

## Initial Nursing Assessment for Patient Admitted to Medical Room in Emergency Department at Omdurman Military Hospital

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**Citation:** Fadilalla MAB, Mukhtar HF, Khalid MKH, Ibrahim EIA (2024) Initial Nursing Assessment for Patient Admitted to Medical Room in Emergency Department at Omdurman Military Hospital. Ad Nurs Sci Resear: ANSR-123.

**Received Date:** 28 May, 2024; **Accepted Date:** 04 June, 2024; **Published Date:** 10 June, 2024

### Abstract

**Background:** The initial nursing assessment is the first step in nursing process it involves the systematic and continuous collection of data, sorting, analyzing, and organizing that data; and the documentation and communication of the data collection.

Critical thinking skills applied during the nursing process provide a decision-making framework to develop and guide a plan of care for the patient incorporating evidence-based practice concepts.

**Objectives:** This study aims to evaluate initial nursing assessment for patient admitted to medical room in emergency department in first 8hrs in Omdurman Military Hospital.

**Methods:** A descriptive cross-sectional hospital-based study was conducted at Omdurman Military Hospital (Jan2022). The sample consisted of 70 patients. Data was collected through an observational checklist, analyzed by Statistical Package of Social program version 20, presented in figures & tables in form of frequency and percentage.

**Results:** Result reveals that 75.7% of the study participants received assessment by stander precaution and 67.1 % of the participants had good score in primary survey steps and 92.9% of our study participants did not received secondary survey assessment

**Conclusion:** The study concluded that more than half of the study participants was good result for Patients that received the initial assessment with stander precaution and primary survey assessment and the great majority of them do not received the secondary survey.

### Introduction

#### 1.1. Background

Patients in the hospital should be treated promptly. The most frequent hospital health care workers are nurses. The nurse must be able to take action immediately in responding to the patient's presence. The nurse's initial action is patient assessment [1].

Assessment is the foundation of effective nursing care; improved patient outcomes may result from any strategy that enhances patient safety [2]. An appropriate and rapid assessment will improve patient safety [1,2] It has many challenges in nursing practice, especially to see the complexity of health services in hospitals and the high workload of a nurse.

In addition, to improve patient safety, the assessment will give complete information which is used by nurses to make a decision quickly and accurately [3]. It will prevent the occurrence of a medical error and these findings are

important because clinical judgment is an imperative, not only in the collection of cues and recognition of changes in the patient, but also in processing information, initiating the medical intervention, and evaluating outcomes [4].

Shubert describes three components to patient safety as it relates to failure to rescue events that occur in the hospital: inaccuracy of nursing assessments, lack of detection of clinical abnormalities/changes in patients, and lack of ability to pull the pieces together/problem recognition. In addition, once problems are identified by nurses, the nurse may be slow in reporting the changes to the providers and providers may not act or respond quickly to the information they receive [3] the improvement of the patient assessment is required by nurses to keep the quality of services [4].

Assessment in patients requires good cooperation between health workers in hospitals. good cooperation between nurse-doctor, nurse-pharmacist, nurse-nutritionist, etc.

will shorten the time in the assessment as well as improve the accuracy of the data so that 2 in making decisions far from the risk of injury [5]. The key of teamwork to prevent medical error is the communication factor. Communication between health workers and other units should be used an open and clear communication. Communication is not only by speak, but in writing also must contain clear information [6].

The medical systems such as hospital-owned facilities can support the patient's initial documentation process. The medical system that a hospital often uses these decades is technology-based documentation. This innovation will generally improve the response time of a health worker in conducting a rapid assessment of patients, especially patients in emergencies [7,8]. In Sudan may stay several hrs in ER without received the assessment or treatment one of the cause the overcrowded this like the study done in Saudi Arabia by Alnhid); (Iraq and according to the Australian Federal government and national emergency access target the long time for initial assessment 4hrs for this reasons researcher take 8hrs in study [32].

## 1.2. Justifications

The initial assessment is first thing that done for any patient that arrived to the hospital. Initial assessment consist from many steps in series, when delaying or miss any one may lead to serious results.

