Setting national priorities for quality assessment of health care services in Korea

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Abstract

Objective. To identify target services and determine national priorities among those services identified for a national quality assessment program of the Health Insurance Review Agency (HIRA) in Korea.

Design. Target services were identified from published sources addressing quality problems, various quality-monitoring programs in other countries, suggestions from 26 medical specialty associations in Korea, and frequently reported consumer claims. Three steps were involved in the prioritization decision: (i) development of a set of priority criteria; (ii) expert panel survey to evaluate the extent to which individual services satisfy each of the priority criteria and to calculate mean priority ratings for individual services; and (iii) formation of four levels of priority groups—top, high-middle, middle, and low—according to the allocated priority ratings.

Results. Five priority criteria were selected: 'burden of the condition', 'seriousness of the quality problem', 'interest and demand of society', 'acceptability', and 'the feasibility of quality assessment'. Among the 57 services identified as targets for the national quality assessment program, 10 were selected as having a top priority for quality assessment because of their high feasibility rating. These are: cardiac surgery; cataract surgery; tonsillectomy; appendectomy; tooth extraction; usage of albumin/globulin products; treatments for hypertension, pneumonia, and acute upper respiratory infection; and services provided by clinical laboratory centers.

Conclusion. The priority services identified from the studies will assist the HIRA in selecting target services and implementing the national assessment program.

Keywords: health care services, priority, quality assessment

Introduction

Due to the financial crisis resulting from rapidly rising health care spending under the national health insurance system, the Korean government has an urgent need for an effective mechanism to control national health care expenditure. One strategy that the government recently focused on to reduce unnecessary health care spending involves the prevention or minimization of provisions for inappropriate and unnecessary care. To achieve this goal, the Korean Health Insurance Review Agency (HIRA) is initiating a national program of quality assessment for health care services. The HIRA is a government body founded in 2000 and is responsible for reviewing the medical fee schedule, and evaluating whether health care services are medically necessary and delivered to

beneficiaries at appropriate level and cost. Quality assessment is a means of promoting the quality of care by identifying cases of poor quality or of inappropriate care based on pre-existing criteria, providing feedback, and undertaking intervention, if necessary [1].

To implement the national quality assessment program, it is necessary to first identify specific health service areas that demonstrate potential quality problems and a need for quality improvement. All such identified service areas are assumed to be important and in urgent need of attention, but it is unrealistic to expect that the HIRA could implement a quality assessment program for the entire list of identified services at once, due to the present conditions of insufficient resources and the low competency of the HIRA with respect to quality assessment. Thus, the gradual implementation of the national quality

assessment task would seem to be a pragmatic approach. Therefore, priorities have to be set among the identified services, which identify those services that should be assessed first, and those that can be postponed.

While there have been a number of studies undertaken on setting priorities for health care services, most have involved setting priorities for insurance coverage decision, or technology assessments [2–10]. Recently, a few studies and reports have shown steps leading to the prioritization of health care services for quality assessment at the national level [11–13]. However, because types of priority criteria and the priority ratings of services according to these criteria are highly dependent on the values and demands of society, it is difficult to apply the prioritization of health care service for quality assessment established in other countries to our society. Thus, this paper was prepared in an attempt to present how target services were identified and priorities were determined among the identified services for national quality assessment in Korea. It is hoped that the present study contributes to the enrichment of the body of literature related to priority decision-making for the quality assessment of health care services.

Methods

Identifying target services

Figure 1 presents the steps involved in identifying and prioritizing target services. A preliminary list of candidate services was identified by searching for the following services: (i) those with quality-related problems that had been documented in domestic or international peer-review journals, or in technical reports or doctoral theses in Korea between 1985 and 2000; (ii) those currently monitored for their quality in other countries under programs such as the Expansion of Quality of Care Measure (Q-SPAN) [14], Computerized Needs-Oriented Quality Measurement Evaluation System (CONQUEST) [15], and Health Care Cost and Utilization Project (HCCUP) [16]; (iii) those suggested by 26 medical specialty associations in Korea as being in need of quality control; and (iv) those with quality-related problems that had been repeatedly reported in the HIRA's appeal system or had been addressed via mass media such as daily newspapers or medical professional newspapers between 1997 and 2000 in Korea. A total of 120 candidate services were identified from these sources.

