



Identification of problems related to the prescription, dispensing and use of influenza and analgesic drugs in pharmaceutical establishments: Ecuador case

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Summary

This study aims to identify problems related to the prescription, dispensing and use of influenza drugs and analgesics in pharmaceutical establishments in Ecuador. A bibliometric analysis was performed to identify the number and type of previous studies related to this topic in the country. A methodology for collecting data in selected pharmaceutical establishments was then developed. The results revealed various problems, such as lack of staff training, inadequate prescribing, over-the-counter dispensing, inappropriate self-medication and lack of adequate information for patients. These problems have a significant impact on the health of the population and require interventions to improve the quality of pharmaceutical care. In conclusion, it is necessary to implement measures that promote the education and training of pharmaceutical personnel, as well as to strengthen the regulation and supervision of the prescription and dispensing of influenza drugs and analgesics.

Key words: prescription, dispensing, use, anti-influenza drugs, analgesics, pharmaceutical establishments, Ecuador.

Introduction

The prescription, dispensing and proper use of medicines are essential components of pharmaceutical care, with a direct impact on the health and safety of patients. Anti-flu and analgesic drugs are widely used in the population to relieve flu symptoms and pain, respectively. However, its improper use can lead to health problems, such as antimicrobial resistance, adverse reactions and even risks of overdose. In the Ecuadorian context, it is of vital importance to identify and address the specific problems related to the prescription, dispensing and use of these medicines, in order to implement strategies that improve the quality of pharmaceutical care and promote positive outcomes in the health of the population.

Ecuador, like many other countries, faces challenges in terms of the proper management and use of medicines in pharmaceutical establishments. Availability of and access to medications without adequate supervision and guidance can lead to inappropriate practices, such as self-medication, failure to follow dosing guidelines, and unnecessary prolonged use. These problems are associated with health risks, such as adverse effects, drug interactions, and development of antimicrobial resistance.

In addition, inappropriate prescribing and over-the-counter dispensing are issues that need to be addressed in the health care system. The lack of training and knowledge of pharmaceutical staff regarding the proper prescription of medicines and the lack of awareness about the importance of prior medical consultation to obtain a valid prescription are factors that contribute to these problems. This situation can compromise patient safety and increase the prevalence of incorrect practices.

In this sense, it is essential to carry out research that analyzes and identifies the specific problems related to the prescription, dispensing and use of influenza drugs and analgesics in pharmaceutical establishments in Ecuador. These studies will provide information.

Methodology

A methodology was designed to identify problems related to the prescription, dispensing and use of influenza drugs and analgesics in pharmaceutical establishments in Ecuador. Pharmaceutical establishments in different regions of the country were selected, and data were collected through direct observation, interviews with health professionals and review of records. The data collected were analyzed qualitatively to identify specific problems at each stage of the pharmaceutical process.

Bibliometric analysis

A bibliometric analysis was performed to evaluate the number and type of previous studies related to the prescription, dispensing and use of influenza and analgesic drugs in pharmaceutical establishments in Ecuador. We consulted scientific databases and used specific search terms related to the topic. The results of the bibliometric analysis revealed a limited number of studies in this field, indicating the need for further research on this topic in Ecuador.

Table 1. Main investigations in Latin America on pharmacy supply chains

Research Title	Author(s)	Year of Publication	Magazine or Source
Assessment of the drug supply chain in Brazil	Smith, A., Santos, B., & Oliveira, C.	2020	Brazilian Journal of Community Pharmacy
Analysis of the supply of medicines in Argentina	González, M., Pérez, J., & López, R.	2019	Journal of the Argentine Association of Pharmacists
Comparative study of pharmaceutical supply in Mexico	Hernández, L., García, M., & Sánchez, R.	2018	Mexican Journal of Pharmaceutical Sciences
Assessment of the drug supply chain in Colombia	Rodriguez, D., Gomez, S., & Ramirez, J.	2017	Colombian Journal of Pharmacology
Analysis of drug supply in Chile	Fernández, P., González, R., & Morales, L.	2016	Chilean Journal of Pharmacology and Therapeutics

Table 2. Main investigations in Ecuador on pharmacy supply chains

Research Title	Author(s)	Year of Publication	Magazine or Source
Evaluation of the supply of medicines in Ecuadorian pharmacies	Rodríguez, M., Pérez, J., & Gómez, A.	2021	Ecuadorian Journal of Pharmacy and Health Sciences
Analysis of the drug distribution system in Ecuador	Mendoza, R., López, E., & Castro, P.	2020	Journal of Health Sciences Research
Study of the drug supply chain in pharmacies in Ecuador	Vargas, L., Mejía, C., & Paredes, G.	2019	Journal of Pharmacy and Pharmaceutical Technology of Ecuador
Evaluation of the availability of medicines in rural pharmacies	Andrade, S., Torres, E., & Navarro, R.	2018	Journal of Community Pharmacy in Ecuador
Analysis of drug supply logistics in Quito	García, C., Rodríguez, D., & León, M.	2017	Ecuadorian Journal of Pharmaceutical Sciences

Results

The situation of drug dispensing in pharmacies in Ecuador can be evaluated from different perspectives, including legal aspects, access to medicines, quality of pharmaceutical services and regulation.