Initial assessment is very important point. If good assessment leads to quick intervention and patient condition become stable and healthy. The function of the initial nursing assessment is to identify the assessment parameters and responsibilities needed to plan and deliver appropriate, individualized care to the two knowledge there a little publication regarding this issue in Sudan.

## 1.3. Objectives

### 1.3.1. General objective:

To evaluate the initial assessment for patients admitted to medical room in emergency department in first 8hrs in Omdurman military.

## 2. Specific objectives:

- 1 - To assess the stander precaution used during initial assessment
- 2- To assess the assessment of primary survey
- 3- To assess the assessment of secondary survey

## 3. Research methodology

### 3.1. Study design

Descriptive crosses sectional hospital-based study.

### 3.2. Study setting

Omdurman military Hospital emergency and accident hospital. It located in Khartoum state, Omdurman city, located in the confluence point of the White Nile and Blue Nile, north to youth and children palace, near Aliaa hospital .it consist from three floor, ground floor it consist from emergency rooms (A, B, C1, C2, truma, asthma) and cold

clinic, minor theater ,laboratory and X-ray and CT department. And first floor which consist of medical and surgical word, and matron office and major theater, CCR1. Second floor consist of VIP rooms, CCR2, administration office and medical director office and in the roof, we found cafeteria. ER hospital it received military patients and non-military in case of emergency and received war traumatic patients.

### 3.3. Study population

Patients who were admitted to medical room in first 8 hrs in emergency department at Omdurman Military hospital during the study period.

#### Inclusion:

Patients were admitted to medical room and stay 8hrs during period of datacollection.

#### Exclusion:

Patients that transfer or die before complete 8hrs.

### 3.4. Sampling and Sample size

Sample method Convenient sample

- Sample size
- Sample size = 70 patients.

### 3.5. Data collection tools and technique

Data collection tools Observational checklist (Adopted modified) consist of three-part (preparation, primary survey &secondary survey) validation was done.

#### Data collection technique:

Data was collected by the researcher through Observational checklists for the patients that assessment applied by the nurse during the 8hrs from the 24hrs shift at the fourth weeks.

### 3.6. Data analysis

Data was analyzed by computer through statistical package of social program SPSS version (20).

#### Evaluation Scale (E/S):

Stander precaution: each step gave 1 point if done and zero score if not who score 3 or more points are success in fallowing the stander precaution. And who score less than 3 called fail to fallow it. Primary survey: in order to calculate total score each step gave 1 point if done and zero if not score 7-8 consider to have good practice 4-6 consider to have satisfied score and less than 4 is poor.

### 3.7. Data presentation

Data was presented in form of figures, frequency tables and percentages.

### 3.8. Ethical considerations

Ethical approval was taken from Karary university graduated collage to Omdurman Military hospital for agreement.

Matron of the emergency department

Verbal permission from nursing staff.

