MEPS:1

GROWTH MONITORING : A PREREQUISITE FOR HEALTH PROMOTION

Dr. TARA.M.S
Assistant Director,
National Institute of
Public Co-operation &
Child Development,
BANGALORE.

Growth monitoring forms an integral part of continuing health care services. As an important tool for measurement, it facilitates early detection of growth faltering, thereby enabling one to institute necessary rehabilitative and promotive measures for improvement in health status of children. Over the years, growth monitoring programme has come to define two strategies - the first being an educational strategy emphasising on family and community responsibilities for child health, the second is the creening strategy, which is directed to improve the quality and efficiency of health system in providing care to the young children. The unifying of these two strategies to create growth monitoring programme capable of delivering 'quality' services necessitates active involvement of worker of both health and non health sectors.

In the Integrated Child Development Services Scheme, in which the programme for growth monitoring of children is undertaken on a large scale, the role of functionaries is vital. They are primarily responsible for delivering of nutrition and health services and in attaining the objectives envisaged in the scheme. The block and the district level functionaries are principal executives and coordinators of the ICDS scheme, who are entrusted with the responsibilities of providing on the job training to peripheral and middle level worker. Their guidance in selection of beneficiaries and proper coverage for interventions, besides providing continuing education in relation to child's growth is also significant. In executing these tasks, it is imperative that one is sensitive to the following aspects :

1. Operational consideration for Growth Monitoring

Availability of standard equipment for appropriate weighing of children is an essential pre-requisite. While using weight as a parameter, it is imperative that the weighing scale and bar scales, which are commonly used, should frequently be checked with known weights for accuracy. The 'zero error' of the scale should always be corrected form prior use. Careful reading of the scale is possible only when one is familiar with divisions on the scale.

....2.....

The actual weight noted without any error, has to be plotted on the growth chart accurately. To carry out this, there is a need for correct age assessment of the child even before it is weighed. The location of the point for plotting on the chart calls for considerable skill, care and patience. In this chain of operation, there are potential sources of errors, to be guarded againt. The growth charts used in the ICDS scheme follow the classification recommended by the academy of Indian Paediatrics. The classification of grades i.e., first, second, third and fourth degree malnutrition is based on the fact that the weight for age is in the range of 70-80%, 60-70%, 50-60% and below 50% of the Harvard Standard respectively. Children whose weights are 80% and above of Hervard median are categorised as normal in their nutritional status. The severely malnourished children are those, whose weight fall in grade III or IV. Any deviation in the trend is when the curve becomes flat or shows descent indicates growt faltering and detericration in the nutritional status. Although the above concept seems simple it requires proper skill for execution. The supportive services and supervision appropriate training of the workers, establishing the validity of the data collected are some of the key issues that need consideration.

Growth Chart-an Educational Tool

Growth monitoring is not merely a means to strengthen delivery of the services but it is a tool for building awareness on felt needs of child care and growth. This can further enhance a sense of empowerment for mothers to take initiative in this area, which would lead into community level action.

Counselling mothers on concepts of monitoring is possible with the help of growth chart, as this tool serves as a means of visualising the growth trend. The growth trend could be explained to the mother by showing a growth curve. An upward curve which is in the same direction as the reference curve can be considered as good and signifies that the child is growing well.

This tool also aids in determining the nutritional status and helps in delivering the specific and appropriate message to the mother. Further, the chart helps mother visualise her child's growth and acts as reinforcement for behaviour which positively influence the growth. These aids help the worker determine the specific advice needed by the mothers at appropriate time. Further, it helps the workers to 'target' timely advice for the mothers for taking specific actions. For instance the growth trend in the

Contd....3.

child could be referred to, while demonstrating the importance of adequate feeding, initiation of weaning foods, problems associated with delayed introduction of solids, the deleterious efforts of diarrhoea or the value and timing of immunisation etc.

The effective use of the growth chart, then, depends on the knowledge and the skill that a worker has, It is only with an appropriate, use, that the objectives of the growth monitoring can be attained.

Improved Monitoring : A suggestion for Exploration

In effectively implementing the task of growth monitoring, ICDS is faced with a number of short comings like, inadequate supply of tools, untrained/poorly trained personnel, poor response from the community etc.

To overcome the several shortcomings which currently beset the monitoring system may not be possible in a short period. However, it may be useful forthe field functionaries to implement growth monitoring in the phased manner. To begin with one anganwadi could be taken up in each project for intensive efforts directed towards promotion of quality health and nutrition services. In such an endeavour, emphasis must be placed on developing a close functional linkage between the existing health system and the ICDS services. As a part of comprehensive system of maternal and child health care the concept of growth monitoring be introduced tothese functionaries for early detection of growth faltering. A joint venture by the parallel functionaries of both ICDS and health department and their regular domicilliary visits to the houses of pregnant, lactating mothers and children, under three years periodically, can ensure lasting confidence among mothers for availing the services. During their visits to these critical houses enough time should be spent with mother, not for getting the children weighed alone, but for educating the mothers, especially for building awareness on felt needs of the children.

Only under such circumstances that the growth monitoring will be meaningful, from the point of view of instituting interventions. The model Anganwadi could serve as a demonstration cum training centre in each project. When tried out successfully there could be a phased programme for extension to the other anganwadi of the project. So that in due course of time, they too may be able to achieve impressive improvement in child's health.

****

MEPS:2

GOVERNMENT OF KARNATAKA

WOMEN AND CHILD DEVELOPMENT DEPARTMENT

UNITED NATIONS CHILDREN'S FUND

CENTRE FOR YOUTH AND CULTURAL DEVELOPMENT

* * * * *

"HEALTH FOR ALL BY 2000 A.D."

M.C. NARAYAN,
Consultant,
(Research and Training).

THE PHILOSOPHY OF "HEALTH"

1. Health is a state of positive well being and not merely the absence of disease.

2. Health is a means and a measure of development, health and general development are interlinked and inter-dependent.

3. Health and development need a team of people who can work to-gether with the community government and voluntary agencies have a positive role to play.

4. Peoples participation and involvement in their own future is essential for meaningful alround development of which health is a prominent component.

5. There is need for a general awareness in the community, society, professional groups and other development agencies about the conditions of the community and what could or should be done to ameliorate.

6. The process of education is central to the approach to development.

7. It is a fallacious to believe that Doctors alone are responsible to ensure health for all.

8. Health care is not only every one's responsibility but also informed self care is an insurance against ill-health.

Contd/..2

9. Ordinary people provided with clear simple information can prevent and treat most of the common health problems in their own homes-earlier-cheaper and often better than what Doctors can do.

10. Medical knowledge applicable to common community health should not be the guarded secret to a select few but should be freely shared by everyone.

11. Doctors have very important role not only in treating sick, but in educating the sick as well as others in prevention, protection and promotion with regard to health.

12. Basic health care could be a better reality when it is encouraged as a self-help programme rather than as a health care delivery programme to prevent dependence.

"SCOPE OF COMMUNITY HEALTH"

Community health has several dimensions. Individual health care forms the basis. Social, economic and cultural dimensions of health cannot be ignored in solving health problems. Poverty and ignorance are the twin basic causes for illhealth, out of around 5000 million population in the world, nearly 800 million people come under the category of poor of which more than 60% come from the third world countries. Russel Sage Foundation President Wildavsky declares "According to the great equation, medical care equals health. But the great equation is wrong. More available medical care does not equal better health. The best estimates are that the Medical system (doctors, drugs, hospitals and some other infrastructure) affect about 10% of the usual indices for measuring health. Whether you live at all (infant mortality) how well you live (adult mortality). The remaining 90% are determined by factors over which Doctors have little of no control at all. Individual life styles viz smoking, drinking, no exercise or

contd/..3

recreation, worry etc., social conditions viz. income, status, eating habits, dwelling, physiological inheritance and physical environment - air, water, ecological factors and other influences that work on human beings are beyond the reach of medicine.

DANGEROUS DRUGS - UNBRIDLED INDUSTRIALISATION - HAZARDOUS TO HEALTH

Iatrogenesis is one of the major problems of health in developed countries. Drugs are the greatest killers. In U.S.A. alone 50 million hospital patient days a year are caused by drugs, and these drugs kill more victims than does cancer. Added to this is industrial pollution. Rivers, sea, air, soil and the entire environment get polluted due to various industries and Scientific nuclear experiments. The entire ecology is getting ill-balanced. No doctor can ensure health when mother nature herself cannot protect us.

Rober Hutchison wrote in 1954 which is even more germane today:-

"From inability to let well aone, from too much zeal for the new and contempt for what is old, from putting knowledge before Wisdom, science before art and cleverness before common sense, from treating patients as cases, and from making the cure of the disease more grievous than the endurance, Good Lord deliver us".

HEALTH IS AN INTEGRAL PART OF DEVELOPMENT

The new ways of thinking about the problems of health andhealth services stem from worldwide concern for social justice and for improvement of well being of all people; specially the disadvantaged.

Contd/- 4

The concern is expressed as dissatisfaction with the uneven distribution; rising costs, and uncertain outcome of health services. WHO and other member countries are increasingly awarethat the health of population is the result of many influence and involves many sectors concerned with social development other than health; effective planning for health therefore requires co-ordination between the health and other sectors.

Today there is need to study the conventional medical model in comparison ~~with~~ with behavioural and socio-political models. The conventional model of medical approach to the problems of health and disease has tended to emphasis the role of single casual agents, especially micro organisms and in the past to minimise the role of the environment and of personal or host factors in the genesis of disease.

This approach has emphasised the role of biologically defined disease and underplayed the role in the genesis of illhealth of psychological, social and cultural factors such as emotional reactions, inadequate housing and attitude towards smoking. The implications of this approach when applied to the political and social sphere is illhealth consists of "disease" whose "cure" or "eradication" will maintain or restore "health".

Health planning is too often restricted to health sector and is usually based solely on mortality and morbidity statistics to which are sometimes added data on physician and hospital use. It should instead be based on measures of the health and health care needs of the total population, users and non-users of the health services alike.

contd/..5.

policy decisions in the other social sectors affect both the level of health of the population and the type of amount of health services needed. Health planners and administrators do not operate in a vaccum, the solution to health problems should reflect the social, political and economic values of the society as a whole.

Illness can be described in terms of three concepts the traditional medical model-a social interaction model- and a model based on individual and collective perception of ill health.

Ultimately investment in health care should be reflected in the improved capacity of a country to achieve its specific national goals, health policy making involves weighing the effects of more than one sector; viz; agriculture - industry - housing - education etc.,

The decision maker also needs indicators reflecting the social, cultural and economic setting in which people live. These include measures of educational achievemnet exercise and recreation, nutrition, transport and communi-cations, housing, delinquency, criminality, working of judicial system. productivity, consumption and economic welfare. It is this information, considered along with the values and aspirations of the community and its resources, that will keep the policy maker decide what emphasis it to be placed on the health sector.

Alma Ata declaration in 1978 "Health for all by 2000 A.D." meant that all people of the world would have the opportunity to attain by AD 2000a level of health permitting them to lead a socially and economically productive life.

Condt/..6

Thus health is a very important component and an integral part of total development.

WHAT IS PRIMARY HEALTH CARE ?

It is an approach that should encompass the entire health system of a country, (reaching into the home, the work place, the local community, right upto the most advanced hospital or research institute).

It is based on the active and responsible participation of the people-individually and collectively-at all levels of complexity of the health system and in all the processes that make the system work. From planning, which decides the priority problems to be tackled, upto the management, supervision and control needed to assess whether these priority problems really are tackled and how efficiently and effectively and efficiently. Participation of the people is much more than the use of free labour to carry out certain activities. It is the permanent presence of the people as decision - makers, as active subjects responsible for their own individual and collective health.

Peoples participation, real health needs, and the actual resources of the countries and their local communities should govern the type of techonology to be used by the health system at its different levels. That is why within the concept of "primary care " we talk of "appropriate technology" which besides being scientifically sound and effective must be adjusted to the possibilities of the country concerned and acceptable both to those who will use it and to those who will benefit from it.

Contd/..7.

The above elements indicate the absolute necessity of multisectoral action, for many of the factors influencing the presence of diseases are outside the so-called health sector. There are many instances of countries where better education, proper nutrition, the provision of drinking water and sanitation good housing, suitable working environments, etc., have made a more significant contribution to improving the level of health than any conventional system of curative medical care could have done. Thus, primary health care is unavoidably multisectoral.

The above components also govern the absolute necessity of gradually delegating responsibilities for health activities. Finally, "Primary Health Care" must be a component of and never isolated from a national socio-economic development strategy. Its implementation requires the political will and decision of governments, not just the good will of institutions and authorities in the health sector. It also requires constant political pressure from the people, "as active participants" in such implementation for it is only this constant political pressure that can guarantee the continuity and permanence of the initial political decisions taken by government.

Thus "PRIMARY HEALTH CARE" is clearly not a level of medical care that is elementary, rudimentary, primitive even, with no scientific basis, using crude technology, and provided by non professionals with a little training. Nor is it a second or third class vertical programme operating parallel with and independent of the conventional health care system, it is not a campaign separate or isolated from

Contd/..8.

the health sector which by means of a set of simplified activities decided upon by some organisation or other, is directed paternalistically at the rural inhabitants or the urban poor as some form of charity to relieve some of their misery. Far from it.

Speech by Dr.A.Tejado-de-Rivero, ADG, Mexico city -1984
World Health Organisation, Geneva

HEALTH - Health is a product of total development - physical, biological, social, cultural and spiritual. It is an important investment in the development process with an outcome of better health, which in turn, re-inforce the development cycle. All sectors of development contribute towards health and not just the health sector only.

CONCEPTS OF PRIMARTY HEALTH CARE :- "Primary health care is ESSENTIAL health care made universally ACCESSIBLE to individuals and families in the community by means ACCEPTABLE to them, through their PARTICIPATION and at a cost that the community and country can AFFORD. It forms an INTEGRAL PART both of country's health systems of which it is the NUCLEUS and of the OVERALL SOCIAL AND ECONOMIC DEVELOPMENT of the community".

Primary health care innovates and applies APPROPRIATE TECHNOLOGY for health promotion, prevention of disease, treatment of disease and in rehabilitation. It is built on the local culture and value systems, using COMMUNITY RESOURCES to the maximum. It is health by people, for people and of people wherein people are EQUAL PARTNERS with the health providers.

Contd/..9.

COMPONENTS OF PRIMARY HEALTH CARE: -

1. Education concerning prevailing health problems and the methods of preventing and controlling them.
2. Promotion of food supply and proper nutrition
3. An adequate supply of safe water and basic sanitation.
4. Maternal and Child health care including family planning.
5. Immunization against major infection diseases
6. Prevention and control of locally endemic diseases
7. Appropriate treatment of common diseases and injuries
8. Providing of essential drugs.

Source : South East India Regional Bureau, No.6, V.R.Road, Madhavanagar P.O, Bangalore-1.

HEALTH EDUCATION

Health is a highly personalised and individual value system. It has roots in stereotypes and traditions prevalent in the community. Importance to health is ascribed among a hierarchy of life goals usually economic goals. There is a close relationship between the level of aspiration and health adoption. An action programme has to be directed to bring about an attitudenal change in the value system through an appropriate strategy. Health Education is an important vehicle in this regard.

2. Health education is changing health habits in order to achieve better health. People will have to be told how they should be healthy by doing certain things and by taking certain precautions to prevent sickness. Improvement in mental and physical well being i.e an all-round health improvement is the aim of health education. Protection from

contd/...10.

non-hygienic conditions to prevent spread of diseases from one to another is the purpose of health education.

