

# 琉球大学学術リポジトリ

## 韓国における内部障害の障害登録及び等級判定に関する考察

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# Research on the Actual Condition of Internal Organ Impairments, Disability Registration Procedure for Persons with Internal Organ Impairments and the Criteria of Disability Grading in South Korea

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## <Abstract>

In South Korea, the internal organ impairments have six scopes including kidney, heart, respiratory organs, liver, colostomy and epilepsy. Among the total 2,513,000 persons who registered their disabilities, there are 117,000 persons (4.7%) with internal organ impairment, which occupies the smallest portion among the entire registered disabled persons. The reason that the number of persons with internal organ impairments is relatively small is because of the intricacy of the criteria for grading and procedure for registration. In results, persons with internal organ impairments have not sufficiently taken advantage of the benefits from government and others comparing with persons with other types of disabilities.

Therefore, this study aimed to understand the actual condition and problems of disability registration procedure and the criteria for grading and to make suggestions; to increase the number of registered persons with internal organ impairments and to provide them with benefits and services of government, ① the disability registration procedure needs to be simplified, ② the disability grading system needs to be modified and the re-evaluation, and ③ the expansion of the category of disability.

Keyword: internal organ impairment, disability registration procedure, criteria for disability grading

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## I . Instruction

In South Korea, the Act on Welfare for Disabled Persons had been enacted including physical disability, visual handicap, hearing impairment and mental disorder in 1988 and internal organ impairments such as kidney problem and heart problem were included to disability category in January of 2001 when the Five-Year Plan for the Development of Welfare for Disabled Persons was established. In July of 2003, the impairments of respiratory organ, liver, Colostomy· Cystostomy and Epilepsy were newly included to the disability category (Ministry of Health and Welfare, 2010), which is significantly meaningful for persons with internal organ impairment, for they had been excluded from receiving welfare services, but became to be provided with welfare benefits.

The number of persons with internal organ impairment has steadily increased to 117,000 in 2010 from 65,000 in 2003(52,000 increase), which held 4.7% of entire registered persons with disabilities (Ministry of Health and Welfare, 2010), but the percentage of 4.7% is only one third of the estimation by the Ministry of Health and Welfare. Because persons with internal organ disabilities are minority and the policy for persons with disability has been centered on physical and mental disabilities, persons with internal organ impairments have been isolated from welfare benefits and social concerns.

The reason that the number of persons with internal organ impairments is relatively small is because the criteria for grading and procedure for registration are intricate, which induces persons with internal organ disabilities to be unable to live healthy daily life. Therefore, to increase the disability registration of person with internal organ impairment and provide proper services for them, the disability registration procedure and the criteria for disability grading need to be readjusted. Even though, however, the problems of the disability registration procedure and the criteria for disability grading have been recognized, the surveys to find the solutions and policy to solve those problems have been hardly conducted.

Therefore, this study considered the criteria for disability grading and disability registration procedure for persons with internal organ impairment based on the diverse data including statistics on registered disabled persons by year by Statistics Korea and the survey on persons with disabilities by the Ministry of Health and Welfare. This study intended to understand the actual condition and problems of disability registration procedure and the criteria for grading and to make suggestions to improve them.

## II. The Definition and Actual Condition of Internal Organ Impairment in South Korea

### 1. The Definition of Internal Organ Impairment

Some advanced countries including the U.S.A. and Australia define the internal organ impairments as the diseases that the impairment of internal organs causes to disturb activities of daily living significantly and to need various services for a long time. Furthermore, they also include much more organs than South Korea while regarding impairments of blood, urinary system, allergy, diabetes, AIDS, metabolism and endocrine system as internal organ impairments.

