***CURRENT MEDICAL PRACTICE : NEW ETHICAL CHALLENGES***

***P.N. Tandon : National Research Professor***

“Every advance in medical capabilities, is an increase in our moral responsibility” so said Joseph Fletcher of University of Virginia, Medical School some years ago. Since that time there have been unparalleled advances in the field of medicine which in theory at least permit ‘indefinite’ prolongation of life of a brain dead person or virtually create human life. The growing power of molecular genetics already provides us with the tools and techniques to predict, prevent and treat a variety of human diseases (Tandon 1999). It has empowered us to change the very nature of our species, if the scientists were ‘authorized’ to do so (Nature 1996). Except for the brain we can replace virtually any other organ in the body including the heart. At the same time it is already within the realm of possibility to grow these organs in the laboratory. In-vitro fertilization (IVF) and allied techniques have now made it possible for an elderly lady to give birth to a baby or use a surrogate mother for this purpose. A woman can give birth to her grandchild using eggs from the ovary of her own daughter. Advanced diagnostics techniques and technologies no doubt are able to provide more precise diagnosis, but often at an unaffordable mounting cost. Many cancers, at least in their earlier stage have become curable but this has led to heroic attempts to use ‘virtually inhuman’ therapies to improve our results. *The Emperor of All Maladies* by Siddhartha Mukherjee provides a brilliant account of these valiant efforts, their successes and failures, as also the price many volunteers paid for these efforts. These advances have no doubt resulted in immense human benefits but at the same time have complex social, economic, legal and ethical implications. Medical education traditionally has been restricted to teaching and training of individuals to prevent or treat ill-health, but had neglected the broader human issues – the overall welfare of the individual, the family and even the society in general. Not having been trained to take such an holistic view, medical professionals today have begun to acquire a more mechanistic view of illness unwilling to or unprepared for dealing with these other humanistic issues. When faced with such real life situation they conveniently overlook these and believe these not to be their responsibility. The following examples would illustrate some of these issues:

**Problems of choice between different therapies:**

One of my teachers while discussing treatment of a simple case of fracture clavicle asked, “Tell me the cheapest treatment for the patient and tell me the best treatment for it”. We were dumb-founded since we thought there can’t be different treatments for such a condition, till we were told that the cheapest treatment consists of tying a figure of eight bandage which may result in some residual deformity of no consequence to a common man. However, for a glamorous lady this may be unacceptable for her profession as a cinema star. A perfect alignment and maintaining it in this position would require more costly sophisticated techniques for which she would be willing to pay. While ideal treatment may be one thing, the acceptable treatment is another. Such situations are not uncommon but an everyday affair is view of the rapid advanced in alternative therapies. Should one operate upon an intracranial aneurysm or coil it, should one biopsy a glioblastoma and treat it with radiotherapy or surgically excise it, should one attempt to excise it, should we excise an arterivenous malformation of the brain or treat it with Gamma-knife, should we do a ventriculo-peritoneal shunt or an endoscopic third ventriculostomy for hydrocephalus. Such examples can be easily multipled in every field of medical care. Should one use a stent, and if so which one, or do a coronary by-pass surgery on a diabetic patients with multiple arterial blocks? Volumes have been written on controversies in therapy of a number of diseases. The decision may depend upon the assessment of risks and benefits, but also on the expertise of the treating surgeon, facilities available to him, the cost involved as also the willingness of the patient.

The value of therapy for end-stage disease: In his book, *Being Mortal*, Atul Gawande pointed out that in the United States, 25 per cent of all medicare spending is for5 per cent of patients who are in their final year of life, and most of that money goes for care in their last couple of months that is of little apparent benefit. He goes on to add, “A 2011 study, for instance, found that medical spending for a breast cancer patient in the first year of diagnosis averaged an estimated $ 28,000. Cost for therapy thereafter to about $ 2,000 a year. For a patient whose cancer proves fatal, the cost curve is U-shaped rising toward the end to an average of $ 94,000 during the last year of life with a metastatic breast cancer. Our medical system is excellent at trying to stave off death with $12,000 – a – month chemotherapy, $ 4,000 – a – day intensive care, $ 7,000 – an – hour surgery. But, ultimately, death comes, and few are good at knowing when to stop”. This applies to many end-stage diseases and the last days of ones life. The debate regarding end-stage active or passive euthanasia remains a matter of social, cultural, philosophical and religious debate. The medical professionals, a vital player in this dilemma, are ill prepared to contribute to it on the basis of their education. No doubt it is too serious an issue to be left entirely to them yet they need to be sensitized to such issues. Ethically this would require a frank and full discussion with the patient and the family. Are we trained for it or do we have the time for this? Unfortunately the answer to both these questions is No, A rational decision should be based on precise knowledge of the subject including the recent advances but how many practitioners have time to acquire or inclination to spare it.

