

# Drug abuse in patients in province of Al-Najaf

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## Abstract

**Objectives:** knowing of the most using drugs in prescriptions and without prescriptions, and side effects of these drugs on the employers, role of risk factors, the economic and social impacts due to overuse of drugs.

**Material and methods:** This study was carried out on 600 patients and were divided into two groups, the first group included [(941 patients; male 444, female 497) were treated with different drugs prescription, the 2nd group included [(367 patients; male 175, female 192) employed different drugs without prescription], all of them are suffering from different diseases during 1 year (from January 1st 2015 to August 15th 2016). These data were analyzed statically with SPSS 8.0 statistical package (ANOVA- analysis of variance - two ways analyze; Mean + SE). (P) values less than or equal to 0.05 has been evaluated as statistical significant.

**Results:** The research consists of two studies, the 1st study included employing of drugs with prescription, and the 2nd study included using of drugs by the patients without prescription (drug abuse). With or without prescription the using of drugs were influenced on patients (male and female) at different ages and residence places. Cefexim is the drug that was using more than another drugs in patients with prescription in comparison with (Placyl) which is less of taking by patients. There are difference in employing of variety of drugs in the 1st study in which ages (21-30) are more using whereas (31-40) are less than another of drugs at the same study, also there are differences in consume of drugs between genders (male and female) that are residence in the variety of regions, in which the male took the drugs more than female in the urban at ages (21-30, 41-50 1nd more than 51 years).

This study was show superiority of female in ages (10-20, and 21-30 years), also at the same ages the female that are residence in rural region were more than in the urban at ages about (41-50), in other hand recorded the same count at (more than 51 yrs.) with significant differences ( $p < 0.05$ ), and vice versa in the ages (31-40, more than 51 years) in which the results appeared superiority of male comparison with female, while there were employing of difference drugs in male and female in age (41-50 years) [89(7.41+2.07)] with significant differences ( $p < 0.05$ ). The female patients that are residence in the variety of regions of province of al- Najaf the averages of using of variety of drugs for this study were shown spottily and closely percentage in male and female, in which these results appeared superiority of male more female in the urban region. In the 2nd part of this study included employing of variety of drugs by patients without prescription, in which this result appeared that there are using of variety of drugs in the different of resentences, gender and ages. The using of Metronidazole enrolled the highest average of using more than another drugs, but (Amoxillin) enlisted the fewest numbers of the employing less than another drugs. The patients In the ages about (41-50yrs.) recorded the more using of drugs in comparison with the ages residue and with significant differences), whereas (10-20yrs.) are lower. The female have the upper counter of drugs employing in the ages (21-30 and 31-40yrs.), In other hand have the same average in (10-20years), while the result show superiority of the drugs using by the male patients more than female in (41-50yrs.). The employing of variety of drugs without prescriptions was noticed in the male patients that residence in ruler region at ages (10-20, 21-30 and 41-50yrs.), while appeared the male that are lives in urban region of province of al-Najaf enrolled the highest average of using of drugs at ages about (31-40 yrs.) .At the ages about (21-30, 31-40 and 41-50 yrs.) was noticed that the higher of using of variety of drugs in female that residence in ruler region in comparison with same the same gender that lives in urban region of Al-Najaf province, in other hand the female patients that lives in urban and ruler regions have the same counter of employing of drugs without prescription.

**Conclusions:** There is obvious effect of employing of variety of drugs by patients (male and female) that are residence in the variety of regions (urban and ruler) of province of Al - Najaf and with difference of ages.