Identified services were removed from the list according to the following exclusion criteria: (i) if the cases identified from foreign sources were relatively rare in Korea; (ii) if it was more relevant that the quality of the service be monitored internally by individual organizations rather than externally by the HIRA; (iii) if other external institutions, such as professional medical organizations, were already monitoring the quality or were considered able to achieve the goal of quality assessment more effectively than the HIRA; (iv) if the services were already being assessed by the HIRA's quality assessment program. These were: Cesarean section; hemodialysis treatments; usage of antibiotics, injections, and high-priced pharmaceutical
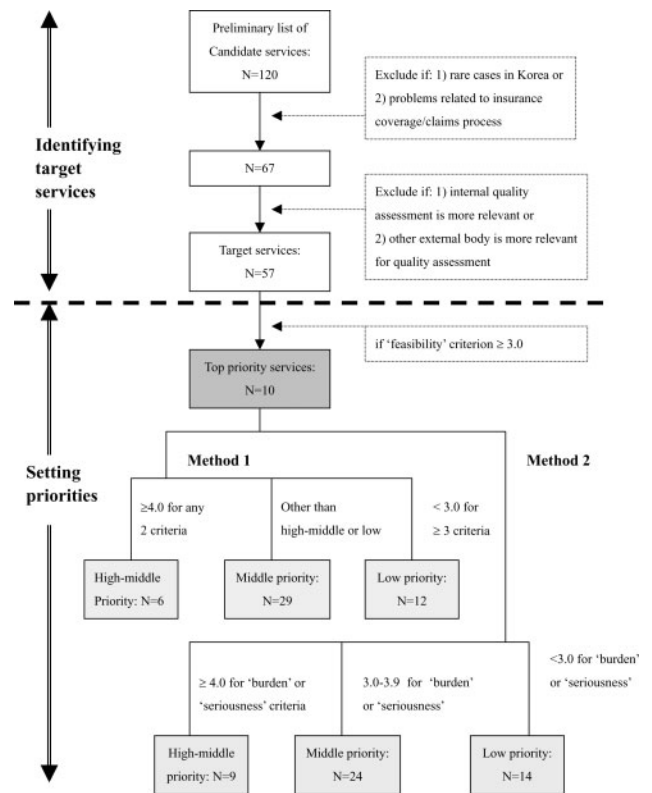

Figure 1 Steps for identifying and prioritizing target services (N = No. health care services).

products; usage of computed tomography (CT) scanners; and services provided in social welfare foundation hospitals

As a consequence, 57 health services were identified and placed on the final list of target services. According to the characteristics of the services or problems, we classified the target services into five categories: (i) treatments for 21 diseases or conditions, such as hypertension and hepatic cancer; (ii) 14 surgical interventions or medical procedures, such as cataract surgery and tooth extraction; (iii) services provided in five specialized sites or facilities including emergency care units and clinical laboratory centers; (iv) utilization of nine pharmaceutical products such as albumin/globulin products; and (v) overall quality performance of health care institutions in eight areas, such as hospital infection, unplanned re-operation, and unplanned re-admission, which are cross-cutting areas in which improvements would benefit a broad array of patients.

Setting priorities for identified services

The basic framework of making priority decisions for assessing quality followed Haltgrave's model [17,18]. This model gives the top priority to target services that satisfy a basic criterion, which is considered the most important factor for priority decision-making. The remaining services were then ranked according to the mean ratings for the selected set of priority criteria.

