



Health Technology Assessment From the Efficiency Lens

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Health technology assessment is known as a method that examines the effects and consequences of entering and applying health technology on various aspects, such as improving patient health, service providers' performance, and also the economic efficiency of the health system. The limitation of resources in health in face of the growing needs of the community and increase in the number of elderly has led to higher budgetary pressure on the health system. In this regard, attention has been paid to improving efficiency (1). Efficiency means increasing the output from a given amount of resources or reducing primary sources for a fixed output. Health technology assessment could improve efficiency through three mechanisms.

1. Preventing Diffusion of Low-Value Care Technologies

Low-value health services are services that do not have meaningful clinical effectiveness or are less effective than other services (2). The amount of resources used by these services to create health units, such as QALY, is higher compared to other health care services. According to the definition of efficiency, these services cannot be recognized as efficient services, as there are other healthcare services, which can provide the same amount of health units by using fewer resources. Therefore, health technology assessment through performing a systematic review of clinical effectiveness evidence prevents entrance of unnecessary services and provides a tool for improving efficiency in the health care system. This approach is used in a number of developed countries that have a health technology assessment system.

2. Accelerating Diffusion Rate of Useful Health Care Technologies

Evaluating the effectiveness and economic impact of a new technology may take a year or more. International evidence shows that the establishment of health technology assessment system causes a delay of technology diffu-

sion in the health system. This lag can cause dissatisfaction among patients and clinicians. However, the link between health technology assessment and insurance coverage policies can turn the short-term effects of the initial slowdown of technology diffusion to long-term clinical benefits for patients by insurance coverage (3). Since the cost of technology is covered by basic health insurances, the financial access of patients to useful technologies can be expedited, with guarantee of financial protection (4). Such a mechanism ensures the usefulness of the new technology and also helps improve long-term efficiency.

3. Changes in the Policy of Utilizing In-Used Technologies

A high volume of health services have been introduced in the healthcare system before the introduction of health technology assessment system. Evidence indicates that inefficiency among these technologies is high. In this regard, health technology assessment can help improve efficiency by changes in utilization policies (5). For example, the approach to review pharmaceutical pricing and the regionalization of expensive diagnostic technologies can be highlighted. Value-based pricing can be the basis for applying disinvestment policies in the field of medicines (6). Global experience in this area is increasing, such that most countries are considering the use of health technology assessment to change policies regarding the utilization of existing technologies (6).

Generally, enhancing efficiency will be the main solution for making a well-designed system for health service delivery network. Hence, health technology assessment has been described as a strong tool for "reducing diffusion of low-value health services", "increasing diffusion rate for valuable health services", and "management of health services utilization".

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