

Introduction

Clinical Quality (CQ) encompasses the tangible results of health care as the technical outcome quality of health care. Different outcome measures such as cost, length of stay (LOS), and objective clinical status are used to evaluate CQ. Stroke is one of the most common causes of death and disability worldwide nearly half of all surviving patients have severe remaining functional problems in the acute stage of stroke. Considering the costs of continuing disability from stroke, the evidence demonstrating that stroke rehabilitation significantly improves functional health is evident. To optimize health care, identify problems, and improve CQ, healthcare outcomes must be measured and compared. The aim of this study is to measure the clinical performance of stroke rehabilitation and to determine the CQ improvement issues.

Methods

64 Patients who received stroke rehabilitation after diagnosis of cerebrovascular event between 1 July and 31 December 2022 were included in the retrospective study. The Barthel index(BI) was filled at admission and discharge. Demographic data and costs per service were obtained from electronic health records. Data analysis has been made with IBM SPSS 29 Statistical Software Package.

Table 1 Dependency level distribution of patients according to Barthel Index

	Total Dependency	Severe Dependency	Moderate Dependency	Slight Dependency
Before Stroke Rehabilitation	11(17.2%)	45(70.3%)	8(12.5%)	0
After Stroke Rehabilitation	1(1.6%)	21(32.8%)	38(59.4%)	4(3%)



Results

In the scope of the study, 14 of the patients were female and 50 were male while 53 patients had ischemic stroke and 11 had a hemorrhagic stroke. Eight of the patients (12.5%) were between the ages of 35-50, 13(20.3%) were between 51-60, 20(31.3%) were between 61-70 and 23(35.9%) were over 71 years old. While there were 11(17.2%) patients with total dependency, 45(70.3%) with severe dependency, and 8(12.5%) with moderate dependency at the time of hospitalization, the dependency levels decreased after SR. After treatment there were 1(1.6%) patient with total dependency, 21(32.8%) with severe dependency, 38(59.4%) moderate dependency, and 4(3%)slight dependency (Table 1)

It was found that there is a positive relationship between the patient's chronic disease and the level of dependency both before and after rehabilitation. There is a positive correlation between days from the stroke event to rehabilitation admission and LOS during rehabilitation. It has been found that the costs of interventional procedures, rehabilitation, and medical examination are correlated with ischemic stroke and are significantly higher than hemorrhagic stroke. The cost of all procedures, medical examinations, consumables, and drugs were increased significantly as the LOS duration increased. Moreover, it was found that the costs of consumables and drugs increase as the level of dependency increases.

Conclusion

In this study, CQ was evaluated by measuring clinical performance, the efficiency of care, and resource use. It was determined that specialized SR care reduced the dependence of stroke patients. Initiating rehabilitation as soon as possible after stroke supports improving CQ. Special planning should be done in order to reduce dependency and to get better health outcomes and efficient resource use in patients with low education levels, with chronic diseases, and with ischemic stroke. It is recommended to evaluate clinical performance regularly and make quality improvements in order to use hospital resources such as procedure-examination costs and LOS efficiently and to avoid indirect costs caused by patient dependence.

References

- Avcı, K. Çizmeçi Şenel, F. 2019. "Sağlık Hizmetleri Akreditasyonu: Faydası, Önemi ve Etkisi Nedir?", Online Türk Sağlık Bilimleri Dergisi, 4(2): 221-234.
- Avcil, S. 2020. "SESSION 3A: Mikroekonomi ve Finans". "Sağlıkta Uluslararası Akreditasyon ve Türkiye'de Sağlıkta Kalite Standartları". Editörler: Selahattin Sarı, S. Gencer, A.H. Basım Yeri: Beykent University Press.
- Akalın, B. Veranyurt, Ü. 2021. "Sağlık Hizmetleri ve Yönetiminde Yapay Zekâ", İstanbul University Press, 5(1), 231-240.
- Berktaş, M. 2017. "Türkiye'nin Ulusal Sağlık Akreditasyon Çalışmaları", SD (Sağlık Düşüncesi ve Tıp Kültürü) Dergisi, Eylül-Ekim-Kasım 44: 78-81.
- Chen, D. Decary, M. 2020. "Artificial intelligence in healthcare: An essential guide for health leaders", The Canadian College of Health Leaders, 33(1) 10-18.
- Lee, D. Yoon S. 2021. "Application of Artificial Intelligence-Based Technologies in the Healthcare Industry: Opportunities and Challenges", International Journal of Environmental Research and Public Health, 18, 271.

