

understood, in spite of the fact that this is the idea portrayed in the development plans. The majority of the people still hold the view that a district hospital is simply a place where one can go for curative care services. This has led many to believe that these hospitals are only smaller replicas of the standard general hospitals seen in the industrialized and rich countries (2). Such outdated and obsolete ideas must be shelved and a concept developed from the point of view of health care needs which are so vastly different from those very countries we try to follow (3).

First and foremost it must be recognized that any hospital in Bangladesh will have to be equipped for preventive, promotive and curative care. The authorities generally tend to promote the idea that preventive & promotive health care should be the responsibility of the lower echelon rural facilities alone, when the towns and cities themselves present the same health problems as the rural areas. A hospital should not be given the glorified task of only curing sick people, but incorporate the humble but effective tasks of prevention and promotion as well.

The intention here is not to belittle the image of a district hospital but to enhance it with a stamp of realism. It is necessary to move away from the narrow confines of the existing role and give it wider and more diverse responsibilities. The role of this important institution has to be redefined. So that it does not function in isolation as it does at present (2). It must be viewed as a facility which understands best of all the myriad problems of district and plays a positive role in combating these. It will be on the basis of this role that the final form of the district hospital can take shape.

ROLE IN THE COMMUNITY

The role of the district hospital cannot simply be confined to the provision of curative care through outpatient and inpatient services. Although the district hospital has come a long way since the colonial days when it was just a basic facility, it has still not been able to break the bonds of its earlier image.

The role of the district hospital may be seen as a combination of four distinct but interrelated tasks. Firstly, as a referral centre to be able provide the best medical care in the district; secondly as a leader and support facility of the primary health care (PHC) programme of a district; thirdly, as a monitoring agency of the health status of the district and last but not the least, as an educator of professionals and the public.

REFERRAL TASKS

The referral tasks of the district hospital means the tackling of those problems which are beyond the scope of lower echelon facilities. The referral tasks should include the provision of services and facilities through which serious medical, surgical and other health related problems may be successfully treated. It is therefore essential that resources are mobilized, to provide an adequate range of referral services of acceptable quality.

The idea behind the provision of referral services at the district hospital level is to try and concentrate not only the very limited number of qualified and specialist manpower, but also equipment and drugs. The authorities should seriously consider the fact that equipment, like qualified personnel are scarce and should not be distributed haphazardly. In the case of drugs too, there should be a policy of keeping in stock in the district hospital those that are essential for treatment of complex ailments. Unless there is a clear cut policy which ensures that the district hospital has the resources to undertake referral cases, it will never truly be a referral centre. On the other hand it may not be possible to provide the same specialities in all district hospitals. The concentration of most number of

specialists should be attempted in district hospitals with the easiest and most convenient means of access from adjacent districts. In view of the present reorganization of the administrative infrastructure of the country the attempt could be to first strengthen the older district hospitals and subsequently upgrade the newer ones (Those which were sub-divisional hospitals originally).

The scope of the referral tasks should be dynamic in character and on no account be restricted to within the four walls of the hospital alone. Referral tasks should wherever possible be taken to the people.

It must be realized that for various reasons many really sick persons may not come to the hospital at all. In such instances, one cannot afford to sit back and take a detached view but initiate programmes through which specialists break the "hospital barrier" and go to the outlying areas. They could make their expertise available in the lower echelon facilities at regular intervals. Such outreach assignments will not only benefit the community, but at the same time help the doctors to understand the problem in the setting of the patient's home. Only such initiatives can help the hospital to come closer to the whole community.

This would also open up closer co-operation between the district hospital and the lower echelon facilities, which exists only in paper at present. All attempts should be taken to enable the district hospital to integrate itself into the health care system with as much speed and expediency as possible.

One of the referral tasks would be to improve the quality of care. It is as important as it is to expand a hospital, and in some respects even more. For example, it would be more realistic to improve post-operative care than increase the number of beds. A study (2) has revealed that very little attention has been given in this direction. Although the extent of services have been expanded to include a few specialities, the associated services and facilities that ought to have accompanied these were either non-existent or of such poor quality that it defied description. None of the hospitals had any post-operative care ward for patients who may have undergone complex surgical treatment. Outpatient departments did not have facilities for minor surgical procedures, which along with emergency cases were treated in ill equipped dressing rooms.

