

MISCELLANEOUS

UNITY OF TREATMENT AS SEEN BY THE NURSE

A certain number of National Societies possess their own hospitals. On the other hand, in their capacity as members of Central Committees and of Red Cross Societies, can be found public health representatives, doctors, nurses and directors of hospitals. Furthermore, today the construction of hospital establishments is one of the most urgent problems in a number of countries.

We think it to be of interest to publish the text of a report submitted to the XIIIth International Hospital Congress in Paris.

With the advent of government health services as well as community health insurance schemes which have brought about an outburst of hospital construction, we have heard a constant plea from nurses and for nurses to be more widely consulted on hospital planning. Indeed one architect, Mr. James Moore, wrote that no advancement has ever been made toward the design of a nursing unit in which nursing personnel did not participate directly or indirectly.¹ With this I whole-heartedly concur, while also accepting another architect's statement, that of Mr. P. H. Knighton, who said that "nurses should *insist* upon being consulted provided they know the answers and are able to convey their knowledge in an ordered and assimilable manner."² Some very experienced nurses,

¹ James Moore (speech at 64th Annual Meeting—American Hospital Association, Chicago—Sept. 1962).

² P. H. Knighton, A.R.I.B.A., Architect to Newcastle Regional Hospital Board. *International Nursing Review*—Vol. 7, No. 4, p. 41.

said he, have no skill in the orderly presentation of their views or are unimaginative in the planning of buildings which they cannot actually see". Acquiring the necessary knowledge and the ability to advise in an intelligent manner will not be a sudden occurrence but the result of a constant and continuing process of analytical observation and constructive thought throughout the nurse's training and experience. Nurses cannot over-estimate the importance of design in hospital planning as it is intimately related to good as well as economical nursing care. For the efficient and effective operation of a ward unit all personnel, professional and non-professional, must work in close cooperation as a team in order to preserve time and effort for the benefit of the patient. To this end, the spatial arrangement of the ward unit must be organised in such a way as to prevent the nurse from wasting energy in unnecessary motion and travel. This philosophy must be taken into account when the ward is being planned. The design and equipment must be carefully scrutinised for efficiency, usefulness, appearance and durability. It implies ingenuity and inventiveness.

The patterns of nursing organisation and administration which will govern the work of the staff must be made available to the architect as well as any specific need for the type of patient that will be cared for in the ward unit. Time and motion studies and job analysis of nursing personnel could also be of great assistance in determining the layout of the ward. A principle to keep in mind is that it is preferable to build for the organisation than to adjust the organisation to the building.

The Ward Unit. — Mr. Alan Wightman describes a ward as a place where a mixed group of people in various stages of illness or convalescence live together under immediate medical and nursing care.¹ This description fits the ward unit we will be thinking of in this paper. We are not dealing with the intensive care unit nor the unit planned for a definite medical specialty, but with the ordinary ward unit of a general hospital.

What are the requirements of the ward unit as they affect nurses and nursing care? I do not intend to discuss the architect-

¹ Hospital and Medical School Design: International Symposium. Dundee, 1961. The Design of Ward Units—Ninewells Hospital, p. 92.

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ural design or shape of the unit since this will be the prerogative of the architect. I will try to discuss items which are particularly related to nursing and are generally the subject of combined planning between the nurse and the architect.

First, we must establish that in the light of today's concepts of nursing care, many factors have a bearing on the requirements and design of the nursing unit, the quality and the quantity of the staff, as well as the staffing patterns, the methods of assigning patient care, the amount of professional teaching and research done in the unit, the communication lines with other units or with the hospital in general and the amount of centralisation of apparatus and equipment.

The size of the nursing unit should be determined as far as nursing is concerned by the law of diminishing return. Florence Nightingale, in her notes on Hospitals published in 1863,¹ had found that 32 was the maximum desirable number of patients in a ward. She arrived at this number by allowing 1,500 cu. ft. of space per patient, 100 sq. ft. per bed and a ceiling height of 15 ft. "Wards larger than this were more costly in construction and too difficult to ventilate." said she.

Although we are still of the opinion today that from 30 to 32 is a reasonable size for a nursing unit, we have come to this conclusion through different factors. It has been definitely established that the size of the ward has a considerable effect on the ratio of staff to beds. We are concerned with the number of patients a head nurse or ward sister can efficiently be responsible for, considering the number and variety of personnel she must supervise; the type of patients and the rate of turnover; the number of physicians, residents and interns and their standards of practice as well as the teaching and research programmes of the hospital.

It is doubtful that a head nurse or ward sister can be fully aware of the needs and make provision for adequate care of much more than 30 patients. The quality of patient care is apt to decrease if she cannot keep daily contact with each patient and, therefore, provide the physician with meaningful information. New and occasional staff cannot be as readily directed and consequently are

¹ Studies in the Functions and Design of Hospitals. Nuffield Provincial Hospitals Trust—Oxford University Press, p. 2.

less productive and less efficient. The evolution and rapid change in nursing care and functions have not been compensated by a sufficient increase in nursing personnel; therefore, we look upon technical progress to restore the equilibrium.

