

Trauma "Golden Hour" -Three years experience -



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INTRODUCTION

The pre-hospital emergency medical team (VMER), of Hospital São Francisco Xavier, is one of the three VMERs that operate as "first responder" for all medical and trauma scenarios at Lisbon city.

The aim of this work is to evaluate the pre-hospital team's procedure towards a multiple injured trauma patient during the first hour after an accident.

METHODS

In this retrospective study, concerning the period between the 1st of January 2001 and 31st of December 2003, a sample of 1854 patients has been studied, corresponding to 28% of the total calls received by Pre-hospital emergency medical team through that period.

Mean patients age, types of trauma mechanisms (Fig. A), time to arrival and time spent at the scene, identified trauma pathologies (Fig. B), medical procedures (Fig. C), were all object of analysis.

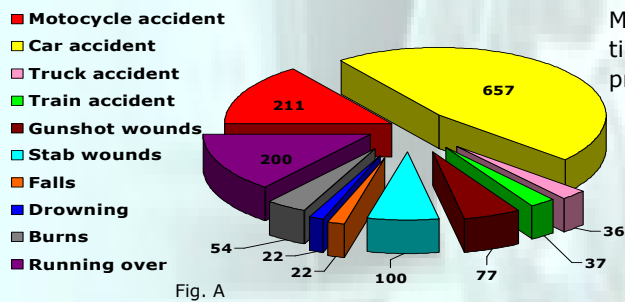


Fig. A

RESULTS

Mean patients age was 37 years old, the most frequent type of event was a motor vehicle accident (Fig. A), with head injury as the most recurrent trauma injury (Fig. B). On average, the mean time to arrive at the scene was 7.6 minutes and the time spent there was 32.6 minutes.

Multiple medical procedures have been used according to the patient therapeutic needs, including airway and fluid management, mechanical ventilation, etc. (Fig. C).

The most frequently drainage hospitals were level II trauma centers.

Pharmacotherapy	934
Peripheral Venous Access	1003
Central Venous Access	7
Skeletal immobilizations	1752
Endotracheal intubations	136
Mechanical Ventilation	120
Gastric intubations	97
Tracheotomy	7
Thoracostomy	16

Fig. C

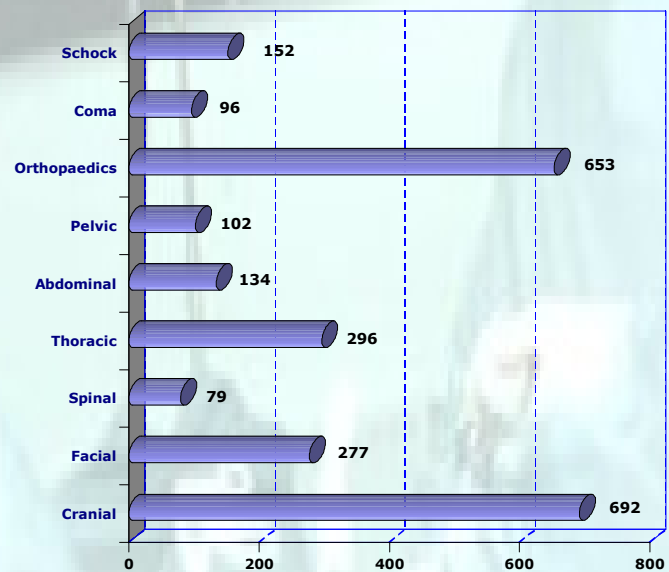


Fig. B

CONCLUSIONS

The coordination of the pre-hospital system with the receiving hospital capable of providing the ultimate treatment, from the moment of the trauma until in-hospital treatment, designated by "golden hour", maximizes the probability of surviving and decreases the risks of morbidity within the survivals. Our trauma patients were evaluated and treated at the scene and during the transport to the most appropriate trauma facilities respecting the "golden hour" concept.

It seems important in the future to collect data from hospital records, to see if in-hospital time management of critical trauma patients respects too this major trauma concept.

References:

- 1) Moore EE, Mattox KL, Trauma, 3rd Edition., Appleton & Lange, 1999
- 2) Scaletta T, Emergent Management of Trauma, 2nd Edition, McGraw Hill, 2001