Drug shortage impact on patient care: an increasing healthcare problem


Background

Drug shortages are increasing worldwide. Hospital pharmacists manage to minimize their impact on patient care but, despite this, shortages are becoming a public health problem.

Purpose

To assess the current situation of drug shortages in a tertiary hospital and the actions proposed to reduce their impact on patients

Material and methods

This is an observational prospective study (February-July 2017). Affected drug, supply disruption / shortage duration, way it was notified to the pharmacy and solution given by the pharmacy were recorded.

Results

During the 6 months of study, 128 drug shortages were recorded by the hospital pharmacy (0.97 drug shortages per working day).

Drug shortages were notified by:

- Health Care authorities: 50%
- Manufacturer: 25%
- Pharmacists when claiming a delayed order to the supplier: 25%

Drug shortages by ATC group:

- Antimicrobials: 25%
- Nervous system drugs: 19%
- Antineoplastics: 8%
- Antineoplastic drugs: 9%
- Ophthalmic drugs: 9%
- Cardiovascular drugs: 11%
- Others: 18%

Drug shortages impact

- Pharmacy stock was enough to cover patients' needs during the supply disruption: 53%
- Alternatives had to be searched: 47%

- Alternative product with the same active substance: 20%
- Different drug with similar indications: 77%
- Drug compounding: 8%

- Same active drug but different pharmaceutical form: 52%
- Labelling in foreign language that needed further repacking: 23%
- No relevant changes between products: 25%

73.5% of the shortages solved during the period of study. Median duration was 19 days (IQR: 7.3-35.3 days).

26.5% remained unresolved when this study finished. Median duration was 59 days (IQR: 33-101 days).

Conclusion

In this study, drug shortages were frequent and not always adequately communicated.

Although, in most cases the shortage was solved with a product with the same active substance, in a not insignificant percentage of the cases, a different drug was necessary.

This is important when considering the most frequent groups of drugs affected (antimicrobials, nervous system, antineoplastics) and the potential implications of a drug change for the patient.

References