

## Supplementary File 1. Literature search algorithms

Data base	Algorithm
<b>PUBMED</b>	(("Pharmaceutical Services"[Mesh]) OR ("Community Pharmacy Services"[Mesh]) OR ("Pharmacy Service, Hospital"[Mesh]) OR ("Practice Patterns, Pharmacists"[Mesh]) OR ("Pharmaceutical Services, Online"[Mesh]) OR ("Pharmacy"[Mesh]) OR ("Pharmacists"[Mesh]) OR ("Pharmacy services" [Title/Abstract]) OR ("Clinical pharmacy" [Title/Abstract]) OR ("clinical pharmacies" [Title/Abstract]) OR ("pharmacy practice" [Title/Abstract])) AND (("Latin America"[Mesh]) OR ("South America"[Mesh]) OR ("Central America"[Mesh]) OR ("Mexico" OR "Venezuela" OR "Colombia" OR "Brazil" OR "Panama" OR "Costa Rica" OR "Bolivia" OR "Honduras" OR "Cuba" OR "Dominican Republic" OR "Paraguay" OR "Uruguay" OR "Guatemala" OR "El Salvador" OR "Ecuador" OR "Peru" OR "Nicaragua" OR "Belize" OR "Chile" OR "Argentina" OR "Haiti"))
<b>EBSCO International Pharmaceutical Abstracts (IPA)</b>	("pharmaceutical services" OR "community pharmacy services" OR "hospital pharmacy services" OR "pharmacy" OR "pharmacy services" OR "clinical pharmacy") AND ("Mexico" OR "Venezuela" OR "Colombia" OR "Brazil" OR "Panama" OR "Costa Rica" OR "Bolivia" OR "Honduras" OR "Cuba" OR "Dominican Republic" OR "Paraguay" OR "Uruguay" OR "Guatemala" OR "El Salvador" OR "Ecuador" OR "Peru" OR "Nicaragua" OR "Belize" OR "Chile" OR "Argentina" OR "Haiti")
<b>Scielo</b>	
<b>Redalyc</b>	
<b>IMBIOMED</b>	Servicios farmaceuticos, farmacia comunitaria, farmacia hospitalaria, farmacia clínica, farmacia, atención farmacéutica, servicio de farmacia.

## Supplementary File 2. Characteristics of the included studies

Autor	Year	Title	Article type	Language	Country
Aguiar et al	2018	Patient safety and the value of pharmaceutical intervention in a cancer hospital.	Original research	Ingles	Brazil
Aguiar et al	2018	Pharmacist-physician collaborative care model for patients with uncontrolled type 2 diabetes in Brazil: results from a randomized controlled trial	Not specified	Ingles	Brazil
Alcantara et al	2018	Perceptions of a group of hospital pharmacists and other professionals of the implementation of clinical pharmacy at a high complexity public hospital in Brazil.	Original research	Ingles	Brazil
Almeida et al	2019	Impacts of a Brazilian pharmaceutical program on the health of chronic patients	Original research	Ingles	Brazil
Altamiranda et al	2017	Assessment of Pharmaceutical Services in a Southern Brazilian City	Original research	Ingles	Brazil
Alvarado et al	2017	Errores en las recetas médicas y en la preparación de estas en farmacia de pacientes ambulatorios: El caso del Hospital de Nueva Imperial	Original research	Spanish	Chile
Andreza R.V. Lopes	2017	Evaluation of the impact of pharmaceutical care for tuberculosis patients in a Secondary Referral Outpatient Clinic, Minas Gerais, Brazil	Not specified	Ingles	Brazil
Araújo et al	2017	Organização dos serviços farmacêuticos no Sistema Único de Saúde em regiões de saúde	Original research	Portuguese	Brazil
Araújo et al	2018	Perceived barriers to the implementation of clinical pharmacy services in a metropolis in Northeast Brazil	Original research	Ingles	Brazil
Araújo et al	2017	Pharmaceutical care in Brazil's primary health care	Original research	Ingles	Brazil
Arroyo et al	2017	Pharmaceutical care practice in patients with chronic kidney disease	Original research	Ingles	Colombia
Azevedo Aquino Jessica, et al	2019	What is the effectiveness of post-discharge pharmacotherapeutic empowerment of patients with diabetes?	Case report	Ingles	Brazil
Barboza-Zanetti et al	2019	Clinical pharmacists' contributions to hematopoietic stem cell transplantation: A systematic review.	Review Article	Ingles	Brazil
Becker et al	2021	Drug dispensing process evaluation in brazilian indigenous health care using simulation.	Original research	Ingles	Brazil
Bonadiman et al	2018	Nível de satisfação dos usuários e verificação do conhecimento dos farmacêuticos em farmácias públicas do Espírito Santo, Brasil	Original research	Portuguese	Brazil
Botero Aguirre, Juan Pablo	2017	Redesign of the Clinical Pharmacy Practice Model in a Tertiary Academic Hospital in Medellin, Colombia	Not specified	Ingles	Colombia

