

### Practitioners' Knowledge of Prescribing Costs of Pediatric Medications

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Drug cost is an important factor in choosing a patient's treatment and may have important implications for the patient compliance and the efficiency of the prescribing(1,2). This knowledge assumes further importance as 42% of the population of India is under 15 years of age and that children form a major group of consumers of drugs(3). This study was undertaken to find out the knowledge of prescribing costs of drugs commonly used for children by pediatricians and general practitioners.

#### Material and Methods

An open ended questionnaire was sent by post to 60 pediatricians and 65 general practitioners selected at random from Gujarat and Madhya Pradesh, between July to November 1990. The subjects of the study were formed by 92 respondents, who returned the completed postal question-

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naire. These respondents were divided into 2 groups: Group A: 45 pediatricians (30 in full time pediatric private practice, 9 pediatric faculty members in teaching hospitals and 6 pediatric senior residents) and Group B: 47 general practitioners (registered medical graduates).

Each respondent completed the questionnaire of 7 commonly used pediatric preparations indicated by the generic names. The doctors were asked to indicate for each preparation they commonly prescribed by the brand name, its unit size and the cost. In keeping with the other studies of doctors' perceptions of costs(2,4) we accepted a response within  $\pm 25\%$  of the actual cost, as a correct response. The results were analysed by Chi square test on many independent proportions on one or more samples.

#### Results

The per cent of correct responses for each drug is shown in *Table I*. The overall percentage of correct responses (within  $\pm 25\%$  of cost) for pediatricians was 76.2, while that in general practitioners group was 43.1 and the difference between these two groups was statistically significant ( $p < 0.005$ ).

The distribution of responses into underestimates, correct responses and overestimates of drug costs varied amongst different medications and practitioners' estimates in per cent are shown in *Table II*.

#### Discussion

The results of the study indicate a significant degree of difference in the

**TABLE I—Prescribers' Knowledge of Cost of Pediatric Preparations**

Preparations	Correct responses (%)	
	Pediatricians (n = 45)	Gen. practitioners (n = 47)
Amoxycillin	77.8	44.6
Cotrimoxazole	86.6	53.2
Paracetamol	80.0	68.1
Pyrantel pamoate	77.8	21.2
Cough syrup	71.1	29.7
Hematinic	62.2	40.4
ORS	77.8	44.6
Overall	76.2	43.1 (p<0.005)

**TABLE II—Practitioners' Accuracy of Drug Costs**

	Pediatricians	General practitioners
Underestimates	20	48
Correct	76	43
Overestimates	4	9

Figures are per cent of estimates.

knowledge of drug costs between the pediatricians and the general practitioners. The finding of general practitioners' perceptions of drug costs being often inaccurate is consistent with other studies elsewhere(2,4,5). The knowledge of costs for commonly prescribed drugs like Co-trimoxazole and Paracetamol was better than other preparations. However, in spite of a wide spread use of ORS by general practitioners, only half of them could correctly estimate its cost.

Most prescribers may be unconcerned with the cost of medicines they prescribe for their patients and that for rationale pre-

scribing it is equally important to have the knowledge of the cost of available formulations(1,3). A plethora of multiple brands, variable unit sizes and prices and lack of regular information on drug prices make it necessary for practitioners to have adequate information on drug costs.

This study highlights the need for better information about drug costs amongst the practitioners. Article 2 of the Bill of Rights relating to Prescription drugs stipulates the patient to be entitled to the lowest cost drugs possible, consistent with quality requirements(6). Drug information about costs to the health personnel can be augmented by providing them unbiased and complete information by non commercial drug bulletins and discussion and teaching of cost effectiveness of drugs in undergraduate curriculum(1,4). The cost of drug treatment must be taken into account so that patients are put to minimum financial strain.

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