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Review Article

Incentives affecting prescribing, dispensing, and pharmaceutical spending: a scoping review

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Abstract

Introduction: Healthcare systems face significant challenges due to annual cost increases. Incentives beyond the clinical, such as economic, social, and political, affect medical decisions and influence drug prescribing and dispensing, thus impacting pharmaceutical spending, which is essential for financial sustainability of the system and equitable access to treatment. **Objective:** To identify the incentives that affect drug prescribing and dispensing and pharmaceutical spending worldwide, which seeks to answer our research question. **Methods:** A quantitative descriptive study based on a systematic literature search in 8 databases and data extraction, coding and categorization to explain and answer the research question. **Results:** 426 references were screened, 103 of them were accepted as research corpus and from them, through a pre-coding of 497 terms by semantic affinity, similarity, meaning, coincidences or differences and excluding character, 345 open codes were obtained, grouped in 34 open categories, 7 axial categories and 3 selective categories that allow identifying the incentives of the research question. **Conclusions:** Our research identifies 3 main areas: Health System and Access to Medicines, Prescribing Contexts, and Factors Associated with the Use of Medicines; with 34 categories and 345 factors grouped into 117 main incentives that affect, to varying degrees, the prescribing and dispensing of medicines and that are linked to the pharmaceutical expenditure that health systems worldwide are trying to control. In general, the evidence points to better outcomes when prescriber and patient incentives are addressed, compared with restrictive policies that do not show clear results in therapeutic targeting and health outcomes.

Keywords: Health Care System, Healthcare Financing, pharmaceutical policy, Health Expenditure, drugs

INTRODUCTION

The increase in the cost of health care systems is a global problem caused by factors such as: the increase in the coverage of both health services and populations; the aging of populations; the emergence of new technologies, including pharmaceuticals; among others[1]. With regard to the increase in coverage of both health services and populations, the pressure on systems arises to the extent that health is defined as a fundamental right in various international agreements such as the Universal Declaration of Human Rights[2], the International Covenant on Economic, Social and Cultural Rights[3], to name a few, which have been endorsed by several countries that, in order to fulfill their commitment, must materialize this right through their health systems.

To this end, they must guarantee their populations timely and quality access to the health care they need, including pharmacological therapies, for the prevention or treatment of diseases, and they must guarantee the resources necessary for this purpose[4]. With regard to the aging of the population, this is a trend that has been accentuated in recent years and that the World Health Organization (WHO), according to data from 2016, has shown to be increasingly accelerated compared to previous years. For example, in 2015 there were already 600 million people over the age of 65, and it is expected that by 2050 this figure will be around 1.5 billion, or more than 15% of the world's population[5], and in countries with a population as large as China, it is expected that in 2050 there will be around 330 million people over the age of 65, of whom 100 million will be over the age of 80[6]; this will undoubtedly generate more financial pressure, human talent, technological and infrastructure needs for health systems.

Another characteristic of this aging process is the worsening of the demographic transition in countries that had reservoirs of young populations, as is the case in Colombia, where the number of births will fall from 719,968 in 2005 to 569,311 in 2022, a reduction of almost 21%[7]. On the other hand, common diseases such as heart disease, cancer or diabetes do not have a single genetic cause and may be additionally influenced by lifestyle or environmental factors such as diet or exposure to pollutants. These diseases have become multifactorial pathologies, which makes their treatment more complex because in many cases the patient has multimorbidity or comorbidity, and because of these characteristics they are patients who may suffer crises in the natural evolution of their pathology, with the basic fragility associated with their condition, and therefore may have a high demand for health system services[8]. Currently, there is even talk of precision medicine, which aims to study and create a "biochemical fingerprint" for each individual, considering individual variability, in order to determine and individualize their treatment, with the aim of increasing efficacy and minimizing side effects, but with the costs that this entails[9].

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With regard to new technologies, drugs have an important weight in the costs of health systems[10,11,12], due to the fact that the pharmaceutical industry advances at great speed and with high costs in their development, which is reflected in the prices of drugs[13,14] and may affect access to this type of therapies if there are no public policies that evaluate issues such as their relevance and cost-effectiveness.

In this context, for more than twenty years, the World Health Organization (WHO) has highlighted the fact that pharmaceutical expenditure has a direct impact on the financial sustainability of health systems, making it one of the concerns of governments worldwide[1]. As a result, interventions have been developed in countries such as the United States of America, such as regulating the price that Medicare pays as a public benefit for some of the most expensive drugs it finances[15]. In addition, some additional factors have been identified that may increase these pharmaceutical expenditures, such as polymedication in the elderly and medications in surgical care, intensive care, and emergency medicine[16], but the evidence is mixed. In particular, when pharmaceutical expenditure is analyzed from the point of view of the decision to prescribe and dispense drugs, it is not easy to identify the incentives that may influence it. As a result, it is also unclear where the regulatory public policies that governments should aim to implement in order to control the proper management of resources intended to guarantee access to medicines for their populations should be directed. Therefore, it is relevant to study the factors that may influence the prescriber's decision, since he/she has a great influence on the behavior of the costs associated with this item.

Thus, based on what has been described in the previous paragraphs, the following research question was posed for this research: What are the incentives in prescribing, dispensing drugs and pharmaceutical spending that have been identified in health care environments worldwide? To this end, we propose to develop a scoping review based on a systematic literature search including open access articles, considering some principles of the Leiden Manifesto[17], however, it is important to consider that the representativeness of open access (OA) publications in pharmacoeconomics is influenced by factors such as the authors' country, the impact of journals, and OA models. Although OA increases accessibility, high article processing charges (APCs) limit the participation of authors from low- and middle-income countries. Some journals offer discounts, but fees can be up to ten times higher than in developed countries. While OA enhances visibility and citation rates, it also faces challenges such as high costs and uneven quality, affecting equity in the global representation of researchers.

MATERIALS AND METHODS

Study design

This research was designed as a scoping review, which was developed through a systematic search of the evidence, from which the scientific literature necessary to develop the following objective was obtained: to identify the incentives that affect the prescription and dispensing of drugs and pharmaceutical spending at the global level, which seeks to answer our research question. For the search protocol, a research question was developed that was broken down into each of its components using the PICO structure (Population, Intervention, Comparison and Outcomes) Table 1.

Table 1. Question in PICO structure

Population	The study should include at least one of the following knowledge users
	Decision-makers at the government level.
	Policy advisors responsible for analyzing data and informing and recommending decisions.
	Public or private health system administrators or stakeholders at both the policy implementation and oversight levels.
	Scientific groups or societies.
	Users or patients.
Intervention	Studies that describe strategies related to the analysis of prescribing, dispensing, incentives, and pharmaceutical expenditures of drugs in a health care setting will be considered.
Comparison	Articles with or without a comparison group were eligible for inclusion.
Outcome	Identify strategies, enablers, barriers, and any other factors that can help establish the relationship between prescribing, dispensing, incentives, and drug spending.

Eligibility Criteria

Inclusion Criteria

a. Inclusion criteria for studies related to format, language, and date of publication.

- Articles available as final publication and open access.

- No language restriction.

- No publication date restriction.

b. Inclusion criteria for studies related to design, methodological and reporting quality.

- Type of study: systematic literature reviews (SLRs) as the criterion given their recognized methodological robustness and usefulness in supporting informed health decisions. SLRs use an explicit, rigorous, and reproducible approach with clearly defined objectives, precise inclusion criteria, comprehensive search strategies, a critical evaluation of the validity of included studies, and a structured synthesis of findings. This methodology significantly reduces the risk of bias and random error while improving statistical power by integrating results from multiple primary studies. Unlike individual studies, SLRs offer a broader, more reliable view of the state of knowledge, facilitating the identification of gaps, patterns, and priority areas for research and public policy. In the context of a scoping review, this methodological approach ensures a more robust and relevant evidence base[18].

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Exclusion criteria

Letters to the editor, editorials, posters and commentaries are not included.

Registration of the search protocol

The search protocol was not registered in PROSPERO according to its own guidelines for scoping reviews. These state that although scoping reviews are a type of knowledge synthesis that follow a systematic approach to map the evidence on a topic and identify the main concepts, theories, sources and knowledge gaps, it is not necessary to register them in PROSPERO. Nevertheless, this document and its annexes describe all the necessary steps to ensure reproducibility through a transparent and explicit process.

Research

Selection of information sources

The following databases were selected for their content and specificity to the research topic Cochrane Database of Systematic Reviews (Wiley platform), MEDLINE (Ovid or PubMed platform), TRIP DATABASE (Turning Research Into Practice), Science direct (Elsevier platform), EPISTEMONIKOS, University of York: Database of the Centre for Reviews and Dissemination, LILACS (Virtual Health Library - BVS), SCIELO (Scientific Electronic Library Online) and finally Google Scholar for complementary and optional evidence when needed. The bibliographic search was performed on July 19, 2023, according to the search strategies described below.

Design and implementation of electronic search strategies.

Natural language key words were identified based on the research question. The search strategies were designed using controlled vocabulary (MeSH) DeCS and uncontrolled vocabulary (free language). The strategies were supplemented with title and abstract field identifiers (.tw.), Boolean operators (OR and AND) and/or methodological filters according to the requirements of each database.

Study selection process

The results of the application of the initial search strategies were stored in electronic format (Appendix 1. Search strategies) using a matrix previously designed in Microsoft Excel ®. Subsequently, the articles initially identified were screened by reading the title and abstract to eliminate duplicates (Appendix 2. References eliminated due to duplication).

Description of studies, screening of references and selection of studies

The articles were then screened by reading the full text and applying the eligibility criteria. The results of the screening described above are presented in a flowchart of the process (Appendix 3). In addition, the list of excluded studies and their reasons for exclusion (Appendix 4) and those included in the research corpus (Appendix 5) are attached.

Data Extraction and Evidence Synthesis

Once the articles to be included in the research were selected, an analytical reading was carried out by an expert in the field (LT), based on the proposed outcomes for this research. The main data and findings of interest were consolidated in a standard format designed a priori by the researchers in Microsoft Excel® (Appendix 6. Variables for data extraction and evidence synthesis) and reviewed by two other researchers (GJ, JR). For evidence synthesis, a data processing method used in methodologies such as grounded theory[4] was applied, which generates open, axial and selective codes that allow the results to be presented systematically from the evidence[5]. This coding and categorization process was carried out according to the following steps, as outlined by Strauss and Corbin (1998)[6].

Pre-coding. First, the main findings of the articles related to the research topic were extracted and then interpreted through hermeneutic analysis, resulting in a pre-code consisting of a brief description of the finding.

Open coding. The pre-codes were then grouped through a process of open coding based on an analysis of semantic affinity in which their meanings and attributes were contrasted, identifying coincidences or differences, and from there the open codes were generated.

Axial coding. In this stage, the relationship between the open codes was analyzed, identifying how the open categories revolve around a main axial category that articulates them on the basis of their properties and dimensions.

Selective coding. Finally, using the axial codes and the analysis of their conceptual relationships, the final structure of the evidence synthesis was defined in terms of emerging propositions that allow explanation and answering of the research question.

To ensure the reliability of the coding process Figure 1 in qualitative data analysis, internal validation procedures were implemented in accordance with Grounded Theory recommendations. First, one of the authors (LT), who had experience with qualitative analysis and the research topic, performed an initial coding and identified substantive codes and proposed preliminary categories. Two additional experts (GJ and JR), who are co-authors of the study, then reviewed

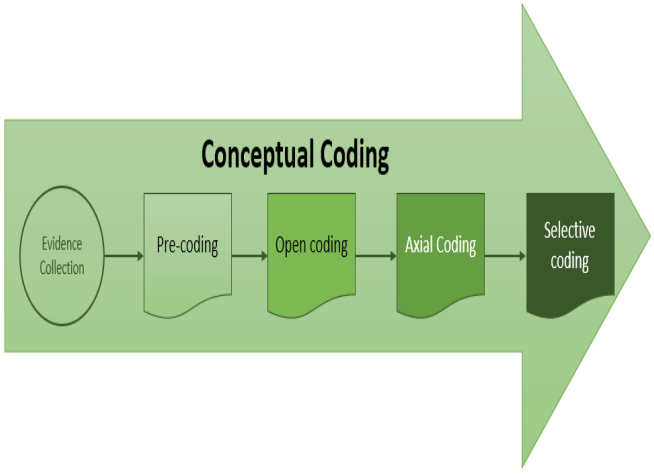

Figure 1. Study flowchart

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and verified this process to reach a consensus on the definition, grouping, and interweaving of the different levels of coding and the final hierarchy of the emerging categories. This procedure, known as collaborative or double coding with consensus, was performed manually and consolidated into tables using Microsoft Excel spreadsheets. This method has produced tangible results in other qualitative studies and increases analytical consistency, reduces individual biases, and improves the interpretive quality of the analysis[19]. Similarly, researcher triangulation was applied to reinforce the theoretical validity of the emerging model, as suggested by previous rigorous qualitative methodology studies[20].

RESULTS

A total of 426 references were screened by reading the title and abstract, of which 75 were excluded for duplicity. The remaining 351 were read in full text as evidence screening, applying the eligibility criteria, resulting in the exclusion of 249 studies. Finally, 103 articles were accepted and selected (Appendix 5). In the quantitative processing of the evidence with the corpus of 103 selected references (hereafter, research corpus) and the 40 variables of the previously defined matrix (Annex 6. Variables for data extraction and evidence synthesis), the full-text reading was performed and the global information of the variables was extracted using Microsoft Excel spreadsheets (e.g, (e.g., journal and country of origin of the publication), journal and country of origin of the publication, date of publication), population characteristics and contextual factors (e.g., country of application, type of drug analyzed), and overall results of the SLRs related to the topic of this research.

For the grouping of the results, the coding process was carried out in the stages described in the Materials and Methods section, starting with the pre-coding of the results of the 103 articles of the research corpus that were related to the research topic, comparing the results based on the researcher's reading and interpretation, and identifying the main idea by generating a code. In the precoding, as input to the first open coding process, 497 codes are obtained as groupings of terms, in which, after the semantic affinity analysis, similar, plural or singular terms, meanings, attributes, coincidences or differences are grouped, trying to make them mutually exclusive, obtaining 345 open codes as initial stimuli according to the research topic, observing that pharmaceutical expenditure is a transversal variable in the results. The open codes are organized into larger classifications such as families or categories, obtaining 34 open categories. Then, axial coding was generated from the open categories, resulting in 7 categories. The axial categories were then grouped into 3 selective categories around which the research findings are presented**.**

The three main categories resulting from the open and axial coding process, a. health system and access to medicines, b. prescribing contexts, and c. factors associated with medicine use, allow for the identification of patterns of recurrence, conceptual density, and thematic relevance in the analyzed corpus. The categories were defined by establishing a broad hierarchical structure related to the health system, leading sequentially to the processes of prescription, dispensing, and pharmaceutical expenditure. The three categories comprise a total of 345 open codes distributed across 103 scientific articles. These articles represent the most frequent thematic axes, diversity of subtopics, and analytical depth in relation to the studied phenomenon. The category "Health system and access to medicines" contains the most open codes (138), highlighting its central role in understanding the prescribing context structurally. The category "Prescription Contexts" includes sociodemographic, clinical, and logistical factors related to the medical act. This category reflects the conditions of both the patient and the prescriber and includes 74 codes. Finally, the category "Factors Associated with Medication Use" integrates ethical, cultural, commercial, and educational dimensions. This category contains 135 and denotes high interpretive complexity, contributing to the consolidation of a comprehensive explanatory model.

Structuring the analysis around these three categories responds to the methodological criterion of theoretical saturation[18]. These categories emerged with high recurrence, allowed for significant relationships between subcategories, and offered sufficient explanatory power to meet the study's objectives[21]. Table 2 presents a summary of the sequence of selective, axial and open coding together with the number of articles or references related to each topic, clarifying that one reference can cover several topics.

Table 2. Summary of Coding

CODING	OPEN CODES	RELATED ARTICLES
1. HEALTH SYSTEM AND ACCESS TO MEDICINES		
Healthcare system and drug coverage		
Structure and nature of the health care system	16	15
Cost of care and economic market conditions	9	10
Insurance and formulary coverage	8	11
Access to medicines and other health technologies	3	4
Regulatory policies and technical-scientific and financial strategies for practice		
Technical and scientific strategies for practice	53	44
Regulatory policies	24	29

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Financial strategies for practice	19	27
Procurement processes	5	6
Audits and feedback	1	8
2. PRESCRIPTION CONTEXTS		
Sociodemographic, Epidemiologic and Logistical Characteristics of the Prescribing act		
Sociodemographic characteristics (patient)	12	13
Demographic or intrinsic characteristics of the pathology.	11	12
Information system and availability	10	10
Sociodemographic and logistical characteristics of the hospital Institution	9	11
Sociodemographic characteristics (prescriber)	5	5
Patient clinical characteristics	4	10
Clinical practice conditions		
Practice characteristics	21	19
Prescriber burnout	2	5
3. FACTORS ASSOCIATED WITH MEDICATION USE		
Ethics, culture, beliefs and conditioning factors involved in the act of prescribing.		
Culture, attitudes, beliefs, and prior experiences	24	19
Scientific orientation	10	6
Behavior or conduct of the prescriber	4	7
Ethics and risk of corruption	3	5
Rational drug use and marketing characteristics		
Pharmaceutical marketing efforts directed at prescribers	16	11
Drug characteristics	13	12
Good prescribing or dispensing practices	12	18
Rational use of medicines	8	31
Cost of care and market economics	4	4
Adherence to prescribed therapy	3	15
Prescriber characteristics	2	3
Knowledge and education of prescribers		
Knowledge and education of prescribers	16	15
Patient knowledge and education	6	16
Healthcare worker knowledge and education	5	8
Knowledge and application of health technology assessment principles	5	5
Organization or provider knowledge and education	3	3
Parent or caregiver knowledge and education	1	4
TOTAL	**345**	**103**

DISCUSSION

Each of the codifications presented in the results section are developed below. In some cases, it was necessary to elaborate on an incentive identified in the open categories, the presence of more specific incentives that, although belonging to its description, it is considered relevant to make them visible. For example, "prescriber knowledge and education" is identified as an incentive that affects prescribing, dispensing and pharmaceutical spending, but in addition to this education, it is necessary to discuss a specific product of education, which is "evidence-based decision-making capacity", since this is an aspect that several authors have focused on, as will be seen below.

The health system and access to medicines

In any health system, the fundamental objective of health care is to ensure that all people who need health services receive them under quality standards, without facing economic difficulties in their provision, which requires the inclusion of promotion, prevention, treatment, rehabilitation and palliative care phases[8]. In this sense, each country decides, according to its political, economic and social context, which type of

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model to implement, with its advantages and disadvantages in terms of coverage, access, cost and quality of care. Therefore, it is appropriate to briefly describe some health care models according to their context. In the traditional definition[9], health care models fall into the following types:

First, the universalist model, which according to the World Health Organization consists of *<<that all people have access to the set of quality health services they need, when and where they need them, without suffering economic hardship>>* with public financing through taxes and public provision of services through public hospitals, is the case of Japan.

Second, there is the social security model (Bismarck model), whose coverage is linked to the condition of formal employment, income level and residence. It is publicly financed. In this model, the provision of services can be public, private or mixed, as is the case in Austria and Switzerland.

Third, there is the private insurance model, in which the public sector is not involved as a financier or provider.

provider. Its structure is fragmented, decentralized and with little public regulation, as in the United States, although this is changing.

Finally, there is the mixed model, which combines elements of the previous models. For example, in some countries, the government provides basic coverage and individuals can choose private insurance to cover additional services or improve access. Examples of this model include Germany, Australia and France.

In each of the models described, drug-related expenditure represents a significant proportion of total health expenditure[10], and it is therefore important to examine the incentives that drive this significant expenditure of the health budget.

Health system and drug coverage:

Characteristics of the health care system and access to medicines that are related to factors affecting prescription, dispensing, and pharmaceutical expenditures are presented below.

Structure and nature of the health care system. The structure of the health care system influences the financing and behavior of health care spending. In countries such as Germany, France, Canada and the United Kingdom, health systems with a mixed approach and a universalist predominance have been shown to be efficient; this efficiency can be improved by increasing public funding, reducing market fragmentation and promoting healthy competition in the relationships between the actors that make up the system[11]. Similarly, this type of health system has the power to implicitly or explicitly define the *duration of consultations* and the interventions that are performed, on the assumption that the longer the consultation, the fewer prescriptions doctors will make, since they will be able to carry out a more precise anamnesis, leading to more accurate diagnoses, and will be able to talk to the patient about healthy lifestyles[12,13]. However, a definitive association of this assumption has not been established, and the authors recommend further studies. Nevertheless, in some health care systems, the pressure on consultation time resulting from the explicit or normative definition of its duration leads to situations in which the prescription of drugs may become less rational from a technical-scientific point of view. On the contrary, in hierarchical organizational systems, where the prescriber works under supervision, better results have been observed for strategies aimed at improving prescribing and promoting greater scientific rationality in the use of medicines than in those where the prescriber is more autonomous[14]. Despite the lack of definitive results, the consultation and dispensing time should be sufficient for the prescribing and dispensing task to provide the patient with sufficient information on the use of the drug, with a positive impact on the health outcomes achieved and, consequently, on pharmaceutical expenditure.

However, there is a wide variation in the length of consultation and dispensing times in the 18 countries surveyed (representing approximately 50% of the world's population). For example, consultation time ranged from 48 seconds (Bangladesh) to 22.5 minutes (Sweden) and dispensing time from 20.5 seconds (Europe, Latin America) to 86.1 seconds (South Asia) [15], which would be expected to influence the quality of the history, prescription and information provided and the outcomes of the health system.

On the other hand, the demand for health services in a country, the available resources and the principles of efficiency and equity of the health system influence the out-of-pocket expenditure of its citizens. It has been observed that in high-income countries, part of the economic burden has been shifted to patients. As a result, shifting the cost of medicines to patients as a strategy for managing health expenditure may compromise efficiency and equity[11,16], as patients incur costs that they may not be able to afford. Therefore, it is important that the strategy to control health care expenditure should target the actors who research, manufacture, prescribe and dispense drugs, who are the main drivers of pharmaceutical expenditure in health systems[16]. Strategies should also include enabling patients to avoid out-of-pocket spending through lower-cost therapeutic options, such as generics, and creating an efficient medical supply system[17].

In addition, the health care delivery model also seems to have an influence, since the fragmentation of financing and service delivery, the outsourcing or externalization of health care, and the type of private or public ownership of hospitals were associated with the ease of adoption of new drugs, which are usually more expensive. For example, it has been observed that they are more easily prescribed in private institutions, perhaps due to budgetary or regulatory issues; however, when private institutions are divided into for-profit and not-for-profit, it has been found that new drugs are more difficult to introduce in the latter[11,22,23,24].

Other incentives that appear to be influenced by the structure and nature of the health care system, with contrasting results between different regions and therefore need further research, are: the country's economy[25], the hospital infrastructure[26], the existence of pharmaceutical interventions appropriately

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targeted to patients, for example, with multimorbidity or very specific and common conditions[27], the network of providers[28], or the form of service delivery, such as telemedicine, which reduces the cost of medical care for some conditions[29].

Insurance coverage, formulary, and drug availability. These incentives have been analyzed in about 69 countries in the 5 continents and from the evidence discussed they are considered as incentives that influence prescribing, dispensing and pharmaceutical spending in health systems, since they can increase visits to services that, with a broader list of drugs coverage, result in greater available options that can increase spending, or maintain prescriptions of drugs that are no longer cost-effective for a health system; although the evidence is contradictory in the primary studies. Some authors point out that it is more appropriate to influence the behavior and knowledge of prescribers as the first link in the drug chain than to develop other strategies on the other actors in the system with modest results and high costs[11,22,30,31,32,33,34,35,36,37]. It is important to emphasize that there is evidence that it is possible to reduce spending without reducing availability and access to medicines through other strategies, such as rational use and generic prescribing[38].

Cost of care (drugs) and economic conditions of the market. First, it is important to take into account the importance of identifying administrative costs, transaction costs and hidden costs[22,39,40]; second, to identify the higher costs that occur due to treatment failures[41]; and third, to characterize the supply and demand of the drug market in order to develop strategies that reduce costs, monitor the market and ensure transparency and trust among the different actors and transactions in the health system[24,25,26,38,42]. A special case that affects the pharmaceutical market and requires special attention is the treatment of orphan and ultra-orphan diseases, since the supply and delivery of the medicines required for their treatment are more susceptible to problems of transparency and price variation[43].

Access to drugs and other health technologies. There are other non-biomedical incentives that some authors have analyzed in markets as large as China, where, despite awareness of antimicrobial resistance, free or easy access to antibiotics leads to inadequate demand and use in the community, which ultimately affects pharmaceutical spending[44,45]. Conversely, access problems, which vary by geographical region, lead to drug misuse and high pharmaceutical expenditure due to drug failures[28,46].

Regulatory policy and technical, scientific and financial strategies for practice

Technical and scientific strategies for practice. Several authors examine the strategies used by governments, institutions and actors in each health system to efficiently manage the processes of prescribing, dispensing and pharmaceutical expenditure[47]. In these processes, the development of strategies to control prescribing and dispensing, such as the use of prior authorization processes to verify prescriptions before dispensing, has been evaluated and found to have a positive impact on reducing pharmaceutical expenditure[36,40,48]. However, studies are needed to investigate whether these strategies have an impact on health outcomes. Another strategy adopted by countries to address economic crises and ensure access to medicines by ensuring their rational use is the development of clinical practice guidelines (CPGs)[26,38,48]. Their success depends on their design and planning according to defined quality criteria based on health care priorities[49], as well as on their efficient implementation and monitoring of their results, which is an imperative need in complex processes such as the prescription of opioids or mental health medications[50,51,52,53]. Adoption of these guidelines has been shown to have better outcomes when initiated in the early stages of prescriber training or among those who have recently graduated[54].

With regard to e-prescribing, the evidence shows that there is still no consensus on its effects, perhaps due to differences in study design[55] or doubts about its transferability. In some countries, such as the United States, Canada or the United Kingdom, it has shown benefits, but it is not clear whether the same results can be achieved in countries with different income levels or different health care models[56,57]. Other pharmaceutical strategies, such as pharmacotherapeutic follow-up, pharmaceutical care[27], medication reconciliation and supervised administration, have also shown important results. It is also possible to improve adherence and prescribing efficiency through patient-oriented strategies such as promotion, prevention and disease management programs[58,26,59,60]. Other interventions studied, such as those aimed at influencing prescribing - for example, reducing unnecessary antibiotics[46,61,62] or reducing associated errors - appear to have a positive effect, at least in the settings in which the primary studies were conducted[62,63], but cost-related outcomes should be further investigated.

Regulatory policies. This topic tends to focus on policies related to price regulation or reimbursement. Several authors have studied internal reference prices as maximum reimbursement prices in middle- and high-income countries, concluding that their application or price reductions can reduce pharmaceutical expenditure in the short term, but the effect on health is unknown[24,25,32,34,38,64,65,66]. In addition, from a policy perspective, it is preferable to reduce pharmaceutical expenditure through price regulation rather than through quantity restrictions, which increase overall health care costs and affect equity. In addition, making drug reimbursement more flexible can reduce barriers to access; however, the design of these policies should include harm-benefit analyses of both the target and alternative drugs to avoid unwanted effects on the health care system and on patients' own health[31]. It is common to most studies that the health outcomes associated with these policies are uncertain or conflicting, and in this sense further research on these issues and in specific settings is warranted[45,67,68].

Similarly, drug prescription policies, while reporting results in terms of reduced pharmaceutical spending, are cautious in reporting health outcomes and changes in prescriber behavior, indicating that the evidence is scarce and inconclusive[47,32,36,69]. Other authors have inconclusive results on the outcomes of improving the appropriate use of opioids through the

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implementation of prescribing policies focused on reducing the amount and strength of these drugs[70]. Policies that restrict the prescribing of inappropriate medications for specific populations may be the only ones that show clearer results. Such restrictions have not focused on price, but rather on the potential dangers the drug may pose to these populations[37], complemented by therapeutic substitution or generic substitution of brand-name drugs[22,31].

To a lesser extent, policies related to interactions between the pharmaceutical industry and health system actors are observed, and they discuss more concise results in the sense of pointing out that interactions and "gifts from industry" have a proven effect on prescribing behavior and may modify and induce inappropriate changes in prescribing practices. Therefore, they evaluate different strategies to regulate these interactions, such as encouraging industry self-regulation, controlling their profits, profit margins or the licensing system; however, there is concern that it seems to be a matter of public knowledge that has a certain "historical acceptance" by prescribers, industry, governments and patients, who only agree on attempts to create awareness and transparency among the parties involved[22,25,32,34,46,71,72].

Financing strategies for practice. Evaluations of the impact of cost-sharing financing mechanisms in different health systems are discussed in this category, with interesting results, as it is observed that in high-income countries, cost-containment and cost-sharing strategies can apparently improve efficiency without reducing equity in access to care, because they raise awareness among those concerned[34,61,73,74]; however, copayments may have uncertain effects on adherence to the medications they involve or may increase the use of other health services[32,41,68,75], which will ultimately affect total health spending.

Similarly, strategies that seek to promote incentives to influence prescribing, dispensing, and pharmaceutical spending have been analyzed, targeting prescribers and patients under different strategies that seek to influence both supply and demand[22,31,32,34,76], as evidence shows positive associations between industry payments and prescribing behavior, both to the physician and to the patient and their caregivers, or the pressure that patients and caregivers can exert on the prescriber at the time of prescribing[77]]. It is therefore necessary to reflect on the need for a societal debate based on available scientific information and to promote, in a transparent manner, informed choices for the rational use of available pharmacological therapies, freeing the act of prescribing from external pressures and preserving its holistic and etiological meaning.

Other policies related to prescribing, dispensing, or pharmaceutical expenditures are analyzed in a smaller proportion of articles, although this does not mean that they do not influence the behavior of the variables under study, such as pay-for-performance policies, the definition of coverage caps or thresholds, or incentives to providers and the development of reimbursement models, or incentives for providers and the development of controlled access agreements as a tool for access, equity and financial control in the face of a lack of scientific evidence and the need for new therapies[27,30,38,46,64,67,78,79], although it is often noted that some of them could affect health outcomes beyond the expected reduction in pharmaceutical expenditure.

