

# Community Pharmacy Policy and Procedures: Pharmacoeconomics Services

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## ABSTRACT

**Objectives:** To explore the pharmacoeconomics policy in community pharmacy practice as a new initiative in Saudi Arabia. **Methods:** It was a narrative review of pharmacy Pharmacoeconomics policy and procedures in community pharmacy. Litterateur searched databases, including PubMed, Medline, and Google Scholar, about specific Pharmacoeconomics policies and procedures in pharmacy practice. The search period is from the 1960s until October 2021. The term is in English and includes narrative review, systemic review, Meta-analysis, and guidelines. All community pharmacy services are included in a search term. Besides, the national and international guidelines of general Pharmacoeconomics in hospital practice are also included. The pharmacy Pharmacoeconomics committee was formulated and consisted of various expert members. That includes community pharmacists, clinical pharmacists, and clinical Pharmacoeconomics specialists. The guidelines of the policy draft by one member and the second member were reviewed and corrected. The third revision was by the Pharmacoeconomics specialist. The topic emphasizes the community Pharmacy Pharmacoeconomics policy and procedures. **Results:** The community Pharmacy Pharmacoeconomics policy and procedures consisted of various items. That has included pharmacist responsibility for Pharmacoeconomics, setting up strategic and annual plans for community Pharmacoeconomic services, making assessments of Pharmacoeconomics, conducting education and training courses, and setting up quality management and key performance indicators. **Conclusion:** The community pharmacy Pharmacoeconomics policy, a new initiative, is designed to continuously develop and update community pharmaceutical care performances. The policy and procedures of Pharmacoeconomics of community practice is a continuous journey, enhancing pharmacists' skills in accounting, finances, and Pharmacoeconomics aspects of various community pharmacy services. Therefore, the constant development of Pharmacoeconomics's community pharmacy policy and procedures is crucial for implementing and transforming the new era of the community pharmacy model in Saudi Arabia.

**Keywords:** Community, Pharmacoeconomics, Pharmacy, Policy, Saudi Arabia.

## INTRODUCTION

Pharmacoeconomics is essential to hospital pharmacy services.<sup>[1-4]</sup> Using the cost minimization method, similar medications can be measured to choose the cheapest. It can measure the benefits of any new or old program or service that measures the benefits and cost of such two comparison services to select the cost-benefit one in a cost-benefit assessment.<sup>[4]</sup> Using cost-effective analysis, the pharmacoeconomics service can measure two medications' safety and effectiveness to determine the best cost-effective treatment options.<sup>[5]</sup> Using cost and quality of life methods,<sup>[6]</sup> Pharmacoeconomics can measure the best treatment based on cost and related quality of life. It might calculate the cost analysis of any old or new pharmaceutical care services.<sup>[7]</sup> It can estimate the cost of adverse drug effects using the cost of illness method, which can be used in future cost analysis or effectiveness measures.<sup>[8]</sup> Most of the literature discusses the analysis cost for such extemporaneous formulations for pediatric patients;<sup>[9-15]</sup> some studies measure the cost of ambulatory care pharmacies.<sup>[16,17]</sup> Another drug usage evaluation system measures

the appropriate medication usage to calculate the cost burden of misuse or nonadherence to therapeutic guidelines.<sup>[18]</sup> Some literature discussed patient satisfaction with community or hospital pharmacy facilities, which can be used to measure the level of pharmacy services provided to patients and assess methods to improve their healthcare.<sup>[19]</sup> It is rare to find previous studies' methodology used in community pharmacy settings; except for a few studies, most have been done at hospital pharmacies.<sup>[20,21]</sup> All pharmacoeconomic methods should be adapted to community pharmacy policies and procedures.<sup>[1-4]</sup> The author, unfamiliar with any literature, discussed community pharmacy's pharmacoeconomic policies and procedures.<sup>[22,23]</sup> The current review aims to declare the community pharmacy policies and procedures emphasizing pharmacoeconomic services.

