Internship training

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Max Healthcare

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"A Study On Surgical Bed Utilisation In Economy Ward, Ground Floor, Max Super Speciality Hospital"

By

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INTRODUCTION

1. Bed Occupancy Rate.

It is calculated by the following formula

$$BOR(\%) = \frac{\text{Cumulative IP days} \times 100}{\text{Number of Beds} \times \text{days}}$$

Bed occupancy ratio reflects the popularity of the hospitals in terms of Inpatients. The level of occupancy also varies with the type of facilities available in the hospital. Usually larger the number of beds, the larger is the number of Doctors also. As a result more facilities are provided and the level of medical care tends to be of a higher magnitude. Given this, it is normally the case that the bed occupancy ratio in District Hospitals is higher than the bed occupancy ratio in the Area and Community Health Centers. The bed occupancy ratio, and in general, the utilization of hospitals is also set to vary with the medical facilities available in the private sector.

2. Turn Over Rate

It is calculated by the formula

$$TOR = \frac{\text{No. of Admissions}}{\text{No. of Beds}}$$

The turn over rate essentially defines the period for which a bed is occupied. As against the number of beds occupied which is indicated by the bed occupancy ratio, the turn over rate indicates the speed with which patients on any bed are rotated. Obviously the more complicate the case dealt with by the hospitals, the smaller the turn over rate. Too large a turn over rate indicates that only simple type of treatment is being provided. Too small a turn over rate would indicate fewer people utilizing the hospital and patients being unnecessarily retained on the premises. Both are not desirable. However in the case of hospitals dealing with chronic diseases like T.B. and so on, a low turn over rate is a must. Given these facts, it is obvious that on the average the turn over rate of a District Hospital should be lower than the turn over rate of a Community Health Center.

3. Average Length of Stay .

It is calculated by the formula

$$AVLS = \frac{\text{Cumulative IP days}}{\text{No. of Admissions.}}$$

The average length of say is a parameter similar to the turn over rate and is inversely related. The average length of stay as the name suggests represents the time the patient is retained in the hospital. As in the case of the turn over rate, a longer average length of stay is to be expected in the case of hospitals having better facilities such as the District Hospitals. In the case of Community Health Centers where the level of treatment in general is lower, the average length of stay is likely to be less.

Bed occupancy and the ratio of beds per population remain predominant metrics in hospital capacity planning. There are several problems associated with this approach. Most importantly, bed numbers or bed occupancy do not provide a good measure of the services provided inside hospitals, given the wide variation in case mix and thus treatment costs of those occupying the beds, nor are they suitable for predicting future demand. The measure implies that the bed is the core piece of capital stock in the hospital, constraining the performance of the other assets around it. The near universal trend towards growing numbers of day cases and shorter lengths of hospital stay further invalidates beds as a measure of capacity.

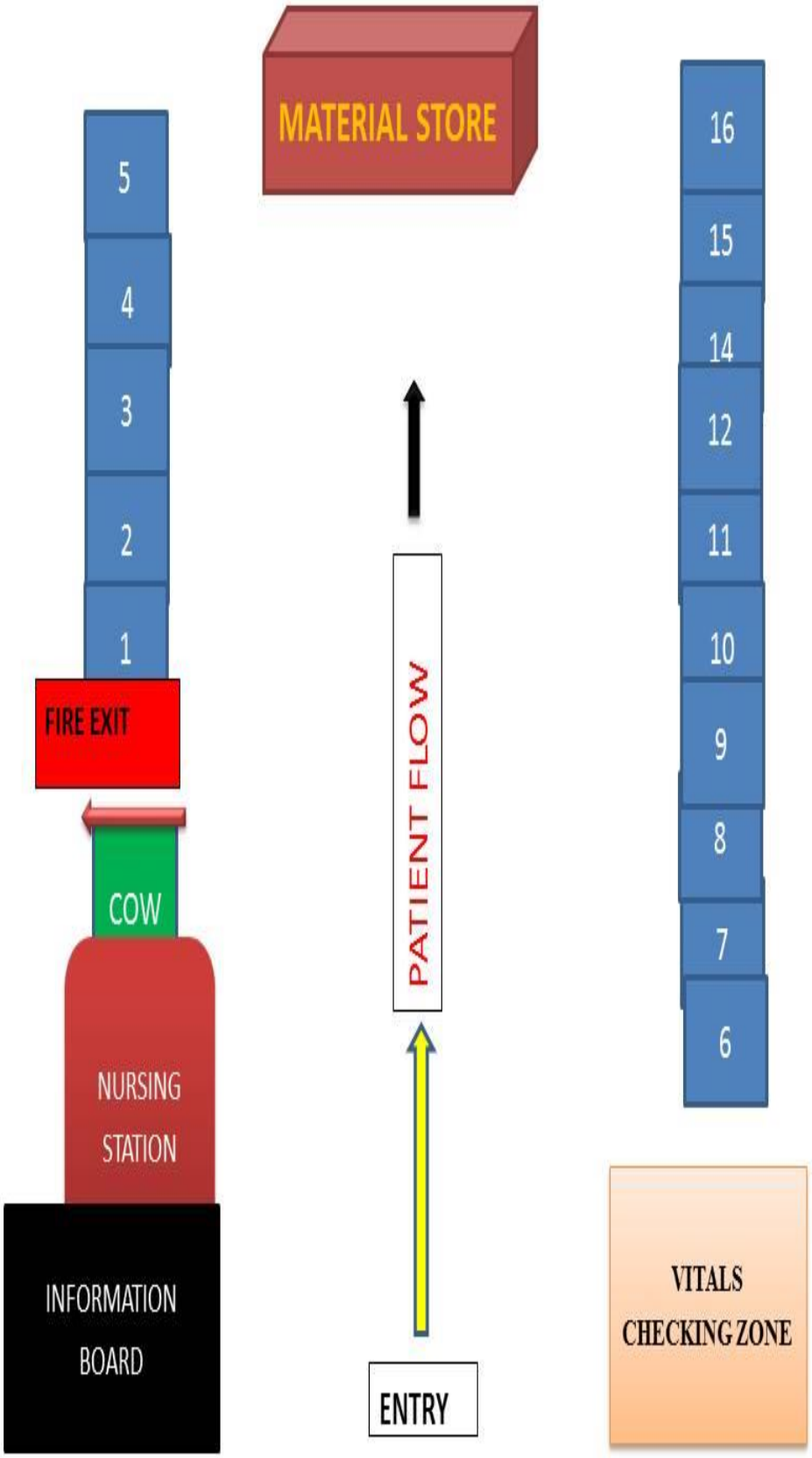
Traditionally, hospitals were designed around specialties and departments rather than around the needs of patients. Patients often spend most of their time in hospitals waiting for something to happen, with large areas provided for this inactivity. The situation is often exacerbated by the inefficient management of admission and discharge. A consequence is that in many hospitals the flow of patients is inefficient, dislocated and disorganized. Yet poor patient flow impairs patient and staff satisfaction, and the effective utilization of resources. Several factors, including the growing complexity of treatment and a willingness to see the care process from the patient's perspective, have rendered this situation unacceptable, leading to demands for care models based on syndromes, care processes and patient pathways.

