

Short reports

Use of steroid cards by patients with respiratory disease

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Prolonged administration of corticosteroid preparations, other than by the inhaled route, is associated with suppression of the hypothalamic-pituitary-adrenocortical axis. Sudden cessation of such treatment may lead to acute adrenal insufficiency that could have a fatal consequence, and for this reason a card is available for issue to patients receiving corticosteroid supplements. Drug type, dosage, and date started, together with details of patient, general practitioner, and hospital attended should be entered on the card. Printed on the card are instructions to the patient not to stop treatment suddenly and the measures to take in an emergency, and advice to carry the card at all times. Thus, if the patient is unable to give any history during an illness, medical staff should be able to ascertain the requirement for continued or increased corticosteroid treatment. This study was undertaken to assess the use made of the steroid card in a busy respiratory unit.

Methods and results

Seventy consecutive patients attending the outpatient clinic who had received oral corticosteroid treatment for three or more weeks were asked if they could produce their steroid card for inspection. If produced the card was inspected for details of corticosteroid dosage and starting date, and for details of patient, general practitioner, and hospital. If a card had been issued the patient was asked who had given them the card. For all patients information on present dose, duration, and when the treatment started was ascertained.

In all instances deficiencies were remedied, and the patient was advised to carry the card always and present it at any medical consultation.

Only 29 (41%) patients could produce a card on request. A further nine (13%) had been given a card but could not produce it; five had left the card at home and four had lost it. Whether or not a card had been issued was not related to where corticosteroid treatment had been started (table 1). Rather more cards were brought when originally issued by hospital doctors than when issued by nurses or general practitioners, but the numbers were small. In only seven instances were personal and medical details incorrect. Of the cards inspected, however, 18 (62%) had an incorrect corticosteroid dose recorded (table 2). Those who brought cards had received a lower mean dosage for a longer time than the patients who could not produce a card. When the dose recorded was incorrect the patients had been receiving corticosteroids for longer, but with a lower mean dose, than those whose dose was correctly entered. The mean dose recorded on the incorrect cards was nearly twice that actually being taken. The longest mean duration of treatment and highest mean dose occurred in those who had been issued with a card but were unable to produce it. There was no obvious relationship between the accuracy of recorded dose and where the corticosteroid was prescribed, or who issued the card.

Discussion

While the probability of a patient who takes long-

Table 1 Card use related to initial prescription and personnel issuing card

Total	Card	Where corticosteroid treatment started			Who issued card			
		Inpatient	Outpatient	General practice	Nurse	Hospital doctor	General practitioner	Not sure
29	Brought	21	6	2	5	19	2	3
9	Issued but not brought	8	1	0	4	3	2	0
32	Never issued	21	6	5	—	—	—	—

Table 2 Mean corticosteroid dose and duration of administration related to card production and dose accuracy

Total		Card				
		Not brought	Total brought	Brought: dose correct	Brought: dose incorrect	Issued but not brought
70	Number	41	29	11	18	9
6.9	Mean duration (yr)	6.0	8.5	7.6	9.1	13.8
8.6	Mean prescribed dose (mg)	9.7	7.0	7.6	6.6	9.3
				Dose stated on card	11.1	

term corticosteroid treatment requiring emergency treatment and being unable to communicate is remote, the possibility does exist. Hence, over half of the patients studied here are at increased risk of adrenal crisis in an emergency by not carrying a steroid card. In only 13% can any of the blame be attached to the patient; 46% of our patients were never given a card so far as they could recollect. Respiratory medicine and rheumatology specialties contain the most frequent indication for the long-term prescription of corticosteroid drugs, but in respiratory medicine emergencies are more common. Consequently, physicians caring for respiratory illnesses should be more aware of the need for steroid cards. This does not appear to be the case as, in a similar study (Downie *et al*, 1977), 72% of patients with rheumatoid arthritis could produce a card on request compared with less than half in our outpatient clinic.

The differences of duration of treatment and corticosteroid dosage whether the patients brought a card or not, and whether the stated corticosteroid dosage was correct or not, are probably not significant. The poor appreciation of the importance of the cards is further shown by the inaccuracy of dose recording. The findings suggest

that doctors had not corrected cards while decreasing corticosteroid dosage, this event having been particularly noticeable in the past few years since the introduction of inhaled corticosteroids for asthmatic patients, who comprised most of the study population. This error is towards safety, and is probably not as important as the use of the card itself.

If our experience is typical, more attention should be paid to the issue and clerical details of steroid cards. A check mechanism could be provided by pharmacists on dispensing any prescription for non-inhaled corticosteroids.

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Reference

Downie, W W, Leatham, P A, Rhind, V M, and Wright, V (1977). Steroid cards: patient compliance. *British Medical Journal*, 1, 428.

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