Lean Practices and Assistive Technology in Emergency Care Units (UPA): Improve the Service of People With Disabilities

José Ricardo Souza Ramos
Fluminense Federal University, Brazil

Sergio Crespo da Silva Pinto
Fluminense Federal University, Brazil

Ruth M. Mariani Braz
https://orcid.org/0000-0003-2224-9643
Fluminense Federal University, Portugal

Adriana Melo Teixeira
Minister of Health, Brazil

Ana Carolina Sanches Zeferino
https://orcid.org/0000-0003-1213-0964
Fluminense Federal University, Brazil

EXECUTIVE SUMMARY

This chapter deals with the application of lean and inclusive practices in order to mitigate the problems of the healthcare system in emergency care units (UPAS), especially when dealing with people with disabilities. The lack of qualified professionals, endless waiting queues causing overcrowding, waste, lack of supplies, and equipment are, among others, common "pathogenic" examples in the UPAS. The combination of practices and methods to combat waste and add value derived from Lean healthcare with the assistive technologies are fundamental for the adequacy of accessibility and improvement of care for people with disabilities. These practices provide mobility and autonomy to these patients, allowing their inclusion, improving their self-esteem and quality of life. The objective of this study was to investigate what is known about facilities and difficulties in the use of auxiliary devices, lean and inclusive methods, and practices to improve the care of people with disabilities in UPAS.

INTRODUCTION

Brazilian healthcare network, SUS (Universal Health System), is based on the United Kingdom National Health System (NHS) and is composed of primary, secondary and tertiary care facilities. Primary care facilities are responsible for the promotion of health within the population through the action of family doctors, nurses and community agents. Those professionals have the responsibility to take care of the family before they get sick and, if monitor them, providing necessary assistance before the onset of any disease and worsening. Secondary care units contemplate specialized health services, like emergency care units and polyclinics. Emergency care units are institutions designed to provide the assistance for patients that are affected by some illness and need medical evaluation or treatment. Such type of medical care sometimes are low risk situations like throat inflammation and sometimes are patients in need of a hospitalization but will have the firs care in emergency care units and them be transferred to a specialized unit, a hospital. Hospitals are part of the tertiary care facilities and are designed to answer for complex and expensive care, consisting of specialized facilities with specialized professionals.

According to the Ministry of Health (MS, 2020), the Emergency Care Unit (UPA 24h) is part of the Emergency Care Network (RAE). The objective is to concentrate health care of intermediate complexity, composing a network organized together with primary care, hospital care, home care and the Mobile Emergency Care Service - SAMU 192.

The 24-hour UPA offers a simplified structure, with x-ray, electrocardiography, pediatrics, an examination laboratory and observation beds. If necessary, the patient can be referred to a hospital in the health network for a highly complex procedure. Emergency Care Units were implemented in 2007, initially in the Southeast region, and in 2016 there were 446 emergency care units considering all regions. Currently, there are 620 emergency care units in construction, indicating an expectation of expansion. Federal funding was a strong inducer of the implantation. The states planned their emergency care units, but the existence of direct negotiation between the municipalities and the Union contributed with the significant number of emergency care units built that do not work (O´Dwyer G. et al., 2017). Also, the purpose of many UPAS is diverted with inpatient services and unforeseen medical specialties. The emergency care units (24 h UPA) have been designed to UPAs are fundamentally serve urgencies and emergencies and are structured with medical services, examination rooms, x-rays, pharmacy, fracture immobilization room, electrocardiography room, observation room and material collection. The basic purpose of a UPA is to keep patients under observation, for up to 24 hours, for diagnostic elucidation or clinical stabilization, and refer those who have not had their complaints resolved with a guarantee of continuity of care for hospitalization in back-up hospital services, through the regulation of care access.

Table 1 shows the size classification of the 24 h UPA versus recommended population according to Ordinance nº 10 of the Ministry of Health for the purpose of obtaining financing and resources.

According to the same Ordinance (Art.14) the investment resource destined for 24h UPA, in the process of financing and with a published authorization decree, it is regulated according to its sizes, population and some peculiarities such as locality, seasonality, diseases, etc.

Unfortunately, Brazilian reality shows 24h UPA overcrowded and with deficits in infrastructure and professionals. To aggravate this scenario, the population, in general, has limited or none understanding of the health system structure looking for care directly in emergency rather than in basic care units, the population is aging which leads to more needs in terms of health care, costs are raising due to economic and managerial factors and obsolescence is being present faster. The management of emergency care units