Review of: "An Analysis of Pharmaceutical Inventory Management at a Leading Teaching and Referral Hospital in Kenya"

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Dear author(s),

Thanks for your research.

Innovatie and effective management strategies are and will be also a interesting theme to explore.

There are some point that could be improved in terms of understanding:

TITLE & Keywords: The title should match with the keywords, once will be the hashtags (#) of the study.

AUTHOR ("***Corresponding author:** Dr. Ken Omondi Abuka; abuziqen@students.uonbi.ac.ke"): The designation Dr. is applicable for people with PhD, MD, DPharm, etc. If this was the case, please keep it in the text.

1 - ABSTRACT: The abstract is the mirror of the paper, so if you could turn it more confident, it would be a good way to start. Please see my suggestion: "Efficient inventory management is critical for making informed decisions, prioritizing tasks, obtaining cost-effective drugs, and maintaining a balance between inventory spending and medication demand. This research assesses drug consumption and expenditure trends at Jaramogi Oginga Odinga Teaching and Referral Hospital in Western Kenya for a period of 3 years (2018-2020) using Therapeutic Class (TC), Always Better Control (ABC), and Vital Essential and Non-essential (VEN) analysis. The study incorporates data from various sources, such as Kenya Health Information System (KHIS), bin cards, invoices, delivery notes, and patient files. Throughout the study period, the total pharmaceutical expenditure (TPE) amounted to $1,329,213.91. The annual pharmaceutical expenditure (APE) for 2018, 2019, and 2020 were $389,158.51, $501,365.79, and $438,689.61, respectively. The data reveals that in 2018, 53 (18.9%) of items were classified as Class A medicines and consumed a significant 70.2% of the APE. In 2019 and 2020, 56 (19.9%) of items were Class A medicines and had an increased consumption rate of 71.7% and 72.7% of the APE, respectively. The 173 drugs classified as vital items in each year consumed an average of 75.7% of the APE. Anti-infectives were the most commonly consumed class of medicine, accounting for 27.4%, 23.5%, and 30.4% of the APE in 2018, 2019, and 2020, respectively. Based on this analysis, it is evident that Category I pharmaceuticals require particular attention for control."

2 - INTRODUTION

I miss more references of your afirmations.

3 - OBJECTIVES

Ok, all clear.

4 - MATERIALS

I miss the references of your afirmations.

5 - METHODS

"Ethical considerations": I suggest to move them to the end of this session.

I miss the references of your afirmations.

6 - RESULTS

6.1. - TABLES:

- Use the same language, because you have "percentage" in graphs and them "%" in tables;
- All tables need legends;
- Rewrite the name of the columns, for example the designation "item" in unclear;
- Be clear in you write, for example, you have to choose to put or not the "-"

  - Flucloxacillin Capsules 500 mg
  - Anti-D (Rh) Injection – 300 mcg

6.2. - GRAPHS:

- Colors should be more assertive-related and be the same in all graphs: blue, green, grey, orange - I mean, Figure 1 and Figure 2 do not looks like from the same paper;
- The Figure 2 should be improved, we do ot need the values, unless we are discussing all of them;
- All figures need legends.

7 - DISCUSSION

7.1. - LIMITATIONS

I miss a more developed limitation's session, I miss details related with the study design, the research interval and the comparison with other studies.

I miss an assertive limitation's session, like this, as a suggestion: "The study's duration was restricted to three years as a result of inadequate or absent data from other years. The accuracy of the collected data may be limited due to an overlap

in consumption and expenditure data, caused by medications treating diseases in different categories and some diseases requiring drugs from different classes."

8 - CONCLUSION

Should be more assertive, there is a suggestion: "It is imperative to note that JOOTRH has allocated a significant portion of their pharmaceutical budget towards Class A drugs, with more than 90% of the budget being spent on crucial and essential medication. Furthermore, Category I drugs have accounted for over half of the budget, whereas anti-infectives have had the highest annual expenditure. It is noteworthy that medicines for ear, nose, and throat have had the lowest expenditure. It is essential to mention that hospital clinical cases have been primarily caused by injury, poisoning, and other external factors falling under Class S00-T98."

9 - REFERENCES

Here I have some questions, because it looks disconnected with the rest of the document, so please I would like to ask you:

- 1. What specific findings or conclusions were drawn from the analysis of pharmaceuticals inventory management in the selected health facilities?
- 2. What is the significance of using the ABC-VEN matrix analysis in inventory management?
- 3. Are there any recommendations or suggestions provided for improving pharmaceuticals inventory management based on the analysis?