



# Clinical guideline utilization in Uganda: A scoping review and comparison

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## Abstract

Countries such as Uganda often depend on clinical practice guidelines from developed countries, non-profit charities, and international organizations. The sources and organizations that provide most of the guidelines used in Uganda are not well documented. The primary objective of this article was to determine whether a scoping review of scientific, peer-reviewed literature could identify the clinical guidelines actually used in Uganda. A secondary objective was to examine which organizations provided the majority of guidelines used. We therefore searched for consensus documents, guidelines, and meta-analyses published for use in African countries indexed in PubMed, OVID Medline, and Embase, and then surveyed guidelines currently in use in Ugandan medical practice. We thus compared these two sets of guidelines, as well as their breadth, geography, and sources, to make recommendations for similar low-income countries.

## Keywords

Clinical practice guidelines, scoping review, Uganda

## Introduction

Clinical practice guidelines are widely promoted to assist clinicians in diagnosing, managing, or treating medical conditions.<sup>1</sup> These guidelines are typically derived from evidence-based documents such as systematic reviews or meta-analyses, but can also arise from consensus meetings or other organizational practices.<sup>2–3</sup> Internationally, there is heterogeneity in the documentation, implementation, and use of clinical practice guidelines. For example, guidelines put forth by the World Health Organization (WHO) are intended for international use and are often adapted by clinicians in low-and-middle income countries to reflect resource availability and local practices. It is not clear how regularly guidelines established by WHO or other organizations are taken up in Africa. Similarly, there is a lack of awareness by the proponents of guidelines as to where their guidelines have been implemented.

## Methods

We conducted a scoping review of the scientific literature, searching for consensus documents, guidelines, and meta-analyses published from Africa indexed in PubMed, OVID Medline, and Embase between January 1<sup>st</sup> 1995 to July 31<sup>st</sup> 2021. The search strategy was adapted from

previously validated search algorithms.<sup>4,5</sup> We included all articles describing or reviewing a clinical practice guideline that was intended for use in Africa. Observational studies or experimental trials implementing or evaluating a proposed guideline, case-series or case-reports recommending a guideline, and other literature (conference abstracts, theses, etc.) were excluded. Additionally, we surveyed guidelines currently used in Ugandan medical centers and by Ugandan healthcare workers. We collected these guidelines through interviews and observation of healthcare centers and their employees.

Guidelines were collated and sorted by medical specialty and screened by two reviewers for relevance. The two sets of guidelines were compared to determine whether the search strategy could capture the pertinent guidelines used in Uganda. In addition, the source organizations for commonly used Ugandan guidelines are described, and recommendations from these findings are made.

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## Results

Using a scoping review methodology, 2008 studies were identified from the literature concerning practice guidelines implicating the African context. After duplicates were removed, a total of 947 studies were identified. We excluded 719 articles during title/abstract review, and 144 articles after full text screening. A total of 84 studies were therefore included in the final analysis after screening (Figure 1). The majority of studies came from South Africa (77.3%), followed by the WHO (6.0%). Only two studies were found originating from Uganda, comprising little over 2% of the total literature included.<sup>6-7</sup> Of all the 84 guidelines studied, only one was found to be commonly used in standard medical practice in Uganda.<sup>8</sup> This concerned obstetric fistula and was a WHO guideline document.

Guidelines included from our field interviews and observations originated from 15 organizations (Table 1), the majority of which came from WHO and the Ugandan Ministry of Health. Most organizations had provided their guidelines for use within their own country or organizational membership; however, several have been adapted for use in Uganda. Many clinical guidelines used in Uganda were formally included in the 2016 Uganda Clinical Guidelines (UCG), which is a document that evolved from the National Standard Treatment Guidelines of 1993 and is guided by the Practical Guidelines for Dispensing, which influences pharmaceutical administration and procurement.<sup>9</sup> The purpose of the National Standard Treatment Guidelines was to provide

