

ANALYSIS OF COMMONLY PRESCRIBED DRUGS

6.1 Introduction

The drugs prescribed at primary health care facility level are stipulated in the EDL. The health care facilities studied receive their drug supplies from a central store. The central store management orders their drug supplies from a number of pharmaceutical companies who are contracted to supply drugs to the public health system. The Joburg metro has a central store located at Auckland Park. It is from this store that most of the public health care facilities obtain their drug supplies.

6.2 Results

6.2.1 Analysis of Prescription by Generic name and according to the EDL

All drugs prescribed were listed in the EDL, however only 49% of the drugs were prescribed by a generic name while 51% of the drugs were prescribed by brand name. Figure 10 shows the prescription patterns

of health care professionals at informal settlements health care facilities studied.

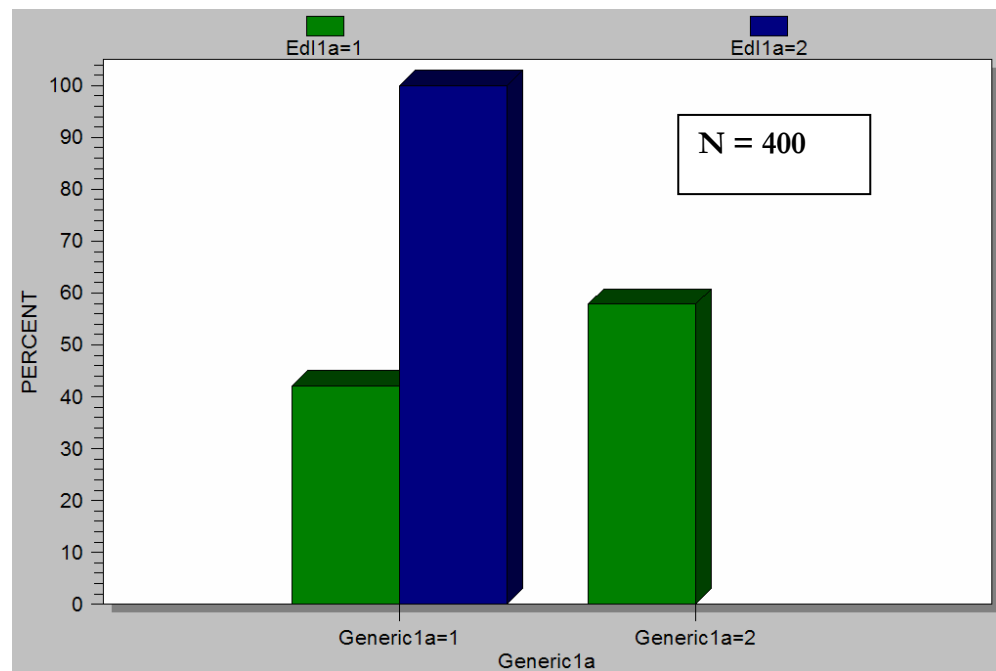


Figure 10. Prescription Patterns of Health Care Professionals in Informal Settlements Health Care Facilities.

6.2.2 Analysis of Commonly Prescribed Drugs

The graph in figure 11 shows the most commonly prescribed drugs at informal settlements health care facilities. The frequency at which paracetamol (graph 45) was prescribed was the highest at about 14%,

the next individual medication with a high number of prescriptions was hydrochlorothiazide (graph 30) at a frequency of about 11%.

