PERCEPTIONS AND CHALLENGES OF USING EMERGENCY TRIAGE ASSESSMENT TREATMENT GUIDELINE IN EMERGENCY DEPARTMENT AT MUHIMBILI NATIONAL HOSPITAL, TANZANIA

Sixtus Ruyumbu Safari, MSc. CCT

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PERCEPTIONS AND CHALLENGES OF USING EMERGENCY TRIAGE ASSESSMENT TREATMENT GUIDELINE IN EMERGENCY DEPARTMENT AT MUHIMBILI NATIONAL HOSPITAL, TANZANIA

By

Sixtus Ruyumbu Safari

A Dissertation Submitted in (Partial) fulfilment of the Requirement for the Degree of Master of Nursing in Critical Care and Trauma of the Muhimbili University of Health and Allied Sciences

Muhimbili University of Health and Allied Sciences

5TH NOVEMBER, 2012.

CERTIFICATION

The undersigned certify that they have read and hereby recommend for examination of thesis/dissertation entitled **Perceptions and Challenges of using Emergency Triage Assessment Treatment Guideline in emergency Department at Muhimbili National Hospital, Tanzania** in fulfillment of the requirements for the degree of Masters of Critical Care and Trauma of Muhimbili University of Health and Allied Sciences.

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Dr. Columba K. Mbekenga

(Supervisor)

Date: _____

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Dr. Anne Outwater

(Supervisor)

Date:_____

DECLARATION

AND

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I, **Sixtus Ruyumbu Safari,** declare that **PERCEPTIONS AND CHALLENGES OF USING EMERGENCY TRIAGE ASSESSMENT TREATMENT GUIDELINE IN EMERGENCY DEPARTMENT AT MUHIMBILI NATIONAL HOSPITAL, TANZANIA** is my own original dissertation work and it has not been presented to any other university for similar or any other degree award.

Signature  Date: 5TH, NOVEMBER, 2012

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Abstract

Background: Triage is the process of determining the priority of patients' treatments based on the severity of their conditions. This helps treating patients efficiently when resources are insufficient for all to be treated immediately. Health care providers use ETAT guideline during triaging patients to improve quality of care and reduce morbidity and mortality rates. But the adherence to the guidelines protocol has been a challenge in triage rooms. This paper assessed perspective of HCWs and challenges encountered while using ETAT guideline.

Objective: The objective of this study was to explore nurses and doctors' perspectives and challenges they encounter during implementation of the ETAT guideline used to triage patients with different categories at Muhimbili National Hospital.

Methodology: This study employed a descriptive qualitative design to obtain thick and rich data. Focus group discussions were used to explore nurses and doctors' perspectives and challenges they encounter during implementation of ETAT guideline in the emergency department at Muhimbili National hospital. The questions included sections on socio-demographic data, working experience, HCWs perspective, challenges they encounter during the triage process.

Results: In this study, there were five categories; Guideline is useful in triaging with comparison to the situation before it was introduced; unbalanced patient-staff ratio; challenges to implementation of ETAT Guideline; knowledge deficit and disagreement among health care workers; lack of motivation and negative attitude towards professionalism under one theme "the ETAT guideline has improved the triaging process but have many challenges hindering its successful implementation". In this study, Informants expressed the usefulness of ETAT guideline. There were several challenges to the implementation and they included unbalanced patient/staff ratio, fear of employee leaving the unit due to work overload which

makes the triage process to become difficult. Another challenge was equipments which are not functioning and others giving unreliable findings. Participants said that the ETAT guideline does not explain how psychiatric emergencies should be triaged and managed leaving the triage nurse in dilemma in decision making. Respondents reported that there were some complains from patients and relatives waiting in queue about delays of care.

Respondents reported that nurses and doctors are less motivated in terms of salary, recognition and appreciation by employer was mentioned as a negative impact on their work resulting into unmet expectation.

Conclusion

In this study, challenges mentioned were equipments which are not functioning example monitors, machine giving unreliable/different results resulting in delays in delivering care to patients. Unbalanced staff/patient ratio was mentioned as a barrier to implementation. The study shows knowledge deficit on how to categorize patient according to the guideline, also there was disagreement between nurses and doctors on the use of Guideline. Less motivated workers in terms of payment, recognition and appreciation was said to have significant implication in the implementation of the guideline. Another concern was some workers lacking positive attitude towards their profession.

Recommendations:

Increasing number of health care workers by hiring new employees will improve workload will improve triaging and increase patient satisfaction. Government need to train more specialists in emergencies to provide maximum quality of care. On job training of workers on how to use the guideline will improve the triage protocol. Maintenance of non functioning equipments and purchase of new materials will increase the productivity of quality of care. Motivating those on duty by providing salary which is equivalent to the work accomplished, appreciating job well done and recognition of workers who have achieved maximum tasks will increase job satisfaction.

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LIST OF ABREVIATONS

ACC……...American College of Cardiology

AHA……..American Heart Association

APLS…….Advanced pediatric Life Support

ATS……...Australian Triage Scale

CTAS……Canadian Triage and Acuity Scale

ECG……...Electrocardiogram

ED……..Emergency Medicine

EMD……..Emergency Medicine Department

ESI…….Emergency Severity Index

ETAT…….Emergency Triage Assessment and Treatment

FGD……...Focus Group Discussion

HCWs……Health Care Workers

ICT…….Information Communication Technology software

MTS……...Manchester Triage System

MNH……..Muhimbili National Hospital

MUHAS…….Muhimbili University Of Health And Allied Sciences

WHO……..World Health Organization

CHAPTER ONE

INTRODUCTION

Triage is the process of determining the priority of patients' treatments based on the severity of their conditions. This helps treating patients efficiently when resources are insufficient for all to be treated immediately. The term comes from the French language, meaning to separate, sort or select. Triage may results in determining the order and priority of emergency treatment, the order and priority of emergency transport, or the transport destination for the patient (Gerber, 2006) .

Triage is a central task in an Emergency Medicine Department (EMD). In this context, triage is viewed as the rating of patients' clinical urgency. Rating is necessary to identify the order in which patients should be given care in an EMD when demand is high. Triage is not needed if there is no queue for care. Triage scales aim to optimize the waiting time of patients according to the severity of their medical condition, in order to treat as fast as necessary the most intense symptoms and to reduce the negative impact on the prognosis of a prolonged delay before treatment. EMD triage is a relatively modern phenomenon, introduced in the 1950s in the United States (Farrohknia et al., 2011). Triage is a complex decision-making process, and several triage guidelines have been designed as decision support systems to guide the triage nurse to a correct decision (Gilboy, Travers, & Wuerz, 1999).

Triage decisions may be based on both the patients' vital signs (respiratory rate, oxygen saturation, heart rate, blood pressure, level of consciousness, and body temperature, any disability) and the patient's chief complaints. Internationally, no consensus has been specifically reached on the functions that should be measured. Apart from emergency care, triage may be used in other clinical activities, example deciding on a certain investigation or treatment (Farrohknia et al., 2011).

The number of patients arriving at EDs has increased over the past few years in developed high income countries but also in low income countries, partly because of self-referrals, resulting in Overcrowded EMD (Moineddin, 2011). This raised a concern of the need for a system that prioritizes patients in the order of urgency (Van Gerven, Delooz, & Sermeus, 2001; Roukema et al., 2006; &van der Wulp, van Baar, & Schrijvers, 2008).

Worldwide, different triage systems have been developed. Systems most commonly used by western countries are the Australian Triage Scale (ATS), the Canadian Emergency Department Triage and Acuity Scale (CTAS), the Emergency Severity Index, also known as the Boston System (ESI) used in United States of America and the Manchester Triage System (MTS) used in United Kingdom (Janssen, van Achterberg, Adriaansen, Kampshoff, & Mintjes-de Groot, 2011).

Although these guidelines seem to function well in western countries, they are difficult to implement in developing low income countries. This is because triage scoring systems worldwide, all require extensive training to implement, are labor intensive, and have a high failure rate. Many limitations also surround triage scale validation, and those used in developed high income countries are often inappropriate for developing low income countries (Rosedale, Smith, Davies, & Wood, 2011). This situation led to development of new and easy triage implementation guidelines for developing countries.

The WHO in 2005 developed a tool/guideline known as Emergency Triage and Assessment Treatment (ETAT) to improve triaging system in developing countries. This tool was adapted from the Advanced Pediatric Life Support guidelines (APLS) used in western countries to identify children with immediately life-threatening conditions which are most frequently seen in developing countries with limited resource setting, such as obstruction of the airway and other breathing problems caused by infections, shock, severely altered central nervous system function (coma or convulsions), and severe dehydration. These guidelines were developed and

field-tested in Malawi, and several other countries including Angola, Brazil, Cambodia, Indonesia, Kenya and Niger (Molyneux et al., 2005) .

The ETAT guidelines prioritize patients according to their presenting illness and signs and symptoms. Triage is the process of rapidly examining all patients when they first arrive to hospital in order to place them in one of the following categories in: Emergency conditions (ABCD concept); these include quick examination of the patient's airway whether obstructed, the patient is having difficulty in breathing or is not breathing, delayed capillary refill, undetectable pulse rate and uncontrollable high blood pressure, unconscious patient, convulsing child and if the patient has any disability. Each letter refers to an emergency sign which, when positive, should alert you to a patient who is seriously ill and needs immediate assessment and treatment.

- Those with **EMERGENCY SIGNS** who require immediate emergency Treatment. If the nurse find any emergency signs, do the following **immediately**:
- Start to give appropriate emergency treatment.
- Call a senior health worker and other health workers to help.
- Carry out emergency laboratory investigations.

PRIORITY SIGNS

Besides the group of emergency signs described above, there are priority signs, which should alert you to a patient who needs prompt, but not emergency assessment. These signs can be remembered with the symbols **3 TPR - MOB**:

- **T**iny baby: any sick child aged under two months
- **T**emperature: child is very hot
- **T**rauma or other urgent surgical condition
- **P**allor (severe)
- **P**oisoning
- **P**ain (severe)

- **R**espiratory distress
- **R**estless, continuously irritable, or lethargic
- **R**eferral (urgent)
- **M**alnutrition: Visible severe wasting for children
- **E**dema of both feet for children
- **B**urns

Patients with Priority signs should be given priority in the queue, so that they can **rapidly** be assessed and treated without delay.

