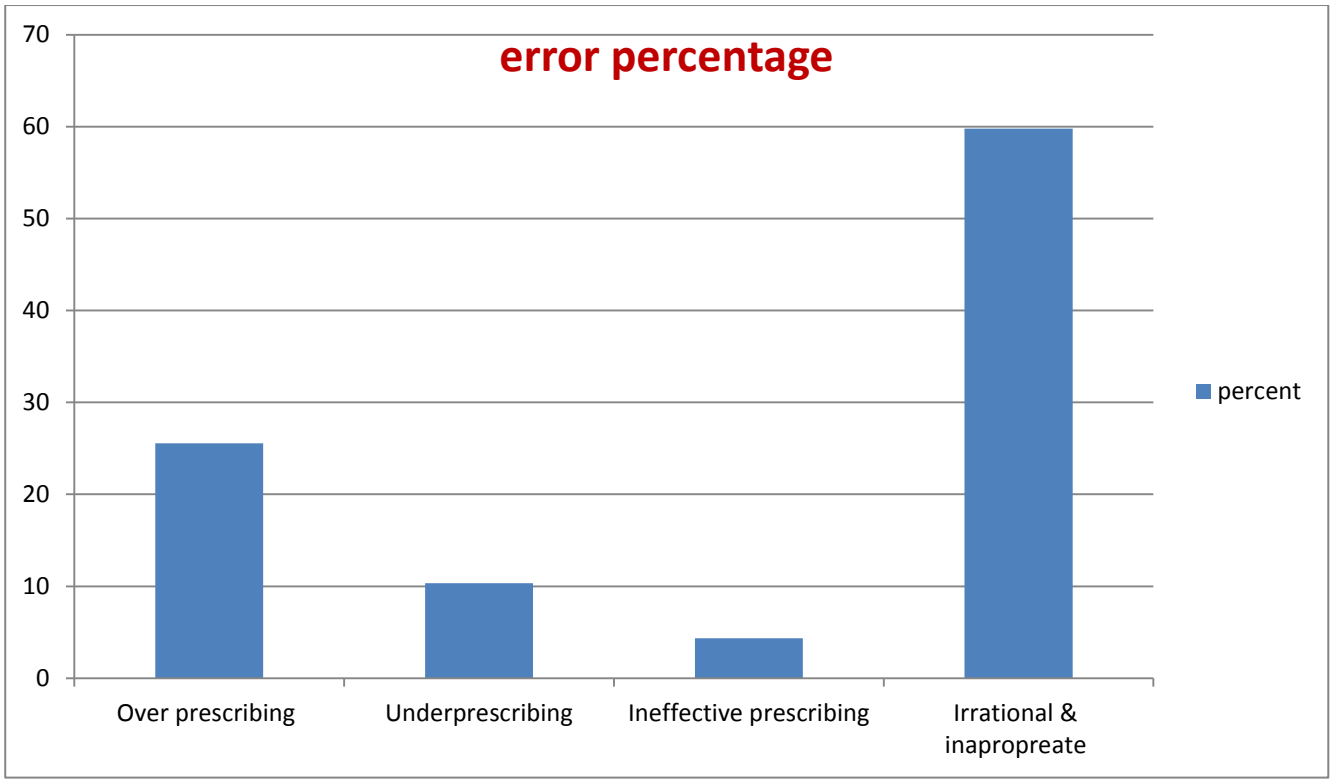

Figure2: This chart represent the present of each type of medication errors.

