Repeat prescribing: a study prior to the imposition of the limited list

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SUMMARY. A diverse group of general practitioners from separate practices kept a record of their repeat prescriptions for a week in March 1985, just prior to the imposition of the Government's limited list of drugs which could be prescribed on the National Health Service. Up to one-fifth of repeat prescriptions needed to be altered to comply with the eventual list. An unexpected finding was the wide differences among the doctors in the proportion of repeat prescriptions that were written as the approved generic names. While the anxieties about generic prescribing have yet to be resolved, the problems of converting repeat prescriptions into generic names requires not only a change in doctors' behaviour, but also clear explanation to reception staff and patients. Such a change could produce considerable financial savings, and might be more effective in this than further imposed restrictions.

Introduction

THE number of prescriptions issued by British general practitioners in one year has increased by 100 million over the last 25 years,[1] and the proportion of these that are repeat prescriptions has also risen to between 12.5 and 33% of all prescriptions.[2] Concern about repeat prescribing has been raised by general practitioners and others with regard to errors in prescription writing,[3] failure to note adverse drug interactions and the tendency to long-term use of dangerous or unnecessary prescriptions, especially by the elderly.[4] Computerization of repeat prescribing can help to overcome some of these problems.[5]

The cost of general practitioners' prescribing has also provoked much discussion, both political and professional. The Greenfield Report suggested the use of generic substitution as a means of reducing drug costs.[6] Other work has shown that generic substitution can achieve considerable financial savings.[7-9]

In an attempt to reduce national drug costs the Government introduced regulations on 1 April 1985 to limit the range of drugs available for prescription on the National Health Service in certain therapeutic groups.[10] In the light of this restriction it has been necessary for general practitioners and their staff to review all repeat prescriptions, at least, to ensure compliance with the Government's limited list. March 1985 was considered to be a suitable time to look at the repeat prescribing of a diverse group of general practitioners from separate practices who had previously been involved in the development of a limited formulary for general practice.[11]

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Method

The 29 general practitioners who teach medical undergraduates at Newcastle University, and who had been involved in the development of a limited formulary for general practice,[11] were invited to record all their repeat prescriptions for any one week in March 1985, just prior to the imposition of the Government's limited list. A repeat prescription was defined as any prescription issued by the doctor upon a request for repeat medication, without a direct consultation taking place with the patient.[2] The doctors were free to submit their records in any convenient form — some submitted duplicate carbon copies of prescriptions, some computer prescription counterfoils and some a computerized print-out of all repeat prescriptions.

The records were analysed and the proportion of prescribed items which needed to be altered to comply with the Government's limited list, the proportion of prescribed items falling within the Newcastle limited formulary for general practice, which contains 137 drugs[11] and the proportion of items prescribed by the approved generic name were determined. In addition a 10% random sample of prescribed items were further analysed to determine the potential cost saving of generic substitution. This saving was calculated by comparing the cost of the item as written with the cost of its generic equivalent. The fixed costs of prescriptions, for example the dispensing fee, were excluded from the calculation.

The results of this analysis were discussed with 21 of the 29 doctors at a residential weekend course. Working in small groups, the doctors were invited to discuss the results with particular reference to the possible advantages and disadvantages of generic prescribing.

Results

Nineteen of the 29 doctors kept a record of their repeat prescriptions for one week in March 1985. Seven doctors submitted individual returns and 10 doctors submitted returns on behalf of five group practices. The records of the two other doctors could not be analysed as they had recorded only the names of the drugs prescribed without indicating the number of prescriptions. Thus there were seven individual records and five group practice records yielding 12 sets of data in all.