There were many areas in the hospitals which could be improved in quality, and although it is true that the country does not have the capacity to raise the standards to those of the rich countries attempts should be made to introduce a minimum level of quality in hospital services.

An adherence to the conventional process of planning and designing will not help in the improvement of the quality of care. "Upgrading" of hospitals is presently misunderstood only as expansion in terms of beds (4), but referral tasks simply cannot be performed by increasing the number of beds. The *quality of care* has to be improved too.

PRIMARY HEALTH CARE (PHC)

Till some time ago, primary Health care was considered to be the responsibility only of the lower echelon facilities. The same reason why the authorities in Bangladesh delegated this task to the UHFWC and the UHC. But this idea has given way to the belief that hospitals too have a very important role to play in the delivery of PHC.

According to Cox, A. and Groves, P., "Primary care embraces all the general health practice services, educational, preventive and curative, that are offered to the population at the point of entry into the system" (5). However, the district hospital in Bangladesh which is the point of entry for almost all the patients who go there, has no PHC role. Hospitals being established institutions, could use their

existing reputation, credibility and a large degree of good will in the community to further the cause of the PHC programme. It can do this by getting involved with PHC of its immediate surroundings, direct participation in the PHC of the district and as a source for training and experimentation in PHC.

Al Baala, D. M. (6) discussing about health care in developing countries mentions that "Traditionally cities have benefited from a disproportionate share of resources available for health care and as a result most developments in primary health care have been in the rural areas". It is not only people in the rural areas who suffer from common and infectious diseases, but most of the urbanites too. That is why every effort should be made to introduce PHC in the district towns. The district hospital may be given the responsibility of introducing and supervising the PHC programme of the immediate surroundings of the hospitals i.e. the town and its suburbs.

According to Carreon, G.G. (7) an effective PHC programme has been implemented in the city of Manila in the Philippines, through community health centres and pueri culture centres, which were integrated as PHC units. The four key health programmes under PHC were (i) maternal care and family planning (ii) paediatric care and nutrition (iii) treatment of infectious disease and (iv) environmental sanitation. Health education helped reinforce the programme. The Philippines General Hospital, a 1000-bed institution formalized a linkage with its geographic catchment of health centres and community units. It provided active support to upgrade the standards of patient care in the health centres.

Although the district town in Bangladesh is much smaller in comparison to Manila, and the district hospital equally small and modest, it should be possible to organize PHC services along similar lines. An involvement in the PHC programme of its immediate surroundings will not only help in providing normal support and effective leadership to the rural PHC programme but at the same time provide a perfect training ground for PHC staff.

The close proximity of an ongoing PHC programme at its very doorstep would enable the hospital staff to observe the scope and limitations of different actions and help in the planning of subsequent measures accordingly. This would indirectly have a rippling effect on the PHC programme of the whole district.

According to Mutiso, R. C. M. (8) any effective system of PHC has to be tackled at four levels namely (a) household, (b) community (c) health unit, (d) hospital. And on this four tiered system the responsibility of the hospital should be to co-ordinate all the activities of the first three levels. Which in a sense means direct participation in the PHC of the district as a whole. The district hospital being the leading health care institution of the district, it should develop health care programmes which should include good quality services within its four walls and outside too. This can be achieved if the PHC, along with other services is totally integrated within the scope of the hospital health care services.

TRAINING & EDUCATION

One of the major involvements of the district hospital in PHC should be through a programme of training and education of staff, patient and public. A regular programme of training and inservice refresher courses could contribute a great deal to the strengthening of the PHC services. The lessons learnt, failures and successes experienced could be incorporated into the training programme so that field workers can get first hand knowledge of what constitute the most effective measures.

The training and education of staff can be done by concentrating the efforts within the confines of the hospital or by taking the training to the lower levels. Training in the hospital will expose the participants to the PHC actions taken by the hospital in its immediate surroundings. The

concentration of training and education in the hospital could specially be useful in the introduction of new techniques and courses of action.

In so far as the trainers and educators are concerned, it may also be useful for them to be exposed to the real situation in the outreach locations. The hospital could on a regular basis send experts to the lower level facilities to provide the necessary training.

