

Lost between languages and symptoms: multilingual communication breakdowns and patient safety in Indonesian emergency care

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ABSTRACT

Background: Multilingual emergency care in Indonesia operates at the intersection of clinical urgency, regional language diversity, and patient-safety demands, where symptoms must be transformed rapidly into actionable diagnostic and triage information. **Objective:** This study examines how multilingual communication breakdowns are represented and how they become safety-relevant across Indonesian emergency-care discourse. **Method:** Using a qualitative corpus-based discourse-pragmatic design, this study analyzed 22 publicly verifiable documents, including Indonesian regulations, Ministry materials, national clinical-communication studies, emergency-language access research, and global patient-safety frameworks. **Results:** Findings show that communication risk is most visibly institutionalized through governance language, yet multilingual procedures remain under-specified in relation to dialect, interpreter access, family mediation, and patient-understandable explanation. Interactional analysis indicates that breakdowns cluster around symptom elicitation, consent, discharge instruction, documentation, and mediation, suggesting that misunderstanding emerges across care transitions rather than at a single conversational point. **Implication:** Safety-linkage analysis further shows that diagnostic uncertainty, triage prioritization, documentation continuity, disclosure, and institutional readiness are the main pathways through which linguistic ambiguity may become patient-safety vulnerability. **Novelty:** By integrating medical linguistics, discourse pragmatics, and diagnostic-safety analysis, this study reframes language access as emergency-care infrastructure and offers a cautious model for examining multilingual risk without claiming unsupported causality for future empirical work in multilingual, high-pressure clinical research settings.

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1. INTRODUCTION

Patient safety in emergency care is increasingly shaped not only by clinical speed, diagnostic technology, or staffing capacity, but also by whether symptoms can be translated into medically actionable information under pressure. Globally, unsafe care remains a major public-health concern: WHO reports that around one in ten patients is harmed in healthcare, with more than three million deaths annually associated with unsafe care [1]. In Indonesia, this concern intersects with a highly multilingual ecology. Badan Bahasa reported 718 regional languages in 2024, indicating that patients may enter emergency units with different linguistic repertoires, dialects, illness expressions, and levels of biomedical vocabulary [2]. In emergency

settings, where triage, history-taking, consent, handover, and discharge instructions occur rapidly, language is not a peripheral issue. It becomes part of safety infrastructure because unclear symptom descriptions, misunderstood questions, and unverified family interpretation may obscure clinical urgency.

Previous research has established that communication failures are closely related to patient-safety vulnerability, diagnostic delay, and unequal access to care. Studies on emergency departments have examined language and communication barriers from physicians' perspectives, interpreter use, language-concordant care, pediatric emergency settings, and patient companions in multilingual consultations [3], [4], [5], [6], [7]. Diagnostic-safety literature has also shown that uncertainty, incomplete information, and weak communication processes can shape how clinical risk is recognized and managed in acute care [8], [9], [10], [11]. In Indonesia, scholarship has discussed patient-safety readiness, incident disclosure, physician-patient communication, medical jargon, directive speech acts, and multilingual patients in clinical contexts [12], [13], [14], [15], [16], [17]. However, limited attention has been given to how multilingual breakdowns specifically operate within emergency-care safety pathways.

This study addresses that gap by examining how multilingual communication breakdowns are represented, structured, and linked to patient-safety concerns in Indonesian emergency-care discourse. Rather than asking whether multilingualism directly causes unsafe care, this study asks how language discordance, medical jargon, pragmatic ambiguity, interpreter mediation, family participation, and symptom reformulation become safety-relevant under emergency conditions. The study is guided by three questions: how are multilingual communication breakdowns positioned in emergency-care materials and related health communication literature; what linguistic and pragmatic features characterize these breakdowns; and how are such breakdowns connected to safety domains including triage, diagnostic uncertainty, documentation, discharge comprehension, and incident disclosure? By framing emergency communication as a sociolinguistic and patient-safety problem, this study avoids reducing communication to information transfer alone. It instead treats language as an interactional condition through which symptoms, urgency, responsibility, and institutional decisions are negotiated.

The central argument advanced here is that multilingual communication breakdowns should be understood as systemic vulnerabilities embedded in emergency-care processes, not merely as interpersonal misunderstandings between patients and clinicians. This argument is grounded in recent work showing that language barriers can affect emergency communication, interpreter use, patient experience, and diagnostic-safety improvement, while Indonesian studies demonstrate that patient safety and clinical communication are already shaped by institutional readiness, disclosure practices, and health-worker communication cultures [18], [12], [13], [19], [20]. This study therefore contributes to medical linguistics and patient-safety research by connecting multilingual symptom articulation with safety-critical stages of emergency care. Its implication is not that every linguistic mismatch produces harm, but that emergency systems require communicative safeguards—plain language, structured questioning, professional interpretation, teach-back, and documentation clarity—to make clinical risk more visible before it becomes preventable harm.

2. LITERATURE REVIEW

2.1. Multilingual communication

Multilingual communication breakdown in healthcare refers to more than an inability to translate words across languages; it concerns failures in producing, interpreting, verifying, and acting upon clinically meaningful information. In emergency care, such breakdowns may occur when patients describe symptoms through local idioms, regional languages, fragmented narratives, gestures, or family-mediated explanations, while clinicians rely on standardized biomedical categories. Cox and Maryns (2021) [4], Roberts (2022) [21], and Larocque et al. (2023) [22] show that multilingual consultations are shaped by institutional routines, patient companions, and unequal conversational authority. Indonesian studies on medical jargon, directive speech acts, and multilingual patients further indicate that communication is both linguistic and pragmatic [15], [16], [17].

