

DRUG SHORTAGES ANALYSIS FROM AN ITALIAN HOSPITAL PHARMACY PERSPECTIVE

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Background

The Italian market, as well as other markets, is experiencing an increasing frequency of drug shortages, which have caused difficulties for clinicians, healthcare facilities, patients and regulators. Drug Shortages can occur for many reasons including manufacturing and quality problems, regulatory issues and business decisions. They adversely affect patient care by causing substitution of safe and effective therapies with alternative treatments, compromising or delaying medical procedures or causing medication errors.

Purpose

The aim of the work is to analyse the drug shortages phenomenon at the Centre between January 2016 and June 2018.

Material and methods

Every drug included in the hospital formulary from January 2016 to June 2018 was considered for the analysis. Drugs involved in shortages were defined as drugs related to delay in supply and included in the official list of the national regulatory agency (AIFA). For each drug, data extracted were: information about active ingredient, dosage, pharmaceutical form, drug category, reason for shortage, medication shortage status (solved/unresolved), differences in costs and time to purchase the alternative drug from abroad.

Results

Six drugs included in the hospital formulary resulted involved in drug shortages during the fixed time (0 in 2016; 1 in 2017; 5 in the first semester of 2018) including: Benzylpenicillin benzathine 1,200,000 UI injection vials (2017); Mupirocin 2% ophthalmic ointment, Ampicillin 1 gr oral tablets, Clorfenamin 100 mg injection vials, Alprostadil 600 mg oral tablets, Etilefrin 10 mg injection vials (2018). Drug shortage is still unresolved for Mupirocin, Ampicillin, Clorfenamin, Benzylpenicillin benzathine (66%), while was solved within 90 days for Alprostadil and Etilefrin (33%). Main drug categories involved in shortages were: antibiotics (50%), urological drugs (16.6%), antihistaminics (16.6%), adrenergic drugs (16.6%). Reason for shortages were manufacturing problems (5) or temporary marketing discontinuation (1). Costs to purchase alternative drugs increased by 3.5 times compared to ordinary costs; purchasing process took twice as long as it would be ordinarily.

Conclusion

According to results, the drug shortages phenomenon is increasing significantly over time, including relevant drugs. As purchasing alternative drugs from abroad was a long and expensive process, drug shortages at the Centre also increased burden on healthcare providers and healthcare facility finances.

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