



(RESEARCH ARTICLE)



## A study to assess the compliance to golden hour admission process for in-patient units at Apollo speciality Hospital, Vanagaram

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### Abstract

**Background:** The admission and discharge processes is the area where the patient encounter happens often and so tailback occurs in many of the hospitals and thus adversely affect the efficiency of the hospital. So this topic has been selected to capture the compliance of first golden hour.

**Methods:** Quantitative descriptive research design was adopted for this study. The study was conducted at Apollo Speciality Hospitals, Vanagaram for a duration of 3 months, 60 samples using simple random sampling who met the inclusion criteria were selected as study samples. Data collection tool such as socio demographic proforma and clinical variable proforma after obtaining ethical clearance, Socio- Demographic Data (Age in years, Sex, Marital Status, Education, Area of Work, Years of Experience) and clinical variables proforma of golden hour admission process such as Awareness on readiness of the room/ bed before receiving the patient, Charge Nurse / team leader met the patient in first 15 minutes, Diet order initiated within 15 minutes, Consultant is informed in first 15 minutes, Compliance on action taken by the charge Nurse / team leader within 15 minutes, Identity band is placed, Vital signs are recorded and acted accordingly in first 30 minutes, Investigations are initiated in first 30 minutes (if advised), Treatment is initiated in first 30 minutes (if advised), Nursing admission assessment is completed (as mentioned below) in first 30 minutes, Fall risk assessment is completed in first one hour of admission, Vulnerability band is placed, Skin assessment is completed in first one hour of admission, Care plan is initiated in first one hour was also observed

**Result:** The level of compliance to golden hours, No significant compliance (7%), Moderated Compliance (14 %) Highly Compliance (79%).

**Conclusion:** Compliance must be ensured. There is no right or wrong approach to improve the patient experience, but the reality is that patient experience is the responsibility of every member of the care team. Every interface and every service provided creates an opportunity to impact the experience.

**Keywords:** Hospital admission; Inpatient; Patient experience; Staff nurses; Charge nurses; Communication

### 1. Introduction

In the early 1980s, R. Adam Cowley, a U.S. military surgeon popularized the term "golden hour," words often used in trauma and emergency medicine settings.

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The first 60 minutes after traumatic injury has been termed the “golden hour.” The concept that definitive trauma care must be initiated within this 60-minute window has been promulgated, taught, and practiced for more than 3 decades; the belief that injury outcomes improve with a reduction in time to definitive care.

The admission and discharge processes is the area where the patient encounter happens often and so tailback occurs in many of the hospitals and thus adversely affect the efficiency of the hospital.

The patients getting admitted to the hospital require the highest possible quality of medical and nursing care facilities. After the patient complained of delay in services, patient experience felt comfortable the first few hours of admission. Hence this audit is done to check for the compliance of those activities and its TAT.

This study is done to check for the compliance of those activities and its TAT. The Compliance of admission golden hour includes Charge Nurse/ team leader met the patient in first 15 minutes, Diet order initiated within 15 minutes, Consultant is informed in first 15 minutes, Identity band is placed, Vital signs are recorded and acted accordingly in first 30 minutes, Investigations are initiated in first 30 minutes, Treatment is initiated in first 30 minutes, Nursing admission assessment is completed in first 30 minutes, Fall risk assessment is completed in first one hour of admission, Vulnerability band is placed, Skin assessment is completed in first one hour of admission, Care plan is initiated in first one hour. These checks are mandate for each patient to make the patient feel comfortable and delight in customer satisfaction.

A window of opportunity (also called a margin of opportunity or critical window) is a period of time during which some action can be taken that will achieve a desired outcome. Once this period is over, or the "window is closed", the specified outcome is no longer possible.

### *Objectives of the study*

To assess the compliance to Golden Hours Admission process.

**The variables:** Research variable is Compliance to Golden hour Admission process

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## **2. Material and methods**

Quantitative descriptive research design was adopted for this study.

### **2.1. Sampling technique**

Simple random sampling.

The study was conducted at Apollo Speciality Hospitals, Vanagaram for a duration of 3 months, 60 samples who met the inclusion criteria were selected as study samples.

