



Review article

Guidance we can trust? The status and quality of prehospital clinical guidance in sub-Saharan Africa: A scoping review

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ABSTRACT

Introduction: Prehospital care is integral in addressing sub-Saharan Africa's (SSA) high injury and illness burden. Consequently, robust, high-quality prehospital guidance documents are needed to inform care. These guidance documents include, but are not limited to, clinical practice guidelines (CPGs), protocols and algorithms that are contextually appropriate for SSA. However, SSA prehospital guidance mostly originates from the 'Global North,' with limited guidance for Africa by Africans. To strengthen prehospital clinical practice in SSA, we described and appraised all prehospital SSA guidance documents informing clinical decision making.

Methods: We conducted a scoping review of prehospital-relevant guidance documents, including CPGs, algorithms, protocols and position statements originating from SSA. We performed a comprehensive literature search in various databases (PUBMED and SCOPUS), guideline clearing houses (Scottish Intercollegiate Guidelines Network, Trip, and Guidelines International Network), journals, various forms of grey literature and contacted experts. Guidance document screening and data extraction was done independently, in duplicate and reviewed by a third author. Guidance quality was then determined using the AGREE II tool and data were analysed using simple descriptive statistics.

Results: We included 51 guidance documents from 13 countries across SSA after screening 2320 potential documents. The majority of guidance documents lacked an evidence foundation, made recommendations based on expert input, and were predominantly end-user presentations such as algorithms or protocols. Overall, reporting quality was poor, specifically for critical domains such as rigour of development; however, clarity of presentation was generally strong. Guidance topics were focused around resuscitation and common diseases (both communicable and non-communicable) with major gaps identified across a variety of topics; such as mental health for example.

Conclusion: The majority of prehospital clinical guidance from SSA provides clinicians with excellent ready to use end-user material. Conversely, most of the guidance documents lack an appropriate evidence foundation and fail to transparently report the guidance development process, highlighting the need to strengthen and build guideline development capacity to promote the transition from eminence-based to evidence-based guidance for prehospital care in SSA. Guideline developers, professional societies and publishers need to be aware of international and local guidance document development and reporting standards in order to produce guidance we can trust.

African relevance

- Local, evidence-based, prehospital guidance is essential in addressing sub-Saharan Africa's high injury and illness burden

- We conducted a scoping review to describe and appraise all prehospital-relevant guidance documents in sub-Saharan Africa
- We present key gaps and highlight the need to strengthen methodology in sub-Saharan African prehospital guidance development

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- Guideline developers, societies and publishers must be aware of development standards to produce trustworthy guidance

Introduction

As a region of mostly low- and middle-income countries (LMICs), sub-Saharan Africa (SSA) experiences a high volume of injury and illness requiring a robust system of emergency medical services [1]. Emergency medical services, and the prehospital care delivered, provide access to timely interventions and transportation of those in need. This plays an important role in reducing mortality and morbidity in the region. Emergency medical services in SSA are growing as more regions across SSA establish basic services by building and expanding formal prehospital service delivery infrastructure. This is often supported by organisations such as the African Federation of Emergency Medicine (AFEM). Additionally, various countries such as Rwanda and Zambia are establishing training programmes for emergency medicine specialists [2].

Emergency medicine as a whole can be found in both the in-hospital and pre-hospital environments, often with overlap of intended treatment goals and outcomes. However, irrespective of a country's level of prehospital services (whether it be first aid responders in a volunteer capacity, or formal emergency medical services staffed by health care professionals), prehospital care should be guided by the best available evidence. As the best available evidence could potentially be aimed at the early management goals of the emergency centre in-hospital, these goals and recommendations can sometimes be extrapolated to the prehospital environment. Local contexts and, ideally, patients' preferences should also be considered. These form the components of Evidence-Based Healthcare (EBH), where guidance and recommendations for healthcare decisions or interventions are based on the best-available evidence [3].

