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## CLINICAL TRIAL OF AN ORAL SOLUTION FOR TREATMENT OF CHOLERA.

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Previous studies at this laboratory indicated that a solution containing electrolytes and glucose was absorbed from the small bowel of acute cholera patients (Taylor et al., Hirschhorn et al., unpublished data).

This year the solution has been modified for clinical use. After relief of shock with initial intravenous therapy using 5-4-1 solution\* patients in the study group were treated with an oral solution. Control patients received only intravenous therapy. Both groups received tetracycline. Some cholera patients treated with an oral solution have required no additional intravenous therapy, while others required additional small amounts of intravenous therapy. Results show that patients who received the oral therapy required only one-quarter of the amount of intravenous fluid required by control patients.

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\*One liter, of 5-4-1 solution contains 5 grams of NaCl, 4 grams of NaHCO<sub>3</sub>, and 1 gram of KCL.

### ACETATE AS A BASE PRECURSOR IN THE CORRECTION OF ACIDOSIS SECONDARY TO DIARRHEA AND ITS USE IN INTRAVENOUS FLUIDS.

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Intravenous bicarbonate has proved to be an ideal substance for correcting the acidosis associated with cholera and other diarrheal diseases. There are, however, two major disadvantages of bicarbonate solution :

- (i) bicarbonate can be autoclaved only with great difficulty and therefore, must be added to a solution just prior to use, to avoid bacterial examination, and
- (ii) Commercially available bicarbonate has a short shelf life.

In this study acetate was substituted for bicarbonate in the intravenous solution. Acetate, as a base precursor, has several advantages. It is inexpensive, can be autoclaved and it has a long shelf life.

This study reports the results of acetate in the correction of acidosis secondary to diarrhea and its use in intravenous fluids. Results are compared with those of a bicarbonate solution and shown to be very similar. The implications of the use of acetate in the treatment of cholera and other diarrheal diseases are also discussed.