### **2.2. Sample size**

60 samples

### **2.3. Sampling Criteria**

Convenient sampling who fulfilled inclusion criteria

- **Inclusion criteria:** The patients who are admitted in wards Apollo Speciality Hospitals, Vanagaram.
- **Exclusion criteria:** Patients treated in the Out-Patient Department, EMR, critical areas, OT

### **2.4. Data collection tool**

Data collection was started after obtaining ethical clearance,

- Socio- Demographic Data (Age in years, Sex, Marital Status, Education, Area of Work, Years of Experience)
- Clinical variables proforma of golden hour admission process such as Awareness on readiness of the room/ bed before receiving the patient, Charge Nurse / team leader met the patient in first 15 minutes, Diet order initiated within 15 minutes, Consultant is informed in first 15 minutes, Compliance on action taken by the charge Nurse

/ team leader within 15 minutes, Identity band is placed, Vital signs are recorded and acted accordingly in first 30 minutes, Investigations are initiated in first 30 minutes (if advised), Treatment is initiated in first 30 minutes (if advised), Nursing admission assessment is completed (as mentioned below) in first 30 minutes, Fall risk assessment is completed in first one hour of admission, Vulnerability band is placed, Skin assessment is completed in first one hour of admission, Care plan is initiated in first one hour was also observed.

## 2.5. Description of the tool

### 2.5.1. Admission process of the First Golden Hour

The first one hour of the patient admission to the unit is considered as first golden hour. That one hour is divided into Vital fifteen minutes, Essential second fifteen minutes, and Desirable thirty minutes.

### 2.5.2. Vital fifteen minutes of the golden hour

Once the admission information is received from the admission desk, ensure the allotted room is ready. Awareness on readiness of the room/ bed before receiving the patient, Charge Nurse / team leader met the patient in first 15 minutes, Diet order initiated within 15 minutes, Consultant is informed in first 15 minutes. Use AIDET script {A- Acknowledgement, I- Introduce yourself, D- Duration of the procedure, E- Explanation and T- Thankyou}. Make the patient comfortable. If the patient is in pain, conduct a pain assessment and inform the doctor. Charge nurse prescript could be carried out by the unit incharge {Blood investigation, diet, medication, preparation for Surgery}. Unit orientation like side rails, call bell, light, bathroom, nurses station and telephone. Explain Patient Rights & Responsibilities: explain the following: right to privacy, right to confidentiality of information, right to know about the identity of care givers, right to consult with a specialist for a second opinion, right to informed participation in health care decisions, right to receive care as per current accepted standards of quality, right to access to medical information, right to dignity, right to have arrangements made for religious and visitors policy, religious services, outside medication policy, and no smoking policy. Using the ISBAR communication tool, the charge nurse provides information to the consultant about the general condition, pain assessment, any critical information, etc.

### 2.5.3. Essential second fifteen minutes of the golden hour

Identity band is placed, Tell the importance of ID band patient that it will be checked before medication administration, sample collection, any investigation, blood transfusion, or any procedure. Check, if the patient has any known allergies, if so, tie an allergy band (Green) and mention the name of the allergy agent on the band. In the case of vulnerable patients (children below 16 years of age, the elderly above 65 years of age, pregnant women etc.), tie a Vulnerable band (Orange). Vital signs are recorded and acted accordingly in 15 minutes, Record the vitals and report deviations or critical findings immediately. Investigations are initiated in 15 minutes (if advised), Treatment is initiated in 15 minutes (if advised), Nursing admission assessment is completed (as mentioned below) in 15 minutes,

### 2.5.4. Desirable 30 minutes of the golden hour

Fall risk assessment is completed in 30 minutes {Apollo Fall Risk Assessment Tool}. Skin assessment is completed in 30 minutes, Care plan is initiated in 30 minutes. System wise orders to be for the diet, investigation and medications.

## 2.6. Data analysis

The data were analyze in terms of objectives of this study using descriptive and there is no inferential statistics

The plan for data analysis is as follows:

- Organization of data in master sheet / computer
- Demographic variables analyzed in terms of frequency and percentage.

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## 3. Results

This study was conducted to assess Compliance to Golden hour Admission process for In-Patient units at Apollo Speciality Hospital, Vanagaram