In the past two decades, despite Africa's high disease burden and health system challenges, progress has been made in accepting, adopting and implementing EBH principles [4]. An example of this is the clear recommendations about stopping bolus fluids in shocked children produced by the Paediatric Association of Kenya – recommendations that the World Health Organisation (WHO) is still to adopt [5]. Indeed, high-quality guidelines play an essential role in bridging the gap between current best available evidence and clinical practice. Concerns have been raised regarding the quality and availability of emergency care or prehospital clinical practice guidelines (CPGs) [6,7]. High-quality guidelines are especially important in LMICs as policymakers and healthcare providers can ill afford to make healthcare decisions based on outdated evidence, considering that it may lead to wasteful or less-efficient expenditure of finite resources. Resource limitations are quite well-known in LMICs and across SSA. A question that is raised, however, is whether implementing EBH increases cost-effectiveness in emergency medicine, or whether the opposite is true. This association is not yet clearly understood.

Several tools exist to aid in the critical appraisal of various study types. These tools are designed to standardise and improve the efficiency of the appraisal process and can either be qualitative or quantitative in nature. An example of such a tool is the Appraisal of Guidelines for Research and Evaluation II (AGREE II) tool which serves to assess the quality and variability of CPGs across various domains, including methodological rigour [8,9].

In a 2018 landscape analysis of 276 global emergency care Clinical Practice Guidelines (CPGs), less than 2% of CPGs originated from LMICs [7]. Furthermore, the authors concluded that 'although some high-quality CPGs exist relevant to emergency care, none directly address the needs of prehospital care in LMICs, especially in Africa' (p 158). This paints a concerning picture of the current status of African prehospital guidance and evidence informing downstream practice. However, the landscape analysis by McCaul et al. [7] excluded any other form of guidance documents such as algorithms, patient care pathways or

clinical care protocols, potentially missing prehospital guidance documents that do not conform to the strict definition of a CPG, as set by the Institute of Medicine [10]. Guideline quality in prehospital care was also raised as a concern, a sentiment prevalent across various disciplines, from primary health care to allied health [4,6,11]. Furthermore, a similar landscape analysis conducted of only South African guidance documents highlighted the lack of emergency care guidance available [12]. Guidance document quality seems to be a concern for LMICs, possibly due to their lack of formal guidance document organisations, technical capacity, or collaborations to develop evidence-based guidance documents [13,14]. This potential lack of available up-to-date high-quality prehospital guidance is not just a major concern for clinicians, but for guideline developers as well.

In prehospital care, the most common form of CPG development is *de novo*, whereby guidance documents are newly produced [7]. However, an alternative method is to adapt already published, high-quality evidence-informed CPGs to a particular setting [15,16]. These methods, often termed guideline adaptation, have been successfully showcased in various healthcare settings [17], including the African prehospital setting [18–20]. In general, they are considered more efficient than *de novo* development. However, guidance developers who use adaptation methods are dependent on up-to-date high-quality CPGs to adapt to their local settings. Without a clear picture of the availability and quality of local guidance documents, guidance developers may need to resort to *de novo* development. Failing that, they would need to spend more time and resources contextualising guidance from high-income countries, where the recommendations might not be transferable. Very little is known about the scope and quality of prehospital guidance in SSA. Therefore, this study has aimed to describe and appraise all prehospital-relevant guidance documents in sub-Saharan Africa.

Methods

Overarching method

This paper describes and appraises current Sub-Saharan African guidance documents to inform regional guidance developers and clinical decision making. A scoping review was chosen as the method of choice, as it allows the authors to map the spectrum of prehospital guidance documents available in SSA. It is also useful in describing scope, locale, methods, target audience and guidance quality (using AGREE II). In contrast to systematic reviews, which synthesise available evidence to answer a focused research question, scoping reviews attempt to map available literature, often utilising a broad study question to identify gaps in knowledge [21]. The study was reported according to the PRISMA extension for scoping reviews checklist [22]. The study protocol was approved by the Stellenbosch University Health Research Ethics Committee (U18/07/026).

Eligibility criteria

We included any prehospital-relevant guidance documents (considering the broadest definition, e.g. protocols, patient care pathways, standard operating procedures) published either in English or French since 2005, and published in countries within SSA as stipulated by the United Nations (UN) [23], listed in Appendix 1. We excluded healthcare infrastructure, administrative guidance and medical textbooks. The date of publication restriction was introduced to ensure that we captured the most up to-date guidance documents, likely used in current practice. Guidance documents related to COVID-19 were not considered.

