

sively. If a physician prescribes by generic name, the pharmacist may fill the prescription with any brand of that drug; if he prescribes by brand name, the pharmacist must dispense only the brand called for. Unless he obtains specific permission from the physician, prescribing another brand makes him liable to prosecution by state pharmacy boards under the 'substitution' law.¹³

The third objective is accomplished by a continuing program of disparagement of lower-priced drugs on the part of the major drug firms through their trade associations and salesmen, especially detailmen.¹⁴ In no other industry is it likely that disparagement of lower-priced products has been able to supplant price competition so completely. Food and Drug Administration regulation has been surmounted by also disparaging the adequacy of FDA inspection.

III. PRICE COMPETITION AMONG ETHICAL DRUGS

Very little useful quantitative data exist outside the material published in the *Hearings*, which concerned themselves with four drug categories, antibiotics (about 20 per cent of total ethical drug sales), corticosteroid hormones (10 per cent), tranquilizers (9 per cent) and oral antidiabetic drugs (3 per cent). The corticosteroids market is easily the most representative of the four, since the pattern is not as clear in antibiotics nor as complete in tranquilizers or oral antidiabetics. Consequently, chief emphasis will be given to the corticosteroids market as a paradigm of the effect of patents and other drug marketing institutions on price competition.

A. Corticosteroid Hormones

There are seven closely related corticosteroid hormones which are used in the treatment of a number of related disease groups, particularly those with inflammatory symptoms of a chronic nature. All seven are to some extent substitutes for one another in the treatment of many disorders.¹⁵

Cortisone, the first corticosteroid hormone to be discovered, was found in 1944 and commercially produced in 1948. Its price history

¹³ Among pharmacists, 'substitution' formerly signified the dispensing of a chemical substance other than that required by the physician. The National Pharmaceutical Council engaged in a crusade to induce state boards of pharmacy to draft ant substitution laws defining substitution in terms of brand names, and succeeded in increasing the number of states with such laws from four to forty-four from 1953 to 1959, *ibid.*, p. 235.

¹⁴ Part 18 of the *Hearings* contains much testimony to this effect by physicians and medical educators. See particularly the testimony of Dr. Solomon Garb, *Hearings*, op. cit., Part 18, pp. 10480-5.

¹⁵ A study made in 1959 showed that all seven of these drugs were prescribed in every one of the seven disease groups requiring corticosteroids therapy, *Hearings*, op. cit., Part 19, p. 10825.