

Accounting and Financial in Pharmacy Practice: Competency

Yousef Ahmed Alomi¹, 

BSc. Pharm, MSc. Clin Pharm, BCPS, BCNSP, DiBA, CDE, Critical Care Clinical Pharmacists, TPN Clinical Pharmacist, Freelancer Business Planner, Content Editor, and Data Analyst, Riyadh, SAUDI ARABIA.

Ghadeer Zayed Aljumah, Bachelor of Accounting, Financial Manager, Ministry of Health, Riyadh, SAUDI ARABIA.

Nasser Rashid Alohlie, Bachelor of Economy, Financial Audit, Ministry of Health, Riyadh, SAUDI ARABIA.

Naif Saleh Alamri, Bachelor of Engineering, Director General of the General Administration of Security and Safety Ministry of Health, Riyadh, SAUDI ARABIA.

Maha Hussein Almadany, Bsc. Pharm, Health Care Quality Management Professional Diploma (HCQM), Pharmacy Quality department, King Salman bin Abdulaziz Medical City, Al Madina Al Monwarah, SAUDI ARABIA.

Riyadh M Alashban, Ph.D., Medical care pharmacy, Riyadh, SAUDI ARABIA.

Abeer Hussin Almasoudi, BSc. Pharm, BCPS., Director, Administration of Research and Studies, Ministry of Health, Tabuk, SAUDI ARABIA.

Correspondence:

Dr. Yousef Ahmed Alomi, Bsc. Pharm, msc. Clin pharm, bcps, bCNSP, DiBA, CDE Critical Care Clinical Pharmacists, TPN Clinical Pharmacist, Freelancer Business Planner, Content Editor and Data Analyst, P.O.BOX 100, Riyadh 11392, Riyadh, SAUDI ARABIA.

Phone no: +966 504417712

E-mail: yalomi@gmail.com

Received: 2-01-2023;

Accepted: 26-02-2023;

Copyright: © the author(s), publisher and licensee International Journal of Pharmacology and Clinical Sciences. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License

Access this article online



www.ijpcs.net

DOI:
10.5530/ijpcs.2023.12.14

ABSTRACT

Objectives: To explore the accounting and financial system competency policy and procedures in pharmacy practice as a new initiative in Saudi Arabia. **Methods:** It was a narrative review of pharmacy accounting and financial system competency policy and procedures. Litterateur searched various databases, including PubMed, Medline, and Google Scholar. The search period is from the 1960s until 15 October 2023. The term is in full-text English and includes Case Reports, Classical Articles, Clinical Conferences, Clinical Studies, Clinical Trials, Evaluation Studies, Government Publications, Guidelines, Meta-Analysis, Observational Studies, Practice Guidelines, Randomized Controlled Trials, Reviews, Systematic Reviews, with Humans subject. All hospital or community pharmacy services are included in a search term. Besides, the National and international guidelines of general infection control in hospital practice. The committee of pharmacy accounting policy and procedures formulated and consisted of various expert members. That includes clinical pharmacists, accountant specialists, and financial experts. The guidelines of the policy draft by one member by the second member were reviewed and corrected. The third revision was by the accountant specialist. The topic emphasizes the accounting system competency of the Pharmacy policy. **Results:** Pharmacy accounting competencies and financial system policies and procedures included various items. It also provides proficiency steps in pharmacy practice. Accountability for policies and procedures in accounting and financial systems included five models. For instance, patient care, accounting, and financial systems. Besides, the communications, professionalism, and continuing professional development. Each model had an education and training, assessment type, and competence assessment outcome. The Pharmacy Accounting and Financial Systems Competency is offered semi-annually or annually to career professionals. **Conclusion:** The pharmacy accounting and finance Competency is a new initiative and part of Pharmaceutical Care Services. Pharmacy accounting and financial policy competence aliment in the continued development of pharmacist accounting and financial system skills and improving accounting and financial policies for pharmacy operations. In addition, efficient budgeting and financial reporting in healthcare facilities. Therefore, familiarity with pharmacy accounting and financial policies and procedures is highly recommended for pharmacy practice services worldwide. **Keywords:** Accounting, Financial, Policy, Pharmacy, Competency, Saudi Arabia.

INTRODUCTION

The pharmacist prepares and distributes medication regularly, emphasizing the best and appropriate drug therapy to reach patients and drug therapy monitoring to prevent the complications of medicines and avoid economic burden on patients and the healthcare system.^[1-8] Pharmacist needs standards of practice for their professionalism during pharmacy activities and operations. The local and international standards have been implemented over the past years.^[9-15] However, competencies were another face coin to reach optimal hospital and community pharmacy practice. Various pharmacist competencies are released by local and international pharmacy administrations and organizations for different pharmacy practice areas, such as general competencies or more specific requirements such as preparation and administration of parenteral, intravenous medicine, chemotherapy preparation, and distribution.^[14,16-21]

One critical aspect that needs competencies is pharmacy accounting and financial management.

The pharmacist should link the accounting and financial management and patient-related services. The pharmacist had skills for providing enough medication supply through inventory management skills and recording patient accounts through the general ledger.^[22-27]

The pharmacist has accounting and financial management skills, such as the pharmacist should be able to understand the accounting and financial terms and prepare and analysis of financial statements such as position statements, cash flow, and income statements. In addition to communicating accounting and financial information, they cooperate with their employees in professional ways and continuously professional development in accounting and finance in pharmacy management.^[28-36]

Although competency parameters in accounting and financial policies and procedures in pharmacy practice are highly demanded, it was seldom found reviews published in local or Gulf and Arabic countries or internationally.^[22-27,30,33-44] All policy and procedural powers apply primarily to persons not intended to become pharmacists.^[45-52] Furthermore, the authors were

unaware of any publications on pharmacists' accounting and financial skills. This review discloses policies and procedures regarding pharmacy operations' accounting and financial capabilities.

