



The Standard of Prescription of Medicines in Obstetrics and Outpatient Gynecology of a Public Hospital

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

Objective: This study aimed to describe the pattern of prescription of medications in the department of obstetrics and gynecology in a public hospital in Alkharj.

Methodology: This is a retrospective study that included data collection of outpatient electronic prescriptions at a public hospital in Alkharj. Data were collected and analyzed using Microsoft Excel. Descriptive data were represented as percentages and numbers.

Results: The total number of outpatients who received prescriptions from the obstetrics and gynecology outpatient clinic was 722. The majority were between 20 and 39 years old (76.04%). Most prescriptions were written by consultants (55.12%) followed by residents (42.38%). Most drugs were prescribed as tablets (63.43%) followed by capsules (17.17%) and ampoule/syringe (9.42%). The most prescribed medication was paracetamol (14.68%) followed by ferrous sulfate/ferrous hydroxide (13.85), amoxicilline (8.17%).

Conclusion: The pattern of prescription of medications in the department of obstetrics and gynecology, especially during pregnancy, needs to be continuously evaluated in order to promote rational prescription of medications in order to decrease morbidity and mortality associated with therapy. It is important to raise the awareness of health professionals about the use of supplements and antimicrobials.

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1. INTRODUCTION

The irrational use of medicines has attracted serious concerns around the world. It is expensive, not only in terms of human suffering, but also in economic terms. This use can lead to exacerbation or prolongation of the disease, draining scarce resources of medical care and causing greater morbidity and mortality [1].

The World Health Organization (WHO) defined the rational use of medicines as "patients receive medicines appropriate to their clinical needs, in doses that meet their own individual needs for an appropriate period, at the lowest cost to them and their community" [2] and estimated that nearly 50% of all drugs in the world are used irrationally.

In Europe, at least 25,000 patients die annually due to the irrational use of antibiotics, and costs totaled more than 1.5 billion euros per year [3].

The research on the use of medicines is defined as "the commercialization, prescription, distribution and use of medicines in a society with special emphasis on the resulting economic, medical and social consequences [4]. It is one of the approaches to study the use of medicines [4]. Drug use patterns need to be evaluated from time to time to decrease adverse effects, increase therapeutic efficacy, and provide feedback to prescribers to create awareness for rational drug use [5].

Obstetrics & gynecology specializes in the care of women during pregnancy, childbirth and the diagnosis and management of diseases of female reproductive organs. It also specializes in other women's health problems, such as hormonal problems, menopause, contraception and infertility [6]. This study aims to describe the pattern of prescription of medications in the outpatient department of obstetrics and gynecology in a public hospital in Alkharj.

2. METHODOLOGY

This is a descriptive study that included the collection of data from outpatient electronic prescriptions in a public hospital in Alkharj on the pattern of prescription of medications in the department of obstetrics and gynecology from 1st July 2018 to 31th December 2018.

All outpatient scans that received prescriptions written by the department of obstetrics and gynecology were included in the study.

Data were collected and analyzed using Microsoft Excel after the approval of the study by the IRB committee with an IRB log number of 20-011E. Data were represented as percentages and numbers.

3. RESULTS

The total number of outpatients who received prescriptions from the obstetrics and gynecology outpatient clinic was 722. The majority were between 20 and 39 years old (76.04%). Table 1 shows the age of the patients.

Table 2 shows the level of prescribers. Most prescriptions were written by consultants (55.12%) followed by residents (42.38%).

Table 3 shows the dosage forms of the prescribed drugs. Most drugs were prescribed as tablets (63.43%) followed by capsules (17.17%) and ampoule/syringe (9.42%).

Table 4 presents the most prescribed drugs in the outpatient department of obstetrics and gynecology. The most prescribed medication was paracetamol (14.68%) followed by ferrous sulfate/ferrous hydroxide (13.85), amoxicillin (8.17%), ferrous sulfate + folic acid (7.89%) and enoxaparin (7.48%).