Procurement process. Some of the articles reviewed agree on the seemingly obvious but possibly not fully developed recommendation in several health systems regarding the efficiency that should be maintained in the procurement process to ensure the availability of therapies, which ultimately influences the correct prescription, the pharmacological range available, and the subsequent pharmaceutical expenditure, and subsequent pharmaceutical expenditure, especially when developing in low- and middle-income countries[80], and where it is recommended to identify inefficiencies in the supply chain[39] or to improve the process in terms of transparency and development of economies of scale and strategies such as setting reference prices or promoting generic competition[38.64,81].

Audits and feedback. Finally, several studies provide evidence and recommendations on audit and feedback processes to those involved in the different stages of the prescribing and dispensing process as a relevant incentive to improve and control drug use and pharmaceutical expenditure[14,24,31,32,36,54,82,83].

PRESCRIBING CONTEXTS

This selective category seeks to group together the incentives related to everything involved in the development of the act of prescribing, in terms of sociodemographic, epidemiological, logistical and clinical practice characteristics.

Sociodemographic, epidemiologic and logistic characteristics of the act of prescribing

Sociodemographic characteristics (patient). Among the demographic characteristics, the most discussed incentives in the evidence reviewed were the patient's age and sex. Some authors agree in highlighting that the patient's age may influence the prescription of antibiotics in particular, although the results are contradictory, since while some reviews found an association of younger age as a predictive factor for prescribing antibiotics or new drugs in their primary studies, others point out that younger and better educated patients were less likely to be prescribed an antibiotic[22,84]. Other analyses examine the relationship between age groups, income and co-payment and find that those with lower incomes are more likely to reduce consumption when faced with higher prices; however, the authors suggest further research. In addition, preventable medication harm has been identified as a critical element in pediatric age groups and those over 65 years of age, as it affects pharmaceutical spending given the additional care they must receive[85].

The class of medication is another incentive that has also been associated with certain age groups, for example, polypharmacy due to multimorbidity or higher opioid consumption is more common in older people[47,86]. The results found regarding the association between the patient's sex and medication

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consumption are controversial, since although included in several studies, in a SR that included 10 primary studies, only one of them reported a positive association given in the prescription of more antibiotics in the male sex[84]] and regarding the use of opioids, a higher prevalence is observed in women than in men[85].

The race or ethnicity of the patient seems to be another incentive that influences the prescription of drugs, especially newer drugs, which tend to be more expensive, especially when associated with socioeconomic status; for example, non-African Americans, according to one of the authors, are more likely to be prescribed newer drugs than African Americans and Hispanics[22]. The use of self-prescribed or irrationally prescribed drugs is higher in China, which is significant given the size of the population[44]. Finally, and to a lesser extent, other patient-level incentives have been analyzed, such as: demographic changes in the population[22,23] or specific patient populations with antineoplastic or cardiovascular use[87].

***Demographic or intrinsic pathology characteristics*.** In this category, it is observed that microbial resistance is an incentive associated with increased antibiotic prescription and, unfortunately, with its inappropriate use[14,88]. For example, in low-income countries in sub-Saharan Africa, unprescribed dispensing of antibiotics at community pharmacies leads to widespread misuse of antibiotics in the community, which ultimately increases bacterial resistance and, consequently, antibiotic consumption[89]. More broadly, the authors analysed the epidemiological profile of the population in each health system and the associated multimorbidity. They found that countries in the African region are experiencing an epidemiological transition that is creating a double burden of disease, with communicable and noncommunicable diseases coexisting. This increases polypharmacy, as health workers have to treat multiple diseases simultaneously, which has an impact on pharmaceutical expenditure[23]. It is worth asking how the epidemiological profile affects drug consumption in middle-income countries. In the case of high-income countries, other studies conclude that specific disease characteristics, such as the rising incidence of cancer, are affecting their own health systems[28].

***Sociodemographic and logistical characteristics of the hospital facility*.** Hospital institutions, as service providers in health systems, are not unaware of their influence on prescribing, dispensing and pharmaceutical expenditure. The literature shows the effect of the geographical location of the hospital. In some countries, such as England, differences of up to 4-5 times in oncology drug prescribing have been found between different cancer patient care networks[28]. These differences in prescribing in different regions[84] are in some cases due to the influence of their internal policies, especially when there is a common boundary between institutions[39]. In this situation, the patient may be left unprotected because it is unclear which of the bordering institutions is responsible for his or her care. Other incentives, such as the type of emergency or outpatient setting and the urban versus rural location of the facility, have been discussed without conclusive evidence of their effect on the subject of this study[22]. Regarding opioid use, in countries such as Germany, interregional differences of more than three times are observed in its prescription[86], which may be related to individual regulations and norms of each region. Similar situations have been observed in other countries that have experienced the opioid pandemic, where consumption is more sectoral in some cities[50].

Clinical characteristics of the patient. Polypharmacy was identified as one of the most analyzed incentives in the reviewed evidence, with cases such as the indiscriminate prescription of opioids reinforced by the prescription of other drugs in pain clinics[51], the co-prescription of antipsychotics without meaningful mediation of clinical practice guidelines[50], and the lack of evidence on the impact of preventable harms associated with polypharmacy[85,90], sometimes related to multimorbidity[47]. Despite what has been discussed, only one study addressed the importance of addressing polypharmacy in the training of new prescribers[54] and poor patient response to previous pharmacological treatments that lead to the prescription of new drugs[22]. Information system and availability. Transparency, availability and quality of information are key elements for appropriate decision making in policies to control pharmaceutical expenditure. Relevant incentives include indication-based pricing[66] and the implementation of managed entry agreements, which allow the price of new drugs to be regulated within the health care system[78,91]. Similarly, information derived from proper inventory control can improve drug availability, strengthen the supply chain process from procurement to dispensing, and allow for more appropriate and controlled drug use and spending[80].

Sociodemographic characteristics (prescribers). Another aspect of interest for its peculiarity, and which the literature has been able to identify in some situations, is that the gender of the prescriber plays an influential role. In one of the SLRs and in about 50% of the included primary studies, male prescribers who formulated medications were more likely to adopt new medications than women, a finding that was consistent across all types of medications[22]. Another study mentions prescriber gender and age as incentives that may influence antibiotic prescribing, but the results are inconclusive. Differences in prescribing have been found according to the prescriber's university of education[88], which may be influenced by the physician's undergraduate training and interaction with representatives of the pharmaceutical industry, to which they often declare themselves to be "immune", but which may not be so in the end[92]. Other hypotheses point to a lack of knowledge during the training of medical students, with the use of applications or programs on mobile devices gaining importance as an added educational value that can improve their knowledge or that of doctors in training on antimicrobial prescribing[93]. Another primary study suggests that dual practice, understood as when prescribers have two or more jobs, is an incentive that would threaten efficiency, quality and equity in the provision of health services, and although no eligible studies were found, it is interesting to advance research on this topic and identify other incentives such as *burnout* and diversion of resources.

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Finally, the model of contracting non-state, not-for-profit professionals to provide health services was found to increase access to and use of these services, improve health outcomes for individuals and reduce household spending on health (low certainty evidence), although there was no evidence on whether such contracting was more effective than using these funds in the state sector[24].

Conditions of clinical practice

Burnout among prescribers, a disease recently recognized by the World Health Organization as a mental disorder, leads to professional exhaustion or burnout, which is chronic in nature and related to inadequate resistance to the psychological demands of work, affecting the quality of life of the person who suffers from it[7], which ultimately translates into emotional exhaustion and a feeling of ineffectiveness due to the inadequate performance of tasks.

The consequences of burnout mentioned in the previous paragraph correspond to the three dimensions described by Maslach and Jackson[94] first, emotional exhaustion as the core of burnout, characterized by feelings of emotional exhaustion and lack of energy; lack of personal accomplishment, expressed by feelings of inadequacy and incompetence; and depersonalization, externalized by emotional insensitivity, which arises as a defensive strategy and occurs when the professional begins to treat others as objects. Having said this, and in response to the "burnout" identified as an incentive in the literature reviewed, it is possible to find analyses of various strategies to reduce workload, such as reducing consultations to promote improvement in the prescription of medications and to increase patient follow-up, necessary in processes such as the deprescribing of psychotropic drugs[14,95,96].

Incentives are also found, such as the availability of electronic systems to assist in the process of prescribing or dispensing medications, which represent benefits in terms of efficiency. However, these findings are influenced by the nuances of context and implementation of technology in each health system and geographic region[56] [56]. In addition, burnout has been directly associated with higher pharmaceutical expenditures per patient, at least in primary care[94].

Practice characteristics. The prescribing and dispensing process and its relationship to pharmaceutical spending is complex and multifactorial, with diagnostic uncertainty highlighted as a likely driver of overprescribing[14,77]. Fewer incentives have been found to influence prescribing, such as: patient holidays[14] that influence the amount of medication prescribed and dispensed; variability in clinical practice, in the prescription of chemotherapy, or inadequate quality due to the absence of guidelines or their poor implementation, for example in mental health[28.49.97] with prolonged treatment times in some cases; or preventable harm from medication in one in 30 patients with the associated costs[85]. The use of telemedicine as an incentive to influence prescribing, dispensing, and pharmaceutical spending does not appear to have significant differences in its clinical outcomes, especially in studies that analyzed the COVID-19 era. However, it may not be appropriate for all settings and patients, since some pathologies are more complex and, due to the lack of physical examination or the need for therapies, there are challenges in developing a good relationship and communication with the health care team, which may ultimately influence the efficient use of resources[98]. Other incentives related to the search for efficiency in the use of resources and pharmaceutical expenditure have been identified and merit further investigation, such as prescribing by other health professionals (mainly nurses and pharmacists in the United Kingdom) to support the work of the prescribing physician, mainly in primary care[99]. On the other hand, the introduction of restrictions on the coverage and reimbursement of selected medicines appeared to reduce expenditure on medicines without increasing the use of other health services. However, the relaxation of these restrictions did not increase pharmaceutical expenditure, as might be expected, but rather decreased it by increasing appropriate use[31]. Similarly, quantitative aspects related to the size of the consultation and therefore the number of prescriptions and the frequency of emergency department visits influence, in some cases, a higher prescription of opioid drugs with the consequent risks of their diversion for illicit use[100].

FACTORS ASSOCIATED WITH MEDICATION USE

Each of the associated axial categories is described below.

Rational Use and Marketing Characteristics

***Rational use*.** This topic is undoubtedly one of the incentives with the greatest influence on prescribing, dispensing and pharmaceutical expenditure, where 50% of the articles that refer to it focus on the rational use of antibiotics, highlighting the bacterial resistance that can be generated by their underuse or excessive use, for example in pediatric populations, in pathologies that do not fit the antibiotic profile, such as acute respiratory infections, or their prescription in conditions that do not require it, such as infantile diarrhea; This is often due to parental pressure or "*just in case*" prescribing, with amoxicillin and cotrimoxazole being the most commonly prescribed antibiotics[47,77,84,89,95,101]. Something similar has been observed with over-the-counter supply, where easy access and sale to the public make it possible to buy drugs without a prescription, for example in sub-Saharan Africa, or in other countries where control is simply evaded, despite national action plans promoted by WHO. These suggest the application of strict sales policies and that it works well to curb the supply of non-prescription antibiotics in Zimbabwe, Chile, Colombia, Brazil, Mexico and Korea[89], but deviates significantly in several African countries[23] or in China[46].

The above confirms that rational use is a global issue and that policies need more effort in their implementation, as they work better in some middle- or high-income countries, such as Sweden, but are still flawed in others, such as the United Kingdom and Australia[73], or in some Middle Eastern countries[36], and are deficient in low-income countries[45]. As a result, the infections that have affected the world's population for years are now more difficult to treat because bacteria

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have developed mechanisms of adaptation and resistance to antibiotics, leading to constant concern and alarm throughout the planet, as it has become a global public health problem about which the Pan American Health Organization (PAHO) has already pointed out that there are more than 700 thousand deaths per year due to this cause and that it could cause 10 million deaths in the next 25 years, in addition to economic losses that would exceed 100 trillion dollars by 2050[4]. On the other hand, evidence suggests that there may be differences in uncontrolled dispensing between rural and urban pharmacies[89] and between outpatient and community settings, as is the case in China, where prescribing behavior is influenced by financial incentives, lack of diagnostic capacity, and concern about potential complications, which then leads to irrational prescribing[44].

Regarding the barriers and facilitators affecting the rational use of antibiotics, which may serve as additional incentives, particularly in low- and middle-income countries, several factors have been identified. These include limitations in hospital resources and infrastructure, the absence of national policies, and the characteristics of special populations, such as older adults. Additionally, reluctance to modify prescribing behaviors—especially concerning psychotropic and opioid medications—poses a challenge. On the other hand, facilitators include integrating interventions into routine practice, engaging all relevant stakeholders[26,102,103], patient-centered prescribing approaches, particularly delayed prescriptions[62], and asynchronous physician-patient consultations as follow-ups to treatment plans, which evidence has shown to be a cost-reduction incentive for certain healthcare conditions[29]. Other facilitators include the use of smartphone applications to support appropriate antimicrobial prescribing in hospitals[93] and nursing-led interventions aimed at improving prescribing practices in primary care[61].

On the other hand, regarding studies that analyze and discuss the rational use of medicines, it is generally observed that some evaluate policies for promoting and ensuring rational use as incentives to guarantee appropriate prescription and dispensing, as well as to control pharmaceutical expenditure in countries facing economic crises. These policies include the development of clinical practice guidelines and performance-based payment models, while barriers include the lack of knowledge or outdated information on medications[35,38]. Additionally, these studies examine how consultation and dispensing times influence rational drug use by affecting patients' understanding of the correct dosage regimen[15]. Finally, in terms of promoting the rational use of medicines, providing feedback to healthcare providers regarding their prescribing behavior is an important strategy, particularly for medications that pose a risk to public health, such as opioids[51].

Good Prescribing Practices. As discussed in previous sections, evidence suggests that to control pharmaceutical expenditure, it is more effective to influence prescribing physicians[22]. In this regard, the existence and implementation of Good Prescribing Practices (hereinafter, GPP) serve as an additional incentive that impacts prescription, dispensing, and pharmaceutical expenditure. Education on pre-prescription actions, the dissemination and establishment of such internal guidelines within healthcare systems, and tools such as electronic prescribing[37,57] appear to mitigate, among other issues, medication errors; regulate, to some extent, the influence of physician-pharmaceutical industry interactions through sales representatives[71]; and contribute to the proper development of these processes[14,23,104,36,63]. As a result of these experiences, some authors have investigated whether newly graduated medical professionals truly possess the competencies required for prescribing. They have proposed fundamental knowledge areas that should be incorporated into undergraduate curricula, focusing on improving patient safety through prescription review, verifying the appropriateness of medications for patients, recognizing prescribers' limitations, and seeking advice when necessary, with a greater emphasis on preventing medication errors and enhancing communication[54].

Therefore, the implementation of policies such as Good Prescribing Practices (GPP) is considered an effective tool for regulating interactions between physicians and the pharmaceutical industry. As previously mentioned, evidence has shown that accepting gifts from pharmaceutical company representatives influences physicians' prescribing behavior[71]. In conclusion, GPP can facilitate the substitution of less effective or more expensive medications with cost-effective alternatives and reduce the availability of drugs prone to diversion and abuse, such as opioids. However, it is essential to monitor the overall impact of such interventions[105] and optimize the subsequent dispensing process using technologies such as robotics and automation. Although these may require significant investments, they appear to yield a return on investment through measurable improvements in medication safety, process quality, and reductions in pharmaceutical expenditures[59]

Pharmaceutical Marketing Efforts. This topic is perhaps one of the most controversial when analyzing prescription practices, drug dispensing, and pharmaceutical expenditures worldwide. The incentives provided by the industry to prescribers, patients, and institutions are contentious due to the positive attitudes toward pharmaceutical marketing and the skepticism regarding the negative implications of these interactions[71,76,92]. Among other effects, these incentives facilitate the early adoption of new medications[22], achieved through frequent meetings with pharmaceutical representatives[23], the provision of information regarding medical consultations or prescriptions, and attendance at industry-sponsored "educational" events. As a result, prescribers may act as distributors of informational materials targeted at patients[106].

In some cases, pharmaceutical promotion is debated as one of the incentives driving the irrational use of antibiotics in middle- and low-income countries[103]. Despite the perceptions surrounding pharmaceutical marketing, some authors highlight its collateral damage, including patients receiving prescriptions for medications that were inappropriate for them or that they did not actually need[106], ultimately affecting health outcomes and increasing pharmaceutical expenditures. For

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this reason, various institutional efforts have been made to regulate interactions between the pharmaceutical industry and healthcare professionals, such as prohibiting the acceptance of gifts and samples or restricting the sale of prescribing data. However, these measures have proven insufficient. As a result, the United States—one of the most affected countries—implemented the "Sunshine Act" in 2010 as a government policy aimed at disclosing and monitoring payments made by the pharmaceutical industry. Despite these efforts, evidence suggests that industry targets have since shifted toward other healthcare professionals, including registered nurses, prescribing nurses, midwives, pharmacists, physician assistants, and dietitians. This shift has led to frequent interactions between pharmaceutical and infant formula industries and healthcare professionals, normalizing these encounters in clinical practice. Consequently, this creates the potential for significant risks to patients and healthcare systems when biases and conflicts of interest are not properly recognized[107].

Treatment Adherence. This often overlooked or understudied issue can lead to prolonged treatment durations, persistent symptoms, relapses, the emergence of drug resistance, and increased morbidity and mortality rates[46,108]. Multiple co-factors influence adherence, including patients' attitudes toward prescribed pharmacological treatment, their perceived need for the medication, and concerns regarding adverse effects. These factors ultimately impact the effectiveness of therapy and pharmaceutical expenditures. For this reason, numerous strategies have been developed to improve adherence, with promising results. For instance, pharmacist-led direct patient interventions have shown positive outcomes[60]. However, some strategies yield contradictory effects, such as increasing co-payments or cost-sharing mechanisms to enhance the sustainability of healthcare systems. In certain cases, depending on the type of medication, these measures may inadvertently reduce adherence due to patients' financial constraints[16,41,104,109,110].

Drug Characteristics. Various incentives influencing prescription patterns, drug dispensing, and associated pharmaceutical expenditures have been identified, many of which are directly related to the intrinsic characteristics of the medication. These include:

- *Innovative products or therapeutics classified as novel treatments*, which carry economic and accessibility implications due to intellectual property protections. Price increases resulting from the imposition of such protections in trade agreements—particularly in low- and middle-income countries—can lead to a subsequent reduction in consumer welfare[16,22,111].
- *Managed access agreements*, which are interventions aimed at ensuring drug accessibility and the financial sustainability of healthcare systems. However, these agreements face several challenges, with lack of transparency being among the most frequently cited concerns[78].
- Outcomes of imposed *health interventions or policies*, which vary depending on the type or class of drug and the target population. Evidence suggests that under cost-sharing mechanisms, patients tend to reduce consumption of non-essential medications at a slightly higher rate than essential ones. Therefore, it is more effective to influence the pharmaceutical industry, pharmacists, and physicians rather than patients[16].
- *Opioid* prescribing, which has unique characteristics that pose significant risks to healthcare systems. These risks stem from associated health outcomes, economic costs, diversion for illicit use, and the potential for opioid misuse to trigger public health crises[51,85].
- *Orphan drugs*, which warrant particular attention due to their high prices and the inverse relationship between disease prevalence and pharmaceutical expenditures[43]. A proper balance must be maintained between orphan drug expenditures and overall healthcare costs.

Cost of Care and Economic Market Conditions. This category includes incentives that have been more extensively studied in the literature and are potential drivers of prescription practices, drug dispensing, or pharmaceutical expenditures. These include high-cost medications, biologics, and monopolized drugs[25,26] competition among healthcare providers within a healthcare system[11]; and pharmaceutical market competition, which affects how innovative drugs enter a country's market[22].

Prescribing Characteristics. In certain cases, specific prescribing conditions create incentives that impact appropriate drug prescribing, dispensing, and pharmaceutical expenditures. A notable example is opioid prescribing, where excessive prescribing—resulting in quantities exceeding patient needs—or the generation of surplus medications following surgical procedures directly contributes to increased pharmaceutical expenditures[54,105,112].

Ethics, Culture, Beliefs, and Determinants Embedded in the Act of Prescribing

This category includes incentives that are deeply rooted in an ontological and behavioral context, focusing on the ethical principles and intrinsic nature of the actors within a healthcare system. **Culture, Attitudes, Beliefs, and Previous Experiences.** Identified incentives include **self-medication**, which is driven by specific circumstances in each country, such as patients' lack of knowledge, the relaxation or absence of public policies regulating prescription-based drug sales, cultural beliefs, societal norms, and prior experiences—such as traditional Chinese medicine[44,46,77].

Regarding parents and caregivers, their expectations toward prescribers often exert pressure on medical decision-making. Likewise, patients' expectations and physicians' perceptions of patients' medication desires can lead to variations in the quantity and type of prescribed medications[14,77,84,101,102,109].

Prescribing habits also appear to directly influence drug dispensing behaviors and pharmaceutical expenditures[103,110]. For example, the degree of trust a prescriber places in a pharmaceutical company affects their prescribing choices and preferences[22,44].

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Scientific Orientation. A prescriber's specialization influences **the volume and type of medications prescribed**. For instance, pediatricians tend to have lower antibiotic prescribing rates, whereas emergency physicians, general practitioners, and family doctors typically exhibit higher prescribing rates[22,84].

Additionally, the prescriber's training background, whether obtained abroad or at institutions with younger, evolving schools of thought, can shape prescribing behaviors. Other influential factors include attendance at conferences, professional meetings, and specialized events, peer influence within the medical community, participation in clinical trials, and social contagion through social networks. Despite these factors, targeted strategies can be designed—leveraging specific social reference points—to improve prescribing practices when necessary[22,69,88,91,103].

Prescriber Behavior. The available evidence highlights several behavioral incentives influencing prescribing patterns, including feelings of complacency, fear, ignorance, or indifference[88]. As a result, it is crucial to develop policies that effectively shape prescriber behavior[50,62,113] Regarding gifts from patients or caregivers, such gestures may serve as an incentive for prescribers to issue prescriptions. However, evidence collected in China suggests that such incentives may actually lead to a reduction in antibiotic prescriptions among these patients[46].

Ethics and Risk of Corruption:

Ethical concerns are among the least frequently reported topics in the reviewed literature. Nevertheless, the implementation of ethical codes by prescribers can mitigate the effects of corruption in medical practice, prevent deviations from appropriate prescribing due to external pressures, and control the subsequent increase in pharmaceutical expenditures[21,24,72].

Another identified incentive is the diversion of medications for illicit use**,** which may involve actors ranging from physicians to patients. Strategies aimed at controlling and reducing the health and economic impact of this issue include supervised drug administration and the management of residual opioids after medical procedures. While these approaches require further investigation, they show promise in mitigating this challenge[112,114]

Knowledge and Education of Prescribers

This last category includes incentives such as knowledge and education or training of all actors in the health care system, from patients to the organization itself.

Knowledge and education of prescribers:

The prescriber's knowledge influences the way he/she prescribes, with consequences for dispensing and pharmaceutical expenditure, for example in dose calculation[54], which can lead to an appropriate prescription of quantities, together with knowledge of the dosage regimen and drug characteristics, as well as the necessary approach to drugs with a narrow therapeutic margin[15] and the use of generics[92,114]. In addition, undergraduate and postgraduate education and knowledge of medical practice and its correct application have been identified as influential incentives for prescribing. These include: specialty-specific knowledge and skills, correct medical history as a result of adequate education, professional experience of the prescriber, and evidence-based decision making[15,22,26,27,37,46,77,88,115,116].

Patient knowledge and education:

In this aspect, patient knowledge is presented as an incentive that mainly influences medication adherence, compliance with pharmacological guidelines and the correct achievement of therapeutic goals. This knowledge and education is applied in the correct storage and disposal of opioid waste, which allows avoiding the diversion of this type of drugs for illicit use[51,89], the knowledge and expectations of patients for example about antibiotics, which allows better management of these drugs and avoid bacterial resistance[46]. The application of knowledge generates a more detailed incentive that is framed in *patient self-care* in more vulnerable groups and to avoid complications with subsequent more costly hospital care[24,117], and a better understanding of the treatment instituted under appropriate and sufficient information by the prescriber [99].

Knowledge and training of healthcare professionals:

The reviewed evidence does not only focus on the prescribing patient, but also discusses the importance of involving other health care professionals, including administrative staff, and promoting their education and knowledge through education and training, as they are involved in other activities in the drug supply chain, such as the sale of antibiotics with medical prescriptions and their correct dispensing, and so that they can provide cost feedback to prescribers[32,42,45,73,82,89,103,104].

Parent and Caregiver Knowledge and Education:

In cases such as pediatrics and older adults, parents or caregivers are responsible for enforcing adherence to the pharmacologic regimen prescribed by the prescriber, and their lack of knowledge or education may result in failure to achieve health outcomes, with the potential for therapeutic failure. In addition, with adequate knowledge, they may have less influence on the prescription and accept the prescriber's recommendations[26,36,77,95].

Knowledge and application of health technology assessment (HTA) principles:

This incentive is a prerequisite for the proper development of several processes, and therefore it is not only the responsibility of the prescriber, but should also involve various health professionals, health care administrators and government personnel. The authors emphasize the importance of knowing how to interpret cost-benefit analysis guidelines, knowing how to evaluate efficacy, effectiveness, safety, and cost profiles, being able to interpret a cost-effectiveness and therapeutic value assessment, and thus avoiding blind spots in understanding the efficacy and safety of drugs in the real world that ultimately influence drug prescribing, dispensing, and pharmaceutical expenditures[30,38,54,87,96].

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Knowledge and education for organizations or providers:

Finally, this incentive is identified, for which the authors recommend government training of private providers or suppliers on prescribing and dispensing, and the development of training programs for institutional managers in the application of monitoring strategies to ensure the proper development of processes and control of pharmaceutical expenditures[24,51,118].

In short, it is clear that there are many and varied incentives that can influence to a greater or lesser extent drug prescribing, dispensing and pharmaceutical spending, and the results of their study are even more varied because they respond to the environment in which they are developed, but they can be an interesting starting point for evaluating and understanding the behavior of drug prescribing and dispensing and the associated pharmaceutical spending in any health care system. Finally, the incentives discussed in this study are listed in Table 3.

CONCLUSION

This research has identified 3 main areas with 34 categories and 345 factors summarized in 117 main incentives that influence, to a greater or lesser extent, the prescription and dispensing of medicines and that are related to the pharmaceutical expenditure that health systems worldwide are trying to control. The health care system and the guarantee of access to medicines represent the largest number of incentives identified, mainly related to regulatory policies, insurance coverage or technical-scientific and financial strategies such as price controls, co-payments and coverage thresholds to influence medical practice. However, more research is needed to prove their ultimate impact on health. Financial results have been inconsistent across countries.

Among the factors related to the use of drugs, incentives related to the characteristics of each drug were identified, such as its class or indication in specific populations, rational use and good prescribing practices; however, incentives closely related to ethics, culture, beliefs and other conditioning factors involved in the act of prescribing were identified, not only at the level of the physician, but also in organizations, other health professionals, the patient himself and parents or caregivers, although more studies should be designed to evaluate the consequences of the behavior of the different actors in the drug chain from an ontological perspective. Finally, incentives related to the context in which the act of prescribing is performed were identified, where the socio-demographic characteristics of both the patient and the prescriber and the characteristics of the pathologies influence the epidemiological profile of each region and have an impact on prescribing, dispensing and pharmaceutical expenditure; however, evidence of their effects is limited in some areas and requires further research.

There was no mention of analysis of incentives and outcomes in pharmaceutical spending related to the issuance of court orders or the intervention of legislation in the specific financing of medicines. In general, the evidence points to better outcomes when prescriber and patient incentives are influenced, compared to restrictive policies that do not show clear results in therapeutic targeting and health care.

Strengths and Limitations

According to the guidelines of the PROSPERO database, the research protocol did not request to be registered in this source, therefore it is not possible to exclude the risk of simultaneous publication of other reviews on the same topic. The search method included a large number of open access databases, which is considered a strength in terms of the recommendations of the Leiden Manifesto for reproducibility and transparency, but may be a source of selection bias by excluding articles that are only available in restricted access or that use different keywords to refer to the same research topic. Due to the type of studies included, we may have underestimated the contribution of other authors through papers other than systematic literature reviews.

AUTHORS' CONTRIBUTIONS

Conceptualization: LT, GJ, JR. Methodology: LT, GJ, JR. Literature search and data analysis: LT, GJ, JR. Writing and preparation of the original draft: LT. Writing: revision and editing: LT, GJ, JR: LT, GJ, JR. Supervision: GJ, JR.

CONFLICTS OF INTEREST

The authors declare that the research was conducted in the absence of commercial or financial relationships that could be construed as a potential conflict of interest, and therefore they have no conflicts of interest to declare in relation to this work.

Table 3. Summary of incentives discussed that affect prescribing, dispensing, and drug spending.