Information sources

We conducted a comprehensive and broad search on 24 July 2019 (updated 25 June 2020) of databases (PubMed and Scopus), guideline clearing houses (Scottish Intercollegiate Guidelines Network, Trip, and

Guidelines International Network), and Google Scholar. The search strategy was created with the assistance of an information technologist. The search strategy for PubMed can be found in Appendix 2.1. We searched grey literature, such as hand-searching journals not indexed in PubMed/Scopus, prehospital society websites, local ministry of health websites for each country and hand-searched conference proceedings (also updated 25 June 2020). Additionally, we contacted experts, policymakers and clinicians for unpublished guidance documents (See Appendix 2.2 for list of all databases, journals and websites searched). We identified various experts working in SSA prehospital settings by way of societies and published works. They were contacted to seek counselling on guidance potentially missed during formal and grey literature searches. Experts merely suggested articles of interest to the authors that they may have potentially missed, and in no way influenced the development or results of this study.

Study selection

We merged the results of the searches using reference management software and removed duplicate records. Two authors (PM and PS)

independently, and in duplicate, examined titles and abstracts to remove obviously irrelevant reports and retrieved full text of potential relevant documents. Full text was then screened for eligibility and prehospital relevance in duplicate and independently (PM and PS). In both title/abstract and full-text screening, any disagreements were resolved by consensus with a senior author (MM). We created a flow diagram to show the process of inclusion and exclusion of documents; potentially eligible studies that were excluded are noted in Fig. 1.

Data collection and items

Three authors (PM, PS and KS) independently extracted data from documents using a data extraction form, developed *a priori* by the authors. Data were collected for the following information: country, date of publication, guidance type, producer, target audience, subpopulation, health service area, health discipline, method of development, and evidence grading.

Guidance quality was assessed with AGREE II. The maximum score for each AGREE domain, of which there are six, is 100%. Landmark reference standards include the AGREE II tool [9], or the RIGHT

