

Towards a Consensus Framework for the Diagnosis and Management of Convulsive Status Epilepticus in Africa: Protocol for a Multinational Modified Delphi Study

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Keywords: Convulsive status epilepticus, Epilepsy, Delphi technique, Africa, Clinical practice protocol, Resource-limited settings

Posted Date: August 5th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-10541340/v1>

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Additional Declarations: No competing interests reported.

Abstract

Background

Status epilepticus (SE) is a common neurological emergency and an important cause of morbidity and mortality among people with epilepsy, with a disproportionate burden in low- and middle-income countries. Across Africa, the diagnosis and management of SE are constrained by limited and inconsistent access to antiseizure medications (ASMs), electroencephalography (EEG), specialist clinicians, and critical care. Existing international guidelines have largely been developed based on evidence from high-income settings and may therefore be difficult to implement in many African health systems. Previous work by our group identified substantial heterogeneity in the management of SE in resource-limited settings, with strong support among clinicians for context-specific guidance. No continent-wide consensus framework currently exists for the diagnosis and management of convulsive SE in Africa.

Methods

This protocol describes a minimal-risk, multinational, modified Delphi consensus study that will be conducted electronically in three phases. In phase one, a core steering committee of six clinicians and scientists with expertise in SE, epilepsy, emergency medicine, critical care and consensus methodology will define the scope of the study and develop candidate statements informed by a systematic review, an international expert survey, and relevant clinical guidelines. In phase two, approximately 40 to 60 healthcare professionals involved in the management of convulsive SE in African settings will be recruited through six professional societies and local networks. Panellists will be selected using prespecified clinical and professional experience criteria while ensuring broad geographical and disciplinary representation. In phase 3, the expert panel will participate in a maximum of four electronic voting rounds. Multiple-choice items will achieve consensus when more than 75% of panellists select a single option. Statements rated on a 7-point Likert scale will achieve consensus for appropriateness or inappropriateness when at least 80% of panellists score within the agreement or disagreement band, respectively. Anonymised group-level feedback will be provided between rounds. Response stability will be assessed only for statements presented unchanged in consecutive rounds, and a statement will be finalised only when both prespecified consensus threshold and stability criteria have been satisfied. Analyses will be primarily descriptive.

Discussion

This study will establish the first continent-wide expert consensus on the diagnosis and management of convulsive status epilepticus in African clinical settings. The resulting consensus statements are intended to support more consistent and contextually appropriate clinical decision-making across diverse healthcare settings, inform education and training initiatives, and identify priorities for future research and guideline development. The protocol has been registered, and the completed study will be

conducted and reported in accordance with established methodological recommendations for Delphi studies, including the CREDES guidance.

Study Registration

The design, hypotheses, and analysis plan for this study were preregistered on the Open Science Framework and can be accessed at [10.17605/OSF.IO/TZKAE](https://osf.io/TZKAE).

Background

Status epilepticus (SE) is one of the most common neurological emergencies and remains an important cause of morbidity and mortality among people with epilepsy (PWE) [1]. The burden of epilepsy and its complications is distributed unequally, with approximately 80% of PWE living in low- and middle-income countries (LMICs), where premature mortality is estimated to be more than two-and-a-half times that of the general population [1, 2]. SE is recognised as an important contributor to this excess mortality. These disparities are compounded by the epilepsy treatment gap, where in many LMICs, more than 75% of PWE do not receive appropriate treatment compared with fewer than 10% in high-income countries (HICs), and yet remarkably few studies have proposed strategies to close it [3–5]. Consequently, many individuals remain at risk of uncontrolled seizures and their complications, including status epilepticus, yet relatively few studies have proposed contextually appropriate strategies to address this gap.

The barriers to effective SE care are both clinical and structural. Across many African settings, management is constrained by fragile health infrastructure, limited access to specialist clinicians, inconsistent availability of antiseizure medications (ASMs), restricted access to electroencephalography (EEG), delays in presentation, insufficient training at primary and secondary levels of care, and persistent epilepsy-related stigma [4, 6, 7]. International SE guidelines, in contrast, generally assume routine access to intravenous ASMs, continuous EEG (cEEG) monitoring, neuroimaging, and intensive care support [8, 9]. Where these resources are unavailable, delayed, or inconsistently accessible, the direct application of such recommendations may be impractical, leaving clinicians to manage a time-critical emergency without contextually appropriate guidance [6, 10, 11].