Key indicators of multilingual breakdown include language discordance, register mismatch, unclarified medical terminology, missing interpreter support, overreliance on relatives, and weak repair strategies. Recent emergency-department studies show that these indicators appear across physician-patient interaction, nursing communication, paediatric emergency care, prehospital encounters, and critical care [3], [18], [6], [7], [23]. However, literature differs in how it frames this issue. Some studies emphasize limited patient proficiency; others foreground institutional failure to provide language access. This distinction is important because this study treats breakdown as an interactional and systemic vulnerability, not as patient deficiency.

2.2. Patient safety

Patient safety is commonly understood as prevention of avoidable harm, yet recent literature increasingly links safety to diagnostic reasoning, communication quality, documentation, and patient participation. Bates et al. (2023) [8] discuss inpatient harm as a persistent safety concern, while diagnostic-safety literature emphasizes how missed, delayed, or incorrect diagnoses often emerge from multiple interacting conditions rather than individual error alone [24], [25], [26]. In emergency medicine, this issue becomes sharper because uncertainty must be managed quickly. Mahajan (2024) [27], Ladell et al. (2025) [28], and Taylor et al. (2024) [29] therefore reposition diagnostic excellence as a systems problem requiring communicative, cognitive, and organizational safeguards.

Indicators of patient-safety vulnerability in emergency care include triage ambiguity, incomplete history-taking, handover failure, documentation fragmentation, unclear discharge advice, and weak incident disclosure. Studies on triage and emergency nursing identify communication as central to recognizing deterioration and coordinating urgent decisions [30], [31], [32]. Other studies connect diagnostic uncertainty with patient questioning, safety-netting, and shared notes [33], [34], [11], [35]. Indonesian patient-safety research has examined hospital readiness, safety culture, and disclosure, but multilingual language risk is rarely placed at the centre of emergency diagnostic safety [12], [13].

2.3. Emergency-care communication

Emergency-care communication should therefore be understood as a safety infrastructure rather than a neutral channel for clinical information. Handover studies show that poorly structured communication can transfer uncertainty, omit context, or fragment responsibility across professional boundaries [36], [37], [38], [39]. Interpreter and language-access research likewise shows that communication quality depends on available tools, trained personnel, workflow design, and institutional norms [40], [41], [42], [20]. This perspective shifts analysis from whether patients “speak correctly” to whether emergency systems are designed to hear, verify, and document risk accurately.

This study positions multilingual emergency communication at the intersection of sociolinguistics, discourse pragmatics, and patient-safety science. Existing research has separately examined language barriers, interpreter use, diagnostic uncertainty, emergency handover, and Indonesian clinical communication, yet fewer studies integrate these strands into one analytical model for Indonesian emergency care. This study therefore conceptualizes communication breakdown as a pathway through which symptoms may lose precision, urgency may become ambiguous, and safety instructions may fail to travel across languages, actors, and documents. Its theoretical contribution lies in connecting linguistic form, pragmatic interaction, and safety process without claiming direct causality. This position enables a more cautious and methodologically defensible analysis of multilingual patient safety.

3. METHOD

The unit of analysis in this study was the document-level communicative risk statement, defined as any public textual segment that links emergency care, clinical communication, multilingual interaction, patient comprehension, diagnostic uncertainty, or patient safety. This unit was chosen because this study works with publicly verifiable documents rather than private patient encounters. The corpus consisted of 22 unique items collected from Indonesian regulations, Ministry of Health materials, Indonesian clinical communication studies, international emergency-language access literature, and global patient-safety frameworks. Each item was coded as primary, secondary, or contextual data to distinguish Indonesian emergency-care infrastructure from comparative scholarly evidence and broader multilingual safety context.

This study applied a qualitative corpus-based discourse-pragmatic design. This design was appropriate because the research question concerns how multilingual communication breakdowns are represented, categorized, and connected to safety-relevant processes, not how frequently adverse events occur in actual emergency units. Corpus-based qualitative analysis allowed this study to compare regulatory, institutional, and scholarly texts within one analytical frame. This design also reduced ethical risk because no identifiable patient records, private conversations, or clinical observations were used. Following recent emergency-communication and diagnostic-safety scholarship, this study treated communication as a safety condition embedded in triage, documentation, diagnosis, discharge, and disclosure.

Table 1. Composition of dataset

Code	Data Type	Source Type	Source/Author	Location	Period	Care Context	Status
IEC-001	Primary	Regulation	Ministry of Health/JDIH BPK	Indonesia	2016	SPGDT emergency system	Retained
IEC-002	Primary	Regulation	Ministry of Health/JDIH BPK	Indonesia	2018	Hospital-patient obligations	Retained
IEC-003	Primary	Regulation	Ministry of Health/JDIH BPK	Indonesia	2022	Health facilities/records	Retained
IEC-004	Primary	Health article	Ministry of Health	Indonesia	2022	Patient safety	Retained
IEC-005	Primary	Health article	Ministry of Health	Indonesia	2024	Nursing communication	Retained
IEC-006	Primary	Health article	Ministry of Health	Indonesia	2024	Diagnostic safety	Retained
IEC-007	Primary	Journal article	Kusuma & Wardahni	Indonesia	2024	Emergency installation	Retained
IEC-008	Primary	Journal article	Indriani	East Java	2025	Public hospital clinic	Retained
IEC-009	Primary	Journal article	Dhamanti et al.	Indonesia	2022	Hospital safety readiness	Retained
IEC-010	Primary	Journal article	Dhamanti et al.	Indonesia	2023	Incident disclosure	Retained
IEC-011	Secondary	Journal article	Li et al.	International	2024	Emergency interpretation	Retained
IEC-012	Secondary	Journal article	Cox & Maryns	Belgium	2021	Urgent care	Retained
IEC-013	Secondary	Journal article	Cox et al.	Belgium	2025	Emergency consultation	Retained
IEC-014	Secondary	Safety analysis	Sanchez	USA	2025	Safety event reports	Retained
IEC-015	Context	Language article	Badan Bahasa	Indonesia	2025	Language diversity	Retained
IEC-016	Context	Policy document	WHO	Global	2021	Patient safety	Retained
IEC-017	Context	Accreditation site	KARS	Indonesia	2026	Hospital accreditation	Retained
IEC-018	Primary	Regulation	Ministry of Health/JDIH BPK	Indonesia	2018	Health promotion	Retained
IEC-019	Primary	Journal article	Effendi et al.	Indonesia	2023	Telemedicine communication	Retained
IEC-020	Secondary	Journal article	Bakhsh et al.	Saudi Arabia	2024	Emergency department	Retained
IEC-021	Secondary	Journal article	Newton et al.	Canada	2025	Emergency department	Retained
IEC-022	Context	International article	UNESCO	Indonesia/global	2024	Linguistic diversity	Retained