Three steps were involved in the prioritization decision-making. First, we developed a set of priority criteria that

served as rules for judging the precedence of the services for quality assessment. Second, an expert panel survey was conducted to evaluate the extent to which individual services satisfied each of the priority criteria, and to calculate mean priority ratings for individual services. Third, four levels of priority groups—top, high-middle, middle, and low—were formed by grouping priorities according to the mean priority ratings.

Developing priority criteria

To identify a list of candidate priority criteria suitable for determining the precedence of health care services for quality assessment, a literature study was performed using a MEDLINE search from 1985 to 2001 based on the key words 'priority', 'criteria', or 'quality assessment'. A series of informal group discussions were arranged with a group of experts in the field of health care service quality assessment in Korea, with an aim of reaching a consensus on which criteria were retained or removed from the list of the candidate criteria. The criteria reflecting similar concepts were then grouped together to condense the number of the final set of priority criteria to manageable proportions.

Conducting a panel survey to obtain priority score

A mailed questionnaire survey was then submitted to an expert panel to identify priority services according to professional judgments in terms of the extent to which an individual service satisfies each of the priority criteria. A total of 81 subjects were identified as panel members. These individuals represented various interested parties affected by the quality assessment outcomes and were qualified to make a professional decision. From the health service provider's side, the following subjects were included on the panel: 30 physicians from 26 specialty areas, who were the entire membership of the part-time clinical committee of the HIRA; four hospital staff from the division of quality improvement, each at the four selected hospitals; and four representatives from the Korean Hospital Association (KHA) and from the Korean Medical Association (KMA). On behalf of the government, three officials from the Ministry of Health and Welfare and 12 quality assessment committee members from the HIRA were selected. Finally, 28 academics and researchers of health services research institutions representing multiple disciplines, such as health policy and administration, health economics, and epidemiology, were identified. After sending two reminders and a second mailing to non-respondents, 34 of the 81 panel members completed the questionnaire, yielding a response rate of 41.5%. Academics and researchers showed the highest response rate (57.1%), followed by hospital quality improvement staff (50.0%), representatives from the KHA and the KMA (50.0%), and quality assessment committee members of the HIRA (50.0%). Government officials from the Ministry of Health and Welfare (33.3%) and part-time physician committee members of the HIRA (23.3%) showed the lowest response rates.

The questionnaire was divided into three sections. In the first section, respondents were asked to assign an importance weighting, ranging from 1 (very unimportant) to 5 (very important), to each of the priority criteria. The importance weighting represents the subjective judgment of each panel member of the relative importance of each criterion as a decision factor in determining the priority of quality assessment. In the second section, each panel member rated each service for each of the criteria according to the extent to which the service satisfies the criteria. The rating was based on a five-point Likert-type response scale, where 1 referred to 'very low', 2 to 'low', 3 to 'neither high nor low', 4 to 'high', and 5 to 'very high'. To minimize arbitrary decisions and to aid the objective judgments of the respondents in terms of the extent to which individual services met the priority criteria, we provided statistical information in the last section of the questionnaire, for example, the prevalence of a condition, its service utilization rate, and the average and total cost of the service. In addition, we provided a brief description of the findings from previous research published in domestic and international peer-review journals and anecdotal reports, and newspaper articles addressing relevant quality problems of that particular service.

Classifying the top, high-middle, middle, and low priority service groups

Due to the strong concern of the HIRA on the practicability of priority decision-making, the 'feasibility of assessing quality' was selected as a basic criterion, which was considered the most important factor for determining priority, and which served as a filtering factor to identify 'top priority services' [17,19]. If the service classified into the 'top priority group' was not ready for quality assessment due to a lack of the infrastructure required for quality assessment, then the HIRA could not implement a quality assessment program for that particular service. Thus, by giving top priority to services showing the highest feasibility, we attempted to facilitate the HIRA's quality assessment function, hoping that this would help the HIRA quickly establish a national quality assessment mechanism.

If a service showed a mean score of 3.0 or over for the 'feasibility' criterion, then the service was classified into the 'top priority group', implying that the quality assessment program for that service could be initiated within a few years.