Those who present with no emergency or priority signs are therefore **NONURGENT** cases, these patients can wait their turn in the queue for assessment and treatment. After these steps are completed, proceed with general (secondary) assessment and further treatment according to the patients' priority. In an ideal situation, all patients should be checked on their arrival in hospital by a triage nurse trained to assess emergency signs and take immediate action. The triage nurse decides whether the patient will be seen immediately and will receive life-saving treatment, or will be seen soon, or can safely wait his/her turn to be examined.

Categorization of the patient's condition is done by those with: **EMERGENCY** signs who need immediate emergency treatment, **PRIORITY CASES** who need assessment and rapid attention and **NON-URGENT CASES** who can wait their turn in the queue; **The ABCD concept** Triage of patients involves looking for signs of serious illness or injury.

The frequency with which patient showing some of these priority signs appear in the outpatient department/emergency units depends on the local epidemiology. The signs might need to be adapted accordingly, for example by including signs for common severe conditions which cannot wait in your setting.

The triaging process

For a patient who exhibits Emergency signs triaging should not take more than five minutes. Those who have priority signs it takes on average 10-20 minutes and those with no-urgent signs can wait up to 120 minutes before being examined by a health care worker. The health worker should learn to assess several signs at the same time. A patient who is alert and does not have severe respiratory distress, shock or coma can wait if there are patients with emergency signs in the triage room. The health worker looks at the patient, observes the chest movement, breathing pattern, patient's blood pressure and pulse rate, pain assessment and color of skin (Molyneux et al., 2005) .

In 2010, the ETAT guideline was introduced at Muhimbili National Hospital (MNH) for the first time to be used in the Emergency Department and has been currently used to triage all patients regardless of age. Health care providers use the tool during triaging patients to improve quality of care and reduce morbidity and mortality rates. But the adherence to the guidelines protocol has been a challenge in triage rooms; this was evidenced by one week of observation in Muhimbili National Hospital, EMD where the triage nurses did not follow the triage protocol although all nurses were trained prior to the implementation of ETAT guideline. This could be due to several factors example knowledge barriers and, shortage of staff as evidenced with what was observed during my rotation in the EMD as part of the course work, where only one triage nurse would be on duty, or new employee with too little exposure to the tool. For example medical doctors who are employed in the EMD receive five days training and orientation before they start working in the department. On the contrary, nurses employed in the EMD receive only one day orientation without any training on how to use the tool and caring of different cases presented in the department with emergency condition requiring immediate attention and then allowed to start working immediately. This has significant impact on the triaging process and patient's outcome especially for nurses who have no experience in the emergency situations.

In a study conducted in the Netherland where they use different triage guidelines, the main findings showed that over 31% of the emergency departments did not use a triage system. Emergency departments using the Manchester Triage System had a mean adherence rate of 61% of the guideline's recommendations and emergency departments using the Emergency System Index adhered to a mean of 65% (Janssen et al., 2007).

This is also supported by several researchers indicating that implementation and use of guidelines is not always reflected in the care patients receive in practice. This is also referred to as the gap between theory and practice. As a consequence, patients often do not receive the care they need (Estabrooks, 1999).

Failure to adhere to the triage guideline/protocol has an implication in triaging patients according to the Zchief complaints and the imminent life threatening conditions patient may exhibit (Brabrand, Folkestad, Clausen, Knudsen, & Hallas, 2010). Inappropriate use of ETAT guideline may result into under triage (underestimating the patient severity of their patient's condition which may result into deterioration of patient's life and later death as outcome) or over triage of patient (overestimating the patient condition of which will result in over utilization of resources). Since the tool was introduced in the EMD, assessment of nurses and doctors perspectives toward the tool and challenges they encounter during implementation of the guideline use has never been done. So there was a need to assess its uses in our EMD, staff understanding of the tool/guideline and challenges faced during triaging by nurses and doctors on the use of ETAT.

LITERATURE REVIEW

Adherence to recommended guidelines during triage is very important in order to sort patients according to their urgency and this will determine patients' outcome. In the study conducted in Dutch Emergency department on adherence to the guidelines; almost 39% of the EMDs did not use a triage system, patients were seen by a nurse in the order of arrival instead of urgency of care. Two standardized triage systems were used at EMDs in the Netherlands: Forty two EMDs used the MTS and six EMDs the Emergency System Index (ESI) (Janssen et al., 2011). As it has indicated in this study, there was poor adherence in both institutions using different triage systems, a country with enough resources and well trained professional nurses and doctors. In our setting, this could be worse because we lack trained manpower and lack of equipment.

In another study showing of poor adherence to the guidelines from American College of Cardiology/American Heart Association Myocardial Infarction guidelines, none of the 9 ACC/AHA goals were met ''all of the time'' by every nurse participant. ''All of the time'' ranged from 52% for giving pain medicines to 87% for asking about chest pain. Only 81% of participants had a goal of obtaining a physician-read 12-lead ECG within 10 minutes of EMD arrival in patients likely to have a cardiac condition. Only 27% stated they achieve all 9 goals ''all of the time.'' The remaining 73% did not always achieve all of the goals all of the time. If triage nurses do not have the goal of consistently meeting guideline goals, it is unlikely that these goals will be met all of the time, this has a negative implication to the patient's outcome, as a consequence it may result into under triage or over triaging of patients.

Another study which was evaluating factors influencing the implementation of the guideline Triage in emergency departments identified various factors at individual, social context and organizational level as influencing the implementation of guideline namely; level of knowledge; insight and skills; work preferences; motivation and/or commitment; support; informed doctors; preliminary work and arrangements for implementation; description of tasks and responsibilities; workload and resources. Ward managers, nurses and doctors

mentioned similar as well as different factors. Consequently, tailored implementation strategies and activities related to education, maintenance of change, motivation and consensus-building, information, organization and facilitation were suggested (Janssen et al., 2011).

This is also supported by researchers (Tamburlini, Di Mario, Maggi, Vilarim, & Gove, 1999) indicating that implementation and use of guidelines is not always reflected in the care patients receive in practice. This is also referred to as the gap between theory and practice. As a consequence, patients often do not receive the care they need (Estabrooks, 1999).

In another study evaluating ETAT guidelines in Brazil indicated that, the performance of nurses using ETAT guidelines identified 98 Group 1 patients (those with emergency conditions) with 105 conditions requiring immediate treatment (five children having two conditions, and one child having three). Excluding three patients for whom nurses' classification was not confirmed by the doctor (false positive emergency patients), nurses administered treatment for 102 emergency conditions. This treatment was appropriate in 94/102 cases (92.2%), and inappropriate or partially inappropriate in eight cases. The treatment administered by nurses was appropriate also in the four false negative emergency conditions after the appropriate assessment was made by the doctor, for a total of 98/106 conditions (92.5%) in which the treatment was correctly administered (Tamburlini et al., 1999).

As observed in this study, after a short course on specific ETAT implementation guidelines, performance on categorizing patients in regard to their priority cases nurses improved their triaging process in all categories. This implies that on job training will help nurses and doctors to adhere and hence improve the triaging process for the benefit of the patients.

A few studies on triaging process have also been conducted in Africa. In a study done in South Africa on effectiveness of the triage system used showed that the most prominent prior to implementation of the Cape Triage Score were patient's complaints about their long

waiting time and time taken by doctors to see the patients. In addition, the respondents complained that the receptionist and administrative staff prioritized patients incorrectly, patient dissatisfaction and aggression was also noted due to long waiting time. Also there was a report that nurses and doctors didn't know what cases were in the waiting rooms (Augustyn, Ehlers, & Hattingh, 2009). This shows how poor communication among health care workers could have an impact on the patients' welfare, so in order to provide quality standardized care information and communicative strategies has to be initiated, also triaging has to be improved for patients' satisfaction to be gained and reduce morbidity and mortality rates seen at EMDs.

Another study in the under fives' clinic in a large hospital in Malawi 1997 showed that children requiring emergency care are often not recognized promptly. The initial contact with sick children was by a nurse who observed the clothed child during weighing. Of 250 sick children presenting for care, nine were considered by an APLS trained doctor to require emergency care. The mothers of three convulsing or post ictal children and one child in severe respiratory distress alerted the staff directly; two others with respiratory distress were recognized as requiring emergency management only after waiting in the queue for weighing. The remaining three were weighed then sat in the routine queue for care—two with neonatal sepsis and one with severe dehydration.

This prompted the initiation and training of health care workers on ETAT guideline in 1999 to reduce morbidity and mortality in under fives received at emergency department (Gove, 1999).

PROBLEM STATEMENT

Emergency departments are medical treatment facilities, designed to provide episodic care to patients suffering from acute injuries and illnesses as well as patients who are experiencing sporadic flare-ups of underlying chronic medical conditions or acute illness/trauma cases which require urgent medical attention (Moineddin, 2011).

Deaths in hospital often occur within 24 hours of admission. Many of these deaths could be prevented if patients with life threatening conditions are identified soon after their arrival in the health facility, triaged and treatment is initiated immediately. Therefore, a process of rapid triage for all individuals presenting to hospital needs to be put in place, to determine whether any emergency or priority signs are present. Triage should be done for less than 5 minutes for those with emergency signs, 10 to 20 minutes for those with priority signs and 30 to 120 minutes for those with non urgent conditions by triage nurse or any trained health care professional as soon as the patient arrives at the emergency unit. Once emergency signs are identified, prompt emergency treatment needs to be given to stabilize the condition of the patients. Early assessment, prioritization for treatment and management of patients attending a health service are critical to achieving good outcomes. Many hospitals in low income countries see large numbers of patients and have few staff, so patients often have to wait before being assessed and treated which leads to deterioration of patient's condition (Molyneux et al., 2005) .