Calvo et al	2020	Factors of the development of pharmaceutical care in community pharmacies in Buenos Aires, Argentina, through the model of partial least squares structural equation modelling (PLS-SEM)	Original research	Ingles	Argentina
Calvo-Salazar et al	2018	Drug-related problems causing hospital admissions in the emergency rooms at of high complexity hospital	Original research	Spanish	Colombia
Cazarim et al	2020	Cost-benefit analysis of pharmacist interventions over 36 months in a university hospital.	Original research	Ingles	Brazil
Cazarim et al	2017	Cost-consequence analysis of Pharmaceutical Care program for systemic arterial hypertension in the public health system in Brazil	Original research	Ingles	Brazil
Ceballos et al	2018	Caracterización de aspectos relacionados con la utilización de los medicamentos fiscalizados en droguerías y farmacias-droguerías de Medellín y el Área Metropolitana	Original research	Spanish	Colombia
Ceballos et al	2021	Skills and practices of pharmacy staff for dispensing of drugs with fiscalized substances in drugstores and pharmacies	Original research	Ingles	Colombia
Chagas et al	2020	Institutional strategies as a mechanism to rationalize the negative effects of the judicialization of access to medicine in Brazil.	Original research	Ingles	Brazil
Chambela et al	2020	Impact of pharmaceutical care on the quality of life of patients with heart failure due to chronic Chagas disease: Randomized clinical trial	Original research	Ingles	Brazil
Costa Cardoso et al	2020	Cost analysis of a medication dispensing service in community pharmacy in Brazil	Original research	Ingles	Brazil
Da Rocha, et al	2021	Analysis of the interventions in antineoplastic therapy by a clinical pharmacy service at a tertiary hospital in Brazil	Original research	Ingles	Brazil
Damasceno de Barros et al	2017	Access to medicines: relations with the institutionalization of pharmaceutical services	Original research	Ingles	Brazil
de Farias Rodrigues, et al	2018	Avaliação dos serviços farmacêuticos na Atenção Primária à Saúde no cuidado ao paciente com tuberculose	Original research	Portuguese	Brazil
de Lima Silva, et al	2017	Assessment of oral anticoagulation control at two pharmacist-managed clinics in Brazil.	Original research	Ingles	Brazil
De Oliveira Fatel, et al	2021	Challenges in the management of high-priced drugs in the SUS: evaluation of Pharmaceutical Policy in São Paulo, Brazil	Original research	Ingles	Brazil
Diaz de León-Castañeda et al	2019	Healthcare professionals' perceptions related to the provision of clinical pharmacy services in the public health sector: A case study.	Original research	Ingles	Mexico
Díaz et al	2020	Eficiencia del seguimiento farmacoterapéutico en adultos mayores polimedicados, en una farmacia especial de área, 2018	Not specified	Spanish	Cuba
Dos Santos Junior et al	2021	Implementation of clinical pharmacy services using problematization with Maguerez Arc: A quasi-experimental before-after study.	Original research	Ingles	Brazil
Duarte et al	2019	Clinical oncology pharmacist: Effective contribution to patient safety.	Original research	Ingles	Brazil