For the remaining services, two alternative methods were applied to identify 'high-middle', 'middle', and 'low' priority groups. Figure 1 depicts these two methods. According to Method 1, we defined services showing a mean score of 4.0 or over for any two or more criteria as 'high-middle priority services': less than 3.0 for any three or more criteria as 'low priority services', and the others as 'middle priority services'. Alternatively, in Method 2, we determined the priority groups based on criteria showing the highest importance weighting according to the panel survey results.

Results

A final set of five criteria was selected as decision-making factors for setting national quality assessment priorities: burden

of the condition, seriousness of the quality problem, interest and demand of society, acceptability, and feasibility of assessing quality. The description of each criterion was as follows. Firstly, 'the burden of the condition' indicates the size of the population and the cost burden of that particular service in Korea [3,20,21]. As the size of the population and the health care spending associated with a poor quality service increase, the urgency and priority of the quality assessment also increases. Examples of indicators used to measure 'burden of the condition' are mortality, prevalence, average treatment cost per visit (hospitalization or procedure), total national treatment costs, and frequency of visits (hospitalization or procedures) per year. For each of these indicators, the rank or the proportion of the total health care service that the service accounts for was also used to indicate the relative size of the burden.

Secondly, 'the seriousness of the quality problem' was assessed on the basis of the extent to which empirical evidence or controversies regarding the inadequacy of the level of the service quality existed. More specifically, services having any of the following problems were regarded as having potential quality problems: inappropriateness or inadequacy of structural components of a service (i.e. personnel, facilities, and equipment) required to provide a quality service; inappropriateness or inadequacy of the process undergone to produce a service; ineffectiveness; inefficiency; practice variation; volume–outcome relationship (indicates that health care providers performing more procedures tend to yield better outcomes [22,23]); over- or under-utilization; and low patient satisfaction. Each of these aspects characterizes undesired levels of quality of health care services [24–30].

Thirdly, 'interest and demand of society' indicates whether there is a strong interest among stakeholders, namely, patients, health care providers, insurers, health policy makers, or the government, in the quality-related problems of that specific service, and a high demand for improving service quality [21]. Indicators used to evaluate this factor were: the extent to which the stakeholders/interested parties recognize the necessity for improving quality, and whether public opinion has been alerted to the need for quality improvement.

Fourthly, 'acceptability' indicates whether the stakeholders/interested parties easily accept the necessity of quality assessment activities [21,31]. It also implies that changes required to improve the quality of service for a target issue are readily achievable.

Finally, 'feasibility of assessing the quality' indicates the degree of readiness to conduct a quality assessment, which is determined by the availability of quality indicators or the possibility of developing quality indicators in a short time period, the accessibility of data, and the amount of time and resource required for quality assessment [21,31,32]. If a service satisfies these factors, the process of assessing quality will be easier and consequently the chance of such a service being selected as high priority would be increased.

Of the five priority criteria, 'seriousness of the problem' (4.55 ± 0.96) and 'burden of the condition' (3.95 ± 1.00) had the highest mean importance weighting (Table 1). Therefore, according to method 2, services with a mean score of 4.0 or

Table 1 Relative importance of the priority criteria as decision factors

Priority criteria	Importance weighting[1]	
	Mean (SD)	Median
Burden of the condition	3.95 (1.00)	4
Seriousness of the quality problem	4.55 (0.96)	5
Interest/demand of society	3.32 (0.99)	3
Acceptability of the QA[2] activities	3.36 (0.90)	3
Feasibility of the QA[2]	3.27 (1.35)	3

[1]Weighting was measured on a five-point scale: 1 = unimportant, 2 = of slight importance, 3 = neither important nor unimportant, 4 = important, and 5 = very important.
[2]QA = quality assessment.

over for 'seriousness of the problem' or 'burden of the condition' were identified as 'high-middle priority services'; 3.0–3.9 for both criteria as 'middle priority services'; and <3.0 for either criterion as 'low priority services'.