The ETAT guideline was introduced in 2009 at MNH, Emergency department and has been currently used to triage all patients regardless of age. Health care providers use the tool during triaging patients to improve quality of care and reduce morbidity and mortality rates. But the adherence to the guideline protocol has been a challenge in triage rooms; this was evidenced by one week of observation in our EMD where the triage nurses did not follow the triage protocol. Although it was reported by the block manager that all nurses and doctors received training prior to the implementation of ETAT guideline in 2010, adherence to the tool was insufficient. This could be due to several factors example, shortage of staff as evidenced during one week survey where only one triage nurse was on duty, or new employee without exposure to the tool as for example medical doctor receive five day training before start working in EMD while a nurse receive only one day orientation then starts to work immediately (reported by one nurse).

Failure to adhere to the triage guideline/protocol has an implication in triaging patients according chief complaints and the imminent life threatening conditions patient may exhibit (Brabrand et al., 2010). Inappropriate use of ETAT guideline may result into under triage or over triage of patient. Since the tool was introduced in the EMD, assessment of the tool to see how frequent it is used, how is it applied to different age groups, challenges to implementation and health care worker's perspective towards the use of guideline as there is no published data for Tanzania that could be found. So there was a need to assess its uses in our EMD, staff perceptions towards the tool/guideline and challenges faced during triaging by nurses and doctors on the use of ETAT.

STUDY RATIONALE

Triaging is the primary and important step in referring the patient to definitive area for treatment. Failure to adhere to the triage guidelines has an implication to the patient's outcome in terms of severity of the condition and appropriate management. Exploring health care workers' perspective and challenges to implementation of ETAT guideline will determine the improvement strategies for the triage system at our Emergency Unit. Furthermore, the findings of this study may be used to update the guideline and guide the implementation activities but also to introduce the tool countrywide in order to improve health care delivery to our clients and also to reduce morbidity and mortality rates.

GENERAL OBJECTIVE

The purpose of this study was to explore nurses and doctors' perspectives and challenges they encounter during implementation of the ETAT guideline used to triage patients with different categories.

SPECIFIC OBJECTIVES

- To explore Nurses and Doctors' perceptions towards the use of ETAT guidelines at Emergency Medicine Department, MNH.

- To explore challenges associated with implementation of ETAT guideline at Emergency Medicine Department, MNH.

THEORETICAL FRAMEWORK OF THE STUDY

Adherence to recommended guidelines during triage is very important in order to sort patients according to their urgency and this will determine patients' outcome (Janssen et al., 2011). Triage in emergency departments requires various factors at individual level, social context and organizational level which influences the implementation of guideline namely; level of knowledge of triaging personnel; insight and skills; work preferences; motivation and/or commitment; support; preliminary work and arrangements for implementation; description of tasks and responsibilities; workload and resources. On job training will help nurses and doctors to adhere and hence improve the triaging process for the benefit of the patients (Gove, 1999).

CHAPTER TWO

STUDY DESIGN AND METHODOLOGY

Study design

Focus Group Discussions were used to get better understanding of nurses and doctors' perspectives and challenges they encounter while using ETAT guideline. Focus group discussions were conducted aiming to exploring nurses and doctors' perspectives and challenges they encounter during implementation of ETAT guideline in the emergency departments in Muhimbili National hospital. Audio tape and notes taking were used to collect data.

Setting

This study was conducted at the Emergency Medicine Department, Muhimbili National Hospital (MNH) Dar es Salam, Tanzania. The MNH Emergency unit was initiated in January, 2010 and is estimated to receive about 36,000 patients annually and an average of 100-120 patients per day. The department has 11 registrars, 7 residents and 46 registered nurses; this information was provided by the block manager's office at EMD. To improve the triaging process, the ETAT guideline was launched and training was initiated to all nurses and doctors working in the department. Currently the Emergency Unit has three triage rooms and four resuscitation rooms with only one triage room functioning on daily services and one nurse in triage room observed in one week survey (probably not always), this might be due to shortage of staff. The ETAT guideline in the Emergency unit is used to triage patients according to their urgency regardless of age.

Since the tool was introduced, there hasn't been any assessment done to the guideline to see how nurses and doctors implement the tool during triaging patients according to the guideline protocol. Due to that circumstance the researcher decided to explore nurses and medical doctors' perceptions and challenges they encounter during implementation of the guideline,

for the purpose of improving the health care delivery to the patient and alleviate suffering which may be caused by delays during triaging process. The study involved nurses and medical doctors working at EMD in triage rooms and resuscitation rooms in accordance to daily duty roster.

Sample size and Sampling procedure

A purposive sampling procedure was done to obtain a maximum of 20 HCWs including nurses and medical doctors working in the EMD at MNH. A purposive sample is a sample selected in a deliberative and non-random fashion to achieve a certain goal (Talbot L., 2004) . In this study, participants were chosen basing on knowledge and experience in the emergency unit to get a better experience understanding their perceptions and challenges they encounter while triaging.

Inclusion criteria

The study included all registered and enrolled nurses who are employed and are working in the emergency department, Muhimbili National hospital. Also it involved registered medical doctors working at the emergency medicine according to the duty roster at EMD.

Exclusion criteria

The study excluded health attendants, managers in the unit, registered nurses, enrolled nurses and doctors who were on leave during the data collection period.

Data collection methods

Focus group discussions were used to generate information on qualitative data where researcher/interviewer guided the discussion according to written set of questions supposed to be covered. Focus group discussion was conducted to get a better understanding of health care workers' perspective towards the use of ETAT and implementation of guideline. This was archived by using tape recorder and taking notes. FGD is the best suitable study for

exploratory using qualitative design. This form of interaction was used to get a deeper understanding of nurses and doctors' perception while using ETAT guideline.

Focus groups are a form of group interview that capitalizes on communication between research participants in order to generate data. Focus groups explicitly use group interaction as part of the method (Kitzinger, 1994). This means that instead of the researcher asking each person to respond to a question in turn, people are encouraged to talk to one another: asking questions, exchanging anecdotes and commenting on each other's experiences and points of view (Kitzinger, 1994). The method is particularly useful for exploring HCWs'' perspectives and challenges they face during triaging patients and can be used to examine not only what people think but how they think and why they think that way. The idea behind the focus group method is that group processes can help people to explore and clarify their views in ways that would be less easily accessible in a one to one interview. Advantages of this method is that it encourages participation from those who are reluctant to be interviewed on their own (such as those intimidated by the formality and isolation of a one to one interview) and can encourage contributions from people who feel they have nothing to say or who are deemed "unresponsive participants" (but engage in the discussion generated by other group members) (Kitzinger, 1994).

The interview guide was in English but all participants were allowed to communicate in English language and Swahili language as all were familiar with both languages and terminologies used in emergency medicine but English language was more emphasized because is used as the media of communication for the study participants during their basic nursing and medical school course training.

The questions comprised demographic data (age, professional status, years of experience, any training on triage); challenges participant encountered during implementation, before the introduction of ETAT guideline, perception of triage nurses' role and core competencies,

strength and weakness during implementation of ETAT guideline and any recommendation for change.

Data collection procedure

Groups were divided in three groups; the first two groups consisted of four participants in each group and the third group had five participants. Literature suggests that number of participants preferred in FGD is four to eight people per group (Krueger, 1998). The reason for limiting the number of participants was due to small number of HCWs in the EMD but also by reducing the number enabled the researcher to manage conversation and facilitates sufficient time for participants talk. In each group there were a moderator and an assistant moderator. The moderator led the discussion, kept the conversation flowing and took a few notes to remember important comments on specific issues from participants. The assistant moderator took comprehensive notes, operated the tape recorder, handled the environmental conditions and logistics, responded to unexpected interruptions and kept track of time. The means of Data collection was done by tape recording and taking notes. The sessions took between 45-70 minutes.

Data analysis

The Qualitative data collected was analyzed using Qualitative Content Analysis (Graneheim & Lundman, 2004). After each interview, data collected in audio tape were labeled and transcribed followed by translation from Kiswahili to English (for data that was in Kiswahili). Transcript was proofread twice for accuracy of what was real provided by participants. The organized data was transferred in to the computer in the way that all information with the same idea was put together for easy retrieve (meaning unit). Attention was given to ensure accuracy and avoid losing any valuable information during the process. Meaning units from each participant's story were identified by sentences and paragraphs containing aspects related to each other through their content. Meaning units were condensed in to short sentences without changing their meanings (condensation). Data was sorted and coded manually; through that the researcher noted the occurrence of key patterns of statements. Sub

categories were formed from identified codes of which later categories were generated and finally a theme was developed representing the whole idea of narrative data.

My pre-understanding

Qualitative research requires the researcher to acknowledge and reflect on own pre-understanding that might have affected the choice of the research question and interpretation (Dahlgren et al. 2007). Being a graduate nurse, I had a prior knowledge on nursing care management of critically ill patient from medical nursing during undergraduate studies and always was interested in working either in the ICU or in the Emergency units. As a graduate nurse, before joining MUHAS School of Nursing for Masters level in Critical Care and Trauma, I was working in pediatric ICU and I have seen how patients suffer due to different illness and inappropriate care they receive during Hospital stays. Furthermore, when I was an intern nurse I managed to work in the casualty department where patients are being referred from district Hospitals with different conditions for further management. I see my personal understanding as an advantage to the research process and my professional background helped in the conceptualization of the project. But as a junior researcher and a student, I had a lot more to learn and this required an open mind throughout the research process. The respondents in this study presented different perspectives which elicited great curiosity to better understanding of them. This has improved my understanding seeing things in different perspectives and how I can differentiate perception from different people.

Dissemination of the results

The findings of the study will be disseminated to the office of the Dean, School of Nursing; Directorate of MUHAS library; Directorate of Nursing Division MNH; Block Manager EMD; also the findings will be presented in the conferences and one publication in a recognized Nursing Journal is planned.