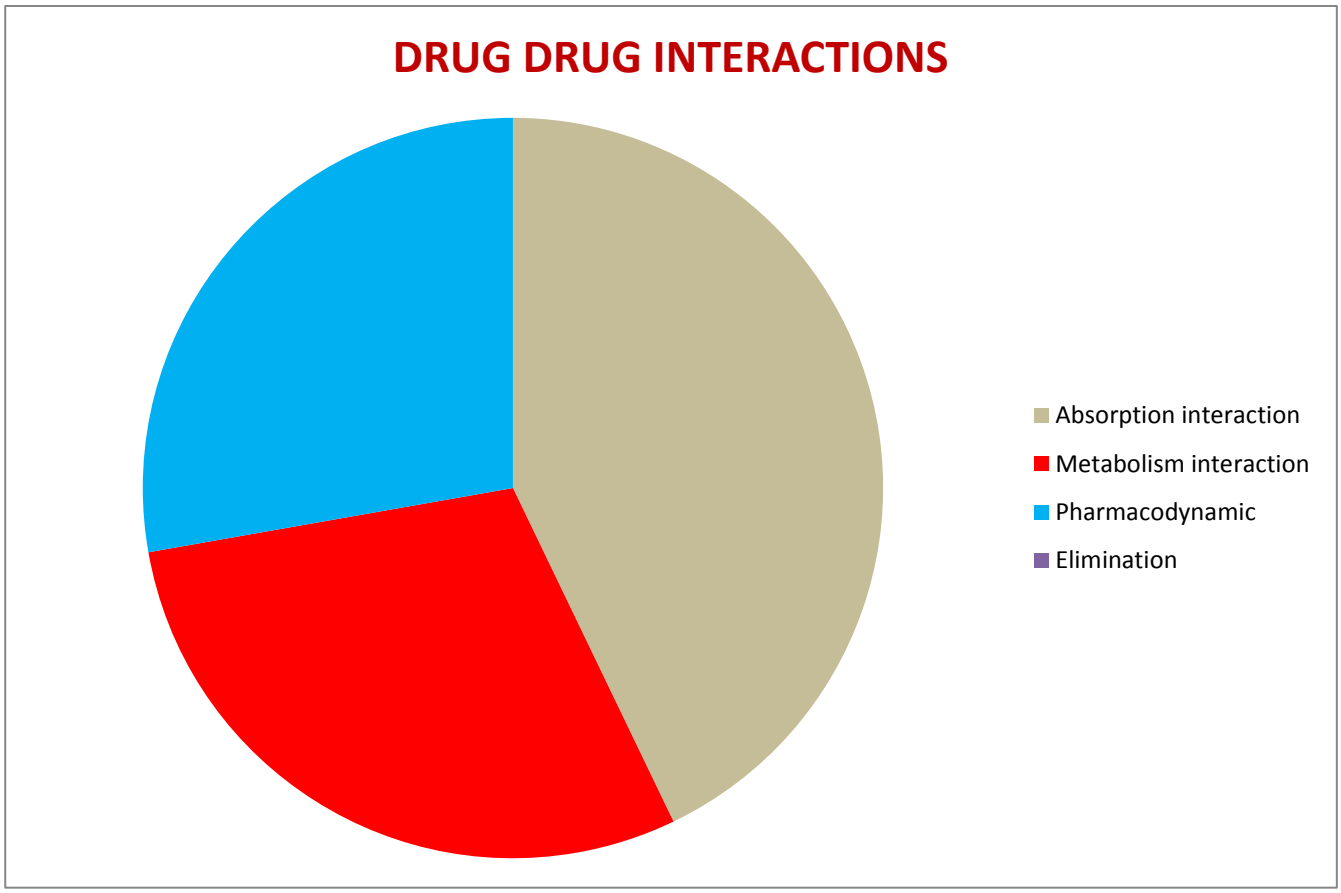

Figure3: This pie chart show the percent of each type of drug- drug interactions.

Chapter Four

Discussion

Total number of prescription involved in the study is 100 prescriptions, they contain 487 medication dispensed to the patients. The total number of medication errors identified was 364.

Propose explanation of this high percentage of medication errors in Sammawa &Diwania cities Are :

Poor communication between health care providers, Poor adherence to the treatment guideline, Poor communication between providers and their patients, Sound-alike medication names and medical abbreviations, inappropriate medication use and in availability, poly pharmacy, cost of the drug and economic situation of the patient.

Other causes may be related to professional practice, health care products, and systems, including prescribing, product labeling, packaging, compounding, dispensing, distribution, administration, education, and monitoring.

Types of medication errors included 110 irrational & inappropriate prescribing times, 47 over prescription of drugs (determined depending on the dose, duration, rout and number of medication given for each case). The under prescribing of medication was lower incidence than over prescribing as 19 times under prescribing of medications was identified. While ineffective prescribing was the lowest incidence of all types as 8 ineffective drugs prescribed in the study cases.

The highest medications errors in prescriptions were in these medications ,the use was irrational because there is no reasonable indication for use of these medications.

Dydrogesterone

Dydrogesterone was licensed for use in several indications, including threatened or recurrent miscarriage, dysfunctional uterine bleeding, and hormone replacement therapy. they are use it in women's as tocolytics and it not indicated for this cases.[15]

And the use of progestin in threatened apportion is controversial.

For several decades, progesterone and progestogens (such as Dydrogesterone) have been used to maintain early pregnancy. However, this practice seems to have been based on theoretical considerations rather than robust evidence of efficacy.[15] Although the methodological and ethical difficulties associated with conducting efficacy trials in these indications need to be considered, the quality of much of the evidence is generally poor relative to today's standards.[16]

Aspirin

The use of aspirin during pregnancy, especially of chronic or intermittent high dose should be avoided. The drug may affect maternal and new born homeostasis mechanism, leading to an increased risk of hemorrhage.[8]

High doses may be related to increased prenatal mortality. Intrauterine growth restriction (IGR), and teratogenic effects. Low doses such as 80 mg/ day, appear to have beneficial effects in pregnancies complicated y systemic lupus erythematosus with antiphospholipid antibodies. in pregnancies at risk for the development of gestational hypertension and preeclampsia and in fetuses with IUGR, low dose of aspirin (40-150 mg/day) may be beneficial, but more studies are required to assess accurately the risk: benefit ratio of such therapy. Near term, aspirin may prolong gestation and labor. Although aspirin has been used as a tocolytic agent, serious bleeding complication may occur in the newborn.

Premature closure of the ductus arteriosus may occur in the latter part of pregnancy as a result of maternal consumption of full dose aspirin.[8]

persistent pulmonary hypertension of the newborn(PPHN) is a potential complication of the closure. If an analgesic or antipyretic is needed, acetaminophen should be considered.

