

That is the danger, and a very real one, but one cannot do other than hope, that, remembering the honoured place that has always been given to the nursing profession at home, our younger sisters are not likely to lose hold of our cherished ideals.

The other communication relates to the Health Visitors' Training in England. This very important branch of work is largely increasing and as time goes on is being more and more recognised as being necessary to develop, for the benefit of the country as a whole.

There are two definite Courses of Training :—

- (a) For fully trained nurses—lasting 6 months.
- (b) For untrained women—lasting 2 years.

Students entering for this course must obtain the certificate of the C.M.B. and complete, in addition, not less than 6 months training in a hospital—a period of training of 3½ years in all.

The College of Nursing Course of Training is only open to fully trained nurses whilst the Battersea Polytechnic train pupils of either class.

THE MODERN NURSING OF INFECTIOUS DISEASES

Notes of a Lecture-Demonstration given during Post-Graduate Week (April 23-28)

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I PROPOSE to demonstrate the method of bed-isolation practised at the Fazakerley Hospitals, and will first outline the various methods which have been adopted from time to time to provide accommodation for the variety of diseases that must necessarily be admitted to the wards of an infectious diseases hospital. The modern nursing of infectious diseases is a combination of several of the methods described.

(1) *The pavilion system*.—The patients are isolated in wards which are completely separate, both in administration and construction. This method is expensive if all infectious diseases are to be so accommodated, but valuable for those which occur in epidemic form from time to time, and is in use in most infectious diseases hospitals.

(2) *Isolation in nests or rooms* was adopted next. It is similar to the pavilion system, except that rooms are used instead of wards.

(3) *Cubicle nursing* came next in order. In this the objects are (a) to eliminate infection by the air by means of partitions between the patients, and (b) to prevent the spread of infection by utensils, nurses' dress and

nurses' hands. All articles for the patients' use are kept in the cubicles, and the wearing of coats during attention to patients and the washing of the hands between cases is insisted upon. This method is valuable, and is in use in many hospitals for the accommodation of private patients. As it is considered expensive to install and requires considerable equipment, and extra staff are needed if cases of acute illness are to be so accommodated, it is not universally adopted.

From observation of this method it was thought that success might be due to the provision of separate utensils for each patient and the washing of the nurses' hands between cases, rather than to the actual separation of the patients by partitions, and from this the next step, that of (4) *barrier nursing*, was evolved. Dr. Biernacki* put this method into operation in England at the Plaistow Hospital. In this system the partitions were considered unnecessary, and were replaced by a symbol. The bed was placed 18 inches from the wall so that the patient could not touch it. Two uprights were placed at the same distance from the bed, coloured tape extended between these indicating that the bed was "barriered." All articles for the patient's use and the nurse's coat and bedside washing bowl were kept within this area. Dr. Biernacki taught that the success of the system depended on all articles being kept separate for each patient and that each article should have its own special place, so that the nurse could see at a glance whether her equipment was complete. He also taught that all utensils used were to be disinfected before being replaced, and that strict antiseptic treatment of the patient and aseptic treatment of the nurse's hands was essential.

It was from study of this method that the next step, that of (5) *bed-isolation*, was evolved. Dr. Rundle, who put this into extensive operation at Fazakerley, considered the provision of separate articles unnecessary, since articles disinfected after use could be used for all patients. The object was to prevent the spread of infection from one patient to another; the spread of infection by the air was ruled out, as the success of the "barrier system" had demonstrated. Contact infection by means of the direct transference of moist infective material, such as might be carried on the hands of attendants, by feeding sanitary utensils, and by the passing of toys, books and papers from bed to bed, was dealt with by the disinfection and sterilisation of all articles used, by the careful washing of the hands of doctors and nurses between cases, and the wearing of coats for each case. Toys, books and papers were prohibited. The value of this step was seen by the employment of common utensils, sterilised after use; in this way expense and labour were saved, whereas in

* Some years ago (1909) the late Dr. Biernacki contributed articles to "The Nursing Times" describing the system in use at Plaistow (Fever) Hospital.

the system of "barrier nursing" demonstrated by Dr. Biernacki, from 50 to 100 articles might be required for each patient.

In *bed-isolation* the articles kept separate for each patient are those which would be so kept in the wards of a general hospital. At Fazakerley ordinary wards are used; 12 feet of wall space is maintained between each two beds; coats hang beside the beds for the doctor and nurse, and beside washing bowls are provided. Each patient has his own bath blanket, bath and face towels, soap and flannel, diet cloth, feeding bib and tooth-brush. In addition, in cases of measles, enteric fever and chicken-pox, sanitary utensils, patient's washing basin, articles used for cleaning the mouth, clinical thermometer and the pots of spirit and powder used for the back are kept separate; also separate bedside washing bowls, nail-brush, soap and towel are provided for the nurse's use.