Ten services were identified as 'top priority services': cardiac surgery; cataract surgery; tonsillectomy; appendectomy; tooth extraction; usage of albumin/globulin products; treatments for hypertension, pneumonia, and acute upper respiratory infection; and services provided by clinical laboratory centers (Table 2).

Six services were classified in the 'high-middle priority group' according to Method 1: treatments for diabetic mellitus, stroke/cerebrovascular disease, and gastric cancer; usage of hormone products; and services provided in emergency care units and intensive care units (Table 3). According to Method 2, the 'high-middle priority group' included these six services plus three additional services, which were treatments for hepatic cancer, usage of analgesics/antipyretics, and rates of hospital infection (Table 3). A total of 29 and 24 services were classified as 'middle priority services' according to Methods 1 and 2, respectively (Table 4). Finally, the remaining 12 and 14 services were identified as having 'lowest priority' according to Methods 1 and 2 (Table 5).

The 'middle priority service' classification showed the highest degree of consistency between the two methods. About 95.8% of the middle priority services according to Method 2 were also classified as having the same priority category in Method 1 (Table 6). In contrast, for high-middle and low priority groups, the degrees of consistency were only 66.7% and 78.6%, respectively.

Discussion

Quality assessment is a useful way of promoting the quality of health care by identifying cases of poor quality, providing feedback, and intervening, and it is believed to be a complicated task, which requires substantial resources [1]. Although it is advantageous to assess and monitor the quality of a wide

Table 2 List of top priority services for the national quality assessment

Type of service	Mean score for priority criteria[1]				
	Burden of the condition	Seriousness of the quality problem	Interest/demand of society	Acceptability of the QA[2] activities	Feasibility of QA[2]
Treatments for a disease/condition					
Hypertension	4.4	4.1	4.3	3.5	3.0
Pneumonia	3.4	3.1	2.4	3.0	3.0
Acute upper respiratory infection	3.3	2.5	2.7	2.8	3.3
Surgery or medical procedures					
Cardiac surgery	3.5	3.9	3.2	3.6	3.3
Cataract surgery	3.8	3.7	3.4	3.0	3.4
Tonsillectomy	3.2	3.4	3.0	3.2	3.0
Appendectomy	3.3	3.1	2.5	2.9	3.4
Tooth extraction	3.2	2.8	2.8	3.1	3.2
Usage of pharmaceuticals					
Albumin/globulin products	3.1	3.4	3.1	3.6	3.1
Services provided in specialized sites or facilities					
Clinical laboratory centers	3.1	3.1	2.6	3.5	3.2

Services with a mean score of ≥3.0 for 'feasibility' criterion were classified into the 'top priority group'.
[1]Each priority criterion was rated on a five-point scale: 1 = very low, 2 = low, 3 = neither high nor low, 4 = high, 5 = very high.
[2]QA = quality assessment.

Table 3 List of high-middle priority services for the national quality assessment

Type of service	Mean score for priority criteria[1]					
	Burden of the condition	Seriousness of the quality problem	Interest/demand of society	Acceptability of the QA[2] activities	Feasibility of QA[2]	Priority decision method[3]
Treatments for a disease/condition						
Diabetic mellitus	4.4	4.1	3.9	3.6	2.9	1, 2
Stroke/cerebrovascular disease	4.5	4.4	4.1	3.5	2.2	1, 2
Gastric cancer	4.4	3.7	4.2	3.3	2.8	1, 2
Hepatic cancer	4.0	3.7	3.8	2.8	2.5	2
Usage of pharmaceuticals						
Hormone products	3.4	4.1	3.7	4.1	2.8	1, 2
Analgesics/antipyretics	4.0	3.4	3.3	3.1	2.5	2
Services provided in specialized sites or facilities						
Emergency care unit	4.5	4.5	4.5	3.6	2.9	1, 2
ICU[4]	4.3	4.4	4.0	3.8	2.9	1, 2
Overall quality performance for cross-cutting areas						
Hospital infection	3.8	4.1	3.7	3.7	2.2	2