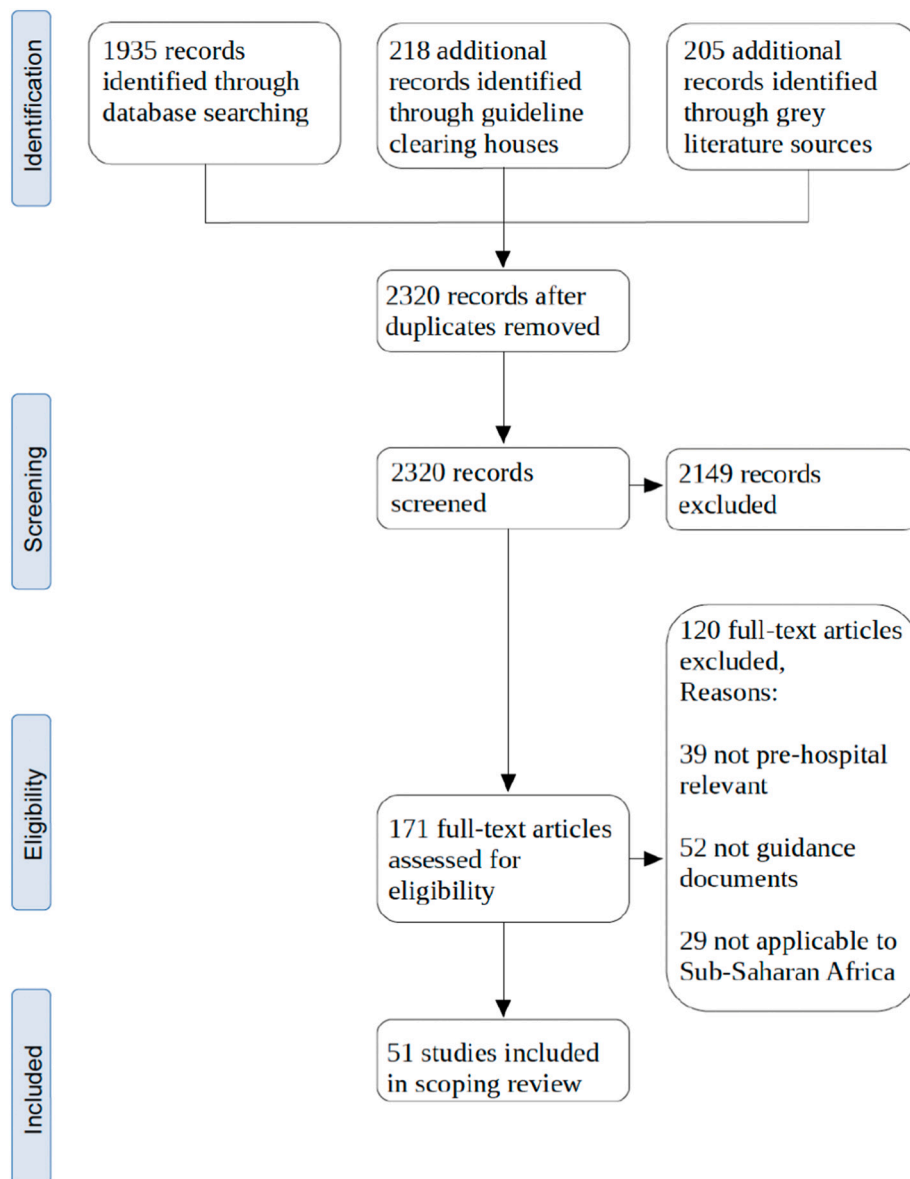


Fig. 1. Search flow diagram.

extension (Reporting Items for practice Guidelines in Healthcare) for alternative guideline development methods [24]. At face value, both tools assess similar components of the guideline development process, which are considered indicators for quality. AGREE II was chosen as the preferred method of appraisal as two authors had better familiarity with it. In addition, it had a better quantitative representation of the appraisal scores for each included guidance document. It is worth noting that no reporting or quality checklist exists for end-user documents such as protocols or algorithms, even though these should be based on clear parent CPGs or systematic reviews. In light of this, AGREE II was used as a benchmark for all included study types, to improve comparability in appraisal impressions. Four authors (PM, PS, KS and MM) independently, and in duplicate, assessed the quality of included guidance documents using AGREE II. Any major discrepancies in scores were resolved by discussion amongst all four authors.

Data analysis

Data were extracted from the data collection forms to a Microsoft Excel spreadsheet (Microsoft Corporation) and imported into STATA 14 (StataCorp) for analysis. Spatial mapping was presented graphically to summarise the number of guidelines by country. Continuous data (AGREE II scores) were assessed for normality, determined using the Shapro-Wilk test and reported appropriately using medians and inter-quartile ranges. Descriptive statistics was the primary method of analysis.

Results

Search results

The electronic search identified 2320 documents in total after removal of duplicates. 1935 documents were identified through databases, 218 documents identified through guideline clearing houses and 205 additional documents through grey literature sources. 171 potential full text articles remained after removing duplicates and obvious exclusions. 51 guidance documents were included in the scoping review, following the exclusion of 120 articles with reasons provided. In the updated searches, no new documents were found that could be included, and Fig. 1 was updated to reflect the latest information. Only two updates of previously included documents were found, but no changes were made to the original methods or process of development. Thus, their original AGREE II scores remained unaffected. The majority of included guidance documents were identified via grey literature, hand-

searching journals and government websites. The search flow diagram can be seen in Fig. 1.

Characteristics and origin of guidance documents

13 SSA countries contributed 51 prehospital clinical guidance documents included in the scoping review. Approximately 41% (n = 21) of guidance documents were published from 2015 onwards. South Africa produced the largest portion of guidance documents at 61% (n = 31). Kenya produced 8% (n = 4) and Tanzania produced 6% (n = 3). See Fig. 2 for the guidance documents distribution across SSA. The largest proportion of guidance documents were algorithms (37%, n = 19), 29% (n = 15) were CPGs, clinical protocols represented 16% (n = 8) and review documents represented 14% (n = 7) of the total. Only 2 documents were position statements (4%).