Our previous work has highlighted the extent of this problem. In a systematic review of the diagnosis and management of adult SE in resource-limited settings, including 23 studies and 1,526 patients, we identified substantial heterogeneity in clinical practice, with management shaped more by local drug availability and clinician familiarity than by established guidelines [6]. First-line benzodiazepines were often underdosed, older and less costly second-line agents such as valproate, phenytoin, and phenobarbital predominated, and cEEG was largely unavailable. Reported in-hospital mortality reached 42.6%. Notably, only one of the included studies originated from Africa, and sub-Saharan Africa was entirely unrepresented [6]. Taken together, these findings highlighted an important evidence gap and provided the rationale for exploring whether clinicians considered existing guidance applicable to resource-limited settings.

To explore these challenges further, we subsequently conducted an international expert survey involving 28 clinicians across 15 countries and four continents [12]. Fewer than one-quarter of respondents considered existing SE guidelines as applicable to resource-limited settings. Commonly identified barriers included limited access to ASMs, limited availability of and access to EEG and diagnostic capacity, and inadequate training among caregivers, prehospital personnel, and frontline healthcare workers. Fewer than half of the respondents had routine access to EEG, and there was no agreement regarding the role or timing of serial intermittent EEG where cEEG was unavailable. Almost all respondents (27 of 28) considered coordinated multinational action essential, and more than 96% supported the development of protocols specifically adapted to resource-limited settings [12].

Africa remains particularly underrepresented in the SE literature, despite carrying a substantial proportion of the global epilepsy burden [2, 6, 13]. Health systems across the continent are highly heterogeneous, with marked variation in access to neurology services, ASMs, EEG, emergency care and critical care facilities. Consequently, a single resource-intensive management pathway may not be feasible or appropriate across all settings [11]. At the same time, the absence of context-sensitive guidance requires clinicians to make complex, time-critical decisions without a broadly agreed upon framework [12, 13]. A structured process that draws on the clinical experience of African healthcare professionals who routinely manage convulsive SE under diverse resource conditions is therefore a necessary step towards pragmatic, regionally relevant guidance.

The Delphi method is a well-established technique for building consensus development that uses iterative rounds of anonymous voting and controlled feedback [14]. It is particularly useful where empirical evidence is limited, conflicting or difficult to generate, and where expert judgement is required to address questions that cannot be resolved through evidence synthesis alone. In a modified Delphi process, candidate statements are developed in advance by a core steering committee and subsequently refined through structured voting by a broader expert panel. This approach has been widely used to develop standardised terminology, guidelines, and consensus recommendations and practice frameworks across medicine and neurosciences [15, 16]. It is well suited to the present study as evidence from African settings remained limited, clinical practice is heterogeneous, and many important management questions are strongly influenced by local resource availability.

We therefore propose a multinational modified Delphi study to develop expert consensus statements on the diagnosis and management of convulsive SE across African clinical settings. The study will draw on the experience of clinicians working across diverse African health systems and levels of care, with the aim of producing pragmatic and context-sensitive clinical statements that can support improved patient care, training, policy development, and research priorities.

The primary aim of this study is to establish expert consensus on key statements relating to the recognition, diagnosis, initial management, escalation of care, and post-acute management of convulsive SE in African clinical settings. The specific objectives are:

1. To identify and prioritise the key clinical questions and candidate statements relating to the diagnosis and management of convulsive SE in Africa, through a core steering committee and informed by existing literature and clinical practice;
2. To constitute an expert panel that is broadly representative of African clinicians involved in the management of convulsive SE, with geographical and disciplinary diversity;
3. To assess agreement on the candidate statements through iterative rounds of structured, anonymous voting and controlled feedback;
4. To identify statements that achieve consensus or dissensus, as well as areas in which agreement remains unresolved.
5. To produce a consolidated set of expert-informed statements that identifies current needs and guides future, training initiatives and research priorities.