Study limitation

Some interviewee did not respond due to work overload as Emergency Unit is always busy. Another limitation could be respondents might not be free to give out information about really situation. This could be due to fear of criticizing and challenging the institution policies which may affect their job.

Ethical consideration

Prior to data collection, ethical clearance was obtained from the Research and Publication Committee of Muhimbili University of Health and Allied Sciences (MUHAS). The permission to conduct the study at Muhimbili National Hospital was obtained from the hospital administration. On the first day of the data collection the Nurse In-charge of the emergency department was consulted and explanation of the study purpose was given to him. A detailed explanation about the study was provided to participants (i.e. the aim of the study; significance of the study; how data will be collected, analyzed, and disseminated) to each participant before joining the study and participants were informed that they have rights to agree/disagree to participate into the study or to withdraw at any particular point during data collection process without being offended or judged whatsoever. Informed consent form to sign was provided to each participant. For the purpose of confidentiality, the names of the participants was not be required instead code numbers were used in-place of names to ensure anonymity. All data that were obtained during data collection was stored under strict environment where the principal researcher co-researcher and my supervisor only had access to the data.

CHAPTER THREE

Study findings

Description of informants

Three Focus group discussions were conducted. Each group consisted of four participants except one group of physicians which had five participants, and total numbers of participants were thirteen. Their ages ranged between 27-45 with an overall mean age of 36 years with working experience between two and thirteen years. Two groups consisted nurses where nurses' academic level were certificate, diploma and first degree (bachelor) nursing and the third group were doctors that is three registrars and two residents.

Theme and categories

Health care workers' perspective and challenges they encounter while using ETAT guideline as described by informants in this study are under twelve sub-categories and five categories that were formulated under one theme: "the ETAT guideline has improved the triaging process but has many challenges hindering its successful implementation". The first category "guideline is useful in triaging with comparison to the situation before it was introduced" shows how ETAT guideline has been helpful in triaging patients with different condition according to their severity. The second category "Unbalanced patient-staff ratio" explains how difficult it is for nurses and doctors to perform triage and other duties while understaffed and the number of patients is increasing. The third category "challenges to the implementation of ETAT Guideline" indicates some difficulties and problems HCWs encounter while performing their daily duties. The forth category "knowledge deficit and disagreement among health care workers" shows the knowledge gap among nurses and doctors on the ETAT guideline, how to use the tool, criteria used to categorize patients with different conditions. The fifth category "poor work motivation and negative attitude towards professionalism" shows how nurses and doctors are affected by less motivated workers and negative attitude towards implementation of the guideline. Table 1 and 2 below illustrate how the analysis

process was done with examples of meaning units, condensed meaning units, codes, sub-categories, categories and a theme.

Table 1: Meaning units, condensed meaning units and codes

Meaning units	Condensed meaning units	Code
R4G3: But if the form is inappropriately filled could delay patient care, so good assessment and knowledge of the person who will be doing triage and filling this properly will ensure proper care for this patient and the patient's outcome	Inappropriately filled form delay patients care, good assessment and knowledge of the triaging nurse and filling forms properly ensure proper patient care and good patient outcome.	Good assessment and knowledge of triage nurse ensure proper care and good patient's outcome

Table 2: sub- categories, categories and Theme

Theme	The ETAT guideline has improved the triaging process but has many challenges hindering its successful implementation											
Category	Guideline is useful in triaging with comparison to the situation before it was introduced		Unbalanced patient-staff ratio		Challenges to implementation of ETAT Guideline			Knowledge deficit and disagreement among HCWs			Poor motivation for work and negative attitude towards professionalism	
Sub-category	ETAT guideline is helpful in categorization	Before the guideline the situation was worse	Human resource deficit	Vital signs unreliability	Lack of maintenance and calliberation of resources	Complaints from patients, relatives, and HCWs	Under utilization of rooms	Continu-ous education and training	Disagreement on decision making	Knowle-dge deficiency on using ETAT guideline	Less motivated	Negative attitude towards the profession

Guideline is useful in triaging with comparison to the situation before it was introduced

Participants mentioned that since the guideline was introduced, it has helped them in grouping/categorizing patients depending on their conditions they present with at the EMD. Categorization of patients determines who need immediate attention (emergency), priority cases and those who can wait in the queue. This can be achieved by looking at the chief complaints, patient's status and vital signs like Blood Pressure, oxygen saturation, respiration, and temperature that help to evaluate the general condition of the patient**.** This is supported by almost all participants who participated in the study. Here is the expression of one of the participants:

> "This guideline helps us to be able to group our patients depending on their conditions they come with. In our emergency department, patients come with different situations of which their sickness may not be serious, so they can wait for sometime in order to get treatment and there are those patients who had an accident and have major injuries which threaten their lives and they need emergency attention. So this form helps us to know which patient should be categorized in which group in order to get proper medication" (Respondent 4, female resident, Group three).

Prioritization of patient according to their need ensures appropriate care and treatment to the patients. According to the respondents, the introduction of ETAT guideline has helped to categorize patients but also ensuring patients get the right treatment at the right time. This is how one respondent narrated:

> "Yes, patients now days get the right treatment at the right time. The introduction of this department has helped a lot by stabilizing patients with life threatening condition and sorting them accordingly" (respondent2, female doctor, Group three)

Appropriate use of ETAT guideline apart of prioritizing patient depending on their urgency it can also reduce prolonged queue observed in EMD. Furthermore, respondents mentioned that

since the opening of the EMD facility and introduction of ETAT guideline, complaints from relatives and death used to occur has been reduced. This is supported by most of respondents as one of the participant mentioned:

> "First of all, this guideline has reduced patient congestion, for example when the patient is assigned to the right place after triage, treatment is never delayed. Also it has reduced many complaints and deaths that used to occur. So far, since our emergency care was opened, we have never lost a patient who had not received any help, and this was made possible by this guideline because any patient who comes must go through the particular assessments" (respondent 4, male nurse, Group two).

Another participant added:

> "I can say in these two to three years we have been able to save the life of many Tanzanians through the triaging process using the ETAT guideline" (respondent 1, male nurse, Group one).

ETAT guideline explains many details on recognition and management of a child with different life threatening condition. A well trained and knowledgeable nurse is capable of recognizing a child with life threatening situation and triage the child to the appropriate area that is treatment or resuscitation room. One respondent narrated this:

> "These days when the child comes, the nurse on triage room will have to take a full history, for example the frequency of diarrhea, ahh, and the child had diarrhea 4 to 5 times, and then the child will be sent to resuscitation because he/she is in the criteria of ETAT guideline. So it has significantly reduced the incidence of deaths to a greater extent" (respondent1, male nurse, Group one).

Before the introduction of Emergency Unit and ETAT guideline at MNH, triaging was done by the use of numbers at the casualty department. That is the earlier you came you are given a

number and that number will determine who will be the first to be seen by the doctor regardless of the clinical urgency. One respondent narrated:

> "On the past, the criterion used was that, the earlier you reach to the hospital, the earlier you get the service. Numbers were used to determine who is going to be seen first. If you are number 1, then you will be the first person to be attended, regardless of your situation or how long you have waited" (respondent 2, female nurse, Group one).

Inappropriate triaging or lack of triage guideline has several consequences to the patient outcome and quality of care provided. Before the introduction of this guideline the triaging process was ineffective and wrong admission was noted. One participant stated:

> "By that time before ETAT guideline was introduced there were wrong admissions because patient was not sorted properly. The patients were taken to different wards where they are not supposed to go, for example a woman came with abdominal pain maybe she has appendicitis, because she is a woman, she is going to be taken to gynecology wards" (respondent 3, female resident, Group three).

Another respondent added that before the ETAT guideline, there was no triage or trauma form:

> "Before this EMD opened, we had casualty department where all patients admitted at MNH were processed but we did not have trauma form or triage form" (respondent 4, male doctor, Group three)

Respondents said that in order for an EMD facility to function and provide standard care to their patients, it requires sophisticated equipments for example supportive machine (ventilators, monitoring machines, emergency medication, diagnostic equipments and others), enough space for caring patients that is several triage rooms for receiving and triaging

patients, treatment rooms and resuscitation rooms to accommodate large number of patients. Respondents said that before the EMD was opened, they did not have enough equipment. One respondent narrated:

> "Before this department was opened there was a problem with equipment so we were seeing patients with very poor quality BP machine, they were sometimes not working, and we had no thermometers. Now we have cardiac monitor which make it easier to get vital signs so we are getting more reliable vital signs compared with the situation before. (Respondent 4 male doctor; group three).

On the contrary one respondent stated that the difference is too small in comparison with the situation before the emergency department was established, she narrated:

> "The difference is too small except what help are the equipments. So for now if the patient arrive we look who should go first in resuscitation where there are monitors because many of the patients who go to resuscitation they are put on oxygen monitor but before this unit was opened, we did not have those machines." (Respondent1, female nurse, Group 2).

Emergency medications are very important in stabilizing and saving patients with life threatening condition. Respondents said that the EMD at MNH currently has enough medication to manage patients with different conditions. One respondent narrated:

> "Right now we have ABBORT fund organization which is sponsoring this department, therefore the availability of medication is not a big problem right now" (respondent 4, male doctor, Group 3).

Unbalanced patient-staff ratio

Shortage of staff was mentioned as a barrier to implementation of triaging process and management of patients where HCWs mentioned unbalanced patient-staff ratio as one participant narrated:

> "It's like a National disaster, if you come here on weekends or in the evening we are always understaffed. So we…….it seem like a permanent condition" **(**respondent 2, female doctor, Group 3).

Another participant added:

> "The problem is, we don't have enough nurses so we are using only one triage room at a time. So right now we have more facility compared to old casualty but we lack sufficient staff" (respondent 4, male doctor, Group 3).

Respondents also mentioned the issue nurse/patient ratio being inadequate due to shortage as the end results of failure to accomplish their tasks as one said:

> "There are numerous challenges in emergency unit, whereby you can find the place being very busy to the extent that a nurse is found very fatigued but still doing something accurately and usually this happens due to the shortage of staff. For example, the doctor is writing orders, the nurse has to go through every room to collect those orders and work on them, while on the other rooms patients are waiting for him/her, thus to some extent there are some difficulties" (Respondent 4, male nurse, Group 1).