[1]Each priority criterion was rated on a five-point scale: 1 = very low, 2 = low, 3 = neither high nor low, 4 = high, 5 = very high.
[2]QA = quality assessment.
[3]1, 2: selected as middle priority services by both Methods 1 and 2; 1: selected as middle priority services by Method 1; 2: selected as middle priority services by Method 2. Method 1: 'high-middle priority services' = services showing a mean score of ≥4.0 for any two or more criteria; Method 2: 'high-middle priority services' = services showing a mean score of ≥4.0 for 'burden of the condition' or 'seriousness of the quality problem'.
[4]ICU= intensive care unit.

Table 4 List of middle priority services for the national quality assessment

Type of service	Mean score for priority criteria[1]					
	Burden of the condition	Seriousness of the quality problem	Interest/demand of society	Acceptability of the QA[2] activities	Feasibility of QA[2]	Priority decision method[3]
Treatments for a disease/condition						
Breast cancer	3.8	3.8	4.1	3.4	2.7	1, 2
Cervical cancer	3.8	3.7	3.7	3.1	2.7	1, 2
Rheumatoid arthritis	3.9	3.6	3.5	3.3	2.3	1, 2
Hepatic cancer	4.0	3.7	3.8	2.8	2.5	
Lung cancer	3.8	3.5	3.9	3.0	2.4	1, 2
Dental caries	3.7	3.1	3.4	3.1	2.9	1, 2
Asthma	3.6	3.4	3.4	2.9	2.7	1, 2
Pneumonia	3.4	3.1	2.4	3.0	2.9	1, 2
Depression	3.0	3.2	3.2	2.9	2.0	1, 2
COPD[4]	3.0	3.0	2.5	3.1	2.5	1, 2
Surgery or medical procedures						
Transfusion/blood management	3.5	3.3	3.1	3.2	2.8	1, 2
Usage of materials for operations	3.6	3.1	2.5	3.2	2.0	1, 2
Hip replacement	3.0	3.3	2.7	3.2	2.6	1, 2
Laminectomy/spinal fusion	3.0	3.6	2.6	3.0	2.3	1, 2
Cholecystectomy	3.0	3.3	2.7	3.0	2.8	1, 2
Kidney transplantation	2.9	3.5	3.6	3.1	2.9	1
Nerve block/pain management	2.7	3.2	3.0	3.0	2.5	1
Usage of pharmaceuticals						
Pharmaceutical therapy for circulatory disease	3.9	3.8	3.6	3.4	2.9	1, 2
IV products	3.1	3.4	3.0	3.5	2.9	1, 2
Pharmaceutical therapy for peptic ulcer	3.7	3.1	3.0	3.2	2.6	1, 2
Aminoglycoside products	3.0	3.4	2.8	3.4	2.9	1, 2
Analgesics/antipyretics	4.0	3.4	3.3	3.1	2.5	1
Antacids	3.6	3.1	2.9	2.9	2.7	2
Services provided in specialized sites or facilities						
Physical therapy at oriental clinics/hospitals	3.8	3.9	3.3	3.5	2.7	1, 2
Isolated care units	3.1	3.1	2.8	3.0	2.8	1, 2
Overall quality performance for cross-cutting areas						
Hospital infection	3.8	4.1	3.7	3.7	2.2	1
Appropriateness of hospitalization	3.7	3.9	3.0	3.6	2.2	1, 2
Post-operative complication	3.5	3.5	2.8	3.4	2.2	1, 2
Post-operative wound infection	3.4	3.3	2.8	3.3	2.1	1, 2
Risk-adjusted in-hospital mortality	2.9	3.4	3.0	3.2	1.9	1

[1]Each priority criterion was rated on a five-point scale: 1 = very low, 2 = low, 3 = neither high nor low, 4 = high, 5 = very high.
[2]QA = quality assessment.
[3]1, 2: selected as high-middle priority services by Methods 1 and 2; 1: selected as high-middle priority services by Method 1; 2: selected as high-middle priority services by Method 2. Method 1: 'middle priority services' = services other than high, high-middle, or low priority services. Method 2: 'middle priority services' = services showing a mean score of 3.0–3.9 for the 'burden of the condition' and 'seriousness of the quality problem'.
[4]COPD = chronic obstructive pulmonary disease.