**Table 1** Frequency and Percentage Distribution of demographic variables

<b>Variables</b>	<b>F</b>	<b>%</b>
<b>Age in Years</b>		
30-40 years	23	38.4
41-50 years	12	20
51-70 years	16	26.6
70 & Above	9	15
<b>Religion</b>		
Hindu	28	46.6
Christian	17	28.4
Muslim	15	25
Others	0	0
<b>Marital Status</b>		
Married	34	56.6
Single	17	28.4
Divorced	6	10
Widowed	3	5
<b>Education</b>		
No formal Education	8	13.4
Primary	17	28.4
Secondary	22	36.6
Illiterate	13	21.6
<b>Co-morbidities</b>		
Diabetic	18	30
Hypertension	15	25
COPD	12	20
CKD	11	18.3
Others	4	6.6
<b>Occupation</b>		
Government	16	26.6
Private	17	28.4
Business	13	21.6
Home maker	14	23.4
<b>Number of Children</b>		
No Children	6	10
1 or 2	23	38.4
3 or more	31	51.6

<b>Mode of admission</b>		
From ER	24	40
From OPD	14	23.4
Direct admission	13	21.6
Transferred from other hospital	9	15
<b>Duration of stay</b>		
5-10 days	3	0.5
10-20 days	18	30
20-30 days	26	43.4
More than a month	13	21.6
<b>Patient prognosis</b>		
Discharged	27	45
Transferred to ward	13	21.6
Expired	11	18.4

Table 1, Fig 1 Majority of the patients were aged between 30-40 years (38.4%), 41- 50 years (20%), 51-70 years (26.6%), 70 & above (15%). In religious category Hindus are 46.6%, Christians are 28.4%, Muslim are 25%. In regards to marital status married are 56.6%, single is 28.4%, divorced are 10%. Widowed are 5%. In terms of education the patient with secondary education is 36.6%, primary education is 28.4%, no formal education is 13.4%. With regard to other variables, 30% were diabetic, 25% are hypertension, 20% COPD, 18% CKD. About the employment status 28.4% of them were private employees, 26.6 are government employee, 21.6% are business people and 23.4% are homemaker. In regards to number of children 51.6% of them had 3 or more children, 38.4% of them had 1 or 2 children and 10% had no children. 40% of them were admitted through ER, 23.4% are admitted from OPD, 21.6% got admitted directly, 15% were transferred from other hospital. 43.4% of them stayed 20-30 days, 21.6% stayed more than a month, 30% stayed 10- 20 days.

**Table 2** Frequency and Percentage Distribution of Compliance to golden hours admission process

<b>Variables</b>	<b>F</b>	<b>%</b>
Awareness on Golden hour	60	100
Awareness on Readiness of room before receiving the patient	58	96
Team/ Charge nurse meet the patient in first 15 minutes	55	91.6
Diet order initiation within 15 minutes	53	88.3
Consultant is informed in first 15 minutes	45	75
Identity band is placed	60	100
Vital signs are recorded in first 30 minutes	60	100
Investigation are initiated in first 30 minutes	51	85
Treatment initiated in first 30 minutes	51	85
Nursing admission assessment is completed in first 30 minutes	56	93.3
Fall risk assessment is completed in first one hour	57	95
Vulnerability band is placed	60	100
Skin assessment is completed in first one hour	52	86.6
Care plan is initiated in first one hour	53	88.33

Table 2, Fig 2 Almost all the staff were aware on golden hour, placement of ID as per the vulnerability band, recording the vital signs (100%). The awareness on readiness of room before receiving the patient and fall risk assessment was 95- 96%. The team leader meeting the patient in first 15 minutes and completion of nurses assessment happens for about 91- 93%. Diet initiation, carrying out the investigation, initiation of treatment, skin assessment and care plan was done about 85- 90%. First information to the consultant within 15 minutes happen by 75% only.

