VALUE IN HEALTH 15 (2012) S120–S125

Available online at www.sciencedirect.com

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journal homepage: www.elsevier.com/locate/jval

DECISION-MAKER COMMENTARY

Drug Reimbursement Decision-Making in Thailand, China, and South Korea

Surachat Ngorsuraches, PhD[1,], Wei Meng, MA[2], Bo-Yeon Kim[3], Vithaya Kulsomboon, PhD[4]*

[1]*Faculty of Pharmaceutical Sciences, Prince of Songkla University, Songkhla, Thailand;* [2]*China Health Insurance Research Association, Beijing, China;* [3]*Health Insurance Review & Assessment Services, Seoul, South Korea;* [4]*Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, Thailand*

ABSTRACT

Objective: To provide a comparison of national drug reimbursement decision-making, including an update of economic evaluation roles and barriers, in Thailand, China, and South Korea. **Methods:** Documentary reviews supplemented by experiences of policymakers. **Results:** National health insurance policy in all the three countries has been developed toward coverage for all. It leads to higher health-care expenditures and requires a good reimbursement system for health-care services, including drugs. Drug reimbursement decision-making in these countries is to develop a reimbursement list with the help of various committees having different roles. Primarily, they assess the clinical and safety evidence. Economic evidence, including budget impact and pharmacoeconomic evaluation, has also been very important for their reimbursement decision-making. This evidence is sometimes used in negotiation mechanism, which allows pharmaceutical companies to lower their drug prices and leads to lower overall drug expenditures. Several common barriers, for example, human capacity and data availability, for obtaining economic evidence in all the three countries, however, still exist. **Conclusions:** Drug reimbursement decision-making in Thailand, China, and South Korea is in its transition period. It seems to run in the same direction, for example, guideline development and pharmacoeconomic evaluation agency establishment. Pharmacoeconomic evaluation plays important roles in the efficiency of drug reimbursement decision-making, even though there are several barriers to be overcome.

Keyword: drug reimbursement, health insurance, reimbursement decision-making.

Introduction

Health-care systems in the Asia-Pacific region have dramatically changed in the last 10 years. One of the major changes among countries in the region has been health insurance coverage. While their health insurance systems have aimed for an increase in access to health-care services, health-care policymakers need to ensure efficient resource allocation because of limited resources. These countries have established their own evidence-based mechanisms for making decisions in various processes, for example, approval and utilization of health technologies [1,2]. Among these processes, drug reimbursement is one of the most powerful tools formulated by policymakers because it financially affects providers and, in turn, could affect patients. It is a complex issue, however, because it always has two facets, increasing and restricting access. Therefore, this topic was chosen to be presented at the first plenary session of the ISPOR 4th Asia-Pacific Conference in Phuket, Thailand, on September 6, 2010. Thailand, China, and South Korea were selected as country examples because they had rapidly changing systems in the region. Senior policymakers were invited to represent their countries and were asked to review the decision-making of health-care reimbursement, focusing on drugs. This commentary was synthesized from this specific plenary session and aimed to provide a comparison of national drug reimbursement mechanisms, including an update of economic evaluation roles and barriers, across all the three countries.

Health insurance systems

Drug reimbursement mechanisms are part of health insurance systems. Thailand, China, and South Korea have their own unique health insurance systems, which tend to shape the reimbursement mechanism because of several factors, for example, employment type, source of funding, and payment mechanism.

Thailand

Thailand has approximately 64 million people and had a gross national income (purchasing power parity) of approximately 180,000 Thai baht per capita in 2008 (approximately US$5000) [3]. On average, Thai citizens spent approximately 4% of their annual income for health-care services. The country is one of the Asia-

Conflicts of interest: The authors have indicated that they have no conflicts of interest with regard to the content of this article.

* *Address correspondence to:* Surachat Ngorsuraches, Faculty of Pharmaceutical Sciences, Prince of Songkla University, Hatyai, Songkhla 90112, Thailand.

E-mail: surachat.n@psu.ac.th.

1098-3015/$36.00 – see front matter

doi:10.1016/j.jval.2011.11.002

Pacific countries that have an emerging health insurance system. Major changes in national health insurance began in 2002, when a Universal Coverage (UC) health insurance policy was launched. Since then, the health insurance system in Thailand has three major schemes, the Civil Servant Medical Benefit Scheme (CSMBS), the Social Security Scheme (SSS), and the Universal Coverage (UC) scheme. The UC scheme covers about 75% of the country's population while the CSMBS and the SSS cover approximately 22%. Therefore, only about 2% of the whole population is still uninsured [1]. The CSMBS was established as a fringe benefit in 1978, to provide health-care services to all government employees, their dependents, and retirees. It is fully funded by general tax, and it is operated by the Comptroller General's Department, Ministry of Finance. The SSS was established in 1990, and it is a compulsory insurance scheme for employees in the private sector. It covers only the employees themselves. Its source of funds basically comes from employees, employers, and the government, and it is run by the Social Security Office (SSO). The UC scheme is a social welfare scheme by nature for people who are not eligible for the CSMBS and the SSS. It is primarily funded by general tax, and it is operated by the National Health Security Office [1].