3. Health education has not so far attained the status of a discipline or a profession in our country, though it has attained the status of an approach. The concept of health education is old. It received formal recognition in the old Mysore state in 1929 itself through establishing of a publicity unit in the Directorate of Health services. The process began in other states from 1940 onwards. Emphasis was laid on the importance of health education by the Planning Commission in the First five year plan. Health Publicity Bureaus at Central and State levels were recommended. Bhore Committee also stressed the importance of health education.

4. The Central Health Education Bureau was established during 1956-57. A three months certificate course in health education was introduced at the All India Institute of Hygience and Public Health, Calcutta.

5. The process was stepped up further by another major step in the year 1964 to integrate health education at the district level by launching training programmes for the district level Health Extension Educators at the Central Health Education Bureau, New Delhi, Rural Health Centre, Gandhigram and the family planning Training and Researdh Centre, Bombay. The National Institute of Health Administration and Education was established at New Delhi in the same year with a view to provide leadership and post-graduate training for health education and administration for the higher level workers in the field of health.

Contd/..11.

6. In the year 1966 a division was created in the Central Health Education Bureau to review, develop, co-ordinate and implement intensive health education activities for various National Health Programmes. Lectures in health education, supply of educational material. Providing of syllabus for training, identification of resource persons, film shows, exihibitions, visits to adult education centres, publicity campaigns, seminars, conferences, training programmes, constitution of school health education committee in some places, co-ordination with other units/institutions, integration of health education in health programmes were the numerous activities that were launched.

7. The following difficulties are reported:-

a. Inadequate funds

b. Inadequate transport facilities

c. Inadequate staff

d. Lack of trained persons

e. Non-recognition to health education activities

f. Lack of co-ordination.

8. The above mentioned difficulties are faced by the District Health Education units also. P.H.C's are delivering health and medical care services through the following activities:-

a. Individual talks

b. Group meetings

c. Exhibitions

d. Film shows

e. Distribution of pamphlets

f. Cultural programmes.

Contd/..12.

9. In 84% of schools health education is not taught as a separate subject. Hygienc, nutrition, family planning, preventive medicine, immunization etc., are taught. Health education is not an examination subject. It is, however, integrated in the curriculum.

10. Hospitals carry on health education activities through film shows, individual talks, group talks, demonstrations, exhibitions, poster displays, community work etc., Health education activities in hospitals have to be strengthened through home visits, group meetings and mass meetings to serve wider population effectively. Hospitals require a separate health education cell and mass media Officers to bring about attitudenal change in the people on health matters.

11. Social aspects of diseases and their treatment cell for greater attention. Courses of social diseases such as parental inadquacy, mal-nutrition, environmental hazards, insanitary habits, smoking, occupational diseases etc., should be investigated and people enlightened thereon. The behaviour of individuals and the society has to be changed in order to realise the social good. Major improvements in the health of the people, particularly the poor, cannot be achieved with hospitals, doctors and drugs but with wells, latrines, family planning, personal and community hygience etc., and the health professionals should accept a '<u>Social responsibility</u>' for the health needs of the people in rural and urban areas so that they can act as agents for '<u>social change</u>'. Health education, is therefore, an imperative necessity to be used as an effective tool for the promotion of the concept of '<u>total health</u>'

Contd/..13.

and to combat common health problems particularly of vulnerable groups such as pregnant women, lactating mothers and young children.

12. Growth monitoring can be an effective entry point for health education to mothers and also to the community whether poor or rich, marriage, and child birth are great events in the life of an individual; and particularly so in developing countries, where closely knit family is the main feature of social pattern. All the family members in general, and mother in particular can be motivated through child for health education because normally they are all emotionally attached to the child. Child is still a proud possession of a family in Developing countries, and male child is considered as an asset.

MEP 5:6

GROWTH MONITORING AND PROMOTION
BASIC PRINCIPLES AND OPERATIONAL IMPLICATIONS

Lukas Hendrata

INTRODUCTION

Growth Monitoring and Promotion (GMP) Programme was expanded in many countries during the early seventies without having the benefit of a solid body of principles and guideline for implementation. Policy makers and programme managers developed their programme primarily on the basis of their own understanding and vision and learning from each other's experience.

It is to be expected, therefore, that the understanding of the principles and their operationalization varied widely from programme to programme. This paper is an attempt to examine those principles in the light of recent developments in nutrition strategies with a view to finding the linkages between GMP and the broader strategy of Growth Promotion.

BASIC PRINCIPLES

Among many definitions of GMP the one adopted by the Integrated Child Development Services, India, is perhaps the most comprehensive one. It defines GMP as " an operational strategy of enabling mothers to visualize growth or lack of growth and to receive specific, relevant and practical guidance in ways in which she, her family and community can act to assure health and continued regular growth in her child.

Three basic principles could be derived from this definition :

1. GMP is a preventive and promotive strategy aimed at action before malnutrition occurs.

2. GMP is a behaviour change strategy carried out through effective communication to achieve adequate growth through home and community action.

3. GMP deals with the total environment of the growing child, encompassing not only food but also health, physical environment, psychosocial development and intellectual stimulation.

OPERATIONAL IMPLICATIONS

1. GMP as preventive and promotive strategy

Most nutrition programmes have suffered from the same curative bias found in health programmes in general. Both the providers and the community perceived them to be curative. The attitude has too often been to find the malnourished and try to rehabilitate them, basically by giving them food. This approach clearly, cannot bring satisfactory results. Malnourished children are frequently identified in their third, fourth or even fifth year of life and their rehabilitation is difficult, expensive and partial at best.

... 2/-

One of the key operational implications of the GMP strategy is the importance to reach young infants soon after birth for the following reasons :

- Most children under 6 months will show a rapid growth pattern. This period is therefore ideal to give positive reinforcement to mothers and to demonstrate to them the value and feasibility of maintaining good growth in their children;

- Responses to early growth faltering are usually effective since mothers have more control over the child's environment and more home-based effective actions are available to overcome growth faltering while the child is still on the breast (e.g introduction of complementary feeding increased frequency of feeding).

- Although the prevalence of malnutrition is generally highest in older children, above age two, the incidence of growth faltering (the process of becoming malnourished) occurs maximally from about six months to two years. Beyond this age, growth trends are nearer to normal, although attained size may be far below the desired norm. Thus, the promotion of continued good growth and early action in the case of faltering, even before any malnutrition is evident, prevents the development of malnutrition.

2. GMP as behaviour change strategy

One fundamental flaw in our communication/education strategy is that is basically a knowledge dissemination strategy. It is based on a faulty assumption that dissemination of factual knowledge will in itself bring about changes in practice and behaviour. The best example of this approach in nutrition education is the promotion of the " four food groups " to bring about changes in the diet of the population. The approach has failed since no clear behavioural objectives were formulated.

In order to be effective in its behaviour change impact, a communication exercise should fulfill the following requirements:

- It must be based on sufficient knowledge of the existing behaviour pattern and the reasons behind it.

- The messages must take into account the environment (socio-cultural, economic) in which the changes are to take place. This is to guarantee the credibility and relevance of the message and feasibility of the recommended practice.

- It must be action-oriented, dealing primarily with " what to do " and the reasons behind it. It must be presented in a convincing and persuasive way leading to action.

- It must be specific and individualized.

- The proof of benefits must be available within a relatively short period.

... 3/-

Growth Monitoring and Promotion strategy has a great potential in translating those principles of communication into practice. First, a problem must be identified and recognised. Here is the vital role of assessment of growth, to measure and actually see the problem. Hence the importance of weight plotted on a care - the visualization of a problem otherwise not seen or even perceived. Here too lies the value of the trend line of growth, rather than the more commonly used nutritional status lines (or colours) - we want to see the problem early, before malnutrition is obvious.

Second, we must facilitate the mother (and others concerned) to analyse why growth is not occuring as expected and desired. This analysis and understanding must proceed any effort at advise or action, in order to assure the mother accepts the logic or reasoning behind the suggested action.

Advice based on understanding of the problem behind the child faltering is by its very nature specific and action-oriented: it deals with that particular child every month. Communication in GMP should therefore start with listening to what mothers have to say about the child's health, eating and care in the context of the family situation. It is a dialogue between mother and the 'counselor' in analysing the possible reasons behind the child's failure to grow this month. In this process the mother is empowered to be able to deal more effectively with the problem.

As part of developing a positive environment to support the individual communication, there must be created a demand for "growth". Basically, this is an effort to intensively market growth as something valuable and desirable for every child. Only if the significance of growth is fully understood and growth is demanded by the community can be individual interaction, designed to assess, analyse and take specific action for growth (our "product") lead to the desired behaviour. In short, unless the clients want our "product", it will never sell. When mothers seek growth, they will anxiously watch the assessment, (weighing and plotting to visualise growth) and be open to discuss and take action to achieve the desired goal. Without an understanding of the importance of growth or an appreciation for its overall reflection of child well being, a mother cannot be expected to mobilise constrained resources of time, money and effort in an attempt to obtain the product we are promoting - regular healthy growth.

3. GMP deals with the total environment of the child

In analysing the possible causes for growth faltering one will have to examine the areas of food availability, child care and health/infection. The underlying causes could be in any of those areas. This will lead to action which will go beyond the traditional prescriptive advice.

... 4/-

It may involve action the mother herself can take, but more often will require the concurrence of her family decision makers (husband, mother-in-law etc). Invariably, it will call for some type of resource mobilization, and women seldom control resources. Be it her own time (increase frequency of breast feeding or other food), family diet (set aside a reasonable portion of food for the child), other family resources (build a latrine, consult a doctor) or even community action (a child care creche, loan of a garden plot, small credit), action will require collaboration and mutual help. Hence, the importance of conducting GMP in the community itself, where in small groups, others can hear, participate and understand. Here too is the reason to separate GMP from the widely held expectation of food supplement distribution, an activity which will throttle any chance of meaningful analysis and household or community action. By addressing the total environment of the child - indeed, the growth of the child becomes the indicator of the wellbeing of the family (and quite logically the sum total of the growth of the youngest children is a sensitive indicator of the wellbeing of the community). The mother, family and community are encouraged and empowered to identify the actions within their control that can give a measurable improvement in the quality of life of the most sensitive and vulnerable member of the family. GMP is, in reality, a development strategy.

MEP5:5

NUTRITION SURVEILLANCE

Nutrition surveillance is the regular provision of information and its use for decision making on policies and programmes which directly or indirectly affect nutrition. It is common to confuse nutrition surveillance with growth monitoring. In fact, the two activities have different objectives, procedures and outcome.

Growth monitoring referes to regular assessment of growth and development in order to detect growth faltering in individual children and to apply appropriate interventions Nutrition surveillance is based on the detection of undernutrition in groups of children. Growth monitoring focusses on the maintenance of good nutrition in the individual child and therefore, should include all children in a community. Nutrition surveillance focuses on the nutritional status of a population and therefore measures the nutritional status of a representative sample of children of that population. Thus the outcome of growth monitoring is early intervention in the home and that of nutritional surveillance is early intervention at a higher level. The two approaches are complementary in promoting child growth and development, easpecially in children from 0-3 years of age. Concentrated efforts to improve the implementation of growth monitoring and nutrition surveillance should recive grater priority.

Nutrition surveillance activities may be divided into three general types. Each requires different types of data for different types of dicision making needs. These include (1) National level planning (2) Programme management and evaluation and (3) Timely warning and intervention. A national nutrition surveillance system may include one or all of these areas depending on specific needs. The first step in the development of any nutritional surveillance system is to identify WHO will be using the information and for WHAT purpose.

.. 2/-

It is recognised that many countries may already be producing food and nutrition data though these are often not adequately collected, analyses or used. The objective, therefore, is both to make better use of what is or could early be made available, as well as establishing new systems where there is little already in place. The emphasis should be on practical, low cost approaches within the context of the country's infrastructure and the available supporting resources. Depending on the country circumstances, efforts should be made to expand clinic or health centre based information systems, establish community surveillance, establish sentinel monitoring sites etc. It is especially important to ensure regular coverage of the particularly vulnerable parts as well as vulnerable population of the country.

The choice of indicators to be monitored in nutrition surveillance systems will depend on the objectives, cost and timetable of policy makers who will use the data emphasis should be on frequency, time liness, improved coverage and understandable presentation of a few simple useable population based outcome indicators.

The three nutrition status indicators recommended as common or core indicators of nutrition surveillance are :

* Low birth weight.
* Weight for age of children under five.
* Hieght for age of primary school entrants.

The incedence of low birth-weight babies can be reduced if pregnant at-risk women are identified and steps taken to reduce their risks. Since screening is done at the community level, more women can be reached and women potentially ' at risk' can be detected before pregrancy. Simple screening methods, properly followed up, can help reduce the number of low birth - weight babies.

MEP 5:4

GROWTH MONITORING AND PROMOTION (GMP)

CONCEPT

" Growth monitoring and promotion is an operational strategy of enabling mothers to visualise growth or lack of it an receive specific, relevant and practical guidance in ways in which she, her family and community can act to assure health and continued regular growth of her child . "

* GMP is a preventive and promotive strategy aimed at action before malnutrition occurs.
* GMP is a behaivioural change strategy carried out predominantly through effective communication to achieve adiquate growth through home action.
* GMP deals with the total environment of the growing child encompassing not only nutrition but also health, psychological development, physical environment and intellectual stimulation.
* GMP is a preventive strategy aimed at early recognition and preventive action against the earliest signs of growth faltering. It is an early response to individual, family and community needs.

GROUTH MONITORING CAN SERVE MULTIPLE OBJECTIVES :

* education and motivation.
* screening, early detection and risk assessment.
* entry point for comprehensive health care
* entry point for women's participation.
* mechanism to promote community awareness, organisation and empowerment.
* health indicator; impact assessment.
* instrument for supervision.
* advocacy.

... 2/-

THE MOST COMMON PRACTICAL PROBLEMS TO BE ADDRESSED IN ANY GMP PROGRAMME ARE :

* weighing devices and their use.
* format of growth charts.
* field procedures
* reporting mechanisams.
* health education and social mobilisation.

THE MOST COMMON PITFALLS OF GROWTH MONITORING AND PROMOTION ARE:

* The curative approach to nutritional problems.
* Focus on wrong age.
* Nutritional status rather than growth is emphasised.
* Lack of feed back.
* No individualised advice or interaction.
* Belief that GMP is simple and therefore must be easy.
* GMP is seen and conducted as an isolated activity related to nutrition.
* Lack of community particepation.
* Food takes over the central stage.
* False expectation abocend.
* Lack of analysis.

MEP 5:7

"MEDICAL RECORDS AND NURSES RESPONSIBILITY"

by

Sri.C.P.B.KURUP

Principal, College of Nursing, Fort, Bangalore.

Records are administrative tools which are useful in many areas of functioning. They are not an end in themselves. Record keeping is a time consuming activity. Duplication of information on records should be avoided. No records should be kept which does not contribute to the attainment of an administrative educational or research objectives.

Nursing department is responsible in maintaining certain records in the hospital which could be classified under two headings viz., the Nursing Unit Records and Nursing Office Records. The Nursing Unit Records are:

1. Patients Records
2. Medical Orders
3. Nurses orders
4. Assignment Records
5. Time Records
6. Inventory
7. Narcotic Records etc.

Nursing Office Records include Records of Nursing Hours, Personal Records and Attendance Records. For todays discussion we will be mostly concentrating on Nursing Unit Records specially the patients records, medical orders, nurses orders/notes etc.

Patients Records:

W ell kept patients records are necessary for providing good patient care. Nurses spent a lot of time in assisting and maintaining these records. Duplication and Error in information should be avoided.

Purpose of Patients Records:

1. It aids in disgnosis and treatment
2. It records the services the hospital is providing to the patients.
3. It aids in Teaching and Research.
4. It adds to the knowledge which results in the improvement of patient care.
5. It is an important source of evidence in Medico Legal cases.

