

Development and Implementation of the Korean Rehabilitation Patient Group (K RPG) Severity Scale: Enhancing Precision in Rehabilitation Patient Classification

Introduction

In 2015, the Health Insurance Review and Assessment Service (HIRA) introduced the Korean Rehabilitation Patient Group (K RPG) and a Rehabilitation Patient Evaluation Table. These tools have since been utilized for designation and operational program of rehabilitation hospitals, enabling the identification and classification of potential patients into specific rehabilitation groups. The development of the K RPG classification model required a comprehensive consideration of severity from a clinical standpoint. Consequently, in 2022, a K RPG severity scale was developed with the objective of understanding the proportion of patients in critical condition at rehabilitation hospitals.

Methodology

The development of the K RPG Severity Scale proceeded through three stages:

Step 1: Development of K RPG Severity Scale Items

Drawing insights from various severity assessment methods worldwide, we took inspiration from the Rehabilitation Complexity Scale-Extended (RCS-E) in the United Kingdom. This informed the development of common elements reflecting medical treatment needs and rehabilitation nursing services. Additionally, individual items were integrated to reflect age and functional assessment information, including cognitive function.

Step 2: Classification of Severity by Item

We analyzed data from the Rehabilitation Patient Evaluation Table to ascertain the statistical significance of the severity scale. Subsequently, scores were categorized into specific ranges for each individual item.

Step 3: Calculation of Final Severity

The final severity level was determined by amalgamating the severity assessments of common elements and individual items.

Results

The K RPG Severity Scale comprises common and individual items. Common items encompass 19 details, including consciousness, language disorders, swallowing/nutritional status, and others. Individual items consist of 7 elements, such as age, cognitive function (MMSE), and sensory/motor function (MMT, MAS, ASIA Scale). These items are assessed based on their scores, categorized into mild, moderate, and severe levels. The final severity classification encompasses a range from mild to

severe, including the most severe category.

Conclusion

The K RPG Severity Scale was formulated through the analysis of data from the Rehabilitation Patient Evaluation Table, which reflects the clinical reality of rehabilitation patients in Korea, and through consultation with clinical experts. Aligned with medical treatment requirements, the K RPG Severity Scale has been integrated into government policy initiatives, enhancing the precision of classifying rehabilitation patients. In the future, at the request of the Korean Academy of Rehabilitation Medicine, we will review the need to incorporate rehabilitation therapy needs.