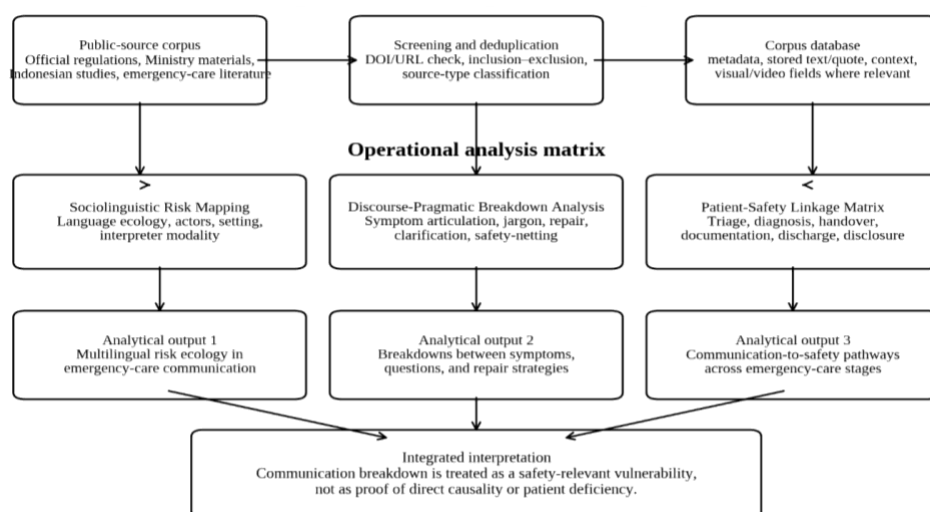


Figure 1. Operational analysis matrix

Information sources were selected from four domains. First, Indonesian regulatory and Ministry of Health sources were used to establish institutional expectations for emergency response, hospital obligations, communication, health promotion, medical records, and patient safety. Second, Indonesia-based scholarly studies were used to contextualize patient-safety culture, disclosure, telemedicine communication, and language barriers in clinical settings. Third, international emergency-care literature was used to strengthen comparison on interpreter use, multilingual consultations, patient companions, and language-discordant emergency encounters. Fourth, global and national language-policy sources were used to situate Indonesian emergency care within wider multilingual conditions. This layered source design supports contextual depth without inventing hospital-level field data.

Data collection followed a structured public-source protocol. Search terms combined English and Indonesian keywords, including multilingual communication, language barrier, emergency department, gawat darurat, SPGDT, komunikasi efektif, keselamatan pasien, diagnostic safety, triage, interpreter, rekam medis, patient companion, and discharge instruction. Sources were included when they were publicly accessible, verifiable, relevant to emergency care or patient safety, and analytically useful for communication breakdown. Items were excluded when they were duplicated, unverifiable, unrelated to healthcare communication, or unable to support safety-oriented interpretation. Deduplication used DOI when available and canonical URL when DOI was absent. Each retained item received a unique IEC code.

Data analysis proceeded in three stages. First, sociolinguistic risk mapping identified language ecology, actors, settings, and interpreter modality. Second, discourse-pragmatic analysis examined symptom articulation, medical jargon, directive speech acts, clarification, repair, and safety-netting. Third, a patient-safety linkage matrix connected communicative breakdowns to triage, diagnostic uncertainty, handover, documentation, discharge comprehension, and incident disclosure. Coding was conducted at document level and recorded in a separate coding file to preserve traceability between metadata, text evidence, and interpretation. This analytic sequence allowed this study to make cautious claims about safety vulnerability while avoiding unsupported causal claims about actual patient harm.

4. RESULTS

4.1. Multilingual risk in emergency-care communication

Multilingual risk in emergency-care communication appears first as an institutional problem before it appears as an interpersonal misunderstanding. The largest category concerns emergency and patient-safety governance, covering five corpus items or 22.7% of the dataset. This pattern indicates that Indonesian emergency communication is already embedded in formal structures: emergency response systems, hospital obligations, patient-safety goals, emergency-installation communication, and accreditation governance. Yet these sources tend to define communication as a procedural requirement rather than as a multilingual clinical practice. This distinction matters because emergency units do not simply transmit information; they convert unstable symptom narratives into urgent clinical priorities. Consistent with Dhamanti et al. (2022) [12], Dhamanti et al. (2023) [13], and Kusuma and Wardahni (2024) [43], governance language provides a safety foundation, but it does not automatically solve language discordance.