...2

Responsibility of the Nursing Personnel in relation to Medical Records:-

1. Assembling the Unit record for each patient on a dmission.
2. Filling the identifying data such as Patients Name Address and other particulars, hospital no. date on the form.
3. Keeping the nurses notes.
4. Keeping the graphic chart
5. Incorporting Laboratory, X-ray and other special department reports.
6. Incorporation of Physicians order sheet for patients when it is filled or when the patient is discharged.
7. Checking the unit record for completeness, correct order and accuracy of identifying data, before it is sent to the record room for filing.

Certain specific responsibility of the Head Nurse for the Clinical Record (Patients record) are explained below.

1. Protection from Loss:

The Head Nurse is responsible for safe guarding the patients record from loss or destruction. If it is misplaced effort should be made to locate it immediately. No individual sheet to be seperated from the complete record unless it is specifically needed.

2. Safe guarding the Content:

The Head Nurse is committed to the protection of patient by guarding the content of his record. Case records are kept in a place which is not accessible to the patients and visitors. None otherthan authorised persons are permitted to read the records. The Head Nurse should be familiar with the procedure adopted by the particular institution in dealing with such legal matters. Patient has a right to insist that his records to be confidential. The hospital is obligated to legally and ethically to protect the information in his chart from the eyes of the curious people. Only these individuals who have a legitimate purpose are permitted to read the patients history. Visiting doctors read the case history only after obtaining the permission of the patients physicians. Only nurses, doctors who are attending on the patient and those who need information either to care the patient or for study purpose are allowed to read the case records.

...3

3. Completeness:

It is the responsibility of the head nurse to compile records with complete identifying data on each page in the form approved by the hospital. The nursing service is wholly responsible for the vital graphic sheet and the nurses observation/nurses notes.

4. Nurses Notes:

The Nurses Notes forms an important part of the medical record. Hence it is the responsibility of the head nurse to see that the nurses notes are written by the nurses and affiliating students in the accepted form by the institution. The format of nurses notes vary widely, but the essential aspects of it should be included in the report, namely the patients nursing needs, the measures taken by the nurse to meet the needs and the outcome. Also the medication, treatment, diet etc., also should be included.

a) Legal Value of Nurses Note s:

Since the clinical records are legal document, the nurses notes should be accurate, clearly stated and legible. All entries are signed by the individuals who write them. Errors should be indicated by drawing a single line thorugh the word or sentence. Accurate observations of the symptoms which the patient manifest will protect the nurse as well as the hospital which may be otherwise attributed to negligence.

b) Admission Record:

From legal and diagnostic points it is important to record carefully the observation of patients at the time of admission. It has become a practice to take history of the patient by the nurses which is essential to assess and find out the nursing problems which the nurse can help the patient to solve. This problem solving process or nursing process is increasingly in many countries and has become an important part of the curriculam.

...4

Nurses do need higher educational preparation to use nursing process. Whatever method the nurse are using the nurses notes on admission should include general physical and mental condition of the patients like condition of skin, condition of the mouth and teeth, condition of hair, any abnormality noticed about the functioning of the different systems of the body, mental state, orientation, conciousness, mood etc. A ny conditon which may influence the nursing care of the patient should be included in the nursing notes. In short it should be possible to gain from the patient notes a picture of physical and mental progress of the patient from day to day.

The treatment and medications administered should be briefly stated. Emphasis should be placed on the reason for giving them, results and their general effect on the patient rather than merely mentioning that these are administered.

c) Record of Medical Orders carried out:

Some where in the patients permanent record the medications and treatments which are administered by the nurses on the orders of the doctor must be recorded. The method may vary from hospital to hospital. When doctors write full notes on his patients, the nurse finds the clinical chart a rich source of information. By reading the patients medical history and doctors notes the nurse will be able to follow the patients daily progress.

The nurses notes should give a clear picture of the patient, how he seems to feel, how he acts, the objective evidence of disorder and of change in condition, effects and result of medical treatment and nursing care. The information serves as a guide for the new nurse in writing her observations.

...5

Nurses notes which portrays clearly the results of nursing measures are excellent source material for research in nursing methods.

To conclude patients medical records are the most important administrative record for which the head nurse ward incharge nurse is responsible. It has legal, scientific and educational value and should be accurate neat and legible.

Reference:

1. Jean Barett, Ward Management and Teaching

2. Stella Goostray and etal, Hospital Nursing Service Manual, 1950.

MEPS:8

PRACTICAL APPROACHES FOR PREVENTING MISSING CASE NOTES

by

D.M.JOSEPH

Medical Records Officer

&

P.ARUNACHALAM

Medical Records Supervisor

NIMHANS, Bang alore = 29

INTRODUCTION:

It is generally considered by most members of a hospital's professional staff, that the most important - if not the only - criterian of the efficiency and effectiveness of Medical Records Department is the production of patients case notes at clinics concurrently with the patient to whom those case notes refer.

In some hospitals, have missing list of case notes going as high at 5%. In our experience this is not the sort of percentage often found. However not very much research seems to have been done out in this field. The following systematic process has been developed to approach the problem and suggested the preventing method:

A systematic process has been developed on the following basis:

S R E D I M

Select	-	the problem area
Record	-	the appropriate facts
Examine	-	the present methods
Develop	-	Alternative Methods
Instal	-	New Methods
Maintain	-	the working of the New Methods

I. Select - The Problem area:

a) Outpatient Clinics

b) Wards

c) Accident & Emergency Clinics

d) Medical Records Section

...2

II. Records - The appropriate facts:

In the outpatient clinics the files are sent from Registration counter and Medical Records Department. These files are to be returned to the Medical Records Department on the same day. Often it has been found that some of the files are not returned. When the patients comes for revisits it is a tough problems for Medical Records Personnel to answer to the Consultant or to the patient for nonavailability of case notes.

Discharged patient's case notes are collected from the wards by the Medical Records staff daily. In some cases it has been found that the Junior Residents are taking away the Case files to write discharge summary, to discuss with consultant or for their study purposes and they do not return the case files in time and this causes problems to Medical Records Officer and to the patients.

Accident and Emergency Clinic:

This is an important area which works round the clock for the Accident & Emergency patients. Here Emergency ca records are issued for New patients and the ECR is given to C.M.O. on duty. When the old patients attended to the Casulty, the files are issued from the MRD. Patients are kept here for observation purposes. These records are to be returned to MRD after the cases are disposed off. But still we find missing case notes from this area, which are not sent to MRD.

Medical Records Department:

Here the following problems are encountered which needs immediate streamlining;

a) Misfilings - This is the general problems everywhere. Files are misfiled and it is a difficult job to traceout the files.
b) Issued files - Files are issued for many purposes and not received back. Some of the examples:
   1. Files issued to doctors for writing discharge summary, for case discussion, for case conference, for study purposes.

...3

2. Files sent to the Medical Reimbursement Section
3. Files sent to the Hospital Administrator
4. Files sent to the Consultant

III. The Present Method:

1. Files are collected from the outpatient clinics at the end of the OPD.
2. Files are collected from the wards daily by the Medical Records Staff.
3. Daily files like discharge of the patients, from the observation ward and ECR are received from the casualty.
4. When the files are misfiled attempts are made to traceout the case files.
5. Checking the issue register for pending outstanding case files

IV. Alternative methods or new methods:

Outpatient clinics

1) Outpatient Register
2) Role of Medical Records Clerk in each OPD
3) Issue Register
4) Role of Junior Consultant
5) File to be handled by only hospital staff

Discharge files from the wards:

a) discharge register
b) Files to be sent to the MRD within 24hrs of discharge of patient.
c) disincentive to defaulters

Accident & Emergency Clinic

a) Issue Register
b) Responsibility of CMO
c) Responsiblity of Nursing Staff
d) Outgoing files register

...4

Medical Records Department

a) Arrange files in Serial Order
b) Make entry in the incoming register in serial order
c) File according to serial order
d) Role of Tracer card
e) Importance of colour folder
f) Issue register for outgoing register
g) Disincentive to defaulters
h) Periodical rearrangement of case files
i) Allied indexing system
j) Provision for doctors working area

V. Maintain - the working of the New Methods

The various desirable, feasible and affordable approaches to improve the missing case notes are suggested. A lot will depend upon the attitutes, skills and dedication of members of the Medical Records Department and other Medical & Paramedical staff of the hospital. It is the duty of each individual of Medical Records Staff and of the hospital to maintain the working of the New Method and periodical reappraisal of new method to avoid to possible extent of missing case notes.

CONCLUSION:

To facilitate the proper location of records the importance of proper indexing and filing is obvious. The old saying, " A MISFILED CHART IS A LOST CHART" is all too true. Each record must be available to the consultant whenever the patient comes for checkup. I hope that the above explained the systematic process will help us to prevent the missing case notes.

MEP 5:9

IMPORTANCE OF HEALTH STATISTICS

-Sri.A.N.Viswanath

....

The term 'Health statistics' is commonly understood to denote merely a mass of numerical information collected and arranged in rows and columns of tables about the facts relating to events of Health importance. Actually the term also connotes scientific techniques or methodology for dealing with numberical information, resting on the secure foundation of the laws of probability.

The term 'Statistics' is used in two ways, First, it refers to the day to day use of data, numerical observations and quantitative information and Second, it refers to the decipline comprising of statistical methods-which is the study of scientific methods of collections, processing, reductions, presentation, analysis and interpretation of data and of making inferences and drawing conclusions from the numerical data. Statistical methods in health care delivery, both at the levels of community as well as individual patients can be highlighted, since medicine deals with individuals who exhibit differences in various charecteristics such as weight, height, blood pressure, cholestol blood sugar, immunoglobulin levels and so on. It can be observed that no two patients or groups are ever exactly alike, yet decisions affecting patients or community based on the experience with other patients or communities of similar biological and social characteristics are made by comparison and it must be recognised that the differences are not exact and are accompanied by probability levesl which is called the 'Probabilistic nature of medicine'. It is essential to be conversant with the proper technique for coping with such differances of uncertainly. The application of 'Statistics' is also useful in developing a critical Scientific shining faculty, enabling thereby to

1) Think scientifically, logically and critically about medical problems.
2) Assess properly available evidence for decision making.
3) Identify decisions and conclusions that lack a scientific and logical basis.

...2

Important advances are made in statistical methodology. While a knowledge of advanced statistical theory is essential for professional statisticians, the subject as practiced in health agencies raises several problems in addition to methodology such as those related to administrative, social, economical, cultural or psychological considerations and others which are procedural, legal or financial. The main problem is how to apply statistical knowledge in the day-to-day working of a health agency.

The purpose of elaborating so much on the technique rather than just enumerating the uses of health statistics are two fold, 1)Everyone knowingly or unknowingly implicity express factswith figures only since complexisies of decription is reduced to tabular form, percentages and so on and (2)of late in school mathematics starting from 6th Std. Graphs averages and variations are taught and hence invariably almost all data are presented graphically of late.

We have spent already too many years to know the utility of 'Health Statistics' and now it is time we must know about the techniques of this science or statistical methods. Since it is difficult to highlight in such a short time the techniques an indirect method is adopted to drive the point.

The first World Health assembly held in 1948- an international regulation relating to health statistics was passed, wherein it was made clear that unless there is a regular and swift flow of accurate statistical information bearing on birth, death, the incidence of individual diseases and all the many hazards of life, the staff of the health department, will be grouping on the dark.

It is by now means an easy talk for setting up a system which ensures accurate recording of numerical information. This is the only way in which the level of health can be measured and effective comparisons bemade. To take a specific example- if a disease or the cause underlying each death were carefully recorded for a particular

...3

place from city,P.H.C etc., over a number of years we could provide valid answers to

a) Leading cause of deaths in the town,city or PHC
b) at what age the mortality is highest
c) what preventive measures can be taken to reduce the mortality
d) Comparison can be made of different places with similar sizes.
e) to what extent are the hospital facilities staffing, drugs, and equipment able to cope with the disease problem and so on

In the similar lines data on mortality and morbidity will highlight the ongoing situation thereby enable to take connective measures on the system.

The first step in the analysis of data is to establish a classifications system so that items need not be distinguished from each other are put together in groups. Each item of information is arranged in such a way that "like is associated with the like". For the classification of diseases, injuries and causes of deaths, the internatonal statistical classification has a long history of intensive work dating back to the pioneering attempts of Francois Bossier de LaCroiz(1706-1777),William Cullen(1710-1790), Willdus Farr(1807-1883) and Jaeques Bettillon(1851-1922).

A uniform classification of causes of death applicable to all countries are adopted and is obligatory since the classifications and publications of cause of death statistics if governed by W.H.O nomenclature regulations which stipulate the use of the International statistical classifications of diseases, injuries and cause of death.

Similar classifications are available for live births,age, marital status, occupations and industry, literacy,educations level and so on. In the courseof the work a stage is reached when information collected separately for each individual born,healthy,sick, of dead, begins to file up and from these individual items and by

..4

the use of standard classifications results are presented by tabulations from the records of events-namely 1)Vital staststics, records of births,deaths etc.,2)Hospital records 3)Health department service records collected as a routine and records obtained in special investigations like morbidity and nutritional surveys.

The steps in data handing and processing are a)Collection of data b)Scrutiny of data(adequacy and accuracy) c)Sorting or classification into classes or groups d)Comparing the necessary statistical indices(Like Birth rate,death rate etc) and e)Tabulation & presentation.

By applying these methods systematicaly we can arrive at the situation of measuring health or indicators ofmeasuring health can be obtained, since we are not in possession of any statistical index or measuring rod which can really tell us in numerical terms the level of health of a community. The term health has been defined by the WHO as a state of complete. Physical,mental & social well being & not merely the absence of disease or infirmity. This definition is wide and some of the indicators like 'Expectation of life at birth', crude birth and deaths rates and infant morbality rate will certainly through some light on the health status preventing in a particular country at a point of time which enables to compare & thereby a relative picture is obtained.

Hence it can observed that from the records these indicators are obtained and further by careful study of these records a pattern for the future can also be obtained. It is notjust presentation of past years but also of present as also of immediate future which is the method & is known as mathematical statistics in health that is to be understood and applied for furtherence of knowledge.

.....

1987 Per capita 19700 — Japan 287 dollars. India

MEP 5:10

"MEDICAL RECORDS IN INDIA AND ABROAD" - A COMPARISON

by

MARIA ALPHONSA E.J. MEDICAL RECORD OFFICER

National Institute of Mental Health and Neuro Sciences.

Bangalore - 560 029

Medical record is the only source document which records the course of treatment given to a patient and serve as the medium of communication among health care professionals for direct and future care of the patient. In this article, I would like to present an overview of the medical record field and its functioning in India in comparision with advances made in this field in industralized countries like U.S.A.

Medical record profession is only in the preliminary stages in India in comparision to developed countries. We need research from its members to realise the barriers to its full development. Do we need more schools to train this technical personnel? Do we have enough trained people? Are these trained people are getting recognition in this field?/or, are they being used as clerical personnel without promotional channels? Our educators and administrators should recognise and expand this body of knowledge. The reason for slackness in progress are many. We are aware that many professionals who can organise people in this field and who can lead to further progress in this area have already left India for better opportunities. A detailed regional and National survey is required urgently to find out the true position of our profession and medical records, and what we propose to do to rectify the situation.

W hat is the general pattern of functioning? At national level if we take, major teaching hospitals in India like All India Institute of Medical Sciences (AIIMS), PGI, Chandhighar, JIPMER, Pondichery, Sree Chitra Tirunel Institute for Medical Sciences and Technology, Trivandrum, NIMHANS, have standardized medical record departments with trained people. In this context, progress made in Medical Records Department in Sree Chitra within a short period of time is worth mentioning. They have computerized records from 1986 onwards, and also have started microfilming old records. At the registration counters, they have not yet started on-line entry. At present they feed the data the following day.