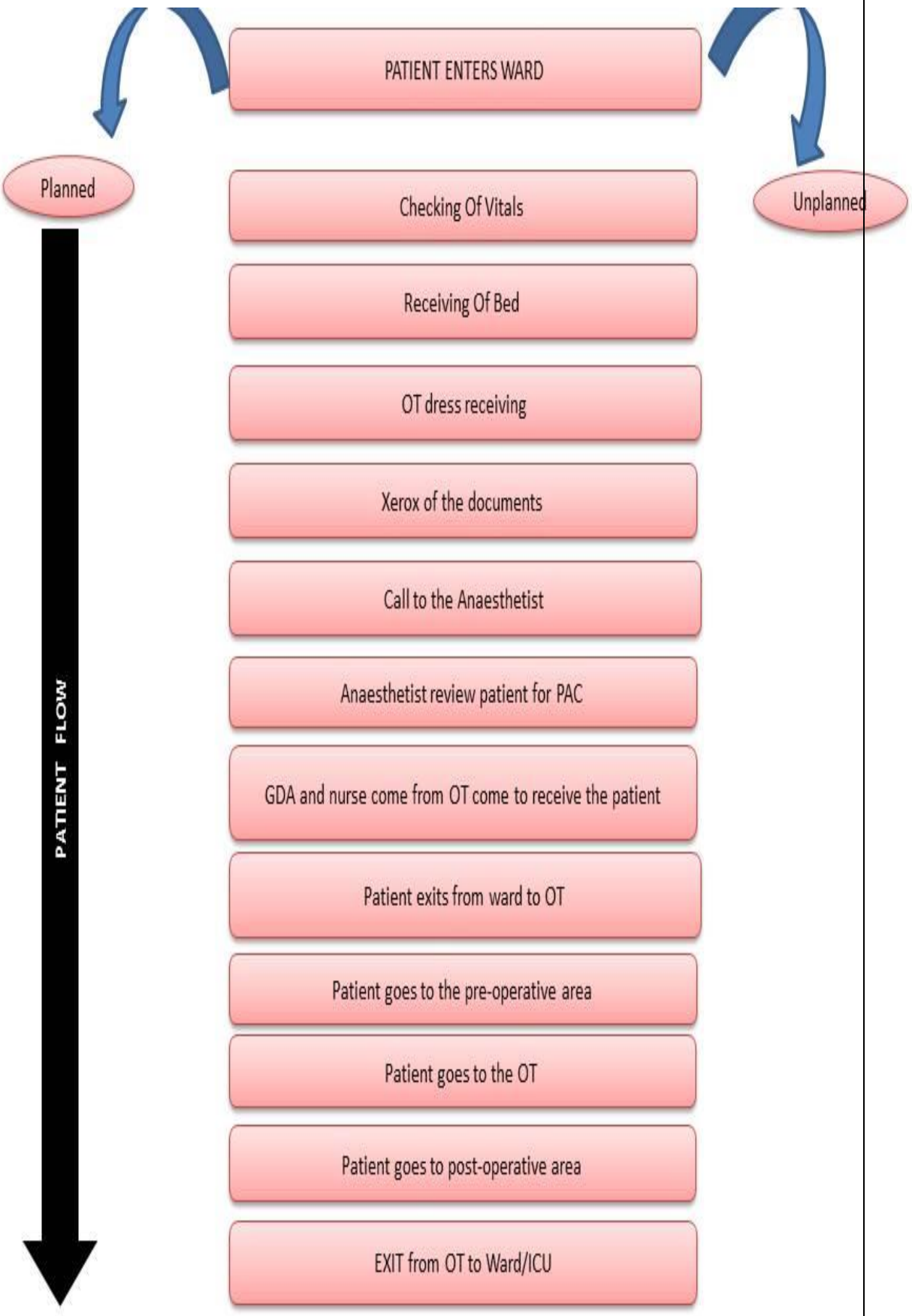
A major implication of applying management theory to health care is the need to separate different flows of patients, work and goods, enabling each to move according to its own logic and pace. For hospitals, this means that the focus should not be on similar clinical conditions but rather on similar processes. Improving patient flow has major implications for our understanding of hospital capacity. Rather than counting beds, a new definition of capacity could start from a description of the pathways travelled by patients, whether in batches or as flows, followed by identification of those elements that can constrain them (the bottlenecks). In some cases, this could be the number of beds but in others it will be operating theatres, diagnostic equipment or particular specialist staff – in each case, these depend on the particular site and its relation to the local health-care economy. It is necessary to examine how these elements are configured within and outside hospitals, recognizing that many pathways will join together at bottlenecks, such as in operating theatres, before going their separate ways. The key to successful capacity planning is then to ensure that each patient travels along the shortest (or least costly) path possible within the network, encountering as few delays at bottlenecks as possible.

The principal management-controlled factors affecting bed utilization are the allocation of beds, patient placement, and patient admissions policies. Bed allocation means assigning beds to various patient categories according to medical specialty, accommodation type, and logistical considerations; presumably, patient needs, research goals, and educational requirements are taken into account, along with cost. Patient placement policies are rules indicating which patients can be put into which beds. Admissions policies deal with controlling patient demand and -mix through combinations of elective, waitlisted, and emergency admissions, and within-hospital patient transfers.