<Table 1> Types of Internal Organ Impairments in the OECD Member Countries

Country	Types
South Korea	Kidney, Heart, Respiratory organ, liver, Colostomy· Cystostomy, Epilepsy
U.S.A.	Skin, Blood, Cancer, Reproductive system, Digestive system, Urinary system, Endocrine system, AIDS and others
Australia	Heart, Kidney, Respiratory system, Diabetes , Cancer, AIDS and others
France	Heart, Kidney, Metabolism, Respiratory system, Digestive system, Urinary system, Endocrine system and others
Sweden	Lung Disease, Heart Disease, Allergy, Diabetes and others
Germany	Heart, Kidney, Blood, Skin, Metabolism, Respiratory system, Digestive system, Urinary system, Endocrine system and others

*Source: Report on Persons with Internal Organ Impairments, Segye Times (April 9, 2010)*

In South Korea, internal organ impairment are defined as the state that activities of daily living are restricted for a long time due to the incurable diseases of organs.

The Act on Welfare for Disabled Persons in South Korea divides disabilities into physical disabilities and mental disabilities; physical disabilities are divided into external physical disabilities and internal organ impairments; and internal organ impairment include impairments of six organs; kidney, heart, respiratory organ, liver, colostomy· cystostomy and epilepsy.

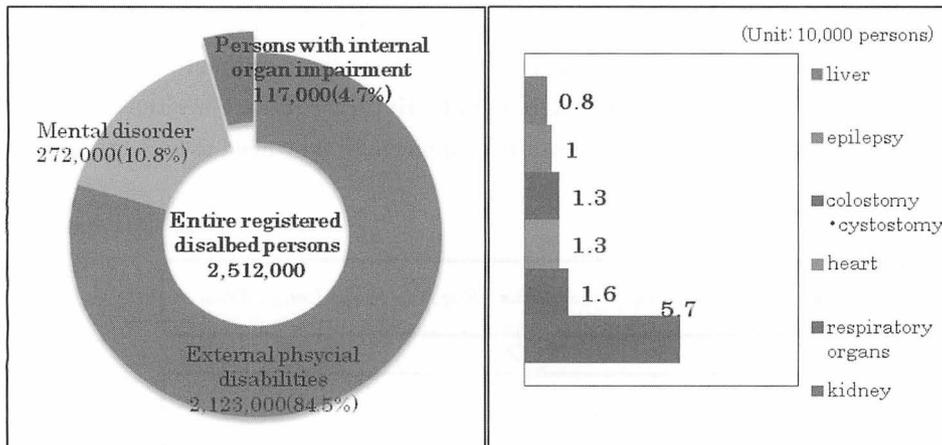
<Table 2> Types of Disabilities Prescribed in the Act on Welfare for Disabled Persons

Types		Description	
Physical Disability	External physical disability	Physical disability	Amputation, joint disorder, Crippled disorder , deformation, etc.
		Brain lesions	Multiple disabilities caused by brain damage
		Visual handicap	Visual impairment, Visual field defect
		Hearing impairment	Hearing disorder, impairment of equilibrium function
		Speech disorder	Speech disorder, voice disorder, Anarthria
		Facial disability/ Facial impairment	Disorders caused by deformation including facial disfigurement, dent, hyperplasia, etc.
	Internal organ impairments	Kidney problem/Kidney impairment	Impairment caused by being on dialysis or Kidney transplantation
		Cardiac disorder	Cardiac disorder significantly prohibiting activities of daily living
		Breathing problem/Respiratory impairment	Chronic and severe impairment of respiratory organs significantly prohibiting activities of daily living
		liver disorder, hepatopathy	Chronic and severe impairment of liver significantly prohibiting activities of daily living
		Colostomy Cystostomy disorder	Chronic and severe impairment of Colostomy Cystostomy significantly prohibiting activities of daily living
		Epilepsy	Chronic and severe epilepsy significantly prohibiting activities of daily living
	Mental disorder	Developmental disability	Intellectual and developmental disabilities
Autistic disorder			Autistic disorder including children and adolescents with autism
Mental disorder		Mental disorder	Schizophrenia, schizotypal affective disorder, bipolar affective disorder, repeatability depressive disorder

Source: Act on Welfare for Disabled Persons, Ministry of Health and Welfare (2010)

## 2. Actual Condition of Persons with Internal Organ Impairment

In South Korea, there are total 117,000 persons with internal organ impairments including 57,000 persons with kidney problem/kidney impairment, 16,000 persons with breathing problem/respiratory impairment, 13,000 persons with heart problem, 13,000 persons with Colostomy·Cystostomy problem, 10,000 persons with epilepsy problem/epilepsy impairment and 8,000 persons with liver problem in descending order in 2010. Among the total 2,513,000 persons who registered their disabilities, there are only 117,000 persons (4.7%) with internal organ impairment, which occupies the smallest portion among the entire registered disabled persons. The reason that the number of persons with internal organ impairments is relatively small is because of the intricacy of the criteria for grading and procedure for registration.