More than half (57%, n = 29) of the guidance documents were produced by professional societies (e.g. AFEM or The South African Trauma Society), while national departments of health and clinicians/academics produced 22% (n = 11) and 20% (n = 10), respectively. International organisations contributed only one guidance document (2%). Guidance documents in SSA targeted a wide array of subpopulations. Subpopulations consisted of pregnancy and childbirth with 2% (n = 1), neonatal with 2% (n = 1), mixed paediatric with 10% (n = 5), and adults with 4% (n = 2). Furthermore, ‘mixed populations’ (applied to multiple, but not all subpopulations) comprised 24% (n = 12) of the total, ‘all populations’ (applied to all subpopulations) represented 28% (n = 14) and ‘unspecified’ subpopulations represented 31% (n = 16). While no explicit themes emerged within the subpopulations, topics were largely dictated by the document type. Disease-based guidance (malaria, heart failure, HIV, etc.) existed mostly in the form of STGs while symptom-based guidance (choking, tachycardia, stab wounds, etc.) existed mostly in the form of algorithms. Only 2 guidance documents addressed mental health issues (4% (n = 2)). While all guidance documents included were pertinent to prehospital care, only 22% (n = 11) were written primarily for prehospital providers. The majority of guidance documents (67% (n = 34)) in prehospital care in SSA were written for mixed primary target audiences (prehospital and in-hospital).

Guidance document quality

Ranked by their AGREE II domain scores, quality varied across producers, as presented in Table 1. On average, Domain 1 and 4 (scope and purpose, clarity of presentation) scored the highest, with 42% and

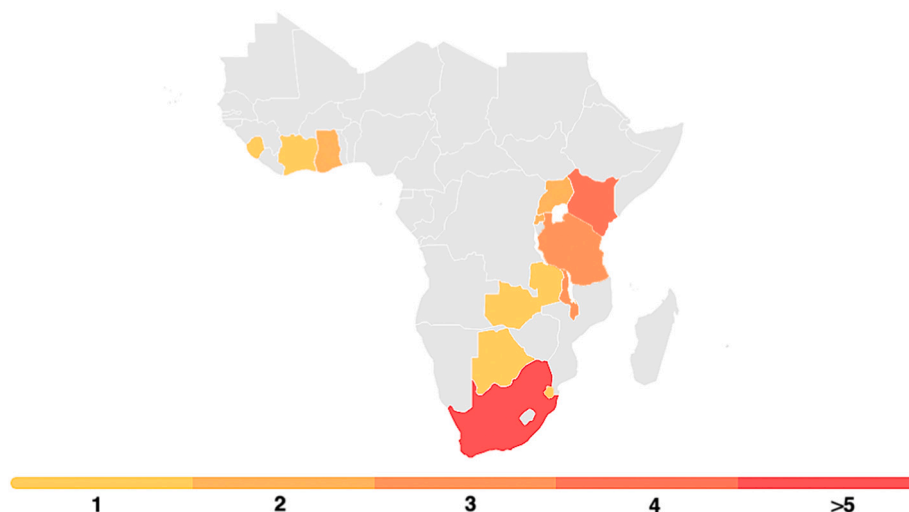


Fig. 2. Guidance document distribution by country.

Table 1
AGREE II domain scores by producer (out of 100).

Domains	Professional societies Median (Q1, Q3)	National departments of health Median (Q1, Q3)	Clinicians/ academics Median (Q1, Q3)	Domain scores Median (Q1, Q3)
SP	33 (26, 39)	54 (51, 63)	47 (35, 60)	39 (32, 53)
SI	8 (8, 15)	47 (38, 51)	19 (15, 24)	15 (8, 38)
RD	2 (2, 6)	21 (14, 26)	21 (13, 27)	10 (2, 22)
CP	65 (54, 71)	65 (62, 68)	56 (47, 65)	64 (53, 69)
APL	25 (24, 29)	47 (39, 53)	41 (23, 51)	29 (24, 44)
EI	10 (10, 10)	16 (12, 24)	30 (13, 42)	10 (10, 21)
Overall	29 (16, 33)	50 (41, 60)	37 (39, 45)	33 (25, 46)

AGREE, Appraisal of Guideline Research and Evaluation; SP, scope and purpose; SI, stakeholder involvement; CP, clarity of presentation; RD, rigour of development; APL, applicability; EI, editorial independence; overall judgement; sd, standard deviation.