Table 5 List of low priority services for the national quality assessment

Types of services	Mean score for priority criteria[1]					
	Burden of the condition	Seriousness of the quality problem	Interest/demand of society	Acceptability of the QA[2] activities	Feasibility of QA[2]	Priority decision method[3]
Treatments for a disease/condition						
Schizophrenia	2.9	3.4	3.9	2.8	2.3	1, 2
Periodontal diseases	3.4	2.6	2.6	2.8	2.5	1, 2
Cervical vertebral disc disorder	2.9	3.2	2.8	3.0	2.6	1, 2
Congestive heart failure	2.9	3.4	2.5	3.2	2.6	1, 2
Acute otitis media	2.8	3.0	2.5	3.1	2.6	1, 2
Prostatectomy	2.5	2.9	2.7	2.9	2.8	1, 2
Surgery or medical procedure						
Hysterectomy	2.9	3.6	2.7	2.9	2.8	1, 2
Kidney transplantation	2.9	3.5	3.6	3.1	2.9	2
Nerve block/pain management	2.7	3.2	3.0	3.0	2.5	2
Usage of pharmaceuticals						
Antacids	3.6	3.1	2.9	2.9	2.7	1
Digestives	3.1	2.8	2.6	2.8	2.6	1, 2
Overall quality performance for cross-cutting areas						
Unplanned re-operation	2.9	3.4	2.8	3.2	2.4	1, 2
Unplanned re-admission	2.8	3.4	2.7	3.3	2.6	1, 2
Recurrent visits for the same condition	2.9	3.1	2.6	3.0	2.1	1, 2
Risk-adjusted in-hospital mortality	2.9	3.4	3.0	3.2	1.9	2

[1]Each priority criterion was rated on a five-point scale: 1 = very low, 2 = low, 3 = neither high nor low, 4 =high, 5 = very high.
[2]QA = quality assessment.
[3]1, 2: selected as high-middle priority services by Methods 1 and 2; 1: selected as high-middle priority services by Method 1; 2: selected as high-middle priority services by Method 2. Method 1: 'low priority services' = services with a mean score of <3 for any three or more criteria. Method 2: 'low priority services' = services with a mean score of <3 for 'burden of the condition' or 'seriousness of the quality problem'.

Table 6 The classification of target services into high-middle, middle, and low priority services by Methods 1 and 2

Method 1	No. services (%)			
	Method 2			
	High-middle priority	Middle priority	Low priority	Total
High-middle priority	6 (66.7)	0 (0.0)	0 (0.0)	6
Middle priority	3 (33.3)	23 (95.8)	3 (21.4)	29
Low priority	0 (0.0)	1 (4.2)	11 (78.6)	12
Total	9 (100)	24 (100)	14 (100)	47

range of health care services, we are often restricted in terms of targeting a selected set of services due to limited resources. Given this lack of resources allocated to the quality assessment task, the HIRA, which is responsible for evaluating and monitoring the quality of health care in Korea, was obliged to set priorities for the quality assessment of services.

The priority setting mechanism employed in this study was derived from 'multi-attribute utility theory', in which priority decisions are made on the basis of rating the services accord-

ing to pre-selected criteria [17,18,33]. Haltgrave's method, based on filtering the top priority group by a basic criterion, was also used to identify top priority services [17,19].