Methods/Design

Study design and setting

This is a minimal-risk, multicenter, multinational, modified Delphi consensus study that will be conducted electronically. It will follow a three-phase design (Fig. 1): development of candidate statements by a core steering committee (Phase 1); constitution of a multidisciplinary expert panel comprising of healthcare professionals involved in the management of convulsive SE in African settings (Phase 2); and iterative rounds of structured voting with controlled feedback (Phase 3). The study is described as modified, rather than a classical Delphi process as candidate statements will be developed in advance by the core steering committee and presented to the expert panel from the first round. In a classical Delphi process, the initial round is typically open-ended and is used to generate candidate items directly from the wider panel. In the present study, the steering committee will also review panel feedback and refine statements between rounds, while preserving the anonymity of individual panellists' responses.

All study procedures will be conducted electronically. This will include development of the candidate statements, recruitment and eligibility screening of prospective panellists, electronic informed consent, completion of the panel experience questionnaire, administration of voting rounds, and circulation of anonymised group-level feedback. Electronic survey tools will be used for recruitment and voting, with study data transferred to and stored on approved institutional systems in accordance with the University of Cape Town's data-governance requirements.

The Delphi process will include a maximum of four voting rounds. Statements may be finalised before the fourth round if they meet the prespecified criteria for both consensus or dissensus and response stability. Statements that do not meet the finalisation criteria by the end of the fourth round will be reported as unresolved areas of disagreement and will not be presented as consensus recommendations. No patients will be enrolled, no clinical intervention will be administered, and no identifiable patient information will be collected. The participants are healthcare professionals contributing their expert opinions on clinical practice, and the study is therefore considered minimal risk.

The reporting of this protocol and of the completed study follows established recommendations for the conduct and reporting of Delphi studies, with reference to the CREDES guidance [17].

Study population

The study population will comprise two groups of healthcare professionals: a core steering committee and a wider expert panel, with the two groups having distinct roles and eligibility criteria. All participants will complete a consent form prior to the study.

Core steering committee

The core steering committee will consist of six experienced clinicians/scientists in the fields of SE, including epilepsy, neurology, emergency medicine, critical care, evidence synthesis and consensus methodology. Members will be identified by the principal investigator (PI) through existing collaborations and professional networks, and recommendations from senior clinicians in the field. The steering committee will be responsible for defining the scope of the consensus process, identifying the principle clinical domains, drafting initial candidate statements, reviewing anonymised panel feedback, refining statements between rounds and overseeing interpretation and reporting of the final results.

Eligibility for membership of the steering committee will require:

- Age of 18 years or older;
- Recognised clinical, academic or methodological expertise relevant to SE or Delphi consensus research;
- Ability to read and understand English;
- Willingness to participate in virtual meetings and statement-development activities.

Expert panel

The expert panel will comprise approximately 40 to 60 healthcare professionals currently practising, or with recent clinical experience, in an African country and involved in the management of patients with convulsive SE and epileptic seizures. Panellists will be recruited through professional networks of the International League Against Epilepsy: Africa Region (ILAE-Africa), the Critical Care Society of Southern Africa (CCSSA), the Neurocritical Care Society: Middle East and North Africa (MENA) Chapter, the World Federation of Neurology (WFN) Africa, the International Bureau for Epilepsy (IBE) African Regional Committee, the African Federation of Emergency Medicine (AFEM) and through professional networks, in order to secure wide geographical and disciplinary representation.

The panel will be constituted to achieve broad geographical, disciplinary and health-system representation. Recruitment will aim to include participants from Northern, Western, Central, Eastern and

Southern Africa, as well as clinicians practising across different levels of care and resource settings. Relevant disciplines may include neurology, emergency medicine, critical care, internal medicine and other fields directly involved in SE care.