Einsfeld et al	2020	Challenges for Expansion of Thoracic Transplant Clinical Pharmacy in Brazil: Comparison with U.S. Accredited Centers and Call for Action	Original research	Ingles	Brazil
Escalante-Saavedra, et al	2017	Brazilian Drug Information Centre: descriptive study on the quality of information 2010-2015	Original research	Ingles	Brazil
Escobar-Correa et al	2020	La importancia de la evaluación de la adherencia farmacoterapéutica en sujetos con enfermedad cardiovascular	Not specified	Spanish	Colombia
Fajreldines Ana, et al	2018	Reduction of inappropriate prescriptions and adverse effects to medications in hospitalized elderly patients	Original research	Spanish	Argentina
Faraco, et al	2021	The pharmacy workforce in public primary healthcare centers: promoting access and information on medicines	Original research	Ingles	Brazil
Feitosa et al	2018	Facilitators and strategies to implement clinical pharmacy services in a metropolis in Northeast Brazil: a qualitative approach	Original research	Ingles	Brazil
Fernandez et al	2021	Farmacias comunitarias de Ecuador y España. Aspectos legales	Original research	Spanish	Ecuador
Ferracini et al	2018	Prescribing errors intercepted by pharmacist intervention in care of patients hospitalised with breast and gynaecological cancer at a Brazilian teaching hospital	Original research	Ingles	Brazil
Ferreria et al	2019	Falhas na gestão da Assistência Farmacêutica para Medicamentos Judicializados, em 16 municípios da região Sudeste brasileira	Original research	Portuguese	Brazil
Fonseca et al	2019	Evaluation of Pharmaceutical Services in Public Hospital Pharmacies of Federal District-Brazil	Original research	Ingles	Brazil
Gallo-Bernal et al	2021	Impact of a pharmacist-based multidimensional intervention aimed at decreasing the risk of hyperkalemia in heart failure patients: A Latin-American experience	Original research	Ingles	Colombia
Galvan borja et al	2019	Caracterización de la prestación del servicio farmacéutico en el departamento de Sucre, Colombia	Original research	Spanish	Colombia
Garcia-Falcon, et al	2018	Atención Farmacéutica en adultos mayores hipertensos. Una experiencia en la atención primaria de salud en Cuba	Original research	Spanish	Cuba
Gerenutti Marli, et al	2017	The Effectiveness of a Pharmaceutical Care Model on Adherence to Antiretroviral Therapy: A SAME-Based Cohort Study in Brazil	Not specified	Ingles	Brazil
Giraud et al	2021	Consumo de psicofármacos en pacientes ambulatorios en un Hospital de Mendoza, Argentina	Original research	Spanish	Argentina
Hernández-Gómez	2019	Impacto sobre la resistencia bacteriana de la revisión previa de la prescripción de antibióticos por el servicio farmacéutico en hospitales del Atlántico (Colombia)	Original research	Spanish	Colombia
Holguien et al	2020	Pharmaceutical interventions and clinical outcomes in an antimicrobial stewardship program	Not specified	Ingles	Colombia
Holguien et al	2021	Pharmacist's contribution on antimicrobial stewardship program: ambispective cohort study	Original research	Ingles	Colombia