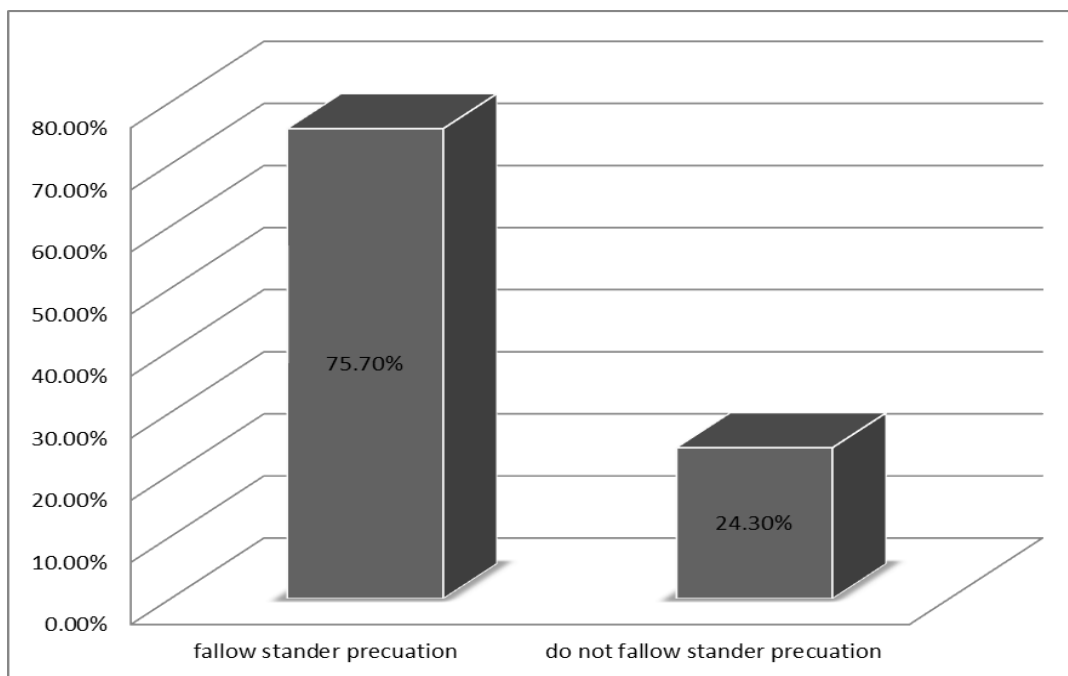
**4.1. Results**

Table (4-1) preparation to patient assessment (n=70).

	N	%	N	%	%
	54	77.1	16	22.9	100%
	2	2.9	68	97.1	100%

Table (4-2) participant using stander precaution during assessment (n=70).

Introduction Done Not done Total					
Steps	N	%	N	%	%
Handwashing	21	30	49	70	100%
Wear gloves	32	45.7	38	54.3	100%
Wear mask	59	84.3	11	15.7	100%
cot or	60	85.7	10	14.3	100%
Wirelesses	58	82.9	12	17.1	100%



**Wear lab uniform**

Figure (4-1) participants total score of stander precautions (n=70).

Table (4-3) patients received assessment by using primary survey (n=70).

Introduction Done Not done Total					
Steps	N	%	N	%	%
Air way clearance	48	88.6	22	11.4	100%
Check RR	31	44.3	39	55.7	100%
Check SPO2	52	74.3	18	25.7	100%
Check HR	42	60	28	40	100%
Check BP	54	77.1	16	22.9	100%
LOC	47	67.1	23	32.9	100%
Quick S&S	47	67.1	23	32.9	100%
Exposure the patient	40	57.1	30	42.9	100%

Figure (4-2) total score of primary survey (n=70).

Table (4-4) patients received assessment by using secondary survey (n=70)

Introduction Done Notdone Total					
Steps	N	%	N	%	%
History	18	25.7	52	74.3	100%
Vitalsigns	17	24.3	53	75.7	100%
General inspection	21	30	49	70	100%
Specific inspection	26	37.1	44	62.9	100%
Systemic palpitation	10	14.3	60	75.7	100%
Specific palpitation	2	2.9	98	97.1	100%
Systematic auscultation	1	1.4	99	98.6	100%
Specific auscultation	1	1.4	99	98.6	100%
Systemic percussion	1	1.4	99	98.6	100%
Specific percussion	1	1.4	99	98.6	100%
Routine investigation	49	70	21	30	100%
Specific investigation	52	74.3	18	15.7	100%

