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Assessment of healthcare-related factors influencing traumatic brain injury outcomes among patients at MeTRH

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ABSTRACT

Traumatic Brain Injury (TBI), defined as a disruption in normal brain function caused by an external force such as a blow, jolt, or penetrating injury, remains a critical public health concern due to its complex nature and long-term impact on health outcomes. In Kenya, particularly at Meru Teaching and Referral Hospital (MeTRH), the burden of TBI continues to rise amidst limited healthcare resources. Despite the growing prevalence, few studies have examined how healthcare-related factors influence patient outcomes in referral hospital settings. This study assessed healthcare-related determinants affecting TBI outcomes at MeTRH. A cross-sectional design was used, involving a sample of 152 participants derived using Nassiuma's formula and rule-of-thumb sampling. The sample included 84 medical records, 48 healthcare workers (specialists and non-specialists), and 20 patients attending the neurology clinic. Including patients allowed for capturing perspectives on post-discharge care and rehabilitation needs. Data were collected using questionnaires, structured interviews, and medical file checklists. Quantitative data were analysed in SPSS v27 using descriptive statistics, chi-square tests, and logistic regression. The reliability of the instrument was confirmed with a Cronbach's alpha coefficient of 0.825. Key findings revealed that delayed access to neurosurgical care, inadequate rehabilitation services, and lack of standardized TBI management protocols significantly influenced outcomes such as mortality, functional recovery, and quality of life. The Glasgow Outcome Scale showed poorer recovery where patients lacked timely surgery, ICU admission, or specialist follow-up. Variations in healthcare providers' knowledge and practices further highlighted gaps in standardized care. The study concludes that availability of specialised care, emergency responsiveness, and structured rehabilitation are pivotal in shaping TBI recovery. Strengthening institutional capacity through training, protocol enforcement, and investment in neurocritical care infrastructure is essential. Policy integration of national TBI management guidelines and establishment of neuro-rehabilitation units are recommended to improve outcomes in resource-limited settings.

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Introduction

Traumatic Brain Injury (TBI), defined as a disruption in normal brain function caused by an external mechanical force such as a blow, jolt, fall, or penetrating injury, is a major contributor to mortality and disability worldwide (*Obasa et al., 2024; Ginsburg, 2025*). Each year, an estimated 69 million people experience TBI globally, making it one of the most common causes of hospitalization and long-term disability (*Yan et al., 2025*). Although it affects all regions, the burden is disproportionately high in low- and middle-income countries (LMICs), where fragile healthcare systems struggle to provide timely acute management and rehabilitation (*Muili et al., 2024; Demlie et al., 2023*).

TBI severity is typically classified through standardized frameworks developed by the Brain Trauma Foundation (BTF), World Health Organization (WHO), and American Association of Neurological Surgeons (AANS), which use indicators such as the Glasgow Coma Scale (GCS), loss of consciousness, post-traumatic amnesia, and neuroimaging findings (Brain Trauma Foundation, 2016; WHO, 2004; AANS, 2021). While these measures enhance diagnostic consistency, their application in LMICs is often limited by inadequate infrastructure, shortages of diagnostic imaging, and gaps in specialist availability.

In sub-Saharan Africa, TBI has emerged as a growing public health challenge, largely driven by road traffic accidents, falls, and interpersonal violence (*Kuupiel et al., 2024*). Young adult males aged 20–40 years are disproportionately affected, often sustaining severe injuries that lead to long-term disability or premature death (*James et al., 2019*). The region also faces limited access to neurosurgeons, critical care beds, and rehabilitation services, resulting in poorer outcomes compared to high-income countries where integrated trauma systems exist.

In Kenya, the burden of TBI has escalated with rising motor vehicle and motorcycle accidents, compounded by weak enforcement of road safety regulations, limited helmet use, and underdeveloped trauma systems (*Buh et al*., 2023). Hospitals such as Meru Teaching and Referral Hospital (MeTRH) face systemic challenges including delayed presentation of patients, inconsistent access to imaging, shortages of intensive care beds, and inadequate neurosurgical and rehabilitative services. These constraints limit effective acute management and reduce patients' chances of functional recovery.

Although studies have described TBI prevalence and causes in Kenya, few have examined how healthcare-related factors, such as infrastructure, availability of critical care resources, workforce capacity, and adherence to protocols, influence patient outcomes. This gap is particularly concerning in regional referral hospitals like MeTRH, which serve as critical trauma care centers for large populations in underserved counties.

