

Errors on doctors' prescriptions

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SUMMARY. All prescriptions dispensed by one pharmacist during one month were examined for errors. Only 5.1 per cent of 2,237 prescription forms contained an error which meant the pharmacist had to contact the doctor. Thirty-seven per cent of prescriptions were either wholly or partly written by the receptionist. There was considerable variation between doctors and this varied from zero to 64 per cent; 4.0 per cent of prescriptions written by the doctor contained errors while those written by the receptionist were almost twice as likely (seven per cent) to do so. The majority of mistakes were obvious and trivial but five were potentially serious.

It is recommended that if doctors expect their receptionists to write prescriptions they should ensure that they are adequately trained to do so. The pharmacist can be a valued and trusted colleague who serves to protect patients from doctors' errors.

Introduction

DOCTORS write large numbers of prescriptions, often while short of time and under pressure. Errors are inevitable when large numbers are involved, and if the strict (*British National Formulary*) criteria are applied, up to a third of prescriptions are incomplete (Austin and Parish, 1976).

In this paper a study is reported in which all prescription errors identified by a pharmacist during one month have been classified.

Method

All prescriptions dispensed by a pharmacist during the month of July 1977 were examined. All errors which required the pharmacist contacting the doctor were

noted. The prescriptions were divided into those written entirely in the doctor's hand, and those written by ancillary staff. The latter were further divided into those which were unaltered and those to which the doctor had either added items or made alterations. Patients were asked to return unsigned prescriptions to the doctor for his signature. At the end of the month, the pharmacist and the author examined all prescriptions for any remaining errors.

Results

Prescriptions written by doctor and receptionist

A total of 2,237 prescriptions for 4,067 items and written by a total of 79 doctors were dispensed. Over 60 per cent of prescriptions were written by only three doctors, and 80 per cent by five doctors with practices in the immediate neighbourhood.

A total of 817 prescriptions (37 per cent) were either wholly or partly written by the receptionist and a quarter of these (203) had been altered by the doctor. There was considerable variation in the proportion written by ancillary staff from doctor to doctor and this varied from none (five doctors) to 64 per cent. Similarly, the proportion of prescriptions which required subsequent amendment by the doctor varied from 14 to 91 per cent.

Items on each prescription

The mean number of items on each prescription was 1.8, 1.9 on prescriptions written by ancillary staff, and 1.8 on those written by the doctor. The average number of items on prescriptions which contained an error was 2.6.

Errors

Only 108 forms (4.5 per cent) bearing 285 items contained an error. The total number of errors was 134 (Table 1).

Errors of dose. Errors of dose were the most common (67), and the majority of these consisted of a dose being

Table 1. Classification of errors on 108 prescription forms.

<i>Errors of dose</i>	
Strength of tablet not stated (where several sizes exist)	41
Dose wrong by multiples of 10	7
Other incorrect doses	10
Dose greater than maximum recommended	3
Others	6
Total	67
<i>Errors of quantity</i>	
Number omitted	19
Size of pack omitted (where alternatives exist)	10
Wrong pack size	2
Obvious excess quantity	1
Total	32
<i>Errors of naming drug</i>	
Incomplete description	12
Unreadable	5
Confusion of similar names	3
Wrong drug	2
Total	22
<i>Errors of instruction</i>	
Instructions absent	4
Total	4
<i>Errors of formulation</i>	
<i>(tablets instead of liquid)</i>	
Tablets instead of injection	4
Total	4
Others	5
Total	134

10 times, 100 times, or 1,000 times too large or too small, either as a result of omitting a zero or decimal point. There was a marked tendency for receptionists to confuse milligrams (mg) with micrograms (μ g). Drugs for which the dose was incorrectly given included thyroxine (1 mg for 0.1 mg, 5 mg for 0.05 mg), digoxin (0.625 mg for 0.0625 mg), and glyceryl trinitrate (500 mg for 500 μ g). When more than one tablet size was available the appropriate dose was frequently omitted (41) and drugs falling into this category included salbutamol ('Ventolin' 2 mg or 4 mg), ferrous sulphate (200 mg or 300 mg), frusemide (20 mg or 40 mg) and chlorpropamide (100 mg or 250 mg).

Errors of quantity. This was the second most common error and there were 32 examples. Forgetting to state the quantity of tablets, liquid, or ointment was the most common (29), and there were occasional instances of giving the wrong number of tablets. Sometimes this was obvious (e.g. 'Vibramycin' capsules, 60 instead of 6).