Interaction is high among most of the service areas of a hospital in terms of bed usage. Furthermore, allocation changes often have personnel and equipment implications for the concerned specialty areas and for the supporting ancillaries as well. Accordingly, reallocations must be analyzed carefully, even in hospitals with a uniform utilization problem (i.e., all services overutilized or all of them underutilized). In hospitals with mixed utilization problems, reallocations cannot be merely a matter of adding beds to those services where demand is high and removing them where demand is low. Attention must be paid to the character of the hospital, its physician and patient mix, service interactions, and the nature of anticipated demand. Our study was done in the economy ward located on the ground floor of east block of Max Super speciality Hospital. The economy ward is a 15 bedded ward .The patients undergoing general surgery, ENT surgery, Internal medicine and post-surgery are admitted here. There are seven nurses working in three different shifts which are morning(8:00a.m to 2:00a.m.), evening(2:00p.m to 8:00p.m) and night(8:00 p.m. to 8:00 a.m).There are two staff nurses and one team leader in the morning shift, two staff nurses each in evening and nigh shift. This ward is for providing services to economically weaker section patients but due to unavailability of the beds in other wards of the hospital, patients (cash/TPA) from these wards are admitted in the economy ward.

The layout of the economy ward is as follows:-


MATERIAL STORE
5
4
3
2
1
FIRE EXIT
COW
NURSING STATION
INFORMATION BOARD
PATIENT FLOW
ENTRY
16
15
14
12
11
10
9
8
7
6
VITALS CHECKING ZONE


PATIENT ENTERS WARD
Planned
Unplanned
PATIENT FLOW
Checking Of Vitals
Receiving Of Bed
OT dress receiving
Xerox of the documents
Call to the Anaesthetist
Anaesthetist review patient for PAC
GDA and nurse come from OT come to receive the patient
Patient exits from ward to OT
Patient goes to the pre-operative area
Patient goes to the OT
Patient goes to post-operative area
EXIT from OT to Ward/ICU

REVIEW OF LITERATURE

The availability of hospital bed has always been a problem in developing countries. The availability of beds is perhaps the most important single factor in determination of the hospital utilization in a country. In India, shortage of hospital beds in a huge problem, the average bed population ratio being 6.8 / 10,000.Moreover the cost of construction of a new bed is also to an extent of Rs. 50,000 to Rs. 100,000 added to its huge maintenance cost. This situation is further deteriorated by population explosion, increasing the flow of patients and rising demand for hospitalization. On the other hand, hospital facilities may not be fully utilized due to a multitude of factors, including medical and social customs.

Bed in this context represents not simply a place for the patient to sleep but the services that go with being cared for by the medical facility that is admission processing, physician time, a nursing care, necessary diagnostic work, appropriate treatment and so on.

Bed utilization the number of hospital beds occupied by patients expressed as a percentage of the total beds available in the ward, specialty, hospital, area, or region. It is used to assess the demands for hospital beds and hence to gauge an appropriate balance between demands for health care and number of beds.

The role of the hospital can be fully studied only by taking into consideration all aspects of hospital service, that is by including the services to the community on an out-patient as well an in-patient basis. However, the concept of "hospital utilization statistics" is relatively less known in our country.

Various indices are utilized in the assessment of hospital utilization. Hospital bed utilization indices will provide trends and pattern of hospital utilization. Davis and Macula (1996) have described the indices related to hospital :-

Average length of stay (ALOS)

Bed occupancy rate (BOR)

Bed turnover interval (BTI)

Shortage of beds can result in cancellation of admissions for planned(elective) surgery, admission to inappropriate wards(like surgery patients in medical wards) and transfer of existing in patients between wards which will add a day to a patient length of stay. To maintain a certain occupancy rate, depends upon several factors of hospital as hospital size, number of non-substitutable patient facilities, the present of non-urgent beds, the number of hospital serving an area.

In the UK during 1997–98, average bed-occupancy levels varied between around 50% and 99%.However, most National Health Service (NHS) acute trusts reported periods during which inpatient bed demand exceeded availability. At those times, emergency patients were more likely than usual to be assessed and have treatment initiated in EDs before moving to an inpatient ward. Furthermore, those hospitals with higher average bed-occupancy rates cancelled a significantly higher proportion of elective operations

and had longer delays in the transfer of patients from the Emergency department to inpatient beds. It was acknowledged that “hospitals with average occupancy levels above 85 per cent can expect to have regular bed shortages and periodic bed crises”. It has been suggested that reducing bed-occupancy rates below a “threshold” level should reduce excessive waiting times in Emergency Departments.

Observations made within the NHS have been used to develop a discrete-event stochastic simulation model to study the relationship between demand and available hospital bed capacity. This model suggests that there is a discernible risk of a hospital failing to provide sufficient beds, and thereby safe, efficient care, when average bed occupancies exceed 85%. A hospital with an average bed occupancy of 85% would be expected to “be short of beds for admissions on four days in a year”, with disruption of normal function of up to 8 weeks. The authors concluded that “spare [bed] capacity is essential if an emergency admissions service is to operate efficiently and at a level of risk acceptable to patients”. In 2005, the average hospital bed-occupancy rate was shown to be 84% in the UK compared with 64% in the Netherlands, with the same number of acute beds per head of population in both countries. In the Netherlands, where, notably, nursing home patients have access to care that avoids the need for admission in an acute facility, admission decisions were not affected by bed pressures.

Reducing hospital beds: what are the lessons to be learned?

- Martin McKee

The most effective, if difficult, way to reduce the need for hospital beds is to enhance the health of the population. In the short term, however, two broad categories of intervention may be effective: preventing admission and facilitating rapid discharge. The evidence concerning the effectiveness of particular interventions has been reviewed by Hensher et al. (35). In brief, inappropriate emergency admissions are most easily avoided by establishing a variety of systems, including medical observation units, to direct patients to more appropriate settings. Non-urgent admissions may be prevented by shifting from inpatient to ambulatory diagnosis and treatment. However, the greatest gains are likely to come from policies designed to facilitate earlier discharge. They require the creation of a wide range of alternatives to hospital care, including nursing homes and intensive interventions in the home. However, the authors concluded that most interventions intended as alternatives to hospital care actually complement it, so that the total volume of activity increases. Furthermore, many interventions designed to support patients in the community either are no cheaper or are more expensive than hospital care. A Cochrane Review of the effectiveness of discharge planning (36) found some evidence that it may reduce the length of hospital stays, and may in some cases reduce readmissions. However, although few of the studies had conducted formal economic analyses, there was no evidence that discharge planning reduced health care costs. Another review comparing hospital-athome schemes with conventional inpatient care (37) concluded that, while such schemes can reduce the number of acute bed days, they prolonged the overall period of care and provided no cost savings. A growing number of evaluations have examined packaged care in which patients with common conditions are actively managed according to protocols, supported by system redesign to ensure coordination among the various inputs required.(38, 39) These packages do appear to reduce lengths of stay or costs.A strategy to reduce hospital bed capacity

should include policies to reduce inappropriate admissions, make the provision of inpatient care more effi cient and facilitate quicker discharges. It will often require the development of alternative facilities and services, and even though bed numbers decrease, the overall cost to the health system might not. Reductions in capacity often have adverse effects on health care staffs. Such problems can be mitigated by good communication and recognition of the increased workload that accompanies reductions