SELECTIVE CATEGORY	AXIAL CATEGORY	item	INCENTIVE IDENTIFIED
1. HEALTH SYSTEM AND ACCESS TO MEDICINES	Health system and drug coverage	**1**	Access to medicines and other health technologies
		2	Insurance coverage, formulary and availability
		3	Cost of care (administrative, transactional, and hidden costs)
		4	Demand for health services
		5	Length of consultation
		6	Economy of the country

		7	Structure and type of health care system
		8	Adequate information about drug use
		9	Hospital infrastructure
		10	Pharmaceutical interventions
		11	Health care delivery model
		12	Principles of health system efficiency and equity
		13	Resources available
		14	Provider Network
		15	Telemedicine
		16	Dispensing time
	Regulatory policies and technical-scientific and financial strategies for practice.	**1**	Controlled or managed access arrangements
		2	Supervised administration
		3	Pharmaceutical Care
		4	Audits and feedback
		5	Prior authorization
		6	Drug reconciliation
		7	Economies of scale
		8	Procurement process efficiency
		9	Encouraging generic competition
		10	Clinical practice guidelines
		11	Interactions between the pharmaceutical industry and health care stakeholders
		12	Monitoring of prescribing and dispensing
		13	Pharmaceutical industry payments
		14	Cost-sharing and co-payment policies
		15	Pay-for-performance policies
		16	Prescribing policies (generics, opioids, inappropriate drugs by population)
		17	Reimbursement policies
		18	Price regulation policies
		19	Reference pricing
		20	Electronic prescribing
		21	Patient and caregiver pressure on the prescriber
		22	Coverage caps or thresholds
2. PRESCRIBING CONTEXTS	Sociodemographic, epidemiologic and logistic characteristics of the prescribing act.	**1**	Scope of coverage
		2	Demographic changes in the population
		3	(Pharmacological) class of medication
		4	Preventable medication harm
		5	Information availability and quality
		6	Patient age and gender
		7	Prescriber age and gender
		8	Patient income
		9	Professional recruitment model
		10	Epidemiologic profile
		11	Specific patient populations
		12	Polypharmacy
		13	Practice of dual prescribing
		14	Indiscriminate or excessive opioid prescribing

		15	Patient race
		16	Bacterial resistance
		17	Geographic location of the hospital
		18	Urban vs. rural location
	Clinical practice conditions.	**1**	Prescriber burnout
		2	Opioid diversion for illicit use
		3	Availability of electronic prescribing and dispensing systems
		4	Frequency of emergency department visits
		5	Diagnostic uncertainty
		6	Number of prescriptions
		7	Prescribing by other health care professionals
		8	Coverage and reimbursement limitations for selected drugs
		9	Consultation size
		10	Telemedicine
		11	Long treatment times
		12	Patient vacations
		13	Variability in clinical practice
		14	Variability in chemotherapy prescribing
3. FACTORS ASSOCIATED WITH MEDICATION USE	Ethics, culture, beliefs and conditioning factors involved in the act of prescribing.	**1**	Patient beliefs
		2	Patient or caregiver culture, attitudes, and past experiences
		3	Drug diversion for illicit use
		4	Patient expectations and physician perceptions of medication desirability
		5	Prescribing habits and preferences
		6	Influence of peers and members of the medical community
		7	Prescriber's place of training
		8	Scientific orientation of the prescriber
		9	Participation in clinical trials or propensity for contagion through social networks
		10	Gifts from patient or caregiver to prescriber
	Rational use of medicines and characteristics of their marketing.	**1**	Prescriber's participation in forums, meetings, and professional events
		2	Self-medication
		3	Good prescribing practices
		4	Characteristics of special populations
		5	Code of Ethics and Risk of Corruption
		6	Competition in the pharmaceutical market
		7	Competition among health care providers
		8	Prescriber complacency, fear, ignorance or indifference
		9	Prescriber trust in a pharmaceutical company
		10	Non-prescribed dispensing
		11	Lack of national policy
		12	Prescriber education from undergraduate level
		13	Effective integration of interventions into routine practice
		14	Nursing interventions to improve prescribing in primary care
		15	Limitations of hospital resources and infrastructure
		16	Pharmaceutical marketing to prescribers, other healthcare professionals, patients, carers and institutions
		17	High-cost medicines, biologics and monopoly medicines

		18	Drugs for rare diseases
		19	Involvement of all stakeholders
		20	Patient-centered prescribing, such as deferred prescribing
		21	Innovative products or products listed as therapeutic novelties
		22	Feedback to healthcare providers
		23	Use of smartphone applications in antimicrobial prescribing
		24	Rational use of antibiotics and medications in general
		25	Asynchronous doctor-patient visits to follow up on treatment plan
	Knowledge and training of prescribers.	**1**	Treatment adherence
		2	Patient self-care
		3	Evidence-based decision-making skills
		4	Knowledge and application of health technology evaluation (HTE) principles
		5	Organization or provider knowledge and education
		6	Parent and caregiver knowledge and education
		7	Patient knowledge and education
		8	Healthcare worker knowledge and education
		9	Prescriber knowledge and education
		10	Prescriber professional knowledge and skills
		11	Correct medical history
		12	Prescriber's professional experience
	TOTAL	**117**	

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Appendix 1. Search Strategies	
Electronic Search Report No. 1	
CRITERION	**VALUE**
Search Type	New
Database	MEDLINE
Platform	PUBMED
Search Date	19 July 2023
Date range	Every year
Language Restrictions	None
Other limits applied	· Free full text
	· Systematic review
	· Human
Search Strategy	((pharmaceutical expenditure) AND (incentives) AND (healthcare system)) NOT (price regulation) OR (prescribing policy)
Identified References	181
Electronic Search Report No. 2	
CRITERION	**VALUE**
Search Type	New
Database	SCIENCE DIRECT
Platform	ELSEVIER
Search Date	19 July 2023
Date range	Every year
Language Restrictions	None
Other limits applied	· Review articles
	· Open Access & open archive
Search Strategy	((pharmaceutical expenditure) AND (incentives)) AND (healthcare system)) : 8 Results
	(“incentives” AND “factors” AND “Pharmaceutical expenditure”): 13 Results
	(“Pharmaceutical expenditure”): 16 Results
Identified References	16
Electronic Search Report No. 3	
CRITERION	**VALUE**
Search Type	New
Database	Cochrane Database of Systematic Reviews - CDSR
Platform	Cochrane
Search Date	19 July 2023
Date range	Every year
Language Restrictions	None
Other limits applied	· Cochrane revisions only
Search Strategy	#1
	(incentives prescribing):ti,ab,kw (Word variations have been searched): 9 Results
	#2
	(pharmaceutical financing):ti,ab,kw (Word variations have been searched): 3 Results
	#3
	(prescribing policy):ti,ab,kw (Word variations have been searched): 28 Results
	#4
	(dispensing policy):ti,ab,kw (Word variations have been searched): 3 Results
	#5

	(pharmaceutical expenditure):ti,ab,kw (Word variations have been searched): 9 Results
	#6
	(*pharmaceutical expenditure):ti,ab,kw AND (incentives):ti,ab,kw AND (healthcare system):ti,ab,kw AND (financing):ti,ab,kw NOT (price regulation):ti,ab,kw : 0 Results
	#7
	(Pharmaceutical expenditure):ti,ab,kw OR (prescribing policy):ti,ab,kw OR (Incentives prescribing):ti,ab,kw OR (Dispensing policy):ti,ab,kw OR (Pharmaceutical financing):ti,ab,kw: 53 Results
Identified References	53
Electronic Search Report No. 4	
CRITERION	**VALUE**
Search Type	New
Database	LILACS
Platform	Virtual Health Library
Search Date	19 July 2023
Date range	Every year
Language Restrictions	None
Other limits applied	· Full text
	· Systematics reviews
Search Strategy	(pharmaceutical cost) AND (financing) AND (expenditure) AND (prescribing policy) AND (fulltext:(“1” OR “1” OR “1” OR “1” OR “1” OR “1”) AND mj:(“Use of Medicines” OR “Cost of Medicines” OR “Pharmaceutical Economy” OR “Medicines Prescriptions” OR “Incentive Reimbursement” OR “Access Control” OR “Medicines Legislation”) AND type_of_study:(“systematic_reviews”)
Identified References	4
Electronic Search Report No. 5	
CRITERION	**VALUE**
Search Type	New
Database	TRIP (Turning Research into Practice) DATABASE
Platform	
Search Date	19 July 2023
Date range	Every year
Language Restrictions	None
Other limits applied	· Systematics reviews
Search Strategy	Search with PICO question
	P: Healthcare system
	I: Pharmaceutical regulatory policy
	C:
	O: Healthcare expenditure and incentives
	14 Results
Identified References	14
Electronic Search Report No. 6	
CRITERION	**VALUE**
Search Type	New
Database	Epistemonikos
Platform	
Search Date	19 July 2023
Date range	Every year
Language Restrictions	None
Other limits applied	· Systematics reviews

Search Strategy	#1
	(title:((title:(pharmaceutical expenditure) OR abstract:(pharmaceutical expenditure)) AND (title:(incentives) OR abstract:(incentives)) AND (title:(financing) OR abstract:(financing)) OR abstract:((title:(pharmaceutical expenditure) OR abstract:(pharmaceutical expenditure)) AND (title:(incentives) OR abstract:(incentives)) AND (title:(financing) OR abstract:(financing))): 1 Result
	#2
	(title:((title:(pharmaceutical expenditure) OR abstract:(pharmaceutical expenditure))) OR abstract:((title:(pharmaceutical expenditure) OR abstract:(pharmaceutical expenditure))): 26 Results
	#1 and #2: 26 results
Identified References	26
Electronic Search Report No. 7	
CRITERION	**VALUE**
Search Type	New
Database	SCIELO Scientific Electronic Library Online
Platform	SCIELO Scientific Electronic Library Online
Search Date	19 July 2023
Date range	Every year
Language Restrictions	None
Other limits applied	· Type of literature: Review article
Search Strategy	#1
	Expression: (“pharmaceutical expenditure”): 129 results
Identified References	129
Electronic Search Report No. 8	
CRITERION	**VALUE**
Search Type	New
Database	Center for Reviews and Dissemination. University of York
Platform	National Institute for Health Research
Search Date	19 July 2023
Date range	Every year
Language Restrictions	None
Other limits applied	· Type of literature: Review article
Search Strategy	#1
	(“pharmaceutical expenditure”) IN DARE, NHSEED, HTA: 1 Result
Identified References	1

Appendix 2. References deleted for duplicity

#	SEARCH DATABASE	TITLE	REFERENCE
1	SCIELO	A oferta pública de medicamentos para aids e o papel de Farmanguinhos	Regina Ferro Do Lagoana Cristina Augusto De Sousa. A oferta pública de medicamentos para aids e o papel de FarmanguinhosTEMA LIVRE • Physis 32 (2) 06 Jul 20222022 • https://doi.org/10.1590/S0103-73312022320210
2	SCIELO	A propósito de un caso: ¿Sirven los genéricos para moderar el gasto en hipertensión?	García Antonio J., Martos Francisco, Martín Ángel, Sánchez Felipe. A propósito de un caso: ¿Sirven los genéricos para moderar el gasto en hipertensión?Gac Sanit [Internet]. 2004 abr [citado 2023 Ago 10] ; 18(2): 137-144. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112004000200009&lng=es.
3	SCIELO	Acesso da população brasileira adulta a medicamentos prescritos	Elislene Dias Drummondtaynãna César Simõesfabíola Bof De Andrade. Acesso da população brasileira adulta a medicamentos prescritosRevista Brasileira de Epidemiologia Mar 2018, Volumen 21 elocation e180007
			DOI: 10.1590/1980-549720180007
4	COCHRANE	An overview of reviews evaluating the eectiveness of financial incentives in changing healthcare professional behaviours and patient outcomes (Review)	Flodgren G, Eccles Mp, Shepperd S, Scott A, Parmelli E, Beyer Fr. An overview of reviews evaluating the eectiveness of financial incentives in changing healthcare professional behaviours and patient outcomes (Review)Cochrane Database of Systematic Reviews 2011, Issue 7. Art. No.: CD009255. DOI: 10.1002/14651858.CD009255.
5	SCIELO	Análisis poblacional por áreas de salud de las variaciones en consumo, precio y gasto de medicamentos cardiovasculares en 8 comunidades autónomas, España, 2005.	Sanfélix-Gimeno G., Peiró S., Librero J., Ausejo-Segura M., Suárez-Alemán C., Molina-López T., Celaya, MA, Castaño-Riera, E. Análisis poblacional por áreas de salud de las variaciones en consumo, precio y gasto de medicamentos cardiovasculares en 8 comunidades autónomas, España, 2005. Rev. Esp. Salud Publica [Internet]. 2010 Ago [citado 2023 Ago 10] ; 84(4): 389-407. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57272010000400004&lng=es.
6	SCIELO	Antidepressivos, ansiolíticos, hipnóticos e sedativos: uma análise dos gastos em Minas Gerais	Barbi, Lucas. Carvalho, Liliany Mara Silva. Luz, Tatiana Chama Borges. Antidepressivos, ansiolíticos, hipnóticos e sedativos: uma análise dos gastos em Minas GeraisTEMA LIVRE • Physis 29 (04) • 2019 • https://doi.org/10.1590/S0103-73312019290407
7	SCIELO	Antiretroviral manufacturers and the challenge of universal access to drugs through the Brazilian National STD/AIDS Program	Lago, Regina Ferro Do; Costa, Nilson Do Rosário. Antiretroviral manufacturers and the challenge of universal access to drugs through the Brazilian National STD/AIDS ProgramCad. Saúde Pública 25 (10) • Oct 2009 • https://doi.org/10.1590/S0102-311X2009001000017
8	SCIELO	Aplicação de recursos financeiros para aquisição de medicamentos para atenção básica em municípios brasileiros	Marcela Amaral Pontesnoemia Uruth Leão Tavarespriscila Maria Stolses Bergamo Franciscojaneth De Oliveira Silva Naves. Aplicação de recursos financeiros para aquisição de medicamentos para atenção básica em municípios brasileirosCiência & Saúde Coletiva Ago 2017, Volumen 22 Nº 8 Paginas 2453 - 2462
			DOI: 10.1590/1413-81232017228.18282016
9	SCIELO	Aplicaciones directas para la adquisición de medicamentos en el Sistema Único de Salud Brasileño	Fabiola Sulpino Vieira
			Paola Zucchi. Aplicaciones directas para la adquisición de medicamentos en el Sistema Único de Salud BrasileñoRev. Saúde Pública 45 (5) • Out 2011 • https://doi.org/10.1590/S0034-89102011005000048
10	PUBMED	Bed rest during pregnancy for preventing miscarriage.	Aleman A, Althabe F, Belizã¡N J, Bergel E.Bed rest during pregnancy for preventing miscarriage (Review)Cochrane Database of Systematic Reviews 2005, Issue 2. Art. No.: CD003576.
			DOI: 10.1002/14651858.CD003576.pub2
11	SCIELO	Costs of Public Pharmaceutical Services in Rio de Janeiro Compared to Farmácia Popular Program.	Silva Rm, Caetano R. Costs of Public Pharmaceutical Services in Rio de Janeiro Compared to Farmácia Popular Program. Rev Saude Publica. 2016 Dec 22;50:74. doi: 10.1590/S1518-8787.2016050006605. PMID: 28099664; PMCID: PMC5152800.
12	SCIELO	Crisis, gasto público sanitario y política.	Florido Alba F, García-Agua Soler N, Martín
			Reyes A, García Ruiz Aj. Crisis, gasto público sanitario y política. Rev Esp Salud Pública.2019;93: 22 de febrero e201902007.
			ID: S1135-57272019000100072-esp
13	SCIELO	Desarrollo del indicador Población Estandarizada Equivalente para el control del gasto farmacéutico ambulatorio.	Caballer Tarazona Maria, Buigues Pastor Laia, Saurí Ferrer Inmaculada, Usó Talamantes Ruth, Trillo Mata Jose Luís. Desarrollo del indicador Población Estandarizada Equivalente para el control del gasto farmacéutico ambulatorio. Rev. Esp. Salud Publica [Internet]. 2012 Ago [citado 2023 Ago 10] ; 86(4): 371-380. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57272012000400005&lng=es.

14	SCIELO	Desigualdades socioeconómicas en los gastos y comprometimiento de la renta con medicamentos en el Sur de Brasil	Boing, Alexandra Crispim ; Bertoldi, Andréa Dâmaso ; Peres, Karen Glazer. Desigualdades socioeconómicas en los gastos y comprometimiento de la renta con medicamentos en el Sur de BrasilRev. Saúde Pública 45 (5) • Out 2011 • https://doi.org/10.1590/S0034-89102011005000054
15	SCIELO	Differences in prescribed medicine availability in Primary Health Care: evidence from the Prover Project.	Bueno Mam, Simões Tc, Luz Tcb. Differences in prescribed medicine availability in Primary Health Care: evidence from the Prover Project. Cien Saude Colet. 2022 Mar;27(3):1191-1203. Portuguese, English. doi: 10.1590/1413-81232022273.38782020. Epub 2021 Mar 7. PMID: 35293455.
16	SCIELO	Distortions to national drug policy caused by lawsuits in Brazil	Fabiola Sulpino Vieira
			Paola Zucchi. Distortions to national drug policy caused by lawsuits in BrazilRev. Saúde Pública 41 (2) • Abr 2007 • https://doi.org/10.1590/S0034-89102007000200007
17	SCIELO	Drivers of federal spending in pharmaceuticals of the Specialized Component: measurement and analysis.	Vieira Fs. Drivers of federal spending in pharmaceuticals of the Specialized Component: measurement and analysis. Rev Saude Publica. 2021 Dec 8;55:91. doi: 10.11606/s1518-8787.2021055003097. PMID: 34910025; PMCID: PMC8647991.
18	EPISTEMONIKOS	Effects of the economic crisis on health and healthcare in Greece in the literature from 2009 to 2013: a systematic review.	Simou E, Koutsogeorgou E. Effects of the economic crisis on health and healthcare in Greece in the literature from 2009 to 2013: a systematic review. Health Policy. 2014 Apr;115(2-3):111-9. doi: 10.1016/j.healthpol.2014.02.002. Epub 2014 Feb 8. PMID: 24589039.
19	SCIELO	Efficiency of a pharmaceutical care program for long-acting parenteral antipsychotics in the health area of Santiago de Compostela	Raquel Vázquez-Mourelle, Carmen Durán Parrondo, Estrella López-Pardo Pardo Y Eduardo Carracedo-Martínez. Efficiency of a pharmaceutical care program for long-acting parenteral antipsychotics in the health area of Santiago de CompostelaGaceta Sanitaria Feb 2016, Volumen 30 Nº 1 Paginas 73 - 76
			DOI: 10.1016/j.gaceta.2015.09.006
20	SCIENCE DIRECT	Evidence on the effectiveness of policies promoting price transparency - A systematic review.	Joosse Ir, Tordrup D, Glanville J, Kotas E, Mantel-Teeuwisse Ak, Van Den Ham Ha. Evidence on the effectiveness of policies promoting price transparency - A systematic review.Health Policy. 2023 Aug;134:104681. doi: 10.1016/j.healthpol.2022.11.002. Epub 2022 Nov 8. PMID: 36372608; PMCID: PMC10357344.
21	SCIELO	Factores asociados con la utilización y el gasto en medicamentos en México	Wirtz, Veronika J ; Serván-Mori, Edson ; Heredia-Pi, Ileana ; Dreser, Anahí ; Ávila-Burgos, Leticia Orcid. Factores asociados con la utilización y el gasto en medicamentos en MéxicoSalud pública Méx [revista en la Internet]. 2013 [citado 2023 Ago 10] ; 55(Suppl 2): S112-S122. Disponible en: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342013000800007&lng=es.
22	SCIELO	Factores influyentes en la calidad de la prescripción en atención primaria y relación con el gasto farmacéutico.	Martínez-Gorostiaga J, Echevarría-Orella E,
			Calvo-Hernáez B. Factores influyentes en la calidad de la prescripción en atención primaria y relación con el gasto farmacéutico. Rev. Esp. Salud Publica [Internet]. 2019 [citado 2023 Ago 12] ; 93: e201908054. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57272019000100052&lng=es. Epub 07-Sep-2020.
23	SCIELO	Financing of Pharmaceutical Services in Brazilian Public Health System	Fabiola Sulpino Vieira, Paola Zucchi. Financing of Pharmaceutical Services in Brazilian Public Health System Saude soc. 22 (1) • Mar 2013 • https://doi.org/10.1590/S0104-12902013000100008
24	SCIELO	Gasto farmacéutico de médicos de atención primaria del área de salud de Cuenca.	Segura Benito María Jesús, Moya Martínez Pablo, Escribano Sotos Francisco. Gasto farmacéutico de médicos de atención primaria del área de salud de Cuenca. Gac Sanit [Internet]. 2010 Sep [citado 2023 Ago 10] ; 24(5): 391-396. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112010000500006&lng=es.
25	SCIELO	Gastos da Secretaria Municipal de Saúde do Rio de Janeiro, Brasil, com medicamentos: uma análise do período 2002-2011 [Expenditures on medicines by the Rio de Janeiro Municipal Health Department, Brazil, 2002-2011].	Silva Rm, Caetano R. Gastos da Secretaria Municipal de Saúde do Rio de Janeiro, Brasil, com medicamentos: uma análise do período 2002-2011 [Expenditures on medicines by the Rio de Janeiro Municipal Health Department, Brazil, 2002-2011]. Cad Saude Publica. 2014 jun;30(6):1207-18. Portuguese. doi: 10.1590/0102-311x00124612. PMID: 25099044.
26	SCIELO	Gastos públicos com medicamentos para o tratamento da osteoporose na pós-menopausa [Public spending on drugs for the treatment of osteoporosis in post-menopause].	Brandão Cm, Ferré F, Machado Gp, Guerra Aa Jr, Andrade Ei, Cherchiglia Ml, Acurcio Fde A. Gastos públicos com medicamentos para o tratamento da osteoporose na pós-menopausa [Public spending on drugs for the treatment of osteoporosis in post-menopause]. Rev Saude Publica. 2013 Apr;47(2):390-402. Portuguese. doi: 10.1590/S0034-8910.2013047004163. PMID: 24037367.
27	SCIELO	Genéricos: ¿buenos o malos? Conocimientos y actitudes de los médicos ante los medicamentos genéricos.	García A.J., Martos F., Leiva F., Sánchez De La Cuesta F. Genéricos: ¿buenos o malos? Conocimientos y actitudes de los médicos ante los medicamentos genéricos. Gac Sanit [Internet]. 2003 abr [citado 2023 Ago 10] ; 17(2): 144-149. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112003000200009&lng=es.

