

Role of Pharmacoeconomic Analysis in Healthcare Systems

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Pharmacoeconomics or health economics is the field that assesses the experimental and economic features of healthcare products, services, and plans for the healthcare providers, patients, and policy makers. It comprises multiple techniques including cost effectiveness, cost benefit, cost of illness, cost minimization, cost utility, and other economic analytical techniques, facilitating the decision makers in the allocation of resources.

It is also sometimes referred to as health outcomes, when a technique is conducted for the non-pharmaceutical courses of therapy or surgical strategies. All resources used to construct and dispense a specific drug therapy are measured to determine its cost. Outcomes are usually classified as positive and negative, based on the measurement of drug usefulness and its side effects including drug resistance and treatment crash¹. Different pharmacoeconomic approaches could be utilized for economic evaluations. These evaluations provide a useful way of comparing various treatment options with their costs and outcomes.

Healthcare professionals must follow proper guidelines for an impactful implementation of any economic analysis. Official panel experts of the United States Public Health Service, Center for Disease Control and Prevention; and the Division of Drug Marketing, Advertising, and Communication [DDMAC] of the FDA in the United States, have designed rules for appropriate management of pharmacoeconomic studies.

The guidelines developed by the academy of managed care pharmacy for formulary proposal include in-depth information of pharmacoeconomic data that should be considered for drug reporting decisions². Pharmaceutical Research and Manufacturers of America (PhRMA) has set principles to guide industrial associates in decreasing bias during pharmacoeconomic studies. Different countries, including Australia, Canada, Italy, Spain, The Netherlands, Switzerland, Germany, France,

and the United Kingdom have developed their own sets of recommendations.

Babar and Scahill conferred in their commentary circulated in 2010 that performance and design of health system and pharmaceutical expenditures of the country are the obstructing factors in the progress of pharmacoeconomics in developing countries³. It is essential to incorporate the subject of pharmacoeconomics in later years of Pharmacy curriculum so that the future practitioners can measure the cost and consequences of drug therapy in a healthcare system⁴.

Pharmacoeconomic analyses are employed in many disciplines mainly pharmaceutical compensation, price cooperation, formulary discussions, guideline developments in clinical practice, and exchange of ideas with prescribing physicians⁵. Pharmacists are expected to have diversified roles in healthcare systems as they are scientifically trained. Hence, pharmacy students need to be familiar with this new concept of pharmacoeconomics.

Currently, the aim of the stakeholders is to follow cost-controlled health policy to reduce health expenditures which are rising swiftly. In this regard, cost-effectiveness analysis is the most rapidly growing subject of pharmaco-economic studies due to its impactful application in healthcare systems. A study conducted in Pakistan, mentioned that the budgets of patients and hospital resources are overburdened by poly prescription however, could be minimized through appropriate screening, relevant prescriptions, and proper medications. An accurate economic history of each patient would surely assist the physicians in prescribing secure and cost effective brands of medicines.

It is, therefore, imperative to educate the future practitioners about the pharmacoeconomic parameters and aspects to implement in healthcare system in the true sense. This could be achieved by incorporating content related to the pharmacoeconomic approaches in undergraduate curriculum of pharmaceutical sciences. It is also recommended to arrange learning sessions frequently to educate health professionals about pharmacoeconomic analysis.

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