ture of certain barbituric acid derivatives. . . . The present investigation is a study of a series of 5,5-substituted barbituric and thiobarbituric acids. . . . These barbituric acid derivatives were tested on the isolated rabbit's intestine, isolated guinea pig's uterus and perfused frog's heart. . . . As the number of C atoms increased in the substituted alkyl chain, the inhibition or sedative action increased on the isolated intestine of rabbits and frogs and the isolated uterus of guinea pigs. The same degree of depression was observed in the perfused frog's heart. Sodium 1,3-dimethyl-butyl-ethyl barbiturate, a convulsant when injected in warm-blooded animals and a depressant to cold-blooded animals, produced stimulation or contraction on the isolated intestinal strips of rabbits, but depressed the isolated frog's intestine and perfused frog's heart." 13 references.

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"Barbiturates are generally administered orally in the form of tablets, capsules or elixirs using either the acid form of the barbiturate or the sodium salt. Absorption from the gastrointestinal tract is generally considered to be satisfactory, but differences in the rate of absorption are to be expected between different pharmaceutical preparations. . . . The preparation being studied was administered orally to a 24-hour starved cat. A period of one-half hour was allowed to elapse after administration during which the onset and degree of depression were noted. At the end of this period the cat was killed by exsanguination. The blood and the contents of the stomach, intestine and colon were assayed separately for barbital. Comparison of these values indicates the rate of absorption. . . .

"Tablets of sodium barbital administered after crushing are absorbed more rapidly from the gastrointestinal tract of 24-hour starved cats than crushed tablets of barbital or barbital administered in the form of the Elixir of Barbital N.F. VII. Crushed tablets of barbital are absorbed at about the same rate as the elixir. After oral administration only small amounts of the drug reach the colon indicating that absorption takes place mainly in the small intestine. Absorption of isotonic solutions from the ligated intestine is about the same for barbital and sodium barbital provided that both are in solution. Absorption of barbital after administration of the Elixir of Barbital N.F. VII is much slower than was expected. While depression was greater than the blood level of barbital would indicate, this can be explained by the presence of alcohol in the elixir. The delayed absorption of the barbital in the elixir probably occurs because the glycerin present delays the passage of the elixir into the intestine from the stomach." 6 references.

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SEEBERG, V. P.: *A Rapidly Absorbed Elixir of Sodium Barbital.* J. Am. Pharm. A., Scient. Ed. **32**: 137–138 (May) 1943.

"A new elixir of sodium barbital containing no glycerin was found to be absorbed rapidly from the gastrointestinal tract of cats and therefore possesses advantages over the glycerin-containing elixir of barbital." 3 references.

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"The first and most important indication for inhalation therapy is in con-