Table 1. The age of patients

Variable	Category	Number	Percentage
Age	Less than 19	12	1.66
	20-29	230	31.86
	30-39	319	44.18
	40-49	134	18.56
	50-59	20	2.77
	60-69	5	0.69
	But from 69	2	0.28

4. DISCUSSION

Most medications were prescribed as tablets followed by capsules and ampoule/syringe. It is rational to prescribe medicines such as tablets and capsules in outpatient departments. Several prescriptions contain ampoule/syringe in the outpatient clinic due to the use of enoxaparin

Table 2. The level of prescribers

Level of prescribers	Number	Percentage
Specialist	18	2.49
Resident	306	42.38
Consultant	398	55.12

Table 3. The dosage forms of prescribed medications

Dosage forms	Number	Percentage
Tablet	458	63.43
Capsule	124	17.17
Ampoule/Syringe	68	9.42
Cream	36	4.99
Suppository	13	1.80
Ointment	12	1.66
Syrup/Suspension	9	1.25
Gel	2	0.28

Table 4. The most prescribed medications in the outpatient department of obstetrics and gynecology

Medication	Number	Percentage
Paracetamol	106	14.68
Ferrous sulfate/ Ferrous hydroxide	100	13.85
Amoxicillin	59	8.17
Ferrous sulfate + folic acid	57	7.89
Enoxaparina	54	7.48
Calcium carbonate	52	7.20
Folic acid	47	6.51
Fusidic acid	36	4.99
Multivitamins	29	4.02
Dydrogesterone	17	2.35
Metronidazole	15	2.08
Amoxicillin/Clavulanic Acid	13	1.80
Hidroxiprogesterona	10	1.38
Miconazole	10	1.38
Nystatin	9	1.25
Aspirin	9	1.25
Other	99	13.71

injections as anticoagulant in the departments of obstetrics and gynecology. Ahmed reported that about 86.32% of outpatient prescriptions containing enoxaparin syringe were prescribed for female patients and that most enoxaparin prescriptions were from the department of obstetrics and gynecology (79.48%) [7].

The most prescribed medication was paracetamol followed by ferrous sulfate/ferrous hydroxide, amoxicillin, ferrous sulfate + folic acid and enoxaparin. Wang et al. [8] stated that among the 363,642 antimicrobial prescriptions prescribed in 2014 by outpatient and emergency sections, 3,733 prescriptions were written by the department of obstetrics and gynecology. Most of these prescriptions (3199) were prescribed by

the outpatient clinic [8]. Kumar et al. [9] reported that, among pregnant women, most of the drugs prescribed were an antibiotic (18.2%), calcium supplement (17.4%), iron preparations (15.8%) and anti-ulcer drugs (8.1%) [9]. Reddy et al. [10] reported that the most prescribed medications during pregnancy include vitamin and iron supplements, analgesics/antipyretics, anti-infectives and antihistamines [10].

Mobark et al. [11] reported that about 13% of the antibiotics prescribed at al-Rass hospital were written by the section obstetrics and gynecology and that ceftriaxone and metronidazole had a high frequency prescription in the obstetrics and gynecology section (9.1% and 11.5%) respectively [11]. Alema et al. [12] stated that in

relation to the use of drugs prescribed in pregnant women, a considerable percentage of participants (41.4%) were prescribed with supplemental medicines (iron folate being the most prescribed drug) followed by antibiotics (23.4%) and analgesics (9.2%) [1] [2]. In addition, Sharma and Jhanwar reported that, in relation to the pattern of drug use in the gynecology department, minerals were more commonly prescribed (46.4%), followed by antimicrobials (27.6%) and NSAIDs (20.1%) [13].

Rani et al. [14] reported that among patients who attended government maternity, the most common groups of prescribed drugs were antimicrobial (72%) followed by vitamins and minerals 46% anti-antibiotics 46% and analgesics 23.8% and antispasmodics 28% and that the antimicrobial commonly prescribed metronidazole 39.8%, and doxycycline 33%, fluconazole 2.4% ciprofloxacin 0.8% [14].

5. CONCLUSION

The present study showed that supplements and antimicrobials are commonly prescribed in the department of obstetrics and gynecology. The pattern of prescription of medications in the department of obstetrics and gynecology, especially during pregnancy, needs to be continuously evaluated in order to promote the rational prescription of medications, to decrease morbidity and mortality associated with therapy. It is important to raise the awareness of health professionals about the use of supplements and antimicrobials.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

Author has declared that no competing interests exist.

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