...2

In Karala, most district hospitals have at least one trained person in the department and they maintain necessary information at the time of registration, and during hospital stay to enable health care of the patient. The maintenance of these records and retrieval rate is not of better quality on account of financial constraints, lack of personnel, and administrative policies. The State of Tamil Nadu has more training programmes, and trained people working in various hospitals.

The record keeping system used in major teaching hospitals are more or less the same with slight variations, that means according to bed capacity, the services rendered, the needs of the community, financial constraints, and administrative policies. In NIMHANS, for example the following system is used. We have records from 1957 onwards in three sepcialities namely Neurology, Neurosurgery and Psychiatry. Prior to 1987, Neurology, Neurosurgery section and out patient section used to function seperately from psychatric section. In April 1987, these three sections of medical records were intergated and are now filed in centralized area. Identification of the patient is by the Hospital Number assigned at the time of registration, and depending on the service in which they are registering we assign N/ for Neurology, Neuro Srugery cases and P/ xxx for Psychiatry cases. Unit number filing system is used where one serial hospital number is used for one particular patient, and both inpatient and outpatient records are filed in one single file. For accident cases, we started maintaining a card from 1987 December onwards, other than the registers, in which examining doctor can write necessary details, so that a written record is available if required for legal settlement of cases and certificates. Record retrieval is by the xxx hospital number. The rate of retrieval varies in each month. An average of about 350 case records are taken out per day.

The following is a sample of statistics produced by our department for the year 1988.

REGISTRATIONS:	Neurology	7091
	Neuro Surgery	3232
	Psychiatry	7813

...3

ADMISSIONS:	Neurology	1903
	Neuro Surgery	2298
	Psychiatry	3253
FOLLOW UPS:	Neurology	39128
	Neuro Surgery	8351
	Psychiatry	60045

Average total number of cases seen in casulty per Month (Jan) 849

Average total number of Head Injury cases per month 261

Head Injuries as % of tatal cases 30.74%

Bed strength 650 + 155 = 805

Average length of stay

Neurology, Neurosurgery - 16days

Psychiatry - 25days

Various indexes are also maintained like diagnostic index, patient name index and we are planning to introduce Physician index and operation index. These indexes provide sufficient detailed information regarding the number of cases treated with a particular diagnosis and classification of cases according to age and sex is also possible.

What is the situation in advances countries? The field of medical records is much advanced in U.S.A. and professionals in this field are not only limiting themselves to hospital settings, but branching into consultency services in Industires, Insurance companies, software ~~xxxxxx~~ technology Education and Rehabilitation programmes. An R.R.A. (Registered Record Administrator) registration is required to become the director of Medical Records Department in a hospital setting. At present there is an increasing demand for RRA'S with Business qualifications.

Medical Records are maintained in hospitals according to the standards set by the Accreditation Committee for hospitals and the State Laws. The important benefit of Accereditation is that is represents a professionally motivated, voluntary committment to self-evaluation and self improvement.

...4

Byobtaining accreditation, the hospitals receive a kind of "Deemed Status" which would enable them to receive Medicare and Medicaid funding without undergoing a seperate inspection by the State Health Department. Another advantage is that these JCAH (Joint Commission on Accreditation of Hospitals) surveyors act as consultants by offering professional advice and guidelines for improvement. And also, this accrediation fulfills all or portions of some State's licensure requirements. At present about 34 States use JCAH accreditation.

The spitaling cost of medical care in U.S. necessitated Federal Government to develop criteria which could be used to set standards for provision of medical services. Thus social security Act in 1972 mandated that PSRO (Professional Standards Review Organization) be established to review the quality and utilization of medical care. Various audit committees, and Utilization Review Committees also exists to monitor the quality of care given to a patient. The purpose of an audit is to identify problem areas, institute actions, and find solutions, and primary goal is quality care.

Record keeping system varies in each hospital. Certain hospitals used Terminal digit filing system, and others used Unit Number Filing System. At St.Joseph's hospital, Syracuse, New York where I had the opportunity to work, used Unit Number filing system. ICD-9 CM - of the American Medical Record Association was used for coding of the diseases. Emergency case records are maintained seperately at the emergency section itself. Microfilming of old records is done every ten years. Lawyers are consulted before microfilming, since each State has different laws regarding the admissability of microfilmed records in courts. But no law requires to maintain records for a specific period. Board of registrations and Medical Association advises to retain it 7-10 years or 5 years. For impatient data analysis (discharge analysis), data was abstracted in the prescribed format, and were processed outside by computer services.

...5

The advancement of technology and high cost of medical care in U.S. created new responsiblities for Medical Record practioners, and to meet the increasing demands of the payers of services, many new methods for data collection emerged. As an example Billing Form "UB-82" requires medical record departments to accurately code outpatient visits. UB 82 containes 96 data fields enough to cover information needs of Medicare, Medicaid, B luecross, CHAMPUS, and all commercial insurers. Each payer requires different data elements to be supplied on the Bill when submitted by the hospital for payment. Another classification system for discharged pateints are DRG'S (Diagnostic Related Groups). This system classifies discharged patients into 383 groups depending upon their diagnosis, age/or surgical procedure significantly affect the length of stay. Age, Length of Stay, Discharge status are variables in determining certain DRG's. Once the group is decided, DRG code is assigned, and rate will be fixed according to the system.

The introduction of MEDICAL INFORMATION SYSTEM began in the late 1960's. The patient care support oriented MIS's started in 1970's. MIS in this context means "utilization of electronic data processing and communications equipment to provide on line processing with real time responses for patient data within the hospital and its outpatient department including ancilliary services".

What are the major trends in Computer Technology in America today ?

The PROMIS system (Problem Oriented Medical Record) computerizes a life time hospital record for the patient. It provides clinical care access, stores the entire patient record generated during the hospitalization in the problem oriented system, and uses the computer to bring the clinician into direct interface with the record. It also uses computer technology to access current medical resources and research to provide assistance in care and therapy. The COSTAR (Computer Stored Ambulatory Record) computer system in Ambulatory care is another model. This programme includes financial, administrative and patient record modules uniquely designed to serve the ambulatory settings. (Summaries of the patient's condition are available to clinicians upon demand).

...6

AHIS (Automated Hospital Information System) is another system. In this there Level I and Level II. Level I Hospital Information Systems encompass a basic set of applications for inpatients, bed status, census reporting, order/requisition entry, communication and charge collection application and enquiry application for charges for demand bill purposes. Many also include a number of other applications to include nursing notes, care plans, medication profiles, laboratory features etc. Level II system include the features in Level I and have been designed from the start to capture and maintain on-line the entire patient record.

Another trend is the development of disease data banks. An example, National Institute of Neurological and Communicative Disorders and Stroke have a data bank that contains the clinical history of a large number of patients described in a uniform manner from multiple centres. The proliferation of microcomputers is another development. Physician's offices can create computerized systems with a TRS 80 Radio Shack computers for $50000.

Developing countries like India are also experinecing the impact of this emerging technology in Health Information Systems and Health care delivery. As medical record professionals we must be through with each step of advance, and how it can be helpful to us. We must learn from the errors committed by the automated systems. We must demand therequired education, knowledge, and experience to actively participate in the design, planning and implementation of the new information systems. The system designers and the technology should not overtake us. Automation will bring a lot of benefits. It will improve organization, availability, timliness, and decreased clerical activities and reduce duplicative and unnecessary procedures. It can provide information in all kinds of formants and combinations of facts in alternate ways. But one important fact we should bear in mind is that it will not solve the problems of a totally disorganized system.

...7

If any Institution is experiencing record retrieval problems, it must be analyzed properly. Most of it are 'People' and 'control' problems. Expensive automated equipment and computerized tracking systems will not solve 'people' and 'control' problems. We whould also not think that what we are observing in advances countries are their problems. This can be ours tomorrow. Let us be ready with a properly organized Health Information System to face the challenge.

* * * * * * * * * * * * *

References:

1. Burda, David. "UB-82 Arrives with work for Medical Record Departments." Journal of Amenican Medical Record Association. November 1984.

2. Kennedy, George Collingnon, Susan J., Protte, Denis. "Impact of Medical Information Systems on Health Care in U.S.A." MED INFO: Lind Berg and S.Kanihara. North Holland Publishing Co., 1980.

3. Murphy, Gretchen. "Computers in Medicare Demand Committment". Journal of American Medical Record Association., April 1981.

4. Thompson, Gene E. and Ira Handelman. Health Data and Information Management. Boston: Butterworths, 1978.

MEP 5:11

"COMPUTERISATION OF MEDICAL RECORDS"

BY

MRS.PREMA.V.MALLYA, MEDICAL RECORDS OFFICER,
KASTURBA MEDICAL COLLEGE HSOPITAL, MANIPAL, D.K.

INTRODUCTION:

In all branches of Science and Technology, Computers have gained populatity like television and electrical appliances in a household.

Therewere lot of problems faced in retrieving information from various points and to link all these within a short time. So the management thought of introducing computers in Hospital complex. Initialy the fear of retrenchment of staff was there but the authorities declared that no one will be retrenched. This assurance gained the popularity of computerising the various activities and motivated the staff to use computers. To develope the computer Aided Management Inofrmation System, Zenith Computers were installed in September 1983 in the Computer Department. Kasturba Medical Collage Hospital was started in the year 1961 with 150 beds in Manipal, a rural area to provide clinical facility to the Kasturba Medical College Students. Today it has grown into a 1300 beded most modern hospital well equipped with sophisticated machines. It is a referral centre for various neighbouring districts, eg. Uttara Kannada, Shimoga, Chikmagalure and also Kerala. Some of the Public Sector Industries like New Mangalore Port Trust, VISL, KIOCL, Mysore Paper Mills, Bhadravathi and Various other private sector Industries refer cases to this hospital.

CLINICAL FACILITY:

CT Scan, Whole Body Scanner, Colour Dopler, Ultrasound, Limb Fitting Micro Surgery equipment, Laser Therapy, Radiotherapy etc. are some of the facilities available in the hospital. Medical Health Insurance Scheme is extended to the staff and economicaly backward clases. Various Camps are conducted and there are about 7 Maternity and Child Welfare Centres. Specialist outreach service is provided to the sick and poor in the interior parts of rural areas.

...2

MEDICAL RECORDS DEPARTMENT:

In the initial stages the various manual procedures of collecting data of Admissions, Discharges, Outpatient, New registration, Repeat registration, disease wise, Operation wise etc., was studied by the Computer Department. Wherever duplication of information data was there, it was noted and final procedures were designed to be utilised while entering the data in the Computer. Fifty percent of OPD, Admission, MRD Staff were trained on how to utilise computers in their daily work of patients data.

At the initial stage data entry work was started parallel to the manual system. The results were faster and reliable, after three months of trial, we stopped manual system of writing registers and depended on Computers.

The Medical Records Department is the nucleus of collecting information of all the activities carried out by the various clinical, Paraclinical Departments regarding the patient from his very first visit till his departure from the hospital.

Major work of Medical Records Department is to maintain 10 year's Out-patient, Inpatient records with X-Rays. The outpatient records for last 10 years has exceeded 5 lakhs. To overcome the space shortage, we have introduced Canara/ N ikhil mobile racks on railings, which has helped to a certain extent but we have plans to put discharge summaries into computer to solve the problem of preservation of more than 10 years records for research and publication. Records are utilised for filling up of various forms such a LIC claims Medicolegal treatment Certificates, Birth, Death Reports, Workmen's Compensation forms, disability certificates etc. The Sttistics of communicable diseases, Heart operations and any other disease required by the Government agencies has been supplies within a short period. Thus Computers have helped us to get results quickly linking the activities as required by the Administrators, Government Departments, clinicians, patients etc.

...3

COMPUTER DEPARTMENT:

The Computer Department has 8 computers at present and these are used by various departments such as Medical Records, O.P.Registration and Admission Counter Staff. They feed the different data from 1 to 4 on daily basis 5 and 6 once a week.

1) New Registration
2) Admission
3) Discharges
4) Diagnostic and Operation codes
5) Various Peripheral Centres
6) Various Camps etc.

There are other various computer applications in this hospital. Except pharmacy all others are done in Batch Process and Pharmacy application is on line. The present system is being replaced by the Network of computers (IBM PC Compatibles) considered more versatile. The data is entered by various user department staff and the various programmes have been developed by computer Department in consultation with the user departments. Data is preserved on diskettes. Programs have been developed as per the need arised from time to time.

1. OUTPATIENT NEW REGISTRATION: The sociological data, Service/Unit of all the new patients is entered into Computer which is preserved in the diskettes on an average 250 to 300 patients data is entered. Two printouts are obtained as noted below:

i) Hospital Number wise printout to verify any missing numbers on daily basis.
ii) Alphabetic name-wise list on monthly basis and yearly index. Both these are very important while compiling the monthly statistics.

2. ADMISSIONS: The admissions to the various wards are entered in the Computer.

1. Name of the patient
2. Age/Sex
3. Hospital Number
4. Inpatient serial Number
5. Father's Name/Husband's Name
6. Service/Unit/Ward
7. Date and time of Admission
8. Treating Doctor's name.

...4

Daily about 150 to 200 admissions are entered into computer. A printout to that effect as per IP Serial Number is taken and a monthly printout to incorporate in the monthly statistics is also availed. This is also utilised for studies and research, eg. Sex wise and disease wise, Diseases and Surgers.

3. DAILY CENSUS:

The Daily midnight census of each ward comes to the Medical Records Department. This is entered in the computer. A printout of service against wards and the average occupancy of the ward is sent to

1. Medical Director
2. Medical Superintendent.

4. WARD TRANSFERS: From higher Category to lower category and vise verse. These are entered in computer by taking Inpatient number as the control number. This helps in billing the proper room charges.

5. DISCHARGES: The discharged records from various wards come to Inpatient Billing Section only the discharge date, number of x-ray films are entered and a list of discharges containing the following details is sent to Medical Records Department along with the records since the admission data is already there in the computer.

1. Inpatient Number
2. Hospital Number
3. Name of the patient
4. Ward
5. Service Unit
6. Date/time of admission
7. Date/time of discharge
8. Number of x-rays films.

6. DISCHARGE ANALYSIS: With the I.P.Number control i.e., by typing I.P.Number, the Admission data is seen on the screen. The result operation and diagnostic codes are entered daily from the discharged records. Coding of Diseases and operations is done manually before entering the above data in computer. A patient to verify the entries and correct the errors if any is done without fail. The above computer operations are carried out by Medical Records Department, Patients Registration Counter and Admission Counter.

...5

SUMMARY The following are the various printouts received from Computer Department.

1. Monthly outpatient statistics related to New Registrtion and old or Repeat Registration. Departmental Referals, Medicine O.P.Visits, Valley View Health Cheko-up Programmes, Geogrpahical distribution of New Registration.

2. Monthly Admissions, Discharges, Hospital days, Results, Operations Referals, Geographical distribution, Average length of stay Average bed occupancy.

3. Monthly Diagnostic and operative procedure wise Index.

4. The various health statistics pertaining to maternity centres. Camps School Health Check up, Specialist outreach centres.

5. Daily Census: ward against service and Average occupancy of each ward.

6. Patients A lpha Indix ie name wise and H.No. wise is taken which helps in searching the Hospital Number.

There is a sanction of One Computer for Medical Records Department, the work is in progress once we get the computer. We have plans for using computer for ~~Mxdxx~~ Medical record stationary, indents issue stock, Balance and also to use in Medicolegal History, wound certificates and the treatment certificates.

At present we had put only the sociological and statistical Data on the Computer, but we have plans to put Medical data like history Discharge summary on the Computer.

THE UTILISATION OF THE PRINTOUTS:

1. By Medical Director/Medical Superintendent.
2. Bed occupancy to increase the beds and the proper utilisation of beds.
3. The provide best Medical care at reasonable cost to the common man.
4. Patients satisfaction rate to improve various supportive services.
5. Evaluation of Medical care rendered by different Clinical experts.