Source: These charts are made by revising the data of the Disability Registration in Cities and Provinces by the Minister of Health and Welfare (2010)

<Figure 1> Percentage of Persons with Registered Disabilities

<Figure 2> Number of Persons with Internal Organ Impairments

## III. Registration Procedure and Criteria for Internal Organ Impairment

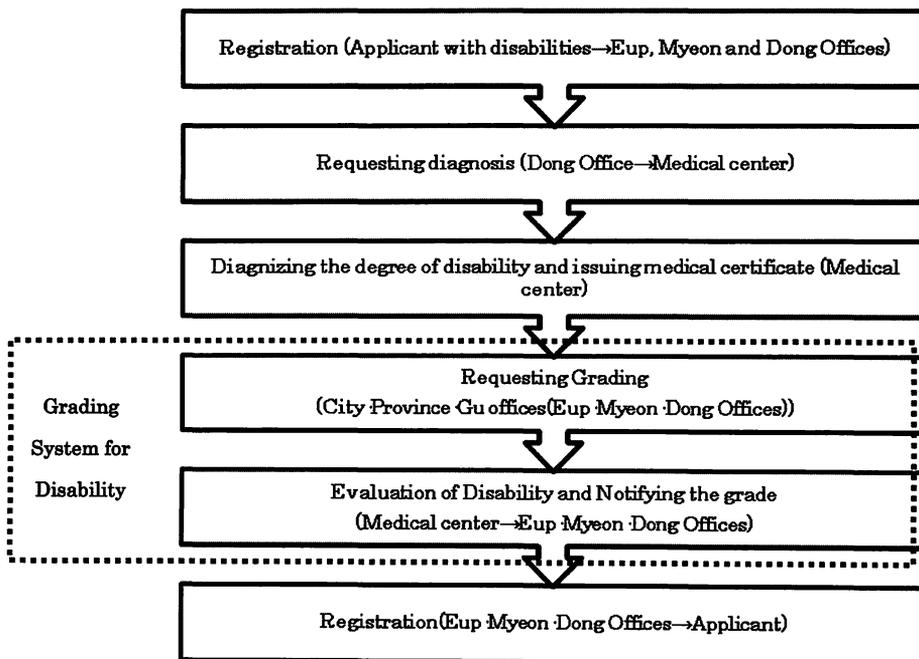
### 1. Registration Procedure for Internal Organ Impairment

The registration procedure for internal organ impairment is the same as that for other disabilities.

First of all, an applicant for the disability registration submits the application for disability registration and services by visiting eup, myeon or dong office and then eup, myeon or dong office gives them request form for disability diagnosis after reviewing the application. An applicant who receives request form for disability diagnosis visits medical center, gets medical certificate and submits it to eup, myeon or dong office. In addition, a new applicant for disability registration or an applicant for disability re-evaluation must submit papers issued by his or her medical doctor including that disorder classification of disorder class criteria reference materials, an examination document and a medical record paper.

The disability registration procedure is the exactly same with that for other disabilities, but only persons with internal organ impairments must be re-evaluated once per 2~3 years or 5 years to receive welfare benefits.

Since April of 2011, disability grading system that the disability grade for the applicants for disability registration or re-evaluation is determined not by medical center, but by the specialized review agency for disability grading has been introduced. Because all registered disabled persons are not reviewed again, persons with disabilities without the causes for re-evaluation just sustain the existing registered grade. However, if there are the causes for re-evaluation for registered disabled persons or new applicants, they need to be re-graded by new system.