For the demonstration I have chosen a ward of 20 beds. The cases nursed in it included erysipelas and two cases sent in as infectious disease found on admission not to be so (neither of these groups was isolated, their protection against cross infection depending on these aseptic nursing practised in the ward); cases of rubella, mumps, cerebro-spinal fever, diphtheria, two cases of scarlet fever sent in as of doubtful diagnosis, a mild case of whooping cough (all these cases were bed-isolated, having the simple articles enumerated above kept separate for them, all nursing utensils being used in common after sterilisation). Other cases in the ward were measles, enteric fever and chicken-pox, and these had the additional articles enumerated for these cases kept separate for them, also separate bedside washing basins as described. In this way the amount of isolation effected corresponds to the degree of the infectivity of each individual case which is carefully considered by the doctor in charge of the ward.

The ward kitchens contain a steriliser and two sinks, one being kept for articles used in the ward and the other for articles used only in the kitchen. Arrangements are made for disinfecting sanitary utensils and patients' washing basins in the sluice room.

THE DEMONSTRATION

On the admission of a case of rubella to the ward, a hot-water bottle and thermometer and pulse glass in disinfectant are taken to the bedside. The gown nurse puts the hot bottle in the bed, takes the patient's temperature (all temperatures are taken in the axilla), pulse and respiration, and examines the case for rash, etc. She then removes her gown, demonstrating the importance of folding the outer infected part inside, so that the inner uninfected part will be next to her dress when the gown is needed again, and therefore the dress will not be infected. She hangs

up the gown, washes her hands—using the nail-brush, which is kept in a disinfectant solution—dries them on the bedside towel, empties the basin, lifting and carrying it so that she does not infect her hands, refills it and places it by the bedside. Punctilious care is necessary in performing this simple act. The temperature is charted next, as the charts are not infected. Charts and screens are not to be infected, and must therefore be handled either before the nurse is gowned or after she has washed.

Preparation is then made for bed-bathing the patient. The important point is the necessity for collecting all articles required before gowning, such as those for the bath, attention to teeth and hair, sanitary vessels and laundry sheet. When the treatment is completed the nurse removes her gown and washes as before. Next she lists the patient's clothes, as the ward books are not to be infected. After this she removes the articles from the bedside in the order in which they appear unsightly; sanitary utensils first, under a cloth wet with disinfectant, then washing basin, articles used for the teeth and hair; all swabs are put into a fire, small basins, combs, and so on, boiled for 20 minutes. The patient's clothing is then attended to, all washable clothing steam-disinfected, then washed; other articles are disinfected as their nature requires. The nurse then returns to the bedside washing bowl to wash her hands.

The doctor's visit comes next. The articles required by him are taken to the bedside; the nurse, gowned, then assists the doctor with his gown. This point is of great importance and one likely to be omitted. The outer side of the doctor's gown is infected, and in handling it the nurse may infect her dress; hence the necessity for the nurse to put her gown on before handling his.

METHOD OF HANDLING FEEDING UTENSILS

Trays, etc., may be delivered to some patients without the nurse being infected. For more helpless patients she must gown, arrange the patient for the feeding, then remove her gown and wash before proceeding to the next patient. After a meal a nurse, ungowned, collects all feeding utensils, rinses these in the kitchen sink set apart for this purpose and places them in the open steriliser. When all are collected she returns to the bedside bowl for washing, then to the kitchen, closes the steriliser and turns on the steam. Medicines are measured and delivered to patients in feeding cups, which are then collected and sterilised as described.

In a bed-isolation ward it would be considered inconvenient to make a ward round to take temperatures, etc., as one may do in ordinary nursing work. Instead, each patient is attended to separately. All the evening treatment, such as washing, bed-making and any special treatments, is done at the same bedside visit. In making beds the clothing is placed on

the bedside chair ; these chairs are not moved from the beds for any purpose, and therefore chairs cannot be mixed, and the possibility of infection being conveyed by this means is avoided. All soiled linen is removed from the bedside in a covered pail ; the outside of the pail must not be infected. Coats are worn when removing clothing, bedding, sanitary utensils, etc., from cases of enteric fever, the coat to be retained during the treatment of excreta and the sluicing of soiled linen. The nurse then returns to the bedside, removes her coat and washes her hands.

All treatments are done in bed ; patients are not allowed up until they are non-infectious, and they are warned not to go near the beds of others. They are expected to remain by their own bedside when in the ward. Convalescent cases of whooping cough, measles, rubella and erysipelas are allowed to use the same table for meals. Adult patients enter readily into the spirit of the system, are quite as anxious as the nurses that cross-infection shall not occur, and submit willingly to the necessary restrictions. Children must be carefully watched.

Terminal disinfection is the same as that used in the pavilion wards. All bedding, towels, coats and personal clothing are steam-disinfected and washed. The soap, flannel and tooth-brush are destroyed. Bed macintoshes, bed-board, locker, chair, the floor and wall area are well scrubbed with soap and water.

SITUATION WANTED—Nurse Woulfe—trained in the Rangoon General Hospital—steady, respectable, hard working and cheery desires post as Nurse or Matron. Her address :—Mrs. Woulfe, 67 European Lines, St. Thomas Mount—Madras

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