To be eligible for the expert panel, individuals must:

- Be aged 18 years or older;
- Be a qualified healthcare professional;
- Be currently practising, or have practised within the preceding five years, in an African country;
- Have direct clinical experience in the assessment or management with convulsive SE;
- Be able to read and understand English;
- Have reliable access to an electronic device and internet connection sufficient to complete the study surveys;
- Complete the eligibility and experience questionnaire.

Healthcare professionals may include medical doctors, clinical officers, advanced-practice clinicians or other appropriately qualified professionals with direct responsibility for managing convulsive SE. The final professional groups included will be documented transparently.

Individuals will be excluded from the expert panel if they:

- Do not meet the prespecified eligibility criteria;
- Do not provide informed consent;
- Do not complete the eligibility and experience questionnaire;
- Do not have direct clinical involvement in convulsive SE care; or
- Are unable to participate in the study in English.

Individuals who consent and are selected for the panel but do not submit a response during the first voting round will be classified as enrolled but non-participating. They will not contribute to the Delphi voting analysis. This will be treated as a participation outcome rather than as an eligibility exclusion.

Recruitment and expert panel selection

Rigorous, transparent, and reproducible selection of the expert panel is central to the credibility of this study, and the recruitment strategy has been designed accordingly. Rather than relying on informal nomination, which is a recognised source of bias in consensus studies where a narrow or like-minded panel can produce artificially harmonious agreement, panel constitution combines broad, society-mediated outreach with a structured, quantitative appraisal of each candidate's clinical and academic experience. Prospective members will receive a study invitation, participant information sheet, and electronic consent form.

Recruitment of the wider expert panel will proceed in two stages. In the first stage, a standardised invitation will be circulated through the leadership and communication channels of the participating professional organisations. These organisations span epilepsy, neurology, critical care, and emergency medicine; this is a deliberate strategy to capture the full disciplinary breadth of SE care and to reach clinicians from across Northern, Western, Central, Eastern, and Southern Africa.

In the second stage, interested individuals who provide informed electronic consent will complete the Global Panel Experience Score questionnaire. The Global Panel Experience Score is a structured instrument, adapted from a published expert consensus framework, that characterises each candidate’s experience in the management of convulsive SE, and provides an objective, pre-specified basis for selection where expressions of interest exceed the target panel size. The instrument comprises of eight scored items rated on a 1-to-5 Likert scale, and covers clinical experience, frequency in managing SE, self-assessed expertise, academic experience, prior guideline and consensus experience, participation in consensus processes, and an assessment of suitability for the panel by the coordinating team (Table 1). Additional information on professional discipline, society affiliation, principal practice setting, country of practice and World Bank income classification will be collected for descriptive and panel-composition purposes but will not contribute to the score.

Each scored item is normalised to a 0-to-100 scale using the formula:

$$\frac{item\ score - 1}{4} \times 100$$

The Global Panel Experience Score will be calculated as the arithmetic mean of the eight transformed item scores, producing a total score between 0 and 100. For descriptive purposes, scores will be categorised as low (< 40), moderate (40–70), or high (> 70).

Where the number of eligible applicants exceeds the target panel size, candidates with higher Global Panel Experience Scores will be prioritised. Final selection will not be based on score alone and will also take account of geographical, disciplinary, professional-society and health-system representation. The PI and core steering committee will jointly review applications and confirm the final panel composition before the first voting round.

Table 1
Scored items included in the Global Panel Experience Score

Scored item	Response scale (1 to 5)
Years of experience managing with acute SE (across emergency, inpatient, and intensive care settings)	< 1 year; 1–3 years; >3–7 years; >7–15 years; >15 years
Self-perceived clinical experience in the management of SE	Very low; Low; Moderate; High; Very high
Monthly frequency of managing with SE	< 5; 5–10; >10–20; >20–30; >30 patients/month
Self-perceived overall professional experience in SE management	Very low; Low; Moderate; High; Very high
Number of peer-reviewed publications in epilepsy or SE	< 5; 5–10; >10–20; >20–30; >30
Participation in the development of clinical guidelines or protocols in epilepsy or SE	No (1) / Yes (5)
Previous participation in expert consensus processes in epilepsy or SE	No (1) / Yes (5)
Assessment of fit for the panel by the consensus coordinating team	Very low fit; Low; Moderate; High; Very high fit

SE, status epilepticus. Each item is normalised to a 0–100 scale using $(\text{item score} - 1) / 4 \times 100$; the overall score is the arithmetic mean of the eight transformed item scores.

