The change in the histologic vitamin A distribution during CCl_4 intoxication indicates a shift of vitamin A from morphologically intact peripheral areas of the lobules to the central fatty areas. This shift exceeds the altered fat distribution since small fat droplets in the normal periphery and medium sized ones in the intermediary zone are free of vitamin A fluorescence. It is problematic whether vitamin A actually moves from the periphery to the center, or whether it is more utilized from the periphery than from the central large fat droplets. The latter take up the vitamin faster and release it slower than the intact areas as shown by the repletion and depletion experiments respectively of vitamin A-deficient rats. This supports observations that in human liver damage the blood vitamin A level is low despite occasional quantitative normal liver stores,[13] and that hemeralopia may occur. The fact that vitamin A supplements cause vitamin A storage in the intact areas after repleting the fatty ones, renders such therapy in liver damage rational. A high carbohydrate diet has a similar effect.

Intoxication of rats with phosphorus (15 rats), thyroxin (9) and bile acids (9) showed similar results.

Summary. In CCl_4 poisoning vitamin A is found in damaged but not in uninvolved liver areas. The pathologic areas take it up faster and release it slower than normal ones. High vitamin A therapy repletes the uninvolved areas.

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Sulfaguanidine in the Treatment of Infectious Enteritis in Swine.*

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The reports of Marshall, *et al.*,[1, 2] on the use of sulfaguanidine in

13 Meyer, K. A., Popper, H., Steigmann, F., Walters, W. H., and Zevin, S., PROC. SOC. EXP. BIOL. AND MED., 1942, **49**, 589.

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1 Marshall, E. K., Bratton, A. C., White, H. J., and Litchfield, J. T., *Bull. Johns Hopkins Hosp.*, 1940, **67**, 163.

2 Marshall, E. K., Bratton, A. C., Edwards, L. B., and Walker, E., *Bull. Johns Hopkins Hosp.*, 1941, **68**, 94.

TABLE I.
Sulfaguanidine in the Treatment of Infectious Enteritis of Swine.

Group No.	No. swine treated	No. control swine	Daily dose, g/kg	Results					
				Recovered		Deaths		Not improved	
				No.	%	No.	%	No.	%
1	52		.11-.40	36	69	16	31		
		31		5	16	22	71	4	13
2	18		.07-.11	18					
	50		.11-.16	43		7			
	37		.16-.22	35		2			
	23		.22-.33	21		1		1	
	5		.33-.44	5					
	133			122	92	10	7.5	1	.75

the treatment of enteric infections suggested a trial with this drug on infectious enteritis in swine. This disease, frequently referred to under such terms as necrotic enteritis or "necro", diphtheritic enteritis, infectious diarrhea, bloody scours, and Salmonellosis, is a widespread and important disease of swine. Salmonella types of organisms are usually considered as the principal causative agent.

Table I, Group 1, summarizes controlled experiments in 12 lots of pigs containing from 2 to 14 animals manifesting various forms of the disease (acute to chronic). The drug was administered in capsules and the daily dose divided between morning and evening. Group 2 represents several lots of animals treated under field conditions in which it was not possible to leave some as controls. Daily observations were made of them, however. The drug was administered in capsules or mixed with small amounts of feed.

In addition to the above experiments a total of 333 swine were treated under conditions of a general veterinary practice and with the coöperation of local practicing veterinarians. The results obtained were similar to those shown in Table I.

In general, the diarrhea was checked and the feces returned to normal consistency by the fourth or fifth day and the treatment was continued for an additional 3 or 4 days before the animals were released. A corresponding improvement in physical condition occurred.

These preliminary trials suggest that an effective dose is within the range of 0.165 to 0.33 g per kilo body weight (or 0.75 to 1.5 g/10 lb). In preliminary toxicity trials no evidence of ill effects was noted with dosages below 0.66 g/kg.