...6

5. The patient consultant ratio to appoint additional staff
6. To plan, Organise and reorganise the structure of the Hospital from time to time.

II BY THE CLINICIANS:

1. Research with various combinations eg. Age - group, disease-wise Geographical distribution, Sex, Result-, Religion etc.
2. The evaluation of their service
3. Teaching programme
4. Number of patients treated for any disease.

III BY THE PATIENTS:

1. Various Medical Certificates.
2. Discharge summary in various claims.

I conclude that the computer aided management system is an aid for better patient care and a powerful tool to the management in planning, organising and implementing better methods.

An/-

MEP 5:12

"MICROFILIMING OF MEDICAL RECORDS."

BY

MRS. PREMA SATYANARAYANAN, M.A., D.M.R.Sc., F.M.R.Sc.(WHO).
MEDICAL RECORDS OFFICER, GOVT. ROYAPETTAH HOSPITAL, MADRAS-14.

* * * * *

Before coming to the subject proper, I would like to touch on few important points relating to Medical Records in general for a better appreciation and understanding of the role of Microfilming in Medical Records.

The objective of every department should be so tuned as to achieve the ultimate goal of the Organisation. As such, the primary responsibility and objective of a hospital is "PROPER CARE OF THE SICK AND THE INJURED". Medical Records Department plays a major role in achieving this objective.

UTILITY OF MEDICAL RECORDS:

The Medical Records, as you are all well aware of, being a compilation of scientific data derived from many sources, co-ordinated into document which are available for various uses, personal and impersonal, to serve patients, the physician, the institution in which the patient was treated, the science of Medicine and the Society as a whole. The Medical Records therefore have to be necessarily maintained in proper shape for the benefit of:-

1. the patients for better care for the future illness.
2. the Medical Staff to evaluate their own work.
3. the Hospital Superintendent to assess the quality of care rendered by the Medical Team.
4. the Health Authorities who are provided with correct Medical Statistics for the prevention of diseases and promotion of Health.
5. the teachers in their teaching programme.
6. the Research Workers for publication of articles and dissertations.
7. the Hospital, the Patients and the Medical Staff in Medico-legal cases.
8. the Staff Members for publication of articles and presentation of papers at meetings and seminars.
9. the attending physician against unjust claim of malpractice and for the protection of haspital against unjust criticisms and claims for injuries and damages.

...2

RETENTION OF MEDICAL RECORDS:

The Medical Records of a Hospital which play a very useful and vital role, as seen above, have to be necessarily retained and preserved in tact for prompt retrieval whenever required. How are these records to be retained and preserved? How long are they to be retained? Should all the records be preserved? These are the most important questions to be answered for the retention of records.

During my visit to the United Kingdom for higher training in Medical Records under a W.H.O. Fellowship, I observed that under the provisions of the Public Records Act of 1958 all the Medical Records selected for preservation for more than 30 years, have to be transferred to the Public Records Office or to any other place chosen by the Lord Chancellor in Britain. Thus those records from various hospitals in the U.K. that are to be preserved for more than 30 years are kept and preserved in a centralised place approved by the Chancellor, unlike our country, where in the absence of such an Act, all the records are maintained in the respective institution only.

STORAGE FACILITIES:

Finding adequate space for storing the Medical Records, has been a problem most of the Medical Records Officers are facing in their hospitals. I am happy to say, in this respect, the Government of Tamilnadu had, issued an order fixing the time limit of the preservation of Medical Records, as thirty years, based on the recommendations of the Dean's Conference. If the above orders of the Government are to be implemented effectively there will be acute demand for more space and additional funds for providing facilities like provision of additional steel racks, cabinets etc., in every hospital, Indidentally, I would like to point out, in this connection that in the Western Countries sufficient space is allocated for records storage while drawing a plan for new hospitals and provision is also made in the budget for capital expenditure for the purchase of cabinets, racks etc. In the absence of proper planning, Medical Records Department is faced with serious problem of storage. This problem of storage of records can be successfully solved by the introduction of Microfiliming of records.

...3

WHAT IS MICRO FILM?:-

The term 'Micro Film' refers to the reduction of orginal documents on to photographic film.

WHY MICRO FILM PATIENT RECORDS?:-

The filing and retrieval of large quantities of patient records presents a considerable problem to any hospital. Not only do the records take up a large volume of space, but as they increase in number there are difficultics in maintaining a reasonable retrieval speed, in keeping them up to date in preserving them securedly. Micro filming of patient's records is a new technology to the developing countires but not so to the western countires. In the western countries there have been great advances in the method of keeping micro film records complete, and updating them with new information. Notes from several episodes relating to one patient can now be filed in sequence, as with conventional paper system.

Every year, the influx of new files increases the problem of providing adequate and accessible storage capicity. A microfilm patient record system provides the answer.

Let us examine our present filing system:

1. Is the patient record always there when we want it ? If so, is the folder complete ?
2. Do all the documents remain in the correct sequence within the file, even if it has been used several times?
3. Are we happy with the present 'Response Time' or is time wasted looking for lost files?
4. Will our present filing area be adequate in five years time?
5. Are our records conveniently stored for easy access?
6. Can the needs of research workers be met without the need to release original case notes?
7. Is our present filing area safe? Are the racks too fully loaded or stacked too high?
8. Are we satisfied with our present file security?
9. Do we have a problem when one file is need simultaneously in two different departments?

The above questions highlights problem areas which can be solved only by the use of micro film.

...4

Micro film is a very effective filing system with all the advantages of conventional filing and none of the draw-backs such as space used up by vast rows of cabinets etc. Infact micro film can save up to 98% of the space used by paper system. That is, records of hundred years can be stored within the space required for two years records by micro filming. In addition to space saving, once a record has been micro filmed it is safe.

SPEED AND CONVENIENCE OF RETRIEVAL:

Only seconds are involved in retrieving one of the million records filed.

SECURITY:

Duplicate micro film files kept off premises to protect against destruction and loss of vital information.

LOWER OPERATING COSTS:

Valuable man-hours freed from sorting, filing and re-filing paper records are either recovered or channelled into more productive work.

FIXED FILE CONTINUITY:

Records filed on micro film are in fixed sequences, gaurding against misfiling, mislaying, alteration or loss.

ADDITIONAL COPIES:

Additional copies of the patient record can be made for research workers or two copies can be made for a patient who is attending two different clinics (e.g.) Casualty and Dentistry.

DESTRUCTION POLICY:

Many hsopitals do not have destruction policy, and most prefer to keep records for a considerable time before destruction. In any event, this is a time consuming operation. But with the use of the micro film the additional file area required for each year of files is so small that a destruction policy becomes less important.

...5

WHEN TO MICRO FILM?

Documents can be micro filmed at any point between creation and destruction of the file. This is an individual choice for each hospital. In western countries their experience suggests that filming at the point of discharge is proving popular and practicable, but some hospitals prefer to commit their records to micro film after 10 years from the patients date of discharge.

WHICH DOUCMENTS TO BE MICRO FILMED?:

Not all documents within the patient record need necessarily be filmed. But it must be agreed in advance which doucments can be destroyed.

WHAT ARE THE SEQUENCE OF EVENTS TO BE MICRO FILMED?:

From my experience with the Micro filming equipment, I find that filming the patients records presents an opportunity to organise a medical record department in a way which will best suit medical staff for future reference by adhering to the following order of sequence: 1) History, treatment, Nurses Report, anaesthesis report, operation report, drug sheets etc. 2) Pathology and X-ray reports 3) referral letters etc. 4) Discharge summary.

In short, micro film is a recording medium - one that results in high density information recording. It is a medium which is self reproduceable - that is, micro film is reproduced as micro film. When properly coupled with good filing system, classification or indexing methods, micro film is a medium for information storage and retrieval. To Medical Records Officer, all this means that the medical record micro filmed, is not only stored more compactly, protectively and close at hand but it can be used to provide information copies readily to authorised personnel as well.

I find from my experience that there are few problems, of course minor in nature, have to be faced.

1. Medico Legal Cases:- The first one relates to the admissibility of micro film copy as evidence in legal proceedings as in the U.K. Unless it is permitted, the paper medical record has also to be preserved defeating the very purpose of the introduction of micro film. As ours is the first hospital to introduce this system, we had taken up this matter with higher authorities and orders of Government are awaited.

...6

2. Proper Conditions:- As the photographic equipment is very sensitive to the variations in atmosphere, humidity, etc., the equipments have to be kept in an air conditioned places and sufficient space.

Of course, these are only minor problems which can be easily solved, with the co-operation of authorities, when once the above system is introduced in hospitals.

CONCLUSION:

Considering the very many advantages of the system, the problems are very few and minor in nature which could be very easily solved.

Am/-

MED 5: 13

LEGAL ASPECTS OF MEDICAL RECORDS

by

Dr.T.R.Nagaraj

Professor of Orthopaedics
Bangalore Medical College, Bangalore.

Mr.CHAIRMAN

Allow me at the outset to profusely thank the organisers of this seminar who have given me this opportunity to be with you today and to share a few thoughts about Legal Aspects of Medical Records.

History of Medical Records run parallel with the history of Medicine, Records are as necessary for the practice of Medicine as the Medication itself. Polychrome nurals were found in the caves of old stonage and silhouttes of amputation of fingers appeared on the walls of caves in spain. All these dates back to about 25,000B.C.

Of course initially records were maintained to record the treatment and for follow ups. But the importance of these records with respect to legal implications came to light as late as 1882. This was specially noticed in the Western Countries where Medical Records were given absolute importance in respect of legal implications. And today it has reached such status that it could decide the fate of a practitioner or fortune of a disabled patient. The way the records are maintained in those countries are a treat to be seen, watched and followed.

But, alas! I am pained to state that in our country the medical records are treated with such scant respect that it hardly deserves to be called Medical Records, and not to speak of the legal implications.

Right from the time it gets initiated to the point it reaches records section, it hardly gets its due respect and credence. I am sorry to state that our own colleagues have not understood the real seriousness of maintaining proper records especially if its not a Medico Legal Case. Lately, there has been a slight awareness amongst ourselves with regard to legal implications of medical records.

...2

But, I feel whether it involves legal implication or not, records must be maintained systematically right from the start i.e., initiation point to coding point. By this we can achieve many things specially academic aspects and to produce papers and to make certain conclusions and decisions. So it is apparent that medical records must be maintained even if no statute or regulation is imposed on the requirement. Certainly we need them to provide best medical care and of high quality.

So, Medical Records is the focal point of claims of a growing number different groups such as Attorneys and patients, physicians and insurance people, Government and Police personnel and finally the hospital itself are interested in the contents of record. Each of these groups, many times competing between themselves have legitimate interest in the contents of the record.

Requirements of a Medical Record particularly from the Legal view point

Legal Aspects:- Medical Record should be initiated at the time of initiating treatment for every patient as an out-patient ticket or a chit. Routine cases will contact the respective Doctors of their ailment and obtain treatment which must be clearly written on the O.P.Chit. If the examining Doctor or even at the chit counter, feel that the case is not a routine one but has a Medical Legal implication then he or she directs the patient to Casuality Medical Officer for making necessary entries in the Accident Register and information to the police is given. Subsequently he directs the patient to the concerned Doctor for the treatment. On quite a few occassions a Medico Legal Case may be treated on merely Out Patient basis and it is imperative here that Out Patient Chit must be maintained and retained obsolately well. It must also have entries of X-Ray number, details of treatment given, X-Ray report, followup notes etc., Additional Out Patient Chit and a regular case sheet will be initiated at the admission counter.

...3

It will have a Summary (Pilot) Sheet in which all entries with regard to patients personal particulars are entered very clearly, especially name, address, sex, age, income etc. If the patient is un-concious the attendent who brought the patient will give the particulars. On many occasions this may be incorrect and might require corrections by making an affidavit on a stamp paper. In addition to Summary Sheet, case records will have a Doctors sheet, Nurses notes, Temparature chart, Diet sheet. Soon after admission, the Doctor concerned must examine the patient in detail and make entries about his findings before any treatment is started except in absolute emergencies. He must be clearly write the following in a Medico Legal Case:-

1. Type, Size, Side of any wound.
2. Side & type of Fractures if any
3. Type of complications if any.

This is in addition to the routine entries about the other systems. Doctor will also make entries immediately of the investigations ordered such as X-Ray etc., and also of the treatment. The ward nurse in turn will also make entires of the treatment instituted in addition to the maintaining the routine investigations like Pulse, Temparature Chart, Diabetic Chart etc. All investigation reports as and when available must be entered into the case sheet at the appropriate sites including the X-Ray number. Surgery when done Emergency or otherwise, must have a pre-requisite consent obtained from the patient or the attendant/ Gaurdian in case of minor or unconsicious patient.

All surgical procedures including post operative instructions must be meticularly entered in the operation chart. This will necessarily contain the Anaesthetist pre-operative assessment and operative findings. Any specific post-operative Anaesthetic instruction must be entered also. If an emergency treatment is given even before the records are initiated it must be brought to the notice of the C.M.O., otherwise he will miss the orginal injury. It is advisable to bring it to the notice of the C.M.O., of the emergency before any treatment is given eg. reduction of a dislocation C.M.O., might refuse to accept that there was a dislocation if you reduce it without an X-Ray or of his knowledge.

...4

Regular followup of the patient including doctors instructions, findings, nurses notes, must be ~~x~~entered every day, till he is discharged. However, if the patient wants a discharge against medical advise necessary formalaties must be followed in informing police before the patient is permitted to go out of the hospital. Even then the case sheet must be ~~x~~ntered fully till the time the patient staysin the hospital.

So, summing up the case sheet/opd chit must be complete at all costs, before it is sent to record section whether it is a Medico Legal case or otherwise. Now, the Medical Records form part of the hospital property and it has its absolute and complete rights.

Naturally it cannot be over emphasisted have the importance of two vital points with regard to maintanance and upkeep of the records. They are security and reliability. Need I say or stress the importance of these two vital points in maintaining the records particularly from the view point of legal aspects. I don't have to eloborate on these ~~x~~ aspects as it is out of my jurisdiction.

The importance of the record from the legal point lies when the court calls for an evidence from the Doctor while deciding on the compensation for the victim in a Motor Vechile Addident case or in a Homicidal case to determine the extent of injury caused to the agrieved person and to decide the punishment to the accused. It is here that a correct medical records plays an important role. Medical record can be issued to the concerned doctor on production of vouchers signed by him. On the basis of the imformation which lies in the record the Doctor can safely state the injuries and fractures sustained by the patient, and the treatment given to him. Hence it is important that correct entries are made in the case records and O.P.D., chits with respect to all injuries sustained by the patient and treatment given. At the end of the oral evidence of the Doctor inveriably the records are kept by the court as an exhibit and hence any discrepancy in the statement will haul up the doctor severely.

...5

Invariably it is about 3 to 4 years later that a Motor Vechile Accident claim comes up for the evidence. So it may require re-examination of the patient once again to assess the present condition to decide on the percentage disability. Hence, Accurate record of the re-examination including X-ray Examination must be recorded in an OPD chit and produced in the court. Any treatment given between the time of discharge and the evidence must be maintained throughly. For all documents kept by the court as exhibits, a receipt must be obtained from the court clerk and filed in the records section. Case sheets are marked serially at every page and total number of pages is noted on the top of Summary sheet.

In the same light, injuries and disabilities sustained by the individuals, specially labourers must be accurately and precisely recorded to be produced in the court of law to decide on the compensation to be paid to the sufferer, lately labour courts are organised to deal with the extent of damage caused to the labourer and the compensation he is entitled to. In addition, Public Sectors have organised health insurance for their workers and if they are injured while at work they are entitled for compensation to the extent of damage suffered by them. For all these procedures accurate Medical Records to assess the percentage disability is absolutely necessary.