This study therefore seeks to assess healthcare-related factors influencing TBI outcomes among patients at MeTRH. By identifying systemic strengths and weaknesses, it aims to provide evidence that can guide institutional improvements, inform national trauma care policy, and contribute to reducing the burden of TBI in Kenya and similar resource-limited settings.

Problem Statement

Traumatic brain injury (TBI) remains a major global health concern, contributing significantly to mortality, disability, and socio-economic burdens, particularly in low- and middle-income countries (LMICs) (*Huang et al*., 2024; National Academies of Sciences, Engineering, and Medicine, 2022). Ideally, TBI management should involve early diagnosis, specialized care, and structured rehabilitation to optimize recovery (WHO, 2022; *Muili et al., 2024*). However, in LMICs—where over 90% of TBI-related deaths occur—healthcare systems often lack the infrastructure, emergency response, and rehabilitative services necessary for effective treatment (*Allen et al*., 2023; *Dewan et al*., 2019).

In Kenya, rising TBI cases are largely attributed to road traffic accidents involving motorcycles and pedestrians. Facilities like Meru Teaching and Referral Hospital (MTRH) face compounded challenges including delayed patient presentation, resource limitations, and inadequate neurosurgical and rehabilitative support (*Cholo et al., 2023; Koome et al., 2022; Shakir et al., 2024*). These systemic and patient-related factors lead to poor health outcomes, long-term disabilities, and economic hardship for families and communities (*Haarbauer-Krupa et a*l., 2021).

Despite the severity of the issue, there is limited research on the determinants influencing TBI outcomes in Kenyan healthcare settings. Most studies

focus on prevalence, leaving a critical gap in understanding specific patient and institutional factors that affect survival and recovery. This study aims to bridge that gap by investigating the determinants of health outcomes for TBI patients at MTRH, with the goal of informing evidence-based interventions.

Objective

To determine healthcare-related factors that determine the health outcomes of patients with traumatic brain injuries.

Research Question

What healthcare-related factors influence the health outcomes of patients with traumatic brain injuries?

Literature Review

Healthcare-related factors

While health outcomes vary depending on the severity of the injury, various factors including access to healthcare, quality of care, rehabilitation, and socioeconomic influences play pivotal roles.(*Dibera et al*., 2024) The quality of the healthcare system, including the availability of specialized trauma centers and adherence to evidence-based protocols, significantly impacts TBI outcomes. The Trauma Quality Improvement Program (TQIP) aims to enhance care by providing hospitals with risk-adjusted benchmarking, which has been associated with improved patient outcomes (American College of Surgeons, 2023). In developed countries, the health outcomes of TBI patients are significantly influenced by advanced healthcare systems, which include early diagnosis, immediate interventions, and comprehensive rehabilitation programs.(Maas et al., 2022b) (*Dewan et a*l., 2019), the availability of high-tech neuroimaging tools such as MRI and CT scans ensures timely and accurate diagnosis of TBIs in high-income settings. Additionally, multidisciplinary care teams that include neurosurgeons, critical care specialists, and rehabilitation therapists enhance recovery rates.

Despite these advantages, some studies highlight disparities in TBI outcomes due to social determinants of health. For instance, a study by (*Maas et al*., 2022b) identified that TBI patients from lower-income groups in the United States often experience delayed access to care, resulting in poorer outcomes. This underscores the importance of equitable healthcare delivery even in resource-rich contexts.

Another critical factor is the role of post-acute care. A longitudinal study by *Chiu et al. (2021)* in Canada revealed that intensive rehabilitation services significantly improve functional independence in TBI patients. (*Wilson et al., 2021)*.In Sub-Saharan Africa, the management of TBI patients is constrained by limited resources, insufficient healthcare infrastructure, and a shortage of specialized personnel.(*Muili et al*., 2024) Delayed diagnosis and inadequate surgical interventions contribute to the high mortality rates associated with TBIs in the region. Most hospitals lack the necessary equipment, such as functional CT scanners, leading to misdiagnoses or delayed interventions. *(Michael et al., 2023)*

Human resource shortages are another critical challenge. Many countries in Sub-Saharan Africa have a severe shortage of neurosurgeons. (*Muili et al*., 2024) For instance, a report by (*Wireko et al*., 2023), found that there is only one neurosurgeon for every 2.5 million people in the region. Consequently, many TBI patients rely on general practitioners who may lack specialized training in neurotrauma care, further compounding the issue.(*Tesfaw et al*., 2021) Access to comprehensive rehabilitation services is crucial for TBI recovery. early and continuous rehabilitation has been linked to better functional outcomes, emphasizing the importance of integrating rehabilitation into the standard care pathway for TBI patients (*CDC, 2023*).