Januário Correr Cassyano	2020	Prevalence of people at risk of developing type 2 diabetes mellitus and the involvement of community pharmacies in a national screening campaign: a pioneer action in Brazil	Original research	Ingles	Brazil
Leal et al	2021	Impacto de la atención farmacéutica en la calidad del tratamiento con acenocumarol en pacientes con fibrilación auricular	Original research	Spanish	Chile
Leite et al	2017	Medicine dispensing service in primary health care of SUS	Original research	Ingles	Brazil
Leslie Escobar	2019	Consenso de farmacia clínica intensiva a nivel nacional	Special Article	Spanish	Chile
Loureiro et al	2019	Medication follow-up in newborns with extremely low birth-weight	Original research	Ingles	Brazil
Luz et al	2017	Pharmaceutical Services in Primary Health Care: are pharmacists and users on the same page?	Original research	Ingles	Brazil
Malfará et al	2018	Impact of the clinical pharmacist interventions on prevention of pharmacotherapy related problems in the paediatric intensive care unit.	Original research	Ingles	Brazil
Marcatto et al	2021	Impact of adherence to warfarin therapy during 12 weeks of pharmaceutical care in patients with poor time in the therapeutic range	Original research	Ingles	Brazil
Mattozo Rover Marina Raijche	2017	An evaluation of governance capacity of the specialized component of pharmaceutical services in Brazil	Original research	Ingles	Brazil
Mena-Lora et al	2019	A Survey of Antimicrobial Availability, Training, and Antimicrobial Recommendations by Staff in Pharmacies and Non-pharmacy Stores in the Dominican Republic	Not specified	Ingles	Dominican Republic
Mendes et al	2017	The role of clinical pharmacists in treatment adherence: fast impact in suppression of chronic myeloid leukemia development and symptoms	Original research	Ingles	Brazil
Mendo Alcolea, et al	2017	Reacciones adversas medicamentosas en pacientes con cáncer atendidos en el Hospital Oncológico Docente "Conrado Benítez"	Original research	Spanish	Cuba
Muñoz-Pichuante et al	2020	Cost saving and cost benefit ratio of clinical pharmacist interventions in an adult intensive care unit	Original research	Ingles	Chile
Nascimento Silva, et al	2017	Pharmaceutical Assistance in Mental Health: a diagnosis of Psychosocial Care Centers	Not specified	Portuguese	Brazil
Nassur et al	2020	Clinical pharmacy services in Brazil, particularly cardiometabolic diseases: a systematic scoping review and meta-analyses	Original research	Ingles	Brazil
Néri et al	2017	Knowledge, skills and attitudes of hospital pharmacists in the use of information technology and electronic tools to support clinical practice: A Brazilian survey	Original research	Ingles	Brazil
Oliveira Gomes Lenyta, et al	2020	The benefits of a public pharmacist service in chronic hepatitis C treatment: The real-life results of sofosbuvir-based therapy	Not specified	Ingles	Brazil
Oliviera de Melo et al	2017	A contribuição do farmacêutico para a promoção do acesso e uso racional de medicamentos essenciais no SUS	Original research	Portuguese	Brazil

Oliviera de Melo et al	2017	Capacitação e intervenções de técnicos de farmácia na dispensação de medicamentos em Atenção Primária à Saúde	Original research	Portuguese	Brazil
Oliviera de Melo et al	2017	Pharmaceutical care in primary care - beyond access to medication	Original research	Ingles	Brazil
Oliviera-Santos et al	2019	Effectiveness of pharmaceutical care for drug treatment adherence in women with lupus nephritis in Rio de Janeiro, Brazil: a randomized controlled trial	Original research	Ingles	Brazil
Pallares & Cataño	2017	Impacto del uso racional de antibióticos en una clínica de tercer nivel en Colombia	Original research	Spanish	Colombia
Pereira et al	2021	Implementation of pharmaceutical services in Brazilian primary health care: a cross-sectional study.	Original research	Ingles	Brazil
Peres dos Santos Francisco e Silva, et al	2021	Profile of pharmaceutical care in primary health centers in São Bernardo do Campo, Southeastern Brazil	Original research	Ingles	Brazil
Piccoli, et al	2017	Assessment of pharmaceutical services in HIV/AIDS health units in the city of Niterói, Brazil	Original research	Ingles	Brazil
Rabelo Néri	2019	Do Brazilian hospital pharmacists record, document, archive and disseminate their clinical practice?	Original research	Ingles	Brazil
Ramirez et al	2021	Polifarmacia y complejidad farmacoterapéutica en pacientes de hogares de ancianos en Cienfuegos	Original research	Spanish	Cuba
Ramos et al	2021	Differential impact of on-site or telepharmacy in the intensive care unit: a controlled before-after study	Original research	Ingles	Brazil
Rendón et al	2019	Impacto de la restricción al uso de medicamentos en un hospital de alta complejidad	Original research	Spanish	Colombia
Rocha et al	2019	Impact of medication therapy management on pharmacotherapy safety in an intensive care unit.	Original research	Ingles	Brazil
Rocha et al	2021	Influence of pharmaceutical services organization on the availability of essential medicines in a public health system.	Original research	Ingles	Brazil
Roman et al	2020	Consideraciones éticas en la dispensación de medicamentos en farmacias de Ecuador	Original research	Spanish	Ecuador
Romero & Berrones	2018	Estudio de prescripción-indicación en pacientes con antimicrobianos de amplio espectro en medicina interna de un hospital del Ecuador	Not specified	Spanish	Ecuador
Salazar-Ospina et al	2017	Effectiveness of the Dader Method for Pharmaceutical Care on Patients with Bipolar I Disorder: Results from the EMDADER-TAB Study.	Original research	Ingles	Colombia
Saldanha et al	2020	Incidence, types and acceptability of pharmaceutical interventions about drug related problems in a general hospital: an open prospective cohort.	Original research	Ingles	Brazil
Saldarriaga Enrique M	2017	Pruebas en el punto de atención para anemia, diabetes e hipertensión: un modelo basado en farmacia en Lima, Perú .	Original research	Ingles	Perú