Table 2. Sociolinguistic risk ecology in Indonesian emergency-care communication

Main Category	Subcategory	Indicator	Frequency	Percentage	Data Variation	Evidence Segment	Data Codes	Initial Interpretation
Emergency and patient-safety governance	Institutional emergency language	Emergency response, hospital obligation, safety goal, ED communication, accreditation	5	22.7%	4 primary; 1 context	Emergency care and effective communication are positioned as institutional safety responsibilities.	IEC-001; IEC-002; IEC-004; IEC-007; IEC-017	Communication risk is framed as part of governance rather than only interpersonal skill.
Documentation, education, and continuity of information	Written and instructional continuity	Medical records, hospital health promotion, remote clinical communication	3	13.6%	3 primary	Clinical information must travel across records, education materials, and mediated encounters.	IEC-003; IEC-018; IEC-019	Safety depends on whether spoken symptoms become traceable written information.
Patient-understandable and local multilingual adaptation	Comprehension-oriented language ecology	Patient-understandable wording, dialect/accent sensitivity, local language diversity	4	18.2%	2 primary; 2 context	Sources emphasize understandable language, listening, repetition, dialect, and Indonesia's multilingual ecology.	IEC-005; IEC-008; IEC-015; IEC-022	Multilingualism becomes safety-relevant when clinical meaning is not verified.
Interpreter modalities and companion mediation	Mediated multilingual interaction	Professional interpreter, telephone/video interpreting, machine translation, companion mediation	4	18.2%	4 secondary	Emergency-language access literature identifies multiple mediation modes and risks of ad hoc translation.	IEC-011; IEC-012; IEC-013; IEC-021	Mediation is not neutral; interpreter modality shapes what symptoms and risks become visible.
Diagnostic uncertainty, incident disclosure, and safety learning	Communication-to-safety linkage	Diagnostic safety, incident disclosure, reported language-barrier events, global patient safety	4	18.2%	2 primary; 1 secondary; 1 context	Communication is linked to diagnosis, disclosure, event reporting, and preventable safety vulnerability.	IEC-006; IEC-010; IEC-014; IEC-016	Language breakdown may weaken safety learning when uncertainty or adverse events are poorly communicated.
System readiness and ED clinician perspective	Operational constraints	Hospital readiness, emergency physician perspective, resource and workflow limits	2	9.1%	1 primary; 1 secondary	Safety readiness and clinician perspectives show communication as constrained by system capacity.	IEC-009; IEC-020	Breakdown reflects institutional conditions as well as language mismatch.

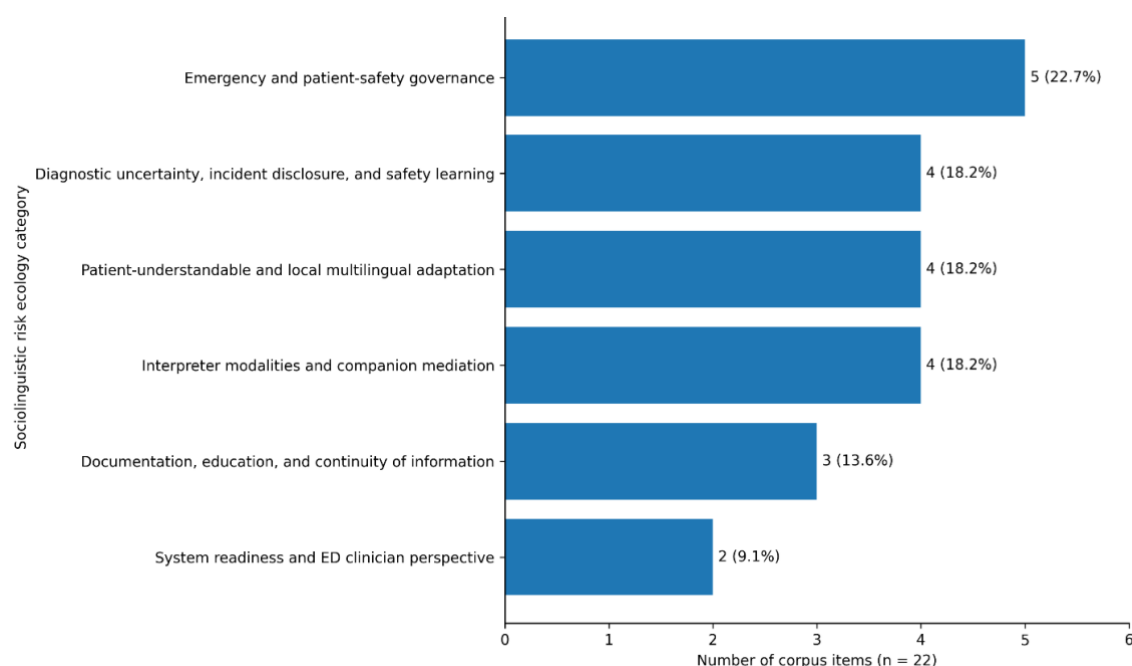


Figure 2. Distribution of multilingual risk ecology in Indonesian emergency-care communication

The dominant pattern shows three closely balanced clusters after governance: patient-understandable multilingual adaptation, interpreter and companion mediation, and diagnostic-safety linkage, each representing four corpus items or 18.2%. This distribution suggests that multilingual emergency risk is not concentrated in one communicative site. It spreads across symptom elicitation, mediation, documentation, diagnostic reasoning, and post-event explanation. Sources on interpreter use and emergency language access show that professional interpretation, ad hoc translation, patient companions, and technology-mediated support carry different safety implications [4], [5], [44], [19]. Indonesian-oriented sources add another layer by emphasizing understandable language, dialect, accent, and local adaptation. The corpus therefore positions language breakdown as distributed across actors, tools, and institutional routines.