61%, respectively. Domains 2 and 6 (stakeholder involvement and editorial independence) scored 23% and 34%, respectively. The most important domain when considering scientific rigour, domain 3 (rigour of development), scored on average 13% across all guidance documents. When stratified by producers, clarity of presentation scored high, whereas rigour of development scores showed a greater degree of variance. For example, professional societies scored poorly (9%) compared to national departments of health- (21%) and academic-produced guidance documents (20%). Refer to Fig. 3 for a representation of AGREE II scores by country.

As shown in Fig. 3, there is significant variance amongst AGREE II scores when stratified by country of origin. South Africa scored the lowest overall, even though articles such as the AFEM CPG (produced in South Africa) had the highest attributed average score (91.7%). This is due to the higher number of total studies produced, most of which were protocols and algorithms that generally had lower AGREE II scores on average. Several countries scored very high as they only had a single (or relatively few) articles published, generally of a higher quality.

No guidance documents included in our study were developed *de novo*, while only one guideline used clearly specified guideline

adaptation methods. Additionally, 45% (n = 23) of guidance documents were based on a combination of unstructured literature reviews and expert opinion, while the majority (55%, n = 28) did not specify any methods of development at all. CPGs’ overall AGREE II scores (and especially domain 3: rigour of development) were significantly higher than other types of guidance documents. However, only two CPGs specified an evidence grading system for recommendations. Additionally, overall guideline quality differed significantly between guideline producers. Only 4% (N = 2) of guidance documents were recent (published from 2018 and onwards) and quality was rated as poor (AGREE II score of <4 or < 50%).

Discussion

Our results reveal that the majority of guidance documents for pre-hospital providers in SSA, lack appropriate methodological reporting and transparency. This sheds doubt on the scientific validity and rigour of recommendations from these guidance documents. More than 55% (N = 28) of included guidance documents did not specify any methods of development. This is a concerning observation as the potential impact of life-saving care not being based on the best available evidence is unknown. Considering the overall poor rigour of development, especially from professional societies, there is a clear need for building awareness of guidance development principles. In addition, promoting the use of quality reporting tools such as AGREE II or the RIGHT statements [9,25], might improve the quality of guidance documents produced. Guidance development literacy, as a component of evidence-based decision making, is an essential competency for healthcare providers, decision makers and healthcare managers. Without this competency, it is likely prehospital guidance documents will continue to be developed through eminence-based as opposed to evidence-based methods [26] for the foreseeable future.

The majority of guidance documents available for prehospital providers in SSA are algorithms or protocols. These end-user-centric guidance documents usually provided little to no detail regarding their development process, nor what the underlying evidence-base was (*i.e.* the rigour of development). However, many are excellent examples of