The unit as far as the nurse is concerned should have one outstanding quality: compactness. However, this compactness must not be attained at the expense of the growing demand for more essential facilities created by factors such as a higher nursing load of acute patients with heavy demands on equipment, and early ambulation. It must produce ease of supervision and economy of staff effort.

Medico-social advances through which the patient, by insurance or otherwise, is now provided with the basic hospital costs, have made him more demanding for the privacy that he can now afford.

It seems desirable that the rooms in the nursing unit should not contain more than four beds. From the nurse's point of view arguments for or against the one-, two- and four-bed rooms are plentiful. The disadvantage of the one-bed room, namely the greater distance between patients, seems to have been overcome (at least in the experimental stage) by a plan which provides for private rooms with an overall area not in excess of accepted standards for nursing units of equal number of beds in multiple-bed rooms. "Walking distance for the nurses is considerably less than most nursing units being designed today. The key to the planning of this unit is, of course, in the design of the room. The length of the corridor is in direct proportion to the width of the room. The breakthrough in the design of single-bed nursing units was to reduce the width of the room to a bare minimum. In the nursing unit mentioned here, the rooms have an 8ft. 1in. interior width dimension. This layout and dimension has been accomplished by placing the beds at a slight angle to the room wall."¹ This room was tested with nursing personnel for every technique and procedure which could be visualised being done and has the advantage of becoming an isolation room at a moment's notice. It will be interesting to watch the development of this project which is being carried out in the United States.

¹ James Moore: Speech at 64th Annual Meeting—American Hospital Association, Chicago—September, 1962.

Whatever the type of bed rooms chosen to meet medical requirements or local preferences, a minimum number of single-bed rooms is necessary for isolation purposes and other medical reasons, particularly if the hospital does not have an intensive care unit.

Patient Rooms. — A great deal of the nurse's time will be spent in the patient's room. After we have first considered the needs of the patient both physically and psychologically it is vital to study all the factors that will help or hinder the administration of comfortable and safe nursing care.

If the bedroom is a multiple one, there must be ample room for equipment between beds and room for a stretcher or wheelchair along the side of each bed. The oxygen and suction intake should be easily accessible to every bed. If there are curtains between beds they must not rest, when closed, in front of the oxygen intake but rather on the opposite side of the bed. The room must be large enough to accommodate an easy chair for each patient and for visitors and a table or dresser on which flowers can be deposited. In multiple-bed rooms the disposition of the bedside table gives rise to controversy. Two aspects of this problem must be kept in mind: the convenience for the patient first and that for the nurse after. The wardrobe or dresser should contain a locked compartment for valuables not deposited in the hospital vault. The bed or beds should be so placed as to keep the patient from facing the windows. Each bedroom should have toilet facilities equipped with a bedpan flushing attachment to the right of the toilet. There is difference of opinion as to where the wash-basin will be placed: in the toilet or in the room. Hygienic precepts would place it in the toilet, but it can be more readily accessible to doctors and nurses if placed outside the toilet but in the room. The toilet room should be equipped with an emergency call button and the door should open outside the bathroom because of the limited space inside in case the patient falls or faints. If there are two sources of light, one at the ceiling (which is now often omitted) and one at the head of the bed, this should be the one that will be connected with the switch nearest the door so that, when entering a room, the light that is turned on first does not shock the patient. The night light should be controlled from the nursing station by a switch operating

all night lights and connected to the emergency power to ensure that no room is ever without a dim light at any time. My preference regarding the type of intercommunication system between the room and the nurses' station is for the small hand-type speaker instead of that which is mounted on the wall. The patient usually finds its use more convenient and less fatiguing than speaking through a speaker on the wall often behind his bed.

Nurses' Station. — The nurses' station has been traditionally placed at the entrance of the nursing unit near the elevators. If one takes into account that this is the hub of nursing operations on a ward, where charting is done, orders given and received from doctors and nurses, calls placed, emergencies reported and admission and discharge activities are taking place, one would readily conceive that the nurses' station should not also serve as an information and direction centre for everyone coming out of the elevator. A control desk manned by a ward clerk or receptionist should be so located in order to carry out these activities as well as receive and dispatch articles carried by dumb waiters to pharmacy or central supply.

The nurses' station should be closed, with acoustic ceiling, centrally located to avoid long walks, large enough to accommodate all the nursing staff but *only* the nursing staff. Adjoining the nurses' station there should be a doctors' charting area where patients' records are easily accessible to both groups by the means of horizontal chart racks opening on both sides and allowing communication between the two groups. Some hospitals are providing conference rooms directly off the doctors' charting areas.