**Who and where to draw a line?**

Privatisation of medicine, unavoidable as it may be, need not result in crass commercialization. One comes across innumerable examples of utter neglect of clinical judgement being replaced by costly, often unnecessary investigations tainted by profit motives and sharing it. In absence of clear guidelines a large number of patients end up in ICU/CCU who either didn’t need it or were already beyond salvage. This is an everyday question in a neurosurgical ICU. In case of a proven brain-dead person on life-support system who should disconnect the ventilator and when? Whether to operate upon an intracerebral haematoma in an elderly patient with fixed dilated pupils? Such questions are common place in management of advanced cancers with metastasis. Should one keep on trying one set of chemotherapy after another, more toxic and more costly, hoping for a miracle or a time comes to accept defeat? These decisions are hard not only for the physician but also the patient and the family. Besides a thorough and update knowledge of the subject these also demand social communication skill. They may also call for second opinion from outside if not available in-house or if desired by the patient or the family. By and large one finds a reluctance on the part of the treating team. Should there be standard guidelines for this? I found in a hospital in the US placards all over the wards saying, “Second opinion is your right. You may ask for it and it will be arranged”. It is obvious that the new medical treatments, requiring complex technologies or newly introduced drugs which cannot be given to all (if for no other reason than their usually prohibitive cost). There has to be some principle of rationing and this really poses serious moral and ethical dilemmas. The question is who is the final arbiter of this decision? A young man with a saccular aneurysm diagnosed on MR angio, after a bit of running around and some recommendation, finally got admitted to a prestigious neurosurgery department, proficient in treating it. To his and his family’s misfortune he was discharged since he could not afford the cost of coiling (only the price of the coils) not the treatment itself. In contrast an unfortunate father having lost couples of children could not afford lakhs of rupees to treat his only surviving son, with Gaucher’s disease, had to knock at the doors of the court which ordered the hospital to provide free treatment. With limitations of budget, if the hospital has to provide this treatment what about those who will be deprived of treatment for paucity of funds. As a societal issue one often faces the dilemma of choosing between the interest of the largest numbers versus the maximal benefit for a chosen few. The prevailing inequities in health care are real social, economic, ethical and moral issues. Who is to resolve these? The role the medical profession has to play does not constitute a part of our teaching and training.

**Withstanding commercial pressure:**

Sale of drugs and devices is a multi-crore business today. High powered marketing, using all tricks of the trade, is being utilized to sell these products. It has been said that, “Global pharmaceutical companies have a clear interest in medicalising life’s problems”, and “There is a now an ill for every pill”. Often drug companies suppress the information unfavorable to their interest. Nearly one in twenty faculty members at US universities during medical related research have had the publication of their research delayed or prevented when their conclusions had undesirable implications for their sponsor’s profit. Knoll, a US company attempted to prevent publication of a research commissioned by it at University of California at San Francisco which revealed that a three times cheaper drug was as effective as their synthetic thyroid hormone syntheriod. Takesda Pharma and Eli Lilly were recently made to pay a combined $ 9 billion after the US Federal Court jury found they had suppressed the information that their diabetes drugs Actos has significant cancer risk (TOI 9.4.2014). The ongoing national concern regarding the unfair sales promotion and practices in respect to stents, prosthesis and spinal devices is fresh in our memory. Those interested in knowing more about it advised to read an extremely well researched publication on the subject: “The Truth about Drug Companies: How They Deceive Us and What To Do About it” by Marcia Angell (2005). Unfortunately a busy medical practitioner, not having time or inclination, tend to rely on the high power salesman for this purpose. It has been said that after their qualification a large number of medical professionals derive most, if not all, knowledge about their profession from agents of the pharmaceuticals companies. Compulsory attendance at certified CME programmes and periodic recertification are necessary to keep our medical practitioners well informed.

**Effect of superspecialization on medical practice**

Like many other advances in the medical field, increasing specialization restricted to smaller and smaller fields has no doubt improved the outcome of many disorders. But at the sametime the patient as a whole, shunted from one specialist to the other is left with large bills and often confusing advice. What was once a comprehensive speciality say Neurosurgery has now specialists in neurotrauma, paediatric neurosurgery, vascular neurosurgery, spinal surgery, neuro-oncology, skull-base surgery, functional neurosurgery, endoscopic neurosurgery, Gamma-knife surgery, interventional neurosurgery and so on. To provide all this expertise under one-roof, both for training and service, is an herculean task, yet to keep-up with the Joneses it has become increasingly necessary. No one has done cost benefit analysis to decide between the desirable and the essential – the dilemma of where and by whom the line is to be drawn.

It will be obvious from the above description that medical practice has undergone a sea-change during the last couple of decades. Undoubtedly it has resulted it many benefits for our patients. Preventive, therapeutic and rehabilitation strategies have vastly improved our ability to provide much better care for the patients. At the same time it has led to complex socio-economic and ethical issues. To meet the new challenges we need major changes in our medical education which unfortunately is not able to keep pace with the advances.

**References:**

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