The proportion of prescribed items per doctor or practice which needed to be changed to comply with the Government's limited list varied between 0% (for a practice that had already made the necessary changes) and 20.3% (Table 1). The proportion of items falling within the Newcastle limited formulary for general practice varied from 16.7% to 73.8%, increasing to a range of 47.7% to 85.7% after generic substitution (Table 1). The Newcastle limited formulary lists only generic names except for certain proprietary combination preparations. This result was compatible with our earlier study.[11]

The proportion of items prescribed by their generic name varied widely from 20.1% to 78.0% (Table 2). This finding was unexpected, and was consequently the focus for discussion of the participants at the weekend residential course. The potential financial savings of generic substitution varied from 0.0% to 11.4% (Table 2), which confirms the findings of other studies.[7-9]

Table 1. The number and percentage of repeat items prescribed which needed to be changed to comply with the Government's limited list, the number and percentage within the Newcastle limited formulary[a] and the number and percentage prescribed by their generic name.

	Total number of repeat items prescribed	Number (%) which needed to be changed to comply with the limited list		Number in the Newcastle limited formulary	Number (%) in the Newcastle limited formulary after generic substitution		Number (%) prescribed by generic name	
Individual doctors								
A	91	0	*(0.0)*	66	69	*(75.8)*	68	*(74.7)*
B	249	1	*(0.4)*	109	138	*(55.4)*	101	*(40.6)*
C	84	8	*(9.5)*	62	72	*(85.7)*	60	*(71.4)*
D	162	20	*(12.2)*	34	102	*(62.9)*	41	*(24.1)*
E	82	11	*(13.5)*	36	39	*(47.7)*	40	*(48.8)*
F	103	14	*(13.6)*	26	67	*(64.8)*	32	*(31.0)*
G	54	11	*(20.3)*	9	30	*(55.6)*	13	*(24.0)*
Group practices								
H	219	0	*(0.0)*	122	134	*(61.5)*	152	*(69.4)*
I	420	29	*(6.9)*	262	262	*(62.4)*	328	*(78.0)*
J	476	46	*(10.3)*	293	330	*(69.3)*	324	*(68.0)*
K	592	86	*(14.6)*	107	325	*(55.0)*	119	*(20.1)*
L	554	105	*(19.0)*	110	280	*(50.6)*	130	*(23.5)*
Total	3086	331	*(10.7)*	1236	1848	*(59.9)*	1408	*(45.6)*

[a] The Newcastle limited formulary lists only generic names except for certain proprietary combination preparations.

Table 2. Random 10% sample of repeat prescriptions costed as written and for cheapest generic equivalent.

	Number of items	Cost as written (£)	Cost of generic equivalent (£)	Possible saving (%)
Individual doctors				
C	8	26.54	26.54	*0.0*
D	18	135.52	133.14	*1.8*
A	9	32.90	31.08	*5.6*
G	4	11.94	11.06	*7.0*
F	11	22.20	20.57	*7.3*
Group practice				
K	59	311.76	276.14	*11.4*

The course participants' small group discussions concluded that the advantages of generic prescribing were:

- Generic names reflect, to some degree at least, the chemical nature of the drug, and certainly help classify drugs into groups.
- There is an immediate financial saving to be made by generic prescribing.
- Doctors, dispensing chemists and patients need only know or remember one name for each drug rather than two or more.
- Prescription errors might be less likely.
- Dispensing chemists and doctors prefer generic prescribing as they only have to stock one make of drug.
- In time dispensing chemists, doctors and patients will demand that generic drug manufacturers' products are acceptable in terms of purity, bioavailability and presentation.

They concluded that the disadvantages of generic prescribing were:

- Generic names were generally longer and less memorable.
- Doctors would be concerned about the presentation of drugs, for example colour, size and shape.
- Drug company sponsorship of continuing medical education might be lost.
- Drug companies might put pressure on doctors to prescribe newer drugs which were still within patent, or proprietary combination preparations.

These conclusions are identical to those of the Greenfield Report.[6]

Discussion

In 1960 the Hinchcliffe Committee investigated the cost of prescribing and recommended that generic names should be used on prescriptions in preference to proprietary names.[12] Since that time it has been government policy to encourage doctors to prescribe in this way, but the balance of prescribing has remained weighted towards the use of proprietary names. In 1982 the Greenfield Report on effective prescribing concluded that there were a number of advantages to be gained from prescribing by generic names, but that certain reservations held by doctors needed to be resolved.[6]

The doctors taking part in the study reported here had previously been involved in the compilation of a limited formulary for general practice. Prescribing by generic names, except for proprietary combination preparations, was one of the essential principles governing the development of this formulary. In the previous study the doctors had achieved over 80% compliance with the limited formulary when prescribing for patients with newly diagnosed conditions.[11] In spite of this the present study shows wide differences among the doctors in the proportion of their repeat prescriptions issued by generic names.

