Quantitative Evaluation and Economic Impact of Medicine Shortages in a Teaching Hospital

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In recent years, the incidence of medicine shortages (MS) has rapidly increased at the international level [1,2]. These supply problems can affect the quality of patient care, due to potential interruption of treatment, and therefore, constitute an important issue for hospital pharmacists [3].

AIM AND OBJECTIVES
This study aimed to analyse MS and quantify their economic impact.

MATERIALS AND METHODS
A retrospective observational study was conducted in a 1015-bed teaching hospital, from April 2018 to September 2020. It was based on a spreadsheet manually weekly updated for MS.

Quantitative indicators were:
- a) Number of MS and involved drugs
- b) Duration of MS
- c) Classification of the pharmaceutical interventions to manage MS
- d) Economic impact of MS
- e) Time devoted to MS weekly analysis

RESULTS
a) 706 MS were reported and concerned 459 drugs
b) Average time to restore availability was 60 days
   Median duration was 33 days

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Hypothetical cost: 984.533€
(based on the prices with the regular suppliers)

Estimated cost due to MS: 1.633.340€
(based on the prices of the pharmaceutical strategies used)

References:

CONCLUSION
These results suggest that MS generated an annual cost of 395,761€ in our hospital. Strategies to minimise the effects of MS should be implemented.