METHODS

It is a narrative review of Financial and accounting in pharmacy practice. The literature search was performed using PubMed, Medline, and Google Scholar databases about specific pharmacy practice accounting and financial system topics. The search period was from the 1960s until 15 May 2023. The searched terms were in full-text English. They included Full-text Case Reports, Classical Articles, Clinical Conferences, Clinical Studies, Clinical Trials, Evaluation Studies, Government Publications, Guidelines, Meta-Analysis, Observational Studies, Practice Guidelines, Randomized Controlled Trials, Reviews, Systematic Reviews, Humans in the English language. The pharmacy services included inpatient, outpatient, or ambulatory care pharmacy, satellite pharmacy, extemporaneous preparation, repackaging units, pharmacy store, drug information center, and clinical pharmacy services. Moreover, the national and international guidelines of general accounting and financial practice emphasizing pharmacy and healthcare settings were used as guides for writing the review.^[22-27,30,33-44] That is including guidelines from the Saudi Central Bank, Capital Market Authority, Saudi Organization for Certified Public Accountants (SOCPA), American Institute of Certified Public Accountants (AICPA), American Accounting Association (A.A.A), The International Auditing and Assurance Standards Board (IAASB), The International Accounting Education Standards Board (IAESB), The International Ethics Standards Board (IESBA), The International Public Sector Accounting Standards Board (IPSASB).^[45-52] The pharmacy Financial and accounting committee comprises experts, including clinical pharmacists and accountants. Some authors drafted the policy guidelines, and other authors reviewed them. The accountant specialist revised the draft. The policy included topics in account ting cycle, visibility study in a the pharmacy environment, pharmacy financial statement including income list, cash flow, budget sheet or balance sheet, electronic applications of accounting and financial in pharmacy setting, quality of pharmacy Financial and accounting, competency of pharmacy Financial and accounting, and education and training of pharmacy Financial and accounting. The current emphasis is on accounting system competency policy and procedures in pharmacy practice. The

Appraisal of Guidelines, Research, and Evaluation (AGREE) guided the reporting of the results of this review.^[53]

The search term methodology was done as follows:

Search: **(pharmacy[Title/Abstract]) AND (Financial[Title/Abstract])** Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacy"[Title/Abstract] AND "Financial"[Title/Abstract]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedc onrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: **(pharmacy[Text Word]) AND (Financial[Text Word])** Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacy"[Text Word] AND "Financial"[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedc onrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: **(pharmacy[MeSH Terms]) AND (Financial[MeSH Terms])** Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

(("pharmacy"[MeSH Terms] OR "pharmacies"[MeSH Terms]) AND "economics"[MeSH

Terms]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference [Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedc onrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacy[MeSH Terms]: «pharmacy»[MeSH Terms] OR «pharmacies»[MeSH Terms]

Financial[MeSH Terms]: «economics»[MeSH Terms]

Search: **(pharmacist[Title/Abstract]) AND (Financial[Title/Abstract])** Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacist"[Title/Abstract] AND "Financial"[Title/Abstract]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedc onrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: **(pharmacist[Text Word]) AND (Financial[Text Word])** Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacist"[Text Word] AND "Financial"[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedc onrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: (**pharmacist**[MeSH Terms]) AND (**Financial**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacists"[MeSH Terms] AND "economics"[MeSH Terms]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacist[MeSH Terms]: «pharmacists» [MeSH Terms]

Financial[MeSH Terms]: «economics» [MeSH Terms]

Search: (**pharmacy**[Title/Abstract]) AND (**accounting**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacy"[Title/Abstract] AND "accounting"[Title/Abstract]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: (**pharmacy**[Text Word]) AND (**accounting**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacy"[Text Word] AND "accounting"[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR

clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: (**pharmacy**[MeSH Terms]) AND (**accounting**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

(("pharmacy"[MeSH Terms] OR "pharmacies"[MeSH Terms]) AND "accounting"[MeSH Terms]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacy[MeSH Terms]: «pharmacy» [MeSH Terms] OR «pharmacies» [MeSH Terms]

accounting[MeSH Terms]: «accounting» [MeSH Terms]

Search: (**pharmacist**[Title/Abstract]) AND (**accounting**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacist"[Title/Abstract] AND "accounting"[Title/Abstract]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: (**pharmacist**[Text Word]) AND (**accounting**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacist"[Text Word] AND "accounting"[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: (**pharmacist**[MeSH Terms]) AND (**accounting**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacists"[MeSH Terms] AND "accounting"[MeSH Terms]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacist[MeSH Terms]: «pharmacists» [MeSH Terms]

accounting[MeSH Terms]: «accounting» [MeSH Terms]

Search: (**pharmaceutical care**[Title/Abstract]) AND (**accounting**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmaceutical care"[Title/Abstract] AND "accounting"[Title/Abstract]) AND

((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter])))

Search: (**pharmaceutical care**[Text Word]) AND (**accounting**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmaceutical care"[Text Word] AND "accounting"[Text Word]) AND ((casereports [Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy [Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter])))

Search: (**pharmaceutical care**[MeSH Terms]) AND (**accounting**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmaceutical services"[MeSH Terms] AND "accounting"[MeSH Terms]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter])))

Translations

pharmaceutical care[MeSH Terms]: «pharmaceutical services»[MeSH Terms]

accounting[MeSH Terms]: «accounting»[MeSH Terms]