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29	SCIELO	Impact of the Pharmaceutical Copayment Reform on the Use of Antidiabetics, Antithrombotics and Drugs for Chronic Airflow Obstructions. Spain	Jaume Puig-Junoysantiago Rodríguez-Feijóobeatriz González López-Valcárcelvanessa Gómez-Navarro. Impact of the Pharmaceutical Copayment Reform on the Use of Antidiabetics, Antithrombotics and Drugs for Chronic Airflow Obstructions. SpainRevista Española de Salud Pública 2016, Volumen 90 elocation e40009
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30	SCIELO	Impacto de los trastornos psiquiátricos comunes y las condiciones crónicas físicas en el individuo y la sociedade.	Benjet Corina, Casanova Leticia, Borges Guilherme, Medina-Mora María Elena. Impacto de los trastornos psiquiátricos comunes y las condiciones crónicas físicas en el individuo y la sociedade.Salud pública Méx [revista en la Internet]. 2013 jun [citado 2023 Ago 10] ; 55(3): 248-256. Disponible en: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342013000400002&lng=es.
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37	COCHRANE	Interventions for improving outcomes in patients with multimorbidity in primary care and community settings (Review)	Smith Sm, Wallace E, O'Dowd T, Fortin M. Interventions for improving outcomes in patients with multimorbidity in primary care and community settings. [Update] Cochrane Database Syst Rev. 2021 Jan 15;1(1):CD006560. doi:
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			DOI: 10.1016/j.gaceta.2013.01.002
41	SCIELO	Necesidad de valorar el gasto farmacéutico y los resultados en salud obtenidos de manera conjunta.	Soto Álvarez Javier. Necesidad de valorar el gasto farmacéutico y los resultados en salud obtenidos de manera conjunta. Gac Sanit [Internet]. 2011 jun [citado 2023 Ago 10] ; 25(3): 257-257. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112011000300014&lng=es.
42	SCIELO	O pacto pela saúde e o fundo municipal de saúde de Várzea Paulista	Nogueira Tofani, Luís Fernando ; Cabral Carpintéro, Maria Do Carmo ; Bruno, Vera Regina. O pacto pela saúde e o fundo municipal de saúde de Várzea PaulistaTrabalhos Premiados • Saude soc. 18 (suppl 1) • Mar 2009 • https://doi.org/10.1590/S0104-12902009000500004
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			Fabiane Raquel Motter
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			Vera Maria Vieira Paniz. Perfil farmacoterapêutico dos usuários e gasto com medicamentos de alto custo em São Leopoldo, Rio Grande do Sul, Brasil, 2014Epidemiologia e Serviços de Saúde Dic 2017, Volumen 26 Nº 4 Paginas 759 - 770
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47	SCIELO	Pharmaceutical expenditure among primary care physicians in the health area of Cuenca (Spain). Response	Segura Benito, M. Jesús ; Moya Martínez, Pablo ; Escribano Sotos, Francisco. Pharmaceutical expenditure among primary care physicians in the health area of Cuenca (Spain). ResponseGac Sanit vol.26 no.4 Barcelona jul./ago. 2012
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50	LILACS	Pharmaceutical policies: effects of financial incentives for prescribers (Review)	Rashidian A, Omidvari Ah, Vali Y, Sturm H, Oxman Ad. Pharmaceutical policies: effects of financial incentives for prescribers (Review)Cochrane Database of Systematic Reviews 2015, Issue 8. Art. No.: CD006731.
			DOI: 10.1002/14651858.CD006731.pub2.
51	COCHRANE	Pharmaceutical policies: effects of policies regulating drug marketing (Protocol)	Fulone I., Cadogan C., Barberato-Filho S., Cássia Bergamaschi C., Giustti Mazzei L., Lopes L. P., Tolentino Silva M. Lopes L. C. Pharmaceutical policies: effects of policies regulating drug marketingCochrane Database of Systematic Reviews 2020, Issue 11. Art. No.: CD013780.
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52	COCHRANE	Pharmaceutical policies: effects of reference pricing, other pricing, and purchasing policies (Review)	Angela Acosta , Agustín Ciapponi, Morten Aaserud, Valeria Vietto, Astrid Austvoll-Dahlgren, Jan Peter Kösters, Claudia Vacca, Manuel Machado, Diana Hazbeydy Diaz Ayala, Andrew D Oxman.Pharmaceutical policies: effects of reference pricing, other pricing, and purchasing policies (Review)cOchrane Database of Systematic Reviews 2014, Issue 10. Art. No.: CD005979.
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54	COCHRANE	Pharmaceutical policies: effects of restrictions on reimbursement (Review)	Green Cj, Maclure M, Fortin Pm, Ramsay Cr, Aaserud M, Bardal S. Pharmaceutical policies: effects of restrictions on reimbursement (Review)Cochrane Database of Systematic Reviews 2010, Issue 8. Art. No.: CD008654.
			DOI: 10.1002/14651858.CD008654.
55	SCIELO	Políticas de fomento de la competencia en precios en el mercado de genéricos: lecciones de la experiencia europea	Puig-Junoy, J. Políticas de fomento de la competencia en precios en el mercado de genéricos: lecciones de la experiencia europeaGac Sanit [Internet]. 2010 jun [citado 2023 Ago 10] ; 24(3): 193-199. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112010000300003&lng=es.
56	SCIELO	Prevalências e desigualdades no acesso aos medicamentos por usuários do Sistema Único de Saúde no Brasil em 2013 e 2019 [Prevalence rates and inequalities in access to medicines by users of the Brazilian Unified National Health System in 2013 and 2019].	Boing Ac, Andrade Fb, Bertoldi Ad, Peres Kga, Massuda A, Boing Af. Prevalências e desigualdades no acesso aos medicamentos por usuários do Sistema Único de Saúde no Brasil em 2013 e 2019 [Prevalence rates and inequalities in access to medicines by users of the Brazilian Unified National Health System in 2013 and 2019]. Cad Saude Publica. 2022 Jun 8;38(6):e00114721. Portuguese. doi: 10.1590/0102-311XPT114721. PMID: 35703669.
57	SCIELO	Profile and costs of dyslipidemic patients treated by the pharmaceutical specialized care by the Brazilian Unified Health Care System	Duarte, Juliana Giannetti ; Guerra Júnior, Augusto Afonso ; Cherchiglia, Mariângela Leal ; Andrade, Eli Iola Gurgel ; Acurcio, Francisco De Assis. Profile and costs of dyslipidemic patients treated by the pharmaceutical specialized care by the Brazilian Unified Health Care SystemPhysis: Revista de Saúde Coletiva
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			https://doi.org/10.1590/S0103-73312013000400010
58	COCHRANE	Public stewardship of private for-profit healthcare providers in lowand middle-income countries (Review)	Wiysonge Cs, Abdullahi Lh, Ndze Vn, Hussey Gd. Public stewardship of private for-profit healthcare providers in lowand middle-income countries (ReviewCochrane Database of Systematic Reviews 2016, Issue 8. Art. No.: CD009855.
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59	SCIELO	Reduction of pharmaceutical expenditure by a drug appropriateness intervention in polymedicated elderly subjects in Catalonia (Spain).	Campins L, Serra-Prat M, Palomera E, Bolibar I, Martínez Mà, Gallo P. Reduction of pharmaceutical expenditure by a drug appropriateness intervention in polymedicated elderly subjects in Catalonia (Spain).Gac Sanit. 2019 Mar-Apr;33(2):106-111. doi: 10.1016/j.gaceta.2017.09.002. Epub 2017 Nov 20. PMID: 29162290.
60	SCIELO	Retos y oportunidades para el desarrollo de la política farmacéutica nacional en México.	Wirtz Veronika J, Dreser Anahí, Heredia-Pi Ileana. Retos y oportunidades para el desarrollo de la política farmacéutica nacional en México. Salud pública Méx [revista en la Internet]. 2013 jun [citado 2023 Ago 10] ; 55(3): 329-336. Disponible en: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342013000400011&lng=es.
61	SCIELO	Spending trends on neuropsychiatric drugs in Minas Gerais, Brazil: is the offer of anti-parkinson drugs increasing?	Carvalho Lms, Alves Jc, Luz Tcb. Spending trends on neuropsychiatric drugs in Minas Gerais, Brazil: is the offer of anti-parkinson drugs increasing?Cien Saude Colet. 2021 Aug;26(8):3289-3300. Portuguese, English. doi: 10.1590/1413-81232021268.09872020. Epub 2020 May 29. PMID: 34378716.
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63	SCIELO	Sustentabilidade da política de acesso a medicamentos anti-retrovirais no Brasil	Grangeiro, Alexandre ; Teixeira, Luciana ; Bastos, Francisco I. ; Teixeira, Paulo. Sustentabilidade da política de acesso a medicamentos anti-retrovirais no BrasilRev. Saúde Pública 40 (suppl) • Abr 2006 • https://doi.org/10.1590/S0034-89102006000800009
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65	PUBMED	Tobacco packaging design for reducing tobacco use.	Mcneill A, Gravely S, Hitchman Sc, Bauld L, Hammond D, Hartmann-Boyce J. Tobacco packaging design for reducing tobacco use (Review)Cochrane Database of Systematic Reviews 2017, Issue 4. Art. No.: CD011244.
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66	SCIELO	Un estudio de minimización de costes en la prescripción de antiinfecciosos en dos areas de atención primaria.	Castán Cameo Susana, García Latorre Florencio Jesús, Martínez Gorostiaga Javier, Sierra Moros Mª José, Solano Bernad Víctor Manuel, Peral Casado Alfredo. Un estudio de minimización de costes en la prescripción de antiinfecciosos en dos areas de atención primaria. Rev. Esp. Salud Publica [Internet]. 1998 ene [citado 2023 Ago 10] ; 72(1): 33-42. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57271998000100005&lng=es.
67	SCIELO	Uso de antihipertensivos en Cantabria (1995-2002): el desfase con las evidencias	Luis Vara; Ana Sangrador; Pedro Muñoz; Saturnino Sanz. Uso de antihipertensivos en Cantabria (1995-2002): el desfase con las evidenciasGaceta Sanitaria Oct 2004, Volumen 18 Nº 5 Paginas 406 - 408
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68	PUBMED	An overview of reviews evaluating the effectiveness of financial incentives in changing healthcare professional behaviours and patient outcomes.	Flodgren G, Eccles Mp, Shepperd S, Scott A, Parmelli E, Beyer Fr. An overview of reviews evaluating the eectiveness of financial incentives in changing healthcare professional behaviours and patient outcomes (Review)Cochrane Database of Systematic Reviews 2011, Issue 7. Art. No.: CD009255. DOI: 10.1002/14651858.CD009255.
69	COCHRANE	Pharmaceutical policies: effects of educational or regulatory policies targeting prescribers (Review)	Suleman Fatima, Movik Espen. Pharmaceutical policies: effects of educational or regulatory policies targeting prescribersCochrane Database of Systematic Reviews 2019, Issue 11. Art. No.: CD013478. DOI: 10.1002/14651858.CD013478
70	COCHRANE	Pharmaceutical policies: effects of financial incentives for prescribers (Review)	Rashidian A, Omidvari Ah, Vali Y, Sturm H, Oxman Ad. Pharmaceutical policies: effects of financial incentives for prescribers (Review)Cochrane Database of Systematic Reviews 2015, Issue 8. Art. No.: CD006731.
			DOI: 10.1002/14651858.CD006731.pub2.
71	COCHRANE	An overview of reviews evaluating the effectiveness of financial incentives in changing healthcare professional behaviours and patient outcomes (Review)	Flodgren G, Eccles Mp, Shepperd S, Scott A, Parmelli E, Beyer Fr. An overview of reviews evaluating the eectiveness of financial incentives in changing healthcare professional behaviours and patient outcomes (Review)Cochrane Database of Systematic Reviews 2011, Issue 7. Art. No.: CD009255. DOI: 10.1002/14651858.CD009255.
72	COCHRANE	Pharmaceutical policies: effects of financial incentives for prescribers (Review)	Rashidian A, Omidvari Ah, Vali Y, Sturm H, Oxman Ad. Pharmaceutical policies: effects of financial incentives for prescribers (Review)Cochrane Database of Systematic Reviews 2015, Issue 8. Art. No.: CD006731.
			DOI: 10.1002/14651858.CD006731.pub2.
73	SCIELO	Compras públicas de medicamentos para hepatite C no Brasil no período de 2005 a 2015	Chaves, Gabriela Costa. Osorio-De-Castro, Claudia Garcia Serpa. Oliveira, Maria Auxiliadora. Compras públicas de medicamentos para hepatite C no Brasil no período de 2005 a 2015Ciência & Saúde Coletiva Ago 2017, Volumen 22 Nº 8 Paginas 2527 - 2538
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74	PUBMED	Responsive versus scheduled feeding for preterm infants.	Watson J, Mcguire W. Responsive versus scheduled feeding for preterm infants (Review)Cochrane Database of Systematic Reviews 2016, Issue 8. Art. No.: CD005255.
			DOI: 10.1002/14651858.CD005255.pub5
75	PUBMED	Unconditional cash transfers for reducing poverty and vulnerabilities: effect on use of health services and health outcomes in low- and middle-income countries.	Pega F, Liu Sy, Walter S, Pabayo R, Saith R, Lhachimi Sk. Unconditional cash transfers for reducing poverty and vulnerabilities: effect on use of health services and health outcomes in low- and middle-income countries. Cochrane Database Syst Rev. 2017 Nov 15;11(11):CD011135. doi:
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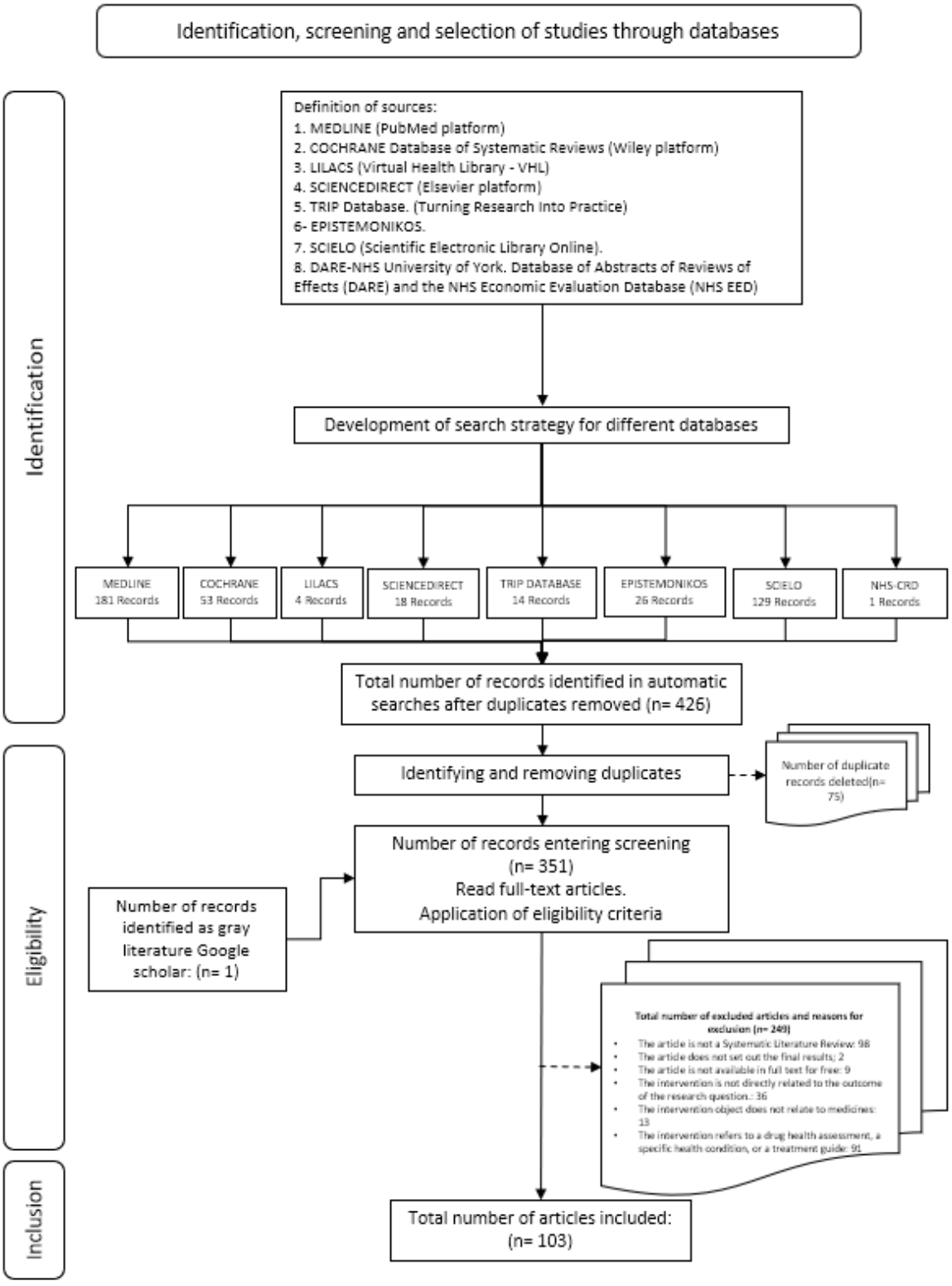

Appendix 3. Flowchart of identification, screening and selection of items.

Appendix 4. Table 12. Excluded References and Exclusion Reasons

#	SEARCH DATABASE	TITLE	REFERENCE	REASONS FOR EXCLUSION
1	COCHRANE	Inhaled nitric oxide for treating pain crises in people with sickle cell disease	Abboursheid T, Albaroudi O, Alahdab F.Inhaled nitric oxide for treating pain crises in people with sickle cell diseaseCochrane Database of Systematic Reviews 2022, Issue 7. Art. No.: CD011808.DOI: 10.1002/14651858.CD011808.pub3.	The intervention is not directly related to the outcome of the research question.
2	SCIELO	Prevalence and costs of hospitalizations for poisoning and accidental intoxication in Brazilian elderly	Abreu, Marcelle Silva De ; Ferreira, Silvandro Diego De Albuquerque ; Ferreira, Larissa Pelágia De Lima ; Toneo Júnior, José Ferreira ; Maciel, Wamberto Vieira ; Maciel, Shirley Suely Soares Veras .Prevalence and costs of hospitalizations for poisoning and accidental intoxication in Brazilian elderlyBraz. J. Pharm. Sci. 49 (4) • Dec 2013 https://doi.org/10.1590/S1984-82502013000400007	The article is not a Systematic Review of literature.
3	PUBMED	Provider experiences with relaxing restrictions on take-home medications for opioid use disorder during the COVID-19 pandemic: A qualitative systematic review.	Adams A, Blawatt S, Macdonald S, Finnick R, Lajeunesse J, Harrison S, Byres D, Schechter Mt, Oviedo-Joekes E.Provider experiences with relaxing restrictions on take-home medications for opioid use disorder during the COVID-19 pandemic: A qualitative systematic review. Int J Drug Policy. 2023 Jul;117:104058. doi: 10.1016/j.drugpo.2023.104058. Epub 2023 May 8.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
4	PUBMED	Oral naltrexone as a treatment for relapse prevention in formerly opioid-dependent drug users: a systematic review and economic evaluation.	Adi Y, Juarez-Garcia A, Wang D, Jowett S, Frew E, Day E, Bayliss S, Roberts T, Burls A. Oral naltrexone as a treatment for relapse prevention in formerly opioid-dependent drug users: a systematic review and economic evaluation.Health Technol Assess. 2007 Feb;11(6):iii-iv, 1-85. doi: 10.3310/hta11060.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
5	SCIELO	Retrospective cost-utility and budget impact assessments of Hypericum perforatum in contrast with Fluoxetine treatment for depression in Karachi, Pakistan	Ahmad, Syed Muzzammil; Masroor, Darakhshan; Azhar, Iqbal; Ahmed, Nadia. Retrospective cost-utility and budget impact assessments of Hypericum perforatum in contrast with Fluoxetine treatment for depression in Karachi, PakistanBrazilian Journal of Pharmaceutical Sciences; 55(); -; 2019 DOI: 10.1590/s2175-97902019000217210	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
6	COCHRANE	Bed rest during pregnancy for preventing miscarriage (Review)	Aleman A, Althabe F, Belizã¡N J, Bergel E.Bed rest during pregnancy for preventing miscarriage (Review)Cochrane Database of Systematic Reviews 2005, Issue 2. Art. No.: CD003576. DOI: 10.1002/14651858.CD003576.pub2	The intervention is not directly related to the outcome of the research question.
7	COCHRANE	Genetic testing for prevention of severe drug-induced skin rash (Review)	Alfirevic A, Pirmohamed M, Marinovic B, Harcourt-Smith L, Jorgensen Al, Cooper Te. Genetic testing for prevention of severe drug-induced skin rash (Review)Cochrane Database of Systematic Reviews 2019, Issue 7. Art. No.: CD010891. DOI: 10.1002/14651858.CD010891.pub2.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
8	PUBMED	Interventions Aimed at Enhancing Health Care Providers' Behavior Toward the Prescription of Mobile Health Apps: Systematic Review.	Alkhaldi O, Mcmillan B, Maddah N, Ainsworth J.Interventions Aimed at Enhancing Health Care Providers' Behavior Toward the Prescription of Mobile Health Apps: Systematic Review.JMIR Mhealth Uhealth. 2023 Feb 27;11:e43561. doi: 10.2196/43561.	The intervention is not directly related to the outcome of the research question.
9	SCIELO	Gasto farmacéutico en diabetes mellitus en una región de España según el Clinical Risk Group, 2012.	Alvis-Estrada L, Vivas-Consuelo D, Caballer-Tarazona Vicent, Usó-Talamantes R, Sancho-Mestre C,	The article is not a Systematic Review of literature.
10	PUBMED	American Geriatrics Society updated Beers Criteria for potentially inappropriate medication use in older adults.	American Geriatrics Society 0 Beers Criteria Update Expert Panel. American Geriatrics Society updated Beers Criteria for potentially inappropriate medication use in older adults. jAm Geriatr Soc. 2012 Apr;60(4):616-31. doi: 10.1111/j.1532-5415.2012.03923.x.Epub 2012 Feb 29.	The intervention is not directly related to the outcome of the research question.
11	PUBMED	Safety, Tolerability and Efficacy of Drugs for Treating Behavioural Insomnia in Children with Attention-Deficit/Hyperactivity Disorder: A Systematic Review with Methodological Quality Assessment.	Anand S, Tong H, Besag Fmc, Chan Ew, Cortese S, Wong	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.

12	SCIENCE DIRECT	Promoting innovation while controlling cost: The UK's approach to health technology assessment.	Anderson M, Drummond M, Taylor D, Mcguire A, Carter P, Mossialos E. Promoting innovation while controlling cost: The UK's approach to health technology assessment. Health Policy. 2022 Mar;126(3):224-233. doi: 10.1016/j.healthpol.2022.01.013. Epub 2022 Jan 29. PMID: 35131126.	The article is not a Systematic Review of literature.
13	COCHRANE	Duloxetine versus other anti-depressive agents for depression	Cipriani Andrea, Koesters Markus, Furukawa Toshi A, Nosè Michela, Purgato Marianna, Omori Ichiro M, Trespidi Trespidi Carlotta, Barbui Corrado. Duloxetine versus other anti-depressive agents for depressionCochrane Database of Systematic Reviews 2012, Issue 10. Art. No.: CD006533. DOI: 10.1002/14651858.CD006533.pub2.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
14	TRIP DATABASE	Improving Rural Health Through Telehealth-Guided Provider-to-Provider Communication [Internet].	Annette Totten, Ph.D. Dana M. Womack, Ph.D., R.N. Marian S. Mcdonagh, Pharm.D. Cynthia Davis-O'Reilly, B.S. Jessica C. Griffin, M.S. Ian Blazina, M.P.H. Sara Grusing, M.P.H. Nancy Elder, M.D., M.S.P.H. Improving Rural Health Through Telehealth-Guided Provider-to-Provider Communication [Internet].Rockville (MD): Agency for Healthcare Research and Quality (US); 2022 Dec. Report No.: 22(23)-EHC023. PMID: 3662292	The article is not a Systematic Review of literature.
15	PUBMED	A Rapid Review of the Impact of Systems-Level Policies and Interventions on Population-Level Outcomes Related to the Opioid Epidemic, United States and Canada, 2014-2018.	Ansari B, Tote Km, Rosenberg Es, Martin Eg. A Rapid Review of the Impact of Systems-Level Policies and Interventions on Population-Level Outcomes Related to the Opioid Epidemic, United States and Canada, 2014-2018. Public Health Rep. 2020 Jul/Aug;135(1_suppl):100S-127S. doi:10.1177/0033354920922975.	The article is not a Systematic Review of literature.
16	PUBMED	Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis.	Antimicrobial Resistance Collaborators. Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. Lancet. 2022 Feb 12;399(10325):629-655. doi: 10.1016/S0140-6736(21)02724-0. Epub 2022 Jan 19.	The article is not a Systematic Review of literature.
17	SCIELO	Impacto del Real Decreto-Ley 16/2012 sobre el copago farmacéutico en el número de recetas y en el gasto farmacéutico.	Antoñanzas Villar Fernando, Rodríguez-Ibeas Roberto, Juárez-Castelló Carmelo A., Lorente Antoñanzas Mª Reyes. Impacto del Real Decreto-Ley 16/2012 sobre el copago farmacéutico en el número de recetas y en el gasto farmacéutico. Rev. Esp. Salud Publica [Internet]. 2014 abr [citado 2023 Ago 10] ; 88(2): 233-249. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57272014000200006&lng=es. https://dx.doi.org/10.4321/S1135-57272014000200006.	The article is not a Systematic Review of literature.
18	SCIELO	Logistica de almacenamiento de materia prima en la industria farmacéutica.	Apaza Paco Juan Pablo, Chávez Lizárraga Georgina A, Herrera Choque Vania. Logistica de almacenamiento de materia prima en la industria farmacéutica. Rev.Cs.Farm. y Bioq [Internet]. 2015 jul [citado 2023 Ago 10] ; 3(1): 101-113. Disponible en: http://www.scielo.org.bo/scielo.php?script=sci_arttext&pid=S2310-02652015000100011&lng=es.ID: S2310-02652015000100011-bol	The intervention is not directly related to the outcome of the research question.
19	SCIELO	Pharmacoeconomy: an indispensable tool for the rationalization of health costs	Areda, Camila Alves ; Bonizio, Roni Cléber ; Freitas, Osvaldo De. Pharmacoeconomy: an indispensable tool for the rationalization of health costsBraz. J. Pharm. Sci. 47 (2) • June 2011 • https://doi.org/10.1590/S1984-82502011000200004	The article is not a Systematic Review of literature.
20	SCIELO	Integration of Community pharmacy and pharmacists in primary health care policies in Argentina.	Armando Pd, Uema Sa, Vega Em. Integration of Community pharmacy and pharmacists in primary health care policies in Argentina. Pharm Pract (Granada). 2020 Oct-Dec;18(4):2173. doi: 10.18549/PharmPract.2020.4.2173. Epub 2020 Oct 22. PMID: 33149796; PMCID: PMC7603658.	The article is not a Systematic Review of literature.
21	PUBMED	Costs, consequences and value for money in non-medical prescribing: a scoping review.	Babashahi S, Carey N, Jani Y, Hart K, Hounsome N. Costs, consequences and value for money in non-medical prescribing: a scoping review. BMJ Open. 2023 May 2;13(5):e067907. doi: 10.1136/bmjopen-2022-067907.	The article is not a Systematic Review of literature.
22	PUBMED	Systematic review of interventions for improving the performance of community health workers in low-income and middle-income countries.	Ballard M, Montgomery P. Systematic review of interventions for improving the performance of community health workers in low-income and middle-income countries.BMJ Open. 2017 Oct 25;7(10):e014216. doi: 10.1136/bmjopen-2016-014216.	The intervention is not directly related to the outcome of the research question.

23	SCIELO	Antidepressivos, ansiolíticos, hipnóticos e sedativos: uma análise dos gastos em Minas Gerais	Barbi, Lucas. Carvalho, Liliany Mara Silva. Luz, Tatiana Chama Borges. Antidepressivos, ansiolíticos, hipnóticos e sedativos: uma análise dos gastos em Minas GeraisTEMA LIVRE • Physis 29 (04) • 2019 • https://doi.org/10.1590/S0103-73312019290407	The article is not a Systematic Review of literature.
24	SCIELO	Primary health care policy and vision for community pharmacy and pharmacists in Jordan.	Basheti Ia, Mhaidat Nm, Alqudah R, Nassar R, Othman B, Mukattash Tl. Primary health care policy and vision for community pharmacy and pharmacists in Jordan. Pharm Pract (Granada). 2020 Oct-Dec;18(4):2184. doi: 10.18549/PharmPract.2020.4.2184. Epub 2020 Dec 5. PMID: 33343774; PMCID: PMC7732212.	The article is not a Systematic Review of literature.
25	SCIELO	Impacto de los trastornos psiquiátricos comunes y las condiciones crónicas físicas en el individuo y la sociedade.	Benjet Corina, Casanova Leticia, Borges Guilherme, Medina-Mora María Elena. Impacto de los trastornos psiquiátricos comunes y las condiciones crónicas físicas en el individuo y la sociedade.Salud pública Méx [revista en la Internet]. 2013 jun [citado 2023 Ago 10] ; 55(3): 248-256. Disponible en: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342013000400002&lng=es.	The article is not a Systematic Review of literature.
26	SCIELO	Prevalências e desigualdades no acesso aos medicamentos por usuários do Sistema Único de Saúde no Brasil em 2013 e 2019 [Prevalence rates and inequalities in access to medicines by users of the Brazilian Unified National Health System in 2013 and 2019].	Boing Ac, Andrade Fb, Bertoldi Ad, Peres Kga, Massuda A, Boing Af. Prevalências e desigualdades no acesso aos medicamentos por usuários do Sistema Único de Saúde no Brasil em 2013 e 2019 [Prevalence rates and inequalities in access to medicines by users of the Brazilian Unified National Health System in 2013 and 2019]. Cad Saude Publica. 2022 Jun 8;38(6):e00114721. Portuguese. doi: 10.1590/0102-311XPT114721. PMID: 35703669.	The article is not a Systematic Review of literature.
27	SCIELO	Desigualdades socioeconómicas en los gastos y comprometimiento de la renta con medicamentos en el Sur de Brasil	Boing, Alexandra Crispim ; Bertoldi, Andréa Dâmaso ; Peres, Karen Glazer. Desigualdades socioeconómicas en los gastos y comprometimiento de la renta con medicamentos en el Sur de BrasilRev. Saúde Pública 45 (5) • Out 2011 • https://doi.org/10.1590/S0034-89102011005000054	The article is not a Systematic Review of literature.
28	PUBMED	Social norms associated with nonmedical opioid use in rural communities: a systematic review.	Bolinski R, Ellis K, Zahnd We, Walters S, Mcluckie C, Schneider	The target intervention is not a medicine.
29	PUBMED	Medication-related interventions to improve medication safety and patient outcomes on transition from adult intensive care settings: a systematic review and meta-analysis.	Bourne Rs, Jennings Jk, Panagioti M, Hodkinson A, Sutton A, Ashcroft Dm.Medication-related interventions to improve medication safety and patient outcomes on transition from adult intensive care settings: a systematic review and meta-analysis.BMJ Qual Saf. 2022 Aug;31(8):609-622. doi: 10.1136/bmjqs-2021-013760. Epub 2022 Jan 18.	The intervention is not directly related to the outcome of the research question.
30	SCIELO	Medicines used in mental, neurological and substance use disorders in Gauteng, South Africa: A secondary analysis of the 2017-2018 provincial pharmaceutical database, Part 1.	Bouwer Jc, Govender S, Robertson Lj. Medicines used in mental, neurological and substance use disorders in Gauteng, South Africa: A secondary analysis of the 2017-2018 provincial pharmaceutical database, Part 1.S Afr J Psychiatr. 2021 Jan 28;27:1552. doi: 10.4102/sajpsychiatry.v27i0.1552. PMID: 33604075; PMCID: PMC7876964.	The article is not a Systematic Review of literature.
31	PUBMED	Anticipatory prescribing of injectable medications for adults at the end of life in the community: A systematic literature review and narrative synthesis.	Bowers B, Ryan R, Kuhn I, Barclay S. Anticipatory prescribing of injectable medications for adults at the end of life in the community: A systematic literature review and narrative synthesis.Palliat Med. 2019 Feb;33(2):160-177. doi: 10.1177/0269216318815796. Epub 2018 Dec 4.	The article is not a Systematic Review of literature.
32	PUBMED	Management of tuberculosis by healthcare practitioners in Pakistan: A systematic review.	Braham Ca, White Pj, Arinaminpathy N. Management of tuberculosis by healthcare practitioners in Pakistan: A systematic review.PLoS One. 2018 Jun 21;13(6):e0199413. doi: 10.1371/journal.pone.0199413. eCollection 2018.	The intervention is not directly related to the outcome of the research question.
33	SCIELO	Gastos públicos com medicamentos para o tratamento da osteoporose na pós-menopausa [Public spending on drugs for the treatment of osteoporosis in post-menopause].	Brandão Cm, Ferré F, Machado Gp, Guerra Aa Jr, Andrade Ei, Cherchiglia Ml, Acurcio Fde A. Gastos públicos com medicamentos para o tratamento da osteoporose na pós-menopausa [Public spending on drugs for the treatment of osteoporosis in post-menopause]. Rev Saude Publica. 2013 Apr;47(2):390-402. Portuguese. doi: 10.1590/S0034-8910.2013047004163. PMID: 24037367.	The article is not a Systematic Review of literature.

34	PUBMED	Treatment for epilepsy in pregnancy: neurodevelopmental outcomes in the child.	Bromley R, Weston J, Adab N, Greenhalgh J, Sanniti A, Mckay Aj, Tudur Smith C, Marson Ag. Treatment for epilepsy in pregnancy: neurodevelopmental outcomes in the child. Cochrane Database Syst Rev. 2014 Oct 30;2014(10):CD010236. doi: 10.1002/14651858.CD010236.pub2.	The intervention is not directly related to the outcome of the research question.
35	SCIELO	Pharmaceutical cost implications for oral healthcare interventions at a dental clinic in Windhoek, Namibia	Bs Singu, Bsc, Bpharm, Mpharm And P Shaamena, Mbchb. Pharmaceutical cost implications for oral healthcare interventions at a dental clinic in Windhoek, NamibiaSouth African Dental JournalVol. 77, No. 8. Published Online:1 Sep 2022 DOI: 10.17159/2519-0105/2022/v77no8a3	The article is not a Systematic Review of literature.
36	SCIELO	Differences in prescribed medicine availability in Primary Health Care: evidence from the Prover Project.	Bueno Mam, Simões Tc, Luz Tcb. Differences in prescribed medicine availability in Primary Health Care: evidence from the Prover Project. Cien Saude Colet. 2022 Mar;27(3):1191-1203. Portuguese, English. doi: 10.1590/1413-81232022273.38782020. Epub 2021 Mar 7. PMID: 35293455.	The article is not a Systematic Review of literature.
37	SCIELO	Desarrollo del indicador Población Estandarizada Equivalente para el control del gasto farmacéutico ambulatorio.	Caballer Tarazona Maria, Buigues Pastor Laia, Saurí Ferrer Inmaculada, Usó Talamantes Ruth, Trillo Mata Jose Luís. Desarrollo del indicador Población Estandarizada Equivalente para el control del gasto farmacéutico ambulatorio. Rev. Esp. Salud Publica [Internet]. 2012 Ago [citado 2023 Ago 10] ; 86(4): 371-380. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57272012000400005&lng=es.	The article is not a Systematic Review of literature.
38	SCIELO	Impacto de la morbilidad en los costes asistenciales de un departamento de salud de la Comunidad Valenciana a través de los grupos de riesgo clínico.	Caballer Tarazona Vicent, Guadalajara Olmeda Natividad, Vivas Consuelo David, Clemente Collado Antonio. Impacto de la morbilidad en los costes asistenciales de un departamento de salud de la Comunidad Valenciana a través de los grupos de riesgo clínico. Rev. Esp. Salud Publica [Internet]. 2016 [citado 2023 Ago 10] ; 90: e40013. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57272016000100413&lng=es. Epub 07-Jun-2021.	The article is not a Systematic Review of literature.
39	SCIELO	Analysis of antimicrobials' consumption profile in a University Hospital of Western Paraná, Brazil	Caldeira, Luciane De Fátima ; Burattini, Marcelo Nascimento. Analysis of antimicrobials' consumption profile in a University Hospital of Western Paraná, BrazilBraz. J. Pharm. Sci. 45 (2) • June 2009 • https://doi.org/10.1590/S1984-82502009000200015	The article is not a Systematic Review of literature.
40	PUBMED	Bacterial co-infection and antibiotic stewardship in patients with COVID-19: a systematic review and meta-analysis.	Calderon M, Gysin G, Gujjar A, Mcmaster A, King L, Comandã© D, Hunter E, Payne B. Bacterial co-infection and antibiotic stewardship in patients with COVID-19: a systematic review and meta-analysis.BMC Infect Dis. 2023 Jan 9;23(1):14. doi: 10.1186/s12879-022-07942-x.	The intervention is not directly related to the outcome of the research question.
41	SCIELO	Reduction of pharmaceutical expenditure by a drug appropriateness intervention in polymedicated elderly subjects in Catalonia (Spain).	Campins L, Serra-Prat M, Palomera E, Bolibar I, Martínez Mà, Gallo P. Reduction of pharmaceutical expenditure by a drug appropriateness intervention in polymedicated elderly subjects in Catalonia (Spain).Gac Sanit. 2019 Mar-Apr;33(2):106-111. doi: 10.1016/j.gaceta.2017.09.002. Epub 2017 Nov 20. PMID: 29162290.	The article is not a Systematic Review of literature.
42	PUBMED	Genetic factors affecting statin concentrations and subsequent myopathy: a HuGENet systematic review.	Canestaro Wj, Austin Ma, Thummel Ke. Genetic factors affecting statin concentrations and subsequent myopathy: a HuGENet systematic review. Genet Med. 2014 Nov;16(11):810-9. doi: 10.1038/gim.2014.41. Epub 2014 May 8.	The intervention is not directly related to the outcome of the research question.
43	PUBMED	Is Non-Steroidal Anti-Inflammatory Therapy Non-Inferior to Antibiotic Therapy in Uncomplicated Urinary Tract Infections: A Systematic Review.	Carey Mr, Vaughn Vm, Mann J, Townsend W, Chopra	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
44	SCIELO	Spending trends on neuropsychiatric drugs in Minas Gerais, Brazil: is the offer of anti-parkinson drugs increasing?	Carvalho Lms, Alves Jc, Luz Tcb. Spending trends on neuropsychiatric drugs in Minas Gerais, Brazil: is the offer of anti-parkinson drugs increasing?Cien Saude Colet. 2021 Aug;26(8):3289-3300. Portuguese, English. doi: 10.1590/1413-81232021268.09872020. Epub 2020 May 29. PMID: 34378716.	The article is not a Systematic Review of literature.