Theoretically, this pattern supports a sociolinguistic view of patient safety: risk emerges when emergency systems fail to verify whether clinical meaning has survived movement across languages, registers, actors, and records. A purely technical interpretation would treat communication as a matter of sending correct information, but discourse-pragmatic evidence suggests that meaning is negotiated through questions, repairs, repetitions, family mediation, and institutional authority. Bakhsh et al. (2024) [3], Gutman et al. (2022) [6], Odedra et al. (2026) [7], and Pavesi-Krieger et al. (2025) [20] similarly show that emergency language barriers are shaped by workflow, interpreter availability, and clinician response. This study therefore argues that multilingual breakdown should be read as a safety vulnerability within emergency-care infrastructure, not as a deficit located in patients alone.

4.2. Interactional breakdowns between symptoms, clinical questions, and repair strategies

Breakdown in multilingual emergency communication is most visible when clinical information must be explained, understood, and verified after initial assessment. The largest cluster concerns explanation, consent, and discharge comprehension, accounting for five corpus items or 22.7% of the dataset. This pattern indicates that risk does not end once symptoms have been heard or triage has been completed. It continues when clinicians explain diagnosis, treatment decisions, follow-up instructions, and warning signs in language that may not match patients' linguistic repertoires or health literacy. This finding aligns with studies on language access and emergency communication that position understanding, not mere message delivery, as a safety requirement [6], [19], [7].

Table 3. Interactional breakdowns between symptoms, clinical questions, and repair strategies

Breakdown Cluster	Interactional Focus	Core Indicator	Pre-ED/Triage/Handover	History/Symptom Elicitation	Explanation/Consent/Discharge	Documentation/Disclosure	System/Background	Cross-Encounter Mediation	Total Frequency	Percentage	Data Codes	Repair/Control Strategy	Interpretation
Triage–handover transfer gaps	Emergency access, patient identification, triage, handover	Incomplete, untimely, or weakly standardized information transfer	3	0	0	0	0	0	3	13.6 %	IEC-001; IEC-004; IEC-007	Standardized pathway; SBAR; patient identification; clear and timely wording	Emergency meaning is vulnerable when information moves rapidly across units and actors.
Symptom and clinical-history articulation gaps	Complaint elicitation, pain description, history-taking, treatment explanation	Unclear symptom wording, dialect/accents mismatch, or partial clinical history	0	3	0	0	0	0	3	13.6 %	IEC-005; IEC-008; IEC-020	Plain language; active listening; repetition; strategic questioning; interpreter support	Symptoms may lose precision when embodied experience is forced into unfamiliar clinical language.
Explanation, consent, and discharge-comprehension gaps	Information rights, diagnosis explanation, health education, remote consultation, ED discharge	Poorly understood diagnosis, treatment plan, consent information, or discharge advice	0	0	5	0	0	0	5	22.7 %	IEC-002; IEC-006; IEC-018; IEC-019; IEC-021	Clear explanation; accessible patient education; preferred-language documentation; teach-back	Safety weakens when clinical decisions are delivered faster than patients can understand or verify.

Interpreter and companion mediation ambiguity	Interpreter access, ad hoc interpreting, companion-mediated history, care-plan translation	Absent, incomplete, or role-ambiguous mediation across languages	1	1	1	0	0	1	4	18.2 %	IEC-011; IEC-012; IEC-013; IEC-014	Professional interpretation; linguistic assessment; role negotiation; visual aids	Mediation can support safety, but it may also filter, reorder, or soften clinically relevant meaning.
Documentation, disclosure, and safety-learning gaps	Medical records, incident explanation, accreditation, global safety alignment	Fragmented record, unclear disclosure, or weak translation of safety policy into practice	0	0	0	2	2	0	4	18.2 %	IEC-003; IEC-010; IEC-016; IEC-017	Structured medical record; open disclosure support; accreditation guidance; safety action planning	Breakdown persists when spoken uncertainty is not converted into accountable records or learning.
System readiness and macro multilingual pressure	Hospital readiness, national language diversity, public multilingual access	Organizational capacity and linguistic diversity pressures around emergency communication	0	0	0	0	3	0	3	13.6 %	IEC-009; IEC-015; IEC-022	Readiness improvement; language-policy awareness; multilingual inclusion planning	Emergency communication risk is intensified by system capacity and Indonesia's multilingual ecology.