Search: (**pharmacy**[Title/Abstract]) AND (**accounting cycle**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacy"[Title/Abstract] AND ("account" [All Fields] OR "accounted"[All Fields] OR "accounting"[MeSH Terms] OR "accounting"[All Fields] OR "accountings"[All Fields] OR "accounts"[All Fields]) AND "cycle"[Title/Abstract])) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter])))

Translations

accounting: «account»[All Fields] OR «accounted»[All Fields] OR «accounting»[MeSH Terms] OR "accounting"[All Fields] OR "accountings"[All Fields] OR "accounts"[All Fields]

Search: (**pharmacy**[Text Word]) AND (**accounting cycle**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacy"[Text Word] AND ("account" [All Fields] OR "accounted"[All Fields] OR "accounting"[MeSH Terms] OR "accounting"[All Fields] OR "accountings"[All Fields] OR "accounts"[All Fields]) AND "cycle"[Text Word])) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter])))

Translations

accounting: «account»[All Fields] OR «accounted»[All Fields] OR «accounting»[MeSH Terms] OR "accounting"[All Fields] OR "accountings"[All Fields] OR "accounts"[All Fields]

Search: (**pharmacy**[MeSH Terms]) AND (**accounting cycle**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((pharmacy[MeSH Terms] AND (accounting cycle[MeSH Terms])) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter])))

Translations

pharmacy[MeSH Terms]: «pharmacy»[MeSH Terms] OR "pharmacies"[MeSH Terms]

Warnings

(pharmacy[MeSH Terms] AND (accounting cycle[MeSH Terms]))

Term not found: cycle

Search: (**pharmacist**[Title/Abstract]) AND (**accounting cycle**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacist"[Title/Abstract] AND ("account" [All Fields] OR "accounted"[All Fields] OR "accounting"[MeSH Terms] OR "accounting"[All Fields] OR "accountings"[All Fields] OR "accounts"[All Fields]) AND "cycle"[Title/Abstract])) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter])))

ontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

accounting: «account»[All Fields] OR «accounted»[All Fields] OR «accounting»[MeSH Terms] OR «accounting»[All Fields] OR «accountings»[All Fields] OR «accounts»[All Fields]

Search: (**pharmacist**[Text Word]) AND (**accounting cycle**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((“pharmacist”[Text Word] AND (“account”[All Fields] OR “accounted”[All Fields] OR “accounting”[MeSH Terms] OR “accounting”[All Fields] OR “accountings”[All Fields] OR “accounts”[All Fields]) AND “cycle”[Text Word])) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedc ontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

accounting: «account»[All Fields] OR «accounted»[All Fields] OR «accounting»[MeSH Terms] OR «accounting»[All Fields] OR «accountings»[All Fields] OR «accounts»[All Fields]

Search: (**pharmacist**[MeSH Terms]) AND (**accounting cycle**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((pharmacist[MeSH Terms]) AND (accounting cycle[MeSH Terms])) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR

practiceguideline[Filter] OR randomizedc ontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacist[MeSH Terms]: «pharmacists»[MeSH Terms]

Warnings

(pharmacist[MeSH Terms]) AND (accounting cycle[MeSH Terms])

Term not found: cycle

Search: (**pharmaceutical care**[Title/Abstract]) AND (**accounting cycle**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English** (“pharmaceutical care”[Title/Abstract] AND (“account”[All Fields] OR “accounted”[All Fields] OR “accounting”[MeSH Terms] OR “accounting”[All Fields] OR “accountings”[All Fields] OR “accounts”[All Fields]) AND “cycle”[Title/Abstract])) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedc ontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

accounting: «account»[All Fields] OR «accounted»[All Fields] OR «accounting»[MeSH Terms] OR «accounting»[All Fields] OR «accountings»[All Fields] OR «accounts»[All Fields]

Search: (**pharmaceutical care**[Text Word]) AND (**accounting cycle**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((“pharmaceutical care”[Text Word] AND (“account”[All Fields] OR “accounted”[All Fields] OR “accounting”[MeSH Terms] OR “accounting”[All Fields] OR “accountings”[All Fields] OR “accounts”[All Fields]) AND “cycle”[Text Word])) AND

((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedc ontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

accounting: «account»[All Fields] OR «accounted»[All Fields] OR «accounting»[MeSH Terms] OR «accounting»[All Fields] OR «accountings»[All Fields] OR «accounts»[All Fields]

Search: (**pharmaceutical care**[MeSH Terms]) AND (**accounting cycle**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((pharmaceutical care[MeSH Terms]) AND (accounting cycle[MeSH Terms])) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedc ontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

pharmaceutical care[MeSH Terms]: «pharmaceutical services»[MeSH Terms]

Warnings

(pharmaceutical care[MeSH Terms]) AND (accounting cycle[MeSH Terms])

Term not found: cycle

Search: ((**pharmacy**[Title/Abstract]) AND (**accounting**[Title/Abstract])) AND (**Saudi**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

(“ p h a r m a c y ” [T i t l e / Abstract] AND “accounting”

[Title/Abstract] AND “Saudi”[Title/Abstract]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Search: ((**pharmacy**[Text Word]) AND (**accounting cycle**[Text Word])) AND (**saudi**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

(“pharmacy”[Text Word] AND “accounting”[Text Word] AND “saudi”[Text Word] AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Search: ((**pharmacy**[MeSH Terms]) AND (**accounting cycle**[MeSH Terms])) AND (**saudi**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((pharmacy[MeSH Terms]) AND (accounting cycle[MeSH Terms])) AND (saudi[MeSH Terms]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacy[MeSH Terms]: «pharmacy»[MeSH Terms] OR «pharmacies»[MeSH Terms]

Warnings

((pharmacy[MeSH Terms]) AND (accounting cycle[MeSH Terms])) AND (saudi[MeSH Terms])

Terms not found: cycle, Saudi.