**Keyword:** Drug abuse, prescription, patients.

## INTRODUCTION

Drug abuse refers to the taking of drug without following medical advice or prescription, or the indiscreet use of dangerous drugs for non- treatment purpose, taking more than one drug all at a time is extremely dangerous because even small doses of each may prove fatal. Complex interactions can occur among various types of drugs and increase the

risk of harmful or fatal outcome [1]. Drug abuse maybe influenced by the social-cultural milieu, the degree to which a person is part of a structured environment, his or her personal characteristics, the specific drugs involved and the circumstances of use[2]. The most common prescription medications abused include opiates, central nervous system depressants, and stimulants due to their addictive qualities [3]. A growing problem is the non-medical use of prescription drugs such as pain killers or narcotic analgesics, benzodiazepines, and muscle relaxants. Non-medical use is defined as use of prescription-type drugs that were not prescribed for the individual by a physician or the drugs were used only for the experience or feeling they caused. Prescription psychotherapeutic drugs include pain relievers, tranquilizers, stimulants, and sedatives [4]. Patterns of abuse, where prescription drugs that are not medically necessary are taken intentionally, are also seen in seniors. Prescription drug abuse is present in 12% to 15% of elderly individuals who seek medical attention. In addition to the toll on individuals and families, abuse places a heavy financial toll on health care systems. Health problems related to substance abuse cost Medicare \$233 million dollars in 1989, and probably account for much larger expenditures today. And, experts estimate that the issue is underdiagnosed in seniors; although 60% of substance abuse is recognized in patients younger than 60, only 37% is recognized in patients over the age of 60[5]. Drug addiction is a brain disease because the abuse of drugs leads to changes in the structure and function of the brain. Although it is true that for most people the initial decision to take drugs is voluntary, over time the changes in the brain caused by repeated drug abuse can affect a person's self-control and ability to make sound decisions, and at the same time send intense impulses to take drugs[6]. The argument that drug abuse is a public health issue, rather than a criminal activity, has renewed the debate over existing drug policies. For instance, the theory that drug addiction is a neurological disorder, not a moral flaw, has caused some to view addicts less as criminals and more as sick individuals who need treatment and compassion. To this end, voters in Arizona and California recently approved measures that give minor drug offenders the choice between rehabilitation and prison. Also, "harm reduction," an approach that focuses not on preventing drug abuse, but instead on reducing the risks associated with drug use, is gaining attention as an alternative to America's hard line drug policies [7]. One of the most visible impacts of harmful drug use is seen in the consequences of cocaine use on newborn infants. Experts [8] have found that cocaine-using pregnant women have a higher rate of spontaneous abortion. Substances commonly associated with drug abuse-related deaths are cocaine, heroin (and other opiates), barbiturates and amphetamines (and amphetamine derivatives). Benzodiazepines, hallucinogens, cannabis and other substances are less frequently implicated. Combinations of drugs and alcohol were frequently noted. Although commonly used, the term "overdose" is misleading since different reactions, such as hypersensitivity, may be the real mechanism of death in some cases rather than an acute intoxication effect due to excessive amounts of the drugs. Availability, cost, chemical contents of the drugs (e.g. adulterants), preexisting and potentially life-threatening health problems and patterns of use are all factors that may play key roles in determining whether harmful effects occur in any individual case. The most widely used controlled drug, cannabis, could be associated with some fatal accidents despite its low acute toxicity. Concerning chronic use, there may be greater risks of damaging the lungs by smoking cannabis than tobacco [9],[10]. Epidemiological data suggest that 4% of the population misuse pain medication, and that a minimum 1% of the general population in Europe, North America and Asia suffer from medication overuse headache [11]. The National Center on Addiction and Substance Abuse boldly claims that "a child who reaches age twenty-one without smoking, abusing alcohol or using drugs is virtually certain never to do so." Many policy makers and drug abuse professionals do not take the center's claim lightly. In antidrug campaigns and programs, children and adolescents are repeatedly advised to resist the influences of peer pressure, popular music, and films, and to abstain from underage drinking, smoking, and marijuana use [12].

So, the aim of this study is to assess the drugs that employed by the patients with or without prescription, social and economic conditions may affected with it.

## **MATERIALS AND METHODS**

This study was carried out on 600 patients and were divided into two groups, the first group included [(941 patients; male 444, female 497) were treated by different drugs prescription, the 2nd group included [(300 patients; male175, female192) employed different drugs without prescription], all of them are suffering from different diseases during 1 year (from January 1st 2015 to August 15th 2016). These data were analyzed statically with SPSS 8.0 statistical package (ANOVA- analysis of variance - two ways analyze; Mean + SE). (P) values less than or equal to 0.05 has been evaluated as statistical significant. This study included the relation between drug abuse with or without prescription and other risk factor (age, gender, and job) and different diseases.

These data were analyzed statically with SPSS 8.0 statistical package (ANOVA- analysis of variance - two ways analyze; Mean + SE). (P) values less than or equal to 0.05 has been evaluated as statistical significant [13].

## RESULTS AND DISCUSSION

The research consists of two studies, the 1st study included employing of drugs with prescription, in which The results show influencing the drug difference on all patients that are included variety factors (gender, age and address), but with dissimilar percentage among these factors and relationship of them with bad using of drugs on the patients (male and female), in which these results show there are no significant difference ( $p < 0.05$ ) among variety factors ( $F$  tabulated = 2.01). The higher average of using of drugs in male and female is (Cefexim; 135), but the (placyl) is the fewest average of employing among these drugs, whereas drugs (Gentamicin and Mefenamic acid) have same count. At the ages about (10-20 years) appeared most using of drugs with significant differences ( $p < 0.05$ ) [272(22.65+4.64)], while there are fewer of drugs using appeared in ages about (31-40 years) [117(9.74+4.29)], also at the same ages the male were recorder the highest using of drugs in the urban region more than rural (5.91+0.61, 3.00+1.08, 3.33+1.00) as follow, whereas the ages (21-30, 41-50 1nd more than 51 years) are respectively, the male were show upper using of drugs in rural in comparison with female patients that residence in the urban region (6.75+1.16, 4.75+0.98). This study was show superiority of female in ages (10-20, and 21-30 years) [161(13.41+2.89), 133(11.08+2.41)] respectively, and the female patients at the same ages that residence in rural region were more than in the urban [(8.25+1.58, 6.83+1.55)], respectively, also in age (41-50) (5.00+0.98), in other hand recorded the same count at more than 51 years with significant differences ( $p < 0.05$ ), and vice versa in the ages (31-40, more than 51 years) in which the results appeared superiority of male comparison with female [61(5.08+2.12), 71(5.91+2.08)], respectively, While there were employing of difference drugs in male and female in age (41-50 years) [89(7.41+2.07)] with significant differences ( $p < 0.05$ ). The female patients that are residence in the variety of regions of province of al- Najaf the averages of using of variety of drugs for this study were shown spottily and closely percentage in male and female, in which these results appeared superiority of male more female in the urban region. We are found from the previous study that there are greater consume of (Antibiotics) with medical prescription which is prescribed by the doctor in all ages in male and female in order to treat different diseases (acute or chronic), and decrease consuming of these drugs with overages especially in elderly, these results are agreement with previous study of [3]. The drugs have been taken by the patients must be supervised by the doctors or pharmacist leading to the economic and social beneficial in the families and manager of their life's and secure of succesful treatment of different diseases, also don't making microorganism resistance against many of antibiotic[table(1)]. In the 2nd part of this study included employing of variety of drugs by patients without prescription, in which this result appeared that there are using of variety of drugs in the different of resentences, gender and ages( $F$ tabulated=2.16). The using of Metronidazole enrolled the highest average of using more than another drugs (71) while (Amoxillin) enlisted the fewest numbers of the employing less than another drugs. The patients In the ages about (41-50years) recorded the more using of drugs in comparison with the ages residue and with significant differences ( $p < 0.05$ ) [112(13.99+0.65)], whereas (10-20years) were [68(8.31+0.54)]. The female have the upper counter of drugs employing in the ages (21-30 and 31-40yrs.) [34(4.14+0.30), 52(6.50+2.20)], as follow, in other hand have the same average in (10-20years), while the result show superiority of the drugs using by the male patients more than female [59(7.37+0.31)] in (41-50years). The employing of variety of drugs without prescriptions was noticed in the male patients that residence in ruler region at ages (10-20, 21-30 and 41-50yrs.) as follow (2.37+0.08, 2.50+0.20, 3.87+0.11), while appeared the male that are lives in urban region of province of al-Najaf enrolled the highest average of using of drugs at ages about (31-40 yrs.) (3.25+0.23) with significance differences ( $p < 0.05$ ). At the ages about (21-30, 31-40 and 41-50 yrs.) was noticed that the higher of using of variety of drugs in female that residence in ruler region in comparison with same the same gender that lives in urban region of Al-Najaf province, in other hand the female patients that lives in urban and ruler regions have the same counter of employing of drugs without prescription, we are investigate from this study that there consume much quantity of variety drugs in the society of Iraqi people especially in Al-Najaf people, particularly in the progressive of ages(41-50yrs.). in this study noticed consuming of analgesic and antihistaminic drugs and this problem because of the drug abuse may be lead to drug addiction and don't recovery of the patient, also development of different diseases and finally economic and social troubles. These results are agreement with the study of [13] which is notice that women who are not drug abusers may be affected by problems related to drug abusing men. The Problems of male partners may affect women in the form of difficulties in interpersonal relationships, instability, violence, child abuse, economic insecurity, deprivation of schooling and risk of sexually transmitted disease, including HIV infection[table(2)].

## CONCLUSIONS

1. There is clear consume of variety of drugs with or without prescription.
2. They are found excessive using of drugs without prescription.
3. Noticed that they are relationship among factors (Age, Gender and address) with using of drugs with or without prescription in patients in province of Al-Najaf.

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Table [1], numbers of patients that treated with different medications with prescription.

| Age(yr s.)<br>Drugs | 10-20              |           |                     |           | 21-30               |           |                     |           | 31-40             |           |                   |           | 41-50             |           |                   |           | More than 51      |           |                   |           | Total |
|---------------------|--------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------|
|                     | Male               |           | Female              |           | Male                |           | Female              |           | Male              |           | female            |           | male              |           | femal e           |           | male              |           | female            |           |       |
|                     | Urban              | rural     | Urban               | Rural     | Urban               | Rural     | Urban               | Rural     | Urban             | Rural     | Urban             | Rural     | Urban             | Rural     | Urban             | Ruler     | Urban             | Rural     | Urban             | Ruler     |       |
| Cefexim             | 14                 | 10        | 21                  | 19        | 2                   | 15        | 10                  | 19        | 6                 | 1         | 3                 | 1         | 5                 | 9         | 2                 | 3         | 1                 | 6         | 4                 | 3         | 154   |
| Gentamicin          | 3                  | 2         | 2                   | 1         | 4                   | 3         | 4                   | 3         | 1                 | 1         | 1                 | 3         | 1                 | 4         | 2                 | 2         | 2                 | 2         | 5                 | 1         | 47    |
| Metronidazole       | 8                  | 8         | 13                  | 15        | 2                   | 15        | 3                   | 19        | 7                 | 1         | 2                 | 1         | 2                 | 9         | 4                 | 6         | 9                 | 3         | 4                 | 4         | 135   |
| Dexamethasone       | 3                  | 1         | 2                   | 10        | 5                   | 5         | 2                   | 3         | 4                 | 2         | 2                 | 5         | 2                 | 8         | 1                 | 2         | 3                 | 1         | 3                 | 2         | 66    |
| Tramadol            | 3                  | 1         | 11                  | 12        | 1                   | 4         | 4                   | 3         | 4                 | 2         | 2                 | 1         | 4                 | 3         | 3                 | 9         | 2                 | 1         | 2                 | 3         | 75    |
| (Amoxiclox)®        | 9                  | 7         | 2                   | 11        | 5                   | 11        | 9                   | 6         | 1                 | 2         | 2                 | 2         | 6                 | 2         | 4                 | 4         | 1                 | 3         | 1                 | 3         | 91    |
| Rantidine           | 7                  | 2         | 1                   | 3         | 7                   | 10        | 3                   | 2         | 1                 | 2         | 4                 | 1         | 1                 | 8         | 3                 | 1         | 1                 | 4         | 3                 | 2         | 76    |
| Ponstol             | 4                  | 1         | 2                   | 2         | 2                   | 3         | 2                   | 2         | 1                 | 4         | 3                 | 3         | 1                 | 2         | 1                 | 3         | 4                 | 1         | 2                 | 4         | 47    |
| Diphenhydramine     | 4                  | 2         | 2                   | 1         | 2                   | 2         | 5                   | 3         | 3                 | 2         | 5                 | 4         | 1                 | 1         | 3                 | 7         | 3                 | 2         | 2                 | 3         | 57    |
| Acetaminophen       | 6                  | 3         | 1                   | 12        | 1                   | 6         | 3                   | 6         | 2                 | 3         | 4                 | 2         | 4                 | 1         | 2                 | 8         | 8                 | 3         | 1                 | 2         | 78    |
| Diclofenac          | 5                  | 2         | 4                   | 12        | 3                   | 3         | 5                   | 14        | 5                 | 3         | 2                 | 1         | 3                 | 8         | 2                 | 3         | 4                 | 3         | 4                 | 3         | 89    |
| Placyl              | 5                  | 1         | 1                   | 1         | 1                   | 3         | 1                   | 2         | 1                 | 2         | 1                 | 1         | 2                 | 2         | 2                 | 2         | 2                 | 2         | 1                 | 2         | 35    |
| Total               | 71                 | 40        | 62                  | 99        | 35                  | 80        | 51                  | 82        | 36                | 25        | 31                | 25        | 32                | 57        | 29                | 60        | 40                | 31        | 32                | 32        | 950   |
|                     | 5.91±0.61          | 3.33±1.14 | 5.16±1.31           | 8.25±1.58 | 6.66±1.00           | 6.75±1.16 | 4.25±0.86           | 6.83±1.55 | 3.00±1.08         | 2.08±1.04 | 2.58±1.03         | 2.08±1.14 | 2.66±1.09         | 4.75±0.98 | 2.41±1.03         | 5.00±0.98 | 3.33±1.00         | 2.58±1.08 | 2.66±1.04         | 2.66±0.97 |       |
|                     | 111<br>(9.24±1.75) |           | 161<br>(13.41±2.89) |           | 115<br>(13.41±2.16) |           | 133<br>(11.08±2.41) |           | 61<br>(5.08±2.12) |           | 56<br>(4.66±2.17) |           | 89<br>(7.41±2.07) |           | 89<br>(7.41±2.01) |           | 71<br>(5.91±2.08) |           | 64<br>(5.32±2.01) |           |       |
|                     | 272(22.65±4.64)    |           |                     |           | 248(24.49±5.27)     |           |                     |           | 117(9.74±4.29)    |           |                   |           | 178(14.82±4.08)   |           |                   |           | 135(11.23±4.09)   |           |                   |           |       |

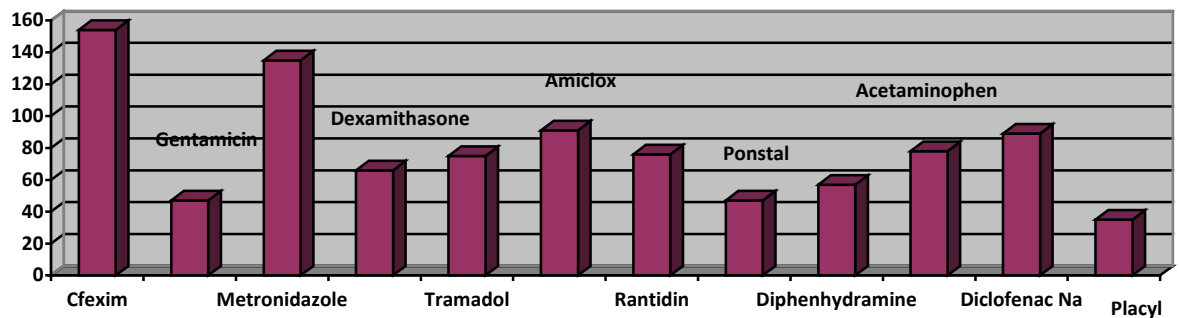
-Different capital refer to significant differences between groups horizontally (P<0.05).

-The values represent Mean ± SE

Table [1], numbers of patients that treated with different medications without prescription.

| Age(yrs.)               | 10-20             |                   |                   |                  | 21-30             |                   |                   |                   | 31-40         |               |               |               | 41-50         |           |               |               | More than51   |           |               |               | Total       |  |
|-------------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|---------------|---------------|---------------|---------------|---------------|-----------|---------------|---------------|---------------|-----------|---------------|---------------|-------------|--|
|                         | Male              |                   | Female            |                  | Male              |                   | Female            |                   | Male          |               | female        |               | male          |           | female        |               | male          |           | female        |               |             |  |
|                         | Ur<br>ba<br>n     | ru<br>ra<br>l     | ur<br>ba<br>n     | Ru<br>ral        | Ur<br>ba<br>n     | ru<br>ra<br>l     | ur<br>ba<br>n     | ru<br>ra<br>l     | ur<br>ba<br>n | ru<br>ra<br>l | ur<br>ba<br>n | ru<br>ra<br>l | ur<br>ba<br>n | rur<br>al | Ur<br>ba<br>n | ru<br>ra<br>l | Ur<br>ba<br>n | Ru<br>ral | ur<br>ba<br>n | ru<br>ra<br>l |             |  |
| Drugs                   |                   |                   |                   |                  |                   |                   |                   |                   |               |               |               |               |               |           |               |               |               |           |               |               |             |  |
| Betacorti<br>son        | 2                 | 3                 | 1                 | 1                | 2                 | 4                 | 3                 | 2                 | 5             | 2             | 2             | 1             | 2             | 3         | 1             | 3             | 0             | 0         | 0             | 0             | 3<br>7      |  |
| Omepraz<br>ole          | 1                 | 2                 | 4                 | 2                | 1                 | 2                 | 3                 | 5                 | 3             | 1             | 2             | 1             | 1             | 2         | 2             | 1             | 0             | 0         | 0             | 0             | 3<br>3      |  |
| Cephalex<br>in          | 2                 | 3                 | 3                 | 4                | 3                 | 1                 | 2                 | 1                 | 3             | 1             | 1             | 2             | 4             | 2         | 1             | 1             | 0             | 0         | 0             | 0             | 3<br>4      |  |
| Amoxilli<br>n           | 2                 | 4                 | 1                 | 2                | 1                 | 2                 | 1                 | 3                 | 3             | 1             | 1             | 1             | 3             | 2         | 2             | 2             | 0             | 0         | 0             | 0             | 3<br>1      |  |
| Paraceta<br>mol         | 1                 | 2                 | 3                 | 2                | 3                 | 2                 | 4                 | 5                 | 1             | 1             | 6             | 5             | 4             | 6         | 3             | 5             | 0             | 0         | 0             | 0             | 5<br>3      |  |
| Metroni<br>dazole       | 3                 | 3                 | 2                 | 2                | 1                 | 3                 | 4                 | 5                 | 4             | 6             | 6             | 7             | 6             | 8         | 6             | 5             | 0             | 0         | 0             | 0             | 7<br>1      |  |
| Diphenh<br>ydramin<br>e | 2                 | 1                 | 1                 | 2                | 4                 | 3                 | 2                 | 4                 | 3             | 2             | 2             | 5             | 1             | 5         | 4             | 6             | 0             | 0         | 0             | 0             | 4<br>7      |  |
| Diclofen<br>ac          | 2                 | 1                 | 2                 | 2                | 4                 | 3                 | 5                 | 3                 | 4             | 3             | 5             | 6             | 7             | 3         | 5             | 6             | 0             | 0         | 0             | 0             | 6<br>1      |  |
| Total                   | 15                | 19                | 17                | 17               | 19                | 20                | 24                | 28                | 26            | 17            | 25            | 28            | 28            | 31        | 24            | 29            | 0             | 0         | 0             | 0             | 3<br>6<br>7 |  |
|                         | 1.87±0.16         | 2.37±0.08         | 2.12±0.15         | 2.12±0.15        | 2.37±0.05         | 2.50±0.20         | 3.00±0.00         | 3.50±0.20         | 3.25±0.23     | 2.12±0.16     | 3.12±0.15     | 3.50±0.33     | 3.50±0.20     | 3.87±0.11 | 3.00±0.26     | 3.62±0.08     |               |           |               |               |             |  |
|                         | 34(4.17±<br>0.24) | 34(4.14±<br>0.30) | 39(4.87±<br>0.25) | 52(6.50±<br>.20) | 44(5.37±<br>0.39) | 53(6.62±<br>0.48) | 59(7.37±<br>0.31) | 53(6.62±<br>0.34) |               |               |               |               |               |           |               |               |               |           |               |               |             |  |
|                         | 68(8.31±0.54)     | 91(11.37±0.45)    | 97(11.99±0.87)    | 112(13.99±0.65)  |                   |                   |                   |                   |               |               |               |               |               |           |               |               |               |           |               |               |             |  |

- Different capital refer to significant differences between groups horizontally (P<0.05).
- The values represent Mean ± SE



Figure(1). The numbers of patients were used variety drugs with prescription.

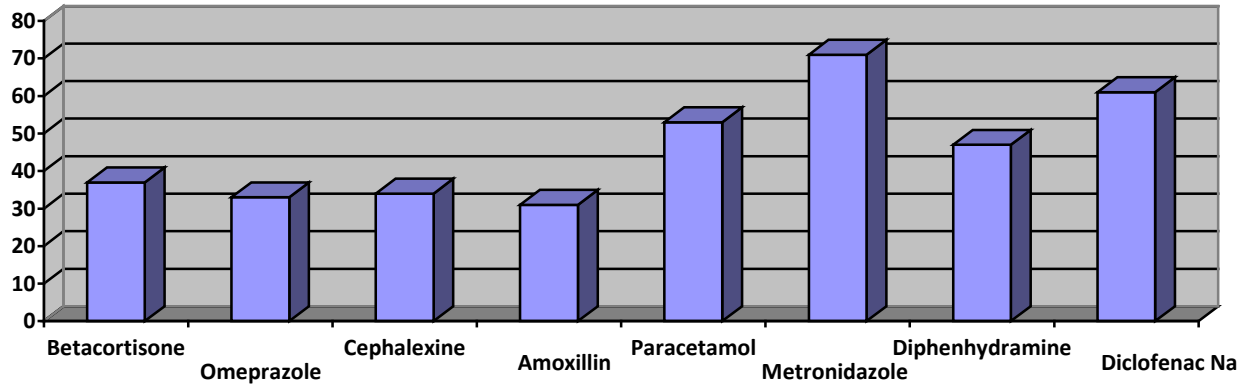


Figure (2). The numbers of patients were used variety of Drugs without prescription.

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