

"There would seem to be little to choose between perchloride of mercury and a lysol of good quality, such as the one employed in my experiments for the initial antiseptic toilet of the hands. In view, however, of the fact that lysol is somewhat more prone to irritate the skin (and in consequence is often used in very dilute solution), and the further fact that the several brands of lysol now on the market have different characters and bactericidal potency, there is much to be said for discontinuing the use of these products in midwifery until such time as their manufacture is so regulated as to ensure uniformity of bactericidal power combined with low toxicity for skin tissues.

"Iodine (0.5—1 per cent.) or chloramine T. (1 per cent.) are more efficient for killing haemolytic streptococci on the hands than either perchloride or lysol, and should be tried. Their use is open to some objections (smell, staining, etc.), and it is not unlikely that they would be found too irritant for frequent use.

"The problem of re-sterilisation of the hands at intervals is more difficult. The midwife needs for this an antiseptic solution which can be relied upon to kill streptococci on the hands quickly, *i.e.*, within 2 or 3 minutes at most—and *without previous washing*. Only iodine and chloramine T. have been found to fulfil this condition. Perchloride (even 0.2 per cent.) and lysol (0.62 per cent.) do not.

"The situation may be summed up as follows: For the ordinary run of clean midwifery practice the measures usually employed to prevent the transfer of pathogenic streptococci on the hands to the parturient woman will usually suffice.

"They do not, however, offer a sufficient safeguard when circumstances favour the epidemic spread of puerperal infection, *i.e.*, when those attending the labour, or the patient herself, are carriers of pathogenic strains.

"Since the occurrence of these circumstances cannot be foreseen, it is desirable, in the interests of safer childbirth, that rubber gloves should be much more widely employed in all midwifery work. Smooth thin gloves can now be bought very cheaply, and, if not heated, wear well. Their sterilisation on the hands is very readily effected, with or without washing, *e.g.*, by perchloride of mercury (0.5 per cent.) or biniodide in spirit (0.4 per cent.) or carbolic acid (1 per cent.)."

THE NEED FOR BACTERIOLOGICAL SERVICES IN THE CONTROL OF PUERPERAL INFECTIONS.

Dr. Leonard Colebrook, M.B., B.S., and Dr. F. Griffith, M.B., Ch.B., contribute a note on the above subject, in which they say, in part, bacteriology should be called upon to contribute in a much larger measure than heretofore to the prevention and the treatment of puerperal fever. The contribution it can make is of several kinds.

Firstly, it enables us to recognise *at an early stage* the case infected by haemolytic streptococci. Too often in the past the gravity of a patient's illness and the need for energetic treatment have only been suspected after three or four days of fever which does not subside. Then—too late—she is removed to hospital and treatment started, at a time when there is little hope of overtaking the infection. It cannot be too strongly emphasised that clinical signs and symptoms often do not enable us to distinguish with any certainty in the early stages of puerperal fever between the infections by haemolytic streptococci and the more common, but less serious, infections by other organisms. The failure to make that differentiation is responsible for many of the deaths from puerperal fever. By the simple precaution of taking a swab from the patient at the first sharp rise of temperature, say about 101 deg. F., the case infected by haemolytic streptococci would be detected within twenty-four hours.

Secondly, bacteriological investigation enables us to devise intelligent measures to prevent the spread of infections by haemolytic streptococci. When a case occurs in a maternity institution previously free from infection, a bacteriologist's report will, within twenty-four hours of the onset of fever, not only show the need for the immediate isolation of the patient, and for redoubled antiseptic precautions, but also may make it possible to trace the source of the infection, *e.g.*, to a throat carrier of streptococcus pyogenes among the staff or the patients. If such enquiry is delayed for several days it may happen that the carrier's condition has already extended to other members of the staff, rendering it more difficult to detect the original source of the infection and prevent further spread. In these circumstances further cases of puerperal infection are apt to develop and it becomes necessary to close down the institution for the time being.

STATISTICS WHICH CONCEAL IMPROVEMENT.

Sir Arthur Newsholme, K.C.B., M.D., F.R.C.P., in an important letter to *The Times* on the question of Maternal Mortality, and the statement of the Interim Report of the Departmental Committee on Maternal Mortality and Morbidity, that "in spite of the efforts made and arrangements designed to reduce this death-rate the mortality remains unimproved," questions the accuracy of this conclusion, which he believes to be far from the truth, and gives the grounds for his belief in a much more optimistic estimate. These are:—

(1) Our national mortality statistics depend for their accuracy on the individual certificates of cause of death of doctors throughout the country. There has always been unwillingness to associate death with what should be a normal function of life; but there is strong reason to conclude that the accuracy of medical certification has increased.

(2) Yearly maternal deaths associated with parturition—including abortion—are compared with each other in their ratio to the number of live births. We do not know the number of abortions; but it is generally agreed that abortion—often intentional—has increased in recent years. Abortion is much more prone to be followed by septic infection than normal birth; and skilled help is commonly not obtained until irreparable mischief has been done. Such deaths are included in maternal mortality statistics. This fact by itself has been competent to hide much of the benefit secured from the better midwifery services of the past twenty years.

(3) Probably more important still than the above considerations are the smaller families, which make the uncorrected present maternal mortality incomparable with that of the past. Reform in our registration laws is needed if accurate comparisons are to be made. As matters now stand the magnitude of this influence cannot be stated; but it may be appreciated from a hypothetical case which probably is not far from the actual facts.

The risk in the first is about double that in the next three confinements; from which it follows that—with a stationary registered maternal mortality of 4.5 per 1,000 births, and on the assumption that the former average family of four has now become two—the death-rate with the present smaller families will become 3.6 to make it comparable with 4.5, the death-rate in the period of large families. In other words, here is a factor causing a difference of some 20 per cent.

Sir Arthur does not suggest that further efforts are not needed, indeed he considers they are urgently called for, but he contests the assumption that efforts already made have been futile.

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