

# Socio-political aspects of high-tech medical care

R. A. Magotra

## *Costs of medical care*

The sociologists' view of medicine as a practising profession and as a societal institution is eclectic and still not fully developed. The range of issues subjected to their inquiry depend on the social and cultural milieu of the community under consideration. Advances in bio-medical technology with rapid growth in complexity and consequently increase in the costs of diagnostic and therapeutic medical care, are important considerations in a developing country like India. It is a different matter that cost containment is now relevant even in rich countries.

Government policy for the liberalisation of the economy has caused some confusion in the analysis of costs in health care offered by public and private sectors. Factors that contribute to such confusion include:

- 1 The easy availability of knowledge about the latest bio-medical technology even while it is at developmental stage and its true role remains undefined.
- 2 This advanced technology is available, though at an extremely high cost, at public sector hospitals depending on the clout of doctors involved in using that technology.
- 3 The influence of the technological innovations on the decision making attitudes of the physicians involved in providing medical care varies.
- 4 Wide publicity given to these high-tech modalities of treatment in the media influence the recipients of health care - the patients.
- 5 Technological innovations increase costs and cause a financial crisis in providing health care.

## *Commercial and political forces*

An even more insidious process is that of an industry being built around the medical innovations with the in-built mechanisms of lobbying and media projections. These innovations are proclaimed not only to be safe but as the only scientific methods for treating the relevant illness. The medical community and the public are thus stampeded toward the use of expensive best-of-the-latest gadgetry.

Inevitably, this leads to monopolistic medical hegemony with very high hidden costs to society. Illich has proposed in his essay that Western society has been made to subscribe

to the view that the human body is a mechanical entity capable of responding to mechanical attempts to correct malfunction. This assumption facilitates the role of technology in medical treatment, which is further advanced and reinforced through individual and mass media channels. Business and political interests make their not-so-subtle impact and expensive technology gains general acceptance without rigorous and critical appraisal.

We are aware of the setbacks suffered by the arms and ammunition industries in the West with the end of cold war and should be vigilant on the new warfare started by the medical technology industry.

Medical sociologists must inquire into this phenomenon. Their conclusions will benefit patients, the medical community and governments in formulating rational health policies.

## *Areas of concern*

There are four areas that cause anxiety:

- 1 the physician's belief in efficacy of the procedure without scientific validation;
- 2 the physician's training and professional and psychological need to use the latest procedure and the attendant technology;
- 3 patients' demand and need for the treatment which in turn has been fanned by the media and
- 4 financial considerations.

## *A case study*

I have chosen the treatment of cardiac diseases as an example only because of my familiarity with it. Similar conclusions can be drawn on treatment of other diseases.

Biomedical technology has made tremendous advances possible both in the diagnosis and treatment of cardiac ailments. First the coronary artery bypass grafting (CABG) in the 1970s and 1980s. Then followed innovations like angioplasty, use of the rotablator, atherectomy and stents. These have attracted widespread attention as compelling examples of medical technology running uncontrolled. CABG and percutaneous transluminal coronary angioplasty (PTCA) have become household terms. Balloon dilatation in the treatment of mitral stenosis or closure of small holes in the heart with expensive devices are other examples of technology leading decision making by physicians when

effective, safe and less expensive surgical alternatives are available and have been validated by time.

Extensive media coverage biases patients into demanding non-surgical procedures. This adds to costs and advances the already enormous role of technology and further growth of the medical-industrial complex.

The proliferating cath-labs/angio-suites and cardiac surgical facilities all over the country along with attendant facilities like stress test, echocardiographic and colour Doppler laboratories have already gathered the momentum of an industry. Governments find it increasingly difficult to afford these facilities in public hospitals and are, at the same time, unable to restrain or curtail these. The lack of rigorous evaluation is deplorable, many of these procedures being adopted without medical justification.

The budget allocations for health are, as such, low and fixed. Adoption of these sophisticated and often unjustified machines and techniques in teaching hospitals result in diversion of already meagre funds from other disciplines which are more important but with a low profile.

### ***Critical appraisal of new technology needed***

The introduction of new biomedical technology therefore needs critical evaluation before it is employed. When justified, the introduction of expensive machines must be controlled not only in hospitals funded by public money but also in private hospitals which are established with a view to high returns on every investment. The range of new drugs and equipment available is such that it is no longer possible

for medical professionals to keep track of - leave alone evaluate - all the advances. Health care personnel are being provided more and costly options without proper guidance. Funds remain limited.

Policy makers need to make tough choices and enforce them. That the responsibility to use new technology cannot be left with the healthcare professionals alone was realised by no less a body than US Congress way back in 1972. A Congressional Office of Technology Assessment was established (OTA) to evaluate, analyse and coordinate data on new machines and techniques from different sources. Healthcare Technology Assessment (HCTA) is routinely carried out today in many advanced countries like U.K, Sweden, Australia, France, Spain, Canada, Italy and Finland.

We desperately need such institutions in India. They can be established under the auspices of the Health Ministry but must be granted independence and autonomy if they are to remain credible.

Till such bodies are available, it is imperative to form guidelines for evaluating the utility of new procedures based on technology alone. Such an evaluation should also decide as to what amount of resources can appropriately be devoted to cost-intensive, technology-based treatment decisions specially where effective and economical alternatives are available. Such evaluation and regulation based on it will in turn help the government to maintain costs as well as standard of medical care at an affordable level.

