

A SURVEY OF MULTIPLE PRESCRIPTIONS DISPENSED IN SAUDI ARABIA

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A study of out-patient prescriptions in King Fahad Hospital, Al-Baha, Saudi Arabia was undertaken. Prescribing patterns of 200 doctors were surveyed. For each doctor ten out-patient prescriptions were randomly selected for analysis during month of January 2000. The prescriptions were coded and analysed.

Multivitamins and antibiotics were the drugs most frequently prescribed: a finding that suggests either a high degree of malnutrition and infectious disease or misuse of those drugs. Other commonly prescribed drugs are also discussed.

Keywords: Multivitamins, infectious disease, malnutrition.

INTRODUCTION

Drug prescriptions is a major activity of doctors, but there is evidence that drugs are not always prescribed rationally. So it is necessary that Pharmacist should provide adequate communication of information about drugs to persons who need such information. They are qualified to supply the update information and most important factor in the improvement of the health, strength and vigour of the people.

Unnecessary drugs are sometimes prescribed for example, antibiotics, for patients without evidence of bacterial illness (Andreasen, 1973) or multivitamins in large quantities for patient without nutritional problems (Brin, 1968).

The Pharmacist must take great care and use his broad knowledge of drugs especially antibiotics and multivitamins to prevent dispensing errors.

The increased use of antibiotics and the extension of uses to areas other than the treatment and prophylaxis of disease have created serious problems.

The present study was carried out to determine prescription practices at the government health facilities in Al-Baha, Saudi Arabia, since there are currently no data on this subject. It is hoped that this study will generate further surveys that will adequately evaluate the medical practices pertaining to drug prescription in the whole country.

MATERIAL AND METHODS

King Fahad Hospital, Al-Baha located in Northern Saudi Arabia. The city has one referred teaching hospital and twelve health centers belonging to the Ministry of Health.

The Principal Investigator visited government out-patient pharmacies located in hospital and health centers. Ten prescriptions were randomly chosen during the time of the study.

The prescribers were not aware of the study; and the drugs prescribed were classified into 30 major classes and were analysed and coded in numerical fashion.

RESULTS

Table-1 shows the thirty most commonly prescribed drug groups and the number of out-patient prescriptions for each. The data shows that multivitamins and minerals, antibiotics and analgesics are most commonly prescribed drugs.

Of the 2690 prescriptions studied these were 286 (10.6%) with two multivitamins and minerals. 34(1.3%) with three multivitamins and minerals.

The next most common groups was antibiotics, there were 57 prescriptions (2.1%) with two antibiotics and one with three antibiotics. In the case of analgesics 18 (0.7%) with two analgesics and there was one prescription with three analgesics.

DISCUSSION

Al-Baha has one 700 bed referred hospital, King Fahad Hospital. The city also has eight poly-clinics health centers. Therefore, the age distribution of the patients was mixed.

This study, like others, revealed that multivitamins and minerals are the most commonly prescribed drugs in developing countries (WHO Expert Committee, 1977). This result, however may not necessarily suggest a high prevalence of malnutrition in Saudi Arabia, since it can not be assumed that the drugs prescribed always matched the diagnosis, nor that the diagnosis was adequate in all cases.

In any event, such a high level of prescribing of multivitamins should be cause of concern, since prolonged and excessive use of multivitamins, especially with fat soluble vitamins has potential side effects (Cook & Monsen, 1977 and Pauling, 1970).

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Table 1
The thirty most commonly prescribed drug groups
and incidence of prescribing in Saudi Arabia

Name	No. of Prescription	Percent*
Vitamins & Minerals	1389	51.6
Antibiotics	1176	43.7
Analgesics	985	36.6
Anti-tussives	292	10.9
Anti-spasmodics	277	10.3
Anti-histamines	272	10.1
Antacid	168	6.2
Dermatological drugs	115	4.3
Anti-rheumatics	96	3.6
Anti-asthmatics	84	3.1
Ophthalmic drugs	83	3.1
Anti-diabetic	73	2.7
Urinary antiseptic	70	2.6
Anti-fungal drug	68	2.5
Sedatives	61	2.3
Laxatives	56	2.1
Cardiovascular drug	55	2.0
Disinfectant	52	1.9
Diuretics	51	1.9
Muscle relaxants	35	1.3
Anti-hypertensive	34	1.3
Anti-emetic	27	1.0
Anti-coagulant	18	0.7
Potassium supplements	17	0.6
Anti-tubercular drug	16	0.6
Miscellaneous	15	0.6
Anti-leprosy drug	12	0.4
Clioquinol	9	0.3
Anthelmintics	6	0.2
Anti-hypotensive	4	0.1

*Adds to more than 100% because some prescription contained more than one class of drugs.

Antibiotics were also prescribed on a very large scale. In many of the less developed countries, antibiotics are prescribed by health workers rather than doctors, so one must look to them for improvements in prescribing.

However in Saudi Arabia antibiotics are considered prescription drugs and thus have to be prescribed by a doctor.

In developed countries physicians have been cautioned against over-perspective of over prescription increases the likelihood of the development of bacterial resistance especially that which is transmitted by plasmids (Rahal, 1978).

In discriminate or prolonged prophylactic use of new antibiotics has been shown to contribute to the emergence of multi-resistant hosocomiat strains in the hospital setting (Sande and Scheld, 1980).

As with antibiotics, it is difficult to justify the use of analgesics on such a large scale, taking into account that prolonged and excessive use of analgesic compounds may be a potential hazards (Bulger and Sherris, 1968).

It was disturbing to note that our study revealed that clinoquinol (Enterovioform) is still imported into Saudi Arabia and prescribed in that country for diarrhoea, despite its known danger.

In Japan clinoquinol was blamed for an out-break of some 10,000 cases of subavito-myclo-opticoneuropathy (SMON). Many of the victims were stricken with irreversible paralysis and visual disturbances including blindness. The SMON epidemic has been called the worst drug disaster in Japan history.

The use of clinoquinol in Saudi Arabia may provide evidence that some multi-national drug companies promote drugs in developing countries with limited warnings.

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