In Kenya, the factors influencing TBI outcomes reflect a combination of healthcare system challenges, socio-economic disparities, and cultural influences.. Additionally, there is a shortage of neurosurgeons, with most TBI cases managed by general surgeons who may lack the expertise for complex neurotrauma surgeries.(*Koome et al*., 2022)

Meru Teaching and Referral Hospital (MeTRH) serves as a case study to examine these factors locally. One significant factor is the lack of adequate diagnostic equipment. MeTRH operates with only one CT scanner, which frequently experiences breakdowns, leading to delays in diagnosis and treatment. This is consistent with the findings of (Nguru & Ireri, 2022), who noted that similar infrastructural challenges exist in other Kenyan referral hospitals

Methods & Materials

This study was conducted at Meru Teaching and Referral Hospital (MeTRH), a regional referral facility in Kenya, using a cross-sectional mixed-methods design that combined quantitative approaches with qualitative observations. The study population included three groups: patients with traumatic brain injury (TBI) attending the neurology clinic during the study period (approximately 20), healthcare providers directly involved in TBI care such as doctors, nurses, clinical officers, radiographers, anaesthetists, and physiotherapists (92), and medical records of TBI patients managed at MeTRH (346).

From the 346 records, 84 were sampled using Nassiuma's formula, ensuring representation of patient characteristics and outcomes. For healthcare providers, Cochran's formula was applied to yield a representative sample of 63 from a finite population of 75. Proportionate stratified sampling was used across professional cadres to avoid over- or under-representation, while TBI patients were purposively sampled from those stable enough to attend follow-up visits. Eligible participants were adults aged 18 years and above with complete records or who could provide consent, while incomplete records, patients unable to consent without proxy, and non-consenting individuals were excluded.

Data were collected through self-administered questionnaires for healthcare staff, structured checklists for systematic extraction of medical record information, and observational checklists used in emergency and inpatient departments to capture qualitative insights on triage, treatment processes, and protocol adherence. To ensure validity and reliability, a pilot study was conducted at Chuka Level 5 Hospital involving 9 staff questionnaires and 8 records. The final questionnaire demonstrated strong reliability with a Cronbach's alpha of 0.825. Expert review confirmed content validity (CVI ≥ 0.78), while exploratory factor analysis was used to refine construct validity.

Data collection involved questionnaires distributed both electronically and in hard copy, systematic record reviews by two independent researchers with cross-checking for discrepancies, and real-time observations by trained observers. Security was maintained through locked cabinets for physical tools and password-protected databases for electronic data. Data cleaning included double entry and consistency checks.

Quantitative data were analysed using SPSS version 27 through descriptive statistics, chi-square tests, and logistic regression to assess associations between healthcare-related factors and patient outcomes. Qualitative data from observations were coded thematically to capture patterns in emergency responsiveness, diagnostic capacity, and protocol adherence. This methodological framework provided a systematic and replicable approach to assessing healthcare-related determinants of TBI outcomes at MeTRH.

Results and Discussions

Response Rate and Demographics

A total of 63 healthcare professionals completed the questionnaire, yielding a 100% response rate. The demographic breakdown (Table 1) shows that nurses constituted the largest group (43.8%), followed by clinical officers (25.0%) and doctors (14.6%). The majority (52.1%) had 1–3 years of experience, and 60.4% reported daily involvement in TBI care.

Variable	Frequency	Percentage (%)
Profession		
Doctor	4	6.3
Clinical Officer	9	14.3
Nurse	45	71.4
Radiographer	2	3.2
Anaesthetist	2	3.2
Years of Experience		
<1 year	13	20.6
1–3 years	17	27.0
4–6 years	11	17.5
>6 years	22	34.9
Involvement in TBI Care		
Daily	36	57.1
Rarely	27	42.9

Table 1 *Demographic Characteristics of Respondents*

Reliability and Validity

The internal consistency reliability of the instrument used in this study was assessed using Cronbach's Alpha across seven variables relating to the care and outcomes of patients with Traumatic Brain Injury (TBI). These variables were: TBI Severe Injuries, Delayed Hospital Arrival, First Aid and Patient Survival, Availability of Medical Personnel, Sufficient Re-

Cases	N	%
Valid	63	100.0%
Excluded	0	0.0%
Total	63	100.0%

Table 2. *Case Processing Summary*

Cronbach's Alpha	Based on Standardized Items	Number of Items
0.825	0.823	7

Table 3. *Reliability Statistics*

sources, Post-Discharge Rehabilitation, and Timely Patient Intervention.

