

It is submitted that Dr. Hughes and his assistants, in the light of the happenings of September and October, should have been, in the early part of November, most keenly on the alert for trouble at Kelvin Hospital, and that the delay in visiting this hospital for the purpose of investigation from the 9th till the afternoon of the 12th it is impossible to defend. It is, however, fair to emphasize that at this particular time Dr. Hughes was sick, Dr. Boyd was absent on leave, Nurse Inspector Miss Mirams was also on leave, and Assistant Inspector Miss Bagley, already overworked, was carrying almost the whole burden of the office.

It is inconceivable to the Commission, seeing that it was found by the Medical Officer of Health, upon Mrs. Delamore's condition becoming known to him, necessary personally to inspect and thereupon promptly to close the hospital and evacuate the patients, why these steps were not taken upon the death of Mrs. Jones on the 26th September, and, if not then, upon the death of Mrs. Dacre on the 10th October.

It was urged by counsel for the Department that failure to inspect this hospital more than once during its period of stress—viz., July to November—was attributable to the understaffed and overworked condition of the District Health Office. The Commission, while admitting the disabilities under which that office laboured, and making all proper allowances, cannot accept this contention. Kelvin is one of the largest private maternity hospitals in the district, and is situate within four miles of the District Health Office. The evidence did not establish that more frequent inspection of this hospital was impracticable during the period in question.

The Commission takes no exception to the issue of authority to reopen Kelvin Maternity Hospital, six weeks having lapsed since Mrs. Delamore's death, and very full precautions having been taken as to disinfection and sterilization under the supervision of Assistant Inspector Miss Bagley.

SOURCES OF INFECTION.

It is difficult in the majority of epidemics to determine the source of infection in the first of a series of cases of infectious disease. This applies to the cases of puerperal fever which are the subject of this inquiry. The difficulty is exaggerated with the lapse of time. The problem generally resolves itself into connecting subsequent cases with the original one. In the cases under review, while the possibility of auto-infection cannot be entirely excluded, yet past experience, and the fact that at least four cases occurred within a few months, no deaths from puerperal fever having occurred in Kelvin Hospital during the previous nine years, overwhelmingly point to the conclusion that these cases are connected one with the other.

The usual modes of transference of infection in these cases are the following :—

- (1.) Conveyance by the doctor—but this cannot apply to all these cases, as they were not all attended by the same medical man.
- (2.) Conveyance by nurses : this also will not apply to all these cases.
- (3.) Contamination of appliances and equipment : this would not appear to apply to these cases, as it is upon the evidence that each patient had her own utensils with which she would come intimately in contact. It is possible that a common source of infection may have been the bath sink-room, in which the bed-pans and other utensils were washed for the patients on the ground floor.
- (4.) Conveyance by flies, a possible but not a common source of infection in such cases as these.

The principal data upon which the transmission of infection depends are bacteriological, and it is a fair assumption that patients infected by the same organism have been infected from the same source or from one another. In the cases of Mrs. Jones, Mrs. Muir, and Mrs. Delamore the infecting organism was the streptococcus. In the case of Mrs. Dacre, however, the organism was the staphylococcus.

It is evident that there was more than one source of infection and of transference. The paucity of bacteriological evidence has rendered this part of the investigation unduly difficult.