BED OCCUPANCY RATE AND LENGTH OF STAY OF PATIENTS IN MEDICAL AND ALLIED WARDS OF A TERTIARY CARE HOSPITAL

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A cross sectional study of two months' duration was carried out in eight medical and allied wards of Liaquat University Hospital (LUH) Jamshoro with objective to estimate the bed occupancy rate and the average length of stay of patients. Data was collected by filling a pre-designed check list and bed occupancy rate and average length of stay were computed. Associations were analysed by using SPSS version 16. The p-value ≤0.05 was taken as level of significance.

Results: One hundred & seven admissions were recorded against 235 available beds. Average bed occupancy rate was 51.33%. The 51.4% of the patients in medical wards except paediatrics ward were of the age >50 years; the mean age was 45 years and standard deviation±6.4 years. Mean age in paediatrics was 3.89 years and standard deviation of±0.8 years. 55.1% patients had infectious diseases. The 32.7% patients stayed in hospital for up to 3 days showing significant association between nature of diseases and duration of stay (p=0.03). There was male preponderance, i.e., 54.2% males against 45.8% females. Showing significant association between gender and length of stay (p=0.01)

DISCUSSION Providing a necessary care to a sick person outside home, i.e., in a hospital dates back to nearly 300 century BC7 ; therefore with such an old history, the level and distribution of beds among various wards in a health facility are a matter of continued public interest8 . A hospital bed is both a scarce and expensive commodity in healthcare. Administrators running hospitals are in a dire need of objective measures and methods for efficient management of their material resources in the light of limited financial resources. Bed utilization rates can be of immense help in realistic and effective decision making. 9 The present study was undertaken to explore utilization of beds in a tertiary care hospital in Jamshoro. The health care facilities in Pakistan can be divided into public and private sectors. It is estimated that in 77% of all health care facility visits, people prefer to approach private health facilities. 10 According to 2009 government statistics, there were about 14,000 health institutions nationwide with a total of more than 100,000 hospital beds. 10 The occupancy rate is a calculation used to show the actual utilization of an inpatient health facility for a given time period. This information is also very useful for health planning purposes. 11 It also helps in calculating the cost allocation. The cost allocation /bed /day in local currency were estimated by World Health Organization (WHO) as being six hundred & sixty six rupees. 12 The bed occupancy rate & average length of stay in hospital are the two most

important indicators of the health services utilization. Empirically, the average occupancy rate is positively J Ayub Med Coll Abbottabad 2015;27(2) http://www.jamc.ayubmed.edu.pk 369 related to the admission rate in a hospital. 8 Bed Occupancy Rate (BOR) is the percent of occupancy obtained by dividing the average daily census, i.e., the number of available beds in a particular ward. The average length of stay in a ward is an indicator which measures the average duration of hospital stay of admitted patients. In our study the bed occupancy rate was 51.33% in all medical and allied wards. Keegan A cited in his article that in the department of health in United Kingdom had studied that bedoccupancy rates exceeding 85% in acute care hospitals were associated with problems in handling both emergency and elective admissions. 5 A very high bed occupancy rate damages the quality and safety of in-patient care. Bed utilization is at its most efficient when it is not allowed to exceed 85 percent. 13 A study with the same objective concluded that risks were discernible when average bed occupancy rates exceeded about 90%, and an acute hospital can expect regular bed shortages and periodic bed crises if average bed occupancy rises to 90% or more. 14 In our study, the bed occupancy varied from 66.2% in medicine wards, 54.05% in paediatrics wards, 19.3% in chest medicine and 17.5% in dermatology ward. The reason for higher bed occupancy in medicine wards could not be pin pointed but it was seen that there were more number of infectious cases admitted in the medicine wards. There were 55.1% participants in medical ward have had infectious health problems, The concomitant higher rates of bed occupancy and infectious cases reporting in medicine ward had an associative link (p=0.01). This was endorsed by another research which concluded that hospital overcrowding (high bed occupancy) contributes significantly to the rate of hospital-acquired infections, and hand-hygiene compliance falls as the indications for hand washing increase during periods of understaffing and high workload. 15 Tariq M et al reported that infections including septicaemia and pneumonia were the leading causes of hospital admissions and mortality in our setting, followed by non-communicable diseases. 16 We found 42.1% patients admitted in medicine wards diagnosed as non-infectious cases. Regarding the length of stay in medical and allied wards, the maximum number of the patients (32.7%) remained admitted in hospital for up to 3 days, 29.9% up to 7 days, 14% up to 10 days and 23.4% patients remained admitted for period varying from10–30 days. Statistically significant association was observed between length of hospital stay and the nature of diseases (p=0.03). Chiswick Br stated that eliminating inappropriate hospital stay decreased the hospital costs and the risks of nosocomial infection and spared available resources for patients reporting with more critical conditions. 8 Our study revealed a little male preponderance among total admissions in all medical and allied wards, i.e., 54.2% males against 45.8% females. Rahman M et al also reported that male's admission rate was higher than female admissions in the hospitals throughout the year. 17 We however did not find any significant association between these two variables (p=0.1). However, there was however significant association between gender and length of stay in hospital (p=0.01). We found average length of stay in all medical wards as 10.6 days with the highest length of stay in paediatrics ward (15.1 days) followed by medicine wards (8.4 days). In one of the study conducted by Clements A, the average length of stay in hospital was reported as 4.74 days. 15 It was in contrast to our findings, the reason for this gross difference in length of stay was not obvious but lesser availability of diagnostic work ups for the in-patients in our set up could be one of the reas`ons. Regarding age of the patients, excluding the paediatrics wards, 51.4% of the patients in our study area of medical wards belonged to the age group >50 years. The mean age of the patient admitted in medical wards was 45 years and it varied around standard

deviation of±6.4 years. In the paediatrics ward, the mean age was 3.89 years with standard deviation of±0.8 years. Usman M et al in their research found the mean age of admitted patients as 56.6 years with average length of stay 5.4 days. The highest length of hospital stay was seen among patients age groups 40– 60 years. 18 We found that among medical wards the more the age of patient, the higher was the admission rate (p=0.03) and longer stay in hospital (p=0.001). Our finding was also endorsed by Majeed M U et al19 and Homas T H20 .

