

Senator NELSON. You say beyond questioning its magnitude, critics have contended convincingly that much of the research performed by the industry is imitative, wasteful, and aimed at patent procurement rather than scientific progress.

Do you have any specific examples of people who have made this criticism?

Dr. SCHIFRIN. Yes, sir; I do. Dr. Walter Modell in his own professional articles and in testimony before several Senate committees has made this point rather convincingly. Dr. Claude Forkner has published in several medical journals, including the *New England Journal of Medicine*, about the drug mixtures in that respect, the "shotgun therapy," as he puts it. Dr. Dale Console, formerly with Squibb Laboratories, has talked about such questionable practices of the drug industry.

Senator NELSON. You have the articles in which they made their criticisms?

Dr. SCHIFRIN. Yes, sir; I have these and other articles and I would be glad to submit them for the record.

Senator NELSON. If you would submit those to the committee counsel, we will print them in the record.

Dr. SCHIFRIN. Yes, sir.

(The material referred to follows:)

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MEDICAL INTELLIGENCE—DRUG MIXTURES¹

(By Claude E. Forkner, M.D.²)

Much of the success in modern treatment of disease resides in advances in chemistry, physiology and pharmacology. This has resulted in the isolation of many chemical and biologic substances that have specific and sometimes powerful effects.

For example, twenty years ago there was 1 sulfonamide available to the medical profession—namely, sulfanilamide. Today, according to the sixth edition of the *Modern Drug Encyclopedia*, 200 different products are listed as sulfonamide preparations. Many of these contain 1 or more of the sulfonamides in combination with other drugs, often without any indication in the name of what is actually in the drug. For example, few people would guess that Eskadiamer is a combination of 2, Neotrizine a combination of 3, Ray-Tri-Mides a combination of 3 and Terfonyl a combination of 3 sulfonamides, Powdalator is a combination of penicillin G and sulfanilamide and Thizodrin is a combination of 3 drugs, 1 of which is sulfathiazole.

I suspect that few physicians use more than 3 or 4 of the sulfonamides and that they would like them to be marketed under standardized names rather than under a series of arbitrary combinations of letters making meaningless and non-existent words that add nothing but confusion, add greatly to the cost of medical care and promote serious errors in treatment.

Who is it that wants all this nonsense on the market? Is it the doctors? No. Is it the patients? No. Is it the drugstores? No. Is it the hospitals? No.

A couple of decades ago only a handful of antispasmodics were available, and only 2 or 3 of these were very useful. Today over 200 differently named products are on the market. A few examples are Alubelap, containing a mixture of aluminum hydroxide gel, phenobarbital and belladonna, Amesec, containing aminophylline, ephedrine hydrochloride and amobarbital, Atralose, containing homatropine methylbromide, phenobarbital and methylcellulose, Bunesia, containing

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² Professor of clinical medicine, Cornell University Medical College; attending physician, New York Hospital.