The intercommunicating system between patients' rooms and the nurses' station should be centrally located so as to be visible and within easy access of nurses in the station. It is also preferable to locate pneumatic tubes within or near the nurses' station. The desks or charting area should be organised so that the various nursing forms are visible and easily accessible, preferably not in drawers where one must displace chairs or personnel to reach them. There should be a clock in the nurses' station or one visible from there.

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The medication room should open off the nurses' station in order to better control its access. It should be large enough to accommodate nurses and students working at the same time as well as medication carts. It should be equipped with a counter and sink, a refrigerator, a locked narcotics drawer and shelves.

Head Nurse Office. — The head nurse or ward sister's office should be near the nurses' station in order to be easily accessible to nurses and doctors at all times and enable her to control the operations of the ward or unit. In a plan which I favour, it is adjoining the nurses' station, the medication room and the nurses' rest room and allows the head nurse to supervise these areas through glazed walls.

Rest Room or Lounge. — If space permits this room should be provided. It could also serve as a multiple purpose room. Its advantage as a place for coffee breaks for the personnel would be to avoid wastage of time and to diminish traffic in corridors and elevators by ending a twice daily walk to a distant or ground floor canteen. It could also be used as a conference or interview room or clinical teaching room for nursing students and other personnel if no such room is provided.

Service Rooms. — These in the past were referred to as soiled or clean utility rooms. Because of their almost constant use they should be placed in the middle of the nursing unit. If the design of the ward does not permit this and if the nurse has to travel too great a distance to and from these rooms to the furthest patient, sub-utility or service rooms should be provided. Modern construction with toilet facilities and running water in every room plus centralised services and sterilisation have decreased the load usually carried by these rooms.

The clean utility room has become the supply room in hospitals with a central service for storage and distribution of linen and all sterile and non-sterile supplies for the unit. The newer idea of a dispatch processing centre as the core of the production line flow of supplies and materials seems to have great possibilities. This innovation brings the supplies one step closer to their final destina-

tion, i.e. the patient's room, each room being equipped with a double-door clean and soiled supply cabinets which are serviced from the corridor. The floor supply core in this case replaces the utility or service room.¹ Whatever the plan adopted by the hospital, this room should be large enough to move and store linen and supply carts and to provide for shelves preferably adjustable and of perforated metal to avoid collecting dust or lint.

Soiled Utility or Service Room. — Since we are taking for granted that most hospitals now have or will have a central supply and sterilisation department, this room serves as a centre where soiled utensils and materials are collected, rinsed and packaged before being sent to this department. It is therefore important to have clinical and counter sinks, with plenty of counter and shelf space for wrapping soiled articles and for liquid disinfectants and solutions. Space must be plentiful for movable hampers and carts and also for a small refrigerator for specimens.

Treatment Room. — If the hospital has a high percentage of multiple-bed rooms a treatment room may prove necessary and serve also as a consultation room. Ideally it should be located near the clean supply room. It should have a counter sink, piped-in oxygen and suction if available in the hospital; shelves and cupboards for treatment trays and supplies and possibly an X-ray film illuminator.

Day Room. — Although the average length of stay in acute general hospitals is rather short, early ambulation points the need for a day room but economy of space and of nursing time would be gained by combining it with a dining room for ambulatory patients. This latter function of the day room does not call for any special facility since patients could be served from a food cart on a dining room table placed at one end of the day room. A nurse's call button and electrical outlets for the heated cart plus adjoining toilet facilities are needed. If the day room is to be used for visitors and

¹ The Plan Puts Supplies Where The Patients Are.—The Modern Hospital of the Month—Holy Cross Hospital, San Fernando, California—The Modern Hospital, Vol. 92, No. 6, June, 1959, p. 77.

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recreation including radio and television as well as for dining, it would be well to locate this room where the ensuing noise will not disturb other patients, but not too far from nursing traffic for observation and safety of early ambulatory patients.

Apart from the specific recommendations that nurses can make regarding the various rooms in the ward unit, there are also a great variety of details on which she may be asked or may wish to volunteer some comments. She may want to call the architects' attention to the fact that the nursing unit personnel is primarily made up of women, hence some attention should be given to the height at which a number of things should be placed. She may help in selecting what electrical switches will go on the emergency electrical power. She should advise on what sinks should have gooseneck spouts and foot, knee or blade control handles. She may help select the best type of paging system to avoid misuse or disturbance to patients and the correct location for telephones. She will want to be sure that no safety device has been overlooked, especially those connected with windows, doors, furniture and equipment. She must be sure that space is adequate and handy for equipment storage and for taking care of flowers. She must constantly remind architects and engineers of the necessity of planning to avoid noise, excessive upkeep and repair which hinders and disrupts the smooth functioning of nursing activities, and help them to promote planning which will bring about economy of personnel.

Above all, what the nurse can give first and foremost is a feminine touch. She will think of the little things that will add warmth to the coldness of the clinical atmosphere and just as it takes a woman's touch to make a house into a home, the nurse can help to transform a hospital into the best substitute for home when a person is in need of medical attention and physical as well as mental nursing care.

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