Phase 1: Statement development

The core steering committee will convene virtually to define the scope of the consensus process, including the target population (patients with convulsive SE), the African clinical context, and the key domains and clinical questions to be addressed. The anticipated domains include definitions and recognition of SE; pre-hospital care; initial in-hospital assessment and investigation; first-line ASM treatment; second-line ASM treatment; the management of refractory and super-refractory SE; the diagnostic role of EEG, including where cEEG is unavailable; criteria for the transfer and escalation of care; and education and training priorities [18]. Within these domains, the steering committee will develop candidate statements informed by the published systematic review [6], the international expert survey [12], and other relevant clinical guidelines and literature [8–10].

Statements will be prepared in two formats. The first comprises multiple-choice items, in which panellists select a single preferred option from a set of alternatives. The second comprises statements assessed for appropriateness on a 7-point Likert scale, where 1 indicates strong disagreement or inappropriateness and 7 indicates strong agreement or appropriateness.

Phase 2: Expert panel constitution

Expert panellists will be recruited and selected as described above. The final panel composition will be confirmed and documented before the first voting round.

Phase 3: Iterative voting rounds

The modified Delphi process will comprise a maximum of four electronic voting rounds, all conducted electronically through Google Forms, with individualised secure links sent to each confirmed panellist.

For multiple-choice items panellists will select a single preferred option. Consensus will be defined a priori as more than 75% of respondents selecting the same option [14]. Statements that do not reach this threshold will be considered not to have achieved consensus and will be revised by the core expert committee, through amended wording, a refined option list, or both, and re-presented in the subsequent round. For Likert-scale items, responses will be grouped into agreement (scores of 5 to 7), neutral (score of 4), and disagreement (scores of 1 to 3). Consensus that a statement is appropriate will be defined as at least 80% of panellists scoring within the agreement band, while consensus that a statement is inappropriate will be defined as at least 80% scoring within the disagreement band. Items that do not reach the relevant threshold may be revised by the core steering committee through modification of the wording, response options, or both, and re-presented in a subsequent round. Substantively revised items will be treated as new versions for the purpose of assessing response stability. After each round, panellists will receive anonymised group-level feedback, including the distribution of responses, medians and interquartile ranges for Likert-scale items, and anonymised qualitative comments. Revised items and response options will be circulated where appropriate. Statements that satisfy both the prespecified consensus or dissensus threshold and the stability criteria will be finalised and removed from subsequent rounds. Statements that have not yet met both criteria will be carried forward, revised where appropriate, or classified as unresolved at the end of the fourth round.

Each voting round will remain open for approximately two weeks, with up to two reminder communications issued during the response period. The anticipated participation time is approximately one to one-and-a-half hours per round, and four to six hours across the full study.

Consensus, stability, and closing criteria

Consensus and response stability will be treated as separate requirements. Consensus or dissensus will indicate the degree of agreement reached within a particular round, according to the prespecified thresholds described above. Stability will indicate whether the panel's responses remain sufficiently consistent across consecutive rounds. A statement will be regarded as having reached a definitive outcome only when it satisfies both the consensus or dissensus threshold and the prespecified stability criteria.

Stability will be assessed from the second round onwards and only for items presented with unchanged wording and response options in two consecutive rounds. Substantively revised items will be treated as

new versions, and assessment of stability will restart from the first round in which the revised version is presented. For Likert-scale items, stability will be defined by [14]:

1. No change in the direction of consensus,
2. An absolute change of no more than 10 percentage points in the proportion of responses within the relevant agreement or disagreement band; and
3. A change of no more than one point in the median Likert score between consecutive rounds.