When it was not obvious, it was unlikely to be identified as an error!

Errors of naming drugs. These were not common (22). Five preparations were unreadable and 12 were incompletely labelled (e.g. 'Medihaler', insulin, or 'Navidrex' for 'Navidrex K'). There were only three instances of confusion of drug names. 'Tranazine' and 'Trasicor' were both mistaken for 'Tranxene', and 'Inderal' was confused with 'Indocid'. 'Navidrex K' (yellow tablets) was prescribed once when methyldopa (yellow tablets) was intended.

Responsibility for errors. Of the 114 forms which contained an error, 57 had been written by the doctor and 57 by ancillary staff. Only four per cent of forms completed by the doctor contained mistakes compared with seven per cent of those written by ancillary staff.

Discussion

When large numbers of prescriptions are written, human error inevitably leads to mistakes. What is remarkable is not that errors were so common but that they were not infinitely more common. The figure of five per cent reported in this paper is low. Only errors in which the pharmacist was forced to contact the doctor in order to dispense safely are listed here. Others (Austin and Parish, 1976) have shown that up to a quarter of prescriptions written by doctors and almost half those written by ancillary staff are incomplete if assessed by the strict criteria of the *British National Formulary*.

The majority of the so-called errors were obvious. No pharmacist would dispense doses of 1,000 'Trinitrin' tablets because the receptionist had written the prescription in milligrams instead of micrograms, and few patients would be either foolish or complacent enough to take them if the pharmacist did so!

Unreadable prescriptions are perfectly safe because they cannot be dispensed without contacting the prescriber. A more worrying hazard is the confusion of similar names such as 'Indocid' and 'Inderal', 'Trasicor' and 'Tranene', 'Tranazine' and 'Trasicor'. The inappropriate consumption of a beta-blocking drug ('Inderal') by an elderly patient on the verge of heart failure, in place of an antirheumatic drug ('Indocid') could easily have serious consequences.

Prescriptions written by ancillary staff were twice as likely to contain errors as those written by the doctor, a finding which is similar to that of Austin and Parish (1976).

It is important that if prescriptions are to be written by ancillary staff then they must be properly trained to do so. Every doctor should give his receptionists appropriate training, and they should be made familiar with *MIMS (Monthly Index of Medical Specialities)* and the *British National Formulary*. Many patients use their doctor like a grocer, and failure to monitor repeat

prescriptions adequately is a common fault. Doctors must ensure that patients cannot continue therapy without control by requesting repeat prescriptions from the receptionist. This is easily done by limiting the number of prescriptions that may be issued before the patient is again seen by the doctor. Writing and signing repeat prescriptions is a time-consuming drudgery which most doctors are only too happy to delegate. Survival makes it necessary, and it need not become a necessary evil if properly controlled.

The pharmacist is not usually regarded as a member of the primary care team, but he is a highly qualified colleague who acts as a safety valve by protecting patients from our inevitable errors. We are under-using his knowledge and skills!

Reference

Austin, R. & Parish, P. (1976). In *Prescribing in General Practice. Journal of the Royal College of General Practitioners*, Supplement Number 1, 26, 24-31.

Epidemiology and clinical significance of cervical erosion in women attending a family planning clinic

Women attending a family planning clinic were studied to determine the relation between cervical erosion and clinical and social characteristics. The appearance of the cervix was recorded without knowledge of the women's symptoms.

The prevalence of erosion increased with parity but, when the effects of other factors were controlled, decreased in women aged 35 and over. Erosion was significantly more common in women taking the Pill and less common in women using barrier methods of contraception than in others. There was considerable variation between doctors in the reporting of erosion. No association was found between erosion and post-coital bleeding, dyspareunia, backache, or dysuria. There was a significant but modest association between erosion and vaginal discharge and a suggestion that erosion may sometimes be associated with nocturia and frequency of micturition. Vaginal flora was similar in women with and without erosion.

Cervical erosion should not be regarded as pathological in asymptomatic women, nor should it be assumed necessarily to be the cause of symptoms in women with genitourinary complaints.

Reference

Goldacre, M. J., Loudon, N., Watt, B., Grant, G., Loudon, J. D. O., McPherson, K. & Vessey, M. P. (1978). *British Medical Journal*, 1, 748-750.



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Flat 3	£20	£30

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