One participant nurse said that there is a period where triage nurse get tired so decide to delegate the triaging process to the escort nurse who came with the patient in the ambulance. She narrated:

> **"**So the nurse get very tired, telling 'sister (nurse) send the patient to the resuscitation room' that is the escort nurse who came with the patient from Mwananyamala Hospital or Temeke Hospital. The nurse or a doctor in triage became exhausted and decide to delegate the triaging process to the escort nurse hence triaging becomes ineffective" (respondent 1, female nurse, Group 1).

Another participant added:

> "Also days differ, you can find one day for example yesterday we received six patients in the resuscitation room! And I was alone in one room with six patients; three needed an immediate intervention, two came with peritonitis, one with intestinal obstruction, two with anemia in failure and one ectopic pregnancy. All these cases are the ones that need to be cared by not less than two or three nurses, but I was the only one to take care of them. So the shortage causes the work to be performed inappropriately" (respondent 1, male nurse, Group 1).

Another complaint mentioned by participants who might be due to shortage was wrong vital signs being recorded or sometimes nurses they fail/omit documentation of some of the vital signs mostly those requiring to count like respiration and temperature. So what nurses do to avoid blank space in the form, they fill the form by assuming patients' vital signs and send the patient to either treatment or resuscitation room. There in resuscitation or treatment room, doctors they re-triage and check eligibility of that patient in the respective area. Respondents claims that the triage form contains many details which consume time, vital signs recorded does not match the patient situation. This is how they narrated:

> The form constitutes many things and all documentations cannot be filled at a right time. If the patient comes at triage and there are many patients you cannot fill everything while other patients are waiting (respondent 5, male doctor, Group 3).

Another participant added:

> "The problem of this form, there is a period we had problems with the documentation, because vital signs patient presents are not the one recorded. Maybe patients are many and nurses they get tired so you find these vital signs written are not the one patient is presenting with" (respondent 3, female resident, Group 3).

Respondents also stated:

> Some of the vital signs example respiration and body temperature you have to count and most of the people they don't count because they consumes time and you find they have a lot of patients on the queue waiting so it becomes a problem (respondent 3, female resident, Group 3).

One respondent mentioned that nurses they don't count vital signs requiring counting. She narrated:

> They don't count, they just assume, they pick numbers, like respiratory rate, they write 20 breathe/ minute but when you count again you find it high like 37 or 40 breathe/minute like that (meaning unit) so those are like fixed" (respondent 1, female resident, Group 3).

In those circumstances doctors re-triage again to see if the patient meets the criteria, she continued narrating:

> Most of the time you triage again the patient in the resuscitation room, you count again the respiration, BP and then you look at the patient. If the patient has no emergency signs you return the patient to treatment room (respondent 3, female resident, Group 3).

On contrary one respondent stated that counting or assuming vital signs depends on the situation at the EMD, he narrated:

> It depends; some time the counting is done correctly depending to a situation. If the patients are many and needs urgent is high, they do it quickly and some of the vital signs will be omitted in order to send the patient to the respective area immediately (respondent 3, female resident, Group 3).

All respondent agreed that the solution to the shortage could be hiring more doctors and nurses and motivating those at work to improve standardized quality care to the patients as one said: "Hiring people, motivate those who are at work" (respondent 2, female doctor, Group 3).

Challenge to implementation of ETAT Guideline

Challenges mentioned by health care workers encountered while performing their activities included equipments which are not functioning for example only two probes one for BP another one for pulse, some monitors are not functioning, machine giving unreliable results and there is no suction apparatus. This can mislead the clinician in providing appropriate treatment but also limits nurses to work efficiently and reduce productivity of work. One participant narrated:

> "The problem in our triage rooms is that, the patient may be requiring suction, but our triage rooms has no suction apparatus, so extra energy has to be used to take the patient to the resuscitation room where there is suction machine. This is some sort of a limitation according to me in this department" (respondent 4, female nurse, 2).

Another respondent narrated:

> "Let me explain, there is a cardiac monitor, that monitor has different probes for BP, another for oxygen saturation, another one for temperature reading and there is another one for respiration and pulse rate. For that monitor you have to connect three electrodes to the right arm, left arm and cardiac apex. So right now what is happening they use only two probes one for blood pressure and another one for circulation, right?" (respondent 4, male resident, Group 3).

Another participant supported the argument by adding:

> "The monitors in resuscitation and triage room are the same but after being used for many years I think the monitors are broken down that is why they are not functioning." (respondent 1, female resident, Group 3).

Another concern according to participants is that the EMD facility is not utilized as intended; participants stated that some of the rooms which were planned for specialized care are closed and others turned into offices by administrators in the department.

> "To my side, there are several challenges I face in my daily activities while using the ETAT guideline. I think the guideline guides well, but when you come to the setup as mentioned by participant number one, our building is well equipped, well constructed but currently it is not being utilized as intended. In this unit we have rooms for dental department, orthopedic, gynecology, as mentioned but they are not utilized properly. For example a patient who needs a P.O.P can be managed in orthopedic room not in resuscitation room. Many of the rooms are closed, some are being converted into offices, some are used as tea room and others storerooms" (respondent 2, female nurse, Group 2).

Respondents stated that, the way the department was built it is not the way it is utilized. According to respondents there were rooms which were planned for specialized care like obstetric care, dental care, pediatrics, orthopedic, psychiatry and general surgery departments, but they are not functioning well. Respondents also said that the triage area was supposed to be near the ambulance bay but right now it is situated on the other side of the building. According to respondents these results in inconveniences when receiving and triaging the patients to the respective areas, one respondent narrated:

> In our department when they planned the building , the psychiatry room was set small. But the psychiatry room is supposed to have enough space, and the door should be near the person taking history. So the setting itself had some problems. Secondly there was a room where pregnant mothers were supposed wait, but recently it has been converted into a tea room. Also the emergency setting should be transformed, the place where we do triage, is not the place as it was planned on the map. We were supposed to perform triage on the other side near the tea room on the way to the ambulance bay (respondent 4, male nurse, Group 1).

It was said that, the triage form has a lot details which the triage nurse cannot complete at a time in the emergency situation, where the triage nurse need to look for danger signs only and send the patient to the resuscitation room for immediate management. One participant said:

> Forms constitute many things and all things cannot be filled at a right time. If the patient comes at triage and there are many patients you cannot fill everything while other patients are waiting (respondent 5, male doctor, Group 3).

Another participant supported the argument by narrating:

> “for a nurse who is in triage room to fill this form, I think it can take more than 30 minutes, so that’s why I said they should have created a short form may be with one

> page or at least a half page for investigating those danger signs which are important to know" (respondent 4, male doctor, Group 3).

One respondent raised concern of Psychiatric emergencies which are not addressed in the guideline and yet they need special care. It was said that, when they built the emergency unit, there were specialty departments which were forgotten for example psychiatric cases. He narrated:

> "We have a big challenge in the setting. Psychiatric patients have not been addressed in the ETAT guideline, though they say that psychiatry is not an emergency, if you look at the patient he/she requires attention because they are disorganized, aggressive, disorientated. So such patients are dangerous and need special care especially in the ETAT guideline. So the situation of handling such patients becomes difficult" (Respondent 1, male nurse, Group 1).

In addition, participants expressed fear of nurses leaving the department due to workload and staff shortage. Emergency unit is a very busy department which requires enough manpower to handle all cases coming for immediate care. Shortage of health care workers in the department causes workers to work overtime of those on duty. Due to over whelming of duties, some of the workers my request to be transferred from the emergency department to other department where there are small activities compared to EMD. One participant narrated:

> It is true that it has became an ideal, some of the nurses who were working with us in the beginning have shifted to other departments after succumbing disc prolapse due to the work being heavy, aah, we need more nurses so as the work to be carried as expected **(**respondent 3, female nurse, Group 2).

The participants also mentioned the issue of being assigned extra duties which are not meant for triage nurses in triage rooms which resulting into delay. For example, triage nurses are

assigned to fill National Health Insurance forms including disease coding. These tasks could be done in treatment room where the patient was seen or in the reception department. This can increase the performance of the triage nurse by concentrating only on the triaging process. One respondent narrated:

> "I would like to contribute here. What is affecting ETAT during triage is the rising of unnecessary tasks to the nurse who is in triaging room. For example the nurse on triage can be ordered to write the code of the patient on the insurance form, so the nurse has to find the form and write details from the patient. So this is delays the duty of triage nurse, hence the meaning of the triage will be lost, so you find that the nurse or the doctor in the triage room has given an extra work, which are unnecessary" (Respondent 1, male nurse, Group 1).

Although the ETAT has increased the quality of care as mentioned earlier, respondents reported that there were some complains from patients specifically those in the queue about delays of care but nurses claimed to be trying to explain the reason for delays. One respondent said:

> There are always many complaints especially from relatives. But when we receive the patient, in order to reduce the complaints there is a special place where relatives do wait. So we only tell the relatives that we are taking care of their patient and in case of any clarification about their patients or if HCWs need information from relatives regarding the patient, they will be reached from waiting room. So those complaints from relatives are reduced, because always relatives don't understand that you have helped their patient in which manner. Also we have tried much to reduce the complaints when relatives are in the place where we are carrying our treatment procedures, because sometimes the patient can't speak by himself/herself. So the corridors where relatives stay are the main sources of complaints. For example relative

> may complain saying, 'the doctor came and took patient number three while I was number two' (respondent 4, female nurse, Group1).

When the patients are brought at the emergency department, they require information regarding the well being and their relatives need to be informed about progress of patients. This information should be provided at the reception or the nurse who was assigned to take care of the patient in the respective rooms. According to the respondents, patients and their relatives have limited access to some information, resulting in complaints of relatives. One participant stated:

> There are two way of providing information, first in reception people do ask questions, someone may ask, "I came with my patient they took him in the room until now he is not out yet" . The receptionist will provide information accordingly, that is one way we use mostly. But in this unit in the past there was a special person who was attached at the reception to provide information every day, but unfortunately due to shortage of staff he was the only one in the unit and he used to come in the morning up to 14:00hrs but for now he is at school and there is no one to replace that person (R4 male nurse).