Search: ((**pharmacy**[Title/Abstract]) AND (**Financial**[Title/Abstract])) AND (**saudi**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

(“pharmacy”[Title/Abstract] AND “Financial”[Title/Abstract] AND “saudi”[Title/Abstract] AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Search: ((**pharmacy**[Text Word]) AND (**Financial**[Text Word])) AND (**saudi**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

(“pharmacy”[Text Word] AND “Financial”[Text Word] AND “saudi”[Text Word] AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Search: ((**pharmacy**[MeSH Terms]) AND (**Financial**[MeSH Terms])) AND (**saudi**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial,**

Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English

((pharmacy[MeSH Terms]) AND (Financial [MeSH Terms])) AND (saudi[MeSH Terms]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacy[MeSH Terms]: «pharmacy»[MeSH Terms] OR «pharmacies»[MeSH Terms]

Financial[MeSH Terms]: «economics»[MeSH Terms]

Warnings

((pharmacy[MeSH Terms]) AND (Financial [MeSH Terms])) AND (saudi[MeSH Terms])

Term not found: Saudi

Search: ((**pharmacy**[Title/Abstract]) AND (**accounting**[Title/Abstract])) AND (**policy**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

(“pharmacy”[Title/Abstract] AND “accounting”[Title/Abstract] AND “policy”[Title/Abstract] AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Search: ((**pharmacy**[Title/Abstract]) AND (**accounting**[Title/Abstract])) AND (**procedure**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication,**

Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English

("pharmacy"[Title/Abstract] AND "accounting"[Title/Abstract] AND "procedure"[Title/Abstract]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (ff[Filter] AND (humans[Filter] AND (english[Filter])))

Search: ((**pharmacy**[Title/Abstract]) AND (**Financial**[Title/Abstract])) AND (**policy**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacy"[Title/Abstract] AND "Financial"[Title/Abstract] AND "policy"[Title/Abstract]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (ff[Filter] AND (humans[Filter] AND (english[Filter])))

Search: ((**pharmacy**[Text Word]) AND (**Financial**[Text Word])) AND (**policy**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacy"[Text Word] AND "Financial"[Text Word] AND "policy"[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (ff[Filter] AND (humans[Filter] AND (english[Filter])))

controlledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (ff[Filter] AND (humans[Filter] AND (english[Filter])))

Search: ((**pharmacy**[MeSH Terms]) AND (**Financial**[MeSH Terms])) AND (**policy**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((("pharmacy"[MeSH Terms] OR "pharmacies"[MeSH Terms]) AND "economics"[MeSH Terms] AND "policy"[MeSH Terms]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (ff[Filter] AND (humans[Filter] AND (english[Filter])))

Translations

pharmacy[MeSH Terms]: «pharmacy»[MeSH Terms] OR «pharmacies»[MeSH Terms]

Financial[MeSH Terms]: «economics»[MeSH Terms]

policy[MeSH Terms]: «policy»[MeSH Terms]

Search: ((**pharmacy**[Title/Abstract]) AND (**Financial**[Title/Abstract])) AND (**procedure**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacy"[Title/Abstract] AND "Financial"[Title/Abstract] AND "procedure"[Title/Abstract]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (ff[Filter] AND (humans[Filter] AND (english[Filter])))

Search: ((**pharmacy**[Title]) AND (**Financial**[Title])) AND (**procedure**[Text

Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("pharmacy"[Title] AND "Financial"[Title] AND "procedure"[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (ff[Filter] AND (humans[Filter] AND (english[Filter])))

Search: ((**pharmacy**[MeSH Terms]) AND (**Financial**[MeSH Terms])) AND (**procedure**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((("pharmacy"[MeSH Terms] OR "pharmacies"[MeSH Terms]) AND "economics"[MeSH Terms] AND "methods"[MeSH Terms]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (ff[Filter] AND (humans[Filter] AND (english[Filter])))

Translations

pharmacy[MeSH Terms]: «pharmacy»[MeSH Terms] OR «pharmacies»[MeSH Terms]

Financial[MeSH Terms]: «economics»[MeSH Terms]

procedure[MeSH Terms]: «methods»[MeSH Terms]

Search: ((**pharmacy**[Text Word]) AND (**accounting**[Text Word])) AND (**policy**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

“pharmacy”[Text Word] AND “accounting”[Text Word] AND “policy”[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Search: ((**pharmacy**[Text Word]) AND (**accounting**[Text Word])) AND (**procedure**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

“pharmacy”[Text Word] AND “accounting”[Text Word] AND “procedure”[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Search: ((**pharmacy**[MeSH Terms]) AND (**accounting**[MeSH Terms])) AND (**policy**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((“pharmacy”[MeSH Terms] OR “pharmacies”[MeSH Terms]) AND “accounting”[MeSH Terms] AND “policy”[MeSH Terms] AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR

systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacy[MeSH Terms]: «pharmacy»[MeSH Terms] OR “pharmacies”[MeSH Terms]

accounting[MeSH Terms]: «accounting»[MeSH Terms]

policy[MeSH Terms]: «policy»[MeSH Terms]

Search: ((**pharmacy**[MeSH Terms]) AND (**accounting**[MeSH Terms])) AND (**procedure**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((“pharmacy”[MeSH Terms] OR “pharmacies”[MeSH Terms]) AND “accounting”[MeSH Terms] AND “methods”[MeSH Terms] AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacy[MeSH Terms]: «pharmacy»[MeSH Terms] OR “pharmacies”[MeSH Terms]

accounting[MeSH Terms]: «accounting»[MeSH Terms]

procedure[MeSH Terms]: «methods»[MeSH Terms]