CONCLUSIONS AND RECOMMENDATIONS The present data suggested that in terms of bed occupancy rate the medical and allied wards were found to run in optimal capacity which, however the average length of stay of patients appeared to be relatively longer which needs a separate research that may lead the management to take appropriate measures to reduce patients long hospital stay and make the tertiary care hospital to further improve the quality of services

RATIONALE

This report is intended to find out the utilisation of the beds. In the economy ward, 5 out of 15 beds are being reserved for the surgery patients whether planned or unplanned, irrespective of patients turning up or not. With the help of this study we want to check whether advance blocking the bed is required or not. And if required, then how many beds should be blocked? This study will also help us to analyse whether there is a delay in the process of patient flow and the reasons for this delay.
This delay leads to bed-blockage which further results in ineffective utilisation of the beds and improper usage of hospital resources.

OBJECTIVES:-

GENERAL OBJECTIVE:-

- To observe the patient flow from “entry into the ward” and “exit from OT”.

SPECIFIC OBJECTIVE:-

- To check the effective utilisation of beds booked for the surgery patients in the economic ward.
- To examine the areas of delay and reasons behind it, at each and every level of the process flow.

METHODOLOGY

- ***Type of study :*** Descriptive cross-sectional
- ***Study population***: Planned/unplanned surgery patients, nurses, anaesthetist, surgeons in the economic ward at Max Super Speciality Hospital, Saket , Delhi.
- ***Study area*** – Economy ward ,East wing, Saket, Delhi
- ***Duration of Study***– 02 months.(1st March, 2017 to 30th April 2017)
- ***Type of Data*** - Quantitative
- ***Technique*** – Direct observation to track the patients from entering the ward and coming back from OT.
- ***Sample size*** –50 patients.
- ***Sampling technique***- Non probability sampling
- ***Inclusion criteria***-
    - All Surgery In-Patients, Nurses, Anaesthetist, Surgeons present in Economy ward, East wing, Max Hospital, Saket from 1th March to 30th April, 2017.
- ***Exclusion criteria***-
    - Other patients and doctors in the economy ward.

- ***Data collection*** - Quantitative (2 Month)
- ***Data entry***- Manually
- ***Data Analysis***- Using bar charts, pie charts, line charts.