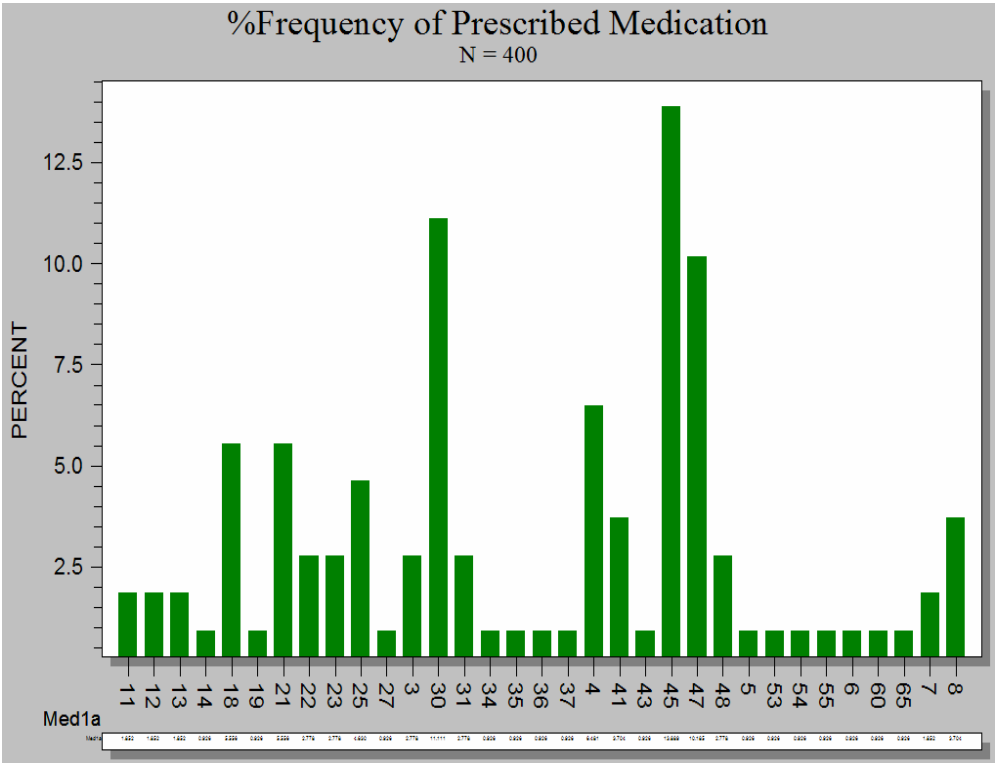


Figure 11. Commonly Prescribed Drugs at Informal Settlements Health Care Facilities

Another frequently prescribed drug was Phenoxymethylpenicillin (Pen VK) at a frequency of about 10% which appears in graph no 47. As class of drugs with antimicrobial or antibacterial action, antibiotics had the highest frequency of about 40% (graphs 11 Bactrim [1.9%],12 Pen G [1.9%], 18 Ciprobay [5.6%], 21 Cozole (same drug as Bactrim)

[5.6%], 23 Doxycycline [2.8%], 25 Erythromycin [4.6%], 27 Flagyl [1.0%], 4 Amoxicillin [6.5%] and 47 Pen VK [10.1%])

6.2.3 Analysis of Drugs Prescribed by Symptoms or Disease Conditions

Figure 12 shows the proportions of disease conditions by each frequently prescribed drug. A closer look at the figure reveals that 50% of the prescriptions had Bactrim (graph 11) as a drug of choice were for people with central nervous system related conditions and that about 5% of the prescriptions for the same drug were for people with urogenital system related conditions. Also note should be made that the drug Bactrim's generic name is Trimethoxypyrimidine or Trimethoprim and that the drug is also marketed as Cozole (graph 21) which was actually a drug of choice for over 98% of people who presented with bilharzia, 11% of people with urogenital system related conditions and about 13% of people who were complaining of pain.

The drug Diamicon (Gliclazide) which appears on graph 22 appeared in about 75% of the prescriptions for people with diabetes. This is consistent with the general usage of the drug as an antidiabetic agent.