Search: ((**pharmacy**[Title/Abstract]) AND (**Accounting**[Title/Abstract]))AND(**competency**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

“pharmacy”[Title/Abstract]AND“Accounting”[Title/Abstract] AND “competency”[Title/Abstract] AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR

practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Search: ((**pharmacy**[Text Word]) AND (**Accounting**[Text Word])) AND (**competency**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

“pharmacy”[Text Word] AND “Accounting”[Text Word] AND “competency”[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Search: ((**pharmacy**[MeSH Terms]) AND (**Accounting**[MeSH Terms])) AND (**competency**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

((“pharmacy”[MeSH Terms] OR “pharmacies”[MeSH Terms]) AND “accounting”[MeSH Terms] AND “mental competency”[MeSH Terms] AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacy[MeSH Terms]: «pharmacy»[MeSH Terms] OR “pharmacies”[MeSH Terms]

Accounting[MeSH Terms]: «accounting»[MeSH Terms]

competency[MeSH Terms]: «mental competency»[MeSH Terms]

Search: ((pharmacy[Title/Abstract]) AND (Financial[Title/Abstract])) AND (competency[Title/Abstract]) Filters: Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English

("pharmacy"[Title/Abstract] AND "Financial"[Title/Abstract] AND "competency"[Title/Abstract]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter] AND (english[Filter])))

Search: ((pharmacy[Text Word]) AND (Financial[Text Word])) AND (competency[Text Word]) Filters: Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English

("pharmacy"[Text Word] AND "Financial"[Text Word] AND "competency"[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter] AND (english[Filter])))

Search: ((pharmacy[MeSH Terms]) AND (Financial[MeSH Terms])) AND (competency[MeSH Terms]) Filters: Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Evaluation Study, Government Publication, Guideline, Meta-Analysis, Observational Study, Practice Guideline, Randomized Controlled Trial, Review, Systematic Review, Humans, English

((("pharmacy"[MeSH Terms] OR "pharmacies"[MeSH Terms]) AND "economics"[MeSH Terms] AND "mental competency"[MeSH Terms]) AND ((casereports[Filter]

OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR evaluationstudy[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR practiceguideline[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter] AND (humans[Filter] AND (english[Filter])))

Translations

pharmacy[MeSH Terms]: «pharmacy»[MeSH Terms] OR «pharmacies»[MeSH Terms]

Financial[MeSH Terms]: «economics»[MeSH Terms]

competency[MeSH Terms]: «mental competency»[MeSH Terms]

RESULTS AND DISCUSSION

When beginning to enforce pharmacy accounting and financial competency for any pharmacist, it cautioned following the coverage

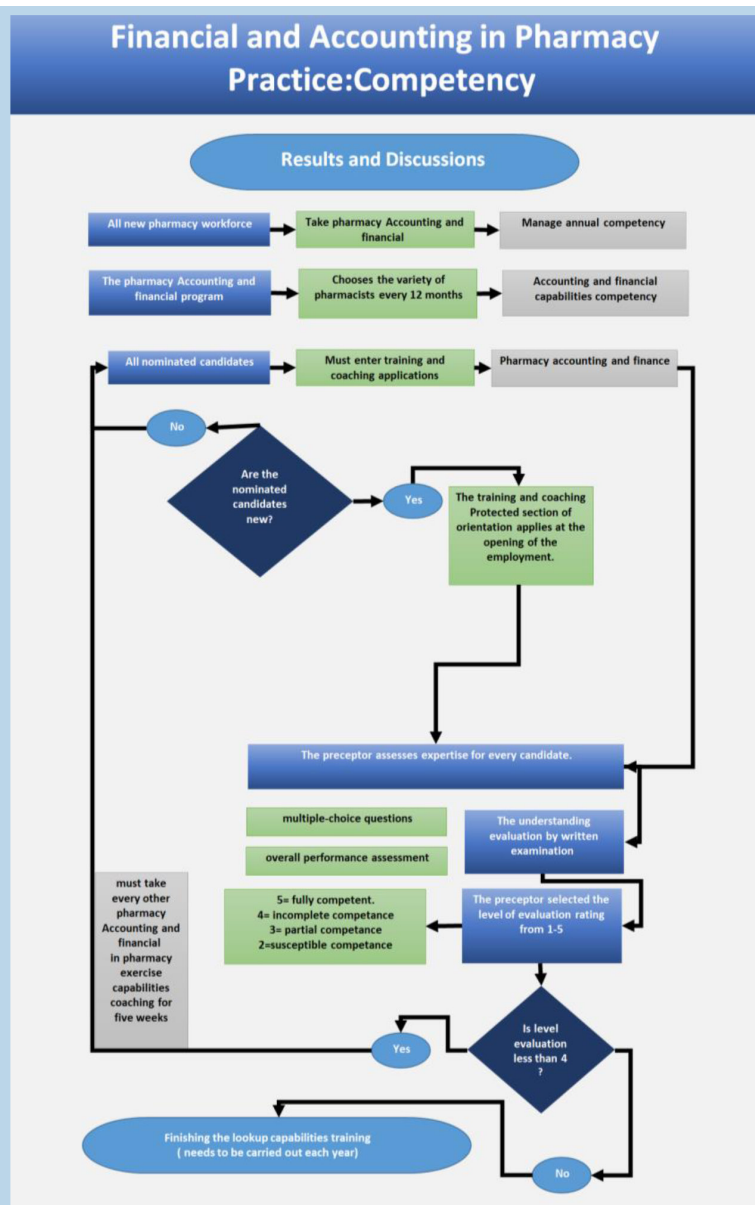


Figure 1: Flow chart diagram of competency for accounting and finance in pharmacy practice.

Table 1: Pharmacy accounting and financial Competency elements.