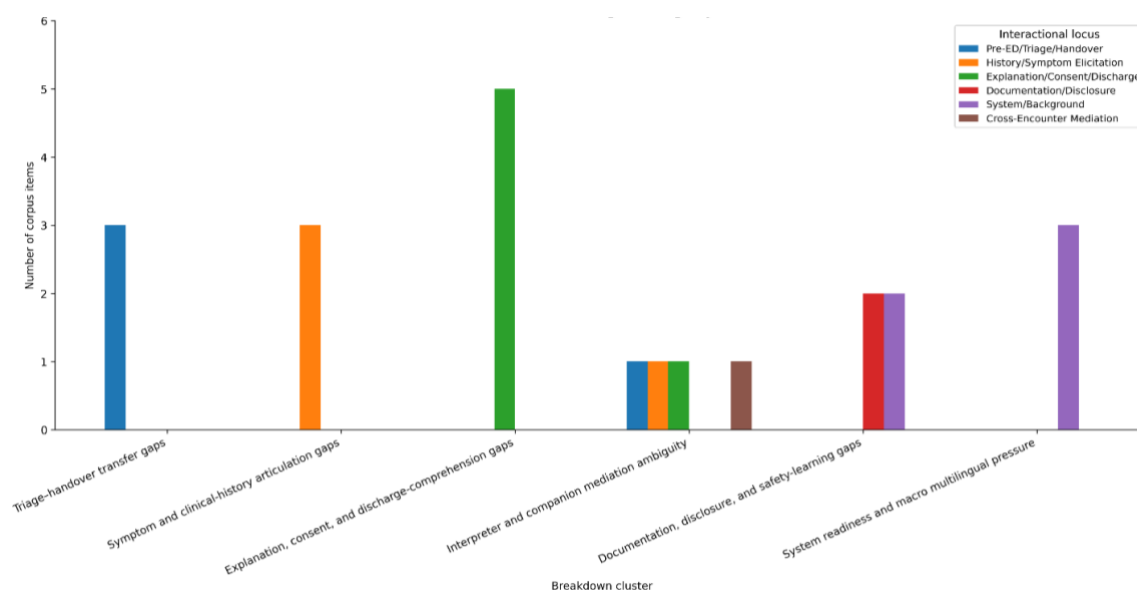


Figure 3. Interactional breakdown loci in multilingual emergency-care communication

The distribution also shows three secondary clusters of equal size: interpreter and companion mediation ambiguity, documentation/disclosure gaps, and safety-policy translation into practice each appear in four items or 18.2%. Objectively, this means that interactional breakdown is not limited to face-to-face symptom reporting. It also appears when family members mediate meaning, when interpreter services are absent or inconsistently used, and when clinical uncertainty is transferred into records, disclosure processes, or organizational routines. Similar concerns have been reported in studies of multilingual urgent consultations, patient companions, professional interpretation, and adverse-event communication [4], [5], [13], [44]. The corpus therefore shows a distributed pattern rather than a single point of failure.

Theoretically, these patterns suggest that emergency-care communication should be understood as a chain of pragmatic verification. Symptoms must be elicited, questions must be understood, explanations must be checked, and safety instructions must remain meaningful across language shifts, institutional roles, and documentation systems. This study therefore extends discourse-pragmatic analysis by linking repair strategies—plain language, repetition, SBAR, professional interpretation, role negotiation, teach-back, and structured records—to patient-safety domains. The implication is cautious but important: multilingual breakdown cannot be reduced to vocabulary loss or translation absence. It is a relational process through which clinical meaning may be filtered, delayed, softened, or fragmented before becoming a safety-relevant decision.

4.3. Communication-to-safety pathways in triage, diagnosis, documentation, discharge, and disclosure

Communication breakdown becomes most safety-relevant when symptom meaning enters diagnostic reasoning. The highest pathway concerns symptom interpretation and diagnostic uncertainty, representing five corpus items or 22.7% of the dataset. This pattern indicates that multilingual risk is not limited to whether patients and clinicians share vocabulary, but whether symptom narratives can be converted into clinically precise, verifiable, and actionable information. Pain, severity, duration, and bodily sensation may be reformulated through dialect, family mediation, or biomedical categories, creating interpretive gaps before any diagnostic decision is finalized. This finding is consistent with diagnostic-safety scholarship that treats uncertainty as a communicative and organizational condition, not only a cognitive problem [9], [10], [11].

Table 4. Communication-to-safety pathways in multilingual emergency care

Safety Pathway	Safety Domain	Communication Trigger	Frequency	Percentage	Data Variation	Data Codes	Safety Vulnerability	Control Point	Interpretation
Emergency access and triage prioritization	Triage and early risk recognition	Unclear emergency entry point, patient identification, time-sensitive handover, or triage instruction	4	18.2%	3 primary; 1 secondary	IEC-001; IEC-004; IEC-007; IEC-020	Urgency may be under-specified when patient information moves quickly across access points and clinical actors.	Standardized triage language; patient identification check; SBAR-oriented transfer; concise clarification	Safety begins before diagnosis because emergency meaning must first be stabilized as urgency.
Symptom interpretation and diagnostic uncertainty	Diagnostic reasoning	Symptom reformulation, dialect/accent mismatch, pain description, incomplete history, or diagnostic explanation	5	22.7%	3 primary; 2 secondary	IEC-005; IEC-006; IEC-008; IEC-014; IEC-021	Diagnostic uncertainty may widen when symptom narratives are translated into clinical categories without verification.	Plain language questioning; repetition; interpreter access; verification of symptom meaning; diagnostic safety communication	Language breakdown becomes safety-relevant when it reduces precision in symptom-to-diagnosis translation.
Interpreter-mediated and companion-mediated care	Language access and mediation	Professional interpreting, ad hoc interpreting, companion mediation, machine/remote interpretation, or role ambiguity	4	18.2%	4 secondary	IEC-011; IEC-012; IEC-013; IEC-022	Meaning may be filtered, softened, reordered, or omitted when mediation roles are unclear.	Professional interpreter availability; role negotiation; preferred-language assessment; visual support; documentation of mediation mode	Mediation should be treated as a clinical safety process rather than an informal communication aid.
Documentation and continuity of clinical information	Record, transfer, and continuity	Medical record entry, remote consultation, health education material, and information continuity across encounters	4	18.2%	4 primary	IEC-003; IEC-018; IEC-019; IEC-002	Safety instructions may lose accountability when spoken information is not converted into understandable and traceable records.	Structured records; patient-facing documentation; preferred-language notes; teach-back; written return precautions	Continuity depends on whether language-sensitive information remains visible after the encounter.

Incident disclosure and organizational learning	Disclosure and safety learning	Incident reporting, disclosure to patients/families, accreditation expectation, and safety action planning	3	13.6%	2 primary; 1 context	IEC-010; IEC-016; IEC-017	Learning from communication-related risk may be weakened when incidents are explained without shared language or transparent narrative.	Open disclosure protocol; culturally responsive explanation; safety-learning documentation; institutional feedback loop	Disclosure is not only ethical communication but also a mechanism for translating error into system learning.
System readiness and multilingual-care capacity	Institutional preparedness	Hospital readiness, national multilingual ecology, workforce capacity, and public language-access expectation	2	9.1%	1 primary; 1 context	IEC-009; IEC-015	Emergency units may depend on individual improvisation when multilingual-care capacity is not structurally prepared.	Readiness assessment; multilingual protocol; staff training; language-resource mapping; escalation pathway	Patient safety requires institutional language capacity, not only clinician goodwill.