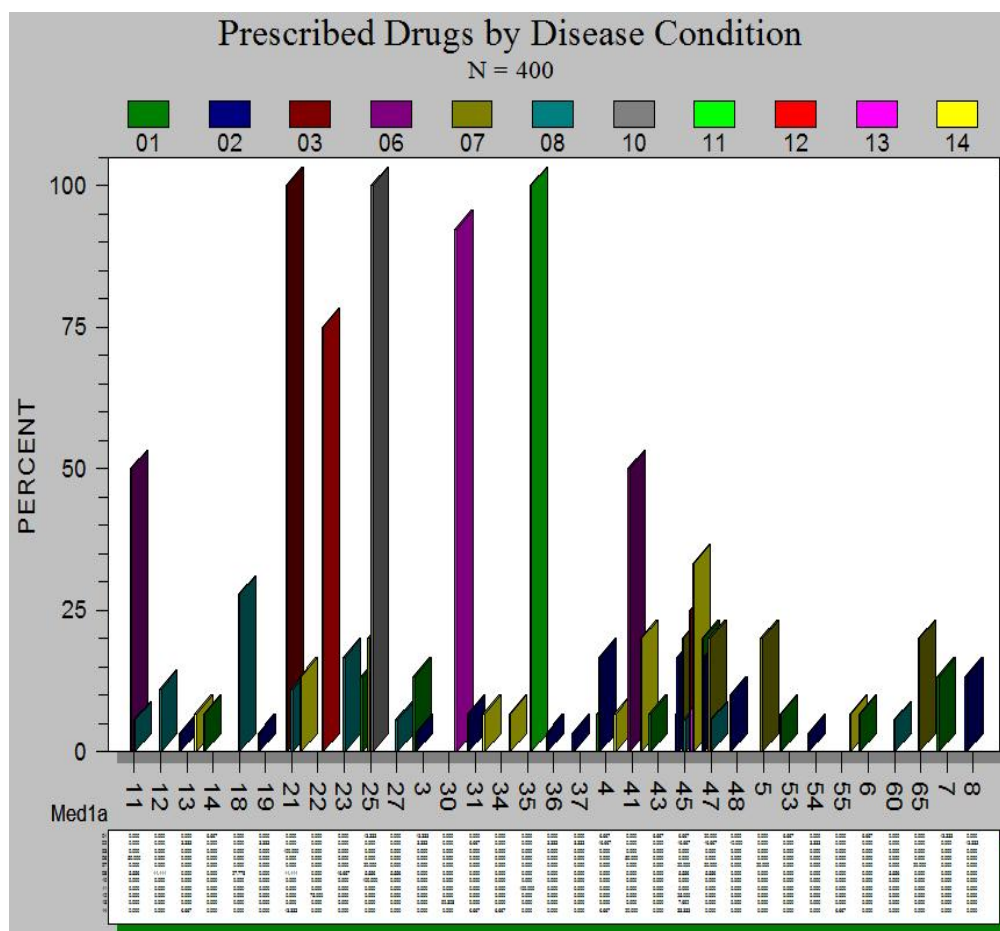


Figure 12. The Proportions of Disease Conditions per Prescribed Drug

The drug Doxycycline (graph 23), an antibiotic, appeared in about 16% of prescriptions for people with urogenital system related infections, practice that is consistent with antibiotic usage in clinical practice.

Another antibiotic that appeared among the frequently prescribed drug list was Erythromycin (graph 25), which was observed in over 98% of prescriptions for people with ear, nose and throat related infections. This antibiotic was also prescribed in about 20% of prescriptions for GIT related infections, 13% dermatological conditions and about 6% urogenital system related infections.

Flagyl (Metronidazole), which appears on graph 27, was observed in about 6% urogenital system related infections a practice that is consistent with use of the drug as an antimicrobial agent.

The drug Allergex (Chlorpheniramine), which appears on graph 3 was observed in 13% of dermatological condition and about 3% of respiratory system related conditions. As the name might probably suggest, this drug is mainly used for allergy related conditions.

Over 90% of the prescriptions that contained the drug Hydrochlorothiazide (graph 30) were for people who presented with symptoms related to the cardiovascular system, such as hypertension.

About 7% of prescriptions of both Ibuprofen (graph 31) and Methyl Salicylate (graph 34) were for people who presented with pain, respiratory system related symptoms and pain, respectively. Ibuprofen is a non steroidal antiinflammatory agent which might be used against both flu and pain.

About 3.3% of the prescriptions that contained either Mist Pot Expectorant or Mist Pot Sodium (graphs 36 and 37, respectively) were for people with respiratory system related conditions.

Prescriptions for the antibiotic, Amoxil, generally known as Amoxicillin (graph 4), accounted for about 17% of people that complained of respiratory system related condition, about 7% of dermatological conditions and about 7% of cases with pain complaints.