Although Harris and colleagues stated that 'it must be assumed that the policies of the CSM and CRM make generic prescribing safe',[9] the reservations raised in the Greenfield Report and elsewhere about the bioavailability, purity and acceptability of generic drugs do not seem to have been resolved. Moreover a wholesale switch to generic prescribing by general practitioners might not yield the anticipated savings, as drug companies may, under the Pharmaceutical Price Regulation Scheme, compensate for loss of income in one area by

come in one area by changing their pricing structure to increase the cost of drugs still under patent.

Prescribing by generic names has been described as a change of habit[13] and it has been clearly shown that general practitioners can make this behavioural change and thereby reduce the cost of their prescribing.[9] However, changing to generic names on repeat prescriptions presents different problems, as it is not only the prescribing behaviour of the doctor that has to change. It must be clearly explained to reception staff and patients that drugs prescribed by their generic names are equally effective.

This study demonstrated that as many as one-fifth of repeat prescriptions had to be altered to comply with the Government's limited list. Some of the doctors involved in this study said that they had taken advantage of the limited list legislation to change some of their repeat prescriptions to generic names.

Reception staff and patients now have some experience of prescription changes, and it may thus be easier for practices to continue to change repeat prescriptions to generic names. This move alone could produce considerable financial saving and should help to dissuade this Government or a future one from making further restrictions in prescribing on the National Health Service. Furthermore, drug companies might be more inclined to reduce the cost of their drugs as soon as the patent expires in order to compete effectively with manufacturers of generic drugs. This would render a change of manufacturer for many drugs unnecessary and thus preserve continuity of drug presentation in the eyes of the patients.

If general practitioners are to change to generic prescribing they need to be assured that the quality of generic drugs are guaranteed and that such a conversion will yield financial savings for the National Health Service.

References

1. Deitch RA. Limited NHS drug list. *Lancet* 1984; **2:** 1166.
2. Drury VWM. Repeat prescribing — a review. *J R Coll Gen Pract* 1982; **32:** 42-45.
3. Austin R, Dajdar R. Ancillary-written prescription errors. *J R Coll Gen Pract* 1980; **30:** 417-419.
4. Tulloch AJ. Repeat prescribing for elderly patients. *Br Med J* 1981; **282:** 1672-1675.
5. Telling JP, Davies KR, Difford F, *et al.* Developing a practice formulary as a by-product of computer controlled repeat prescribing. *Br Med J* 1984; **288:** 1730-1732.
6. Informal Working Group on Effective Prescribing. *Report to the Secretary of State for Social Services.* London: Department of Health and Social Security, 1983 (The Greenfield Report).
7. Anderson RJ, Reilly PM. Generic alternatives in general practice. *Br Med J* 1984; **288:** 1129-1131.
8. Carter RN. Doctors, drugs and the DHSS. *Br Med J* 1985; **290:** 464.
9. Harris CM, Jarman B, Woodman E, *et al. Prescribing — a suitable case for treatment. Occasional paper 24.* London: Royal College of General Practitioners, 1984.
10. Anonymous. The limited list of drugs to be available in certain categories from April 1. *Lancet* 1985; **1:** 532-533.
11. Grant GB, Gregory DA, van Zwanenberg TD. Development of a limited formulary for general practice. *Lancet* 1985; **1:** 1030-1032.
12. Committee on the Cost of Prescribing. *Final report of the Committee on the Cost of Prescribing.* London: HMSO, 1959 (The Hinchcliffe Report).
13. Hill A. Generic prescribing — a change of habit. *J R Coll Gen Pract* 1985; **35:** 89-90.

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