<u>NEGLIGENCE:</u> What is negligence - it is carelessness! Records negligently prepared may be instrumental in causing harm to the patient either madically or legally. Medical record gives the information about what actually occurred and the testimony of expert witness gives the information to the Judge to decide on the case as it merits. Hence any direliction and negligence on the part of the Doctor/Nurse in preparing the record or in giving evidence will directly reflect on the prospects of the patient eg. 1. Paediatric case 2. Left to Right (wrong entries) 3. No entries or Missing entries. Loss of record, alteration of record have bearing on the legal aspect.

...6

It is the duty of the nurse to keep it safe while patient is in the wards and report to R.MO., if it is missing. Necessary action in informing police and initiating a duplicate is left to R.M.O. After discharge of the patient, the record must reach the record department within 24 to 48 hours - and subsequent custody lies with the record department.

It is needless to impress here that the all information of the record is essentially confidential and there is no room for the access of information expecially in Medico Legal Cases to anybody except:- (a) Police for the sake of Wound Certificate (2) Death Certificate (3) Notary of the Public for Insurance. In such cases it is prefarable to make a photostat copy and retain the original. Information can also be divulged in cases of Scientific and research projects. Here it is essential to mention that all information divulged by the patient to the Doctor is strictly confidential and Doctor is on oath tokeep these information a secret except in Medico Legal Cases. Patient can sue a doctor for divulging information known to him through the patient, such as diseases mentally or otherwise. He can't testify and reveal secrets of the patient but only in criminal cases he can divulge, such information which may be useful to the prosecution. However patient has a right for any information from the records at all times and it can be given after obtaining the written permission from the patient.

H long should the record be retained

How long do you retain these records? It varies from state to state and country to country. It is about 25 years in the U.S.A. and length of time a record to be maintained can be decided by Hospital Authorities in consultation with the Health Department. If space is available it can be kept for any length of time or the records may be converted into microfilm and then stored.

Summing up a Medical Record a property of the Hospital, containing confidential communication of the patient and it is compiled, preserved and protected for the benefit of patient, hospital and physician as required by law and also for administration purposes.

****

MEP 5:14

INTERACTION BETWEEN THE MRD AND OTHER DEPARTMENTS OF THE HOSPITAL

DR. MARIO C. DE SOUZA
Deputy Hospital Administrator
St. John's Medical College Hospital
Bangalore.

DISCUSSION OUTLINE

- MRD in the Hospital Setting
- Role of Hospital Executive
- MRD Data for Hospital Committees
- Interactions with Medical and Nursing Services
- Interactions with Ancillary Service Departments
- Interactions with Supporting Service Departments.

Medical Superintendent	Hospital Administrator
Medical Records Committee	Administrative & Planning Committee
Quality Assur.Committee	
Infection Control Committee	

Medical Records Department

Medical Staff		Enquiry
Nursing Staff		Admitting office
	Out-patient	Accounts and Billing
	Casualty/ Emergency	Computer
	Laboratories	Stores & Purchase
	Ward	Maintenance
	Operation Theatre	House-keeping
		Security
		Personnel.

MRD AND THE MEDICAL SUPERINTENDENT (MS)

1. The MS is ultimately responsible for the overall functioning the MRD in relation to patient care activities:

   i. Compilation, storage, retrieval of medical records
   ii. Availability of records at all times
   iii. Proper indexing: diseases, operations, physicians, patients
   iv. Periodical reports:
   - registration of births and deaths
   - communication of notifiable diseases
   - statistical reports on patient load, length of stay, discharge analysis, morbidity, mortality.

   v. Medico-legal issues:
   - reporting to police
   - issue of certificates
   - preservation of evidence for production at court.

   vi. Retention policy and disposal of records

2. MS should effectively liaise with doctors to ensure:

   i. Proper documentation of patient data:
   - legible
   - accurate and factual
   - timely completion

.....2.

ii. Return of record on time:

- from OPD, ward, doctor's office
- when taken for research purposes

MRD AND THE HOSPITAL ADMINISTRATOR (CEO).

1. CEO is responsible to the Governing Board for implementing:

i. Decisions of board relating to records to be maintained for out-patients, emergency care and in-patients, and any specific directions regarding how these records should be processed and stored.

ii. Decisions of medical staff and committees on manner in which patient data should be recorded and processed

iii. Compliance by MRD of laws, regulations ad accrediation standards of statutory bodies and orders from court.

2. CEO bears ultimate responsibility for safeguarding medical records against loss, defacement, tampering, unauthorized use, fire and water damage.

3. CEO is accountable for organizing the administrative functionin of hospital including MRD:

i. Appointment of a qualified and competent MRL
ii. Providing sufficient staff
iii. Delegating duties, delineating and clarifying accountability of subordinates
iv. Implementation of personnel policies
v. Disciplinary action
vi. Harmonious and effective working of MRD with other departments hospital.
vii. Providing equipment, space, facilities
viii. Administrative and financial management

MRD AND HOSPITAL COMMITTEES

1. Medical Records Committee:

i. MRL is Secretary of Committee and plays key role in determining its effectiveness. He attends to agends, minutes of meetings, follow-up actions.

ii. MRL apprises members on
- pending records
- non-conformance to established policies by doctors (timely completion; clinical pertinence; adequacy for care, research, medico-legal; availability).
- requests for new forms.

iii. MRL seeks guidelines from clinicians on
- retention policy for records
- specific requirements regarding processing, indexing & storage of patient data.

2. Quality Assurance Committee:

i. MRD to compile data on

- incidence on hospital acquired infections
- post-operative infection rate
- risk management incident reports
- utilization review, length of stay
- mortality; net death date, maternal death rate, neonatal death rate, anaesthesia death rate, post-operative death rate
- chart deficiencies

ii. MRD to provide patient records for retrospective (medical) audit.

.....3.

3. Infection Control committee:

i. MRD to compile data on

- incidence of nosocomial infection
- incidence of post-operative infection
- deaths resulting from hospital acquired infection.

ii. Analysis of cross-infection statistics

- ward-wise
- correlated with primary disease condition

4. Administrative and Planning Committee.

i. MRS provides data on:

- volume of care/services rendered in a defined period, growth over time
- census information for staffing and supply needs of the hospital
- cost accounting according to average patient load in individual care units and for overall hospital services
- utilization of existing resources, need for additional facilities
- patient profile
- practicioner profile

ii. Committee must approve:

- retention policy of registeres, case records
- manner of storage, summarization, disposal of patient data.

MRD AND THE MEDICAL STAFF

1. Medical Staff require patient records for:

i. Documenting the patient's condition, procedures carried out and his response to treatment

ii. Review of the patient's present status (in the light of past medical history, earlier findings and investigations) so as to plan patient care.

iii. Facilitating review and continuity of treatment by multiple practicioners in the hospital

iv. Quality assurance, medical audit, clinico-pathological reviews, evaluation of patient care

v. Medico-legal documents for production at court, safeguarding interests of practicioners and doctors, obtaining written consent for procedures, issue of certificate, etc.

vi. Medical education and research

vii. Statistical analysis of medical data.

2. To fulfil the above objectives, medical staff should ensure that:

i. Patient records are legible, complete the factual

ii. They accurate summarize the patient's condition at the time of admission (or when see at the OPD/Casualty), his response to treatment, major patient-provider interactions, and conditon on discharge.

3. JCHA guidelines on Medical Staff's responsiblities for patient records:

i. Approving symbols and abbreviations that may be used and disseminating this list to all its members

ii. Identifying specific categories of hospital and medical personnel who are qualified to accept and transcribe verbal hysician orders and when counter signature on transcribed verbal orders are required

....4

iii. Stating amount of time following admission of the patient during which history and physical examination must be documented

vi. Issuing specific time limits for completion of medical records following patient discharge

v. Requiring all entries in the medical record to be dated and authenticated by the responsible practicioner.

4. Common problems encountered:

i. Entries in record are perfunctory, inadequate and do not reflect patient's condition and treatment given

ii. Inappropriate abbreviations

iii. Pages in record do not contain patient identification details, liable for misplacement

iv. Entries in record not traceable to the respective doctor, not signed, not dated

v. Iatrogenic complications not factually documented, nosocomial infections not reported

vi. Timing/date of discharge differ from nurses notes

vii. Records incomplete (particularly admission record) and hence cannot be indexed and stored

viii. Records taken from MRD by doctors not returned on time.

MRD AND THE NURSING SERVICE

1. Nursing staff require patient records for:

i. Carrying out physican orders which should be unambiguous written.

ii. Documenting patient's condition, critical incidents, response to treatment

iii. Documenting medication given, procedures carried out

iv. Documenting compliance with hospital policies, ward transfers, billing formalities

v. Census information required for planning patient care, staffing, attending to ward routines

vi. Nursing audit, critical incident review, enquiries into negligence.

2. To fulfill these objectives, nursing staff should ensure that enteries are:

i. Legible, complete, factual

ii. Made promptly on carrying out procedure, by same individual

iii. Dated, timed, signed.

3. Nurses notes occupy major portion of IP record. Need not be preserved except for medico-legal purposes.

4. Common problems encountered:

i. Pages in record do not contain patient indentification details.

ii. Bradam not used, wrong I.P. numbers

iii. Charts held up in wards, not returned following discharge

iv. Census incorrect, especially transfers

v. Investigation reports not filed correctly, especially for patients transferred out.

MRD AND THE ANCILLARY SERVICE DEPARTMENTS

.....5

1. Out-patient Department:

   i. Prolonged patient waiting time for registration and record retrieval.
   ii. Referral to correct department based on presenting complaint
   iii. Manner of despatching records to doctors
   iv. Non-return of records
   v. Wrong filing-by doctor, by MRD
   vi. MRD invariably handles the appointments system.

2. Casualty / Emergency:

   i. Delay in opening new cards/retrieval of old records when emergencies report especially at night.
   ii. Admission formalities of patients admitted through Casualty to be streamlined
   iii. Documentation to be complete as every case is a potentially medico-legal one
   iv. Follow up on medico-legal formalities
      - preservation of records, X-ray, material for examination
      - police formalities
      - maintenance of medico-legal register
      - issue of certificates: wound, medical examination, death.

3. Laboratories and Diagnostic Services:

   i. Investigative reports to be filed
      - promptly
      - correctly - Wrong IP number, Wrong patient folder.
   ii. Summarization of reports essential to prevent bulky OP records.
   iii. MRD to despatch reports to in-patient folders when laboratory unable to locate patients
   iv. Reports, including ECG, EEG, X-ray, may be preserved by MRD in respect of medico-legal cases.

4. Wards:

   i. Census data dependant on ward admission - discharge registers.
   ii. Ward to clearly interact with MRD for:
      - effectiveness of centralized admission process (communication of vacant bed status)
      - inter-ward and inter-unit transfer of patients
      - despatch of IP records (and investigation reports) to MRD following discharge of patient

5. Operation Theatre:

   i. Indexing: Operation index, Surgeon's index
   ii. Compiling incidence of:
      - post-operative infections
      - surgical complications / deaths
      - anaesthetic complications / deaths

MRD AND THE SUPPORTING SERVICE DEPARTMENTS

1. Enquiry / Reception:

.....6

i. Census information to be up-to-date
ii. Information on dangerously ill patients
iii. Information on V.I.Ps.
iv. Assisting registration formalities.

2. Admitting Office:

i. Often an integral part of MRD
ii. Should not delay commencement of tratment
iii. should comply with hospitalization formalities:
- admission to a specific facility / department
- documentation of patient identification data
- assignment of IP number
- advise MRD to trace earlier IP folders if necessary
- obtain consent for treatment
- preparation of bradma plate.

3. Accounts and Billing:

i. Billing Department to be intimated at time of admission (without delay).
ii. Billing to be kept informed of ward transfers, change in facility, discharge, etc.
iii. Certain charges get automatically up-datedwith census datak: bed rent, tratment charge, professional fee.

4. Computer Department:

i. Well-established applications:
- registration
- appointments system
- booking admissions, scheduling procedures at service departments
- census
- discharge analysis
- indexing: alpha, disease, operations, surgeons
- generating statistics on work turnover, length of stay, mortality, risk management.
- storing data on set formats for research.

ii. Recent advacements:
- data base system for patient case records
- on-line real-time access of patient information
- security provisions to prevent unauthorised access of and modification of patient data.

5. Stores and Purchase:

i. Indents generally include:
- registration and case record proformae, index cards, registers, case folders
- stationery and other office materials and appliances
- books: ICD codes, medical dictionary, MRD management
- storage racks, furniture.

.....7

ii. Safe-guards:

- volume of indents can be correlated with patient turnover
- annual requirements must be estimated in advance and communicated to Stores
- stock-outs can seriously disrupt flow of work
- MRD should make conscious attempts to cut down on stationery in view of its high unit cost
- MRD should endeavour to cut down on multiplicity of forms

6. Maintenance:

i. Maintenance of:

- typewriters
- bradma embossing and printing equipment
- kardveyor, filing cabinets
- calculator
- vacuum cleaner
- computer, terminals

ii. Preventive maintenance versus breakdown maintenance

- can be scheduled during non-busy periods
- preventive maintenance decreases frequency of breakdowns, less expensive, does not disrupt functioning, avoids wastage (duplicative work).

7. House-keeping:

i. Daily cleanliness

ii. Periodical spring-cleaning, dust removal

iii. Orderliness of records, correct filing

iv. Disposal of old records as per retention policy guidelines.

8. Security:

i. Unauthorized entry of outisders

ii. Theft of hospital property

iii. Internal security of patient data: unauthorized access, manipulation, destruction of medico-legal evidence

iv. Security to staff working at night, holidays, etc.

9. Personnel:

i. Manpower planning, appropriate number of filled posts

ii. Selection of qualified and competent staff, orientation, training

iii. Performance appraisal, confirmation, promotion

vi. Leave

v. Disciplinary action.

BRADMA SYSTEM FOR MEDICAL RECORDS MEP5:15

INTRODUCTION: A recent study in a few Hospitals in India revealed that:

- On an average, a patient waits for 85 minutes in order to get 2 minutes of Doctor's time.
- 25% of the patients get less than 1 minute of the Doctor's time.
- The cost of an inpatient per day in the Govt. Hospitals was Rs.55/- whereas the charges were free or negligible.
- The cost of an outpatient (calling a few times a year) was Rs.419/- whereas the charges were free or negligible.
- A new patient - or old patient without records - spends 2 days on observation before the treatment is commenced.

OBJECTIVES (ADVANTAGES) OF THE BRADMA MEDICAL RECORDS SYSTEM:

Hundreds of Hospitals the world over have introduced Bradma System for Inpatient and Outpatient Records, with a view to achieve the following objectives:

* to provide a means of reproducing patient-data speedily, legibly and accurately on all documents.
* to eliminate writing work of Doctors and Nurses, and thereby maximise utilisation of their professional skills.
* to reduce Hospital clerical work in this respect to a minimum.
* to eliminate checking of repetitive transcription of patient-data.
* to ensure that the Patient's Hospital Number appears correctly on forms so that:
  - assimilation of case-data is ensured for future use in case of patient's re-admission or for vital case-studies in medical education and research.
  - all vouchers are properly accounted and charged for, and 'writing-off' because of illegibility of patient-data is eliminated.
* to provide properly assimilated case-data needed for reference by:
  - Teaching & Research Staff
  - Insurance Companies
  - Investigation Departments in respect of Medico-legal cases.