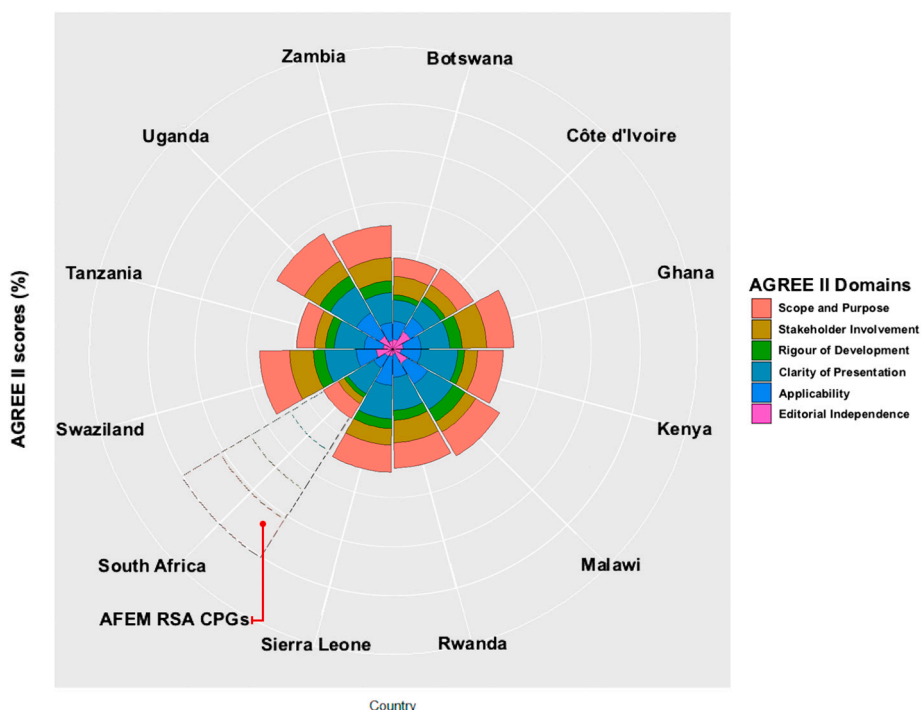


Fig. 3. AGREE II domain scores by country.

user-friendly and pragmatic clinical decision-making tools. Noteworthy examples include the Emergency Medicine Clinical Guidance for the Western Cape (South Africa), the Emergency Medicine Kenya Foundation Emergency Care Algorithms [27], and the Resuscitation Council of Southern Africa Algorithms [28].

Given the significant resource constraints in LMICs, and especially SSA, it is understandable that some guideline developers do not have the means to develop guidance documents with excellent transparency on development. However, considering this, every possible effort to improve reporting on methods within these guidelines should be encouraged. Transparent reporting of guidance document development is essential, as without this users or policymakers have no means of judging whether recommendations provided are trustworthy or valid. Our results revealed unacceptably poor scores for editorial independence (such as reporting funding and conflicts of interest), stakeholder involvement and most importantly, rigour of development. All these elements are essential components of producing guidance documents we can trust.

Overarchingly, professional societies produced the least transparent, and therefore least trustworthy guidance documents. This reflects similar results seen at a global and regional level [7]. Developers of CPGs and end-user documents can learn from organisations such as the Belgian Red Cross's Centre for Evidence-Based Practice (CEBaP). They developed basic and advanced first aid manuals for first responders in Africa in an end-user document format. These manuals provided clear evidence for their *de novo* guidance development methods, without compromising on the usability of the clinical decision tool [29,30]. Our results indicate such transparency in reporting, and acknowledgment of the original evidence base or source guideline, is lacking in the vast majority of end-user documents produced in SSA.

A wide array of topics were represented within guidance documents, though major gaps were identified. Infectious diseases (especially Ebola, malaria and other endemic infectious diseases) were fairly well described amongst a number of included articles. Similarly, toxicology, trauma, cardiology, CPR, metabolic diseases and endocrinological diseases were well represented. Primary health care was especially well described in guidance documents self-labelled as "Standard Treatment Guidelines" (STG). These STG documents covered a wide array of responses and recommendations to healthcare burdens commonly associated with the region or country for which they were developed. The protocols and algorithms included were predominantly focused on streamlining the management of certain patient presentations in the emergency setting. They tended to focus on a single disease process or management strategy, whereas standard treatment guidelines resembled CPGs in method of development, and user-presentation.

While 24% of guidance documents were written for 'all populations', existing mostly in the form of national STGs, a disconcertingly low proportion of guidance documents were written with the primary focus on 'pregnancy and childbirth' or 'neonatal' populations. Furthermore, only two of the guidance documents identified mentioned mental health- or psychiatry-related events, both from Kenya. This is of concern due to the fact that 46% of countries in Africa have no formal mental health policies [31]. In addition, across the continent the number of disability-adjusted life years attributed to mental health, nearly equalled the number of disability-adjusted life years attributed to infectious diseases [31]. Increased awareness is required in order to improve implementation of health services for mental health; prehospital guidance documents are no exception. Mental health emergencies often require prehospital providers to serve as the first point of contact. It is therefore crucial that prehospital guidance pertaining to mental health in SSA be created.

De novo guidance development is considered time-consuming, expensive, and often out of reach for LMICs, especially in Africa. Of the CPGs produced in SSA, none used *de novo* methods. The majority used literature reviews, expert input or informal guideline adaptation methods, as opposed to formal adaptation methods such as adoption

[32], ADAPT [33], or others [19,34–36]. Considering the international standards in guidance development and the continuous movement toward evidence-based decision-making [4], we argue that if any guidance in prehospital care is to be developed, the methods of development should be transparently and clearly reported [37]. This would be recommended irrespective of whether guidance takes the form of formal CPGs, protocols, or algorithms.