Considering the fact that many patients would not have come to the hospital if they had known how to take precautions against certain types of ailments (9), it is incumbent that people be made aware of these precautions. This can be achieved through health education of the patient and the public. The district hospital can take the opportunity of getting across the message to those who visit the hospital by means of impromptu lectures, posters etc., and the public at large by means of message oriented plays and films as a part of a comprehensive promotion programme.

Besides these, all inpatients should be exposed to the benefits of PHC through films and slide shows, posters and group discussions. The patients stay at the hospital should be utilized to educate them on subjects like hygiene, nutrition, child health and prevention. Patients should be used as a media to propagate ideas about how to live a healthy life. People should be made to realize that it is not medicine but the way of life that can really contribute to their day to day well being.

SURVEILLANCE AND MONITORING

One of the ways to assess the viability of the health care programmes is by measuring the health status of the people at regular intervals. The district hospitals could start a programme to monitor the health status of the people within its catchment area while at the same time maintain a watchful eye on the epidemiological pattern too. Information on the disease pattern and any changes in it, health standards and epidemiological trend can be useful tools for planning health care programmes. There is no denying the fact that the district hospitals are already seriously handicapped by shortages in staff, nonetheless a start could be made to keep a regular check on the morbidity and mortality pattern in their own areas.

Extensive surveys, exhaustive enquiries and a continuing analysis need to be made, and the district hospital can provide the perfect leadership in this. It could instill the support of the lower echelon facilities for assistance in such studies, and with adequate guidance from it useful material could be collected for both immediate and future use. The importance of surveillance and monitoring is especially applicable to PHC. The effect of different programmes on the health status of the community could be measured recorded and used as a source of reference for any future actions.

EXTENT OF SERVICES AND FACILITIES

Once the role of the district hospital is understood, the extent of services that need to be incorporated may be defined on that basis. This will facilitate the preparation of an appropriate architectural brief for planning & design.

In terms of patient care it may be said that the district hospital, like any other hospital, will have to provide the following services: outpatient services, inpatient services, diagnostic and treatment services and emergency services. And along with this there should be the scope for the introduction of public health services now and rehabilitation services in the future. With the availability of more trained staff and the necessary equipment, these services should be made more widely available through the district hospitals. Ambulatory patients will form the bulk of the patients, some of course will have to be hospitalized: investigation and treatment of complex ailments will have to be carried

out; accidental injuries and medical emergencies must be tackled; and public health measures to eliminate the incidence of infectious diseases will have to be taken.

The facilities, i.e. the physical envelope and its contents for the provision of these services will depend on what is expected and how that service is to be given. For example, if outpatient services are expected to include both primary and specialized health care, then a decision has to be taken how to implement this and based on it what facilities could be provided.

Although it would neither be possible nor appropriate to provide all district hospitals with the same extent of services, an attempt should be made to provide each with a minimum acceptable level of services and facilities. With the limited resources in manpower and equipment, it would be logical to concentrate these in areas with greater number of people. For example, psychiatric care and physical medicine cannot at the moment be provided in all district hospitals.

Instead of trying to elaborate on the extent of the services in the conventional way i.e. by looking at the hospital as a whole the approach here would be to examine what will comprise the best combination of services for the three specific roles that the hospital is expected to play. For example what services should constitute a real referral centre for a district; what services are needed under primary health care.

AS A REFERRAL CENTER

The district hospital must have the best possible medical care facilities in the district. It should be able to handle most of complex ailments that it will encounter. It should be prepared to tackle referral patients in all the hospital departments. It will be inappropriate to consider that a hospital can provide good surgical services but does not have the necessary diagnostic services or nursing care to support these patients. There should be a compatible horizontal relationship between hospital departments so that each can support the other at the same level.

INPATIENT SERVICES

These should include the hospitalization of patients under the following specialities: internal medicine; obstetrics and gynaecology; paediatrics; ophthalmology.

Under internal medicine there should be facilities for very sick patients through intensive care. For patients brought in with serious infectious diseases like tetanus, whooping cough diphtheria, diarrhoea etc. there should be proper isolation wards where the necessary treatments may be conducted as needed. For example diarrhoeal patients may have to be given i.v. fluids and antibiotics. For tuberculosis patients for whom the nearest T.B. hospital could be very distant, hospitalization, until sputum tests, indicate positive recovery, may be necessary. There should be adequate hospitalization facilities for patients with burns and other injuries too. The referral services under inpatient care cannot be called adequate if facilities for the above and other complex ailments are not available.