Source: This figure has been revised from the Grading System for Disability, Ministry of Health and Welfare(2011)

<Figure 3> Disability Registration Procedure

## 2. The Criteria for Disability Grading for Internal Organ Impairment

The criteria for disability grading for internal organ impairment are significantly differentiated according to the types of internal organ impairments. When the three-month treatment for Kidney problem/kidney impairment and the one-year treatment for heart problem, breathing problem/respiratory impairment, liver problem, hepatopathy, and colostomy·cystostomy problem do not make any improvements, persons who are in said conditions become to be diagnosed as persons with internal organ impairments. In addition, if persons with epilepsy problem/epilepsy impairment are not made improvements within three years after the first diagnosis, they are determined to be registered disabled persons.

Moreover, they need to be regularly re-evaluated, because disability grading and grade adjustment are conducted according to the degrees of disabilities. However, persons who get organ transplantation are classified to 5<sup>th</sup> grade of disability without re-evaluation.

### 1) Kidney problem/Kidney impairment

Persons with kidney problem/kidney impairment can be defined as the ones who have continuously been on hemodialysis or peritoneal dialysis for over three months and they are re-evaluated once per two years. However, persons who are transplanted with kidney are excluded from re-evaluation.

<Table 3> The Criteria for Disability Grading of Kidney problem/Kidney impairment

Grade	Description
2 <sup>nd</sup> grade	Persons being on hemodialysis or peritoneal dialysis for over three months straight due to the chronic renal failure.
5 <sup>th</sup> grade	Persons with kidney transplantation

*Source: The Criteria for Disability Grading, Ministry of Health and Welfare (2011)*

### 2) Heart problem

When heart problem has not been made improvements even after the one-year continuous treatment, it can be diagnosed as disability; because there is the possibility for the disability status to be changed by medical conditions and treatment, persons with internal organ impairment due to heart problem need to get re-evaluation once every two year. Exceptionally persons who receive same grades for two re-evaluations consecutively or have heart transplantation are allowed to be exempted from mandatory re-evaluation. However, when the change of disability status is expected based on the judgment of a medical doctor, re-evaluation must be conducted at stated periods after two years from the last re-evaluation

day.

The grades of internal organ impairment are classified by measuring the severity of disease and the degree of disability according to the scores of seven contents<sup>1)</sup> to diagnose heart problem.

<Table 4> The Criteria for Disability Grading of Heart Problem

Grade	Description
1 <sup>st</sup> grade	Persons with the score of 30 and over through 7 diagnoses due to heart failure or angina even under rest condition while the disorder of cardiac function lasts.
2 <sup>nd</sup> grade	Persons with the score of 25~29 through 7 diagnoses due to heart failure or angina while the disorder of cardiac function lasts, even though he or she can carry out simple jobs surrounding him or herself
3 <sup>rd</sup> grade	Persons with the score of 20~24 through 7 diagnoses due to heart failure or angina while the disorder of cardiac function lasts, even though he or she can carry out simple jobs within house
5 <sup>th</sup> grade	Persons with heart transplantation

*Source: The Criteria for Disability Grading, Ministry of Health and Welfare (2011)*

### 3) Breathing problem/Respiratory impairment

When breathing problem/respiratory impairment has not been made improvements even after over two-month continuous treatment and one-year elapses since the first diagnosis, which is considered as the chronic respiratory disease, it can be diagnosed as disability. When breathing problem/respiratory impairment is determined to be able to be recovered by operation or treatment, the determination of disability grading can be deferred after operation or treatment. Excluding only when operation cannot be conducted within one year because of domestic conditions and health condition of persons with internal organ impairment, re-evaluation needs to be conducted at stated periods considering the domestic conditions every two years after the first disability grading.

Exceptionally persons who receive same grades for two re-evaluations consecutively or have lung transplantation are allowed to be exempted from mandatory re-evaluation. However, when the change of disability status is expected based on the judgment of a medical doctor, re-evaluation must be conducted at stated periods after two years from the last re-evaluation day.

