THE SPREAD OF ENTERIC FEVER BY' PERSONAL INFECTION.

> Lieutenant-Colonel A. M. Davies, R.A.M.C., presented an interesting paper, published in full in the *British Medical Journal*, at the Annual Meeting of the British Medical Association at Exeter on "Enteric Fever: Its Spread by Personal Infection, and Preventive Measures on Active

Service."

The writer says that the orthodox text-book teaching as to the causation of enteric fever lays little stress on its communicability by direct contagion—that is, by personal infection. The only authoritative and widely circulated text-book which lays stress on this point is that by Professor Osler, who admits that "the possibility of direct transmission through air from one person to another must be acknowledged."

Colonel Davies further points out that it is known that under the perfect sanitary condi-tions that obtain in the splendidly equipped and managed London hospitals it does occasionally happen that enteric spreads from one patient to another in the same ward; the occurrence is rare, but it is not unknown. Also it does happen that nursing attendants contract the infection from patients. If. then. this event is possible in such institutions under the best conditions that can well be imagined, is it not possible, is it not, indeed, highly probable, that similar propagation would occur in a barrack room or tent where the occupants are in intimate association, and where the sanitary conditions are, of course, not to be compared with those in a London hospital, assuming that one of the occupants is suffering from the disease? From the paper, the whole of which is of great interest, we give the following extracts as bearing most on the question from the nursing point of view. The recognition of the infectivity of the

The recognition of the infectivity of the patient and the knowledge that this continues during convalescence will indicate some of the measures to be taken in order to prevent spread. The stools and urine are the obvious channels of infection, and to these excreta the chief care in regard to disinfection and disposal will be directed. But the date of commencement of infectivity is not known with certainty in the case of either urine or stools, neither is it known precisely when they cease to be infective. So to deal with a convalescent as to ensure that his stools and urine are not a danger to others may be tedious, but is not very difficult; but to deal effectively with an undeveloped, undiagnosed, and possibly for the time being unrecognised case, so as to make sure that his excreta do not spread infection, is, it is to be feared, a matter of very great difficulty indeed.

1. To take first the case of the enteric patient in hospital. The preventive or protective measures should consist of: (1) Segregation from patients suffering from other diseases; (2) provision of special clothing and bedding, distinctively marked and kept separate; (3) also special feeding cups and other utensils for food; special bedpans and urinals, and spit cups; special clinical thermometers, and enema apparatus; all these articles to be distinctively marked. (4) The nursing attend-ants should be specially detailed, and should be fed and housed apart from the main body of the nursing *personnel*; though not absolutely isolated, they should perform their ablutions and change their clothing before associating with the rest of the staff. (5) Strict disinfection of all excreta of the patients, also of sputa, bath water, and ablution water. (6) Disinfection of all utensils, whether used for food or for receiving excreta of any kind. (7). Destruction by fire of all remains of food that has been supplied to the patients and not been consumed. (8) Everything that enters the enteric ward should be considered to have become infective, and should be treated accordingly; for example, books, pictures, news-papers; also soda-water bottles and the like. (9) The patient's hospital clothing and bedding will be disinfected in accordance with the authorised special sanitary rules. Care is to be taken in regard to conveyance of clothing, etc., from the enteric ward to the place where disinfection is carried out, so that there be no chance of the infected clothing coming in contact with clothing from any other source; covered receptacles should be used, and the

infected clothing, etc., kept moist. Any case admitted to hospital with illness of an uncertain nature, but presumably, or doubtfully, enteric fever, should be received in an observation ward, the same precautionsbeing taken in every particular as in the enteric ward.

As everyone should now be alive to the danger of spread of infection, all doubtful cases should be considered as infective, and full disinfection of clothing and bedding carried out as a necessary precaution. It has been stated that in South Africa cases of enteric have occurred amongst men who had slept in the beds, or used the blankets, of men who had been admitted to hospital with enteric fever.