For example it is not only the operation itself but the kind of care after an operation that is as important for the speedy recovery of the patient. According to Putsep, E. (10) the success of any surgical procedure does not only depend on the skill of the surgeon, but also on the care of the patient following an operation.

OUTPATIENT SERVICES

Outpatient services are very important when viewed within the context of Bangladesh. The cost of

hospitalization being much higher per patient, it is vital that the outpatient services are efficient enough so that patients be hospitalized only when absolutely necessary. According to Vogell, L. C., (11) "An adequately functioning outpatient department may reduce the number of admissions to a hospital and enable the hospital to raise the threshold of admissions. It may also ensure that only those are admitted who need inpatient care most or who are most likely to benefit from such care"

DIAGNOSTIC SERVICES

Diagnostic services for a referral hospital means more than just a few routine lab tests and x-rays, because these are not enough for the detection of complex ailments. These services act as useful yardsticks for doctors and surgeons to gauge the condition of a patient so that appropriate treatment may be given.

The state of these services at the present compel patients to avail of such services in the private sector, which are sometimes financially beyond the capacity of poor patients.

This gives rise to two problems. Firstly, the doctor in the absence of adequate investigation can hardly be expected to provide an accurate diagnosis. Secondly, it deprives the patient of the chance where the doctor/surgeon, radiologist and pathologist can jointly discuss the ailment and prescribe a course of treatment. Death due to pneumonia and pulmonary tuberculosis accounted for 10.8% and 3.3% respectively of all death in the country (4) These are infections of the chest and, according to Palmer, P. E. S. (12), their treatment can better be guided by the support of adequate diagnostic radiological services, than by clinical examination. The diagnosis and treatment of trauma, especially common limb injuries is much advanced when radiology is available. The survey of the hospitals (2) indicated that the number of x-rays taken for limb injuries to be higher than any other.

Clinical pathology is another important diagnostic tool. The world has seen the great leap made by hospitals in the West whose laboratories increased the range of tests from around 60 in the late fifties to nearly 350 in the late seventies (13), whereas the district hospitals in Bangladesh perform with difficulty only about a score of routine tests for urine, stool and blood (2).

Considering the fact that most district hospitals have the services of a pathologist, it should be possible to provide all the essential services needed as a referral hospital laboratory. Since in essence it is expected to be a general hospital with all major specialities, the laboratory should be of adequate proportions. According to Barker, J.H. and Houang, L.(14) the technical area for laboratory services in this type of hospital should include facilities for tests in haematology, urinalysis, biochemistry and serology/bacteriology.

Besides, these the hospital should have facilities for diagnosis of heart patients, and those with complication of internal organs. Facilities for ECG tests and endoscopy should be provided at least in some district hospitals.

The installation of sonography units in some of the larger district hospitals may be considered. The advantage of the ultrasound technique is that it provides answers to some clinical questions without discomfort, or great expense that otherwise demand hazardous, invasive and costly investigation, especially in the field of cardiology and obstetrics where it is considered to be indispensable as a source of diagnostic information not duplicated by other techniques. (13)

AS A PRIMARY HEALTH CARE CENTRE

The hospital as a primary health care centre will have to provide all those services that usually

comprise PHC and perhaps more. It is generally conceived that PHC can only be provided through ambulatory facilities such as health posts, dispensaries and health centres. But hospitals too can get involved in PHC, but then it will be in a different dimension. As a matter of fact the whole hospital including ambulatory, inpatient and the diagnostic services can contribute to PHC in some form or another.

INPATIENT SERVICES

The inpatient services can play a very useful role in the provision of PHC. First and foremost it will supervise the immediate post-natal care of mothers and care of the new born infant. Before the mother leaves the hospital useful instructions regarding the feeding and caring for the baby may be given by the hospital staff. For some mothers it may not be possible to come back at regular intervals for check ups and further advice. These mothers will have to receive the preliminary instructions at the hospital during their very limited stay, especially those who had normal deliveries and whose infants are free from any complications.