Where methods and transparency are unclear, there is potential for various forms of bias to creep into the guidance development process. This undermines trust in guidance, and ultimately affects patient outcomes. As a consequence, when evidence is open to misinterpretation [38], recommendations are open to conflicts of interest [39] and undue influence, especially, in situations where decisions are being made by various stakeholders on how recommendations should be implemented [18,37]. Considering how important locally appropriate guidance is to clinicians in day to day practice, it is essential that African guidance developers are aware of international standards when developing and reporting clinical guidance. In light of this, African journals and societies are increasingly requiring authors to adhere to quality standards set out by the international community, in order to publish guidance documents [40].

Of the 51 documents we included, the largest portion of included documents came from grey literature sources. Overall, we found it quite challenging to find documents on SSA in general, and especially in grey literature sources. We presume it will likely be even more challenging for clinicians seeking best practice advice. Finding trustworthy guidance documents should not be a difficult process. Considering this, key priorities that require attention include the need to improve guidance document access, as well as increasing guidance document quality and transparency, by considering central coordination of guidance documents in SSA. The African Federation for Emergency Medicine is well placed to spearhead such an initiative in SSA, where a prehospital or emergency medicine guidance repository can be hosted. This repository would require adherence to international guidance standards (such as AGREE II) and improve access to guidance documents in SSA. Such an initiative will require a consolidated regional effort, of which the first step is adherence to international guidance document development and reporting standards by all stakeholders involved. Considering limitations, we made concerted efforts to comprehensively search for all available prehospital guidance in SSA. However, it is likely we have missed potentially important documents which were not available electronically, or open to the public.

Conclusion

The majority of prehospital clinical guidance from SSA provides clinicians with excellent end-user material. Conversely, most material lacks an appropriate evidence foundation and fails to transparently report the guideline or guidance development process. This highlights the need to strengthen and build guidance development capacity, to promote the transition from eminence-based to evidence-based guidance for prehospital care in SSA. Guidance document developers, professional societies and publishers need to be aware of international guideline development and reporting standards in order to produce guidance we can trust. To improve access to clinical guidance and end-user documents in SSA, and improve the development thereof, a guidance coordinating centre should be considered.

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.afjem.2020.08.005>.

Dissemination of results

PM presented on the findings of this study at the Emergency Medicine Society of South Africa Conference in November 2019.

Authors' contributions

Authors contributed as follow to the conception or design of the work; the acquisition, analysis, or interpretation of data for the work; and drafting the work or revising it critically for important intellectual content: PM contributed 35%; PS and MM 25%; and KS 15%. All authors approved the version to be published and agreed to be accountable for all aspects of the work.

CRedit authorship contribution statement

MM conceptualised the research idea and supported PM, PS and KS in writing the manuscript. MM and PS provided input and guidance regarding scope, searching, methods, data collection and analysis. PM, PS, and KS searched and collected data, supported by MM. PM, PS and KS all contributed to data collection, while all authors were involved with AGREE scoring. MM contributed as supervisor, and PS as co-supervisor. All authors contributed to writing the manuscript, approved the final version and met the International Committee of Medical Journal Editors (ICMJE) criteria for authorship. MM 20%, PS 30%, KS 15%, PM 35%.

Declaration of competing interest

PM was supported by the Stellenbosch University Undergraduate Conference Presentation Fund for conference attendance linked to this manuscript. KS was supported by the Queen Elizabeth Scholarship in Strengthening Health and Social Systems during the time of this study. MM was involved as a methodologist in the AFEM 2016 CPGs for the Health Professions Council of South Africa (HPCSA). MM was removed from any decision, data collection or AGREE scoring for those guidelines. MM is an editor of the African Journal of Emergency Medicine. MM was not involved in the editorial workflow for this manuscript. The African Journal of Emergency Medicine applies a double blinded process for all manuscript peer reviews. The authors declared no further conflict of interest.

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