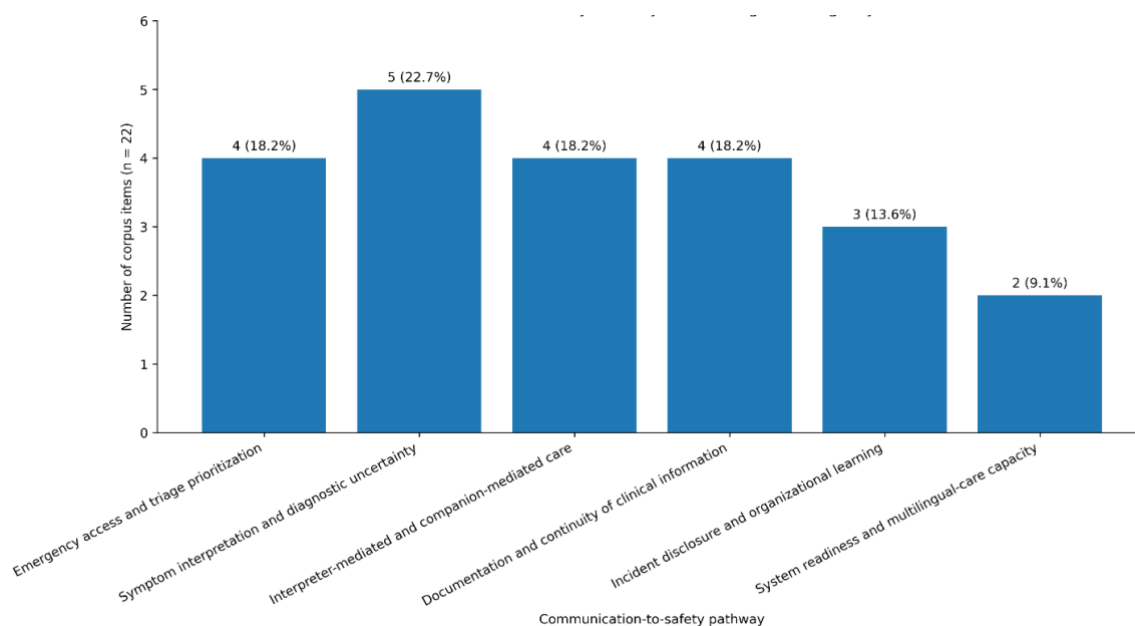


Figure 4. Communication-to-safety pathways in multilingual emergency care

Three pathways follow with equal frequency: emergency access and triage prioritization, interpreter-mediated care, and documentation continuity each account for four items or 18.2%. Objectively, this distribution shows that communication-to-safety risk is distributed across the emergency-care pathway rather than concentrated in a single clinical moment. Triage depends on rapid linguistic stabilization of urgency; interpreter-mediated care depends on whether meaning is professionally supported or informally filtered; documentation depends on whether spoken information becomes traceable and understandable after the encounter. Literature on emergency language access and interpreter use similarly shows that safety depends on workflow, mediation mode, and continuity of information across clinical stages [4], [6], [44], [20].

Theoretically, this pattern supports a patient-safety linkage model in which multilingual communication breakdown is read as a pathway of vulnerability rather than a direct cause of harm. This distinction is methodologically important because public-source corpus analysis cannot prove adverse clinical outcomes; it can, however, identify where safety-relevant meaning may become unstable. This study therefore positions multilingual emergency communication as a chain of translation, verification, documentation, and accountability. In this chain, safety is strengthened when institutions provide plain language, professional interpretation, structured questioning, teach-back, preferred-language documentation, and transparent disclosure. The central implication is that Indonesian emergency care requires not only faster response systems, but also language-sensitive systems capable of preserving clinical meaning under pressure.

5. DISCUSSION

The first analytical pattern shows that multilingual communication risk in Indonesian emergency care is not primarily located in individual misunderstanding, but in governance structures that recognize communication as a safety requirement without fully operationalizing it as multilingual practice. This matters because emergency systems depend on rapid conversion of patient narratives into institutional categories: urgency, identity, diagnosis, documentation, referral, and discharge. When communication is defined only as “effective communication,” safety discourse may overlook whether patients can express symptoms in locally meaningful forms and whether clinicians can verify meaning across Indonesian, regional languages, dialects, and medical registers. This finding extends Indonesian patient-safety scholarship that has emphasized hospital readiness, safety culture, and incident disclosure, but has not placed multilingualism at the centre of emergency-risk governance [12], [13]. The implication is that communication policy becomes functional only when it includes language-sensitive procedures, not merely general communication standards.

This pattern can be explained by a structural tension between standardized emergency governance and heterogeneous linguistic practice. Emergency care requires standardization because triage, handover, documentation, and referral depend on predictable procedures. Yet Indonesian patients do not enter emergency units with standardized symptom vocabularies. They may describe pain, severity, time, causation, or bodily distress through local idioms, indirect expressions, family narratives, or mixed language repertoires.

This mismatch helps explain why regulatory and institutional sources can promote communication while still leaving multilingual breakdown under-specified. Similar tensions appear in international literature on emergency language access, where system design often assumes that communication problems can be solved through individual competence or ad hoc support rather than built into workflow [6], [3], [7]. Thus, multilingual risk emerges not because standardization is wrong, but because standardization is incomplete when it ignores language ecology.