Phenobarbital

category : D

Teratogenicity :occur in the first trimester of pregnancy.

Phenobarbital readily crosses the placental barrier and is distributed throughout fetal tissues with highest concentrations found in the placenta, fetal liver, and brain. Withdrawal symptoms: occur in infants born to mothers who receive Phenobarbital throughout the last trimester of pregnancy. If the severity of seizure or seizure type is not serious, drug withdrawal may be considered; therapy may be resumed after the first trimester. If this drug must continue throughout pregnancy, or if the patient becomes pregnant while taking this drug, the following should considered:

dose of Phenobarbital should be monitor carefully during pregnancy and after birth**,** Supplementation with folic acid is (high dose) before conception and during pregnancy to decrease the risk of neural tube defects And vitamin K supplementation in women and neonates may be necessary to minimize the risk of neonatal hemorrhage associated with antiepileptic.[8]

Chapter Five

Conclusions

And

Recommendation

"Medication errors may sound harmless, but mistakes in prescribing, dispensing and administering medications injure hundreds of thousands of people per year. Yet most medication errors can be prevented"

- The total number of prescriptions involved in the study is 100 prescriptions, they contain 487 medications dispensed to the patients. The total number of medications errors identified was 364.
- Percentage of medication errors were high.
- Types of medication errors were mostly drug-drug interaction, irrational and inappropriate use.
- The impact of these medication errors may include teratogenic effect.
- Chronic or intermittent high dose of Aspirin may affect maternal and new born homeostasis mechanism, leading to an increased risk of hemorrhage.
- The prescribing of drugs by irresponsible manner may play a role in the increased incidence of neural tube defect in Iraq.[17]

1-Adherance to the treatment guidelines.

2- Encouraging a proper doctor –pharmacist and pharmacist–patient communication.

3- Further studies to assess the impact of medications errors on pregnant women and her fetus.

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Appendix 1 :Formal design

Ministry of Higher Education and Scientific Research

College Of Pharmacy

University of Al-Qadisiyah

Name	Age	Trimester

Diagnosis

Medications	Scientific Name	Trade Name	Dose	Dosage Form	Strength	Rout	Frequency	Duration

وزارة التعليم العالي والبحث العلمي

جامعه القادسية

كليه الصيدلة

دراسة حول الأخطاء الطبية إثناء فترة الحمل لدى النساء في عينه من محافظتين عراقيتين الديوانية والسماوه

بحث تخرج مقدم إلى جامعه القادسية , كليه الصيدلة

تقدم به كلُ من:

الطالبة نريمان عزيز عباس و الطالب علي سلمان جعيل

بأشراف

الأستاذ الدكتور

د.باسم أرحيم محمد الشيباني

كليه الصيدلة , جامعه القادسية

2017 م 1438هـ

تضمنت هذه الدراسة 100 وصفه طبية صُرفت لنساء حوامل واعتمدت على اختيار مناطق مختلفة تضمنت محافظتين هما الديوانية والسماوه في شهر أكتوبر من العام 2016 ، احتوت هذه الوصفات على 487دواء تم صرفها للمرضى ، العدد الكلي للأخطاء العلاجية التي تم العثور عليها هو 364 ، تضمنت 110 أخطاء غير منطقيه وغير مناسبة ، 47 من الأخطاء كانت تتمحور حول وصفات تضمنت أدويه لايحتاجها المريض(الإفراط في وصف الادويه) ، وصف الادويه التي تكون تحت المقرر كانت نسبتها اقل من نسبه الادويه التي تم صرفها بالرغم من عدم حاجه المريض إليها ب19 مره ،بينما الوصفات التي توصف بأنها غير فعاله طبيا كانت الأقل نسبه .

تمت هذا الدراسة باستخدام جداول لجمع المعلومات الخاصة بالمريض والمعلومات الخاصةبالا دويه التي تم وصفها

فريق العمل قام باعتماد هذه ألطريقه وبالتواصل مع الصيدليات القريبة من العيادات الخاصةوالمتخصصة في فرع النسائية والتوليد ، في هذه الدراسة تم تناول جميع أنواع الوصفات الخاصة بالنساء الحوامل ومن دون قيود.

شكلت دراسة التفاعلات العلاجية العمود الأساس لهذه الدراسة حيث تم اخذ كل من الوصفات على حده ودراسة التفاعلات العلاجية للادويه المتضمنةحيث تم بالاستعانة ببعض المصادر ألمعروفه لغرض تحديد هذه التفاعلات أضافهإلى الوصف الصحيح لهذه الادويه حسب الحاجة من قبل الطبيب المعالج وطريقه اخذ العلاج والمدة الزمنية للعلاج التي ينبغي على المريض الالتزام بها هذا

تم التطرق إلى بعض الأسبابالمهمة التي كانت السبب وراء هذه الأخطاء ووضع الحلول الناجعة لها

تم اخذ الموافقات ألازمه للبدء بهذا البحث ابتداء من عماده كليه الصيدلة جامعه القادسية بالاضافه إلى موافقة الصيدليات لغرض جمع الوصفات الطبية ..... .