Knowledge deficit and disagreement among health care workers

In this study, participants claimed that the ETAT guideline does not explain exactly how the triage nurse can make decision based on the patient condition. Respondents said that the decision remains a personal judgment of the triage personnel. This has an implication in the triage process where the triage nurse can send the patient to the resuscitation room based on her judgment but when the patient is reviewed again in the resuscitation the patient would not meet the criteria causing disagreement among triage nurses and doctors in resuscitation rooms. Participants suggested that the triage form need to be modified so that it can help nurses in their decision making while categorizing patients. One participant nurse narrated:

> "Another concern about the guideline, I think ETAT could be modified a little bit because the criteria which can be used to a patient are not clear; the person who is looking to the patient remains the one to make decision. It is true in any institution there should be standards that everyone should perform duties in equal manner, but to make a triage decision remains personal. The guideline does not explain if I found the patient has one, two three conditions, where should I send her. But it only helps to get information so that you can make decision. Sometime you can find a person who doesn't have experience can make wrong decision because the guideline does not direct him/her what to do. So we need standard care, it can help if they can modify it little bit" (respondent 4, male nurse, Group 2).

Also the study shows knowledge deficit among nurses and doctors on the use of ETAT guideline. One participant was claiming of knowing how and where to fill patient's details although he couldn't show where the triage nurse is supposed to fill the patient's details in the form (male doctor). Also there was disagreement where participants did not differentiate emergency nursing assessment form which contains the triage section and treatment section claiming the whole form to be the triage form. The respondent said that the form is supposed to be in treatment room instead of resuscitation room. One respondent stated:

> "So to be sincere, as I see this form is supposed to be used in treatment room that is where the patient is going to be managed " (respondent 4, male resident, Group 3)".

The understanding of patients and relatives on how the EMD function is very important, this will help to reduce congestion and also complaints from relatives. Some of the relatives referral themselves to the EMD but when you evaluate their patients the nurse find that they do not meet the criteria but HCWs cannot reject patients because it is unethical. So they are obliged to attend them. Respondents mentioned the need of public awareness on how the Emergency Department functions. Respondents said that patients and their relative need to

understand that EMD receives emergency cases and other referral cases only. One respondent stated:

> "I think challenges I had encountered is about educating relatives, and by educating them there will be no problem because here in emergency there is a section of hot and cold casualty. So if you explain very well that we cannot receive your patient, your patient is supposed to be on the other side let's say cold casualty according to his condition some do not understand. But while assessing the patient you cannot leave the patient untreated even if he does not meet the criteria to be at EMD" (respondent 1, female nurse, Group 2).

Another respondent suggested that the education should be provided through mass media

> "I think that education can be given through mass media like TV'S and radios informing the public that the current hospital's protocol is in accordance with the ETAT guideline, we are supposed to leave the old system and adapt the new one, so people will understand that the system has changed for example the way education was provided about the referral hospitals protocol including Muhimbili National Hospital, so no any patient can be attended unless referred" (Respondent 1, male nurse, Group 1).

One way of reducing complaints from relative was thought to be education to the relatives and community about the triaging process. One respondent narrated:

> May be on the other side, our clients also need awareness of the Guidelines. This is because they still have the past mentality, that if the patient has arrived earlier than the other, then if you take the other patient, then the one who came earlier

> starts complaining, and it takes time to make them understand. But all in all, it is good that they eventually understand (respondent 3, female nurse, Group 2).

Another concern was having staffs at the EMD who have different levels of education and some of them lacking specialized skills in caring patients who are in critical condition. One respondent narrated:

> In this department there are staffs with different educational levels. Especially if you look at nurses, some of them are certificate nurses, others are diploma nurse officers, but also some are assistant nurse officers while others are trained midwifes. There are some assistant nurse officers who have studied psychiatry, so when it comes to cases such as pregnant mothers they do make mistakes. For example a pregnant mother in term from Mwananyamala Hospital was escorted by a nurse in an ambulance and when they reach at our emergency together with the porter they failed to assess the gestational age of the pregnancy because…..!! (Respondent 4, male nurse, Group 2).

There was also a suggestion from participants that nurses at the EMD and nurses from peripheral hospitals should be educated on emergency conditions and how to manage emergencies. One participant stated:

> First there should be a continuous education to the staff at EMD; secondly the staff from the peripheral hospitals referring patients should also be educated, because we depend on them 100%. So there should be a basic education on triage because you can find a nurse from Mwananyamala Hospital with a patient, the nurse would not explain what happened to the patient, while the report from escort nurse is also important. If the patient is brought unconscious and there is no relative and the nurse on triage doesn't know for how long the patient has been unconscious, there may be delay in providing proper management. So education regarding ETAT should reach peripheral hospitals referring patients to MNH (respondent 4, male nurse, Group 2).

Respondents also mentioned the importance of continuous education to the triage personnel at EMD, one respondent stated:

> If triage forms are filled inappropriately it could delay patient care, so good assessment and knowledge of the person who will be doing triage and filling the forms properly will ensure proper care for this patient and the patient's outcome. I think we should go back and read, probably we need to re-educate ourselves to be reminding ourselves that triaging is not about vital signs only. We have been getting new staffs; they do not know how to triage. Since 2010 there has not been any short course which could update us. People do forget things so continuous education is necessary. (Respondent 1, female resident, Group 3).

Poor motivation and negative attitude towards professionalism

Although most of participants mentioned the usefulness of the Guideline and challenges they encounter while triaging patients, less motivated workers in terms of payment, recognition and appreciation was said to have significant implications in the implementation of the guideline. For example triage nurses were sometimes said to document incorrect vital signs or send patients to resuscitation rooms without checking if the patient met the criteria one respondent stated:

> "Yah! We don't get enough salary payment. Also sometimes the patient may come maybe they are unhappy with the care provided and relatives decide to go to your leader and that leader starts to condemn you before even listening to your explanation of what happened. Leaders need to be careful on their judgment regarding on what happened to the patient before they exaggerate and before jumping to conclusion like you are going to be maybe……just listen to the person. (respondent 1, female resident, Group 3).

There was also an issue of motivation in terms of payment among nurses where extra duty allowances was reduced which were used to help workers to solve their problems, one respondent stated:

> "Despite the fact that in the past nurses were working overtime, but it became clear that the hospital can't pay us well that's why extra duty has been reduced, each staff's days of extra duty has been reduced, this means that when you reach the maximum of three days of your extra duty per month, then you are not allowed to do more extra duty and there is shortage of staff and we were at least benefiting in terms of increment, ……..!!!" (Respondent 4, male nurse).

Respondents said that there is poor positive attitude towards their professionalism. One respondent stated:

> "This is an individual issue, you cannot analyze. Maybe nurses are documenting wrong vital signs, so it could be that there is a person who is lazy or who is not motivated. There are issues of motivation here that's why there are omitting some vital signs but is not like they are doing it every time or everybody is doing that. It depends on the number of patients, sometime they count if there are few patients" (respondent 4, male doctor, Group 3).

Another respondent added that the working environment is stressful and the institution does not show any strategies to solve HCWs problems and improve working environment. This was said to have a negative impact on their work resulting into unmet expectation. One participant stated:

> "Also again when you look at the working environment to some extent it is stressful. For example everyday you have to resuscitate people, deaths do occur

> in your care, and if you look the income is small. There is no motivation, there is not even free tea, you are just given bread and sugar , bread and sugar every day?!! , are you real a human being, can you bear that" (respondent 4, male nurse, Group 2).

Another respondent added:

> "In my opinion, first of all working in Muhimbili is especially very hard. If a person compares the duty with the payment there is no equality. So it is better for him to seek work in some other place, where there are no night shifts, extra works, there is only normal work, where he/she can get the payment in accordance with the work and also can decide on time spent for work. But in Muhimbili, for example my wife is in theatre, she can come at 18hrs in the evening at home, and she reports at 6 o'clock in the morning, if lists indicates that it will end at 18hrs then there is no excuse, and she has to follow that regardless whether is extra hours or whatever (respondent 1, male nurse, Group 1).

Poor of positive attitude towards professionalism was also mentioned by some of the participants resulting into inappropriate triaging process hence inappropriate treatment. One participant stated:

> "If someone is having a problem for example respiratory distress, you will notice that the patient is fighting for air (air hunger) and use of accessory muscles. So, I think we should go back, probably we need to re-educate ourselves that triaging is not about vital signs only. You are telling me that this patient is supposed to be in resuscitation room especially the kids while you haven't even explored the patient. What are you doing? You are not even triaging. If that patient still have cardiac problems, patient is still breathing, is there any cyanosis? Those criteria you can just look, you can see nasal flurrying, and you don't need a monitor to tell you that this person is in

> respiratory distress. So the question should be even our altitude, you have to look, palpate, not to depend on a monitor (respondent 1, female resident, Group 3).

Another concern was some workers lacking positive attitude towards their profession for example triage nurse omitting pulse rate documentation just because pulse oxymeter is not functioning although in their basic training they were taught how to take pulse rate manually. All these have an implication to the implementation of ETAT guideline, Although participants mentioned some challenges they encounter during triaging, most of them recommended the guideline to continue to be used so that it can help HCWs in their daily activities. Nevertheless, it was suggested having an orientation course on the ETAT guideline before starting to work at the EMD.

CHAPTER FOUR

Discussion

The aim of this study was to explore the perspectives and challenges of health care workers in the implementation of ETAT guideline at the Muhimbili National Hospital, Emergency Medicine Department. Focus group discussions were conducted to collect data. Participants involved in the study were doctors and nurses working in triage rooms, treatment rooms and resuscitation rooms.

