Development of modern oncological services is dependent on financial resources. The allocation of funds is dependent on the feasibility studies done by the healthcare economists. Many health care professionals have some reservations about their understanding of the practical knowledge of day-to-day managerial and clinical problems, faced by the end users.

In order to perform a healthcare economic feasibility study, an in-depth know-how is needed. As one can appreciate the interpretation of conclusions of these studies is a difficult task. Policy makers have to consider certain pre-defined priorities. Provision and allocation of funds is a complex issue and is influenced by a variety of factors.

In order to develop a comprehensive cancer treatment facility, huge amount of investment is required. On the other hand, cytotoxic and supportive agents, used in the delivery of systemic chemotherapy, are quite expensive and licensing of these drugs has traditionally been based on quality, safety and efficacy. Faced with increasing healthcare costs, many countries are now also requiring evidence of cost effectiveness, that is regarded as the fourth hurdle. Licensing is the main method of regulating and controlling access to pharmaceuticals. New drugs cannot receive a product licence until manufacturers provide evidence of their quality, safety, and efficacy.1 This is a general observation that in vast majority of cases the unit cost of new drugs has been higher than that of the drug they replace.

In many models of cancer management it is assumed that the individual or group of individuals performing the evaluation are standing-in for the society. Furthermore, everyone thinks that the sole aim is targeted towards achieving a final goal of curing or controlling cancer in a given population. Financial resource issues are sometimes overlooked at the preliminary stages. The decision maker is one of us who is sitting at the hot seat and he or she has all the right reasons to believe that a single agenda approach is the only right way forward. Gradual allocation of funds over a finite period of time follows after that. For cancer service development plans, a global holistic view of overall care is seldom defined. Financial issues are not the only component of overall failures of a cancer service. The issue gets more complex and muddy when various layers of management get involved. Attempts made to ration the service provisions can lead to a totally funding dependant healthcare system. We can further elaborate this fact by taking the example of treatment options available to palliative oncology patients where we cannot offer a clear cut and significant survival benefit to the cancer patient. But we still treat them with the objective of improving their quality of life.

Selection of appropriate model for the application of measurement tools and analysis of pre-defined outcome is fundamentally important.

A set endpoint or outcome is selected in the cost effectiveness type of analysis. Cost effectiveness analysis compares this single primary outcome with cost estimated in monetary units. One of the selected outcomes is Quality Adjusted Life Year (QALY). Use of a single outcome for cost effectiveness analysis fails to recognise that decision-making involves making judgments about a variety of important effects rather than just one.2

QALY type of analysis sums-up length of life and quality of life into a single outcome. A zero to one index is calculated where 1 represents perfect health and 0 represents death. Over the past 10 years, the QALY has become increasingly accepted and used despite the continued existence of theoretical and methodological problems noted during its development.3

In cost benefit analysis, both cost and outcomes are valued in money and then the comparison is being made between the two. Cost-benefit analysis has its own demerits. Many health professionals and public advocates do not agree with this marriage of convenience between the quality of life and valued length of life, especially when it is measured in pounds and pennies. Another potential fear in the minds of many people is that the cost benefit analysis can lead to rich getting more funding than the poor. This phenomenon can happen because of the fact that some members of the society would be happy to use their own financial resources in order to travel through that extra mile. The concept of income generation cannot be excluded from the decision-making process.
Cost utility analysis is essentially a specific type of cost effectiveness analysis in which outcomes are measured in terms of QALY's gained. Studies have shown that decision makers find the concepts behind QALY is difficult to understand and that knowledge about formal methodology is limited.4,5

Decision-making process: If the cancer service development planning is done half-heartedly, we will end up adopting a system which will not yield the desired output. A potential danger exists at the planning stage. The anticipated danger will turn into a reality if in a given population cancer service development is mainly performed by health economists only without making any consultations with the patient advocacy groups and health professionals e.g. doctors and nurses.

An alternative approach has been suggested to restrict all economic evaluations to the approach of cost-effectiveness.2 A full table might additionally include anxiety and depression, pain control, carer quality of life, costs to social services and accessibility to the service. Decision makers would use the information provided in the table to make decisions or, if desired, they could also use monetary valuation or discrete choice experiments to obtain utility values for the different elements. The relative efficiency of different options would depend on the implicit or explicit values attached by decision makers to the different elements of cost and outcome. Different options are contrasted clearly and explicitly in tabular form for all the relevant costs and consequences.6 This approach allows decision makers to impute their own values to these costs and consequences, which could differ according to local context. Decision makers can see clearly what is included and what is omitted and one can see where information is quantitative and where qualitative.2

Application of economic evaluation in oncological service development has its own specific complexities. As discussed above, we can apply these theoretical models with some reservations keeping in view all the merits and de-merits attached with each process. We can also learn from previous experiences. When it comes to cancer management, the phenomenon of quality of life is regarded as a multi-dimensional concept and it involves patients social, emotional and physical well being.7 It would be worth mentioning that the incorporation of health economic processes in service development is quite a new area and we are still going through the learning curve.

In the United Kingdom, National Institute of Clinical Excellence (NICE) has attracted much attention and criticism and is seen by some as a potential model of a pan-European agency which will be tackling the so-called fourth hurdle, that is, the issue which deals with the evidence of cost effectiveness.8-10 Japan is regarded as the second largest health care economy in the world but currently it has no system of limiting market entry of drugs based on their cost effectiveness.11 Little has been written about the use of economic evaluation outside Australia, Europe, and North America.1

The ideas discussed and proposed above can be considered for implementation in a developing country like Pakistan as they provide a baseline framework to the health policy makers. All the stake holders involved in health care financing and planning are aware of limitations of finances and cost constraints even in the most developed and so-called rich economies of the world. Hence, when it comes to relevance and practical implementation of the models discussed in the text, any decision-making core committee members can evaluate these models and with their experience they can pick and chose a particular model and apply it in their own scenario, instead of planning a service without giving any due consideration to the tools and processes researched and assessed.

REFERENCES