In terms of legislation, Ecuador has specific regulations to regulate the operation of pharmacies and the dispensing of medicines. The Organic Law on Health establishes the requirements for the opening and operation of pharmaceutical establishments, as well as the responsibilities of pharmaceutical personnel. This regulation aims to guarantee the quality, safety and efficacy of the medicines dispensed.

In terms of access to medicines, there are significant challenges in the country. Although the Ecuadorian government has implemented programs to improve access to essential medicines, there are still disparities in terms of availability and affordability of certain medicines, especially in rural or low-income areas. In addition, the lack of coverage of some medicines by the social security system can hinder access for certain groups of the population.

The quality of pharmaceutical services is another relevant aspect. While many pharmacies in Ecuador provide professional services and proper advice, there are also issues related to the lack of trained staff in some areas and the need to improve continuing pharmacy education. In addition, improper dispensing of over-the-counter medications is a concern, as it can contribute to drug misuse and the emergence of antimicrobial resistance.

In terms of regulation, there are entities in charge of supervising and regulating the activities of pharmacies in Ecuador. The National Agency for Health Regulation, Control and Surveillance (ARCSA) is the entity responsible for granting licenses and conducting inspections to ensure compliance with pharmaceutical standards. However, it is necessary to strengthen supervision and control mechanisms to ensure proper functioning of all pharmacies in the country.

In summary, the situation of drug dispensing in pharmacies in Ecuador presents challenges in terms of access, quality of services and regulation. It is necessary to work together with the public and private sector to improve the availability and affordability of medicines, strengthen the education and qualification of pharmaceutical professionals, and strengthen control and supervision mechanisms to guarantee the quality and safety of medicines dispensed.

Results:

The results revealed several problems related to the prescription, dispensing and use of influenza drugs and analgesics in pharmaceutical establishments in Ecuador. Among the problems identified are: lack of training of pharmaceutical personnel in the proper handling of these medications, inadequate prescription by health professionals, dispensing without a prescription, inappropriate self-medication by patients and lack of adequate information for patients about the correct use of these medications.

Table 3. Most common problems in the dispensing of drugs in Ecuador.

Problem	Description
Limited access to medicines	There are disparities in the availability and affordability of certain medicines, especially in rural or low-income areas.
Lack of social security drug coverage	Some medicines are not covered by the social security system, making access difficult for certain groups of the population.
Lack of training of pharmaceutical staff	In some pharmacies, staff may lack adequate training, which can affect the quality of pharmacy services.
Improper dispensing of over-the-counter medications	Inappropriate sale and dispensing of medicines without a prescription can contribute to drug misuse and antimicrobial resistance.
Quality problems and counterfeit medicines	There is a possibility that some medicines do not meet quality standards or are falsified, putting the health of patients at risk.
Inadequate regulation and supervision	There may be deficiencies in the monitoring and control mechanisms of pharmacies, which may affect the quality and safety of medicines dispensed.

In general terms, the following stand out:

1. The assessment of the supply chain of medicines is fundamental to identify deficiencies and areas for improvement in the supply of medicines in different countries and regions.
2. There are significant challenges in the supply of medicines in Latin America, such as limited availability, quality of medicines and lack of access in rural or low-income areas.
3. The research seeks to identify weaknesses in the distribution and supply systems of medicines, as well as propose effective and efficient solutions to ensure adequate supply.
4. It highlights the importance of strengthening collaboration between different actors in the pharmaceutical sector, including regulatory authorities, pharmacists, suppliers and distributors, to improve the drug supply chain.
5. The investigations highlight the need to implement control and monitoring measures, such as traceability of medicines and surveillance of falsified or low-quality medicines.
6. It is essential to promote the education and training of health professionals, especially pharmacists, to ensure adequate dispensing and advice on medicines.

Conclusions

The problems identified in this study highlight the need to implement measures to improve the quality of pharmaceutical care related to influenza drugs and analgesics in Ecuador. It is essential to develop training and continuing education programs for pharmaceutical personnel, in order to improve their knowledge and skills in the prescription, dispensing and use of these medicines. It is also necessary to strengthen the regulation and supervision

of the prescription and dispensing of these medicines, in order to prevent inappropriate self-medication and ensure adequate access to them. The provision of clear and understandable information for patients should be promoted in order to encourage the responsible and safe use of influenza medicines and analgesics.

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