The study illustrates health care workers' perspective and challenges they encounter while performing their daily activities. Respondents stated that before the EMD was opened, patients were triaged using numbers that is, first in, first served (treated), regardless of the clinical urgency. But now days the care and treatment to be given depend on the patient's condition. This has been improved by the launching of the new EMD in 2010 and introduction of the ETAT guideline. Respondents mentioned that since the guideline was introduced, it has helped them in grouping/categorizing patients depending on their clinical conditions. Triaging of patients determines who need immediate attention (emergency), priority cases and those who can wait in the queue. This can be achieved by asking patient's chief complaint, inspecting general patient's status and also vital signs like blood pressure, oxygen saturation, respiration, and temperature will help to know the general condition of the patient**.** This is supported by almost all participants who participated in the study.

Although introduction of the guideline has improved the triaging process, shortage of staff both in the nursing and medical divisions was mentioned as a barrier to implementation of ETAT guideline in the triaging process and management of patients. The unbalanced patient-staff ratio results into HCWs working overtime and being exhausted thus poor quality of services. Shortage of HCWs has a significant implication in delivering standard care to patients attending the EMD. There were complaints that some triage nurses did not complete the triage form or documenting wrong vital signs, triage nurses did not always carry out triage of every patient arriving at an EMD (Janssen et al., 2011; Augustyn et al., 2009). This has an

effect on failure to accomplish their task for example wrong vital signs being recorded or sometime nurses fail/omit documentation of some of the vital signs mostly those requiring counting like respiration and temperature. Also participants stated that one of the reasons for nurses leaving the unit was heavy workload. So if there could be enough nurses, brain drain could have been reduced. There is a need to recruit and hire new employees. The hospital need to develop strategies to retain workers for example improving working environment, salary increment, acknowledgement, payment of extra duty allowances. This will increase the quality of care delivered but also motivate those on duty.

In order for an EMD facility to function and triaging as well, it requires functioning sophisticated equipments for example supportive machine (ventilators, monitoring machines, emergency medication, diagnostic equipments and others), enough space for caring patients that is several triage rooms for receiving and triaging patients, numbers of treatment rooms and resuscitation rooms to accommodate large number of patients (Janssen et al., 2007).. In this study, respondents said that there are several challenges they encounter while performing their activities and they include some equipments which are not functioning for example only two probes functioning; one for BP another one for pulse. According to respondents some monitors were said to be not functioning, machine giving unreliable results, no suction apparatus and temperature probes were said to be too small to pick up temperature. This limits nurses to work efficiently. Apparatus which are not functioning appropriately can mislead the clinician in providing appropriate management and delaying care to the patient. It is important that maintenance is done of the monitors and calibration of BP machines and probes to increase accuracy and reliability of the vital signs.

Knowledge and skills of nurses and doctors working in emergency department especially nurses in triage rooms is very important in categorizing patients with different conditions. This is because HCWs need to think critically and make quick decisions on the patients' conditions and initiate appropriate management the patient regarding the seriousness of his/her condition. Another concern raised by participants were nurses who are not familiar

with the guideline in triage room most likely they performing wrong triage resulting in re-triage or refusal of the patient in resuscitation room. This could be due to several reasons; one is the difference in the level of education among nurses, newly employed nurses, those appointed from treatment rooms to cover the shortage in triage rooms or it could be due to workers who do not adhere to the guideline protocol.

The study also shows that there is an issue of disagreement among nurses and doctors on the criteria for triaging patients to the resuscitation room. Respondents said that they re-triage patients in the resuscitation room for those patients who do not meet the criteria. Emergency management is by team, rather than by individual players, so teamwork should be emphasized and practiced (Molyneux et al. 2005) and communication should improve between nurses and doctors (Augustyn et al., 2009). It is very important that all nurses and doctors in the department have a similar understanding of the criteria used for triaging according to the ETAT guideline in order to minimized disagreements among HCWs ensuring right management is given at the right time. This will improve working relationships among nurses and doctors and minimizing disagreements among co-workers.

Emergency Medicine Department receives many patients with different situation including psychiatric cases, pediatric cases, obstetric cases, trauma cases and several other conditions requiring urgent attention. Respondents reported that ETAT guideline does not explain how psychiatric emergencies should be triaged and managed compared to other clinical and surgical conditions which bind to the guideline. In those circumstances it leaves the triage nurse in dilemma to make decision. It is important that there should be a modification in the triage guideline to accommodate some other emergency situation to be functioning appropriately by "comparing the existing situation with international standards" (Molyneux et al., 2005) and suggesting actions to solve identified problems and to document and evaluate such a process (Molyneux et al. 2005) .

The participants also mentioned the need for scope of practice because they are being assigned to duties which are not meant for triage nurses in triage rooms resulting into unnecessary delays in patient care. There is a need for evaluations related to responsibilities of the triage nurses and doctors, interventions triage nurses are permitted to perform and content of triage assessments (Janssen et al., 2011) to avoid non-clinical professional tasks to triage nurses and increase performance.

Although the ETAT has increased the quality of care to patients as mentioned earlier, there were some complaints from patients and relatives those in the queue about delays of care as reported in the FGDs. This could be due to failure of the unit to assign personnel in the reception who will be giving information as needed by relatives as it was previously or provision of information brochures in the waiting room (Janssen et al., 2011) which will increase the understanding of patients and their relatives on how the unit functions. Education on how the priorities are defined to the patients and their relatives could reduce the complaints.

Continuous education is important to HCWs in any emergency unit that nurses performing triage follow an "education in Acute Care, the Trauma Nursing Core Course (TNCC), the Emergency Nursing Pediatric Course (ENPC) and didactic training in triage. Furthermore, they need to have at least a one year experience (Janssen et al., 2011). On the job training is one way of providing education and impaction of new knowledge to nurses and doctors. Our EMD does practice on job training but is lacking staffs with specialized education in special cases for example critical care nurses and emergency physicians.

Although most of participants mentioned that the Guideline helps them a lot; there was significant issue of motivation among nurses and doctors enrolled in the study. Similar to previous findings (Janssen et al., 2011) poor motivation in terms of payment, appreciation and recognition by the employer was mentioned as negatively impacting on their work resulting into unmet expectations.

Another concern from respondents were that some workers lacking positive attitude towards their profession for example triage nurse omitted vital signs documented because some equipments were not functioning although in their basic training they were taught how to take pulse rate manually. There was also a complaint from participants about triage nurses documenting wrong vital signs, or sending patient to resuscitation room without checking if the patient does meet the criteria. This has an implication to the implementation of ETAT Guideline and performance HCWs in the emergency unit. Managers in the unit need to develop interpersonal and communication skills, appreciating the productivity of their employee and motivate them to do better.

Although participants mentioned some difficulties they encounter during triaging, most of respondents recommended the Guideline to continue to be used so that it can help HCWs in their daily activities but also suggested orientation course to the guideline before starting to work at the EMD.

Strength and Limitations

This study shows that there are many advantages of using ETAT guideline in triaging patients with different conditions. These advantages are not only to the patients who are received in the EMD but also those who perform triaging and those in resuscitation rooms. In accordance to the findings of this study, triaging using ETAT Guideline has improved treatments to patients and saved many lives as compared to the situation before it was introduced. Although the study shows how the guideline has improved the triaging process, there were several challenges which hinder the successful implementation of ETAT guidelines.

The results of this study provided rich information on the perspective and challenges of health care workers while using ETAT guideline. But the findings of this study cannot be generalized beyond the context of this study, but can be transferred to similar contexts. This study was conducted at Muhimbili National hospital in the EMD; findings provided here

cannot represent the situations in other Emergency Departments in Tanzania or beyond Tanzania context due to the nature of this study. The researcher aimed to reach four groups but due to shortage and work overload, and also due to EMD being busy the researcher managed to reach only three groups of FGD that is two thirds of planned sample size. Nevertheless, saturation was achieved.

Trustworthiness of the study

Research findings should be as trustworthy as possible and every research study must be evaluated in relation to the procedures used to generate the findings (Graneheim & Lundman, 2004). Purposive selection of participants (nurses and doctors) with various experiences contributed and increased richer variation of the phenomena under the study. Multiple data collection tools which involve audiotapes and notes taking, using unstructured interview were used to enhance credibility. Data was collected and analyzed immediately to reduce the risk of inconsistency. The systematic and detailed analysis of the transcripts and the involvement of more than one researcher in the process enhanced credibility by ensuring the interpretation were grounded in data. Agreement of the findings was reached through co-researchers (master's students).

Transferability relates to how applicable findings are to other settings or context. The detailed descriptions of the study context, selection criteria and data collection and analysis process were complemented by quotes to allow readers to judge the transferability of the findings.

Dependability refers to possible change over time in data collection and analysis and the ability of the researcher to account for the changes. In Focus Group Discussion, the use of interview guide ensured consistency in terms of the research question and provided openness to new insights through open-ended question. The insights gained were considered in subsequent data collection and the analysis process.

Confirmability refers to how the findings represent or are grounded in data. In this study, the use mixed language that is English and Swahili language in data collection ensured participants could freely express themselves and comfortably interact with the researchers in representing their social reality. Also data were translated using actual words from participants.

CHAPTER FIVE

Conclusion

Respondents stated that since the EMD was opened in 2010 and the introduction of ETAT guideline has improved the patient's conditions. Respondents mentioned that since the guideline was introduced, it has helped them in grouping/categorizing patients depending on their conditions they present with at the EMD in comparison to the situation before where care and treatment was determined by who comes in early is the first to be seen regardless of clinical urgency.

In order for the emergency unit to provide standard care need to have enough staff with skills in handling emergencies. The study shows there is unbalanced patient/staff ratio which causes delays in providing quality of care.

One way of knowing the status of the patient measuring of vital signs which are measured sophisticated apparatus. The study shows that there are some apparatus which are not functioning appropriately which mislead the clinician in providing appropriate management and delaying care to the patient.