No	Topic	Activity	Education and training		Type of Assessment		Assessment scores				
			Pre-training test	Post-training test	Exam	Preceptor	1	2	3	4	5
1.	Patients care	Record all prescriptions, medications, and medical supply transactions in the journal entry. All transactions should be posted to the general ledger regularly. Contribute to adjusting entries with a general accountant. Implement accounting and financial health insurance in pharmacy practice. Prevent the patients from pharmacy accounting and financial-related problems. Setup and manage pharmacy inventory for all hospital sections as required for patients and Health workers.	✓	✓	✓	✓					
2.	Accounting and Financial	Demonstrate financial statements, including the income statement, balance sheet, and statement of cash flow analysis for pharmacy activities. Apply Accounting and financial Standards at the pharmacy section. Implementation of Accounting and Financial at the pharmacy department. Monitor and Control Accounting and financial Indicators and workplaces at pharmacy sections. Implement the Accounting and Financial competency for pharmacy staff. Monitor quality management measures of pharmacy Accounting and financials. Make pharmacy Accounting and financial audits regularly. Contribute to risk management of pharmacy Accounting and financials. Implementation of pharmacy Accounting and financial education and training. Monitor and document the outcome of pharmacy accounting and finances regularly. Identify, investigate, and manage the pharmacy Accounting and finances for any business loss or low revenue in pharmacy practice.	✓	✓	✓	✓					
3.	Communication	Participate in accounting and finance committees and the team at healthcare organizations. Educate the pharmacy workforce professionals about pharmacy accounting and finances. Set strategies for pharmacy accounting and financial audit and quality managing indicators for pharmacy organizations. Report pharmacy accounting and finances to the accounting and financial department at healthcare organizations.	✓	✓	✓	✓					
4.	Professionalism	Respect and share the accountant and financial administrator's healthcare worker on accounting and financial. Cooperate with all accounting and financial organizations to implement pharmacy accounting and financial guidelines, policies, and procedures.	✓	✓	✓	✓					
5.	Continuous professional development	Update the pharmacy accounting and financial guidelines regularly. Setup annual plan of accounting and financials for each pharmacy services unit. Distribution analysis of financial statements materials of pharmacy accounting and finance for pharmacy leaders and staff workers. Make available the pharmacy accounting and financial references and guidelines for pharmacy staff.	✓	✓	✓	✓					

and methods as follows in Figure 1 and Table1.^[22-36]

1. All new pharmacy workforce must take pharmacy accounting and finance to manage competency annually.
2. The pharmacy accounting and financial program at pharmaceutical care chooses a variety of pharmacists every 12 months for accounting and financial capabilities competency. All nominations via the supervisor of the units.
3. All nominated candidates enter training and coaching applications for pharmacy accounting and finance.
4. If the new pharmacist workers, the training and coaching protected section of the orientation application at the employment opening.
5. After finishing the lookup capabilities training, the preceptor assesses the expertise of every candidate.
6. The understanding makes the written examination of multiple-choice questions and overall performance assessment.
7. The preceptor selected the level of evaluation rating from one least one to 5 whole scores.
8. The rankings of evaluation are divided into five categories. Five equal entire competent, four foremost incomplete capable, three partial competent, two equal to susceptible competent, and one major non-competent.
9. All evaluation ratings must be no less than 4 for every competency objective.
10. If any competency intention is much less than four, the pharmacist will no longer skip the lookup capabilities and get no longer competent.
11. If the candidates received non-competent, every other evaluation quarterly via till they attain a rating of greater than four or five.
12. The lookup abilities competency evaluation needs to be carried out each year.
13. Any pharmacist bought much less than 4 for the duration of the annual evaluation of accounting and financial competencies competency. The pharmacist will take every other accounting and financial in pharmacy exercise capabilities coaching for five weeks.

CONCLUSION

Pharmacy Accounting and Financial Literacy Policies and Procedures, Scope and Tactics, Entire Accounting and Financial Literacy Section, and General Pharmaceutical

Performance and Activities. That consists of five objects. Stakeholder Care, Accounting and Finance, Communication, Professionalism, and Continuing Professional Development. A sustainable strategy, therefore, enhances fundamental pharmacy accounting and financial skills. In addition, evaluations and comparisons of groups of pharmacy employees on accounting and financial skills in pharmacy are described. In addition, pharmacy accounting and pharmacy-related finances are also hampered. Therefore, pharmacy accounting and financial literacy scope and strategies are recommended to enhance pharmaceutical offerings domestically and internationally.

ACKNOWLEDGEMENT

None.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

Funding

None

Consent for Publications

It does not apply to this review

Ethical Approval

This research is exempted from research and ethical committee or an institutional review board (IRB) approval.

<https://www.hhs.gov/ohrp/regulations-and-policy/decision-charts-2018/index.html>

ABBREVIATIONS

KSA: Kingdom of Saudi Arabia; **SOCPA:** Saudi Organization for Certified Public Accountants; **AICPA:** American Institute of Certified Public Accountants; **AAA:** American Accounting Association; **IAASB:** The International Auditing and Assurance Standards Board; **IAESB:** The International Accounting Education Standards Board; **IESBA:** The International Ethics Standards Board; **IPSASB:** The International Public Sector Accounting Standards Board; **AGREE:** The Appraisal of Guidelines, Research, and Evaluation.