Santana Souza et al	2017	Characterization of the institutionalization of pharmaceutical services in Brazilian primary health care.	Original research	Ingles	Brazil
Santos et al	2021	Clinical Impact of a Comprehensive Medication Management Service in Primary Health Care.	Original research	Ingles	Brazil
Santos et al	2018	Hospital pharmacy workforce in Brazil	Original research	Ingles	Brazil
Santos Lula Barros et al	2020	Serviços farmacêuticos clínicos na atenção primária à saúde do brasil	Original research	Portugues e	Brazil
Santos-Pinto et al	2021	The role of primary care pharmacists in the response to the Zika epidemic	Original research	Ingles	Brazil
Scarabelin et al	2019	Pharmacist-Patient Communication in Prostate Cancer as a Strategy to Humanize Health Care: A Qualitative Study	Original research	Ingles	Brazil
Silmara Mendes Martins Moulin, et al	2017	The role of clinical pharmacists in treatment adherence: fast impact in suppression of chronic myeloid leukemia development and symptoms.	Original research	Ingles	Brazil
Silva & Fegadolli	2020	Implementation of pharmaceutical care for older adults in the brazilian public health system: a case study and realistic evaluation	Original research	Ingles	Brazil
Silva Atencar Tatiane	2018	Programa Farmácia Popular do Brasil: uma análise política de sua origem, seus desdobramentos e inflexões	Original research	Portugues e	Brazil
Silva et al	2018	Intervenciones farmacéuticas en unidad de hospitalización obstétrica de alto riesgo: un problema de seguridad de medicamentos.	Original research	Ingles	Brazil
Silvana Nair Leite	2017	Servicio de dispensación de medicamentos en la atención primaria de salud del SUS	Original research	Ingles	Brazil
Souza, et al	2021	Medication adherence and persistence of psoriatic arthritis patients treated with biological therapy in a specialty pharmacy in Brazil: a prospective observational study	Original research	Ingles	Brazil
Tatyana Xavier Almeida Matteucci Ferreira	2018	Impact of a drug dispensing model at a Community Pharmacy in Goiânia, Goiás, Brazil	Original research	Ingles	Brazil
Valdez Ramírez Lourdes Aidee, et al	2020	Reporte de reacciones adversas a medicamentos en un hospital mexicano	Article navigation	Ingles	Mexico
Vargas López	2021	The implementation of pharmaceutical services in public hospitals in Mexico: an analysis of the legal framework and organizational practice	Original research	Ingles	Mexico
Verduguez & Gomez	2021	Errores en el registro de datos del sistema intrahospitalario de distribución de medicamentos	Original research	Spanish	Bolivia
Viana et al	2017	Interventions of the clinical pharmacist in an Intermediate Care Unit for elderly patients.	Original research	Ingles	Brazil
Vilela Rodrigues, et al	2019	Analysis of clinical pharmacist interventions in the neurology unit of a Brazilian tertiary teaching hospital	Original research	Ingles	Brazil

Visacri et al	2021	Clinical pharmacy in onco-hematology and bone marrow transplant: A valuable contribution to improving patient safety.	Original research	Ingles	Brazil
Vodicka et al	2017	Patient acceptability of and readiness-to-pay for pharmacy-based health membership plans to improve hypertension outcomes in Lima, Peru	Original research	Ingles	Peru