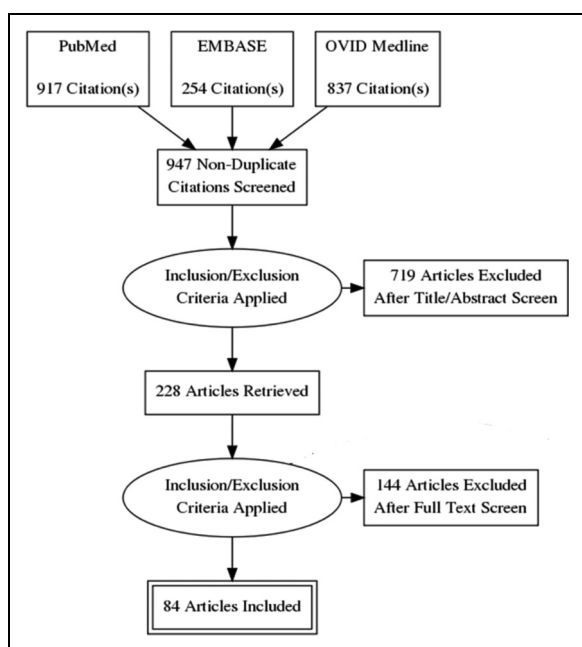
evidence-based, practical, and implementable guidance to prescribers to provide the most cost-effective and affordable treatment of priority health conditions, whereas the Practical Guidelines for Dispensing provide information about medicine characteristics, administration, and side effects, and is also the basis for the formulation of the essential medicines and health supplies list of Uganda which are used to guide supply and procurement. The UCG is aimed to direct clinical practice together with the Practical Guidelines for Dispensing at lower/higher health facility levels.<sup>10</sup>

## Discussion

The most comprehensive source of guidelines in Uganda were found within the UCG produced by the Ministry of Health, followed by WHO and other medical associations. The UCG document was not found through our search strategy, as it is not indexed in the peer-reviewed scientific literature. It was found that Ugandan guidelines are infrequently published and are generally sourced from international organizations, who are often unaware that other countries are using their medical guidelines in standard practice. The majority of the literature that was identified using the proposed search strategy originated from South Africa.

**Table 1.** List of sources for Ugandan clinical guidelines.

Name of Organization	Guideline Type	Number of Guidelines
World Health Organization	Medical	31
Ugandan National Expanded Program on Immunization	Public Health	2
Ugandan Ministry of Health	Medical	19
The International Federation of Gynecology and Obstetrics	Medical/Surgical	2
Sight and Life	Medical	1
American College of Clinical Pharmacy	Pharmacy	1
Kenyan Ministry of Public Health and Ministry of Medical Services	Medical	1
British Diabetes Society	Medical	1
International Society of Nephrology	Medical	3
UNICEF	Medical	2
HerniaSurge Group	Surgical	1
American Heart and Stroke Association	Medical	1
American Psychiatric Association	Medical	1
British Thoracic Society	Medical/Surgical	1
American Urological Association	Medical/Surgical	1



**Figure 1.** PRISMA flow diagram of literature from scoping review.

To appreciate how guidelines are used in countries such as Uganda, more needs to be understood about the guidelines currently implemented, as well as the relevant medical conditions where there are guideline gaps. A key issue that hinders this process is that there are often insufficient resources to study clinical guidelines in countries such as Uganda, which results in a negative publication bias. Therefore, evidence-based, best-practice guidelines published in peer-reviewed literature may not necessarily be included in the UCG owing to the lack of resources required to examine, and if applicable, integrate these guidelines into standard documents like the UCG, or even assess their relevance. Given the national reliance on the UCG in practice, if a specific guideline is not integrated into the UCG, that guideline will not likely be used in clinical settings. An exception to this rule can occur at advanced institutions or teaching hospitals where there is interest in utilizing external guideline sources, but the major guideline still remains the UCG.

Given the low catchment associated with a scoping review of literature, we cannot recommend using a literature search of scientific databases for identifying clinical guidelines for low-income countries. Rather, it is necessary to have a dedicated team situated within the country of interest to identify clinical guideline sources through observation, interviews, or other similar methods. Future research may want to examine the process for guideline implementation into the UCG, and aim to optimize the evaluation and integration of best-practice guidelines into this important national document.

### Competing interests

None declared.

### Declaration of conflicting interests


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