# Article information:

A clinical decision support system is associated with reduced loss to follow-up among patients receiving HIV treatment in Kenya: a cluster randomized trial - PMC
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8686234/>

# Article summary:

1. A clinical decision support system (CDSS) implemented as alerts on an electronic health record (EHR) system was associated with lower loss to follow-up (LTFU) among patients receiving antiretroviral therapy for HIV in Kenya.

2. The CDSS was also marginally associated with reduced time from enrollment on the study to first documentation of LTFU.

3. The use of CDSS in EHR systems could potentially reduce cases of LTFU and improve patient follow-up in chronic care and adherence to treatment guidelines at population and individual patient levels.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article "A clinical decision support system is associated with reduced loss to follow-up among patients receiving HIV treatment in Kenya: a cluster randomized trial" reports on a study that aimed to assess the effect of a clinical decision support system (CDSS) on loss to follow-up (LTFU) among patients receiving antiretroviral therapy (ART) in 20 HIV clinics in western Kenya. The study found that CDSS was associated with lower LTFU among patients, and that the proportion of patients linked back to treatment was higher in clinics with CDSS compared to those without. However, the article has several limitations and potential biases that need to be considered.

One limitation of the study is its design as a cluster randomized controlled trial, which may have introduced bias due to differences between the intervention and control groups beyond the use of CDSS. For example, there may have been differences in patient demographics or clinic characteristics that were not accounted for in the analysis. Additionally, the study only included patients who had already been receiving ART for at least three months prior to implementation of EHR systems, which may have excluded some patients who were more likely to be LTFU.

Another potential bias is related to the use of electronic health records (EHRs) as a tool for identifying LTFU patients. The study relied on EHRs to generate appointment lists and identify defaulters and LTFU patients, but it is unclear how accurate these records were or whether they captured all cases of LTFU. Moreover, the study did not provide information on how many patients were successfully traced and linked back to treatment after being identified as LTFU.

The article also lacks information on potential risks or unintended consequences of using CDSS for HIV care. For example, it is possible that relying too heavily on automated alerts and reminders could lead to overburdening healthcare providers or reducing their autonomy in making clinical decisions. Additionally, there may be concerns about data privacy and security when using EHRs in low-resource settings where infrastructure and technical expertise are limited.

Finally, while the article provides some evidence for the effectiveness of CDSS in reducing LTFU among HIV patients in Kenya, it does not explore alternative explanations or counterarguments for this finding. For instance, it is possible that other factors such as improved patient education or community outreach programs contributed to lower rates of LTFU in clinics with CDSS.

In conclusion, while the study reported in this article provides some evidence for the effectiveness of CDSS in reducing LTFU among HIV patients receiving ART in Kenya, its design limitations and potential biases should be taken into account when interpreting its findings. Further research is needed to better understand how CDSS can be used effectively and sustainably within low-resource healthcare settings.

# Topics for further research:

* Risks and unintended consequences of using clinical decision support systems in healthcare
* Accuracy and reliability of electronic health records in identifying loss to follow-up patients
* Alternative explanations for the effectiveness of clinical decision support systems in reducing loss to follow-up
* Patient education and community outreach programs for reducing loss to follow-up in HIV care
* Data privacy and security concerns in low-resource settings when using electronic health records
* Sustainable implementation of clinical decision support systems in low-resource healthcare settings

# Report location:

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