

# Chapter 7

## Operations Project and Management in Trauma Centers: The Case of Brazilian Units

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### ABSTRACT

*Topic of discussions over the last decades, the literature related to the care of patients suffering from poly-trauma, under the assistance point of view, is sufficiently consolidated concerning to the adoption of best practices, what, usually are conducted and disseminated by accrediting organizations. However, expanding the search frontier beyond the assistance dimension, it's noticed the divergences between the recent researches or theoretical shortcomings regarding to the design and management of these operations. In face of this finding, noticed from a literature review in the most important bases of operations management and health, it's adopted a conceptual model which covers relevant elements of the project of an operation, such as: strategy, capacity, human resources, incentive systems, organizational structure and decision making; in order to systematize the current stage of the field, highlighting the differences between recent studies and proposing a set of practices and premises, which are necessary for the operationalization of the proposed model.*

### INTRODUCTION

Topic of discussions over the last decades, the literature related to the care of patients suffering from poly-trauma, under the assistance point of view, is sufficiently consolidated concerning to the adoption of best practices, what, usually are conducted and disseminated by accrediting organizations (for example, ACS). However, expanding the search frontier beyond the assistance dimension, it's noticed

DOI: 10.4018/978-1-5225-0920-2.ch007

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## **BACKGROUND**

The origin of the word "trauma" comes from the Greek trauma (plural: traumathos, traumas) whose significant is "wound". In medicine, the word accepts different meanings, all of them linked to unforeseen and undesirable events, which, in a more or less violent way, affect individuals involved therein, causing them any kind of lesion or damage (SBAIT, 2015). It has an agent (energy), a vector (i.e. fire gun, motor vehicle, etc.) and a host (patient). As a disease, it must be approached by prevention strategies, an early diagnosis, an appropriated treatment and rehabilitation, targeting the reduction of the related morbidity and mortality (ACS, 2014a).

In Brazil, from the 80s on, it constitutes one of the most important points of the epidemiological transition (Azevedo, 2010: 25). Despite being a disease that traditionally focuses on the younger population, the rate of death by trauma and the estimated recovery time increases with age. This generates a significant increase in the use of resources for these older patients (Beilman et al., 2004), and which must be managed in the allocation of resources in a trauma unit. Neto & Malik (2011) reinforce the issue of the demand and argue that each patient behaves in a certain way, hindering the rigid standardization of the work process and a rationalization of service delivery.

Enhancing the criticality of this type of operation, the first hour after the accident is said as critical to perform the rescue, patient referral and design of treatment that will be applied and that's why it's considered "The Gold Hour". The initial treatment done in an appropriate way and in timely can significantly improve the prognosis of severe trauma.

According to Brohi, Parr & Coats (2009), understand the incidence of the trauma and specially the major trauma in the region, is critical for the design and development of the systems. Generally, according to the same author, there is no strong population data that support the design of this kind of system. In the Brazilian case, researches performed by the DataSUS show in Figure 1 in an aggregated way, the relationship between the number and the death rate due to traffic accidents, which may be the start point for the development of this system.

## **THE RESEARCH**

This text present results of a research project about the Organizational Solutions of treatment to the poly-trauma patients in public hospitals in Brazil. Embrace their projects, their ways of management, resource allocation and the key processes and protocols adopted. The Figure 2 show the research method adopted.

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