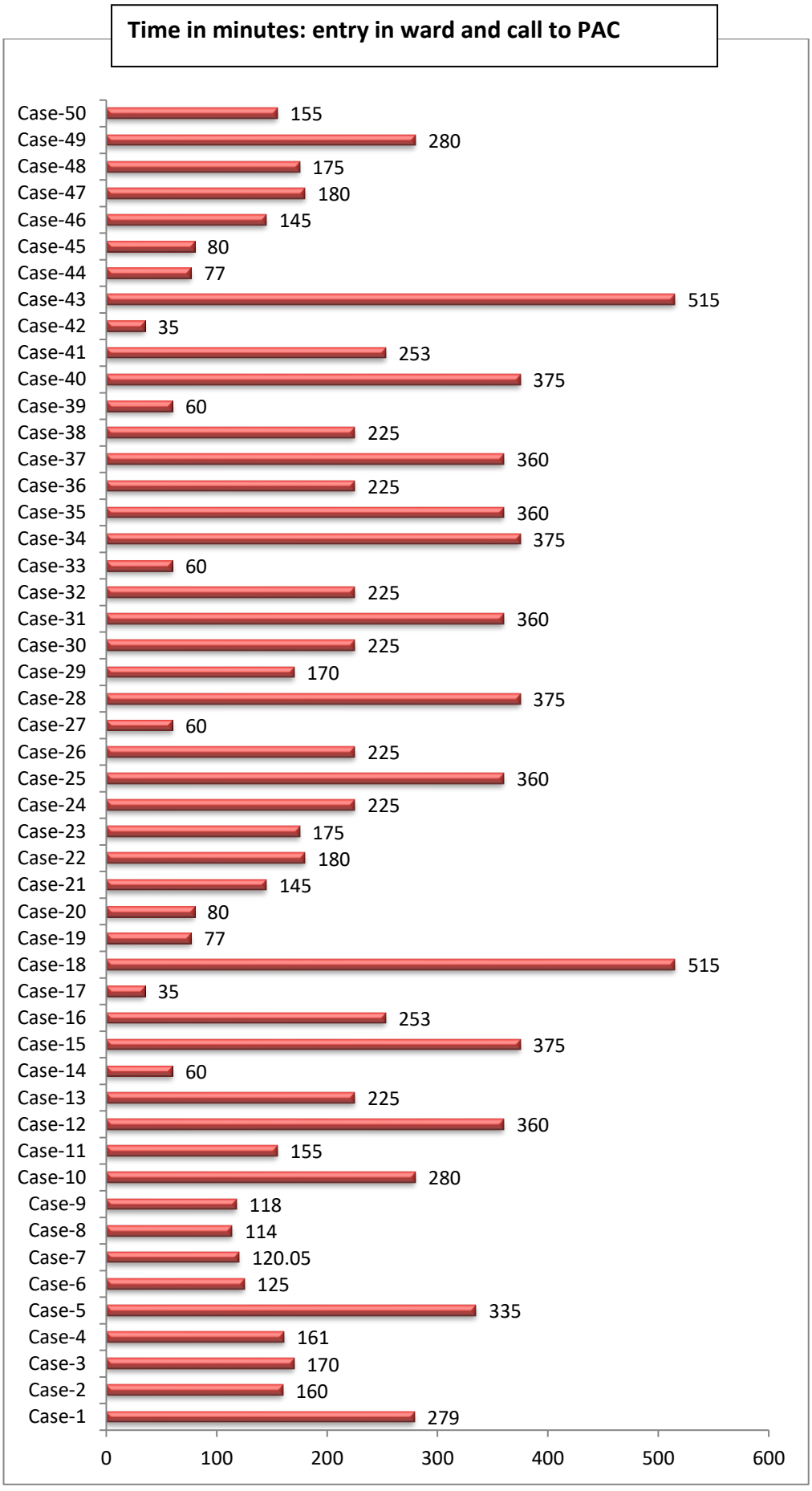
DATA ANALYSIS – using Bar Graphs

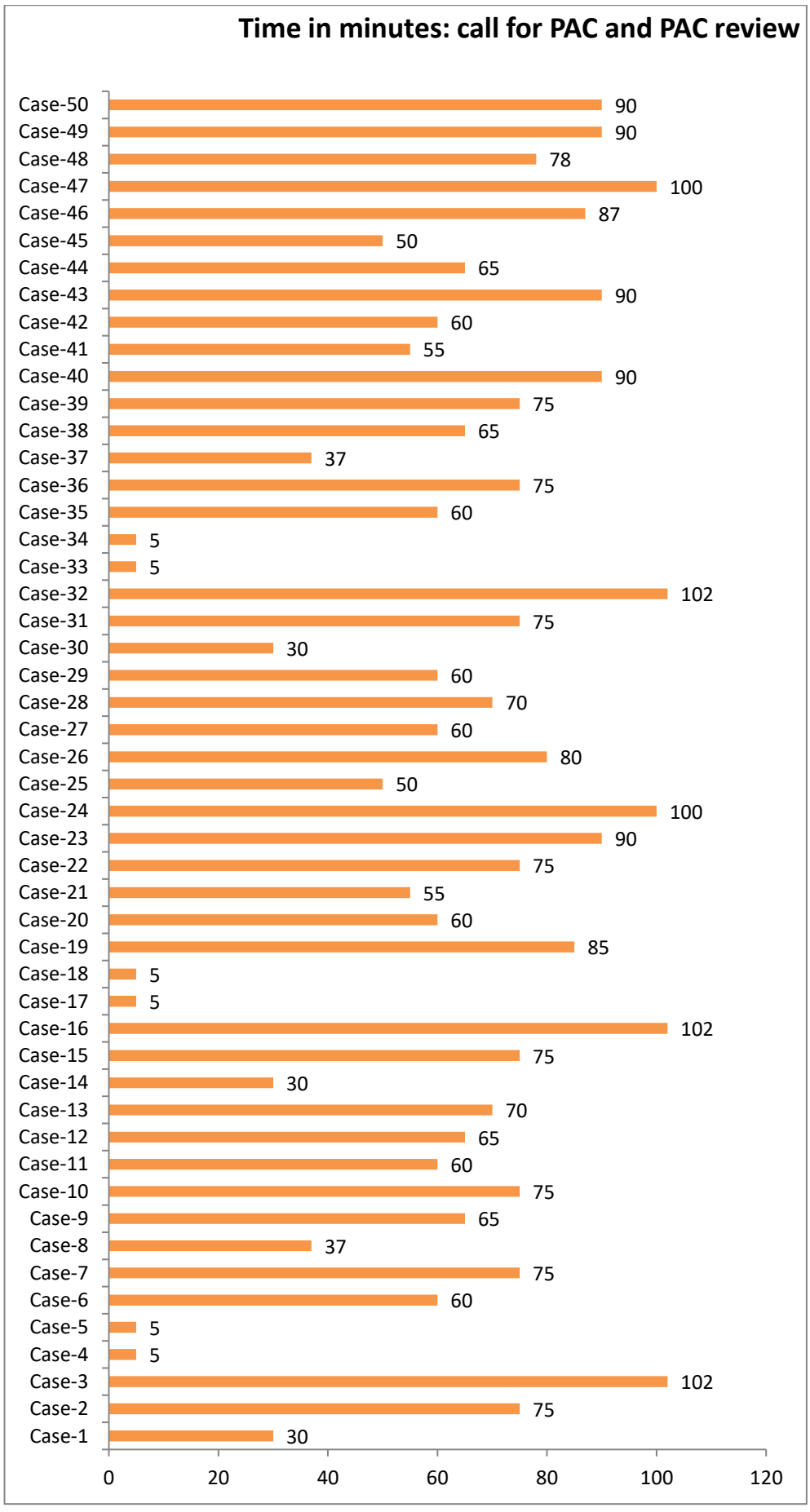
FIGURE -1: Graph showing the time gap (in minutes) between entry of patients to ward and call for PAC

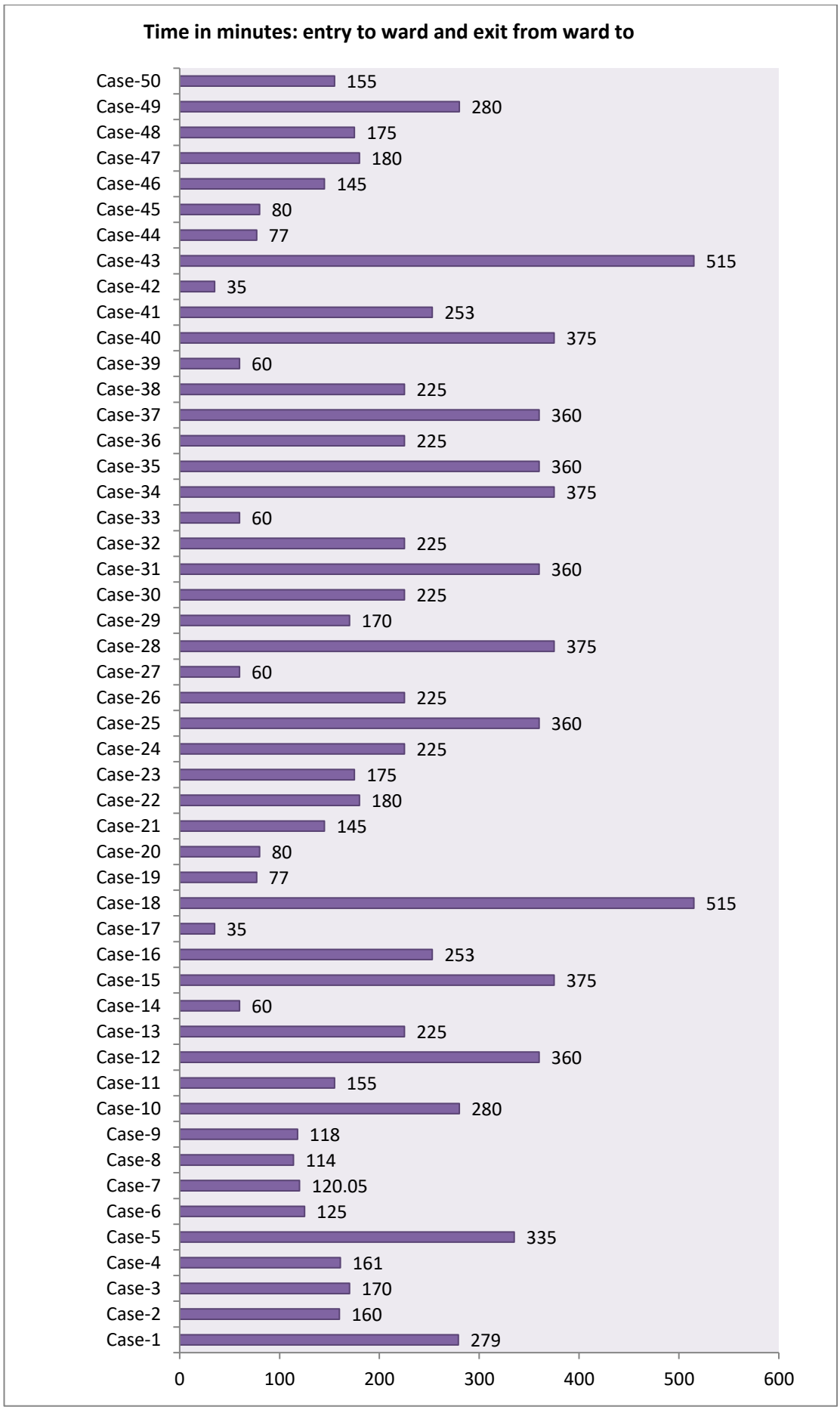
FIGURE -2: Graph showing the time gap (in minutes) between call for PAC and PAC review.