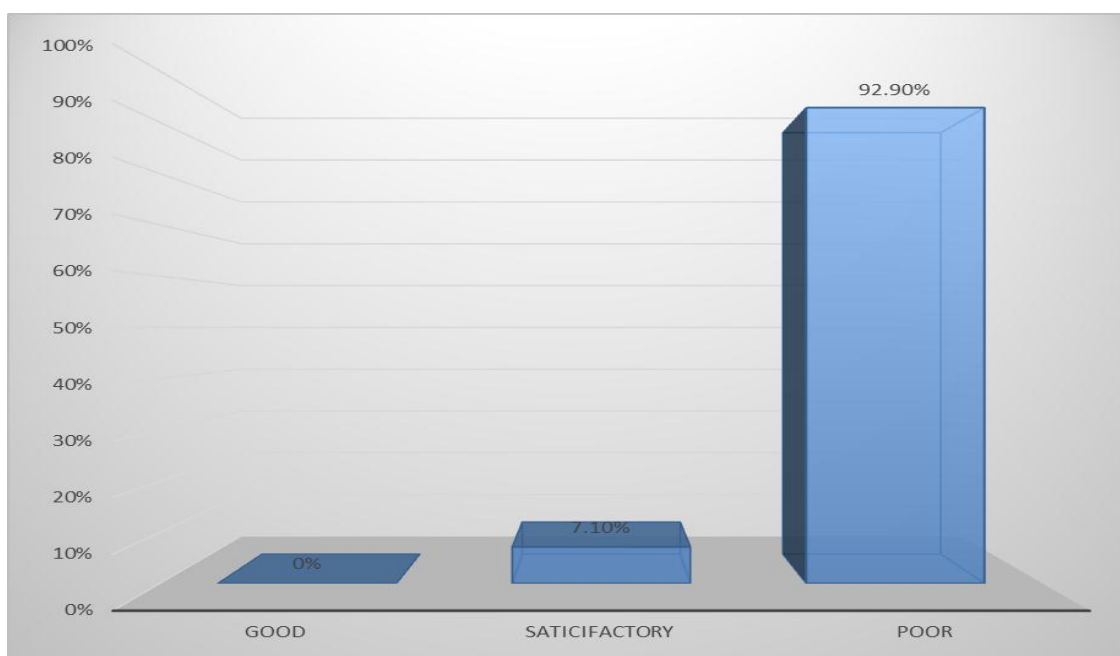


Figure (4-3) total secondary assessment score(n=70).

#### 4. Discussion

This descriptive cross-sectional hospital-based study was conducted at Omdurman military hospital to determine Initial nursing assessment for Patient admitted to medical room in emergency department in first 8hrs.

The initial assessment in ER is the most important step that lead to good prognosis and shortage the hospital stay for the patients, nurses consider the first respondents in the ER, that way the most skilled and trained nurse put in the ER specially in the Triage department.

Our study revealed that the most of the patients were grated when caring him(77.1 %) and very good act which make patients and his relative more comfortable to the nurse and consider the first step to gain patient trust , on the other hand we found 97.1 % of our study participants do not introduce them self to the patient or their relative although are in emergency situation you have to introduce self and instate your position to the patients to put the other stone in

the building of trust and the therapeutic relationship Regarding stander precaution the most of patient received the initial assessment by the nurse that used the stander precaution 75.7%but unfortunately in washing hand the result show that about 70% from nurses that apply the initial assessment not washing hand and about56.3%do not wear gloves specially when doing the primary survey that constant with the previous study done by Noriko kurunoet al(30) in a Japanese tertiary care university teaching hospital about Hand hygiene compliance in a universal gloving setting. , and about 84.3%nurses wear face mask 85.7% wear uniform and about 82.9%wear protective shoes. Although the pandemic of covid 19 encourage them to that but still in good practice preventing the spread of infection between the patients cared by the same nurse and also it protects the nurse itself from the nosocomial infection. In the primary survey assessment we found 60.1 % patients were received the primary survey, in airway clearance result show that 88.6%done but about 55.7 % from the patient do not perform the R,R for the patient

another steps show this SPO2 74.3%done, PR 42%, Bp 77.1 patient received this services, result show that the patients not received all vital signs that constant with the previous study done by Carl Magnusson, Johan Herlitz, christer Axelsson in Sweden university of Gothenburg about initial assessment level of care and outcome among children who were seen by emergency medical services (31). Regarding the secondary survey generally found the most of our study recipient (92.1 %) do not received the secondary survey. Unfortunately, about 75.7 %from the patient under study do not checked vital signs in secondary survey in medical ward in emergency room and also the patient do not receive the physical examination from the nurse in secondary survey.

## 5. Conclusion

The study conclude that the majority of study group has a good preparation when caring after patient in the emergency department, most of them follow the stander precautions (good score 75.7%), received the primary survey (good score 67.1 %) and most of them did not received secondary survey (poor score 92.9%).

### 5.1. Recommendations

Based on the result of the study, the following recommendation was suggested: -

The military hospital managers should introduce educational and training programs to nurses' regarding initial assessment in the emergency department - Quality control personnel need designate posters about stander protocols and guidelines for initial assessment steps.

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