For multiple-choice items, stability will be defined by:

1. The same response option remaining the most frequently selected option across consecutive rounds; and
2. An absolute change of no more than 10 percentage points in the proportion selecting that option.

A statement that meets the relevant consensus or dissensus threshold but has not yet demonstrated stability will be re-presented unchanged in the subsequent round. A statement that does not meet the relevant threshold nor stability may be revised by the core steering committee and re-presented in a later round. Where an item is revised, the nature of the revision will be documented.

The modified Delphi process will comprise of a maximum of four voting rounds statements that meet both the relevant consensus or dissensus threshold and the stability criteria will be finalised and removed from subsequent rounds. Statements that do not meet both requirements by the end of the fourth round will be reported as unresolved and will not be presented as consensus recommendations.

Data management and analysis

Participant responses will be captured through Google Forms and exported to a secure, password-protected institutional data-storage system. Consent records will be stored separately. Each participant will be assigned a unique study code, and the linkage file connecting identifying information to study codes will be stored separately from the analysis dataset, with access restricted to the PI and authorised members of the research team. Where technically feasible, automatic collection of email addresses and other unnecessary identifying information will be disabled. Any identifying information inadvertently included in free-text responses will be removed before analysis. All data will be handled in accordance with the Protection of Personal Information Act and relevant University of Cape Town data-governance policies. Study records, including consent documentation, the participant linkage file and de-identified survey data, will be retained securely for five years after completion of the study, in accordance with institutional policy, after which identifiable records will be securely destroyed and de-identified data disposed of or archived as permitted by the approved data-management plan. Participant characteristics will be summarised descriptively, including professional discipline, country and region of practice, years of clinical experience, practice setting and Global Panel Experience Score. Categorical variables will be presented as counts and percentages, while continuous variables will be summarised using means and standard deviations or medians and interquartile ranges, as appropriate. The number of panellists invited, enrolled and responding in each round will be reported, together with round-specific response

and attrition rates. For multiple-choice items, the number and proportion of panellists selecting each response option will be calculated for each round. Consensus will be defined as more than 75% of respondents selecting a single option. For Likert-scale statements, responses will be summarised using the median and interquartile range, together with the proportion of responses in agreement band (scores of 5 to 7), neutral category (score 4) and disagreement band (scores of 1 to 3). Consensus for appropriateness will be defined as at least 80% of respondents scoring within the agreement band, and consensus for inappropriateness as at least 80% scoring within the disagreement band. Response stability between consecutive rounds will be assessed during the prespecified criteria described above and only for items presented with unchanged wording and response options. The number of rounds in which each item was presented, any revisions made between rounds, and the final classification of each item as consensus, dissensus or unresolved will be documented. Analyses will be primarily descriptive, reflecting the consensus-generating purpose of the study. Results will be presented at statement level, together with the number of respondents contributing to each analysis and the response rate for each Delphi round.

Patient and public involvement

Patients and the public were not involved in the design of this study. However, a patient and / or caregiver representative will be invited to review the final manuscript and provide input on the relevance, clarity, feasibility and patients-centeredness of the consensus statements, particularly from the perspective of a patient's and caregiver's lived experiences. A summary of the consensus findings will be disseminated to the participating professional societies, and the resulting statements are ultimately intended to benefit patients with SE across Africa through improved, context-appropriate clinical guidance. Additional patient and/or caregiver input will be incorporated in subsequent work focused on implementation, communication, education, acceptability and the development of patient-facing materials.

Study status

At the time of submission, the study has received ethical approval, and the core steering committee has been constituted. Recruitment of the expert panel has not been completed, and no voting round has commenced.

Discussion

To our knowledge, this will be the first structured consensus process directed specifically at the diagnosis and management of convulsive SE in Africa. Existing international guidance is underpinned by high-quality evidence but has largely been developed within health systems that assume reliable access to neuroimaging, electroencephalography, intensive care, and a broad range of antiseizure medications. These assumptions do not reflect the realities of many African healthcare settings, where diagnostic and therapeutic decisions must frequently be made under conditions of substantial resource limitation. By convening clinicians who manage SE within these constraints, the study aims to produce statements

that are not simply adaptations of external guidance but that reflect the practical realities of African care.