<sup>1)</sup> The scores of seven contents for diagnosis is summed up for the diagnosis of heart problem, which is the maximum mark of 42; treadmill test or severity of heart disease with the maximum mark of 5; left ventricle Ejection Fraction by echocardiography or radioisotope examination with the maximum marks of 5; examination findings with the maximum mark of 10; case histories of cardiac surgery and intervention with the maximum mark of 5; hospitalization history within 6 month with the maximum mark of 10; the number of hospitalizations within 6 months with the maximum mark of 5; and treatment history within 6 months with the maximum mark of 2.

<Table 5> The Criteria for Disability Grading of Breathing problem/Respiratory impairment

Grade	Description
1 <sup>st</sup> grade	Persons with dyspnea that needs oxygen treatment on rest condition due to chronic malfunction of respiratory organs such as lung and bronchus, with 25% and under of normal estimation of pulmonary ventilation(forced expiratory volume per second) and with 55mmHg and under of oxygen tension of arterial blood on rest condition
2 <sup>nd</sup> grade	Persons with dyspnea that needs oxygen treatment while he or she move within house due to chronic malfunction of respiratory organs such as lung and bronchus, with 30% and under of normal estimation of pulmonary ventilation(forced expiratory volume per second) and with 60mmHg and under of oxygen tension of arterial blood on rest condition
3 <sup>rd</sup> grade	Persons with dyspnea that needs oxygen treatment while he or she walk on flatland due to chronic malfunction of respiratory organs such as lung and bronchus, with 40% and under of normal estimation of pulmonary ventilation(forced expiratory volume per second) and with 65mmHg and under of oxygen tension of arterial blood on rest condition
5 <sup>th</sup> grade	Persons with lung transplantation

*Source: The Criteria for Disability Grading, Ministry of Health and Welfare (2011)*

#### 4) Liver problem/Hepatopathy

When liver problem/hepatopathy has not been made improvements even after over two-month continuous treatment and one-year elapses since the first diagnosis, which is considered as the chronic liver disease, it can be diagnosed as disability. When liver problem/hepatopathy is determined to be able to be recovered by operation or treatment, the determination of disability grading can be deferred after operation or treatment. Excluding only when operation cannot be conducted within one year because of domestic conditions and health condition of persons with internal organ impairment, re-evaluation needs to be conducted at stated periods considering the domestic conditions every two years after the first disability grading.

Exceptionally persons who receive same grades for two re-evaluations consecutively or have liver transplantation are allowed to be exempted from mandatory re-evaluation. However, when the change of disability status is expected based on the judgment of a medical doctor, re-evaluation must be conducted at stated periods after two years from the last re-evaluation day.

<Table 6> The Criteria for Disability Grading of Liver problem/Hepatopathy

Grade	Description
1 <sup>st</sup> grade	Persons with having one or over disease(s) among complications including hepatic encephalopathy and intractable ascites that is not controlled by internal treatment and simultaneously with grade C of Child-Pugh score <sup>2)</sup> among the patients who are diagnosed with chronic liver diseases including liver cirrhosis, liver cancer and others
2 <sup>nd</sup> grade	Persons with having one or two case history of hepatic encephalopathy and spontaneous bacterial peritonitis and simultaneously with grade C of Child-Pugh score among the patients who are diagnosed with chronic liver diseases including liver cirrhosis, liver cancer and others
3 <sup>rd</sup> grade	Persons with grade C of Child-Pugh score among the patients who are diagnosed with chronic liver diseases including liver cirrhosis, liver cancer and others
5 <sup>th</sup> grade	Persons with liver transplantation

*Source: The Criteria for Disability Grading, Ministry of Health and Welfare (2011)*

#### 5) Colostomy·Cystostomy problem

When colostomy·cystostomy problem that is not able to be restored by operation occurs, disability determination procedure can be conducted after the operation of colostomy·cystostomy; and when colostomy·cystostomy problem that is able to be restored by operation occurs, the disability determination procedure can be conducted after one year from the operation of colostomy·cystostomy. When it is determined to be able to be recovered by operation or treatment, the determination of disability grading can be deferred after operation or treatment, excluding only when operation cannot be conducted within one year because of domestic conditions. The colostomy·cystostomy problem that can be restored by operation needs to be re-evaluated every three years after the registration of disability. Persons who receive same grades for two re-evaluations consecutively, have colostomy·cystostomy problem that is not able to be restored by operation and are determined that their disabled status is fixed based on the judgment of a medical doctor can be exempted from re-evaluation.