FIGURE -3: Graph showing the time gap (in minutes) between entry of patients to ward and exit from ward to OT.

FIGURE - 4: Graph showing the time gap (in minutes) between entry of patients to OT and exit from OT.


Time in minutes: entry in ward and call to PAC
Case-50 155
Case-49 280
Case-48 175
Case-47 180
Case-46 145
Case-45 80
Case-44 77
Case-43 515
Case-42 35
Case-41 253
Case-40 375
Case-39 60
Case-38 225
Case-37 360
Case-36 225
Case-35 360
Case-34 375
Case-33 60
Case-32 225
Case-31 360
Case-30 225
Case-29 170
Case-28 375
Case-27 60
Case-26 225
Case-25 360
Case-24 225
Case-23 175
Case-22 180
Case-21 145
Case-20 80
Case-19 77
Case-18 515
Case-17 35
Case-16 253
Case-15 375
Case-14 60
Case-13 225
Case-12 360
Case-11 155
Case-10 280
Case-9 118
Case-8 114
Case-7 120.05
Case-6 125
Case-5 335
Case-4 161
Case-3 170
Case-2 160
Case-1 279
0
100
200
300
400
500
600


Time in minutes: call for PAC and PAC review
Case-50 90
Case-49 90
Case-48 78
Case-47 100
Case-46 87
Case-45 50
Case-44 65
Case-43 90
Case-42 60
Case-41 55
Case-40 90
Case-39 75
Case-38 65
Case-37 37
Case-36 75
Case-35 60
Case-34 5
Case-33 5
Case-32 102
Case-31 75
Case-30 30
Case-29 60
Case-28 70
Case-27 60
Case-26 80
Case-25 50
Case-24 100
Case-23 90
Case-22 75
Case-21 55
Case-20 60
Case-19 85
Case-18 5
Case-17 5
Case-16 102
Case-15 75
Case-14 30
Case-13 70
Case-12 65
Case-11 60
Case-10 75
Case-9 65
Case-8 37
Case-7 75
Case-6 60
Case-5 5
Case-4 5
Case-3 102
Case-2 75
Case-1 30
0 20 40 60 80 100 120