The study shows disagreement between nurses and doctors on how categorization of patients should implemented. Participants suggested modification in the triage guideline to accommodate some other emergency situation to be functioning appropriately by comparing the existing situation with international standards and suggesting actions to solve identified problems and to document and evaluate such a process.

The participants also mentioned the need for job description because they are being assigned to duties which are not meant for triage nurses in triage rooms resulting into delayed patient care and work overload. There is a need for evaluation related to responsibilities of the triage nurses and doctors, interventions triage nurses are permitted to perform and content of triage

assessments to avoid unnecessary tasks to triage nurses hence improved performance and patient outcome.

The EMD does not practice on job training and is lacking staffs with specialized education in special cases for example critical care nurses and emergency physicians. There is a need for the government to train more specialists in emergencies for the unit to provide maximum quality of care to our patients hence reduce disability and death. Hospitals referring patients at MNH they also need to teach nurses and paramedics who escorts patients with ambulance on life saving skill and the criteria used in referring patients.

Recommendations

There is a need to have strategies on recruiting and retaining and hiring retain workers, recruitment and hiring new employees with knowledge and skills in care and management of patient with life threatening conditions. This will increase the quality of care delivered but also motivate those on duty. Motivating HCWs with salary increment will increase job satisfaction and retain workers hence reduce brain drain. There is also a need for managers in the unit to develop interpersonal and communication skills, appreciating the productivity of their employee and motivate them by appreciation of what have been done.

It is very important that all nurses and doctors in the department need to know the criteria used for triaging according to the ETAT guideline and come to the same agreement on protocol used so that there will be no re-triaging and refusal of the patients in the resuscitation rooms. This will improve working relationship among nurses and doctors and minimizing disagreements among co-workers on the triage process.

Emergency management is by team, rather than by individual players, so teamwork should be emphasized and practiced and communication should improve between nurses and doctors.

It is important that there should be enough supply of equipments used in EMD and maintenance of those broken for example monitors BP machines. This will increase accuracy and reliability of the vital signs.

On job training of health care workers is one way of providing education and impaction of new knowledge to nurses and doctors. This will increase knowledge and skills with evidence based medicine, improve quality of care provided in our emergency unit, reduce death and increase patient satisfaction.

There is a need for the government to train more physicians and critical care nurses in Emergencies for the unit to provide maximum quality of care to our patients hence reduce disability and death. Hospitals referring patients at MNH also need to teach nurses and paramedics who escorts patients with ambulance on life saving skill and the criteria used in referring system.

Further research is needed on knowledge and practice of HCWs in EMD, there is also a need to do research in the Hospitals referring patients at MNH on the knowledge and practice of paramedics on how they understands and prioritize patients according to their urgency and how they manage critically ill patient while transporting them to referral hospital. Further research is also needed on the impact of shortage of HCWs on delivering quality of standardized care in the EMD and the patient's outcome. There is also the need to evaluate effectiveness of the ETAT Guideline in our EMD and possible application to other Hospitals in Tanzania context.

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APPENDIX I:

Informed consent Form

ID no _____

Informed Consent to participate in the study assessing the implementation Emergency Triage Assessment Treatment guideline (ETAT) in the Emergency Department at Muhimbili National Hospital

Greetings! My name is Mr. Sixtus Ruyumbu Safari, a postgraduate student at Muhimbili University of Health and Allied Sciences

The purpose of the study

To assess implementation of the tool/guideline used to triage patients according to the severity and urgency in EMD at Muhimbili National Hospital, in Dar es Salaam

What participation involves

If you agree to participate in the study, you will be requested to attend discussion session and researcher will collect information by means of tape recording and notes taking for the purpose of research.

Confidentiality

All information collected from notes and tape recording will be analyzed by researcher and coded with identification number instead of names. The information provided will be handled with great secrecy in order to maintain confidentiality throughout the study.

Risks

There is no direct risk associated with this study.

Right to withdraw and alternatives

Taking part in this study is completely voluntary. If you choose not to participate in the study, you will continue to work in the EMD and continue to receive all services that you would normally get from your employee.

Benefits

If you agree to take part in this study there will be no direct benefit from participating into the study; however the results will provide valuable information on how to improve triaging process, improve continuing professional development and established advanced equipped Emergency Unit.

In case of any injury

There is no expected harm from your participation as there will be no manipulation of human subject.

Who to contact

If you have any question about the study, you should contact Mr. Sixtus R. Safari (principal investigator) cell phone +255 0754-339213.

If you have any questions/concerns about your rights as a participant, you may contact Prof M. Aboud, Chairman of MUHAS Research and Publications Committee. P.O.BOX 65001 Dar es Salaam. Tel 2150302-6

Signature

I ……have read the content of this form .My questions have been answered. I agree to participate in this study.

Signature of participant …….

Signature of witness ……..

Date of signed consent …/…/ 2012

Participant agrees☐ / Participant does NOT agree ☐

APPENDIX II:

Ethical clearance approval

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
DIRECTORATE OF POSTGRADUATE STUDIES

P.O. Box 65001
DAR-ES-SALAAM
TANZANIA
Telefax: 255-022-2150465
Telegrams: UNIVMED

E-MAIL dpgs@muhas.ac.tz
TEL: (255-022)-2150302-6 Ext. 207
Direct line: 2151378

Ref. No. MU/PGS/SAEC/Vol. VI/249

28th March, 2012

Ruyumbu S. Safari,
MSc. Critical Care and Trauma,
MUHAS.

RE: APPROVAL OF ETHICAL CLEARANCE FOR A STUDY TITLED "ASSESSING IMPLEMENTATION OF EMERGENCY TRIAGE ASSESSMENT TREATMENT GUIDELINE (ETAT) IN EMERGENCY DEPARTMENT AT MUHIMBILI NATIONAL HOSPITAL, TANZANIA"

Reference is made to the above heading.

I am pleased to inform you that, the Chairman has on behalf of the Senate approved ethical clearance for the above-mentioned study.

Thus ethical clearance is granted and you may proceed with the planned study.

Please liaise with bursar's office to get your research fund.

Prof. Z. Premji
DIRECTOR, POSTGRADUATE STUDIES

/emm

c.c. Vice Chancellor, MUHAS
c.c. Deputy Vice Chancellor – ARC, MUHAS
c.c. Dean, School of Nursing

Appendix III:

Research clearance

MUHIMBILI NATIONAL HOSPITAL

Cables: "MUHIMBILI"
Telephones: 255-22-2151367-9
FAX: 255-22-2150234
Web: www.mnh.or.tz

Postal Address:
P.O. Box 65000
DAR ES SALAAM
Tanzania

In reply please quote:
Ref:

2nd may 2012

TO WHOM IT MAY CONCERN
MUHIMBILI NATIONAL HOSPITAL

RE: RESEARCH CLEARANCE NO 187 2012/2013

Name of Researcher	**RUYUMBU S. SAFARI**
Research Title	ASSESSING IMPLEMENTATION FOR EMERGENCY TRIAGE ASSESSMENT TREATMENT GUIDELINE (ETAT) IN EMERGENCY DEPARTMENT AT MUHIMBILI NATIONAL HOSPITAL, TANZANIA.
Type of Research	A DESCRIPTIVE QUALITATIVE STUDY WHICH WILL BE ASSESSING NURSES AND DOCTORS PERSPECTIVES AND CHALLENGES THEY ENCOUNTER DURING IMPLIMENTATION OF ETAT GUIDELINE IN THE EMD AT MNH
Valid Between	**MAY TO JULY 2012**

The above named has been allowed to conduct the stated research.

Please accord him/her and his/her assistants the necessary assistance/cooperation.

Sincerely,

Dr. H.F. Swai
DIRECTOR OF MEDICAL SERVICES

DIRECTOR OF CLINICAL SERVICES
P. O. Box 65000
DAR ES SALAAM
MUHIMBILI NATIONAL HOSPITAL

APPENDIX IV:

Interview guide

Interview no…

Date…./…./2012

Personal characteristics; Age……

Sex……

1. Can you please tell me your level of nursing education.....?

2. How long have you been working in the emergency department.....

3. Have you ever been trained on emergency nursing care? What kind of the training did you receive?

This interview guide will be used to assess health care workers' perspective and challenges encountered while using ETAT guideline in the emergency department, Muhimbili National Hospital

1).The ETAT guideline was introduced in 2010 at EMD, how is that affected your practice?

- Can you give some examples of what you have just said?
- What criteria do you use when triaging patients?
- How often do you use the tool during triaging, are there limitations? Please explain
- How did you triage patients before introduction of ETAT guideline?
- Any problems encountered before the introduction of ETAT?
- What is the current situation in the triage process

2). what challenges did you face while triaging before the ETAT was introduced?

- What is the current situation in terms of work load, facility/equipments, patient/staff ratio, and medication availability?

3). is there anything would you like to add on the use of the tool?

Sixtus Ruyumbu Safari,
MSc. Critical Care and Trauma,
C/o School Of Nursing,
P.O.BOX 65004,
Dar- es Salaam,
16th November, 2012

The Director,
Postgraduate Studies, MUHAS,
P.O. Box 65001,
Dar es Salaam.

U.F.S Dean-School of Nursing MUHAS
P.O.BOX 65004
Dar es Salaam

U.F.S Head of clinical nursing
School of Nursing MUHAS
P.O. BOX 65004

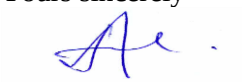
U.F.S Principal Supervisor,
Dr. Mbekenga C.K

Dear Sir;

RE: SUBMISSION OF ERROR FREE FULLY BOUNDED DISSERTATION MSc. CRITICAL CARE AND TRAUMA MANAGEMENT

The above heading refers
I Sixtus R. Safari, have been pursuing MSc. Of Nursing in Critical Care & Trauma with **REG NO; HD/MUH//T.124/2010**, I am submitting my ERROR FREE, FULLY BOUND DISSERTATION REPORT titled "**Perceptions and Challenges of using Emergency Triage Assessment Treatment Guideline in Emergency Department at Muhimbili National Hospital, Tanzania"** for further process.

Yours sincerely



Sixtus R. Safari