45	SCIELO	Un estudio de minimización de costes en la prescripción de antiinfecciosos en dos areas de atención primaria.	Castán Cameo Susana, García Latorre Florencio Jesús, Martínez Gorostiaga Javier, Sierra Moros Mª José, Solano Bernad Víctor Manuel, Peral Casado Alfredo. Un estudio de minimización de costes en la prescripción de antiinfecciosos en dos areas de atención primaria. Rev. Esp. Salud Publica [Internet]. 1998 ene [citado 2023 Ago 10] ; 72(1): 33-42. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57271998000100005&lng=es.	The article is not a Systematic Review of literature.
46	SCIELO	Influencia del desgaste profesional en el gasto farmacéutico de los médicos de atención primaria.	Cebrià J., Sobrequés J., Rodríguez C., Segura J. Influencia del desgaste profesional en el gasto farmacéutico de los médicos de atención primaria.Gac Sanit [Internet]. 2003 dic [citado 2023 Ago 10] ; 17(6): 483-489. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112003000600009&lng=es.	The article is not a Systematic Review of literature.
47	PUBMED	Routes of non-traditional entry into buprenorphine treatment programs.	Champagne-Langabeer T, Swank Mw, Langabeer Jr 2Nd. Routes of non-traditional entry into buprenorphine treatment programs. Subst Abuse Treat Prev Policy. 2020 Jan 20;15(1):6. doi: 10.1186/s13011-020-0252-z.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
48	PUBMED	Clinical and economic outcomes of nurse-led services in the ambulatory care setting: A systematic review.	Chan Rj, Marx W, Bradford N, Gordon L, Bonner A, Douglas C, Schmalkuche D, Yates P. Clinical and economic outcomes of nurse-led services in the ambulatory care setting: A systematic review.Int J Nurs Stud. 2018 May;81:61-80. doi: 10.1016/j.ijnurstu.2018.02.002. Epub 2018 Feb 21.	The article is not available in full text in open access
49	SCIELO	Compras públicas de medicamentos para hepatite C no Brasil no período de 2005 a 2015	Chaves, Gabriela Costa. Osorio-De-Castro, Claudia Garcia Serpa. Oliveira, Maria Auxiliadora. Compras públicas de medicamentos para hepatite C no Brasil no período de 2005 a 2015Ciência & Saúde Coletiva Ago 2017, Volumen 22 Nº 8 Paginas 2527 - 2538 DOI: 10.1590/1413-81232017228.05602017	The article is not a Systematic Review of literature.
50	SCIENCE DIRECT	Issues in drug pricing, reimbursement, and access in China with references to other Asia-Pacific region.	Chen Y, Schweitzer So. Issues in drug pricing, reimbursement, and access in China with references to other Asia-Pacific region. Value Health. 2008 Mar;11 Suppl 1:S124-9. doi: 10.1111/j.1524-4733.2008.00376.x. PMID: 18387056.	The article is not a Systematic Review of literature.
51	PUBMED	Reducing medication errors for adults in hospital settings.	Ciapponi A, Fernandez Nievas Se, Seijo M, RodrãGuez Mb, Vietto V, GarcãA-Perdomo Ha, Virgilio S, Fajreldines Av, Tost J, Rose Cj, Garcia-Elorrio E. Reducing medication errors for adults in hospital settings.Cochrane Database Syst Rev. 2021 Nov 25;11(11):CD009985. doi: 10.1002/14651858.CD009985.pub2.	The intervention is not directly related to the outcome of the research question.
52	PUBMED	Gadolinium Deposition in the Brain: A Systematic Review of Existing Guidelines and Policy Statement Issued by the Canadian Association of Radiologists.	Costa Af, Van Der Pol Cb, Maralani Pj, Mcinnes Mdf, Shewchuk Jr, Verma R, Hurrell C, Schieda N. Gadolinium Deposition in the Brain: A Systematic Review of Existing Guidelines and Policy Statement Issued by the Canadian Association of Radiologists. Can Assoc Radiol J. 2018 Nov;69(4):373-382. doi: 10.1016/j.carj.2018.04.002. Epub 2018 Sep 22.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
53	SCIELO	The impacts of health care judicialization in the city of Sao Paulo: public expenditure and federal organization	Daniel Wei L. Wang, Natália Pires De Vasconcelos, Vanessa Elias De Oliveira, Fernanda Vargas Terrazas. The impacts of health care judicialization in the city of Sao Paulo: public expenditure and federal organizationRevista DOI: 10.1590/0034-76121666 de Administração Pública Oct 2014, Volumen 48 Nº 5 Paginas 1191 - 1206	The article is not a Systematic Review of literature.
54	PUBMED	Interventions to improve antibiotic prescribing practices for hospital inpatients	Davey P, Marwick Ca, Scott Cl, Charani E, Mcneil K, Brown E, Gould Im, Ramsay Cr, Michie S. Interventions to improve antibiotic prescribing practices for hospital inpatientsCochrane Database Syst Rev. 2017 Feb 9;2(2):CD003543. doi: 10.1002/14651858.CD003543.pub4.	The intervention is not directly related to the outcome of the research question.
55	PUBMED	Advances in prescription drug monitoring program research: a literature synthesis (June 2018 to December 2019).	Delcher C, Pauly N, Moyo P. Advances in prescription drug monitoring program research: a literature synthesis (June 2018 to December 2019). Curr Opin Psychiatry. 2020 Jul;33(4):326-333. doi: 10.1097/YCO.0000000000000608.	The article is not a Systematic Review of literature.

56	SCIELO	Opinión de los médicos de atención primaria de Ourense sobre algunos aspectos de su prescripción farmacéutica.	Díaz Grávalos Gabriel J, Palmeiro Fernández Gerardo, Núñez Masid Eloína, Casado Górriz Inmaculada. Opinión de los médicos de atención primaria de Ourense sobre algunos aspectos de su prescripción farmacéutica. Rev. Esp. Salud Publica [Internet]. 2001 Ago [citado 2023 Ago 10] ; 75(4): 361-374. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57272001000400010&lng=es.	The article is not a Systematic Review of literature.
57	PUBMED	Utility of broad-spectrum antibiotics for diagnosing pulmonary tuberculosis in adults: a systematic review and meta-analysis.	Divala Th, Fielding Kl, Kandulu C, Nliwasa M, Sloan Dj, Gupta-Wright A, Corbett El. Utility of broad-spectrum antibiotics for diagnosing pulmonary tuberculosis in adults: a systematic review and meta-analysis. Lancet Infect Dis. 2020 Sep;20(9):1089-1098. doi: 10.1016/S1473-3099(20)30143-2. Epub 2020 May 18.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
58	COCHRANE	Incentive spirometry for prevention of postoperative pulmonary complications in upper abdominal surgery (Review)	Do Nascimento Junior P, Módolo Nsp, Andrade S, Guimarães Mmf, Braz Lg, El Dib R. Incentive spirometry for prevention of postoperative pulmonary complications in upper abdominal surgery (Review)Cochrane Database of Systematic Reviews 2014, Issue 2. Art. No.: CD006058. DOI: 10.1002/14651858.CD006058.pub3.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
59	SCIELO	How to cope with complexity and adapt new scenarios to patient care.	Dompé S. How to cope with complexity and adapt new scenarios to patient care. Ann Ist Super Sanita. 2011;47(1):104-8. doi: 10.4415/ANN_11_01_21. PMID: 21430349.	The article is not a Systematic Review of literature.
60	PUBMED	Does increased exercise or physical activity alter ad-libitum daily energy intake or macronutrient composition in healthy adults? A systematic review.	Donnelly Je, Herrmann Sd, Lambourne K, Szabo An, Honas Jj, Washburn Ra. Does increased exercise or physical activity alter ad-libitum daily energy intake or macronutrient composition in healthy adults? A systematic review.PLoS One. 2014 Jan 15;9(1):e83498. doi: 10.1371/journal.pone.0083498. eCollection 2014.	The target intervention is not a medicine.
61	PUBMED	Benzodiazepines, Z-drugs and the risk of hip fracture: A systematic review and meta-analysis.	Donnelly K, Bracchi R, Hewitt J, Routledge Pa, Carter B. Benzodiazepines, Z-drugs and the risk of hip fracture: A systematic review and meta-analysis.PLoS One. 2017 Apr 27;12(4):e0174730. doi: 10.1371/journal.pone.0174730. eCollection 2017.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
62	SCIELO	Profile and costs of dyslipidemic patients treated by the pharmaceutical specialized care by the Brazilian Unified Health Care System	Duarte, Juliana Giannetti ; Guerra Júnior, Augusto Afonso ; Cherchiglia, Mariângela Leal ; Andrade, Eli Iola Gurgel ; Acurcio, Francisco De Assis. Profile and costs of dyslipidemic patients treated by the pharmaceutical specialized care by the Brazilian Unified Health Care SystemPhysis: Revista de Saúde Coletiva Métrica Dic 2013, Volumen 23 Nº 4 Paginas 1215 - 1227 https://doi.org/10.1590/S0103-73312013000400010	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
63	PUBMED	Barriers and facilitators to implementation of non-medical independent prescribing in primary care in the UK: a qualitative systematic review.	Edwards J, Coward M, Carey N. Barriers and facilitators to implementation of non-medical independent prescribing in primary care in the UK: a qualitative systematic review. BMJ Open. 2022 Jun 8;12(6):e052227. doi: 10.1136/bmjopen-2021-052227.	The intervention is not directly related to the outcome of the research question.
64	SCIELO	Acesso da população brasileira adulta a medicamentos prescritos	Elislene Dias Drummondtaynãna César Simõesfabíola Bof De Andrade. Acesso da população brasileira adulta a medicamentos prescritosRevista Brasileira de Epidemiologia Mar 2018, Volumen 21 elocation e180007 DOI: 10.1590/1980-549720180007	The article is not a Systematic Review of literature.
65	SCIELO	Promoting and regulating generic medicines: Brazil in comparative perspective	Elize Massard Da Fonseca And Kenneth C. Shadlen. Promoting and regulating generic medicines: Brazil in comparative perspectiveRevista Panamericana de Salud Pública 2017, Volumen 41 elocation e5 ID: S1020-49892017000100501-spa	The article is not a Systematic Review of literature.
66	TRIP DATABASE	Systematic review of the cost-effectiveness of influenza immunization programs	Eon E K Ting , Beate Sander , Wendy J Ungar. Systematic review of the cost-effectiveness of influenza immunization programsVaccine. 2017 Apr 4;35(15):1828-1843. doi: 10.1016/j.vaccine.2017.02.044.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.

67	SCIELO	Innovando en la gestión del gasto farmacéutico: del pago por producto al pago por resultados en salud.	Espín Jaime. Innovando en la gestión del gasto farmacéutico: del pago por producto al pago por resultados en salud. Rev. Esp. Salud Publica [Internet]. 2013 Ago [citado 2023 Ago 10] ; 87(4): 303-306. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57272013000400001&lng=es. https://dx.doi.org/10.4321/S1135-57272013000400001.	The article is not a Systematic Review of literature.
68	COCHRANE	Natalizumab for relapsing remitting multiple sclerosis	Pucci Eugenio, Giuliani Giorgio, Solari Alessandra, Simi Silvana, Minozzi silvia, Di Pietrantonj Carlo , Galea Ian. Natalizumab for relapsing remitting multiple sclerosisCochrane Database of Systematic Reviews 2011, Issue 10. Art. No.: CD007621. DOI: 10.1002/14651858.CD007621.pub2.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
69	TRIP DATABASE	Expansion of the childhood immunisation schedule to include varicella (chickenpox) vaccination: Health Technology Assessment	Expert Advisory Group (Eag). Health Information and Quality Authority. Expansion of the childhood immunisation schedule to include varicella (chickenpox) vaccination: Health Technology AssessmentHealth Information and Quality Authority Dublin Regional Office. https://www.hiqa.ie/sites/default/files/2023-07/Varicella_HTA_Report.pdf	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
70	TRIP DATABASE	Health technology assessment (HTA) of smoking cessation interventions	Expert Advisory Group (Eag). Health Information and Quality Authority. Health technology assessment (HTA) of smoking cessation interventionsHealth Information and Quality Authority Dublin Regional Office. https://www.hiqa.ie/sites/default/files/2017-04/Smoking%20Cessation%20HTA.pdf	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
71	SCIELO	Aplicaciones directas para la adquisición de medicamentos en el Sistema Único de Salud Brasileño	Fabiola Sulpino Vieira Paola Zucchi. Aplicaciones directas para la adquisición de medicamentos en el Sistema Único de Salud BrasileñoRev. Saúde Pública 45 (5) • Out 2011 • https://doi.org/10.1590/S0034-89102011005000048	The article is not a Systematic Review of literature.
72	SCIELO	Distortions to national drug policy caused by lawsuits in Brazil	Fabiola Sulpino Vieira Paola Zucchi. Distortions to national drug policy caused by lawsuits in BrazilRev. Saúde Pública 41 (2) • Abr 2007 • https://doi.org/10.1590/S0034-89102007000200007	The article is not a Systematic Review of literature.
73	SCIELO	Financing of Pharmaceutical Services in Brazilian Public Health System	Fabiola Sulpino Vieira, Paola Zucchi. Financing of Pharmaceutical Services in Brazilian Public Health System Saude soc. 22 (1) • Mar 2013 • https://doi.org/10.1590/S0104-12902013000100008	The article is not a Systematic Review of literature.
74	PUBMED	Associations between use of macrolide antibiotics during pregnancy and adverse child outcomes: A systematic review and meta-analysis.	Fan H, Li L, Wijlaars L, Gilbert Re. Associations between use of macrolide antibiotics during pregnancy and adverse child outcomes: A systematic review and meta-analysis.PLoS One. 2019 Feb 19;14(2):e0212212. doi: 10.1371/journal.pone.0212212. eCollection 2019.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
75	PUBMED	Comparison of Amitriptyline and US Food and Drug Administration-Approved Treatments for Fibromyalgia: A Systematic Review and Network Meta-analysis.	Farag Hm, Yunusa I, Goswami H, Sultan I, Doucette Ja, Eguale T. Comparison of Amitriptyline and US Food and Drug Administration-Approved Treatments for Fibromyalgia: A Systematic Review and Network Meta-analysis.JAMA Netw Open. 2022 May 2;5(5):e2212939. doi: 10.1001/jamanetworkopen.2022.12939.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
76	PUBMED	Intensity of continuous renal replacement therapy for acute kidney injury.	Fayad Ai, Buamscha Dg, Ciapponi A. Intensity of continuous renal replacement therapy for acute kidney injury. Cochrane Database Syst Rev. 2016 Oct 4;10(10):CD010613. doi: 10.1002/14651858.CD010613.pub2.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
77	SCIELO	Impact of Covid-19 containment on community pharmaceutical spending in Andalusia - Spain.	Florido Alba F, García-Agua N, Martín Reyes Á, Clavero Barranquero A, García Ruiz Aj. Impact of Covid-19 containment on community pharmaceutical spending in Andalusia - Spain. harm Pract (Granada). 2021 Apr-Jun;19(2):2346. doi: 10.18549/PharmPract.2021.2.2346. Epub 2021 Jun 18. PMID: 34221202; PMCID: PMC8234708.	The article is not a Systematic Review of literature.
78	SCIELO	Crisis, gasto público sanitario y política.	Florido Alba F, García-Agua Soler N, Martín Reyes A, García Ruiz Aj. Crisis, gasto público sanitario y política. Rev Esp Salud Pública.2019;93: 22 de febrero e201902007. ID: S1135-57272019000100072-esp	The article is not a Systematic Review of literature.

79	PUBMED	Lithium Exposure During Pregnancy and the Postpartum Period: A Systematic Review and Meta-Analysis of Safety and Efficacy Outcomes.	Fornaro M, Maritan E, Ferranti R, Zaninotto L, Miola A, Anastasia A, Murru A, Solã© E, Stubbs B, Carvalho Af, Serretti A, Vieta E, Fusar-Poli P, Mcguire P, Young Ah, Dazzan P, Vigod Sn, Correll Cu, Solmi M. Lithium Exposure During Pregnancy and the Postpartum Period: A Systematic Review and Meta-Analysis of Safety and Efficacy Outcomes. Am J Psychiatry. 2020 Jan 1;177(1):76-92. doi: 10.1176/appi.ajp.2019.19030228. Epub 2019 Oct 18.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
80	SCIELO	Genéricos: ¿buenos o malos? Conocimientos y actitudes de los médicos ante los medicamentos genéricos.	García A.J., Martos F., Leiva F., Sánchez De La Cuesta F. Genéricos: ¿buenos o malos? Conocimientos y actitudes de los médicos ante los medicamentos genéricos. Gac Sanit [Internet]. 2003 abr [citado 2023 Ago 10] ; 17(2): 144-149. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112003000200009&lng=es.	The article is not a Systematic Review of literature.
81	SCIELO	A propósito de un caso: ¿Sirven los genéricos para moderar el gasto en hipertensión?	García Antonio J., Martos Francisco, Martín Ángel, Sánchez Felipe. A propósito de un caso: ¿Sirven los genéricos para moderar el gasto en hipertensión?Gac Sanit [Internet]. 2004 abr [citado 2023 Ago 10] ; 18(2): 137-144. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112004000200009&lng=es.	The article is not a Systematic Review of literature.
82	SCIELO	Medical costs of cancer attributable to work in the Basque Country (Spain) in 2008.	García Gómez M, Castañeda López R, Urbanos Garrido R, López Menduiña P, Markowitz S. Medical costs of cancer attributable to work in the Basque Country (Spain) in 2008.Gac Sanit. 2013 Jul-Aug;27(4):310-7. doi: 10.1016/j.gaceta.2013.01.002. Epub 2013 Feb 27. PMID: 23454869. DOI: 10.1016/j.gaceta.2013.01.002	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
83	SCIELO	Mercaderes en el Templo: hegemonía del paradigma bio-comercial en Psiquiatría.	García-Valdecasas Campelo José, Vispe Astola Amaia. Mercaderes en el Templo: hegemonía del paradigma bio-comercial en Psiquiatría. Rev. Asoc. Esp. Neuropsiq. [Internet]. 2011 jun [citado 2023 Ago 10] ; 31(2): 321-341. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0211-57352011000200010&lng=es. https://dx.doi.org/10.4321/S0211-57352011000200010.	The article is not a Systematic Review of literature.
84	PUBMED	Mind-Body Therapies for Opioid-Treated Pain: A Systematic Review and Meta-analysis.	Garland El, Brintz Ce, Hanley Aw, Roseen Ej, Atchley Rm, Gaylord Sa, Faurot Kr, Yaffe J, Fiander M, Keefe Fj. Mind-Body Therapies for Opioid-Treated Pain: A Systematic Review and Meta-analysis. JAMA Intern Med. 2020 Jan 1;180(1):91-105. doi: 10.1001/jamainternmed.2019.4917.	The intervention is not directly related to the outcome of the research question.
85	PUBMED	Dietary Supplements for Male Infertility: A Critical Evaluation of Their Composition.	Garolla A, Petre Gc, Francini-Pesenti F, De Toni L, Vitagliano A, Di Nisio A, Foresta C. Dietary Supplements for Male Infertility: A Critical Evaluation of Their Composition.Nutrients. 2020 May 19;12(5):1472. doi: 10.3390/nu12051472.	The intervention is not directly related to the outcome of the research question.
86	PUBMED	Cause or Effect? Selective Serotonin Reuptake Inhibitors and Falls in Older Adults: A Systematic Review.	Gebara Ma, Lipsey Kl, Karp Jf, Nash Mc, Iaboni A, Lenze Ej. Cause or Effect? Selective Serotonin Reuptake Inhibitors and Falls in Older Adults: A Systematic Review.Am J Geriatr Psychiatry. 2015 Oct;23(10):1016-28. doi: 10.1016/j.jagp.2014.11.004. Epub 2014 Nov 25.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
87	PUBMED	Physical activity and exercise for chronic pain in adults: an overview of Cochrane Reviews.	Geneen Lj, Moore Ra, Clarke C, Martin D, Colvin La, Smith Bh. Physical activity and exercise for chronic pain in adults: an overview of Cochrane Reviews.Cochrane Database Syst Rev. 2017 Apr 24;4(4):CD011279. doi: 10.1002/14651858.CD011279.pub3.	The intervention is not directly related to the outcome of the research question.
88	TRIP DATABASE	Registries for Evaluating Patient Outcomes: A User's Guide. 4th ed.	Gliklich Re, Leavy Mb, Dreyer Na. Registries for Evaluating Patient Outcomes: A User's Guide. 4th ed.Rockville, MD: Agency for Healthcare Research and Quality; September 2020. Posted final reports are located on the Effective Health Care Program search page. DOI: https://doi.org/10.23970/AHRQEPCREGISTRIES4.	The article is not a Systematic Review of literature.
89	PUBMED	Sankey diagrams can clarify 'evidence attrition': A systematic review and meta-analysis of the effectiveness of rapid diagnostic tests for antimicrobial resistance.	Glover Re, Al-Haboubi M, Petticrew Mp, Eastmure E, Peacock Sj, Mays N. Sankey diagrams can clarify 'evidence attrition': A systematic review and meta-analysis of the effectiveness of rapid diagnostic tests for antimicrobial resistance. J Clin Epidemiol. 2022 Apr;144:173-184. doi: 10.1016/j.jclinepi.2021.11.032. Epub 2021 Nov 26.	The target intervention is not a medicine.

www.pharmacypractice.org (eISSN: 1886-3655 ISSN: 1885-642X)

90	SCIELO	A new entity for the negotiation of public procurement prices for patented medicines in Mexico.	Gómez-Dantés O, Wirtz Vj, Reich Mr, Terrazas P, Ortiz M. A new entity for the negotiation of public procurement prices for patented medicines in Mexico.Bull World Health Organ. 2012 Oct 1;90(10):788-92. doi: 10.2471/BLT.12.106633. Epub 2012 Aug 22. PMID: 23109747; PMCID: PMC3471060.	The article is not a Systematic Review of literature.
91	SCIELO	Adherence to antiretroviral treatment: repercussion of number of daily doses	Gonzalo Rodríguez Torné; María Del Carmen Iranzu Aperte; María Antonia Berrocal Javato; Milagros Gómez-Serranillo Reus. Adherence to antiretroviral treatment: repercussion of number of daily dosesRev Cubana Farm v.43 n.1 Ciudad de la Habana ene.-abr. 2009 ID: S0034-75152009000100008-cub	The article is not available in full text in open access
92	PUBMED	Non-medical prescribing in the United Kingdom National Health Service: A systematic policy review.	Graham-Clarke E, Rushton A, Noblet T, Marriott J. Non-medical prescribing in the United Kingdom National Health Service: A systematic policy review. PLoS One. 2019 Jul 29;14(7):e0214630. doi: 10.1371/journal.pone.0214630. eCollection 2019.	The intervention is not directly related to the outcome of the research question.
93	PUBMED	Exercise versus no exercise for the occurrence, severity, and duration of acute respiratory infections.	Grande Aj, Keogh J, Silva V, Scott Am. Exercise versus no exercise for the occurrence, severity, and duration of acute respiratory infections. Cochrane Database Syst Rev. 2020 Apr 4;4(4):CD010596. doi: 10.1002/14651858.CD010596.pub3.	The target intervention is not a medicine.
94	SCIELO	Sustentabilidade da política de acesso a medicamentos anti-retrovirais no Brasil	Grangeiro, Alexandre ; Teixeira, Luciana ; Bastos, Francisco I. ; Teixeira, Paulo. Sustentabilidade da política de acesso a medicamentos anti-retrovirais no BrasilRev. Saúde Pública 40 (suppl) • Abr 2006 • https://doi.org/10.1590/S0034-89102006000800009 ID: S0034-89102006000800009-spa	The article is not a Systematic Review of literature.
95	EPISTEMONIKOS	Démarche pour la mise à niveau de soins pharmaceutiques en établissement de santé: l'exemple de l'immunisation [Approach to upgrading pharmaceutical care: the example of immunization].	Guérin A, Bédard P, Lebel D, Bussières Jf. Démarche pour la mise à niveau de soins pharmaceutiques en établissement de santé: l'exemple de l'immunisation [Approach to upgrading pharmaceutical care: the example of immunization]. Sante Publique. 2014 Nov-Dec;26(6):813-28. French. PMID: 25629676.	The article is not a Systematic Review of literature.
96	SCIELO	Brechas tecnológicas y de innovación entre países industrializados y países en desarrollo en la industria farmacéutica.	Guzmán, Alenka, Ludlow, Jorge, & Gómez, Hortensia. (2004). Brechas tecnológicas y de innovación entre países industrializados y países en desarrollo en la industria farmacéutica. Investigación económica, 63(248), 95-145. Recuperado en 10 de agosto de 2023, de http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-16672004000200095&lng=es&tlng=es.	The article is not a Systematic Review of literature.
97	SCIELO	Gasto, prescripción y consumo de analgésicos antes y durante la crisis económica	H. De Sola, A. Salazar, M. Dueñas, E. Gómez, A. Gómez E I. Failde. Gasto, prescripción y consumo de analgésicos antes y durante la crisis económicaRev Soc Esp Dolor 2018; 25(3): 155-162 DOI: 10.20986/resed.2017.3609/2017	The article is not a Systematic Review of literature.
98	PUBMED	Contribution of physician assistants/associates to secondary care: a systematic review.	Halter M, Wheeler C, Pelone F, Gage H, De Lusignan S, Parle J, Grant R, Gabe J, Nice L, Drennan Vm. Contribution of physician assistants/associates to secondary care: a systematic review.BMJ Open. 2018 Jun 19;8(6):e019573. doi: 10.1136/bmjopen-2017-019573.	The intervention is not directly related to the outcome of the research question.
99	SCIENCE DIRECT	The Lancet Global Health Commission on financing primary health care: putting people at the centre.	Hanson K, Brikci N, Erlangga D, Alebachew A, De Allegri M, Balabanova D, Blecher M, Cashin C, Esperato A, Hipgrave D, Kalisa I, Kurowski C, Meng Q, Morgan D, Mtei G, Nolte E, Onoka C, Powell-Jackson T, Roland M, Sadanandan R, Stenberg K, Vega Morales J, Wang H, Wurie H. The Lancet Global Health Commission on financing primary health care: putting people at the centre. Lancet Glob Health. 2022 May;10(5):e715-e772. doi: 10.1016/S2214-109X(22)00005-5. Epub 2022 Apr 4. Erratum in: Lancet Glob Health.2023 Apr;11(4):e504. PMID: 35390342; PMCID: PMC9005653.	The article is not a Systematic Review of literature.
100	SCIENCE DIRECT	The experiences of implementing generic medicine policy in eight countries: A review and recommendations for a successful promotion of generic medicine use.	Hassali Ma, Alrasheedy Aa, Mclachlan A, Nguyen Ta, Al-Tamimi Sk, Ibrahim Mi, Aljadhey H. The experiences of implementing generic medicine policy in eight countries: A review and recommendations for a successful promotion of generic medicine use. Saudi Pharm J. 2014 Dec;22(6):491-503. doi: 10.1016/j.jsps.2013.12.017. Epub 2013 Dec 25. PMID: 25561861; PMCID: PMC4281627.	The article is not a Systematic Review of literature.