China

China has systematically carried out a series of reforms in medical security since 1990s. Now a multilevel medical security system, which is compatible with the socialist market economy of China, has been established. It plays an important role in securing and improving people's lives and stabilizing the social stability in China. Basically, there are three principal medical insurance schemes, Urban Employee Basic Medical Insurance, Urban Resident Basic Medical Insurance, and New Rural Cooperative Medical Care. For disadvantaged groups, Urban and Rural Social Medical Aid is also provided as a minimum security. Moreover, there are other supplementary schemes, including Enterprise Supplementary Medical Insurance, Commercial Health Insurance, Civil Servants Medical Subsidy, and Medical Security, for specific groups. The Urban Employee Basic Medical Insurance scheme, launched in 1998, covers urban employees and retirees, some urban residents with flexible employment, and rural migrant workers. In 2003, the Chinese government began to establish the New Rural Cooperative Medical Care scheme for rural residents while the Urban Resident Basic Medical Insurance scheme was initiated in 2007 to provide medical benefits to all urban residents, excluding those covered by the Urban Employee Basic Medical Insurance scheme. In some cities, the Urban Resident Basic Medical Insurance and New Rural Cooperative Medical Care schemes have been integrated into a unified scheme named the Urban & Rural Resident Basic Medical Insurance scheme. In 2009, the total medical insurance coverage rate in China reached 93%, with Urban Employee Basic Medical Insurance scheme insuring 17% (220 million), the Urban Resident Basic Medical Insurance scheme insuring 14% (180 million), and the New Rural Cooperative Medical Care scheme insuring 61% (830 million) of the residents.

South Korea

Korean National Health Insurance (KNHI) was introduced as the first social insurance program for only corporate employees in 1977, and it covered the whole population of the Republic of Korea in 1989. Basically, the KNHI is funded by various sources, including premium, co-payment, tax, and employment funds. Fee-for-service is the major payment method of the KNHI while the diagnostic related group (DRG) method is used for seven types of medical procedures. Similar to any fee-for-service type of payment system, overutilization is a challenge for the KNHI. In 2009, the benefit coverage rate (rate of reimbursement for covered services) for inpatient care was approximately 80% and for outpatient care was between 50% and 70%. There are various agencies in South Korean health-care system. For overall administration, the Ministry of Health and Welfare controls the KNHI program. While medical care institutions provide medical care, an agency called the National Health Insurance Corporation (NHIC) is responsible for reimbursement to health-care provider institutions. In addition, the Health Insurance Review and Assessment service (HIRA), which is a specialized governmental organization, is responsible for health insurance review and assessment processes. In these processes, medical care institutions need to submit claims to HIRA. HIRA then checks the input and error of claims, and the claims undergo an indicator review. The results of the review are eventually transmitted to the NHIC and provider institutions.

Even though these three countries have unique health insurance systems, they have developed toward universal coverage, which extensively increases access to health-care services, including drugs. The universal health insurance coverage, however, can be expensive, especially drug expenditure, if the reimbursement has not been set appropriately.

Drug reimbursement systems

Drugs are what patients expect when they obtain health-care services. The drug reimbursement system itself has two facets because it can not only contain costs but also limit access. Therefore, the reimbursement system in each country has been carefully designed, especially the list of reimbursable drugs. Table 1 summarizes drug reimbursement systems across all the three countries.

Thailand

In Thailand, all three major insurance schemes have their own health service benefit packages listing reimbursable services and also have their own payment systems. Basically, the benefit packages are composed of two major health services, ambulatory and inpatient services, under different kinds of reimbursement methods. The CSMBS uses prospective payment (DRG) for inpatient services and fee-for-service type of payment for ambulatory services. It limits its beneficiaries to obtain any services only in public hospitals. While the SSS allows its beneficiaries to use health-care services at either public or private network hospitals, basically its payment type is capitation for both inpatient and ambulatory services. Similar to the CSMBS, the UC scheme provides similar coverage for inpatient health services under the DRG type of payment. It applies capitation type of payment, however, for ambulatory services [1].

Because the nature of provided inpatient services depends to a large degree on common medical and nursing procedures, the DRG for the CSMBS and the UC scheme and capitation for the SSS work efficiently. The DRG has been set for each health-care procedure or intervention, and the CSMBS and the UC scheme can allocate their resources accordingly. The SSS beneficiaries may sometimes suffer with the underutilization of provided services that could possibly happen from capitation. Its impact tends to be minor because most beneficiaries are in their working ages and rarely use the inpatient services. Recently, however, the SSS beneficiaries have raised a concern that their health benefit package is inferior to that offered by the CSMBS and the UC scheme. The ambulatory services rely heavily on prescription drug use. Decisions for drug reimbursement have a longer history, and it has been more systematically developed than other areas in health-care services. The mechanisms, processes, evidence used in decisions for drug reimbursement, and the role of health technology assessment on drug reimbursement in Thailand have been comprehensively presented in previous literatures [1,4]. Basically, the National Drug Committee develops the National List of Essential Medicines (NLEM), which is a list of drugs, vaccines, radioactive