- - - -

BRADMA METAL PLATE SYSTEM FOR MEDICAL RECORDS

Bradma System for Medical Records has been installed by Hospitals throughout the world, for neat, accurate & speedy preparation of following forms:-

ADMISSION OFFICE:

1. Patient's Folder
2. Admission Record & Lists
3. Index Cards for Medical Records
4. Advice to Enquiry Desk.

WARD:

5. Consultation Record
6. History & Physical Examination Sheet
7. X-ray Requisition and Record
8. Electro-Cardiogram Record
9. Neurological Examination Record
10. Diabetic Chart

../2

11. Laboratory Reports for:
    - Clinical Pathology
    - Microbiology
    - Biochemistry Laboratories etc.
12. Operation Authorisation
13. Operation Record
14. Request for Blood & Blood derivatives
15. Anaesthesia Record
16. Oxygen Consumption Record
17. Doctor's Orders
18. Temperature and Pulse Rate Chart
19. Nurses' Daily Report
20. Physiotherapy Record
21. Midnight Census Sheet
22. Discharge Slip & Certificate

RECORD OFFICE

23. Daily Discharge List
24. Statistical Analysis Sheet

The basis of the Bradma System is a simple one-piece recording unit on which facts and figures can be embossed for complete or partial reproduction as required. One piece plate is prepared for each patient and on it is embossed with the following data:

1. Hospital Number
2. Name of Patient
3. Age, Sex & Marital Status
4. Occupation & Civil Status
5. Medical Records Code
6. Address of Patient
7. Father's/Husband's Name & Occupation
8. Name of Attending Physician
9. Date of Admission
10. Deptt. and Ward to which admitted
11. Bed & Diet Rate
12. Income of Patient etc.

After printing the first set of Forms 1 to 4 at the Admission Office, the plate along with the Patient's folder is sent to the Ward. In the Wards, the plates are filed in Wooden Trays with compartments indexed with the Bed Numbers. These plates are used on the Bradma Small Hand Printing machines in the Wards to print the documents 5 to 22.

In due course, when the patient is discharged, the plate is sent to the Medical Records Office, where Daily Discharge Lists and Statistical Lists are prepared on the Bradma Printing and Listing Machine.

Finally, when the plates have served their purpose, they are blanked out and re-used for new patients. This can be done 3 or 4 times.

The following are the advantages which will be gained with the introduction of the Bradma Medical Records System.

1. Records will be prepared at least 5 times faster than by manual methods.
2. Records printed from the Bradma Plate will be 100% accurate.
3. Records will be typewritten and as such perfectly legible.
4. Valuable time of Doctors and Nurses will not be wasted in handwriting details (at a recent study in one of the hospitals in Bombay, it was found that a patient gets an average of only 2 minutes of the Doctor's time).

5. Cross Indexing will facilitate tracing of previous records in the shortest possible time. This will be very helpful for referring to the previous medical history of the patient and treating him more objectively.

6. Installation of Bradma Automatic Selector Machine will enable compilation of Medical Statistics.

7. Bradma Medical Record System will prove invaluable for Medical Research.

8. Correct coding will facilitate correct assimilation of all chargeable records and therefore maximum billing and minimum write-off because of illegibility.

EQUIPMENT CONFIGURATION:

Admission Office: One or Two Model-1620 (Depending upon the number of admission per day) One Model-1210 and One Printing and Listing Machine.

Wards: One Model-1210 each.

PARTIAL LIST OF BRADMA USERS

i) CMC Hospital, Vellore
ii) CMC Hospital, Ludhiana
iii) Jaslok Hospital, Bombay
iv) Jawaharlal Nehru Institute of PG Medicine, Pondicherry
v) Institute of PG Medicine & Research, Chandigarh
vi) Holy Family Hospital, Delhi
vii) Safdarjung Hospital, New Delhi
viii) Calcutta Hospital & Medical Research Institute, Calcutta.
ix) Eastern Railway B.R.Singh Hospital, Calcutta
x) Shree Chitra Tirunal Medical Centre, Trivandrum
xi) Wanless Hospital, Miraj
xii) Tribhuvan University Medical College, Kathmandu, Nepal

etc. etc.

MEP 5:16

MEDICAL RECORDS/DEPTS - YESTERDAY, TO-DAY & TOMORROW

Sri. G. Keshava Rao By Former Medical Record Officer, BMC & St. John's Medical Hospital College, Bangalore.

We know that the History of Medical Records run parallel with the History of Medicine. We also know that Records are as necessary for the practice of Medicine as Medications are for the effective treatment. The History of Medical Records from the earliest beginings to the present time, has continued unbroken even though greater progress has been made in some periods than others.

The earliest records were primitive in form and very different from the present Medical Records, that is, like outline figures found in the caves of Old Stone Age etc. These date back to about 2,500 B.C. But these served to record the Medical achevements for later generations. As the time went on, Medical Records became more detailed and improved also. The Physicians of Greece, Rome & Egypt etc. wrote more treatises on Medicine and Surgery. The most valuable ancient Medical document that has come down to us are EDWIN SMITH PAPYRUD (Surgical treatise) and GEORGE EBERS PAPYRUS (Medical treatise) appears to have been written about 1600 B.C. and 1550 B.C. respectively. These are now in possession of the NEW YORK ACADEMY OF MEDICINE. In the 19th Century, a new hospital at Massachusetts, Boston, was opened in 1821, a Medical Record Librarian was appointed for the first time and the hospital kept records in Folio Volumes of size 18" x 12"x 2½" the weight of which is approximately 5 Kgs- still stated to be in good condition. Notable attempts were made to uplift the Medical record maintennance during 20th Century i.e. starting of Medical Record Depts. in teaching and non-teaching hospitals, uniformity of keeping records and person to be incharge of the records, stadanrdization of hospital, training to Medical Record Personnel.

It was thought that World-wide participation of Medical Record Personnel would bring about greater and more rapid advances in the establishment of International standards, the compilation of statistics that could be used for International comparisons, as well as disease classifications that could be adopted on the International bases. The first International Congress in Medical Records was held in Lodon in 1952 and thereafter in various other countries.

In UNITED KINGDOM by beginning of 20th Century, there appears to have been a more vigorous and wider acceptance that the purpose and uses of accurate and complete "CASE PAPERS" were manifold. If good and accurate records existed, it was due to insistance of individual doctors, or group of doctors, or the entire medical staff of an institution, who wished to make use of them for a specific personal or collective interest of their own. At that time, the doctor was not obliged to write up his findings and intentions inrespect of each and every patient. There was gradual change in the first years of Century. An ever increasing population meant ever increasing

demands on Medical Laboratory, Nursing and Technical services. Clerical assistance was given - but they were not trained - therefore not always with good results.

Another problem was reluctance on all sides to provide space. It meant to the ordinary mind - the records had fulfilled their purpose and therefore could be dispensed with. But a few hospitals in U.K. preserved their records in some form, practice being to hind them annually, either alphabetically by patients' name, Chronologically by date of admission or under the name of treating doctor. For many years, the staff of affairs was that the clerical staff provided were untrained, inadequate space, unsuitable equipment etc.

After 1914-1918 war, need for administrative and clerical assistance was felt by doctors as they wanted to study their new techniques in fields calling for long term followup, such as, Orthopaedics, T.B., Cancer etc. This was probably overlooked. At the end of IInd World-War 1939-1945, the demand was again made the Medical Staff. As a result a new profession "MEDICAL RECORDS" came into being and steps taken for proper and methodical maintenance of Records.

In INDIA, Christian Medical College Hospital, Vellore was first hospital to start the Medical Record Dept in 1900 in an organized system. Training of Medical Record Officers and Technicians was started in C.M.C. hospital in 1962. A number of Committee were appointed by Govt.of India fromtime to time, to go through the need for maintaining the Medical Records. The Jain Committee specially brought out the importance of keeping good records in a teaching hospital under the guidance of the Medical Records Officer.

In KARNATAKA - patients records used to be maintained in short form -in single or double follscap sheet forms called Medical Case she t/Surgical case sheet. These were bound in heavy volumes - Surgery and Medicine, and were preserved. The Medical Records in an organized pattern was started in the Combined hospitals attached to the Bangalore Medical College, Bangalore in January 1972, as an experimental measure, although a begning has been made earlier in the year 1965 - but without much results. Medical Records Technician training was started at Bangalore Medical College in June 1977. Also, a vocational course - P.U.C. Diploma . M.R.T. was started by the Directorate of Vocational Education in Karnataka, Bangalore; the course being conducted by a Junior College with the hospital assistance, at three training centres viz., Manipal, Gadag and Davangere. The private hospital had the Medical Record Depts prior to this.

.....3.

T O - D A Y

In many of the Private hospitals, the system of maintenance of Medical Records is on scientific line and are used freely by the Doctors Administrators etc. for various purposes. As regards the Govt.Medical Institutions in the State and some of the private Institutions, Medical records are not maintained in Scientific way. Computerization and Microfilming of Medical Records have been introduced in very few institutions. Most of the Govt.Medical Institutions do not maintain Medical Records for the Out-Patients. An Out-patient ticket is issued to patient, wherein the history, investigations and treatment given is recorded briefly. The usual tendency of people is that they keep this O.P. Chit till they get well and then throw it. Some times, even for a second visit, the O.P. Chit is not found with the patient. This not only increases the number of New patients, the work of the Doctor in re-examination of patient, re-investigation etc. but also delays proper treatment to the patient. The plight of the patient will be more in the case of Medical legal cases. Each Institution hasits own forms, different sizes etc. Proper collection of case records, drawal of statistics and proper filing is not there. The statistics furnished by these institutions may not also be very accurate. Since there is no orientation, Doctors and other staff make entires in the case records in their own way.

I remember that the D. G.H. S. New Delhi and arranged for a Seminar on introduction of Common set of forms in the Medical Institutions of diffrent level through out the Country and some officials from the Karnataka State and Other States has participated. Later, these forms were introduced incertain institutions in Karnataka on trial basis. The results are not known - The scheme doesnot appear to be continuing.

From the above, the following draw backs could be noticed:-

1. Want of trained personnel to maintain and Man the Medical Records Dept. Even if trained staff are posted, they are withdrawn and utilised for work other than M.R.D.
2. Want of Proper Equipment, forms and Stationery.
3. Want of sufficient space for the Dept.
4. Lack of proper planning of the dept. Uniform Rules and Regulations.
5. Lack of strict insistance on the Medical, para-medical and other staff connected with the treatment of patients to record their findings etc, in the Medical Records promptly.
6. Lack of inspection regarding the proper working of the Depts and a Co-ordinator to Supervise and Guide.

.....4.

We all know that a good Medical Record is not the product of the Medical Record Department alone, but it is the combined efforts of all those who are concerned in the treatment of the patient from admission to discharge viz., Doctor, Nurse, Radiologist, para-Medical personnel and others.

TOMORROW

Medical Record Depts. need be established inteaching and Major hospital in the first instance and then extended to District Hospitals, Taluq hospitals, Primary Health Centres etc.

Trained staff sufficient to Man the work load of the department should be made available to work in the deparmtnet in scientific way. Withdrawl of the staff sanctioned and posted to the M.R.Dept. OR Utilization of their services in other depts. should be stopped, as this deprive the Medical Records Dept. from turning out its legitimate work. All these things happen because the work turned out by the Medical Records Dept. is not known to many of the personnel in other depts. Therefore, it is necessary that the personnel working in a hospital should be aware of the existence of a Medical Record Dept and its functions. It would be better if a Orientation Programme for every new commer (i.e. Medical Personnel, Nurses and Para - Medical personnel etc) to the hospital is there, so that he/she could understand DOs and DON'ts of Medical Records in that hospital.

There need be latest equipments and also furniture, at least Calculators, Index cabinets, steel racks, heavy duty staplers, steel almirahs, typewriters, duplicating machine, Zerox photo copying machine, a Vaccum cleaner, wooden or steel tables and chairs, side racks, sorting table etc. in the dept. Provision of Computors and Micro-filming equipment will be to the advantage.

Medical Record forms are used as an essential tool in the care of aptients. They will assist in prividing and transmitting the aggregate information on the individual patient in a standard pattern to any member of the hospital staff concerned with the welfare of the patient. Printing and supply of forms should be properly regulated and the forms standardized. Wastage of forms by using them for the purposes other than they are meant for, should be prevented. Stationery also should be made available to the Medical Record Dept in sufficient quantity.

SPACE for the storage of Old and current records faces a grave problem. Many do not realise importance of filing Old records

.....5.

and their retrival and also their safety. Records, as well all know, are usually preserved for three purposes: viz.,

1. To meet the needs of patients
2. For Medico-legal purposes
3. For use of Doctors for writing scientific papers, for writing dissetation and for Research.

Proper palling made at the time of starting the dept and fixing the retention period for various types of records, Computerization and Microfilming will reduce the burden of storage to a great extent. Fixation of retention period for Medico-legal cases and orders regarding acceptance of Microfilmed records in Courts would go a long way in solving space problem.

Training of personnel as Medical Record Technicians, and Medical Record Officer (B.M.R.Sc) need to be introduced to meet the demand for the trained personnel to Man the Medical Record Depts. sanctioned.

Rules and regulations regarding functioning of the dept, writing of case records by doctors, nurses etc, and sending the case records of patients after discharge to the Medical Records, the Method of filing them so as to retrive them at a moments notice, drawing and maintenance of statistics out the Medical records for various purposes need be there, and be strictly adhered to. There need be a Medical Record Committee and Medical Audit Committee to enrish the value of records which will deal with matters of Medical Record maintenance and their Quality.

The Inspection Committee of the Indian Medical Council and the Universities need make it a point to inspect the Medical Record Depts. When they inspect the Medical College hospitals to see the quality of records and see whether they meet the need of Medical education and Research; if necessary by enlisting a Senior Medical Record Officer in the team of inspectors.

To ensure that all these are followed, there need be a representation in the State Directorate, a post of Deputy Director (Medical Records) to assist the Director and Government, to plan, develop and Co-ordinate the Medical Record Services at the State Level. Thispost need filled in by promotion of Senior Medical Records Officer.

Lastly, there need be Medical Record Council for the Country, wherein all the Medical Record Personnel should get registered before they practice the profession, just as on the lines of the Indian Medical Council and Nursing Council.

Thanking you.

MP-5

Medical Audit

DR. S. G. KABRA

Medical audit is a method of objective evaluation of the quality of medicare, by physicians, to detect deficiencies in the services provided, and to improve attitude, skill and knowledge of the health care providers, to ensure collective accountability for quality care.

Objective evaluation is data and information based.

The three sets of data viz. the patient data, the clinical data and the financial data, are selected to be desirable, feasible and affordable. The data collected are analysed and converted into information. A simple and effective data base management system or management information system is therefore a basic requirement of medical audit.

For evaluation of quality, the efficacy, the efficiency and the acceptability of the services rendered are evaluated.

The three components of a medicare facility viz. its structure, function and outcome are audited.

The audit is conducted by the service providers themselves i.e. by the treating physicians and the medical administrator, supervised by a peer group.

The emphasis is on detecting deficiencies in services with a view to improve attitude, skill and knowledge of the service providers.

Medical audit is to ensure shared responsibility and collective accountability for quality care. It is not a fault finding exercise.

BASIC OR VITAL PATIENT DATA (INCLUDING SOME CLINICAL AND FINANCIAL DATA) AND THEIR RELEVANCE

(Conscious and purposeful selection of the data to be recorded)

Name of patient- It is recorded as the personal identifier.

IPD and OPD Nos.- The serial IPD and OPD number constitute the hospital identifier. Name, the personal identifier may be common to more than one patient, but the hospital identifiers will be distinctive to each patient. Besides, the hospital identifiers are chronological and gives the idea about the patients arrival in the hospital.

Age of patient- It is recorded to group the patients into clinically relevant age groups such as neonates, pediatric, geriatric etc. Age distribution in morbidity and mortality pattern may provide vital information if distinctive.

Date of admission, date of operation and date of discharge/death- These provides information about the duration for which a patient stayed in the hospital.

Average stay of patient in a hospital is used as an indicator of efficacy of hospital services and also of patient turn over.

