

**Table 4** Drugs for which no adjustment was recommended: how were they classified in the other sources

Source in which no adjustment was required	British National Formulary				Martindale				AHFS Drug Information 2004				Drug Prescribing in Renal Failure			
	M	N	Q	V	M	N	Q	V	M	N	Q	V	M	N	Q	V
British National Formulary (n=43)	—	—	—	—	0	32	11	0	6	30	7	0	22	17	3	1*
Martindale (n=38)	1	32	4	1†	—	—	—	—	5	30	3	0	22	13	2	1*
AHFS Drug Information 2004 (n=39)	0	33	5	1‡	0	31	8	0	—	—	—	—	18	16	4	1*
Drug Prescribing in Renal Failure (n=32)	0	17	13	2§	0	13	17	2¶	1	16	15	0	—	—	—	—

M=missing. N=no adjustment required. Q=adjustment required (includes Q: quantitative recommendations, NQ: non-quantitative recommendations, and C: use with caution). V=contraindicated/avoid.

\*Terbutaline.

†Lercanidipine.

‡Ephedrine.

§Naproxen, warfarin.

¶Heparin, warfarin.

### What is already known on this subject

The dosage of many drugs should be adjusted when prescribed to patients with renal impairment

Data on the adjustment of the dose or dosing interval are available in several secondary pharmacotherapeutic sources

### What this study adds

Sources of drug information vary in their definitions and recommendations

The methods and primary sources used to reach these recommendations are not described

that more sources will reduce the variability between sources is small. We based our comparison on 100 drugs that are consumed most often in our hospital. We have little reason to assume that the choice was biased and included problematic drugs. We tackled only adjustments for renal impairment, but we can guess that the adjustment for liver failure, for example, is no better described or referenced.

### Conclusions

Looking for evidence on the efficiency of interventions, clinicians are taught to expect secondary sources (for example, systematic reviews in the *Cochrane Library*) to use their primary sources in a methodical manner: transparent and reproducible workflow, a thorough and explicit search for references, elimination of bias, and a short description of the primary sources. What should clinicians (and their patients) expect from a reliable secondary source of drug information? The methods used to retrieve information and data on use should be described and made available to the reader—for example, which kind of data are solicited from the manufacturer, how their reliability is judged, and how the data are translated into quantitative recommendations. Readers should be told if other sources of primary information are searched, which methods are used to search them, and again how the information is translated into recommendations. Primary data should be summarised, and the reader should have easy access to it. If possible, quantitative recommendations on dosages

and dosing intervals should be made. If not, the reason for the qualitative recommendation should be made clear. The basics of drug prescription—dosage and dosing interval, contraindications, and expected adverse effects—should be no less evidence based than the efficacy and effectiveness of a drug or intervention.

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1 Joint Formulary Committee. *British national formulary*. 48th ed. London: British Medical Association and Royal Pharmaceutical Society of Great Britain; 2004. [www.bnf.org/bnf/](http://www.bnf.org/bnf/)

2 Sweetman SC, ed. *Martindale: the complete drug reference*. London: Pharmaceutical Press, 2004.

3 In: McEvoy GK, Miller J, Snow EK, Welsh OH, Litvak K, eds. *American hospital formulary system (AHFS) drug information 2004*. Bethesda: American Society of Health-System Pharmacists, 2004.

4 Aronoff GR, Berns JS, Brier ME, Golper TA, Morrison G, Singer I, et al, eds. *Drug prescribing in renal failure: dosing guidelines for adults*. Philadelphia: American College of Physicians, 1999.

5 Jones CA, McQuillan GM, Kusek JW, Eberhardt MS, Herman WH, Coresh J, et al. Serum creatinine levels in the US population: third national health and nutrition examination survey. *Am J Kidney Dis* 1998;32:992–9.

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### Expression of concern

*Randomised controlled trial of cardioprotective diet in patients with recent acute myocardial infarction: results of one year follow up*

In the *BMJ* of 18 April 1992, we published a paper by Ram B Singh, Shanti S Rastogi, Rakesh Verma, B Laxmi, Reema Singh, S Ghosh, and Mohammad A Niaz (1992;304:1015–9). We now wish to express concern about the validity of this paper. This expression of concern is based on investigations the *BMJ* has carried out into the work of the paper's lead author and what has emerged about it and its reliability in the course of these investigations. An account of these investigations is published on page 281.<sup>1</sup> As a result of these investigations, we have reasonable grounds to doubt the validity of the 1992 paper.

1 White C. Suspected research fraud: difficulties of getting at the truth. *BMJ* 2005;331:281–8.