ORCID ID

Yousef Ahmed Alomi  <https://orcid.org/0000-0003-1381-628X>

REFERENCES

1. Najafzadeh M, Schnipper JL, Shrank WH, Kymes S, Brennan TA, Choudhry NK. Economic Value of Pharmacist-Led Medication. *Am J Manag Care.* 2016;22(10):654-61.
2. Jackson DL, Michaels NM, Melson B, Bruder E, Rhodes LA, Marciniak MW. Evaluation of the economic and clinical impact of community pharmacist-driven pharmacy benefit management services. *Journal of the American Pharmacists Association.* 2019 Jul 1;59(4):S91-4.
3. Alomi YA, Fallatah AO, Bahadig FA, Qahtani AA AL. The Economic Outcomes of Pharmacist Interventions in Total Parenteral Nutrition Services in Saudi Arabia. *Pharmacology, Toxicology, and Biomedical Reports.* 2019;5(3s):S40-9.
4. Alomi YA, El-Bahnasawi M, Elemam A, Shaweesh T, Antonio EJ. The Economic Outcomes of Pharmacist Interventions at Critical Care Services of Private Hospital in Riyadh City, Saudi Arabia. *Pharmacology, Toxicology, and Biomedical Reports.* 2019;5(3s):S23-34.
5. Aljbouri TM, Alkhalwaleh MS, Abu-Rumman A eddeen K, Hasan TA, Khatrar HM, Abu-Oliem AS. Impact of clinical pharmacist on cost of drug therapy in the ICU. *Saudi Pharmaceutical Journal [Internet].* 2013;21(4):371-4. Available from: <http://dx.doi.org/10.1016/j.jsps.2012.12.004>
6. Sabry NA, Abbassi MM. Impact of a Clinical Pharmacist in the General Hospital : An Egyptian Trial. *Pharmacol Pharm.* 2014;5(June):577-87.
7. Lee H, Ryu K, Sohn Y, Kim J, Suh GY, Kim E. Impact on Patient Outcomes of Pharmacist Participation in Multidisciplinary Critical Care Teams: A Systematic Review and Meta-Analysis*. *Crit Care Med.* 2019;47(9).
8. Cunningham KJ. Analysis of Clinical Interventions and the Impact of Pediatric Pharmacists on Medication Error Prevention in a Teaching Hospital. *The Journal of Pediatric Pharmacology and Therapeutics [Internet].* 2012;17(4):365-73. Available from: <http://www.jppt.org/doi/abs/10.5863/1551-6776-174.365>
9. Saudi Central Board for Accreditation of Healthcare Institutions. National Hospital Standards. Third edit. Saudi Central Board for Accreditation of Healthcare Institutions; 2016.
10. Ukleja A, Gilbert K, Mogensen KM, Walker R, Ward CT, Ybarra J, et al. Standards for Nutrition Support: Adult Hospitalized Patients. *Nutrition in Clinical Practice.* 2018;33(6):906-20.
11. Dooley M, Bogovic A, Carroll M, Cuell S, Galbraith K, Matthews H. SHPA standards of practice for clinical pharmacy. *Journal of Pharmacy Practice and Research.* 2005;35(2):122-46.
12. Management M, Health Q, Standards S, Aged N, Residential C, Chart M, et al. Overview : Standards of Practice for Clinical Pharmacy Services. 2013;43(2):6-9.
13. American Society of Health-System Pharmacists. ASHP guidelines on a standardized method for pharmaceutical care. *American Journal of Health-System Pharmacy [Internet].* 1996;53(14):1713-6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/8827240>
14. Pharmaceutical Society of Australia. National Competency Standards Framework for Pharmacists in Australia [Internet]. Pharmaceutical Society of Australia Ltd. 2016 p. 1-112. Available from: <https://www.psa.org.au/download/standards/competency-standards-complete.pdf>
15. Burrige N, Chow A, Cording A. SHPA standards of practice for hospital pharmacy outpatient services. *Journal of Pharmacy Practice and Research.* 2006;36(3):220-4.
16. Ahmed Alomi Y. National Primary Care Pharmacist Competency System at MOH in Saudi Arabia. *Journal of Pharma & Pharmaceutical Sciences [Internet].* 2016;1(4):1-5. Available from: <http://verizonaonlinepublishing.com/PHARMAPDF/JournalofPharmaandPharmaceuticalSciences16.pdf>
17. Alomi YA. National Pharmacist Competency System at Ministry of Health Hospitals in Saudi Arabia. *J Pharmacol Clin Res.* 2016;1(3):1-5.
18. Forsyth P, Warren A, Thomson C, Bateman J, Greenwood E, Williams H, et al. A competency