Out of 75 sampled respondents, 63 valid responses were analysed using listwise deletion (*see Table 1: Case Processing Summary above*).

The instrument demonstrated good internal consistency, with a Cronbach's Alpha of 0.825 (*see Table 2: Reliability Statistics above*), which exceeds the commonly accepted threshold of 0.70 for research in the health sciences. This suggests that the scale items measure the same general construct effectively.

The instrument showed high internal consistency with a Cronbach's alpha of 0.825, indicating excellent reliability (Taber, 2018). Content validity was ensured via expert review and pilot testing among a subset of MeTRH staff.

Infrastructure and Equipment

Respondents rated the infrastructure for traumatic brain injury (TBI) care as follows: 8.3% excellent, 25% good, 39.6% fair, and 27.1% poor. This distribution suggests that while a minority perceive the infrastructure as adequate or superior, a significant proportion (66.7%) rate it as fair or poor, indicating substantial room for improvement in facility readiness to manage TBI cases effectively.

Interpretation: The surgical wards and operating theatres show relatively higher accessibility to equipment compared to neurosurgery wards and radiology, where a notable proportion report limited or no access. This disparity may hinder timely and effective TBI management, as neurosurgery and radiology are critical departments for diagnosis and intervention (*Chen et al., 2014*).

Reliable Access to Support Services

Interpretation: The majority of respondents confirm reliable access to essential support services, which is crucial for comprehensive TBI care. However, the slight gaps in rehabilitation services and blood transfusion availability may affect patient recovery and outcomes, consistent with findings that continuous support services improve clinical outcomes (*Kristensen, 2016*).

Surgical Interventions for TBI Patients' Delays

Interpretation: Major delays in surgical intervention are predominantly due to human resource constraints (neurosurgeon availability), theatre space, and ICU bed shortages. These findings align with global reports emphasizing the impact of resource limitations on timely surgical care in trauma settings *(Chen et al., 2014*).

Diagnostic Support and Equipment

Delays in diagnostic imaging were commonly attributed to:

Interpretation: CT scans and X-rays are more readily available than MRI and ICP monitors, which are underutilized due to equipment downtime and financial constraints. The high frequency of delays due to long queues and staff shortages highlights systemic inefficiencies that can critically delay diagnosis and treatment, consistent with literature emphasizing the importance of diagnostic capacity inTBI care (Kristensen, 2016).

Protocol Adherence and Staff Capacity

Only 45.8% of respondents confirmed the presence of standardized TBI protocols in their depart-

Department	Yes (%)	Partially (%)	No (%)
ICU/HDU	41.7	33.3	25.0
Surgical Wards	52.1	31.3	16.7
Radiology	39.6	37.5	22.9
Operating Theatre	47.9	27.1	25.0
Neurosurgery Ward	31.3	33.3	35.4

Table 4: *Accessibility and Equipment Status by Department (N = 63)*

Service	Yes Frequency (%)	No Frequency (%)
24/7 Power Supply	58 (92.1%)	5 (7.9%)
Ambulance Services	62 (98.4%)	1 (1.6%)
Oxygen Supply	62 (98.4%)	1 (1.6%)
Blood Transfusion	60 (95.2%)	3 (4.8%)
Rehabilitation Services	57 (90.5%)	6 (9.5%)

Table 5. *Support Services Availability (N = 63)*

Reason	Yes Frequency (%)	No Frequency (%)
Lack of Theatre Space	45 (71.4%)	18 (28.6%)
Unavailable Neurosurgeon	49 (77.8%)	14 (22.2%)
Inadequate Surgical Equipment	10 (15.9%)	53 (84.1%)
Lack of ICU Beds Post-op	47 (74.6%)	16 (25.4%)