101	COCHRANE	New generation antidepressants for depression in children and adolescents: a network meta-analysis (Review)	Hetrick Se, Mckenzie Je, Bailey Ap, Sharma V, Moller Ci, Badcock Pb, Cox Gr, Merry Sn, Meader N. New generation antidepressants for depression in children and adolescents: a network meta-analysis (Review)Cochrane Database of Systematic Reviews 2021, Issue 5. Art. No.: CD013674. DOI: 10.1002/14651858.CD013674.pub2.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
102	PUBMED	Incidence of iatrogenic opioid dependence or abuse in patients with pain who were exposed to opioid analgesic therapy: a systematic review and meta-analysis.	Higgins C, Smith Bh, Matthews K. Incidence of iatrogenic opioid dependence or abuse in patients with pain who were exposed to opioid analgesic therapy: a systematic review and meta-analysis.Br J Anaesth. 2018 Jun;120(6):1335-1344. doi: 10.1016/j.bja.2018.03.009. Epub 2018 Apr 21.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
103	PUBMED	Do hospital-based palliative teams improve care for patients or families at the end of life?	Higginson Ij, Finlay I, Goodwin Dm, Cook Am, Hood K, Edwards Ag, Douglas Hr, Norman Ce. Do hospital-based palliative teams improve care for patients or families at the end of life?J Pain Symptom Manage. 2002 Feb;23(2):96-106. doi: 10.1016/s0885-3924(01)00406-7.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
104	SCIELO	Conocimiento de la osteoporosis y su gasto farmacéutico generado en Atención Primaria en las Islas Canarias.	Higueras Linares T., Sosa Cabrera N., Blanco Blanco J., Fernández Palacio L.M., Sosa Henríquez M. Conocimiento de la osteoporosis y su gasto farmacéutico generado en Atención Primaria en las Islas Canarias.Rev Osteoporos Metab Miner [Internet]. 2014 dic [citado 2023 Ago 10] ; 6(4): 89-96. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1889-836X2014000400004&lng=es. https://dx.doi.org/10.4321/S1889-836X2014000400004.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
105	PUBMED	Women's access and provider practices for the case management of malaria during pregnancy: a systematic review and meta-analysis.	Hill J, D'Mello-Guyett L, Hoyt J, Van Eijk Am, Ter Kuile Fo, Webster J. Women's access and provider practices for the case management of malaria during pregnancy: a systematic review and meta-analysis. PLoS Med. 2014 Aug 5;11(8):e1001688. doi: 10.1371/journal.pmed.1001688. eCollection 2014 Aug.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
106	PUBMED	Does pharmacist-led medication review help to reduce hospital admissions and deaths in older people? A systematic review and meta-analysis.	Holland R, Desborough J, Goodyer L, Hall S, Wright D, Loke Yk. Does pharmacist-led medication review help to reduce hospital admissions and deaths in older people? A systematic review and meta-analysis. Br J Clin Pharmacol. 2008 Mar;65(3):303-16. doi: 10.1111/j.1365-2125.2007.03071.x. Epub 2007 Dec 17.	The target intervention is not a medicine.
107	PUBMED	Systematic review of the predictors of statin adherence for the primary prevention of cardiovascular disease.	Hope Hf, Binkley Gm, Fenton S, Kitas Gd, Verstappen Smm, Symmons Dpm. Systematic review of the predictors of statin adherence for the primary prevention of cardiovascular disease.PLoS One. 2019 Jan 17;14(1):e0201196. doi: 10.1371/journal.pone.0201196. eCollection 2019.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
108	COCHRANE	Pharmaceutical policies: effects of policies regulating drug marketing	Fulone I., Cadogan C., Barberato-Filho S., Cássia Bergamaschi C., Giustti Mazzei L., Lopes L. P., Tolentino Silva M. Lopes L. C. Pharmaceutical policies: effects of policies regulating drug marketingCochrane Database of Systematic Reviews 2020, Issue 11. Art. No.: CD013780. DOI: 10.1002/14651858.CD013780.	The article is not available in full text in open access
109	SCIELO	Impact of the Pharmaceutical Copayment Reform on the Use of Antidiabetics, Antithrombotics and Drugs for Chronic Airflow Obstructions. Spain	Jaume Puig-Junoysantiago Rodríguez-Feijóobeatriz González López-Valcárcelvanessa Gómez-Navarro. Impact of the Pharmaceutical Copayment Reform on the Use of Antidiabetics, Antithrombotics and Drugs for Chronic Airflow Obstructions. SpainRevista Española de Salud Pública 2016, Volumen 90 elocation e40009 ID: S1135-57272016000100409-esp	The article is not a Systematic Review of literature.
110	PUBMED	Impact of eHealth on medication adherence among patients with asthma: A systematic review and meta-analysis.	Jeminiwa R, Hohmann L, Qian J, Garza K, Hansen R, Fox Bi. Impact of eHealth on medication adherence among patients with asthma: A systematic review and meta-analysis.Respir Med. 2019 Mar;149:59-68. doi: 10.1016/j.rmed.2019.02.011. Epub 2019 Feb 15.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
111	PUBMED	The Role of Health Technologies in Multicomponent Primary Care Interventions: Systematic Review.	Jimenez G, Matchar D, Koh Chg, Van Der Kleij R, Chavannes Nh, Car J. The Role of Health Technologies in Multicomponent Primary Care Interventions: Systematic Review. J Med Internet Res. 2021 Jan 11;23(1):e20195. doi: 10.2196/20195.	The intervention is not directly related to the outcome of the research question.
112	SCIENCE DIRECT	Evidence-based decision-making in Asia-Pacific with rapidly changing health-care systems: Thailand, South Korea, and Taiwan.	Jirawattanapisal T, Kingkaew P, Lee Tj, Yang Mc. Evidence-based decision-making in Asia-Pacific with rapidly changing health-care systems: Thailand, South Korea, and Taiwan. Value Health. 2009 Nov-Dec;12 Suppl 3:S4-11. doi: 10.1111/j.1524-4733.2009.00620.x. PMID: 20586980.	The article is not a Systematic Review of literature.

113	SCIELO	Elasticidad de la demanda por medicamentos en el mercado farmacéutico privado en Colombia	Johanna Vásquez Velásquez, Karoll Gómez Portilla Elkin Castaño Vélez, José Vicente Cadavid Herrera, Andrés Ramírez Hassan. Elasticidad de la demanda por medicamentos en el mercado farmacéutico privado en ColombiaEcos de Economía Jun 2013, Volumen 17 Nº 36 Paginas 147 - 172 ID: S1657-42062013000100007-col	The article is not a Systematic Review of literature.
114	PUBMED	Survival of patients with chronic heart failure in the community: a systematic review and meta-analysis.	Jones Nr, Roalfe Ak, Adoki I, Hobbs Fdr, Taylor Cj. Survival of patients with chronic heart failure in the community: a systematic review and meta-analysis.Eur J Heart Fail. 2019 Nov;21(11):1306-1325. doi: 10.1002/ejhf.1594. Epub 2019 Sep 16.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
115	SCIELO	Consequences of the Increase of the Pharmaceutical Copayment in Spain: A New Material Deprivation. (Implicaciones del aumento del copago farmacéutico en España: una nueva privación material)	José Ángel Martínez-López, Gema Martínez-Gayo. Consequences of the Increase of the Pharmaceutical Copayment in Spain: A New Material Deprivation. (Implicaciones del aumento del copago farmacéutico en España: una nueva privación material)Convergencia Revista de Ciencias Sociales, núm. 81, 2019, Universidad Autónoma del Estado de México. e-ISSN 2448-5799, UAEM, núm.81, septiembre-diciembre 2019. https://doi.org/10.29101/crcs.v26i81.10327	The article is not a Systematic Review of literature.
116	SCIELO	Estado neoliberal e gastos públicos com drogas psicotrópicas no Chile contemporâneo	Juan Carlos Cea Madrid. Estado neoliberal e gastos públicos com drogas psicotrópicas no Chile contemporâneoPsicología, Conocimiento y Sociedad Nov 2018, Volumen 8 Nº 2 Paginas 39 - 52 DOI: 10.26864/pcs.v8.n2.4	The article is not a Systematic Review of literature.
117	EPISTEMONIKOS	Le burn-out des médecins généralistes en Belgique: conséquences sociétales et pistes de solution [Burnout of general practitioners in Belgium: societal consequences and paths to solutions].	Kacenelenbogen N, Offermans Am, Roland M. Le burn-out des médecins généralistes en Belgique: conséquences sociétales et pistes de solution [Burnout of general practitioners in Belgium: societal consequences and paths to solutions]. Rev Med Brux. 2011 Sep;32(4):413-23. French. PMID: 22034774.	The article is not available in full text in open access
118	PUBMED	Interventions for implementation of thromboprophylaxis in hospitalized patients at risk for venous thromboembolism.	Kahn Sr, Morrison Dr, Diendã©Rã© G, Pichã© A, Filion Kb, Klil-Drori Aj, Douketis Jd. Interventions for implementation of thromboprophylaxis in hospitalized patients at risk for venous thromboembolism.Cochrane Database Syst Rev. 2018 Apr 24;4(4):CD008201. doi: 10.1002/14651858.CD008201.pub3.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
119	COCHRANE	Third generation cephalosporins versus conventional antibiotics for treating acute bacterial meningitis	Prasad Kameshwar, Kumar Amit, Singhal Tarun, Gupta Praveen Kumar. Third generation cephalosporins versus conventional antibiotics for treating acute bacterial meningitisCochrane Database of Systematic Reviews 2007, Issue 4. Art. No.: CD001832. DOI: 10.1002/14651858.CD001832.pub3.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
120	SCIENCE DIRECT	Assessing pricing and reimbursement policies for generic pharmaceuticals in the MENA region for improved efficiency, affordability and generic penetration.	Kamphuis Bw, Kanavos P. Assessing pricing and reimbursement policies for generic pharmaceuticals in the MENA region for improved efficiency, affordability and generic penetration. Health Policy Open. 2021 Jun 24;2:100045. doi: 10.1016/j.hpopen.2021.100045. PMID: 37383505; PMCID: PMC10297517.	The article is not a Systematic Review of literature.
121	EPISTEMONIKOS	Análisis comparativo de los requisitos legislativos sobre el acceso de los pacientes a medicamentos biotecnológicos para enfermedades raras en países de Europa Central y Oriental.	Kamusheva M, Manova M, Savova At, Petrova Gi, Mitov K, Harsányi A, Kaló Z, Márky K, Kawalec P, Angelovska B, Lakić D, Tesar T, Draganic P, Geitona M, Hatzikou M, Paveliu Ms, Männik A. Análisis comparativo de los requisitos legislativos sobre el acceso de los pacientes a medicamentos biotecnológicos para enfermedades raras en países de Europa Central y Oriental. Frente Pharmacol. 2018 Julio 20;9:795. DOI: 10.3389/FPHAR.2018.00795. PMID: 30079023; PMCID: PMC6062647.	The article is not a Systematic Review of literature.
122	PUBMED	American Society for Enhanced Recovery and Perioperative Quality Initiative-4 Joint Consensus Statement on Persistent Postoperative Opioid Use: Definition, Incidence, Risk Factors, and Health Care System Initiatives.	Kent Ml, Hurley Rw, Oderda Gm, Gordon Db, Sun E, Mythen M, Miller Te, Shaw Ad, Gan Tj, Thacker Jkm, Mcevoy Md; Poqi-4 Working Group. American Society for Enhanced Recovery and Perioperative Quality Initiative-4 Joint Consensus Statement on Persistent Postoperative Opioid Use: Definition, Incidence, Risk Factors, and Health Care System Initiatives.Anesth Analg. 2019 Aug;129(2):543-552. doi: 10.1213/ANE.0000000000003941.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
123	PUBMED	Primary care professionals providing non-urgent care in hospital emergency departments.	Khangura Jk, Flodgren G, Perera R, Rowe Bh, Shepperd S. Primary care professionals providing non-urgent care in hospital emergency departments.Cochrane Database Syst Rev. 2012 Nov 14;11:CD002097. doi: 10.1002/14651858.CD002097.pub3.	The article does not set out the final results

124	PUBMED	Effect of social prescribing link workers on health outcomes and costs for adults in primary care and community settings: a systematic review.	Kiely B, Croke A, O'Shea M, Boland F, O'Shea E, Connolly D, Smith Sm. Effect of social prescribing link workers on health outcomes and costs for adults in primary care and community settings: a systematic review.BMJ Open. 2022 Oct 17;12(10):e062951. doi: 10.1136/bmjopen-2022-062951.	The target intervention is not a medicine.
125	EPISTEMONIKOS	Antidepressant treatment effects and country income: meta-regression analysis of individual participant data from duloxetine trials.	Klein T, Weinmann S, Becker T, Koesters M. Antidepressant treatment effects and country income: meta-regression analysis of individual participant data from duloxetine trials. Acta Psychiatr Scand. 2021 Sep;144(3):277-287. doi: 10.1111/acps.13337. Epub 2021 Jul 5. PMID: 34139020.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
126	PUBMED	Systematic review of behavioural interventions with culturally adapted strategies to improve diet and weight outcomes in African American women.	Kong A, Tussing-Humphreys Lm, Odoms-Young Am, Stolley Mr, Fitzgibbon Ml. Systematic review of behavioural interventions with culturally adapted strategies to improve diet and weight outcomes in African American women. Obes Rev. 2014 Oct;15 Suppl 4(0 4):62-92. doi: 10.1111/obr.12203.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
127	PUBMED	Association of Antisecretory Drugs with Upper Gastrointestinal Bleeding in Patients Using Oral Anticoagulants: A Systematic Review and Meta-Analysis.	Kurlander Je, Barnes Gd, Fisher A, Gonzalez Jj, Helminski D, Saini Sd, Sengupta N, Yang Yx, Scheiman J, Laine L. Association of Antisecretory Drugs with Upper Gastrointestinal Bleeding in Patients Using Oral Anticoagulants: A Systematic Review and Meta-Analysis.Am J Med. 2022 Oct;135(10):1231-1243.e8. doi: 10.1016/j.amjmed.2022.05.031. Epub 2022 Jun 7.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
128	PUBMED	Trials of Dual Antiplatelet Therapy After Percutaneous Coronary Intervention Lack Strategies to Ensure Appropriate Gastroprotection.	Kurlander Je, Barnes Gd, Sukul D, Helminski D, Kokaly An, Platt K, Gurm H, Saini Sd. Trials of Dual Antiplatelet Therapy After Percutaneous Coronary Intervention Lack Strategies to Ensure Appropriate Gastroprotection.Am J Gastroenterol. 2021 Apr;116(4):821-824. doi: 10.14309/ajg.0000000000001134.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
129	SCIELO	Antiretroviral manufacturers and the challenge of universal access to drugs through the Brazilian National STD/AIDS Program	Lago, Regina Ferro Do; Costa, Nilson Do Rosário. Antiretroviral manufacturers and the challenge of universal access to drugs through the Brazilian National STD/AIDS ProgramCad. Saúde Pública 25 (10) • Oct 2009 • https://doi.org/10.1590/S0102-311X2009001000017	The article is not a Systematic Review of literature.
130	COCHRANE	Interventions to improve the use of systematic reviews in decision-making by health system managers, policy makers and clinicians	Lakshmi Murthy , Sasha Shepperd, Mike J Clarke, Sarah E Garner, John N Lavis, Laure Perrier, Nia W Roberts, Sharon E Straus. Interventions to improve the use of systematic reviews in decision-making by health system managers, policy makers and cliniciansCochrane Database of Systematic Reviews 2012, Issue 9. Art. No.: CD009401. DOI: 10.1002/14651858.CD009401.pub2.	The article is not available in full text in open access
131	PUBMED	Risk of community-acquired pneumonia with outpatient proton-pump inhibitor therapy: a systematic review and meta-analysis.	Lambert Aa, Lam Jo, Paik Jj, Ugarte-Gil C, Drummond Mb, Crowell Ta. Risk of community-acquired pneumonia with outpatient proton-pump inhibitor therapy: a systematic review and meta-analysis. PLoS One. 2015 Jun 4;10(6):e0128004. doi: 10.1371/journal.pone.0128004. eCollection 2015.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
132	PUBMED	Effectiveness of ambulation to prevent venous thromboembolism in patients admitted to hospital: a systematic review.	Lau Bd, Murphy P, Nastasi Aj, Seal S, Kraus Ps, Hobson Db, Shaffer Dl, Holzmueller Cg, Aboagye Jk, Streiff Mb, Haut Er. Effectiveness of ambulation to prevent venous thromboembolism in patients admitted to hospital: a systematic review. CMAJ Open. 2020 Dec 8;8(4):E832-E843. doi: 10.9778/cmajo.20200003. Print 2020 Oct-Dec.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
133	PUBMED	Acupuncture for reduction of opioid consumption in chronic pain: A systematic review and meta-analysis protocol.	Lee S, Jo Dh. Acupuncture for reduction of opioid consumption in chronic pain: A systematic review and meta-analysis protocol. Medicine (Baltimore). 2019 Dec;98(51):e18237. doi: 10.1097/MD.0000000000018237.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
134	SCIELO	Effect of the economic recession on pharmaceutical policy and medicine sales in eight European countries.	Leopold C, Mantel-Teeuwisse Ak, Vogler S, Valkova S, De Joncheere K, Leufkens Hg, Wagner Ak, Ross-Degnan D, Laing R. Effect of the economic recession on pharmaceutical policy and medicine sales in eight European countries. Bull World Health Organ. 2014 Sep 1;92(9):630-640D. doi: 10.2471/BLT.13.129114. Epub 2014 Jun 16. PMID: 25378754; PMCID: PMC4208566.	The article is not a Systematic Review of literature.
135	EPISTEMONIKOS	The impact of disease stage on direct medical costs of HIV management: a review of the international literature.	Levy A, Johnston K, Annemans L, Tramarin A, Montaner J. The impact of disease stage on direct medical costs of HIV management: a review of the international literature. Pharmacoeconomics. 2010;28 Suppl 1:35-47. doi: 10.2165/11587430-000000000-00000. PMID: 21182342.	The article is not available in full text in open access

www.pharmacypractice.org (eISSN: 1886-3655 ISSN: 1885-642X)

136	PUBMED	Performance of the Access Bio/ CareStart rapid diagnostic test for the detection of glucose-6-phosphate dehydrogenase deficiency: AÂ systematic review and meta-analysis.	Ley B, Winasti Satyagraha A, Rahmat H, Von Fricken Me, Douglas Nm, Pfeffer Da, Espino F, Von Seidlein L, Henriques G, Oo Nn, Menard D, Parikh S, Bancone G, Karahalios A, Price Rn. Performance of the Access Bio/CareStart rapid diagnostic test for the detection of glucose-6-phosphate dehydrogenase deficiency: AÂ systematic review and meta-analysis.PLoS Med. 2019 Dec 13;16(12):e1002992. doi: 10.1371/journal.pmed.1002992. eCollection 2019 Dec.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
137	COCHRANE	Elective versus symptomatic intravenous antibiotic therapy for cystic fibrosis	Breen Lil, Aswani Nivedita. Elective versus symptomatic intravenous antibiotic therapy for cystic fibrosisCochrane Database of Systematic Reviews 2012, Issue 7. Art. No.: CD002767. DOI: 10.1002/14651858.CD002767.pub2.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
138	PUBMED	Effectiveness of Hospital Pharmacist Interventions for COPD Patients: A Systematic Literature Review and Logic Model.	Lin G, Zheng J, Tang Pk, Zheng Y, Hu H, Ung Col. Effectiveness of Hospital Pharmacist Interventions for COPD Patients: A Systematic Literature Review and Logic Model.Int J Chron Obstruct Pulmon Dis. 2022 Oct 25;17:2757-2788. doi: 10.2147/COPD.S383914. eCollection 2022.	The intervention is not directly related to the outcome of the research question.
139	SCIENCE DIRECT	The affordability of lecanemab, an amyloid-targeting therapy for Alzheimer's disease: an EADC-EC viewpoint	Linus Jönsson, Anders Wimo A, Ron Handels , Gunilla Johansson , Mercè Boada, Sebastiaan Engelborghs, Lutz Frölich, Frank Jessen, Patrick Gavin Kehoe, Milica Kramberger, Alexandre De Mendonça, Pierre Jean Ousset, Nikolaos Scarmeas, Pieter Jelle Visser, Gunhild Waldemar, Bengt Winblad. The affordability of lecanemab, an amyloid-targeting therapy for Alzheimer's disease: an EADC-EC viewpointThe Lancet Regional Health - Europe Volume 29, June 2023, 100657 https://doi.org/10.1016/j.lanepe.2023.100657	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
140	PUBMED	Factors Associated with Potentially Harmful Medication Prescribing in Nursing Homes: A Scoping Review.	Lipori Jp, Tu E, Shireman Ti, Gerlach L, Coe Ab, Ryskina Kl. Factors Associated with Potentially Harmful Medication Prescribing in Nursing Homes: A Scoping Review.J Am Med Dir Assoc. 2022 Sep;23(9):1589.e1-1589.e10. doi: 10.1016/j.jamda.2022.06.008. Epub 2022 Jul 20.	The article is not a Systematic Review of literature.
141	PUBMED	Promoting Healthy Food Access and Nutrition in Primary Care: A Systematic Scoping Review of Food Prescription Programs.	Little M, Rosa E, Heasley C, Asif A, Dodd W, Richter A. Promoting Healthy Food Access and Nutrition in Primary Care: A Systematic Scoping Review of Food Prescription Programs. Am J Health Promot. 2022 Mar;36(3):518-536. doi: 10.1177/08901171211056584. Epub 2021 Dec 10.	The target intervention is not a medicine.
142	PUBMED	Drugs and herbs given to prevent hepatotoxicity of tuberculosis therapy: systematic review of ingredients and evaluation studies.	Liu Q, Garner P, Wang Y, Huang B, Smith H. Drugs and herbs given to prevent hepatotoxicity of tuberculosis therapy: systematic review of ingredients and evaluation studies.BMC Public Health. 2008 Oct 21;8:365. doi: 10.1186/1471-2458-8-365.	The intervention is not directly related to the outcome of the research question.
143	PUBMED	A Systematic Review of Interventions to Change Staff Care Practices in Order to Improve Resident Outcomes in Nursing Homes.	Low Lf, Fletcher J, Goodenough B, Jeon Yh, Etherton-Beer C, Macandrew M, Beattie E. A Systematic Review of Interventions to Change Staff Care Practices in Order to Improve Resident Outcomes in Nursing Homes.PLoS One. 2015 Nov 11;10(11):e0140711. doi: 10.1371/journal.pone.0140711. eCollection 2015.	The target intervention is not a medicine.
144	CRD	Cost-effectiveness of various antibacterial therapies in hospitalised patients with lower respiratory tract infections	Lucioni C, Ravasio R, Concia E. Cost-effectiveness of various antibacterial therapies in hospitalised patients with lower respiratory tract infectionsPharmacoeconomics - Italian Research Articles 2001; 3(1): 37-47	The article is not a Systematic Review of literature.
145	SCIELO	Uso de antihipertensivos en Cantabria (1995-2002): el desfase con las evidencias	Luis Vara; Ana Sangrador; Pedro Muñoz; Saturnino Sanz. Uso de antihipertensivos en Cantabria (1995-2002): el desfase con las evidenciasGaceta Sanitaria Oct 2004, Volumen 18 Nº 5 Paginas 406 - 408 ID: S0213-91112004000500011-spa+	The article is not a Systematic Review of literature.
146	PUBMED	Effect of evidence-based therapy for secondary prevention of cardiovascular disease: Systematic review and meta-analysis.	Ma Tt, Wong Ick, Man Kkc, Chen Y, Crake T, Ozkor Ma, Ding Lq, Wang Zx, Zhang L, Wei L. Effect of evidence-based therapy for secondary prevention of cardiovascular disease: Systematic review and meta-analysis. PLoS One. 2019 Jan 18;14(1):e0210988. doi: 10.1371/journal.pone.0210988. eCollection 2019.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.

147	SCIELO	Aplicação de recursos financeiros para aquisição de medicamentos para atenção básica em municípios brasileiros	Marcela Amaral Pontesnoemia Uruth Leão Tavarespriscila Maria Stolses Bergamo Franciscojaneth De Oliveira Silva Naves. Aplicação de recursos financeiros para aquisição de medicamentos para atenção básica em municípios brasileirosCiência & Saúde Coletiva Ago 2017, Volumen 22 Nº 8 Paginas 2453 - 2462 DOI: 10.1590/1413-81232017228.18282016	The article is not a Systematic Review of literature.
148	EPISTEMONIKOS	Objective medication adherence and persistence in people with multiple sclerosis: a systematic review, meta-analysis, and meta-regression.	Mardan J, Hussain Ma, Allan M, Grech Lb. Objective medication adherence and persistence in people with multiple sclerosis: a systematic review, meta-analysis, and meta-regression.J Manag Care Spec Pharm. 2021 Sep;27(9):1273-1295. doi: 10.18553/jmcp.2021.27.9.1273. PMID: 34464209; PMCID: PMC10391062.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
149	SCIELO	Perfil farmacoterapêutico dos usuários e gasto com medicamentos de alto custo em São Leopoldo, Rio Grande do Sul, Brasil, 2014	Mariani Sopelsa ,Fabiane Raquel Motter, Nêmora Tregnago Barcellos, Heloísa Marquardt Leite, Vera Maria Vieira Paniz. Perfil farmacoterapêutico dos usuários e gasto com medicamentos de alto custo em São Leopoldo, Rio Grande do Sul, Brasil, 2014Epidemiologia e Serviços de Saúde Dic 2017, Volumen 26 Nº 4 Paginas 759 - 770 DOI: 10.5123/s1679-49742017000400008	The article is not a Systematic Review of literature.
150	PUBMED	Interventions for treating patients with chikungunya virus infection-related rheumatic and musculoskeletal disorders: A systematic review.	Martã-Carvajal A, Ramon-Pardo P, Javelle E, Simon F, Aldighieri S, Horvath H, Rodriguez-Abreu J, Reveiz L. Interventions for treating patients with chikungunya virus infection-related rheumatic and musculoskeletal disorders: A systematic review. PLoS One. 2017 Jun 13;12(6):e0179028. doi: 10.1371/journal.pone.0179028. eCollection 2017.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
151	PUBMED	Measures of Facilitator Competent Adherence Used in Parenting Programs and Their Psychometric Properties: A Systematic Review.	Martin M, Steele B, Lachman Jm, Gardner F. Measures of Facilitator Competent Adherence Used in Parenting Programs and Their Psychometric Properties: A Systematic Review.Clin Child Fam Psychol Rev. 2021 Dec;24(4):834-853. doi: 10.1007/s10567-021-00350-8. Epub 2021 May 21.	The target intervention is not a medicine.
152	SCIELO	Factores influyentes en la calidad de la prescripción en atención primaria y relación con el gasto farmacéutico.	Martínez-Gorostiaga J, Echevarría-Orella E, Calvo-Hernáez B. Factores influyentes en la calidad de la prescripción en atención primaria y relación con el gasto farmacéutico. Rev. Esp. Salud Publica [Internet]. 2019 [citado 2023 Ago 12] ; 93: e201908054. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57272019000100052&lng=es. Epub 07-Sep-2020.	The article is not a Systematic Review of literature.
153	PUBMED	What proportion of patients with chronic noncancer pain are prescribed an opioid medicine? Systematic review and meta-regression of observational studies.	Mathieson S, Wertheimer G, Maher Cg, Christine Lin Cw, Mclachlan Aj, Buchbinder R, Pearson Sa, Underwood M. What proportion of patients with chronic noncancer pain are prescribed an opioid medicine? Systematic review and meta-regression of observational studies.J Intern Med. 2020 May;287(5):458-474. doi: 10.1111/joim.13026. Epub 2020 Feb 25.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
154	TRIP DATABASE	Medicines for Dementia due to Alzheimer's and Parkinson's Disease	Mattli R., Tomonaga Y., Tzogiou C, Vinci L., Sharakin M., Wirth B., Carlander Mj., Schliek M., Egli Ph., Gerber-Grote A., Nordström K., Wieser S. Medicines for Dementia due to Alzheimer's and Parkinson's DiseaseFederal Office of Public Health FOPH Health and Accident Insurance Directorate Section Health Technology Assessment	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
155	COCHRANE	Tobacco packaging design for reducing tobacco use (Review)	Mcneill A, Gravely S, Hitchman Sc, Bauld L, Hammond D, Hartmann-Boyce J. Tobacco packaging design for reducing tobacco use (Review)Cochrane Database of Systematic Reviews 2017, Issue 4. Art. No.: CD011244. DOI: 10.1002/14651858.CD011244.pub2.	The intervention is not directly related to the outcome of the research question.
156	PUBMED	Access to hypertension care and services in primary health-care settings in Vietnam: a systematic narrative review of existing literature.	Meiqari L, Nguyen Tp, Essink D, Zweekhorst M, Wright P, Scheele F. Access to hypertension care and services in primary health-care settings in Vietnam: a systematic narrative review of existing literature. Glob Health Action. 2019;12(1):1610253. doi: 10.1080/16549716.2019.1610253.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
157	PUBMED	Secondary use of data from hospital electronic prescribing and pharmacy systems to support the quality and safety of antimicrobial use: a systematic review.	Micallef C, Chaudhry Nt, Holmes Ah, Hopkins S, Benn J, Franklin Bd. Secondary use of data from hospital electronic prescribing and pharmacy systems to support the quality and safety of antimicrobial use: a systematic review.J Antimicrob Chemother. 2017 Jul 1;72(7):1880-1885. doi: 10.1093/jac/dkx082.	The intervention is not directly related to the outcome of the research question.