A modified Delphi approach is well suited to this task. Randomised and observational data on SE from Africa are sparse, and the questions that matter most to frontline clinicians, including which benzodiazepine and route to use when intravenous access or lorazepam is unavailable, how best to deploy limited EEG capacity, and when and how to escalate care where intensive care is scarce, are precisely those least likely to be resolved by existing trials. In such circumstances, structured expert consensus provides a systematic and transparent method of synthesising expert judgement where empirical evidence is insufficient, inconsistent, or unlikely to become available in the near future.

Several design features are intended to strengthen the credibility of the resulting statements. Panel selection is anchored in predefined, quantifiable criteria through the Global Panel Experience Score, rather than in informal nomination, reducing the risk of a narrow or self-selecting panel. Also, recruitment through six professional societies spanning epilepsy, emergency medicine, and critical care is intended to capture the disciplinary and geographical breadth of SE care across the continent. Full anonymity of panellists and their responses throughout the voting process mitigates the dominance and conformity effects that can undermine face-to-face consensus. Importantly, we distinguish between consensus and the stability of responses across rounds and require both before a statement is finalised which guards against premature closure on results that have not yet settled, an element frequently omitted from published Delphi studies.

The study also has limitations that warrant acknowledgement. Restricting participation to English-speaking clinicians, adopted for the practical purposes of survey administration and analysis, will under-represent some practitioners and the settings in which they work; we regard this as a meaningful constraint on the generalisability of the findings across the continent, and one that future work should address directly. Reliance on electronic administration, while necessary for a multinational study of this kind, may disadvantage clinicians with limited connectivity and contribute to attrition across rounds but a 2–3 week response window, reminder communications, and a tolerance for modest panel attrition are built into the design to mitigate this. The active role of the core steering committee in drafting and revising statements, although intrinsic to the modified Delphi method, carries a potential for framing bias. However, anonymised feedback, transparent reporting of all rounds, and the clear labelling of unresolved statements as areas of disagreement are intended to counterbalance this. Finally, consensus reflects expert judgement rather than empirical proof and the statements generated should be understood as pragmatic, context-sensitive guidance to inform practice and to prioritise future research, not as a substitute for the trials and observational studies that Africa's SE burden ultimately requires.

The consensus, near-consensus, and non-consensus statements arising from this study are intended to inform the development of future African SE guidelines, to shape training initiatives for clinicians across the continent, and to identify the research priorities most likely to improve outcomes for patients with SE in resource-limited African settings.

Abbreviations

AFEM

African Federation of Emergency Medicine

ASM

antiseizure medication

CCSSA

Critical Care Society of Southern Africa

cEEG

continuous electroencephalography

EEG

electroencephalography

HIC

high-income country

HREC

Human Research Ethics Committee

ILAE-Africa

International League Against Epilepsy, Africa Region

LMIC

low- and middle-income country

MENA

Middle East and North Africa

PI

principal investigator

POPIA

Protection of Personal Information Act

SE

status epilepticus

UCT

University of Cape Town.

Declarations

Ethics approval and consent to participate

The study has been approved by the University of Cape Town Faculty of Health Sciences Human Research Ethics Committee (HREC reference 359/2026; approved 6 July 2026). All participants will provide informed electronic consent before undertaking any study procedure, including completion of the Global Panel Experience Score questionnaire and any voting round. The study will be conducted in accordance with the principles of the Declaration of Helsinki.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Funding

This study received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Author Contribution

AJS conceived and designed the study and drafted the protocol manuscript. SJ designed figure 1, contributed to the design of the study and critically revised the manuscript for important intellectual content. TG, SL, RHM, JJ, CAD and CR contributed to the design of the study and critically revised the manuscript for important intellectual content. All authors read and approved the final manuscript.

Acknowledgements

None.

Availability of data and materials

Data sharing is not applicable to this article, as no datasets were generated or analysed for this protocol. The anonymised, aggregate data generated during the conduct of the study, together with the final statement set and the Global Panel Experience Score instrument, will be available from the corresponding author on reasonable request.

