## THE EXTENSION OF MEDICAL ASEPSIS,

The following article, by Miss Virginia Henderson, appeared in the *Nursing Education Bulletin*, published by the Department of Nursing Education, Teachers' College, Columbia University, New York City. It is somewhat abridged.

1. The Use of a Modified Communicable Disease Technique in the Care of Obstetrical Cases, Infants and Children.

The extension of medical asepsis is nowhere more apparent than in the changes that have taken place in the management of maternity divisions, nurseries, and children's departments.

It is of course true, in the first case, that the importance of cleanliness in the care of puerpera was taught by Semmelweis in Austria and Holmes in the United States about seventy-five years ago, but there has been within the past decade a marked change in the conception of what constitutes adequate protection of the maternity case, particularly in the hospital. The individual equipment for the mother, or where such articles are used by more than one patient, the sterilisation of bedpans and the use of clean covers each time the pan is used, a more scrupulous care of the perineum with the nurse wearing a mask while she gives this care, these practices and the more meticulous dressings of the breasts, are all recent attempts (in most hospitals) to reduce the incidence of puerperal infections. Probably a perfected technique has not even yet been designed, and certainly not carried out in most hospitals.

The Sloane Hospital, in New York City, a famous institution for the care of maternity cases, reported an epidemic of puerperal fever as recently as 1928, which resulted in the temporary closing of one floor of the hospital. Although the origin of the infection was not satisfactorily determined, it was thought to be due possibly to the presence of streptococci in the upper respiratory passage of several attendants, the strain of streptococci in these cases being similar to the organisms found in cultures from a number of the patients infected. In an effort to prevent a recurrence of similar infections, the practice of wearing masks while giving perineal care was adopted by the nursing staff. The importance of this practice is stressed repeatedly in the recommendations of the Committee reporting on Maternal Mortality in New York City. This study reports 32.6 per cent. of the total deaths in the three-year period from 1930 to 1933 to be due to sepsis, with a septic death rate of 1.46 deaths per 1,000 births. Of the 246,205 hospital deliveries, there were 413 deaths from septicæmia; and of 102,105 home deliveries there were 92 deaths from this cause. In answer to a questionnaire sent to sixty-seven hospitals in New York City, 58 per cent. of the deaths from septicæmia were classed as preventable. The Committee concludes that the hazards of childbirth in New York City are greater than need be. There are probably few communities in the country which could not reduce the hazards of maternity by improving the aseptic management in obstetrical departments.

In the care of infants, the use of individual toilet articles is probably more universally insisted upon than

in any other department of the hospital, except the communicable division and special isolation units. The susceptibility of infants to infections of the skin and of the intestinal tract has lately received wide recognition. The infant's clothing and any other articles in common use are sterilised concurrently; nurses in attendance wear gowns and in some institutions are masked when actually handling the babies. In most hospitals, these measures are comparatively recent innovations, which have been adopted to reduce the incident of mouth, intestinal and skin infections in nurseries.

Pediatric departments in modern hospitals have been furnished with individual equipment for the children. Articles in common use (used by more than one patient) are disinfected between cases. In some pediatric departments staff members wear gowns as in a hospital for communicable diseases, and the management of diet kitchens and other work-rooms is similar to that in a communicable disease department.

In both obstetrical and pediatric departments, nurses scrub or wash their hands thoroughly when going from one patient to another. This is, of course, not a new practice, but more and more emphasis is being put upon an effective technique, and facilities for carrying out this technique are being constantly improved.

## 2. The Use of Various Practices in Medical Asepsis as Routine Procedure in All Hospital Departments.

The application of medical aseptic measures designed to protect the adult patient in every hospital department is probably not so widespread as the practices that have just been noted in the special departments. In many hospitals, however, individual toilet articles and accessories for routine bedside care are provided for every patient. In other hospitals these articles, including bath basins, waste basins, bed-pans and urinals, are cleaned under running water or special utensil washers, and then sterilised by boiling each time they are used, so that patients are adequately protected from one another, bacteriologically speaking, in the use of these utensils.

The use of a process which is designed to sterilise dishes and silver-ware in every hospital department is becoming more and more the rule and less the exception. Since it is a regulation in city codes of sanitation that dishes, cooking utensils and silver-ware used in the public distribution and serving of food shall be sterilised by steam or boiling water, it seems strange that this practice has not yet become universal in health centres. Dean Goodrich (Dean Emeritus of the School of Nursing at Yale University), in an address which was read before the American Society of Superintendents of Training Schools in 1903, recommended the installation of steam sterilisers in every diet kitchen in the hospital and the sterilisation of all dishes and silver-ware. She also recommended the installation of a utensil steriliser in every utility room and the concurrent sterilisation of basins and other toilet articles.

In recent texts and magazine articles there is a heartening emphasis on handwashing in giving nursing care. Miss Pfefferkorn, in an article, "Pray, Let Us Wash Our Hands," in the American Journal of Nursing, says that her title is a "call to arms for a rally in the old-fashioned habit of washing the hands." She noted in making nursing time studies as recently



