Article Review

Throughout the past decades, the need for new methods for research, analysis, and observation has grown in the medicine. One of the most challenging fields appears to be the measurement of the patient condition in the Intensive Care Unit. The development of a new, more sophisticated test for the exploration of ICU environment and its influence on the patients is in the focus of the article “A Physical Function Test for Use in the Intensive Care Unit: Validity, Responsiveness, and Predictive Utility of the Physical Function ICU Test(Scored)” written by Linda Denehy, Natalie A. de Morton, Elizabeth H. Skinner, Lara Edbrooke, Kimberley Haines, Stephen Warrilllow, and Sue Berney.

The research concentrates on the evaluation of the earlier tests, methods, and techniques of ICU analysis, development of a new original Physical Function Test for Use in ICU (PFIT), and stressing its characteristics as well as limitations. The problematic of the article is highly topical for the modern medicine since no sophisticated tests have been developed to explore the effectiveness of the Intensive Care Units and the dynamics of the patient rehabilitation. The article outlines a new test which aims to describe clinical properties of ICU and incorporates the findings of previously conducted researches and tests in the same field. The authors have managed to provide a precise description of the research presenting the methods used, the participants, procedure of the tests, its limitations, and the analysis of the results.

The well-organized structure of the article contributes a lot to the presentation
of the research and comprehension of the issue. The authors start with the outlining the topicality and novelty of their work underlining the need for new objective tests to analyze clinical properties of ICU which have high clinical utility. Furthermore, the explorers provide the methodology of the conducted research depicting the study design, selected participants, and its procedure. Such detailed depiction of the research process supports its scientific nature, enables the further discussions of possible limitations of the tests, and gives an insight into the methodology which was chosen by the authors. The next point of the article is the statistical analysis of the research which reviews the components of the original test and analyzes clinimetric properties of a new one. The authors present the methods which were used to conduct the research and explore various characteristic features of the test: regression analyses, linear and binary logistic regression modeling, the Effect size index. This part of the article allows the scientists to outline which of the methods have been used for which purposes and ascertains the scientific basis of their work. After analyzing the process of the research, the entry focuses on the interpretation of the results. The scientists do not only provide the received statistical data but also describe the improvements which allow the new test to approach the Rash model and appeal to such clinimetric properties of the test as its validity, responsiveness, and predictive utility. Finally, the discussions of the findings, their contribution to the exploration of the issue, and the directions for the future researches follow. The conclusion of the entry stresses validity of the designed test in its comparison with other conducted tests, its predictive utility, and responsiveness. The authors have built an article in a logical way for the readers to comprehend all the information easily, preserve the scientific subordination, outline the most crucial points of the research, and stress its importance for the medicine.

The scientific grounding of the article cannot be overestimated since the
analysis of strength and physical outcomes of patients in ICU always was an insufficiently developed problem due to the health condition and physical characteristics of every person. Nevertheless, the scientists include a lot of scholarly works, articles, previously conducted researches, and statistic data into their work. All the arguments, ideas, results, and recommendations are supported with the reliable and scientific data. The authors appeal to the previous methods, techniques, and tests of ICU analysis to identify the condition of the patients. What is more, the style of writing, vocabulary and the presentation of arguments contribute to the scientific value of the article. Tables and figures by the results of the test are inserted in the entry illustrating the readers the most important points and making the information visually comprehensible.

At the same time, another valid point of the article is the identification of the limitations of the research. Thus, the authors underline the problem of missing data for MRC muscle test since due to patients being sedated. Moreover, disease severity shapes the outcomes of the research and ruins the actual results of the test. Finally, the scoring of assistance level can be subjective and may lead to the correct conclusions. Although the scientists point out the main difficulties of the research, they take also into consideration the possible limitations and try to create a new test methodology that may provide the most accurate results.

The article is of great value for the modern medical world since it outlines a new improved and effective way to measure the physical condition of the patients in the Intensive Care Units and define the directions for the further investigation. Due to its scientific content, sophistication of research, novelty and topicality, the article can serve as a basis for the future analyses and works on the same subject. The authors underline the need for a more accurate
functional test in ICU and recommend adopting PFIT-s for measuring the physical function of patients. The conducted research may also help clinicians and researchers to measure the effectiveness of the selected treatment in the ICU environment.

All in all, the article under consideration focuses on one of the most challenging topics of the medicine today. It presents a problem providing all the characteristics, mechanisms, and limitations of the research. The authors have described the procedure of their research, structure of the text underpinning its scientific and logical basis. The entry is crucially topical for the society as it presents a new and more developed approach to the examination of the physical condition of patients in ICU. It does not only provides a presentation of more sophisticated test but also inspires the scientists to find and create new methods, new techniques, and approaches to the issue to improve the world people live in.