Table 6: *Surgical Interventions for TBI Patients' Delays*

Equipment	Always Available (%)	Sometimes (%)	Rarely (%)	Never (%)
CT Scan	20.6	23.8	19.0	36.5
MRI	4.8	27.0	4.8	63.5
X-ray	87.3	9.5	0	3.2
Intracranial Pressure Monitor	17.5	38.1	11.1	33.3

Table 7: *Availability of diagnostic tools*

Reason	Yes (%)	No (%)
Equipment Downtime	65.1	34.9
Staff Shortage	52.4	47.6
Cost Issues	74.6	25.4
Long Queues	87.3	12.7

Table 8: *Delays in diagnostic imaging*

ments. Of these, Glasgow Coma Scale (GCS) was recognized by 87.3%, Advanced Trauma Life Support (ATLS) by 9.5%, and TBI-specific care pathways by 23.8%. However, adherence was inconsistent:

Interpretation: Despite awareness of key protocols like GCS, consistent adherence is low, which may compromise patient outcomes. The low rate of ATLS training and TBI-specific pathways suggests gaps in staff capacity and education, reinforcing the need for ongoing professional development to iprove clinical practice (Kristensen, 2016).

Protocol Use	Frequency	Percentage (%)
Always Followed	11	22.9
Sometimes Followed	23	47.9
Rarely/Never Followed	14	29.2

Table 9: *Protocol Adherence*

Regular TBI training was offered to 35.4% of respondents

Specialist Availability and Post-Operative Monitoring

Availability of specialists critical to TBI management was as follows:

Interpretation: While key surgical and diagnostic specialists are largely available, allied health professionals such as physiotherapists are less consistently accessible, which may affect rehabilitation outcomes. The low rate of adequate ICU monitoring post-operation raises concerns about patient safety and recovery quality, echoing findings that multidisciplinary care and monitoring are essential for optimal TBI outcomes (*Chen et al., 2014).*

Discussion

The analysis reveals critical gaps in infrastructure, equipment availability, specialist staffing, and protocol adherence in the management of TBI patients. The high incidence of delays in surgical intervention and diagnostic imaging, primarily due to resource constraints such as theatre space, neurosurgeon availability, and equipment downtime, underscores systemic challenges in delivering timely care. These findings are consistent with global literature emphasizing the importance of adequate infrastructure and human resources in trauma care (*Chen et al.*, 2014; Kristensen, 2016).

Moreover, the inconsistent application of standardized protocols and limited ongoing training suggest that knowledge translation into clinical practice remains suboptimal. This aligns with studies showing that continuous education and protocol reinforcement are vital for improving adherence and patient outcomes (Kristensen, 2016).

The availability of specialists is generally adequate for surgical and diagnostic roles but insufficient for rehabilitation services, which are critical for long-term recovery. The inadequate post-operative ICU monitoring further highlights potential risks for complications and poorer prognoses.

To enhance TBI care, healthcare facilities should prioritize:

•Improving infrastructure and equipment maintenance to reduce downtime and delays.

•Expanding theatre and ICU capacity to accom-

Specialist	Yes Frequency (%)	No Frequency (%)
Neurosurgeon	59 (93.7%)	4 (6.3%)
Anaesthetist	62 (98.4%)	1 (1.6%)
Radiologist	59 (93.7%)	4 (6.3%)
Critical Care Nurses	61 (96.8%)	2 (3.2%)
Physiotherapist	32 (50.8%)	31 (49.2%)
Trauma and Emergency	54 (85.7%)	9 (14.3%)
Occupational Therapist	58 (92.1%)	5 (7.9%)

Table 10: *Specialist Availability*

Only 39.6% reported adequate post-operative ICU monitoring.

modate surgical demand.

•Increasing training and enforcing adherence to evidence-based protocols.

•Strengthening multidisciplinary teams, including rehabilitation specialists.

•Ensuring continuous monitoring post-operatively to improve recovery trajectories.

Such interventions are supported by evidence indicating that comprehensive, well-resourced trauma systems with trained personnel and adherence to clinical guidelines significantly improve patient outcomes (Chen et al., 2014; Kristensen, 2016).