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Figures

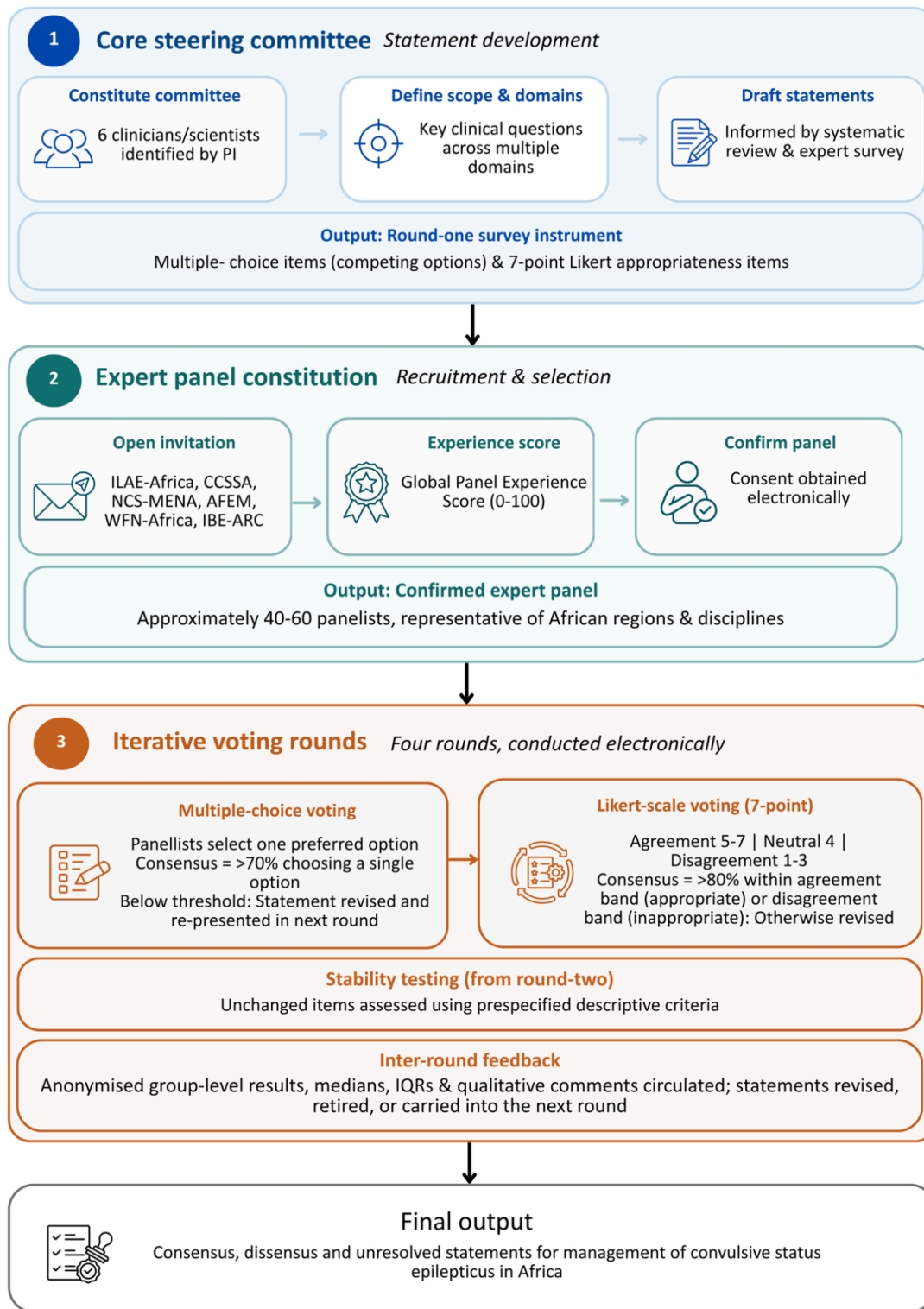


Figure 1

Three-phase design of the multinational modified Delphi consensus study.