Due to the strong motivation for the HIRA to initiate the national quality assessment program, the 'feasibility of assessing quality' served as the single most important consideration in terms of determining the 'top priority' group. However, the expert panel had a different point of view. Among the five criteria chosen, 'the burden of the condition' and the 'seriousness of the quality problem' achieved the highest mean

importance weighting by the panel survey, while 'feasibility' showed the lowest weighting. This suggests that the panel members agreed that the size and the degree of the quality problem should be the primary consideration rather than political pressure or enabling conditions.

To achieve compromise between the two parties, we employed Method 2 to determine the next priority categories— i.e. the high-middle, middle, and low priority services. Method 2 determines priorities for quality assessment by rating the 'burden of the condition' and the 'seriousness of the quality problem' criteria.

It is true for the national quality assessment program of the HIRA that its main activity is to identify the bad apples of health care providers for the target services. However, since the HIRA is a public institution, its ultimate goal is not just to identify and punish the bad apples, but is to promote the quality of health care services in the nation. Thus, the HIRA will focus on the system's approach as well as retrospective quality assessment. In other words, the HIRA will examine which conditions of the national health care system, for example, reimbursement policy or health care delivery system, could be causes of quality problems identified from the quality assessment program, so that appropriate action to modify the system-driven problems can be implemented by the HIRA.

Several limitations of the study should be mentioned. Firstly, because the number of services evaluated for prioritization was large, the task of assigning relative ratings to the services was challenging. In general, when the number of comparisons is large, there is a tendency for the relative scores awarded to the services to converge. This phenomenon was also observed in our study, as some of the services were clustered around a narrow range of mean priority scores.

Secondly, although incorporating public opinion in the process of priority decision-making is important, we could not include the public in the panel because we considered that members of the public, in general, lacked the professional knowledge required to make a valid and objective decision. However, to reflect public opinion during the process of identifying target services, we gathered information from sources of public discontent as related to quality problems in specific service areas reported to the HIRA and to the mass media.

Thirdly, the degree of feasibility for quality assessment, the single most important factor in screening out the top priority services in this study, was determined by the individual judgments of the expert panel members. Although the panel members chosen for the survey were qualified to make an evaluation of feasibility status, such a subjective evaluation is inevitably open to criticism. Thus, to improve the validity of decision related to top priority services, we suggest that the degree of feasibility should be evaluated with more objective data.

Fourthly, the relatively low response rate of the panel survey might raise concerns about the low level of representation incorporated into the study results. In addition, variation in response rates across expert groups might create unbalanced representation among the different groups. For example, while panel members who were academics and researchers, hospital quality improvement staff, those from the KHA and KMA, and quality assessment committee members from the

HIRA showed at least a 50% response rate, only 33.3% of government officials from the Ministry of Health and Welfare and 23.3% of the part-time physician committee members of the HIRA responded to the survey.

Finally, it should be noted that there is a limitation concerning the generalizations made during the prioritization of decision-making in this study. The types of priority criteria selected and the priority ratings of services according to these criteria are highly dependent on the values and demands of society. Thus, the services that were identified and prioritized in this study for national quality assessment can only be applicable to the Korean situation. However, we are sure that the approaches used in this study in making a priority decision should be helpful for other countries that have similar problems and needs.

In conclusion, we tried to set national priorities for the quality assessment of those target services identified as having a potential quality problem in Korea, using a scientific and systematic prioritization mechanism. It is not suggested that the priorities set by this study should be treated as final. Rather, it is essential that priorities be updated frequently, so that the list of services awarded higher priority reflects changes in social values, demand, and the impact of new technologies. Despite our efforts to achieve a high level of consensus among parties interested in the prioritization decision, it is unavoidable that the study results will receive varying degrees of acceptance by the different parties, because of their conflicting interests in terms of selecting priorities for quality assessment. To successfully implement a national program of quality assessment, the continuous efforts of the HIRA to attain a higher level of acceptance from various sectors should be supported.

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