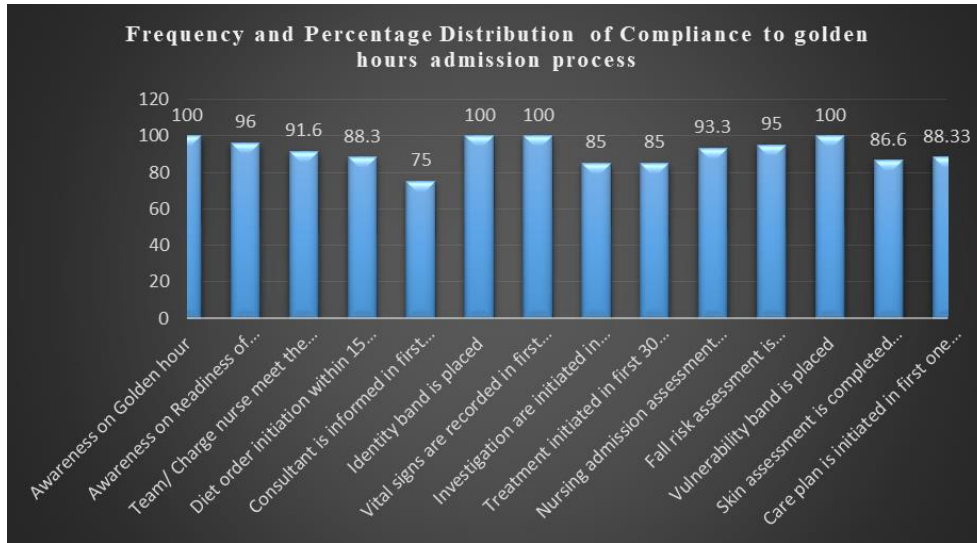


Figure 2 Frequency and percentage distribution of compliance to golden hour admission process

Table 3 Level of compliance to golden hours

No significant Compliance	0-5	7%
Moderate Compliance	6-10	14%
Highly Compliance	11-14	79%

Table 3 shows the level of compliance to golden hours, No significant compliance (7%). Moderated Compliance (14 %) Highly Compliance (79%).

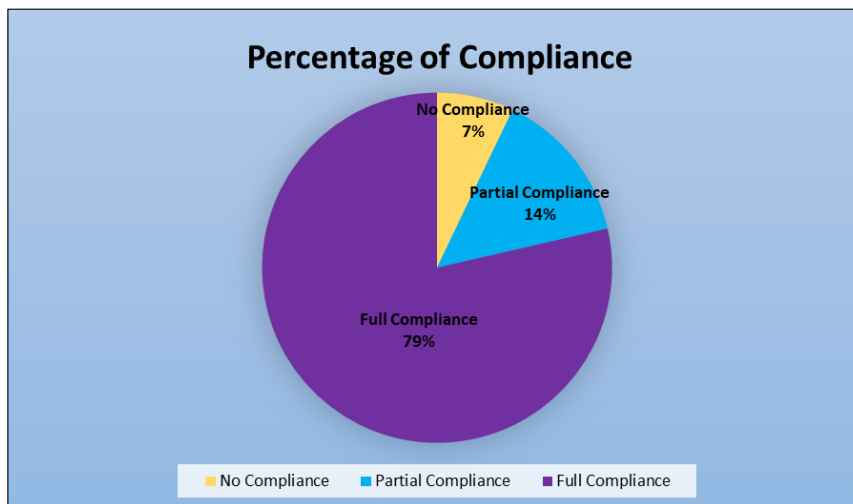


Figure 3 Level of compliance to golden hours

#### 4. Discussion

This study is done to check for the compliance of those activities and its TAT. These checks are mandate for each patient to make the patient feel comfortable and delight in customer satisfaction.

There were many other reasons through which we could achieve the TAT of the mentioned check list. We should work on all these situations to improve the patient experience and customer satisfaction. In the situation of high occupancy either priority should be given on golden hour of admission process or in some urgent situation priority can be given to the patient requiring immediate treatment. Patient dissatisfaction which will further effect the quality of the organization reducing customers and hence effecting revenue and profit.

The charge nurse shall meet the patient and attendant 3 times in the golden hour of admission. Charge Nurse/ team leader met the patient in first 15 minutes, Diet order initiated within 15 minutes, Consultant is informed in first 15 minutes, Identity band is placed, Vital signs are recorded and acted accordingly in first 30 minutes, Investigations are initiated in first 30 minutes, Treatment is initiated in first 30 minutes, Nursing admission assessment is completed in first 30 minutes, Fall risk assessment is completed in first one hour of admission, Vulnerability band is placed, Skin assessment is completed in first one hour of admission, Care plan is initiated in first one hour.

So the level of compliance is No significant compliance is 7%, Moderate Compliance is 14%, Highly Compliance is 79%.

It strongly elicits that these clinical variable proforma helps in enhancing the patient satisfaction. Compliance must be ensured. There is no right or wrong approach to improve the patient experience, but the reality is that patient experience is the responsibility of every member of the care team. Every interface and every service provided creates an opportunity to impact the experience.

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#### 5. Conclusion

We recommend that this study will enhance clinical outcome in patients, when informed and acted upon in a timely manner. The golden hour for a patient who walks into emergency or In- patient is truly golden when the vital parameters are monitored diligently and informed accurately to the treating team.

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#### Compliance with ethical standards

##### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

##### *Statement of ethical approval*

The present research work does not contain any studies performed on animals/humans subjects by any of the authors.

##### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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