158	PUBMED	Clinical inertia in the pharmacological management of hypertension: A systematic review and meta-analysis.	Milman T, Joundi Ra, Alotaibi Nm, Saposnik G. Clinical inertia in the pharmacological management of hypertension: A systematic review and meta-analysis. Medicine (Baltimore). 2018 Jun;97(25):e11121. doi: 10.1097/MD.0000000000011121.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
159	PUBMED	A Systematic Review of Interventions and Programs Targeting Appropriate Prescribing of Opioids.	Moride Y, Lemieux-Uresandi D, Castillon G, De Moura Cs, Pilote L, Faure M, Bernartsky S. A Systematic Review of Interventions and Programs Targeting Appropriate Prescribing of Opioids.Pain Physician. 2019 May;22(3):229-240. PMID: 31151331	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
160	PUBMED	What Makes Deprescription of Psychotropic Drugs in Nursing Home Residents with Dementia so Challenging? A Qualitative Systematic Review of Barriers and Facilitators.	Moth, A. E., Hølmkjær, P., Holm, A., Rozing, M. P., & Overbeck, G. What Makes Deprescription of Psychotropic Drugs in Nursing Home Residents with Dementia so Challenging? A Qualitative Systematic Review of Barriers and Facilitators. Drugs Aging. 2021 Aug;38(8):671-685. doi: 10.1007/s40266-021-00875-1. Epub 2021 Jul 7.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
161	SCIELO	Conjugated linoleic acid and weight loss	Mourão, Denise Machado ; Monteiro, Josefina Bressan Resende ; Stringheta, Paulo César ; Minim, Valéria Paula Rodrigues ; Dias, Cristina Maria Ganns Chaves. Conjugated linoleic acid and weight lossRev. Nutr. 18 (3) • Jun 2005 • https://doi.org/10.1590/S1415-52732005000300011	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
162	PUBMED	Mapping evidence of the concomitant management of schistosomiasis by traditional health practitioners and health care professionals in communities with high prevalent infections: a systematic scoping review protocol.	Mushebenge Ga, Mashamba-Thompson T, Nlooto M. Mapping evidence of the concomitant management of schistosomiasis by traditional health practitioners and health care professionals in communities with high prevalent infections: a systematic scoping review protocol. Syst Rev. 2019 Jul 18;8(1):175. doi: 10.1186/s13643-019-1088-3.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
163	LILACS	Medicaid prior authorization and controlled-release oxycodone	Nancy E Morden , Judy T Zerzan, Tessa C Rue, Patrick J Heagerty, Elizabeth E Roughead, Stephen B Soumerai, Dennis Ross-Degnan, Sean D Sullivan. Medicaid prior authorization and controlled-release oxycodoneMed Care. 2008;46(6):573-580. doi:10.1097/MLR.0b013e31816493fb	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
164	EPISTEMONIKOS	We have had a gutful: The need for deprescribing proton pump inhibitors. J	Naunton M, Peterson Gm, Deeks Ls, Young H, Kosari S. We have had a gutful: The need for deprescribing proton pump inhibitors. J Clin Pharm Ther. 2018 Feb;43(1):65-72. doi: 10.1111/jcpt.12613. Epub 2017 Sep 11. PMID: 28895169. DOI: 10.1111/jcpt.12613	The article is not available in full text in open access
165	PUBMED	High prevalence of antibiotic resistance in commensal Escherichia coli from healthy human sources in community settings.	Nji E, Kazibwe J, Hambridge T, Joko Ca, Larbi Aa, Damptey Lao, Nkansa-Gyamfi Na, Stalsby Lundborg C, Lien Tq. High prevalence of antibiotic resistance in commensal Escherichia coli from healthy human sources in community settings.Sci Rep. 2021 Feb 9;11(1):3372. doi: 10.1038/s41598-021-82693-4.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
166	PUBMED	Barriers to and facilitators of independent non-medical prescribing in clinical practice: a mixed-methods systematic review.	Noblet T, Marriott J, Graham-Clarke E, Rushton A. Barriers to and facilitators of independent non-medical prescribing in clinical practice: a mixed-methods systematic review. J Physiother. 2017 Oct;63(4):221-234. doi: 10.1016/j.jphys.2017.09.001. Epub 2017 Oct 3.	The intervention is not directly related to the outcome of the research question.
167	SCIELO	O pacto pela saúde e o fundo municipal de saúde de Várzea Paulista	Nogueira Tofani, Luís Fernando ; Cabral Carpintéro, Maria Do Carmo ; Bruno, Vera Regina. O pacto pela saúde e o fundo municipal de saúde de Várzea PaulistaTrabalhos Premiados • Saude soc. 18 (suppl 1) • Mar 2009 • https://doi.org/10.1590/S0104-12902009000500004	The article is not a Systematic Review of literature.
168	PUBMED	Antimicrobial resistance from a One Health perspective in Zambia: a systematic review.	Nowbuth Aa, Asombang Aw, Tazinkeng Nn, Makinde Oy, Sheets Lr. Antimicrobial resistance from a One Health perspective in Zambia: a systematic review. Antimicrob Resist Infect Control. 2023 Mar 3;12(1):15. doi: 10.1186/s13756-023-01224-0.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
169	COCHRANE	Dual combination therapy versus long-acting bronchodilators alone for chronic obstructive pulmonary disease (COPD): a systematic review and network meta-analysis (Review)	Oba Y, Keeney E, Ghatehorde N, Dias S. Dual combination therapy versus long-acting bronchodilators alone for chronic obstructive pulmonary disease (COPD): a systematic review and network meta-analysis (Review)Cochrane Database of Systematic Reviews 2018, Issue 12. Art. No.: CD012620. DOI: 10.1002/14651858.CD012620.pub2.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.

170	PUBMED	Pediatric growth hormone treatment in Italy: A systematic review of epidemiology, quality of life, treatment adherence, and economic impact.	Orso M, Polistena B, Granato S, Novelli G, Di Virgilio R, La Torre D, D'Angela D, Spandonaro F. Pediatric growth hormone treatment in Italy: A systematic review of epidemiology, quality of life, treatment adherence, and economic impact. PLoS One. 2022 Feb 25;17(2):e0264403. doi: 10.1371/journal.pone.0264403. eCollection 2022.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
171	PUBMED	Is There Any Role for Opioids in the Management of Knee and Hip Osteoarthritis? A Systematic Review and Meta-Analysis.	Osani Mc, Lohmander Ls, Bannuru Rr. Is There Any Role for Opioids in the Management of Knee and Hip Osteoarthritis? A Systematic Review and Meta-Analysis. Arthritis Care Res (Hoboken). 2021 oct;73(10):1413-1424. doi: 10.1002/acr.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
172	PUBMED	Non-pharmacological care for opioid withdrawal in newborns.	Pahl A, Young L, Buus-Frank Me, Marcellus L, Soll R. Non-pharmacological care for opioid withdrawal in newborns. Cochrane Database Syst Rev. 2020 Dec 21;12(12):CD013217. doi: 10.1002/14651858.CD013217.pub2.	The target intervention is not a medicine.
173	PUBMED	How safe is primary care? A systematic review.	Panesar Ss, Desilva D, Carson-Stevens A, Cresswell Km, Salvilla Sa, Slight Sp, Javad S, Netuveli G, Larizgoitia I, Donaldson Lj, Bates Dw, Sheikh A. How safe is primary care? A systematic review.BMJ Qual Saf. 2016 Jul;25(7):544-53. doi: 10.1136/bmjqs-2015-004178. Epub 2015 Dec 29.	The intervention is not directly related to the outcome of the research question.
174	PUBMED	Efficacy of ibuprofen in musculoskeletal post-traumatic pain in children: A systematic review.	Parri N, Lazzeri S. Efficacy of ibuprofen in musculoskeletal post-traumatic pain in children: A systematic review. PLoS One. 2020 Dec 3;15(12):e0243314. doi: 10.1371/journal.pone.0243314. eCollection 2020.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
175	EPISTEMONIKOS	Demographic and clinical predictors of mortality from highly pathogenic avian influenza A (H5N1) virus infection: CART analysis of international cases.	Patel Rb, Mathur Mb, Gould M, Uyeki Tm, Bhattacharya J, Xiao Y, Khazeni N. Demographic and clinical predictors of mortality from highly pathogenic avian influenza A (H5N1) virus infection: CART analysis of international cases. PLoS One. 2014 Mar 25;9(3):e91630. doi: 10.1371/journal.pone.0091630. PMID: 24667532; PMCID: PMC3965392.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
176	SCIELO	Pharmaceutical lobbying in Brazil: a missing topic in the public health research agenda.	Paumgartten Fj. Pharmaceutical lobbying in Brazil: a missing topic in the public health research agenda. Rev Saude Publica. 2016 Dec 22;50:70. doi: 10.1590/S1518-8787.2016050006508. PMID: 28099661; PMCID: PMC5152825.	The article is not a Systematic Review of literature.
177	PUBMED	Unconditional cash transfers for reducing poverty and vulnerabilities: effect on use of health services and health outcomes in low- and middle-income countries.	Pega F, Liu Sy, Walter S, Pabayo R, Saith R, Lhachimi Sk. Unconditional cash transfers for reducing poverty and vulnerabilities: effect on use of health services and health outcomes in low- and middle-income countries. Cochrane Database Syst Rev. 2017 Nov 15;11(11):CD011135. doi: 10.1002/14651858.CD011135.pub2.	The intervention is not directly related to the outcome of the research question.
178	EPISTEMONIKOS	Systematic Review of the Economic Evaluations of Belimumab in Systemic Lupus Erythematosus.	Petrou P. A. Systematic Review of the Economic Evaluations of Belimumab in Systemic Lupus Erythematosus. Value Health Reg Issues. 2022 Jan-Feb;27:32-40. doi: 10.1016/j.vhri.2021.06.007. Epub 2021 Nov 14. PMID: 34784546.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
179	PUBMED	Mobile tablet-based therapies following stroke: A systematic scoping review of administrative methods and patient experiences.	Pugliese M, Ramsay T, Johnson D, Dowlatshahi D. Mobile tablet-based therapies following stroke: A systematic scoping review of administrative methods and patient experiences. PLoS One. 2018 Jan 23;13(1):e0191566. doi: 10.1371/journal.pone.0191566. eCollection 2018.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
180	PUBMED	Understanding the barriers and enablers of pharmacogenomic testing in primary care: a qualitative systematic review with meta-aggregation synthesis.	Qureshi S, Latif A, Condon L, Akyea Rk, Kai J, Qureshi N. Understanding the barriers and enablers of pharmacogenomic testing in primary care: a qualitative systematic review with meta-aggregation synthesis. Pharmacogenomics. 2022 Jan;23(2):135-154. doi: 10.2217/pgs-2021-0131. Epub 2021 Dec 16.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
181	SCIELO	Cost considerations in determining the affordability of adjuvant trastuzumab in breast cancer	R P Abratt. Cost considerations in determining the affordability of adjuvant trastuzumab in breast cancerSAMJ: South African Medical Journal Oct 2016, Volumen 106 Nº 10 Paginas 981 - 982 DOI: 10.7196/samj.2016.v106i10.11141	The article is not a Systematic Review of literature.

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182	PUBMED	Physicians' experiences, attitudes, and beliefs towards medical cannabis: a systematic literature review.	Rã¸Nne St, Rosenbã¦K F, Pedersen Lb, Waldorff Fb, Nielsen Jb, Riisgaard H, Sã¸Ndergaard J. Physicians' experiences, attitudes, and beliefs towards medical cannabis: a systematic literature review. BMC Fam Pract. 2021 Oct 21;22(1):212. doi: 10.1186/s12875-021-01559-w.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
183	PUBMED	Systematic review of infant and young child feeding practices in conflict areas: what the evidence advocates.	Rabbani A, Padhani Za, A Siddiqui F, Das Jk, Bhutta Z. Systematic review of infant and young child feeding practices in conflict areas: what the evidence advocates. BMJ Open. 2020 Sep 13;10(9):e036757. doi: 10.1136/bmjopen-2020-036757.	The target intervention is not a medicine.
184	SCIELO	Efficiency of a pharmaceutical care program for long-acting parenteral antipsychotics in the health area of Santiago de Compostela	Raquel Vázquez-Mourelle, Carmen Durán Parrondo, Estrella López-Pardo Pardo Y Eduardo Carracedo-Martínez. Efficiency of a pharmaceutical care program for long-acting parenteral antipsychotics in the health area of Santiago de CompostelaGaceta Sanitaria Feb 2016, Volumen 30 Nº 1 Paginas 73 - 76 DOI: 10.1016/j.gaceta.2015.09.006	The article is not a Systematic Review of literature.
185	PUBMED	Physicians' views of patient-planetary health co-benefit prescribing: a mixed methods systematic review.	Redvers N, Wright K, Hartmann-Boyce J, Tonkin-Crine S. Physicians' views of patient-planetary health co-benefit prescribing: a mixed methods systematic review.Lancet Planet Health. 2023 May;7(5):e407-e417. doi: 10.1016/S2542-5196(23)00050-5.	The intervention is not directly related to the outcome of the research question.
186	SCIELO	A oferta pública de medicamentos para aids e o papel de Farmanguinhos	Regina Ferro Do Lagoana Cristina Augusto De Sousa. A oferta pública de medicamentos para aids e o papel de FarmanguinhosTEMA LIVRE • Physis 32 (2) 06 Jul 20222022 • https://doi.org/10.1590/S0103-73312022320210	The article is not a Systematic Review of literature.
187	PUBMED	Interventions with pregnant women, new mothers and other primary caregivers for preventing early childhood caries.	Riggs E, Kilpatrick N, Slack-Smith L, Chadwick B, Yelland J, Muthu Ms, Gomersall Jc. Interventions with pregnant women, new mothers and other primary caregivers for preventing early childhood caries.Cochrane Database Syst Rev. 2019 Nov 20;2019(11):CD012155. doi: 10.1002/14651858.CD012155.pub2.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
188	TRIP DATABASE	Tools and Technologies for Registry Interoperability, Registries for Evaluating Patient Outcomes: A User's Guide, 3rd Edition, Addendum 2.	Richard E. Gliklich, Michelle B. Leavy, Nancy A. Dreyer. Tools and Technologies for Registry Interoperability, Registries for Evaluating Patient Outcomes: A User's Guide, 3rd Edition, Addendum 2.Rockville, MD: Agency for Healthcare Research and Quality; October 2019. Posted final reports are located on the Effective Health Care Program search page. DOI: https://doi.org/10.23970/AHRQEPCREGISTRIES3ADDENDUM2.	The article is not a Systematic Review of literature.
189	PUBMED	Strategies for optimising antenatal corticosteroid administration for women with anticipated preterm birth.	Rohwer Ac, Oladapo Ot, Hofmeyr Gj. Strategies for optimising antenatal corticosteroid administration for women with anticipated preterm birth.Cochrane Database Syst Rev. 2020 May 26;5(5):CD013633. doi: 10.1002/14651858.CD013633.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
190	PUBMED	Radical radiotherapy for stage I/II non-small cell lung cancer in patients not sufficiently fit for or declining surgery (medically inoperable): a systematic review.	Rowell Np, Williams Cj. Radical radiotherapy for stage I/II non-small cell lung cancer in patients not sufficiently fit for or declining surgery (medically inoperable): a systematic review. Thorax. 2001 Aug;56(8):628-38. doi: 10.1136/thorax.56.8.628.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
191	PUBMED	The effects of exercise referral schemes in the United Kingdom in those with cardiovascular, mental health, and musculoskeletal disorders: a preliminary systematic review.	Rowley N, Mann S, Steele J, Horton E, Jimenez A. The effects of exercise referral schemes in the United Kingdom in those with cardiovascular, mental health, and musculoskeletal disorders: a preliminary systematic review.BMC Public Health. 2018 Aug 2;18(1):949. doi: 10.1186/s12889-018-5868-9.	The target intervention is not a medicine.
192	SCIELO	Análisis poblacional por áreas de salud de las variaciones en consumo, precio y gasto de medicamentos cardiovasculares en 8 comunidades autónomas, España, 2005.	Sanfélix-Gimeno G., Peiró S., Librero J., Ausejo-Segura M., Suárez-Alemán C., Molina-López T., Celaya, MA, Castaño-Riera, E. Análisis poblacional por áreas de salud de las variaciones en consumo, precio y gasto de medicamentos cardiovasculares en 8 comunidades autónomas, España, 2005. Rev. Esp. Salud Publica [Internet]. 2010 Ago [citado 2023 Ago 10] ; 84(4): 389-407. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1135-57272010000400004&lng=es.	The article is not a Systematic Review of literature.

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193	SCIELO	Evaluación de un modelo de predicción del gasto farmacéutico en atención primaria de salud basado en variables demográficas	Santamargarita-Pérez, Sonia ; Sancho-Mestre, Carla ; Vivas-Consuelo, David ; Usó-Talamantes, Ruth. Evaluación de un modelo de predicción del gasto farmacéutico en atención primaria de salud basado en variables demográficasRevista Gerencia y Políticas de Salud Dic 2013, Volumen 12 Nº 25 Paginas 55 - 65 ID: S1657-70272013000200005-col	The article is not a Systematic Review of literature.
194	PUBMED	Occupational therapy for persons with cognitive impairments.	Schnell-Inderst P, Conrads-Frank A, Stojkov I, Krenn C, Kofler Lm, Siebert U. Occupational therapy for persons with cognitive impairments. Ger Med Sci. 2023 Apr 4;21:Doc02. doi: 10.3205/000316. eCollection 2023.	The intervention is not directly related to the outcome of the research question.
195	PUBMED	Pharmacotherapy interventions for adolescent co-occurring substance use and mental health disorders: a systematic review.	Scott K, Becker Sj, Helseth Sa, Saldanha Ij, Balk Em, Adam Gp, Konnyu Kj, Steele Dw. Pharmacotherapy interventions for adolescent co-occurring substance use and mental health disorders: a systematic review. Fam Pract. 2022 Mar 24;39(2):301-310. doi: 10.1093/fampra/cmab096.	The intervention is not directly related to the outcome of the research question.
196	PUBMED	Systematic review of studies of quality of clinical care in general practice in the UK, Australia and New Zealand.	Seddon Me, Marshall Mn, Campbell Sm, Roland Mo. Systematic review of studies of quality of clinical care in general practice in the UK, Australia and New Zealand. Qual Health Care. 2001 Sep;10(3):152-8. doi: 10.1136/qhc.0100152...	The intervention is not directly related to the outcome of the research question.
197	SCIELO	Gasto farmacéutico de médicos de atención primaria del área de salud de Cuenca.	Segura Benito María Jesús, Moya Martínez Pablo, Escribano Sotos Francisco. Gasto farmacéutico de médicos de atención primaria del área de salud de Cuenca. Gac Sanit [Internet]. 2010 Sep [citado 2023 Ago 10] ; 24(5): 391-396. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112010000500006&lng=es.	The article is not a Systematic Review of literature.
198	SCIELO	Pharmaceutical expenditure among primary care physicians in the health area of Cuenca (Spain). Response	Segura Benito, M. Jesús ; Moya Martínez, Pablo ; Escribano Sotos, Francisco. Pharmaceutical expenditure among primary care physicians in the health area of Cuenca (Spain). ResponseGac Sanit vol.26 no.4 Barcelona jul./ago. 2012 https://dx.doi.org/10.1016/j.gaceta.2011.10.018	The article is not a Systematic Review of literature.
199	PUBMED	The Relationship Between Opioid Use and Healthcare Utilization in Patients with Inflammatory Bowel Disease: A Systematic Review and Meta-Analysis.	Sheehan Jl, Jacob J, Berinstein Em, Greene-Higgs L, Steiner Ca, Berry Sk, Shannon C, Cohen-Mekelburg Sa, Higgins Pdr, Berinstein Ja. The Relationship Between Opioid Use and Healthcare Utilization in Patients with Inflammatory Bowel Disease: A Systematic Review and Meta-Analysis. Inflamm Bowel Dis. 2022 Dec 1;28(12):1904-1914. doi: 10.1093/ibd/izac021.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
200	SCIELO	Costs of Public Pharmaceutical Services in Rio de Janeiro Compared to Farmácia Popular Program.	Silva Rm, Caetano R. Costs of Public Pharmaceutical Services in Rio de Janeiro Compared to Farmácia Popular Program. Rev Saude Publica. 2016 Dec 22;50:74. doi: 10.1590/S1518-8787.2016050006605. PMID: 28099664; PMCID: PMC5152800.	The article is not a Systematic Review of literature.
201	SCIELO	Gastos da Secretaria Municipal de Saúde do Rio de Janeiro, Brasil, com medicamentos: uma análise do período 2002-2011 [Expenditures on medicines by the Rio de Janeiro Municipal Health Department, Brazil, 2002-2011].	Silva Rm, Caetano R. Gastos da Secretaria Municipal de Saúde do Rio de Janeiro, Brasil, com medicamentos: uma análise do período 2002-2011 [Expenditures on medicines by the Rio de Janeiro Municipal Health Department, Brazil, 2002-2011]. Cad Saude Publica. 2014 jun;30(6):1207-18. Portuguese. doi: 10.1590/0102-311x00124612. PMID: 25099044.	The article is not a Systematic Review of literature.
202	SCIELO	Perfil de gastos com o tratamento da Artrite Reumatoide para pacientes do Sistema Único de Saúde em Minas Gerais, Brasil, de 2008 a 2013	Silva, Grazielle Dias Da; Andrade, Eli Iola Gurgel ; Cherchiglia, Mariângela Leal ; Almeida, Alessandra Maciel ; Guerra Júnior, Augusto Afonso ; Acurcio, Francisco De Assis. Perfil de gastos com o tratamento da Artrite Reumatoide para pacientes do Sistema Único de Saúde em Minas Gerais, Brasil, de 2008 a 2013Ciência & Saúde Coletiva Abr 2018, Volumen 23 Nº 4 Paginas 1241 - 1253 DOI: 10.1590/1413-81232018234.16352016	The article is not a Systematic Review of literature.
203	PUBMED	Quality of clinical practice guidelines about red blood cell transfusion.	Simancas-Racines D, Montero-Oleas N, Vernooij Rwm, Arevalo-Rodriguez I, Fuentes P, Gich I, Hidalgo R, Martinez-Zapata Mj, Bonfill X, Alonso-Coello P. Quality of clinical practice guidelines about red blood cell transfusion.J Evid Based Med. 2019 May;12(2):113-124. doi: 10.1111/jebm.12330. Epub 2018 Dec 3.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.

204	SCIELO	El Gasto Sanitario Público en Castilla-La Mancha, 1995-2008: comparación con el conjunto de las Comunidades Autónomas.	Simó Miñana Juan. El Gasto Sanitario Público en Castilla-La Mancha, 1995-2008: comparación con el conjunto de las Comunidades Autónomas. Rev Clin Med Fam [Internet]. 2011 jun [citado 2023 Ago 10] ; 4(2): 105-111. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1699-695X2011000200004&lng=es.	The article is not a Systematic Review of literature.
205	SCIENCE DIRECT	US Physical Activity Guidelines: Current state, impact and future directions.	Singh R, Pattisapu A, Emery Ms. US Physical Activity Guidelines: Current state, impact and future directions. Trends Cardiovasc Med. 2020 Oct;30(7):407-412. doi: 10.1016/j.tcm.2019.10.002. Epub 2019 Oct 17. PMID: 31677904.	The article is not a Systematic Review of literature.
206	TRIP DATABASE	Drugs for Rare Diseases: A Review of National and International Health Technology Assessment Agencies and Public Payers' Decision-Making Processes	Sirjana Pant, Sarah Visintini. Drugs for Rare Diseases: A Review of National and International Health Technology Assessment Agencies and Public Payers' Decision-Making ProcessesOttawa: CADTH; 2018. (Environmental scan; no. 77).	The article is not a Systematic Review of literature.
207	PUBMED	Prophylactic anti-staphylococcal antibiotics for cystic fibrosis.	Smyth Ar, Rosenfeld M. Prophylactic anti-staphylococcal antibiotics for cystic fibrosis.Cochrane Database Syst Rev. 2017 Apr 18;4(4):CD001912. doi: 10.1002/14651858.CD001912.pub4.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
208	PUBMED	Reasons for poor blood pressure control in Eastern Sub-Saharan Africa: looking into 4P's (primary care, professional, patient, and public health policy) for improving blood pressure control: a scoping review.	Sorato Mm, Davari M, Kebriaeezadeh A, Sarrafzadegan N, Shibru T, Fatemi B. Reasons for poor blood pressure control in Eastern Sub-Saharan Africa: looking into 4P's (primary care, professional, patient, and public health policy) for improving blood pressure control: a scoping review. BMC Cardiovasc Disord. 2021 Mar 4;21(1):123. doi: 10.1186/s12872-021-01934-6.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
209	SCIELO	Necesidad de valorar el gasto farmacéutico y los resultados en salud obtenidos de manera conjunta.	Soto Álvarez Javier. Necesidad de valorar el gasto farmacéutico y los resultados en salud obtenidos de manera conjunta. Gac Sanit [Internet]. 2011 jun [citado 2023 Ago 10] ; 25(3): 257-257. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112011000300014&lng=es.	The article is not a Systematic Review of literature.
210	PUBMED	Varenicline and Adverse Cardiovascular Events: A Systematic Review and Meta-Analysis of Randomized Controlled Trials.	Sterling Lh, Windle Sb, Filion Kb, Touma L, Eisenberg Mj. Varenicline and Adverse Cardiovascular Events: A Systematic Review and Meta-Analysis of Randomized Controlled Trials.J Am Heart Assoc. 2016 Feb 22;5(2):e002849. doi: 10.1161/JAHA.115.002849.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
211	PUBMED	Vitamin K to prevent fractures in older women: systematic review and economic evaluation.	Stevenson M, Lloyd-Jones M, Papaioannou D. Vitamin K to prevent fractures in older women: systematic review and economic evaluation. Health Technol Assess. 2009 Sep;13(45):iii-xi, 1-134. doi: 10.3310/hta13450.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
212	PUBMED	Multidisciplinary care for opioid dose reduction in patients with chronic non-cancer pain: A systematic realist review.	Sud A, Armas A, Cunningham H, Tracy S, Foat K, Persaud N, Hosseiny F, Hyland S, Lowe L, Zlahtic E, Murti R, Derue H, Birnbaum I, Bonin K, Upshur R, Nelson Mla. Multidisciplinary care for opioid dose reduction in patients with chronic non-cancer pain: A systematic realist review.PLoS One. 2020 Jul 27;15(7):e0236419. doi: 10.1371/journal.pone.0236419. eCollection 2020.	The intervention is not directly related to the outcome of the research question.
213	PUBMED	COVID-19 Mobile Health Apps: An Overview of Mobile Applications in Indonesia.	Sujarwoto S, Augia T, Dahlan H, Sahputri Ram, Holipah H, Maharani A. COVID-19 Mobile Health Apps: An Overview of Mobile Applications in Indonesia. Front Public Health. 2022 May 4;10:879695. doi: 10.3389/fpubh.2022.879695. eCollection 2022.	The intervention is not directly related to the outcome of the research question.
214	SCIENCE DIRECT	Health-care systems and pharmacoeconomic research in Asia-Pacific region.	Tarn Yh, Hu S, Kamae I, Yang Bm, Li Sc, Tangcharoensathien V, Teerawattananon Y, Limwattananon S, Hameed A, Aljunid Sm, Bapna Js. Health-care systems and pharmacoeconomic research in Asia-Pacific region. Value Health. 2008 Mar;11 Suppl 1:S137-55. doi: 10.1111/j.1524-4733.2008.00378.x. PMID: 18387058.	The article is not a Systematic Review of literature.

215	SCIENCE DIRECT	Localizing pharmaceuticals manufacturing and its impact on drug security in Saudi Arabia.	Tawfik Ea, Tawfik Af, Alajmi Am, Badr My, Al-Jedai A, Almozain Nh, Bukhary Ha, Halwani Aa, Al Awadh Sa, Alshamsan A, Babhair S, Almalik Am. Localizing pharmaceuticals manufacturing and its impact on drug security in Saudi Arabia.Saudi Pharm J. 2022 Jan;30(1):28-38. doi: 10.1016/j.jsps.2021.12.002. Epub 2021 Dec 20. PMID: 35145343; PMCID: PMC8802089.	The article is not a Systematic Review of literature.
216	COCHRANE	System change interventions for smoking cessation (Review)	Thomas D, Abramson Mj, Bonevski B, George J. System change interventions for smoking cessation (Review)Cochrane Database of Systematic Reviews 2017, Issue 2. Art. No.: CD010742. DOI: 10.1002/14651858.CD010742.pub2.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
217	SCIELO	Gasto farmacéutico en medicación antirretroviral y posibilidades de optimización.	Tornero Estébanez C., Cuenca Soria A., Nolasco Bonmatí A., Soler Company E., Rull Segura S. Gasto farmacéutico en medicación antirretroviral y posibilidades de optimización. An. Med. Interna (Madrid) [Internet]. 2005 dic [citado 2023 Ago 10] ; 22(12): 575-578. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0212-71992005001200004&lng=es.	The article is not a Systematic Review of literature.
218	SCIELO	Distribución del gasto farmacéutico en medicación antirretoviral.	Tornero Estebanez C., Santamaría Martín A., Gil Tomás E., Soler Company E., Rull Segura S. Distribución del gasto farmacéutico en medicación antirretoviral. An. Med. Interna (Madrid) [Internet]. 2004 jun [citado 2023 Ago 10] ; 21(6): 19-21. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0212-71992004000600003&lng=es.	The article is not a Systematic Review of literature.
219	TRIP DATABASE	Automated-Entry Patient-Generated Health Data for Chronic Conditions: The Evidence on Health Outcomes. Technical Brief No. 38 (Prepared by the ECRI-Penn Evidence-based Practice Center under Contract No. 290-2015-00005-I.)	Treadwell Jr, Reston Jt, Rouse B, Fontanarosa J, Patel N, Mull Nk. Automated-Entry Patient-Generated Health Data for Chronic Conditions: The Evidence on Health Outcomes. Technical Brief No. 38 (Prepared by the ECRI-Penn Evidence-based Practice Center under Contract No. 290-2015-00005-I.)AHRQ Publication No. 21-EHC012. Rockville, MD: Agency for Healthcare Research and Quality. March 2021. Posted final reports are located on the Effective Health Care Program search page. DOI: 10.23970/AHRQEPCTB38.	The intervention is not directly related to the outcome of the research question.
220	PUBMED	Practical preterm parenteral nutrition: systematic literature review and recommendations for practice.	Uthaya S, Modi N. Practical preterm parenteral nutrition: systematic literature review and recommendations for practice. Early Hum Dev. 2014 Nov;90(11):747-53. doi: 10.1016/j.earlhumdev.2014.09.002. Epub 2014 Sep 26.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
221	COCHRANE	Healthcare financing systems for increasing the use of tobacco dependence treatment (Review)	Van Den Brand Fa, Nagelhout Ge, Reda Aa, Winkens B, Evers Smaa, Kotz D, Van Schayck Ocp. Healthcare financing systems for increasing the use of tobacco dependence treatment (Review) Cochrane Database of Systematic Reviews 2017, Issue 9. Art. No.: CD004305. DOI: 10.1002/14651858.CD004305.pub5.	The intervention is not directly related to the outcome of the research question.
222	COCHRANE	Interventions to prevent injuries in construction workers (Review)	Van Der Molen Hf, Basnet P, Hoonakker Plt, Lehtola Mm, Lappalainen J, Frings-Dresen Mhw,Haslam R, Verbeek Jh. Interventions to prevent injuries in construction workers (Review)Cochrane Database of Systematic Reviews 2018, Issue 2. Art. No.: CD006251. DOI: 10.1002/14651858.CD006251.pub4	The intervention is not directly related to the outcome of the research question.
223	SCIELO	Uso de Psicofármacos en prisión (CP Madrid III).	Varela-González O., Algora-Donoso I., Gutiérrez-Blanco M., Larraz-Pascual M.E., Barreales-Tolosa L., Santamaría-Morales A. Uso de Psicofármacos en prisión (CP Madrid III). Rev. esp. sanid. penit. [Internet]. 2007 [citado 2023 Ago 10] ; 9(2): 38-46. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1575-06202007000200002&lng=es.	The article is not a Systematic Review of literature.
224	SCIELO	Regulación en el mercado farmacéutico colombiano.	Vásquez Velásquez, Johanna, Gómez Portilla, Karoll, & Rodríguez Acosta, Sandra. Regulación en el mercado farmacéutico colombiano. Revista de Ciencias Sociales, 16(2), 197-209. Recuperado en 10 de agosto de 2023, de http://ve.scielo.org/scielo.php?script=sci_arttext&pid=S1315-95182010000200002&lng=es&tlng=es.	The article is not a Systematic Review of literature.