For the drug, Naproxen (graph 41), about 50% of prescriptions that contained this drug were for people with central nervous system related conditions while only 20% of the prescriptions for this drug were for pain complainants and about 7% of the prescriptions for this drug were for dermatological conditions.

The drug, Paracetamol (graph 45), also commonly known as Panado, appeared as one of the mostly prescribed drugs appeared in about 33% of cases of pain complainants, about 8% were cases which presented with hypertension, 25% of cases with diabetes, 20% of cases with complaints of the GIT, 16% of people with respiratory problems, about 3% of people with dermatological problems and about 6% of people with urogenital system problems.

The antibiotic Phenoxymethylpenicillin (graph 47), otherwise known as Pen VK, was prescribed in 20% of cases with dermatological problems, 17% of cases with respiratory problems, 20% of cases with problems of gastro intestinal system and only in 5.5% of cases with urogenital system related problems.

The drug Promethazine (graph 48), commonly known as Phenergen, was prescribed in 10% of cases with dermatological problems.

Aluminium hydroxide (graph 5), marketed as Amphogel was prescribed in 20% of cases with gastrointestinal problems.

In 6.7% of cases with dermatological problems, Tetmosol soap (graph 53) was prescribed.

Theophyllin (graph 54) accounted for about 3% of cases with respiratory problems.

In about 7% of cases with pain and about 7% of cases complaining of pain Calcium carbonate (graph 55), known as Titralec or chalk was prescribed.

Sorbitol (graph 60) was prescribed in about 6% of cases with urogenital system complaints.

Vitamin B complex (graph 65) was prescribed in 20% of cases with gastrointestinal system complaints.

Benzylbenzoate (graph 7) or Ascabiol was prescribed in 13% of cases with dermatological problems.

Finally in about 13% of cases with respiratory system complaints, the drug Salbutamol (graph 8), marketed as Asthavent was prescribed.

6.3 Discussion and Conclusions

Health care personnel in primary health care centers in regions 1, 2 and 5 prescribed only EDL listed drugs. This practice is consistent with the Government's commitment to streamline drug therapy and encourage rational drug use through the use of the EDL and the STGs. However, it has been noted that prescription by generic name is an area that still needs attention as only about half the drugs prescribed in the facilities were prescribed by generic name while the other half was prescribed by brand name. It is commonly understood that generics are less costly than brands and therefore encouraging generic prescription will save the government a lot of money in the long run as a large proportion, 60 to 70% the total health care expenditure is allocated to the purchase of drugs.

Analysis of most commonly prescribed drugs shows that Paracetamol had the highest prescription frequency and that it was a drug of choice in a large number of cases including pain, hypertension, diabetes, gastrointestinal complaints, respiratory and dermatological conditions. It is not surprising that this drug has the highest prescription frequency as pain is reported concomitantly with a number of clinical complaints. Furthermore, for the chronic conditions such as hypertension and

diabetes one might find that a returning client presents with a new complaint which will require a different drug regimen at the same time they are collecting their repeat medication.

Although not as frequently prescribed as Paracetamol, the drug Hydrochlorothizide appeared at an 11% frequency when compared with other drugs. It is worth noting that in almost all cases where this drug was prescribed the patients were complaining of cardiovascular system related conditions such as hypertension.

Of particular interest is that a collection of antibiotics and other antimicrobials were amongst the highest frequently prescribed drugs. Taken individually, these drugs do not appear to be frequently prescribed. Also a large number of antibiotics are marketed under different names by pharmaceutical manufacturers, for instance, in a number of occasions there were prescriptions that were given out as Cozole, Bactrim, Trimethoprim, Triprim or Trimethoxypyrimidine. Although this is one and the same drug it was captured under a number of different names that had a diminishing effect on the frequency at which this antibiotic was prescribed. Similarly, the antibiotic, Amoxicillin was prescribed as Amoxil or Moxan.

Collectively, antibiotics had the highest prescription frequency and taken in the context of presenting conditions it may not be surprising that antibiotics were prescribed at such high frequencies.