## METHODS

It was a narrative review of new views on pharmacoeconomics policy and procedures at community pharmacies. Litterateur searched databases about specific community pharmacy

policy and procedures topics, including PubMed, Medline, and Google Scholar. The search period is from the 1960s until October 2024. The term is in English, and They included Full-text Full text, Case Reports, Classical Articles, Clinical Conferences, Clinical Studies, Clinical Trials, Clinical Trials, Phase I, Clinical Trials, Phase II, Clinical Trials, Phase III, Clinical Trials, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English. All community pharmacy services are included in a search term. The Community pharmacy services included point of sale at a community pharmacy, Human Resources of community pharmacy, education and training, compounding center, Community pharmacy store, and clinical Community pharmacy services. Besides, the National and international guidelines of general community pharmacy practice policy and procedures in the community setting.<sup>[24-31]</sup> That included the American Pharmaceutical Association, American Society of Health-System Pharmacists (ASHP),<sup>[24-26]</sup> and other literature.<sup>[2-4,6,9-15,20,28,31-56]</sup> The Community Pharmacy Policy and Procedures committee was formulated and consisted of various expert members. That includes expert community pharmacists, Pharmacoeconomics, and clinical pharmacist specialists. The policy guidelines were drafted by one member, reviewed and corrected by the second member, and the third revision by a pharmacoeconomics specialist. The Pharmacoeconomics Community pharmacy consisted of various topics, including cost analysis of the services, cost avoidance and impact calculations, cost minimization analysis, cost-benefit analysis, cost-effective analysis, cost-utility analysis, cost budget impact, Drug utilization analysis, and patient satisfaction services.

Search: (community pharmacy[Title/Abstract]) AND (pharmacoeconomics[Title/Abstract]) Filters: Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English

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## Translations

community pharmacy[MeSH Terms]: "pharmacies"[MeSH Terms]

pharmacoeconomics[MeSH Terms]: "economics, pharmaceutical"[MeSH Terms]

Search: (community pharmacy[Text Word]) AND (pharmacoeconomics[Text Word]) Filters: Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English

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Search: (retail pharmacy[MeSH Terms]) AND (pharmacoeconomics[MeSH Terms]) Filters: Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English

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## Translations

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 OR “retailing”[All Fields] OR “retails”[All  
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**pharmacoeconomics[MeSH Terms]:**  
 “economics, pharmaceutical”[MeSH Terms]

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## Translations

**community pharmacy[MeSH Terms]:**  
 “pharmacies”[MeSH Terms]

**drug utilization[MeSH Terms]:** “drug  
 utilization”[MeSH Terms]

Search: (community pharmacy[Text Word])  
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## Translations

**community pharmacy[MeSH Terms]:**  
 “pharmacies”[MeSH Terms]

**drug utilization[MeSH Terms]:** “drug  
 utilization”[MeSH Terms]

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 AND (**drug utilization[Text Word]**) Filters:  
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**Clinical Study, Clinical Trial, Clinical Trial,**  
**Phase I, Clinical Trial, Phase II, Clinical Trial,**  
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**Trial, Veterinary, Government Publication,**  
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**Study, Randomized Controlled Trial, Review,**  
**Systematic Review, Humans, English**

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 Terms]**) Filters: **Full text, Case Reports,**  
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## Translations

**community pharmacy[MeSH Terms]:**  
 “pharmacies”[MeSH Terms]

**patient satisfaction[MeSH Terms]:** “patient  
 satisfaction”[MeSH Terms]

Search: (**community pharmacy[Text Word]**)  
 AND (**patient satisfaction[Text Word]**) Filters:  
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**Controlled Trial, Review, Systematic Review,**  
**Humans, English**

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Search: (**retail pharmacy[Title/Abstract]**)  
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Search: (**retail pharmacy[MeSH Terms]**) AND  
 (**patient satisfaction[MeSH Terms]**) Filters:  
**Full text, Case Reports, Classical Article,**  
**Clinical Conference, Clinical Study, Clinical**  
**Trial, Clinical Trial, Phase I, Clinical Trial,**  
**Phase II, Clinical Trial, Phase III, Clinical**  
**Trial, Phase IV, Clinical Trial, Veterinary,**  
**Government Publication, Guideline, Meta-**  
**Analysis, Observational Study, Randomized**  
**Controlled Trial, Review, Systematic Review,**  
**Humans, English**

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## Translations

**retail:** “retail”[All Fields] OR “retailed”[All  
Fields] OR “retailer”[All Fields] OR  
“retailers”[All Fields] OR “retailers”[All Fields]  
OR “retailing”[All Fields] OR “retails”[All  
Fields]

