

THERAPEUTIC ADVANCES in *Drug Safety*

Contents

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CONFERENCES (ABSTRACTS FROM CONFERENCES)	9
ORAL COMMUNICATIONS	17
POSTER PRESENTATIONS: PATIENT-CENTERED SAFETY	25

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consumed. CSTD use could prevent the waste of one vial every fifteen preparations, saving about fifty vials. With a unit price of €4000, gross savings are estimated at €220,000. After subtracting device costs (around €6000), net savings approximate €214,000. **Conclusion:** This retrospective study shows that CSTD use, which is legally required in Portugal by Decree-Law No. 35/2020, at ULSSM yields significant financial benefits, enhancing the cost-effectiveness of managing high-value drugs while ensuring safety.

Keywords: closed systems, cost-effectiveness, hospital pharmacy

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TOPIC: AI IN MEDICINES AND HEALTHCARE PRODUCTS

Abstract-Oral-40 AI In Medicines and Healthcare Products

Integrating Professional Knowledge in OTC Recommendation Systems

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Background: Community Pharmacy is crucial in promoting public health by improving patients' quality of life and minimizing medication-related risks [1]. While pharmacy professionals are responsible for dispensing both prescription and over-the-counter (OTC) products, current software

systems lack comprehensive, up-to-date information about OTC options [2]. Although professionals are trained and knowledgeable in advising OTC products, enhancing these systems with reliable and safe algorithm would support them with evidence-based recommendations. **Aim:** To address this challenge, the development of a structured framework is proposed to guide the design and implementation of an Artificial Intelligence Health Product Recommendation System that incorporates product characteristics and professional knowledge. **Methods:** For this purpose, it was identified and categorized relevant product attributes (e.g., contraindications, adverse effects) and simultaneously, professionals were consulted to assess the relative importance (least (1) to most important (10)) of each attribute when counselling patients, considering their personal and professional characteristics. Descriptive and inferential statistical analyses were conducted using SPSS to explore the possible relationship between their evaluation about the attributes and their sociodemographic characteristics [3]. **Results:** The attributes with the highest median importance were "Contraindications" and "Symptoms and Duration" (median = 9), while "Adverse Effects," "Pharmaceutical Form," and "Price" had the lowest median scores (median = 2). Sociodemographic factors did not significantly influence the importance assigned to each attribute. **Discussion:** This expert input will allow the development of a weighted distance function to measure similarity between products and the development of clustering techniques to group similar products, resulting in a pharmacist-centred system.

Keywords: health product recommendation system, community pharmacy, non-prescription products.

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