<sup>2)</sup> Child-Pugh score (sometimes the Child-Turcotte-Pugh score) is used to assess the prognosis of chronic liver disease, mainly cirrhosis. Although it was originally used to predict mortality during surgery, it is now used to determine the prognosis, as well as the required strength of treatment and the necessity of liver transplantation. Chronic liver disease is classified into Child-Pugh class A, B, C

<Table 7> The Criteria for Disability Grading of Colostomy·Cystostomy problem

Grade	Description
2 <sup>nd</sup> grade	1 Persons with ileostomy, ascending colostomy or transverse colostomy as well as Cystostomy and together with the significant deformation of colostomy(or Cystostomy) or the significant canker sores of the skin around colostomy
	2 Persons with ileostomy, ascending colostomy or transverse colostomy as well as voiding dysfunction and together with the significant deformation of colostomy(or Cystostomy) or the significant canker sores of the skin around colostomy
	3 Persons with Jejunum, Ileum, ascending colon or transverse colostomy as well as Colostomy or cystostomy and together with the significant canker sores of the skin around colostomy in the incurable state by operation or else that intestinal contents flow through the holes except colostomy due to the damage by radiotherapy
3 <sup>rd</sup> grade	1 Persons with ileostomy, ascending colostomy or transverse colostomy as well as Cystostomy
	2 Persons with ascending colostomy or transverse colostomy as well as cystostomy and together with the significant deformation of colostomy(or Cystostomy) or the significant canker sores of the skin around colostomy
	3 Persons with ileostomy, ascending colostomy or transverse colostomy as well as severe voiding dysfunction
	4 Persons with Colostomy or cystostomy and together with the significant canker sores of the skin around colostomy in the incurable state by operation or else that intestinal contents flow through the holes except colostomy due to the damage of jejunum, ileum, ascending colon or transverse colon by radiotherapy
4 <sup>th</sup> grade	1 Persons with cystostomy
	2 Persons with ileostomy, ascending colostomy or transverse colostomy
	3 Persons with descending colon or sigmoid colostomy or in case persons with voiding dysfunction, who need ostomy care products once or more per two days or colonic irrigation due to the deformation or canker sore of colostomy
	4 Persons with Colostomy or cystostomy and in the incurable state by operation or else that intestinal contents flow through the holes except colostomy due to the damage of descending colon or sigmoid colon by radiotherapy
5 <sup>th</sup> grade	Persons with descending colon or Sigmoid colostomy

Source: *The Criteria for Disability Grading, Ministry of Health and Welfare (2011)*

#### 6) Epilepsy problem/ Epilepsy impairment

When epilepsy problem/ epilepsy impairment has not been made improvements even after over two-year continuous treatment and three years elapse since the first diagnosis, which is

considered as the chronic liver disease, it can be diagnosed as disability. Re-evaluation needs to be conducted at stated periods considering the domestic conditions every three years after the first disability grading. Exceptionally persons who receive same grades for two re-evaluations consecutively are allowed to be exempted from mandatory re-evaluation. However, when the change of disability status is expected based on the judgment of a medical doctor, re-evaluation must be conducted at stated periods after two years from the last re-evaluation day.

<Table 8> The Criteria for Disability Grading of Epilepsy problem/ Epilepsy impairment

Grade	Description
2 <sup>nd</sup> grade	Persons who have serious seizure for over six months including 8 seizure per month despite of active treatment for chronic epilepsy, need serious care management due to the symptoms that are induced by seizures including respiratory disturbance, aspiration pneumonia, exhaustion, headache, nausea, cognitive function disability, etc. and require continuous care and management for daily living and social life by others.
3 <sup>rd</sup> grade	Persons who have serious seizure for over six months including 5 serious seizures or 10 mild/light seizures per month despite of active treatment for chronic epilepsy, need serious care management due to the symptoms that are induced by seizures including respiratory disturbance, aspiration pneumonia, exhaustion, headache, nausea, cognitive function disability, etc. and require continuous care and management for daily living and social life by others.
4 <sup>th</sup> grade	Persons who have serious seizure for over six months including over one serious seizure(s) or over two mild/light seizures per month despite of active treatment for chronic epilepsy, need serious care management due to the symptoms that are induced by seizures including respiratory disturbance, aspiration pneumonia, exhaustion, headache, nausea, cognitive function disability, etc. and have significant difficulty in cooperative relationship.