**pharmacy[MeSH Terms]:** “pharmacy”[MeSH  
Terms] OR “pharmacies”[MeSH Terms]

**patient satisfaction[MeSH Terms]:** “patient  
satisfaction”[MeSH Terms]

Search: (retail pharmacy[Text Word]) AND  
(patient satisfaction[Text Word]) Filters:  
Full text, Case Reports, Classical Article,  
Clinical Conference, Clinical Study, Clinical  
Trial, Clinical Trial, Phase I, Clinical Trial,  
Phase II, Clinical Trial, Phase III, Clinical  
Trial, Phase IV, Clinical Trial, Veterinary,  
Government Publication, Guideline, Meta-  
Analysis, Observational Study, Randomized  
Controlled Trial, Review, Systematic Review,  
Humans, English

(“retail pharmacy”[Text Word] AND  
“patient satisfaction”[Text Word]) AND  
((casereports[Filter] OR classicalarticle[Filter]  
OR clinicalconference[Filter] OR  
clinicalstudy[Filter] OR clinicaltrial[Filter]  
OR clinicaltrialphasei[Filter] OR  
clinicaltrialphaseii[Filter] OR  
clinicaltrialphaseiii[Filter] OR  
clinicaltrialphaseiv[Filter] OR  
veterinaryclinicaltrial[Filter] OR  
governmentpublication[Filter] OR  
guideline[Filter] OR meta-analysis[Filter] OR  
observationalstudy[Filter] OR randomized  
controlledtrial[Filter] OR review[Filter] OR  
systematicreview[Filter]) AND (fft[Filter])  
AND (humans[Filter]) AND (english[Filter]))

## RESULTS AND DISCUSSION

The pharmacist suggested to follow the policy  
and procedures of the Pharmacoeconomics for  
Community Pharmacy

- The pharmacy assigns the pharmacist or  
clinical pharmacist the responsibility of  
PharmacoEconomic
- The community pharmacy should set up  
a strategic plan for PharmacoEconomic  
and an annual plan and revise them  
periodically
- The PharmacoEconomic pharmacist  
should make assessments of  
PharmacoEconomic for community

pharmacies based on the guidelines and  
publication

- The score level should be determined  
based on the assessment and set a plan  
accordingly and make reassessments  
annually
- All pharmacy staff should take education  
and training courses in pharmacy  
pharmacoeconomics according to  
published policies and procedures
- The pharmacy should distribute  
pharmacist policy and procedures of  
PharmacoEconomic to all pharmacy  
employees with special training based on  
published procedures
- The pharmacist PharmacoEconomic  
and following the specific published  
procedures and guidelines of the cost  
analysis of the services, cost avoidance, and  
impact calculations, cost minimization  
analysis, cost-benefit analysis, cost-  
effective analysis, cost-utility analysis, cost  
budget impact, Drug utilization analysis,  
and patient satisfaction services
- The PharmacoEconomic pharmacist  
should set a quality management plan  
for PharmacoEconomic and healthcare  
and related key performance indicators  
according to published guidelines and  
procedures

## CONCLUSION

Pharmacoeconomics services are critical  
in community pharmacy services and  
performance. While most of these services were  
traditionally implemented in hospital pharmacy  
facilities, community pharmacists can play  
vital role in providing drug therapy guidelines  
covered by healthcare insurance. When covered  
by health insurance, these therapy guidelines  
can increase reimbursement for patients and  
related customers. Additionally, cost analysis  
of community pharmacy services is another  
crucial aspect of pharmacoeconomics services.  
By implementing policies and procedures  
for pharmacoeconomic services, community  
pharmacies can ensure that their services  
are not only clinically effective but also cost-  
efficient, thereby improving patient care and  
pharmacy performance.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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## CONSENT FOR PUBLICATIONS

Informed consent was obtained from all the  
participants.

## ETHICAL APPROVAL

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

[https://www.hhs.gov/ohrp/regulations-  
andpolicy/decision-charts-2018/index.html](https://www.hhs.gov/ohrp/regulations-andpolicy/decision-charts-2018/index.html)

## ABBREVIATIONS

**MOH:** Ministry of Health; **KSA:** Kingdom  
of Saudi Arabia; **SFDA:** Saudi Food and  
Drug Authority; **EMEA:** European Medicine  
Agency; **WHO:** World Health Organization;  
**ASHP:** American Society of Health-System  
Pharmacists.

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