Summary of Findings

i.Response Rate: Achieved a 100% response rate from healthcare workers involved in traumatic brain injury (TBI) care.

ii.Infrastructure: The majority of respondents rated healthcare infrastructure for TBI management as fair to poor, reflecting widespread limitations in diagnostic equipment, intensive care units, and operating theatres, consistent with challenges reported in sub-Saharan Africa and other low- and middle-income countries (LMICs).

iii.Protocols: Only 46% of departments reported having TBI management protocols, with few adhering to them routinely, indicating gaps in standardized care and training among healthcare personnel.

iv.Diagnostic Tools: Availability of essential diagnostic tools such as CT and MRI scanners is limited, with frequent delays attributed to equipment shortages and insufficient trained staff, exacerbating challenges in timely and accurate diagnosis.

v.Specialists and Rehabilitation: Significant gaps exist in the availability of specialized personnel, particularly neurosurgeons and rehabilitation staff, compounded by brain drain and inadequate training opportunities; rehabilitation services remain insufficient to meet patient needs over time.

This summary underscores the critical need for investment in healthcare infrastructure, personnel training, protocol development, and rehabilitation services to improve TBI outcomes in resource-limited settings.

Conclusion

This study definitively demonstrates that systemic healthcare deficiencies at MeTRH significantly compromise clinical outcomes for TBI patients. Infrastructural limitations, compounded by shortages of critical care equipment, inconsistent application of treatment protocols, and critical gaps in specialized human resources, create interconnected challenges that impede timely intervention, continuity of care, and overall patient safety. Addressing these multifaceted constraints demands a coordinated, system-wide response. This includes strategic infrastructure development, comprehensive capacity-building for the clinical workforce, rigorous enforcement of standardized protocols, and sustained investment

in essential critical care resources. Strengthening these key pillars is not only imperative for improving TBI patient survival rates and promoting functional recovery, but also for enhancing the resilience and responsiveness of the broader health system, aligning with national and global objectives for equitable, high-quality emergency and neurological care.

Recommendation

Standardized TBI Protocols

The Hospital Administration and Clinical Governance Teams at MeTRH must prioritize the development, adoption, and strict enforcement of standardized, evidence-based protocols for TBI care across all relevant departments. These protocols should encompass the entire spectrum of care, from initial casualty assessment to ICU management, neurosurgical interventions, radiological diagnostics, and comprehensive rehabilitation strategies. Uniform treatment pathways are essential for reducing clinical errors, ensuring consistency in care delivery, and ultimately improving patient outcomes.

Neuro-Rehabilitation Unit

The MeTRH Hospital Board and County Health Department should collaborate to establish a fully equipped and adequately staffed neuro-rehabilitation unit within the facility. This specialized unit will provide early and intensive post-acute care, critical for maximizing functional recovery and facilitating the successful reintegration of TBI patients into their daily lives and communities (Matney et al., 2022).

Investment in Diagnostic Imaging

The Ministry of Health, in close partnership with MeTRH Management, must invest in the acquisition of modern diagnostic imaging equipment, including advanced CT and MRI scanners. Equally important is the establishment of a rigorous preventive maintenance schedule to guarantee the continuous availability and optimal performance of these critical systems. Timely and reliable imaging is paramount for accurate diagnosis, effective surgical planning, and vigilant post-operative monitoring of TBI patients (Mayo Clinic, 2025).

Recruitment of Specialists

The Human Resource and Recruitment Units of MeTRH, with the full support of national and county health leadership, must prioritize the recruitment and retention of highly skilled critical care specialists. This includes experienced neurosurgeons, specialized physiotherapists, and dedicated ICU nurses. Addressing these staffing gaps is essential for building a robust multidisciplinary team capable of providing comprehensive TBI management, seamlessly integrating emergency care with rehabilitation services.

Continuous Medical Education

The Clinical Training and Education Departments, working in close coordination with the Kenya Medical Practitioners and Dentists Council (KMPDC), should mandate regular Continuing Medical Education (CME) and protocol refresher sessions focused specifically on TBI care for all relevant clinical staff. These sessions should emphasize best practices (e.g., ATLS, GCS, ICP monitoring) and ensure that staff competence remains up-to-date, ultimately improving adherence to established treatment protocols (ACS, 2024).

Integration into Universal Health Coverage

National Health Policymakers and Advocacy Groups must actively advocate for the integration of comprehensive neurotrauma care, encompassing surgery, ICU management, and rehabilitation services, into Kenya's Universal Health Coverage (UHC) agenda. By institutionalizing neurotrauma care within national policy frameworks, sustainable funding streams can be secured, health equity can be improved, and the growing burden of TBI in underserved populations can be effectively addressed.

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