*Source: The Criteria for Disability Grading, Ministry of Health and Welfare (2011)*

#### IV. Conclusion

#### **-Suggestion for the Improvement of Disability Registration Procedure and Criteria for Disability Grading for Persons with Internal Organ Impairment**

Among the total 2,512,000 persons who registered their disabilities, there are 117,000 persons (4.7%) with internal organ impairment, which occupies the smallest portion among the entire registered disabled persons. The reason that the number of persons with internal

organ impairments is relatively small is because of the intricacy of the criteria for grading and procedure for registration.

Disability grading is needed to provide with welfare benefits by the state, but the criteria for disability grading for internal organ impairment are intricately prescribed comparing with other disabilities. Moreover, because internal organ impairment requires continuous treatment, which makes persons with internal organ impairment have difficulty in social life, they tend to avoid registering their impairments openly. Under these circumstances, the policy and services of disabilities have been focused on the disability types that hold relatively higher portion, which makes persons with internal organ impairment who need a lot of support provided with benefits

Therefore, the disability registration procedure and the criteria for disability re-evaluation for persons with internal organ impairment need to be readjusted and some suggestions can be made as follows:

First, the disability registration procedure should be simplified.

The disability registration procedure is the basic step to be provided with welfare benefits by the state. However, the intricate disability registration procedure has prevented persons with internal organ impairment from receiving welfare benefits. Even after they get registered and then when it becomes the time when they get re-evaluated, they need to do entire disability registration procedure again, which makes persons with internal organ impairment have difficulty in registering their disabilities and isolates them from governmental policy and medical benefits

Therefore, the disability registration procedure needs to be simplified and the network to help share the information related to disability registration procedure and activate the communication among related agencies needs to be established.

Second, disability grades are needed to be readjusted and the criteria for re-evaluation need to be eased. The grade of disability is the significant factor to provide proper services for persons with internal organ impairment. Currently it is difficult for persons with internal organ impairment to get disability grading even when missing only one criterion. For example, even though persons with internal organ impairment prepares all documents that are needed to get disability grading, when scores of each criteria including doctor's diagnosis and number of treatments do not reach prescribed scores, they cannot proceed the disability registration procedure. In addition, in spite of persons with the same types of internal organ impairment, if treatment records are slightly different from the criteria including the hospitalization record and number of operations, they cannot get disability grading. Therefore, the criteria for disability grading need to be thoroughly readjusted.

The re-evaluation for persons with internal organ impairment needs to be different from that for persons with other types of disabilities. Persons with internal organ impairment

have to fully go through disability registration procedure again to get re-evaluation. Furthermore, because internal organ impairment is usually worsened over time, the interval of 2~3 years for re-evaluation is too short.

Therefore, the interval for re-evaluation needs to be reconsidered and the criteria for re-evaluation need to be eased according to the degrees of disabilities based on the difficulty of social life as well as medical problems.

Finally the category of internal organ impairment that is prescribed in law needs to be expanded. In advanced countries, impairments related to blood, urinary system, allergy, diabetes, AIDS, metabolism and endocrine system are included into the category of internal organ impairment. The advanced countries provide welfare benefits and services for persons with various types of disabilities by subdividing the category.

In South Korea, because the category of internal organ impairment is too narrow, it is expected that there are many people with internal organ impairments who cannot be provided with benefits and services. Therefore, it is necessary that the category of internal organ impairments is expanded to provide benefits and services by benchmarking the categories of internal organ impairment of the advanced countries.

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