225	SCIELO	Gasto farmacéutico derivado de la prescripción de antibióticos a la población pediátrica de Castilla y León en los últimos diez años.	Vázquez Fernández M.E., Eiros Bouza J.M., Vázquez Fernández M.J., Martín Pelayo F., Bachiller Luque R.M., García de la Ribera C. Gasto farmacéutico derivado de la prescripción de antibióticos a la población pediátrica de Castilla y León en los últimos diez años. Rev Pediatr Aten Primaria [Internet]. 2011 dic [citado 2023 Ago 10] ; 13(52): 531-541. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1139-76322011000600003&lng=es. https://dx.doi.org/10.4321/S1139-76322011000600003.	The article is not a Systematic Review of literature.
226	SCIELO	Determinación de las necesidades en atención farmacéutica de los inmigrantes del Campo de Gibraltar.	Vazquez Victoria, Espejo José, Faus Maria José. Determinación de las necesidades en atención farmacéutica de los inmigrantes del Campo de Gibraltar.Pharmacy Pract (Granada) [Internet]. 2006 Mar [citado 2023 Ago 10] ; 4(1): 24-33. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1885-642X2006000100005&lng=es.	The article is not a Systematic Review of literature.
227	PUBMED	Comparative safety of anti-epileptic drugs during pregnancy: a systematic review and network meta-analysis of congenital malformations and prenatal outcomes.	Veroniki Aa, Cogo E, Rios P, Straus Se, Finkelstein Y, Kealey R, Reynen E, Soobiah C, Thavorn K, Hutton B, Hemmelgarn Br, Yazdi F, D'Souza J, Macdonald H, Tricco Ac. Comparative safety of anti-epileptic drugs during pregnancy: a systematic review and network meta-analysis of congenital malformations and prenatal outcomes.BMC Med. 2017 May 5;15(1):95. doi: 10.1186/s12916-017-0845-1.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
228	SCIELO	Drivers of federal spending in pharmaceuticals of the Specialized Component: measurement and analysis.	Vieira Fs. Drivers of federal spending in pharmaceuticals of the Specialized Component: measurement and analysis. Rev Saude Publica. 2021 Dec 8;55:91. doi: 10.11606/s1518-8787.2021055003097. PMID: 34910025; PMCID: PMC8647991.	The article is not a Systematic Review of literature.
229	PUBMED	Reducing antibiotic prescribing for children with respiratory tract infections in primary care: a systematic review.	Vodicka Ta, Thompson M, Lucas P, Heneghan C, Blair Ps, Buckley Di, Redmond N, Hay Ad; Target Programme Team. Reducing antibiotic prescribing for children with respiratory tract infections in primary care: a systematic review.Br J Gen Pract. 2013 Jul;63(612):e445-54. doi: 10.3399/bjgp13X669167.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
230	EPISTEMONIKOS	Decision-making in priority setting for medicines--a review of empirical studies.	Vuorenkoski L, Toiviainen H, Hemminki E. Decision-making in priority setting for medicines--a review of empirical studies. Health Policy. 2008 Apr;86(1):1-9. doi: 10.1016/j.healthpol.2007.09.007. Epub 2007 Oct 22. PMID: 17950484.	The article is not available in full text in open access
231	PUBMED	Prevention of antibiotic resistance - an epidemiological scoping review to identify research categories and knowledge gaps.	Wall S. Prevention of antibiotic resistance - an epidemiological scoping review to identify research categories and knowledge gaps. Glob Health Action. 2019 Dec 13;12(1):1756191. doi: 10.1080/16549716.2020.1756191.	The article is not a Systematic Review of literature.
232	PUBMED	Prenatal exposure to antipsychotic agents and the risk of congenital malformations in children: A systematic review and meta-analysis.	Wang Z, Brauer R, Man Kkc, Alfageh B, Mongkhon P, Wong Ick. Prenatal exposure to antipsychotic agents and the risk of congenital malformations in children: A systematic review and meta-analysis.Br J Clin Pharmacol. 2021 Nov;87(11):4101-4123. doi: 10.1111/bcp.14839. Epub 2021 May 4.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
233	COCHRANE	Interventions for improving adherence to ocular hypotensive therapy (Review)	Waterman H, Evans Jr, Gray Ta, Henson D, Harper R. Interventions for improving adherence to ocular hypotensive therapy (Review)Cochrane Database of Systematic Reviews 2013, Issue 4. Art. No.: CD006132. DOI: 10.1002/14651858.CD006132.pub3	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
234	COCHRANE	Responsive versus scheduled feeding for preterm infants (Review)	Watson J, Mcguire W. Responsive versus scheduled feeding for preterm infants (Review)Cochrane Database of Systematic Reviews 2016, Issue 8. Art. No.: CD005255. DOI: 10.1002/14651858.CD005255.pub5	The target intervention is not a medicine.
235	PUBMED	Safety of pharmacologic interventions for neuropsychiatric symptoms in dementia: a systematic review and network meta-analysis.	Watt Ja, Goodarzi Z, Veroniki Aa, Nincic V, Khan Pa, Ghassemi M, Thompson Y, Lai Y, Treister V, Tricco Ac, Straus Se. Safety of pharmacologic interventions for neuropsychiatric symptoms in dementia: a systematic review and network meta-analysis. BMC Geriatr. 2020 Jun 16;20(1):212. doi: 10.1186/s12877-020-01607-7.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.

236	PUBMED	Evaluating the safety and dosing of drugs in patients with liver cirrhosis by literature review and expert opinion.	Weersink Ra, Bouma M, Burger Dm, Drenth Jp, Hunfeld Ng, Kranenborg M, Monster-Simons Mh, Van Putten Sa, Metselaar Hj, Taxis K, Borgsteede Sd. Evaluating the safety and dosing of drugs in patients with liver cirrhosis by literature review and expert opinion. BMJ Open. 2016 Oct 12;6(10):e012991. doi: 10.1136/bmjopen-2016-012991.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
237	TRIP DATABASE	Interventions Targeting Sensory Challenges in Children with Autism Spectrum Disorder—An Update [Internet].	Weitlauf As, Sathe Na, Mcpheeters Ml, Warren Z. Interventions Targeting Sensory Challenges in Children with Autism Spectrum Disorder—An Update [Internet].Rockville (MD): Agency for Healthcare Research and Quality (US); 2017 May. Report No.: 17-EHC004-EF. PMID: 29064644.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
238	COCHRANE	Dressings and topical agents for treating pressure ulcers (Review)	Westby Mj, Dumville Jc, Soares Mo, Stubbs N, Norman G. Dressings and topical agents for treating pressure ulcers (Review)Cochrane Database of Systematic Reviews 2017, Issue 6. Art. No.: CD011947. DOI: 10.1002/14651858.CD011947.pub2.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
239	EPISTEMONIKOS	Effectiveness of National Pricing Policies for Patent-Protected Pharmaceuticals in the OECD: A Systematic Literature Review.	Wettstein Dj, Boes S. Effectiveness of National Pricing Policies for Patent-Protected Pharmaceuticals in the OECD: A Systematic Literature Review.Appl Health Econ Health Policy. 2019 Apr;17(2):143-162. doi: 10.1007/s40258-018-0437-z. PMID: 30367350.	The article is not available in full text in open access
240	PUBMED	Attention deficit hyperactivity disorder late birthdate effect common in both high and low prescribing international jurisdictions: a systematic review.	Whitely M, Raven M, Timimi S, Jureidini J, Phillimore J, Leo J, Moncrieff J, Landman P. Attention deficit hyperactivity disorder late birthdate effect common in both high and low prescribing international jurisdictions: a systematic review. J Child Psychol Psychiatry. 2019 Apr;60(4):380-391. doi: 10.1111/jcpp.12991. Epub 2018 Oct 14.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
241	COCHRANE	Routine intraoperative ureteric stenting for kidney transplant recipients (Review)	Wilson Ch, Rix Da, Manas Dm. Routine intraoperative ureteric stenting for kidney transplant recipients (Review)Cochrane Database of Systematic Reviews 2013, Issue 6. Art. No.: CD004925. DOI: 10.1002/14651858.CD004925.pub3.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
242	COCHRANE	Antibiotics for incomplete abortion	Win May, A Metin Gülmezoglu, katherine Ba-Thike. Antibiotics for incomplete abortionCochrane Database of Systematic Reviews 2007, Issue 4. Art. No.: CD001779. DOI: 10.1002/14651858.CD001779.pub2	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
243	SCIELO	Retos y oportunidades para el desarrollo de la política farmacéutica nacional en México.	Wirtz Veronika J, Dreser Anahí, Heredia-Pi Ileana. Retos y oportunidades para el desarrollo de la política farmacéutica nacional en México. Salud pública Méx [revista en la Internet]. 2013 jun [citado 2023 Ago 10] ; 55(3): 329-336. Disponible en: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342013000400011&lng=es.	The article is not a Systematic Review of literature.
244	SCIELO	Factores asociados con la utilización y el gasto en medicamentos en México	Wirtz, Veronika J ; Serván-Mori, Edson ; Heredia-Pi, Ileana ; Dreser, Anahí ; Ávila-Burgos, Leticia Orcid. Factores asociados con la utilización y el gasto en medicamentos en MéxicoSalud pública Méx [revista en la Internet]. 2013 [citado 2023 Ago 10] ; 55(Suppl 2): S112-S122. Disponible en: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342013000800007&lng=es.	The article is not a Systematic Review of literature.
245	PUBMED	The Characteristics and Effectiveness of Interventions for Frequent Emergency Department Utilizing Patients with Chronic Noncancer Pain: A Systematic Review.	Wong Ck, O'Rielly Cm, Teitge Bd, Sutherland Rl, Farquharson S, Ghosh M, Robertson Hl, Lang E. The Characteristics and Effectiveness of Interventions for Frequent Emergency Department Utilizing Patients with Chronic Noncancer Pain: A Systematic Review.Acad Emerg Med. 2020 Aug;27(8):742-752. doi: 10.1111/acem.13934. Epub 2020 Mar 9.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
246	PUBMED	Sex and gender differences in caregiving burden experienced by family caregivers of persons with dementia: a systematic review protocol.	Xiong C, Biscardi M, Nalder E, Colantonio. Sex and gender differences in caregiving burden experienced by family caregivers of persons with dementia: a systematic review protocol.BMJ Open. 2018 Aug 13;8(8):e022779. doi: 10.1136/bmjopen-2018-022779.	The article does not set out the final results

247	PUBMED	The treatment cascade for chronic hepatitis C virus infection in the United States: a systematic review and meta-analysis.	Yehia Br, Schranz Aj, Umscheid Ca, Lo Re V 3Rd. The treatment cascade for chronic hepatitis C virus infection in the United States: a systematic review and meta-analysis. PLoS One. 2014 Jul 2;9(7):e101554. doi: 10.1371/journal.pone.0101554. eCollection 2014.	The intervention refers to a technology assessment of a drug, a specific health condition, or a treatment guide.
248	SCIELO	Efecto de un sistema automático de dispensación de medicamentos sobre el gasto farmacéutico y el grado de satisfacción del usuario.	Zafra Fernández J.L., Isla Tejera B., Del Prado Llergo J.R. Efecto de un sistema automático de dispensación de medicamentos sobre el gasto farmacéutico y el grado de satisfacción del usuario.Enferm. glob. [Internet]. 2012 ene [citado 2023 Ago 10] ; 11(25): 250-261. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1695-61412012000100015&lng=es. https://dx.doi.org/10.4321/S1695-61412012000100015.	The article is not a Systematic Review of literature.
249	SCIELO	Aging of Population and Changes in Consumption Patterns: impacts on the production structure in Brazil	Zanon, R., Moretto, A., Rodrigues C., Lott R. Aging of Population and Changes in Consumption Patterns: impacts on the production structure in BrazilRev. bras. estud. popul. 30 (suppl) • 2013 • https://doi.org/10.1590/S0102-30982013000400004	The article is not a Systematic Review of literature.

Appendix 5. Table 13. Included References

#	SEARCH DATABASE	TITLE	REFERENCE	ABBREVIATION
1	COCHRANE	Pharmaceutical policies: effects of reference pricing, other pricing, and purchasing policies (Review)	Acosta A, Ciapponi A, Aaserud M, Vietto V, Austvoll-Dahlgren A, Kösters JP, Vacca C, Machado M, Diaz Ayala DH, Oxman AD. (2014). Pharmaceutical policies: effects of reference pricing, other pricing, and purchasing policies (Review). Cochrane Database of Systematic Reviews 2014, Issue 10. Art. No.: CD005979.	Acosta A, 2014
2	COCHRANE	The effects of on-screen, point of care computer reminders on processes and outcomes of care	Shojania KG, Jennings A, Ramsay CR, Grimshaw JM, Kwan JL, Lo L. (2009). The effects of on-screen, point of care computer reminders on processes and outcomes of care. Cochrane Database of Systematic Reviews 2009, Issue 3. Art. No.: CD001096.	Shojania KG, 2009
3	COCHRANE	Supervised dosing with a long-acting opioid medication in the management of opioid dependence (Review)	Saulle R, Vecchi S, Gowing L. (2017). Supervised dosing with a long-acting opioid medication in the management of opioid dependence (Review). Cochrane Database of Systematic Reviews 2017, Issue 4. Art. No.: CD011983.	Saulle R, 2017
4	COCHRANE	Pharmaceutical policies: effects of regulating drug insurance schemes (Review)	Pantoja T, Peñaloza B, Cid C, Herrera CA, Ramsay CR, Hudson J. (2022). Pharmaceutical policies: effects of regulating drug insurance schemes (Review). Cochrane Database of Systematic Reviews 2022, Issue 5. Art. No.: CD011703.	Pantoja T, 2022
5	COCHRANE	Pharmaceutical policies: effects of financial incentives for prescribers (Review)	Rashidian A, Omidvari AH, Vali Y, Sturm H, Oxman AD. (2015). Pharmaceutical policies: effects of financial incentives for prescribers (Review). Cochrane Database of Systematic Reviews 2015, Issue 8. Art. No.: CD006731.	Rashidian A, 2015
6	COCHRANE	Pharmaceutical policies: effects of restrictions on reimbursement (Review)	Green CJ, Maclure M, Fortin PM, Ramsay CR, Aaserud M, Bardal S. (2010). Pharmaceutical policies: effects of restrictions on reimbursement (Review). Cochrane Database of Systematic Reviews 2010, Issue 8. Art. No.: CD008654.	Green CJ, 2010
7	COCHRANE	Pharmaceutical policies: effects of cap and co-payment on rational use of medicines (Review)	Luiza VL, Chaves LA, Silva RM, Emmerick ICM, Chaves GC, Fonseca de Araújo SC, Moraes EL, Oxman AD. (2015). Pharmaceutical policies: effects of cap and co-payment on rational use of medicines (Review). Cochrane Database of Systematic Reviews 2015, Issue 5. Art. No.: CD007017.	Luiza VL, 2015
8	COCHRANE	Governance arrangements for health systems in low-income countries: an overview of systematic reviews (Review)	Herrera CA, Lewin S, Paulsen E, Ciapponi A, Opiyo N, Pantoja T, Rada G, Wiysonge CS, Bastías G, Garcia Marti S, Okwundu CI, Peñaloza B, Oxman AD. (2017). Governance arrangements for health systems in low-income countries: an overview of systematic reviews (Review). Cochrane Database of Systematic Reviews 2017, Issue 9. Art. No.: CD011085.	Herrera CA, 2017
9	COCHRANE	Routine Health Information System (RHIS) improvements for strengthened health system management (Review)	Leon N, Balakrishna Y, Hohlfeld A, Odendaal WA, Schmidt B-M, Zweigenthal V, Anstey Watkins J, Daniels K. (2020). Routine Health Information System (RHIS) improvements for strengthened health system management (Review). Cochrane Database of Systematic Reviews 2020, Issue 8. Art. No.: CD012012.	Leon N, 2020
10	COCHRANE	Public stewardship of private for-profit healthcare providers in lowand middle-income countries (Review	Wiysonge CS, Abdullahi LH, Ndze VN, Hussey GD. (2016). Public stewardship of private for-profit healthcare providers in lowand middle-income countries (Review. Cochrane Database of Systematic Reviews 2016, Issue 8. Art. No.: CD009855.	Wiysonge CS, 2016
11	COCHRANE	An overview of reviews evaluating the effectiveness of financial incentives in changing healthcare professional behaviours and patient outcomes (Review)	Flodgren G, Eccles MP, Shepperd S, Scott A, Parmelli E, Beyer FR. (2011). An overview of reviews evaluating the effectiveness of financial incentives in changing healthcare professional behaviours and patient outcomes (Review). Cochrane Database of Systematic Reviews 2011, Issue 7. Art. No.: CD009255.	Flodgren G, 2011
12	COCHRANE	Implementation of treatment guidelines for specialist mental health care (Review)	Bighelli I, Ostuzzi G, Girlanda F, Cipriani A, Becker T, Koesters M, Barbui C. (2016). Implementation of treatment guidelines for specialist mental health care (Review). Cochrane Database of Systematic Reviews 2016, Issue 12. Art. No.: CD009780.	Bighelli I, 2016
13	COCHRANE	Interventions to increase or decrease the length of primary care physicians' consultation	Wilson AD, Childs S, Gonçalves-Bradley DC, Irving GJ. (2016). Interventions to increase or decrease the length of primary care physicians' consultation. Cochrane Database of Systematic Reviews 2016, Issue 8. Art. No.: CD003540.	Wilson AD, 2016

14	COCHRANE	External inspection of compliance with standards for improved healthcare outcomes (Review)	Flodgren G, Gonçalves-Bradley DC, Pomey MP. (2016). External inspection of compliance with standards for improved healthcare outcomes (Review). Cochrane Database of Systematic Reviews 2016, Issue 12. Art. No.: CD008992.	Flodgren G, 2016
15	COCHRANE	Patient education and counselling for promoting adherence to treatment for tuberculosis	M'Imunya JM, Kredo T, Volmink J. (2012). Patient education and counselling for promoting adherence to treatment for tuberculosis. Cochrane Database of Systematic Reviews 2012, Issue 5. Art. No.: CD006591.	M'Imunya JM, 2012
16	COCHRANE	Implementation strategies for health systems in low-income countries: an overview of systematic reviews (Review)	Pantoja T, Opiyo N, Lewin S, Paulsen E, Ciapponi A, Wiysonge CS, Herrera CA, Rada G, Peñaloza B, Dudley L, Gagnon MP, Garcia Marti S, Oxman AD. (2017). Implementation strategies for health systems in low-income countries: an overview of systematic reviews (Review). Cochrane Database of Systematic Reviews 2017, Issue 9. Art. No.: CD011086.	Pantoja T, 2017
17	EPISTEMONIKOS	International experience in controlling pharmaceutical expenditure: influencing patients and providers and regulating industry - a systematic review	Lee IH, Bloor K, Hewitt C, Maynard A. (2015). International experience in controlling pharmaceutical expenditure: influencing patients and providers and regulating industry - a systematic review. J Health Serv Res Policy. 2015 Jan;20(1):52-9. Epub 2014 Aug 4. PMID: 25092883; PMCID: PMC4268174.	Lee IH, 2015
18	EPISTEMONIKOS	Evidence on the effectiveness of policies promoting price transparency - A systematic review.	Joosse IR, Tordrup D, Glanville J, Kotas E, Mantel-Teeuwisse AK, van den Ham HA. (2023). Evidence on the effectiveness of policies promoting price transparency - A systematic review. Health Policy. 2023 Aug;134:104681. Epub 2022 Nov 8. PMID: 36372608; PMCID: PMC10357344.	Joosse IR, 2023
19	EPISTEMONIKOS	Burnout em médicos da Atenção Primária: uma revisão sistemática.	Morelli Sg, Sapede M, Silva Atc . (2015). Burnout em médicos da Atenção Primária: uma revisão sistemática. . Rev Bras Med Fam Comunidade. 2015;10(34):1-9.	Morelli Sg, 2015
20	EPISTEMONIKOS	Community pharmacist-led interventions and their impact on patients' medication adherence and other health outcomes: a systematic review.	Milosavljevic A, Aspden T, Harrison J . (2018). Community pharmacist-led interventions and their impact on patients' medication adherence and other health outcomes: a systematic review. Int J Pharm Pract. 2018 oct;26(5):387-397. Epub 2018 Jun 21. PMID: 29927005.	Milosavljevic A, 2018
21	EPISTEMONIKOS	Do changes to supply chains and procurement processes yield cost savings and improve availability of pharmaceuticals, vaccines or health products? A systematic review of evidence from low-income and middle-income countries.	Seidman G, Atun R. (2017). Do changes to supply chains and procurement processes yield cost savings and improve availability of pharmaceuticals, vaccines or health products? A systematic review of evidence from low-income and middle-income countries. . BMJ Glob Health. 2017 Apr 13;2(2):e000243. PMID: 28589028; PMCID: PMC5435270.	Seidman G, 2017
22	EPISTEMONIKOS	Do individualized health promotional programs reduce health care expenditure? A systematic review of controlled trials in the "Health-Up" model projects of the National Health Insurance.	Okamoto E. (2008). Do individualized health promotional programs reduce health care expenditure? A systematic review of controlled trials in the "Health-Up" model projects of the National Health Insurance. Nihon Koshu Eisei Zasshi. 2008 Dec;55(12):822-9.	Okamoto E, 2008
23	EPISTEMONIKOS	The changing face of Australian data reforms: impact on pharmacoepidemiology research.	De Oliveira Costa J, Bruno C, Schaffer Al, Raichand S, Karanges Ea, Pearson Sa . (2021). The changing face of Australian data reforms: impact on pharmacoepidemiology research. Int J Popul Data Sci. 2021 Apr 15;6(1):1418. PMID: 34007904; PMCID: PMC8107783.	De Oliveira Costa J, 2021
24	EPISTEMONIKOS	Impacts of intellectual property provisions in trade treaties on access to medicine in low and middle income countries: a systematic review.	Islam Md, Kaplan Wa, Trachtenberg D, Thrasher R, Gallagher Kp, Wirtz Vj . (2019). Impacts of intellectual property provisions in trade treaties on access to medicine in low and middle income countries: a systematic review. . Global Health. 2019 Dec 30;15(1):88. PMID: 31888688; PMCID: PMC6937733.	Islam Md, 2019
25	EPISTEMONIKOS	What impact do prescription drug charges have on efficiency and equity? Evidence from high-income countries	Gemmill MC, Thomson S, Mossialos E. (2008). What impact do prescription drug charges have on efficiency and equity? Evidence from high-income countries. Int J Equity Health. 2008 May 2;7:12. PMID: 18454849; PMCID: PMC2412871.	Gemmill MC, 2008

26	EPISTEMONIKOS	Healthcare financing in Egypt: a systematic literature review	Fasseeh A, Elezbawy B, Adly W, Elshahawy R, George M, Abaza S, Elshalakani A, Kaló Z. (2022). Healthcare financing in Egypt: a systematic literature review. J Egypt Public Health Assoc. 2022 Jan 7;97(1):1. PMID: 34994859; PMCID: PMC8741917.	Fasseeh A, 2022
27	EPISTEMONIKOS	Impact of pharmaceutical prior authorisation policies : a systematic review of the literature.	Puig-Junoy J, Moreno-Torres I. (2007). Impact of pharmaceutical prior authorisation policies : a systematic review of the literature. . Pharmacoeconomics. 2007;25(8):637-48. PMID: 17640106.	Puig-Junoy J, 2007
28	EPISTEMONIKOS	A review of pharmaceutical policies in response to economic crises and sanctions.	Kheirandish M, Rashidian A, Kebriaeezade A, Cheraghali Am, Soleymani F. (2015). A review of pharmaceutical policies in response to economic crises and sanctions. . J Res Pharm Pract. 2015 jul-Sep;4(3):115-22. PMID: 26312250; PMCID: PMC4548429.	Kheirandish M, 2015
29	GOOGLE SCHOLAR	Are Financial Payments from the Pharmaceutical Industry Associated with Physician Prescribing? A Systematic Review	Mitchell AP, Trivedi NU, Gennarelli RL,Chimonas S, Tabatabai SM, Goldberg J, Diaz LA, Korenstein D. (2021). Are Financial Payments from the Pharmaceutical Industry Associated with Physician Prescribing? A Systematic Review. Ann Intern Med. 2021 Marzo; 174(3):353-361. doi: 10.7326/M20-5665. Epub 2020 de noviembre de 24. PMID: 33226858; PMCID: PMC8315858.	Mitchell AP, 2021
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92	SCIELO	Policies encouraging price competition in the generic drug market: Lessons from the European experience	Puig-Junoy J. (2010). Policies encouraging price competition in the generic drug market: Lessons from the European experience. Gac Sanit [Internet]. 2010 jun [citado 2023 Ago 10] ; 24(3): 193-199. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-91112010000300003&lng=es.	Puig-Junoy J, 2010
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95	SCIENCE DIRECT	Stakeholder views of managed entry agreements: A literature review of national studies.	Thanimalai S, Choon Wy, Lee Kk . (2021). Stakeholder views of managed entry agreements: A literature review of national studies. . Health Policy Open. 2021 Jan 21;2:100032. PMID: 37383516; PMCID: PMC10297797.	Thanimalai S, 2021
96	SCIENCE DIRECT	The Role of Indication-Based Pricing in Future Pricing and Reimbursement Policies: A Systematic Review	Preckler V, Espín J. (2022). The Role of Indication-Based Pricing in Future Pricing and Reimbursement Policies: A Systematic Review. Value Health. 2022 Apr;25(4):666-675. Epub 2022 Feb 25. PMID: 35227598.	Preckler V, 2022
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98	SCIENCE DIRECT	Effective healthcare cost-containment policies: A systematic review.	Stadhouders N, Kruse F, Tanke M, Koolman X, Jeurissen P . (2019). Effective healthcare cost-containment policies: A systematic review. Health Policy. 2019 Jan;123(1):71-79. Epub 2018 Nov 2. PMID: 30429060.	Stadhouders N, 2019
99	SCIENCE DIRECT	Effects of the economic crisis on health and healthcare in Greece in the literature from 2009 to 2013: a systematic review.	Simou E, Koutsogeorgou E . (2014). Effects of the economic crisis on health and healthcare in Greece in the literature from 2009 to 2013: a systematic review. . Health Policy. 2014 Apr;115(2-3):111-9. Epub 2014 Feb 8. PMID: 24589039.	Simou E, 2014
100	TRIP DATABASE	Toward Equity under Health System Reform; A Systematic Review	Bagheri Lankaran K, Khankeh HR, Zarei N, Fararouei M, Saboori Z, Joulaei H. (2017). Toward Equity under Health System Reform; A Systematic Review. Shiraz E-Med J. 2017 November; 18(11):e57724. Published online 2017 October 23.	Bagheri Lankaran K, 2017
101	TRIP DATABASE	Use of Telehealth During the COVID-19 Era	Hatef E, Wilson RF, Hannum SM, Zhang A, Kharrazi H, Weiner JP, Davis SA, Robinson KA. (2023). Use of Telehealth During the COVID-19 Era. Rockville (MD): Agency for Healthcare Research and Quality (US); 2023 Jan. Available from: https://www.ncbi.nlm.nih.gov/books/NBK590499/	Hatef E, 2023
102	TRIP DATABASE	Commissioning in health, education and social care: Models, research bibliography and in-depth review of joint commissioning between health and social care agencies	Newman M, Bangpan M, Kalra N, Mays N, Kwan I, Roberts T. (2012). Commissioning in health, education and social care: Models, research bibliography and in-depth review of joint commissioning between health and social care agencies. Research Evidence in Education Library. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.	Newman M, 2012
103	TRIP DATABASE	The Effects after Implementing a Drug Utilization Review System on Contraindicated Drug use: A Systematic Review	Lee H, Choi HS, Ji E. (2019). The Effects after Implementing a Drug Utilization Review System on Contraindicated Drug use: A Systematic Review. Korean Journal of Clinical Pharmacy Official Journal of Korean College of Clinical Pharmacy pISSN 1226-6051 eISSN 2508-786X Korean journal of clinical pharmacy (Online).	Lee H, 2019

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Appendix 6. Table 14. Data extraction and evidence synthesis variables

#	VARIABLE
1	INTERNAL CODE ASSIGNED TO EACH REFERENCE
2	KEYWORDS
3	SEARCH ENGINE
4	ARTICLE TITLE
5	AUTHORS
6	NUMBER OF AUTHORS
7	REFERENCE
8	NUMBER OF STUDIES INITIALLY EXTRACTED IN RSL
9	NUMBER OF STUDIES INCLUDED IN RSL
10	YEAR OF PUBLICATION
11	NUMBER GOOGLE SCHOLAR DATING. CONSULTATION PERIOD 04-07-09/2023
12	ABBREV JOURNAL OF PUBLICATION
13	MAGAZINE FULL NAME
14	MAGAZINE COUNTRY
15	IMPACT FACTOR
16	H INDEX 2022
17	TOTAL CITES (3YEARS)
18	MAGAZINE REGION
19	SJR 2022
20	PARENT AUTHOR AFFILIATION
21	PARENT AUTHOR AFFILIATION ENTITY TYPE
22	COUNTRY AFFILIATION LEAD AUTHOR
23	ABSTRACT
24	ENVIRONMENT
25	OBJECTIVE
26	METHOD
27	RESULTS
28	CONCLUSIONS
29	COUNTRIES OF PRIMARY SCHOOL COVERAGE OR GEOGRAPHICAL AREA
30	KNOWLEDGE USER
31	POPULATION INCLUDED
32	GROUPS OF MEDICINES TESTED
33	LAPSE COVERING THE EVIDENCE OBTAINED
34	MAIN RESULTS OBTAINED RELATED TO PHARMACEUTICAL EXPENDITURE
35	OVERALL THEME OF THE ARTICLE
36	REPORTS FUNDING
37	FINANCING
38	COUNTRY FINANCING
39	TYPE OF FUNDER
40	TYPE OF FUNDING COLLABORATION.
	NATIONAL / INTERNATIONAL