- framework for clinical pharmacists and heart failure. *International Journal of Pharmacy Practice*. 2019 Oct 1;27(5):424–35.
19. Power LA, Coyne JW, Hawkins B. ASHP guidelines on handling hazardous drugs. *American Journal of Health-System Pharmacy*. 2018;75(24):1996–2031.
 20. Rinehart JR, Chan D, Cunningham M, Geller RE, Grandfield G, Heckman S, et al. ASHP guidelines on outsourcing sterile compounding services. *American Journal of Health-System Pharmacy*. 2010;67(9):757–65.
 21. Kastango ES. Blueprint for implementing USP chapter 797 for compounding sterile preparations. Vol. 62, *American Journal of Health-System Pharmacy*. 2005. p. 1271–88.
 22. Thielke TS, Charlson JT, Heckethorn D. Determining drug dispensing costs for use in cost-accounting systems. *Am J Hosp Pharm*. 1988;45:844–7.
 23. Gouveia WA, Anderson ER, Decker EL, Backer K. Design and implementation of a cost-accounting system in hospital pharmacy. *Am J Hosp Pharm*. 1988;45(3):613–20.
 24. J. Richard Wuest SS. Pharmacy Use of the Shared Hospital Accounting System. *Am J Hosp Pharm*. 1975;32:846–9.
 25. Vinson BE. Adjustments of distributive and clinical pharmacy services to financial constraints. *Am J Hosp Pharm*. 1988;45:847–51.
 26. Saikami D. Financial risk management of pharmacy benefits. *American Journal of Health-System Pharmacy*. 1997;54(19):2207–12.
 27. Suver JD, Cooper JC. Principles and methods of managerial cost-accounting systems. *Am J Hosp Pharm*. 1988;45(1):146–52.
 28. Becker FG, Cleary M, Team RM, Holtermann H, The D, Agenda N, et al. *Healthcare Finance* [Internet]. Vol. 7, *Syria Studies*. 2015. 37–72 p. Available from: https://www.researchgate.net/publication/269107473_What_is_governance/link/548173090cf22525dcb61443/download%0Ahttp://www.econ.upf.edu/~reynal/Civil_wars_12December2010.pdf%0Ahttps://think-asia.org/handle/11540/8282%0Ahttps://www.jstor.org/stable/41857625
 29. Financial Training Australia. *Glossary of Financial and Accounting Terms*. 2019. 1-21. Available from: <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.financialtrainingaustralia.com/wp-content/uploads/2019/08/FTA-Glossary-of-Accounting-Terms-FINAL-Aug2019.pdf>
 30. Directorate of Studies, *Fundamentals of Accounting*. Study Notes. The Institute of Cost Accountants of India. 2014.
 31. Alexander D, Nobes C. *Financial Accounting*. 2004. 1–476.
 32. Jonick C. *Principles of Financial Accounting*. 2017.1–308
 33. Dauderis H, Annand D. *Introduction to Financial Accounting*. 2017. 1–772.
 34. Rischbieth A, Serafeim G, Trinh K. *Accounting for Product Impact in the Pharmaceuticals Industry*. 2021; 21-139. Harvard Business School
 35. Eldenburg LG, Krishnan HA, Krishnan R. *Management Accounting and Control in the Hospital Industry: A Review*. *Journal of Governmental & Nonprofit Accounting*. 2017;6(1):52–91.
 36. Becker FG, Cleary M, Team RM, Holtermann H, The D, Agenda N, et al. *An Introduction to Accounting and Financial Management*. Health Administration Press. 2005. 1–623.
 37. Imani A, Janati A, Moghimi M, Golestani M, Doshmangir L. Identification of indicators for evaluating the financial and economic performance of the pharmacy: A systematic review. *Pharmaceutical Sciences*. 2015. 21; 111–124. Available from: <http://dx.doi.org/10.1517/PS.2015.25>
 38. Ekasari K, Mustofa A, Kusmintarti A. Evaluation Of Accounting Information Systems Based on Open-ERP At Pharmacy : A Case Study. *International Journal of Economics, Management, Business, and Social Science*. 2021;1(3):288–94.
 39. Mustofa A, Ekasari K, Kusmintarti A. Implementation of inventory accounting systems at pharmacy (Case Study at Tirta Pharmacy). *International Journal of Economics, Management, Business, and Social Science*. 2021;2021(2):153–60.
 40. McLean RA, Garis RI. Accounting principles, revenue recognition, and the profitability of pharmacy benefit managers. *Research in Social and Administrative Pharmacy*. 2005;1(1):118–25.
 41. Lubis CW, Lubis NI, Muda I. The production cycle in the pharmaceutical sub-sector: Traditional VS Digital accounting information systems era and implementation of internal control procedures that enable cost savings in dealing with threats in the cycle. *J Pharm Negat Results*. 2022;13(7):3522–32.
 42. Al-Arifi MN. *The Managerial Role of Pharmacist at Community Pharmacy Setting in Saudi Arabia*. *Pharmacology & Pharmacy*. 2013;04(01):63–70.
 43. Doucette WR, Mcdonough RP, Mormann MM, Vaschevici R, Urmie JM, Patterson BJ. Threeyear financial analysis of pharmacy services at an independent community pharmacy. *Journal of the American Pharmacists Association*. 2012;52(2):181–7.
 44. Ekasari K, Mustofa A, Kusmintarti A. Evaluation of Accounting Information Systems Based on Open-ERP at Pharmacy : A Case Study. *International Journal of Economics, Management, Business, and Social Science*. 2021; 1(3):288–94.
 45. Ravikumar A, Balushi A Al, Bulushi Y Al. pharmacists' perception on the use of Accounting Information System for Pharmacy Management : A study in. *J Pharm Negat Results*. 2022;13(3):769–76.
 46. SAMA. Saudi Central Bank. 2022 [cited 2023 23 May];(M). Available from: <https://www.sama.gov.sa/en-us/pages/default.aspx>
 47. Capital Market Authority. 2021 [cited 2023 23 May]; Available from: <https://cma.org.sa/en/AboutCMA/Pages/AboutCMA.aspx>
 48. SOCPA. Media Center. 2022 [cited 2023 23 May]. Saudi Organization for Certified Public Accountants. Available from: <https://www.socpa.org.sa/Home.aspx>
 49. IAASB. *Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements*. Vol. I. 2020.
 50. International Auditing and Assurance Standards Board. *International Auditing and Assurance Standards Board Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements 2020 Edition, Volume III*. Vol. III. 2020.
 51. IES. *International Education Standard 3, Initial Professional Development – Professional Skills (Revised)*. International Accounting Education Standards Board. 2019;(October).
 52. Board IAES. *International Education Standard les 4 - Professional Values, Ethics, and Attitudes*. 2005;(October):52–7.
 53. IAESB. *International Education Standard 8, Professional Competence for Engagement Partners Responsible for Audits of Financial Statements (Revised)*. 2019;(October).
 54. Brouwers MC, Kerkvliet K, Spithof K. The AGREE reporting checklist: A tool to improve reporting of clinical practice guidelines. *BMJ (Online)*. 2016;352.