The second pattern foregrounds interactional breakdowns during explanation, consent, discharge instruction, symptom elicitation, mediation, documentation, and disclosure. Its implication is that emergency communication should be viewed as an extended chain of understanding rather than a single exchange between clinician and patient. A diagnosis may be clinically correct but still unsafe when patients do not understand return precautions, medication instructions, warning signs, or follow-up expectations. Likewise, symptom information may be collected but remain unstable if patients' meanings are compressed into biomedical categories without confirmation. This finding supports literature arguing that safety-netting, shared understanding, and patient questioning are central to diagnostic safety, particularly when uncertainty remains after consultation [33], [34], [35], [11]. In this sense, breakdown is dysfunctional not only when information is absent, but when unverified information appears sufficiently clear to proceed.

The underlying structure behind this interactional pattern lies in asymmetrical authority and unequal control over clinical meaning. Emergency clinicians control questioning sequences, institutional terminology, documentation formats, and decisions about urgency, while patients and families often supply fragmented narratives under fear, pain, and time pressure. In multilingual encounters, this asymmetry is intensified because patients may depend on relatives, partial Indonesian proficiency, gesture, or improvised translation to make symptoms intelligible. Studies on multilingual urgent consultations and patient companions show that companions can support care, but may also filter, reorder, soften, or replace patients' own accounts [4], [22], [5]. Conversely, literature supporting professional interpretation suggests that structured language mediation can improve access to meaning, although interpreter availability and workflow integration remain inconsistent [41], [40], [20]. Breakdown therefore reflects interactional hierarchy as much as linguistic difference.

The third pattern links multilingual communication to patient-safety pathways across triage, diagnostic uncertainty, language mediation, documentation, disclosure, and institutional readiness. Its broader implication is that language breakdown should be understood as a safety vulnerability, not as evidence of direct harm in itself. This distinction is crucial for methodological credibility. Public-source corpus analysis cannot demonstrate that a specific mistranslation caused a specific adverse event, but it can show where clinical meaning becomes vulnerable before harm occurs. Diagnostic-safety scholarship similarly cautions that unsafe care often develops through interacting system conditions, including incomplete information, weak communication, documentation fragmentation, and uncertainty management [26], [9], [10], [24]. This study therefore contributes by specifying language as one pathway through which uncertainty may become less visible, less documented, or less actionable during emergency care.

The structure underlying this communication-to-safety pathway is best understood as a failure of verification across transitions. Emergency care is transition-heavy: patients move from entry to triage, from triage to consultation, from consultation to documentation, from decision to discharge, and sometimes from incident to disclosure. At each transition, meaning must be preserved. Multilingual breakdown occurs when symptoms are not checked, interpreter roles are unclear, clinical explanations are not tested through teach-back, or spoken uncertainty does not become accountable documentation. This interpretation converges with handover studies showing that safety depends on structured transfer of responsibility, but it adds a linguistic dimension often treated as secondary [37], [38], [36], [39]. Theoretically, this study positions emergency language access as an infrastructure of diagnostic visibility: without verification, clinical systems may move quickly while meaning remains unsafe.

6. CONCLUSION

This study demonstrates that multilingual communication breakdowns in Indonesian emergency care are not incidental misunderstandings but safety-relevant vulnerabilities embedded in triage, symptom interpretation, documentation, discharge explanation, and incident disclosure. Its central lesson is that patient safety depends not only on clinical speed or procedural compliance, but also on whether clinical meaning is preserved across languages, dialects, medical registers, family mediation, and institutional records. The strength of this study lies in connecting medical linguistics, discourse pragmatics, and patient-safety analysis through a corpus-based design. By reframing language as emergency-care infrastructure, this study updates how communication risk is conceptualized in multilingual health systems.

This study is limited by its reliance on publicly available documents and scholarly sources rather than direct observation, patient interviews, audio-recorded encounters, or hospital incident datasets. Consequently, this study identifies communication-to-safety vulnerabilities but does not claim direct causal links between

multilingual breakdowns and adverse clinical outcomes. Future research should incorporate ethnographic observation in emergency departments, multilingual patient narratives, clinician interviews, interpreter-use documentation, and anonymized incident reports. Comparative studies across urban, rural, and border-region hospitals would further clarify how language ecology, institutional readiness, and emergency workflow interact. Such research would strengthen evidence-based protocols for plain language, professional interpretation, teach-back, and multilingual safety documentation.

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Noni Fidya Ayu Anandasari: conceptualization, methodology, formal analysis, investigation, data curation, writing – original draft, writing – review and editing.

CONFLICT OF INTEREST STATEMENT

Author states no conflict of interest.

AI USE DECLARATION

The author used artificial intelligence tools to assist with the generation of illustrative figures and with the formatting and layout of this manuscript. AI was not used to generate the substantive content, conceptualization, data, analysis, or conclusions of the research, all of which remain the sole responsibility of the author.

INFORMED CONSENT

Not applicable – this study did not involve direct human participants. Data consisted solely of publicly available Indonesian emergency-care discourse materials.

ETHICAL APPROVAL

This research did not involve human or animal subjects; it analyzed publicly accessible Indonesian emergency-care discourse materials, and therefore no institutional review board approval was required. Where research does involve human subjects, the author affirms that such research would be conducted in full compliance with all relevant national regulations and institutional policies, in accordance with the tenets of the Declaration of Helsinki, and would be approved by the author's institutional review board or equivalent committee.

DATA AVAILABILITY

The data (publicly available Indonesian emergency-care discourse materials and coding materials) analyzed in this study are available from the corresponding author upon reasonable request.

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