An Observational Study on TAT for Initial Assessment of Patients by Emergency Department at Multi-Speciality Hospital, Dehradun

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ABSTRACT

Now a days hospitals are facing one of the biggest problem related with first/initial encounter with patients. Due to increased patients flow it is not easy for hospitals to provide first/ initial assessment on time specially when it comes for emergency department. Patients coming to emergency department are most important patients for a hospital as they are more critical or need immediate treatment as compared to general OPD patients. Maximum of them required admission, surgical treatment so their initial assessment should be as soon as possible. If TAT for ED will increase than there will be longer stay of patient in emergency department which in turn will decrease patient satisfaction level. This project shows the root causes and remedies for delayed TAT for initial assessment of patients in ED.

KEYWORDS: Emergency department , TAT( turn around time), Initial assessment, patient satisfaction, Gap analysis.

OBJECTIVES

Following objectives were set while this observational study was conducted:-

- To check the workflow of emergency department
- To observe the TAT for initial assessment of patients
- To find out the root causes for delay
- To find out the possible interventions for the same.
- To find out patient satisfaction

INTRODUCTION

TAT means turn around time. It is the amount of time taken to complete a process or fulfill a request. Initial assessment of patients means the first interaction between the patient and the nurses where nurses examine the patient and write down his/her chief complaint , duration of that complaint, history, etc. Emergency department have a different workflow as compared with general OPD because here the patient is more critical and need quick initial assessment.
WORK FLOW OF EMERGENCY DEPARTMENT

1. Patient comes to Emergency Department
2. Triage is done
3. Initial assessment is done by doctor/nurse
4. Patient is being stabilized
5. Doctor decides whether patient should be admitted/discharged/referred
   - If patient is advised for admission than nurses/GDA shift the patient to ward/ICU decided by doctor according to patient’s condition
6. If higher centre is needed than patient is being referred
7. If patient refuses further treatment/admission than patient is being discharged LAMA

FIG: 1.1
TRIAGE - As patients can arrive at any time and with any complaint, a key part of the operation of an emergency department is the prioritization of cases based on clinical needs. This process is called triage.

TRIAGE: (for multiple patient scenes)

<table>
<thead>
<tr>
<th>Priority</th>
<th>Color</th>
<th>Condition</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Red</td>
<td>Immediate</td>
<td>Life threatening</td>
</tr>
<tr>
<td>2</td>
<td>Yellow</td>
<td>Urgent</td>
<td>Can delay up to 1 hour.</td>
</tr>
<tr>
<td>3</td>
<td>Green</td>
<td>Delayed</td>
<td>Up to 3 hours.</td>
</tr>
<tr>
<td>4</td>
<td>Black</td>
<td>Deceased</td>
<td>No care needed</td>
</tr>
</tbody>
</table>

FIG: 1.2

Triage is normally the first stage the patient passes through, and consists of a brief assessment, including a set of vital signs, and the assignment of a "chief complaint" (e.g. chest pain, abdominal pain, difficulty breathing, etc.).

INITIAL ASSESSMENT TIME DURATION BY NURSES/DOCTORS of ED:-
Initial assessment timings by emergency nurses should not exceed more than 15mins by the time patient arrives emergency department.
Initial assessment timings by emergency doctors should not exceed more than 30mins by the time patient arrives emergency department.

POSSIBLE CONSEQUENCES DUE TO DELAY IN INITIAL ASSESSMENT TIME:-
- Increased length of stay in ED.
- Decreased patient’s satisfaction
- Deny in bill payments.
- possibilities of LAMA may increase
- Patient’s health may deteriorate more
- Could be even fatal for critical patients.
RESEARCH METHODOLOGY
An observational study was done on the patients of emergency department of multi-specialty hospital, Dehradun for initial assessment TAT. A questionnaire was prepared for them. Verbal communication was choose to ask them those questions and tried to find out their reasons for delay.

POSSIBLE CAUSES OF DELAY DURING INITIAL ASSESSMENT
- Heavy rush/footfall of patients
- Unplanned footfall of patients
- Non availability of beds
- Non availability of emergency team
- Triage procedure
- Lack of co-ordination among ER team
- No information regarding upcoming patient by hospital’s own ambulance

QUESTIONNAIRE FROM PATIENT
1. Who first attended you while you entered in emergency department?
   - Nurses
   - Doctor

2. You came by your own vehicle or by ambulance?
3. Did your ambulance driver informed emergency department about your arrival?
   Yes
   No

4. What was your duration time gap between your arrival and initial assessment by emergency team?
   Less than 5-10 minutes
   More than 15 mins
   More than 30mins
5. You waited more than 15 minutes unattended due to
   Unavailability of bed
   Unavailability of emergency staff
   Heavy rush in emergency

**MOST FREQUENT REASONS FOUND OUT DURING SURVEY**
1. Unavailability of beds (40%)
2. Unavailability of emergency staff (0%)
3. Heavy rush (60%)
4. Lack of co-ordination among emergency team (0%)
5. No prior information of upcoming patient (1%)

**POSSIBLE INTERVENTIONS**
As we discussed earlier that patient coming to emergency department are more critical and need immediate treatment so it is very important to have a smooth workflow pattern without any hurdle in ED. Following could be some of the possible interventions-
- There should be co-ordination between emergency staff.
- GDA staff should always try to make beds ready for new patient as soon as possible.
- Prior information should be provided by the ambulance driver to the ED of upcoming patient.
- All ICUs, wards should be in good communication with emergency department.
- Lab investigations should be done on time so as to plan for further treatment modalities.

**CONCLUSION**
Although, it is not possible always to maintain a smooth workflow in ED due to unplanned footfall of patients but ED management should be in such a manner that patient’s safety and satisfaction should always be kept high. If our patient is not treated within time than it could make patient’s condition more critical and decreased satisfaction level which will in return affect our hospital’s image as well as revenue.
REFERENCES:

