

PATTERNS OF PRESCRIPTIONS AND DRUG USE IN TWO TERTIARY HOSPITALS IN DELHI

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Abstract : The study was carried out to assess prescribing trends in outpatients at Dr. R.P. Centre for Ophthalmic Sciences (RPC) and other OPD's of All India Institute of Medical Sciences (AIIMS) and Safdarjung hospitals, two premier hospitals in Delhi. Prescriptions of 500 patients were audited and analysed under heads of average number of drugs per patient, percentages of drugs prescribed by generic name, antibiotics, injections, drugs from WHO recommended essential drug list, availability of drugs etc. using WHO basic drug indicators. Prescription analysis showed that 75 to 95% drugs were prescribed from essential drug list. The average number of drugs per prescription was 1.42 to 4.07. Percentage of antibiotics prescribed varied from 14.39% to 22.28%. The use of injections was from nil to 4.4%. Availability of drugs was however, not satisfactory. Though maximum drugs were prescribed from essential drug list, the results indicate that there is a considerable scope for improving prescribing habits according to rational drug use and to provide a feed back to hospital authority for making maximum number of drugs available to the patients.

Key words : prescribing pattern
essential drug list

rational drug use

INTRODUCTION

Irrational prescription of drugs is of common occurrence in clinical practice (1). In both the developed and the developing countries, medically inappropriate, ineffective and economically inefficient use

of drugs commonly occurs in health care facilities. The cost of such irrational drug use is enormous in terms of both scarce resources and the adverse clinical consequences of therapies that may have real risks but no objective benefits. Efforts to guarantee rational selection, cost

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effective procurements and efficient storage and distribution of drugs can all be in vain if not followed by rational prescribing and use.

The assessment of drug utilization is important for clinical, educational and economic purposes (2). Monitoring of prescriptions and drug utilization study could identify the associated problems and provide feed backs to the prescriber so as to create an awareness for the rational use of drugs (3). It is therefore necessary to define the prescribing pattern and target the irrational prescribing habit for sending a remedial message (4). The present study has been planned to define the pattern of drug uses in two tertiary care hospitals (AIIMS and Safdarjung) in Delhi. Medical audit oversees the observance of standards of medical treatment at all levels of health care delivery system (5). It is also defined as the evaluation of medical care in retrospect through analysis of clinical records; to provide full benefits of medical knowledge effectively and rationally. The study of prescribing pattern is a component of medical audit which seeks monitoring, evaluation and necessary modification in the prescribing practices of prescribers to achieve rational and cost effective medical care.

METHODS

A specially designed form was used to record the required information from the OPD drug prescription cards of each patient. All the drugs prescribed were recorded including number of drugs prescribed per patient, quantity prescribed, quantity

actually received by the patients, and whether prescribed from essential drug list or not. Further, whether the use of the drug was indicated and whether generic or brand name of the drug was used in the prescription, was also noted. The purpose of the study was to determine whether the drug prescribing was based on rational therapeutic considerations with reference to the possibility of development of drug interactions and drug resistance in cases of antibiotics. Each prescription was subjected to critical evaluation using guidelines of WHO as described in "How to investigate drug use in health facilities" (6).

RESULTS

Five hundred prescriptions were audited from Safdarjung and AIIMS hospitals. The average number of drugs per prescription was 1.4% at Safdarjung and 2.4% at AIIMS whereas at Dr. Rajendra Prasad Centre for Ophthalmic Sciences within AIIMS, it was 4.4%. Percentage of drugs prescribed as generic names, percentages of antibiotics, injections and drugs from essential drug list of all these hospitals are shown in Table I.

It was observed that;

- (i) Inclination to trade name prescribing was more and there were occasions when prescribing by generic names would have reduced the cost of treatment.
- (ii) Drugs prescribed from essential drug list were 94%, 96% and 74% at Dr. R.P. Centre, AIIMS and Safdarjung hospitals

TABLE I: Analysis of prescriptions from Rajendra Prasad Centre for Ophthalmic Sciences (RPC), AIIMS and Safdarjung hospitals.

<i>Details of prescriptions</i>	<i>RPC</i>	<i>AIIMS</i>	<i>Safdarjung</i>
Total number of prescriptions analysed	82	168	250
Total number of medicines prescribed	334	427	356
Average number of drugs/prescription	4.07	2.54	1.42
% Prescribed as generic	25.14%	6.32%	14.61%
% Antibiotics	20.35%	22.28%	14.39%
% Injections	Nil	4.44%	1.40%
% Drugs from Essential Drug List	94.31%	95.78%	74.15%
% Drugs available	15.57%	10.54%	13.76%
Number of patients getting all drugs	18(22%)	8(5%)	25(10%)
Number of patients getting some drugs	29(35%)	13(8%)	11(4%)
Number of patients getting no drugs	35(43%)	147(87%)	214(86%)
Number of medicines not given	282(84%)	382(89%)	307(86%)

respectively which were appreciable. But availability of all these drugs were not satisfactory.

- (iii) There were no obvious known drug interactions likely to occur in the drugs prescribed.
- (iv) Prescriptions were seldom lengthy and usually contained only necessary drugs.

DISCUSSION

It is evident that the irrational use of drugs is a common occurrence through out the world (7). In a recent study from Allahabad, it was reported that only 2% of the drugs were prescribed by the generic name (8). In the present study conducted in two teaching Govt. hospitals, prescriptions were more rational as evident by fewer number of drugs prescribed and maximum drugs were from essential drug list (9). Percentages of antibiotics prescribed were also relatively less i.e. 22.28% at AIIMS and 14.39% at Safdarjung hospital in comparison to a study conducted in Nigeria were 40% of

all out patient encounters were prescribed with one or more antibiotics, while an injection was prescribed during 37% of all consultations (6). The excessive use of injectables is common in many developing countries (10). In our study, we found that only 4.44% and 1.40% injections were prescribed at AIIMS and Safdarjung hospitals respectively. This was opposite to data from Yemen i.e. 25-60% (11) but was slightly higher than that in Sri Lanka, where only 1% of the prescribed drugs were injectables (12). In health units in Nepal, an average of 44% **drugs were** prescribed by generic names (6) which was found to be far less in our study. In one study carried out at Aruna Asaf Ali Hospital and Sanjay Gandhi Memorial Hospital in Delhi the availability of drugs were 92.7% and 63% respectively (13). In the limited audit carried out, the prescriptions were almost model ones.

To conclude, it is preferable to keep the mean number of drugs per prescription as low as possible, since higher figures always lead to increased risk of drug interactions,

development of bacterial resistance, affects patient compliance and increases hospital/patient costs. Further, prescribing drugs by generic names could help in cheaper treatment. Medical professional should be trained on concepts of essential drugs and rational drug use (14).

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