Decrease in average pre-operative stay of patients reflects efficient pre-operative workup and decrease in average post-operative stay reflects lesser complication and infection rate.

Number of one day surgeries performed can also be calculated from it. Average number of patients discharged per day gives the

patient turnover or the patient load.

Percent bed occupancy is calculated by the following -

$$\frac{\text{Number of beds occupied (at midnight) X 100}}{\text{Number of beds in the hospital}}$$

It can be calculated for individual ward or discipline.

Percent of bed days utilized is an alternative evaluation parameter that can be calculated as follows

$$\frac{\text{Sum of days for which each patient stayed in the hospital X 100}}{\text{Total number of beds in the hospital X 365}}$$

Name of treating doctor/ unit - This is recorded to evaluate performance of individual doctor or a unit.

Final diagnosis - This should be entered and codified as per the ICD Code to render the patient data into valuable and easily retrievable clinical data. Diagnosis of the underlying (primary) and antecedent and associated (secondary) diseases/ conditions/ disorders should be entered as Diagnosis 1, Diagnosis 2, Diagnosis 3 and Diagnosis 4. Upto 4 diagnosis should be permitted.

From the aforesaid morbidity and mortality pattern of the hospital is easily worked out. The two provide vital primary information for performance evaluation of a hospital.

Expenditure incurred on the patient- An entry about the expenditure incurred on a particular patient or the amount of hospital bill in the data base, enables cost analysis in term of various treatment groups of patients.

CODIFICATION OF PATIENT DATA TO MAKE IT RETRIEVABLE, USABLE AND COMPREHENSIBLE

The patient data when coupled with codified clinical data about the primary cause of disease or death and associated or antecedent secondary causes, renders the data set into a readily usable information base for effective management.

International Classification of Diseases (ICD) code is a readily available low priced WHO publication that provides ready to use, simple but comprehensive, method of codifying diseases, disorders and conditions. The classification is dual axis classification using the site and the etiology as the two axes of the disease. It is thus possible to classify a disease in term of the organ or part involved and the condition(s) causing it. The code, which earlier was purely numeric, is now alpha numeric using an alphabet followed by 3 digits. The 3 digit core classification is sufficient for vast majority of purposes. For those who wish to use a very detailed and comprehensive classification, an extended 3 digit code with a decimal and further 2 digits is provided.

The ICD code is available in low priced book form. The diseases can be very easily codified using these books and the index provided in them. As a matter of fact the core classification can be easily extracted for use in the wards if desired. Otherwise, all records of the patient discharged on a particular day should come to a central palace before become sent to the record room. A medical officer scrutinises them and puts the codes against the diagnoses. With approximately 30 discharges every day in a 250

bedded hospital, the codification does not take more than 30 minutes. And the value of codification is immense - it makes the data set a valuable base for understandable and reliable objective information to be used for decision making.

This provides for periodic mortality and morbidity audit of the hospital - the basic minimum information needed for monitoring the performance of a hospital.

From the data set available, the following audit (evaluation) information can be generated :-

I. Performance parameters

- Patient turnover
- Bed occupancy
- Average bed stay
- Pre-operative stay
- Post-operative stay
- Percent mortality
- Percent morbidity
- Unwanted outcomes
    * post-operative infection
    * nosocomial infection
    * bed sores
    * adverse drug reactions
    * Transfusion reactions

II. Morbidity pattern

III. Mortality pattern

IV. Specific audits e.g.

* Infection audit
* Tissue audit (negative histopathological reports as indicator of unnecessary surgeries)
* Caesarean audit

To make the audit exercise complete to the aforementioned data set, two more data sets are added :-

1. Store consumption data. Using the modern method of inventory management (store management) consumption cost of each unit is calculated as part of operative cost.
2. Accounting data.

The above two sets are used in conjunction with the patient data set for the following :-

- Resource prioritisation and resource allocation.
- Cost audit e.g.
  - Hospital overheads or administrative overheads.
  - Cost of bed per day (hospital/ward).
  - Cost of operation theatre per day.
  - Cost of operations by their types viz. major, intermediate, minor.
  - Cost of ICU bed per day.
- Cost containment exercise
  - By monitoring and preventing post-operative infection
  - By shortening preoperative stay
  - By monitoring and preventing post-operative complications
  - By monitoring and preventing bedsores.

EQUIPMENT AUDIT

By adopting simple methods of maintaining (1) a History Sheet and (2) a Log Book of each equipment and allocating 10% of the equipment cost for its maintenance to the user department, a continuous fault free and cost effective functioning of equipment can be achieved.

PEER REVIEW

Periodic review by a committee of senior professionals of the audited activities is a desirable ingredient of medical audit.

THE MORBIDITY AND MORTALITY STATISTICS 1991

	Diseases (ICD Code)	Primary Assoc Combined	Patients admitted (percent)	Patients died (percent)	Mortality as (%) of morbidity
I.	Infectious and parasitic diseases (001-139)	P	1537 (14.5%)	78 (20.4%)	(5.1%)
		A	162 (1.5%)	28 (7.3%)	
		C	**1699 (16.0%)**	**106 (27.7%)**	
II.	Neoplasms (140-239)	P	588 (5.5%)	31 (8.1%)	(5.3%)
		A	35 (0.3%)	3 (0.8%)	
		C	**623 (5.8%)**	**34 (8.9%)**	
III.	Endocrine,Nutritional & Metabolic diseases & Immunity disorders (240-279)	P	263 (2.5%)	7 (1.8%)	(2.7%)
		A	236 (2.2%)	31 (8.1%)	
		C	**499 (4.7%)**	**38 (9.9%)**	
IV.	Diseases of blood & blood forming organs (280-289)	P	105 (1.0%)	2 (0.5%)	(1.9%)
		A	21 (0.2%)	11 (2.9%)	
		C	**126 (1.2%)**	**13 (3.4%)**	
V.	Mental disorders (290-319)	P	179 (1.7%)		
		A	42 (0.4%)		
		C	**221 (2.1%)**		
VI.	Diseases of the nervous system & sense organs (320-389)	P	503 (4.7%)	14 (3.7%)	(7.8%)
		A	24 (0.2%)	3 (0.8%)	
		C	**527 (4.9%)**	**17 (4.5%)**	
VII.	Diseases of the circulatory system (390-459)	P	986 (9.3%)	108 (28.3%)	(11.0%)
		A	475 (4.5%)	72 (18.8%)	
		C	**1461 (13.8%)**	**180 (47.1%)**	
VIII.	Diseases of the respiratory system (460-519)	P	615 (5.8%)	24 (6.3%)	(3.9%)
		A	125 (1.2%)	21 (5.5%)	
		C	**740 (7.0%)**	**45 (11.8%)**	
IX.	Diseases of the digestive system (520-579)	P	887 (8.4%)	34 (8.9%)	(3.8%)
		A	202 (1.9%)	19 (5.0%)	
		C	**1089 (10.3%)**	**53 (13.9%)**	
X.	Diseases of the genitourinary system (580-629)	P	1225 (11.5%)	9 (2.4%)	(0.7%)
		A	262 (2.5%)	14 (3.7%)	
		C	**1487 (14.0%)**	**23 (6.1%)**	
XI.	Complications of pregnancy childbirth & puerperium (630-676)	P	1333 (12.6%)	5 (1.3%)	(0.4%)
		A	22 (0.2%)	2 (0.5%)	
		C	**1355 (12.8%)**	**7 (1.8%)**	

XII. Diseases of the skin & subcutaneous tissue (680-709) & XIII. Diseases of the musculoskeletal system & connective tissue (710-739)	P	363 (3.4%)	1 (0.3%)	(0.3%)
	A	53 (0.5%)	3 (0.8%)	
	C	**416 (3.9%)**	**4 (1.1%)**	
XIV. Congenital anomalies (740-759)	P	193 (1.8%)	5 (1.3%)	(2.6%)
	A	11 (0.1%)	2 (0.5%)	
	C	**204 (1.9%)**	**7 (1.8%)**	
XV. Certain conditions originating in the perinatal period (760-779)	P	277 (2.6%)	37 (9.7%)	(13.4%)
	A	56 (0.5%)	18 (4.7%)	
	C	**333 (3.1%)**	**55 (14.4%)**	
XVI. Symptoms, signs & ill-defined conditions (780-799)	P	273 (2.6%)	9 (2.4%)	(3.3%)
	A	40 (0.4%)	15 (3.9%)	
	C	**313 (3.0%)**	**24 (6.3%)**	
XVII. Injury and poisoning (800-999)	P	665 (6.3%)	18 (4.7%)	(2.7%)
	A	114 (1.1%)	24 (6.3%)	
	C	**779 (7.4%)**	**42 (11.0%)**	
Not coded	P	625 (5.8%)	nil	

Total Number of discharges = 10617 (100%)
Total Number of deaths = 382 (100%)

MP-5

ESSENTIAL INGREDIENTS OF A MEDICAL RECORD

Medial record should contain sufficient information to :-

1. Identify the patient
2. Support the diagnosis
3. Justify the treatment
4. Document the curse and the result accurately
5. Facilitate continuity of care among health care providers

THE DANGEROUS MACHINES (REGULATIONS) ACT

This is a welfare law to provide protection to farm hands against injuries from farm implements by mandatory safety provisions in manufacture, distribution and use of such implements. It also provides for no-fault compensation for any injury that may result from farm implements.

The Act is a Central Act. The State Governments are required to create the stipulated implementing agency. It has not been done.

As a result hundreds of poor farm hands loose their limbs, scalps and body parts every year without even receiving compensation which is their right under the Act.

Medical professionals must insist that the provisions of the Act are enforced to prevent injuries to their patients and to see that when injured the farm hands receive their due compensation.

CONSENT FORM FOR MTP

I, the undersigned, Mrs./Miss _____ Aged _____ Years Wife of / Daughter of _____ Residing at _____

Admitted under IPD No. _____ With OPD No. _____ Request Dr. _____ to terminate my pregnancy-

(To sign at a to c whichever is applicable and strike out others)

a. as the pregnancy has occurred as result of failure of the contraceptive technique of IUD/oral pills/condom/coitus interrupts/ periodic abstinence/ tubectomy/ vasectomy/ _____ employed by us.
(any other)

_____
(Signature of patient)

b. in view of the substantial risk that if the child were born it would suffer from such physical of mental abnormalities as to be seriously handicapped. _____
(Signature)

c. as this pregnancy has resulted from my being raped _____
(Signature)

d. in order to prevent a risk of injury to my physical or mental health by reason of my actual / reasonably foreseeable environment. _____
(Signature)

1. The procedures proposed to be employed for termination of pregnancy and of anesthesia have been explained to me and I have understood the same.

2. The risks and possible complications of anesthesia and operation, including the remote possibility of pregnancy continuing inspite of the MTP procedure , have been explained to me.

3. I also understand that procedures other than the proposed ones or in addition to them for termination the pregnancy and/ or anesthetizing may be found necessary or desirable and I consent to them/ if the surgeon and /or the anesthetist think them essential and beneficial to me.

_____
(Signature of patient.)

IN CASE OF A MINOR OR A MENTALLY RETARTED GIRL THE FOLLOWING CONSENT SHOULD BE SIGNED)

I, the undersigned, Mr. /Miss/Mrs. _____ residing at _____
(Full name)

am the husband/ father/ mother/ legal guardian of _____ (name of patient) who is a minor/mentally retarded and I consent for the operation of Medical Termination of Pregnancy to be performed on her after understanding the procedure and the risks as stated above.

_____
(Signature of parent/guardian)

Signed in my presence

_____
(Signature of witness)

Dated : _____

_____
(Name and address of the witness)

TO BE SIGNED BY THE REGISTERED MEDICAL PRACTITIONER/S

- By one medical practitioner if the pregnancy is 12 wks or less
- By two practitioners if the pregnancy is between 12 to 20 weeks.

I, the undersigned Dr. _____
after examining Miss/Mrs. _____
(Name of patient)
am of opinion, formed in good faith, that it is necessary to terminate her pregnancy for the following reason:-

a. The pregnancy is the result of failure of contraceptive technique used.
b. The pregnancy is the result of rape.
c. The continuation of the pregnancy will be a threat to her life.
d. To prevent grave injury to her physical and mental health.
e. There is substantial risk that the pregnancy would result in the birth of a child with serious mental and /or physical deformities/handicaps.

_____ _____
(Signature with date) (Med. Cou. Reg. No.)

I the undersigned Dr. _____
after examining Miss Mrs. _____
(Name of patient)
am of opinion, formed in good faith, that it is necessary to terminate her pregnancy for the following reason:-

a. The pregnancy is the result of failure of contaceptive technique used.
b. The pregnancy is the result of rape.
c. The continuation of the pregnancy will be threat ot her life.
d. To prevent grave injur to her physical and mental health.
e. There is substantial risk that the pregnancy would result in the birth of a child with serious mental and/or physical deformities/ handicaps.

_____ _____
(Signature with date) (Med. Cou. Reg. No.)

THE INDIAN MEDICAL COUNCIL ACT

- Registration provisions, right to practice or licence to practice.
- Regulation and control over standard of practice
- Medical ethics - what are they ?
- Professional misconduct - what constitutes professional misconduct ? How it is alleged and how is it adjudged ? The Ethics Committee and its procedure.

THE MEDICAL TERMINATION OF PREGNANCY ACT

The law pertaining to abortion was liberalised by this Act.

The law provides for liberalised conditions for women to seek abortion and doctors to do it.

Medical termination of pregnancy is now permitted under the conditions stipulated in the Act.

The stipulated conditions are :-

a. approved indications viz. contraceptive failure, congenital anomalies, threat to mothers life and rape.

b. approved centre viz. government hospitals and centers specifically approved by health authorities for MTP after verification of necessary surgical facilities.

c. approved doctor viz trained in MTP or a post-graduate in gynaecology and obstetrics.

d. approved and certified duration of pregnancy viz. on certifcation by one doctor when pregnancy is below 12 weeks and by two doctors when it is upto 20 weeks. NO TERMINATION BEYOND 20 WEEKS

e. approved form of consent of the lady/girl or guardian when the girl is a minor.

DRUGS AND MAGIC REMEDIES (OBJECTIONABLE) ADVERTISEMENT ACT

The law provides for prevention of advertisements in lay press and popular media concerning drugs, remedies and treatment as the same in the hands of commercial minded unscrupulous persons may prove to be faudulent, exploitative, dangerous and harmful by inducing people to self medication.

The definition of 'drug' under the Act is comprehensive and includes any thing used for diagnosis, mitigation, treatment or maintenance of body functions or condition.

Advertisements about sex tonics, menstruation regulators, abortions and incurable or intractable diseases (as per the list) are prohibited by any one.

The offence is cognizable and advertiser, publisher, printer and editor are all individually liable.

Any one who has read or seen or heard such an advertisement can lodge a complaint with the police or the court at the place where he encountered such an advertisement.

THE ATOMIC ENERGY ACT

The rules framed under the Act, provided for Atomic Energy Regulation Board (AERB) to prescribe safety code and regulation of diagnostic X-ray units in the country.

The harmful potential of unnecessary and excessive X-ray radiation far outweighs the benefit of diagnostic X-rays. X-rays with their potential of causing cancers, genetic mutations and congenital malformations, have to be used judiciously and with utmost safety precautions to prevent harm to patients and others who may receive radiation during a diagnostic procedure.

The AERB has prescribed detailed safety norms for installation and functioning of diagnostic X-ray units. The state governments/ state health authorities are required to create recommended regulatory authority to enforce, supervise and monitor the prescribed safety provisions. It has, however, not been done.

As a result, patients, doctors and members of public, and their progeny, pay dearly with their lives in form to radiation induced cancers, congenital malformation and other genetic defects and disorders.

It is the duty of medical profession to see that the prescribed safety norms for diagnostic X-rays are strictly enforced