OUTPATIENT SERVICES

The outpatient services will possibly play the major role in the delivery of PHC to the community. Health measures such as mother and child health (MCH) care, family planning, immunization along with simple diagnosis and treatment will be provided to ambulatory patients. Here the role of the outpatient department will be very similar to that of a dispensary or a health centre or as in the case of rural Bangladesh the UHFWC or the UHC.

The first contact with the community will be through PHC services. The objective should be to take care of most of health problems using advice, simple treatment and prevention.

Mother and child living within the town limits and others who can manage should be advised to come regularly for check ups. The MCH clinic should be able to provide immunization against diphtheria, polio and typhoid. Complication with infants can be reported to the paediatrician.

DIAGNOSTIC SERVICES

The responsibility of the diagnostic services especially the laboratory services should be to provide simple routine tests for common problems. For example, the performance of stool test for parasitic infections. Sputum tests for the confirmation of T. B., blood test for hemaglobin.

EMERGENCY SERVICES

In spite of the fact that an average of 25 emergencies are dealt with in a district hospital, it would be unrealistic to assume that this would be a good figure to design with. Because the department deals with patients who are the victims of sudden illness or accidents, it may be subjected to unpredictable peaks of activity at any time of the day or the night. Being possibly the only hospital of its kind in a district town, these hospitals should have the capacity to deal with sudden peaks.

Although many of the emergency patients may come on foot, there is no reason why they have to be mixed with the outpatients as is done in the existing district hospitals.

There is every possibility that the type of emergency cases, may vary depending on the locality. Some hospitals may have to deal with more traffic accidents such as the hospital in Manikganj a

district adjacent to Dhaka. The highway from Dhaka which passes through that town is considered a regular death trap with accidents practically a daily occurrence. Other hospitals may have to deal with industrial accidents. These trends will have to be investigated before the planning of the emergency services. Whatever the case may be, the emergency services should be able to provide the necessary treatment to most of the cases. Every emergency department should be capable of diagnosing problems at an early stage so that decisions may be taken quickly. Whether particular cases could be treated at the hospital or have to be referred to another hospital.

PUBLIC HEALTH AND THE DISTRICT HOSPITAL

The diagnosis and treatment of the health problems of a whole community is a public health concept (15) the objective of public health is to diagnose the disease pattern of a community and make necessary recommendations for the improvement of health of the people in it.

The existing public health programme of the country consists mostly of sinking tubewell for the provision of safe drinking water. This of course is an important public health activity, because it does help in the control of water borne diseases. But the scope of public health is much greater and should include involvement with wider range of community health problems, the task of public health is to acquire a sound knowledge of the diseases in the community and to make a "community diagnosis" (15). Therefore the foremost duty of public health is to gather epidemiological data.

The collection and analysis of information from the field will include among other things the investigation of large number of specimens of blood, stool and sputum etc. This will help in determining seasonal trends, geographic distribution, sex and age difference. For this well equipped public health laboratory facilities are needed. Since more than twenty years, the World Health Organization has strongly recommended and supported the development of Public Health laboratory services in its member countries (16)

In 1980 the government had drawn out an ambitious plan (17) to establish/expand the laboratories from the district hospital to the UHFWC to serve as a network, with each level doing a specific function. These would then be linked vertically to the National Health Laboratory which was to be established with the expansion of the existing Public Health Laboratory at Dhaka. The objective was to integrate the public health component into the "structure" of the existing laboratory, so that these could provide support to the activities of the field level health and family planning workers. But this programme still remains to be implemented.

CONCLUDING REMARKS

The attempt had been made to see the district hospital in the light of the diverse roles that it is expected to play. What has emerged from this is a hospital which is an institution with a multi-faceted character. The responsibilities are not limited to the curing of the sick, but the maintenance of the good health of the community too. The district hospital is not to be viewed as an institution whose help is sought by people in times of need only, but as one which constantly looks after their welfare too. It is conceived as an institution which is both vertically at the top of the health care delivery network of the district and horizontally at the same level as the most humble facility-the UHFWC.

A patient coming to the hospital could expect quick and efficient attention of the midwife, medical assistant, the health visitor or the detail and critical examination by a qualified medical personnel such as doctor, surgeon, paediatrician etc. As a result the district hospital is an institution where simple as well as complex health care techniques are practised and used for the benefit of the entire community.

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