Time in minutes: entry to ward and exit from ward to
Case-50 155
Case-49 280
Case-48 175
Case-47 180
Case-46 145
Case-45 80
Case-44 77
Case-43 515
Case-42 35
Case-41 253
Case-40 375
Case-39 60
Case-38 225
Case-37 360
Case-36 225
Case-35 360
Case-34 375
Case-33 60
Case-32 225
Case-31 360
Case-30 225
Case-29 170
Case-28 375
Case-27 60
Case-26 225
Case-25 360
Case-24 225
Case-23 175
Case-22 180
Case-21 145
Case-20 80
Case-19 77
Case-18 515
Case-17 35
Case-16 253
Case-15 375
Case-14 60
Case-13 225
Case-12 360
Case-11 155
Case-10 280
Case-9 118
Case-8 114
Case-7 120.05
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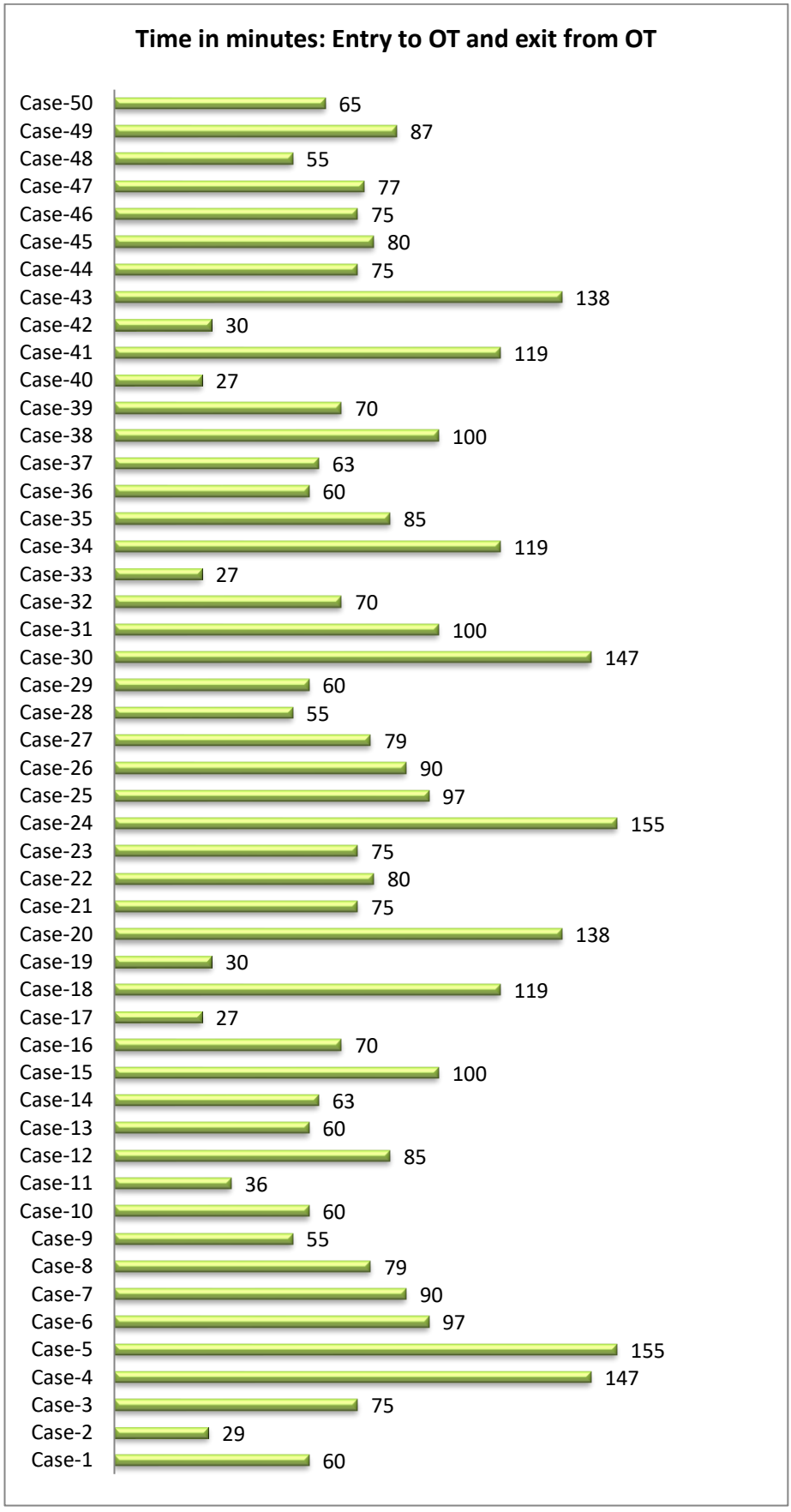
400
500
600


Time in minutes: Entry to OT and exit from OT
Case-50 65
Case-49 87
Case-48 55
Case-47 77
Case-46 75
Case-45 80
Case-44 75
Case-43 138
Case-42 30
Case-41 119
Case-40 27
Case-39 70
Case-38 100
Case-37 63
Case-36 60
Case-35 85
Case-34 119
Case-33 27
Case-32 70
Case-31 100
Case-30 147
Case-29 60
Case-28 55
Case-27 79
Case-26 90
Case-25 97
Case-24 155
Case-23 75
Case-22 80
Case-21 75
Case-20 138
Case-19 30
Case-18 119
Case-17 27
Case-16 70
Case-15 100
Case-14 63
Case-13 60
Case-12 85
Case-11 36
Case-10 60
Case-9 55
Case-8 79
Case-7 90
Case-6 97
Case-5 155
Case-4 147
Case-3 75
Case-2 29
Case-1 60

INTERPRETATION

INTERPRETATION: FIGURE -1

The maximum time gap observed between entry to ward and call to PAC is 51 minutes and mean time is 23.44 minutes.

INTERPRETATION: FIGURE- 2

The maximum time gap recorded between anaesthetist call and PAC review is 102minutes and the mean time is 62.2 minutes.

This time gap contributes to one of the major reasons of the delay in the patient flow

INTERPRETATION: FIGURE - 3

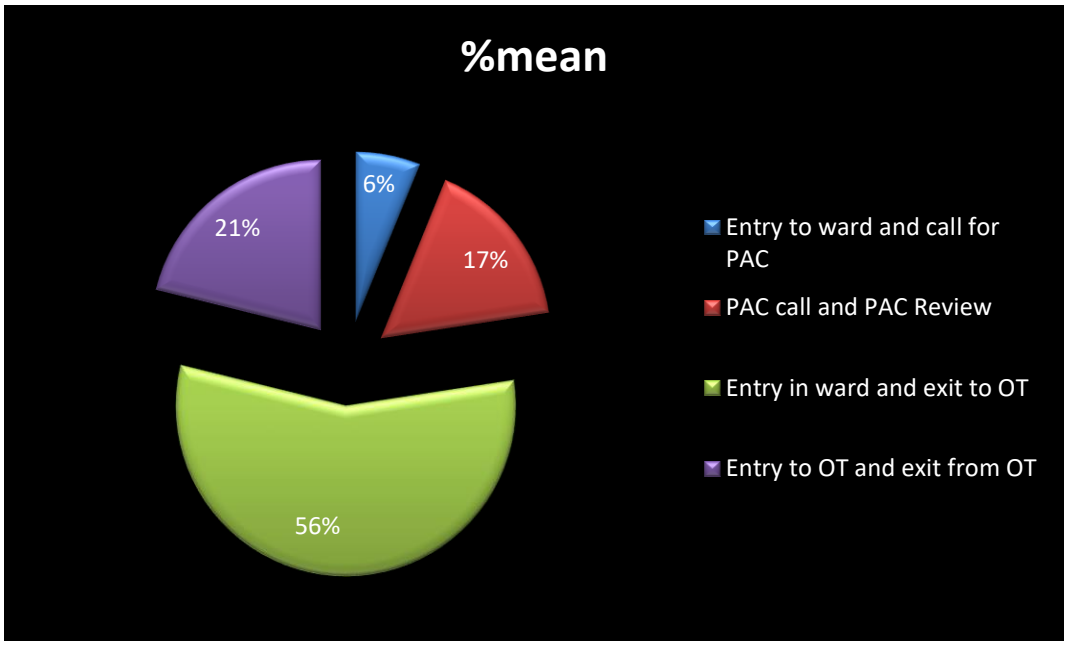
The maximum time gap between entry to ward and exit to OT is observed as 515 minutes. Mean time is 213.14 minutes

INTERPRETATION: FIGURE- 4

The maximum time gap seen between entry to OT and exit from OT is 155 minutes.

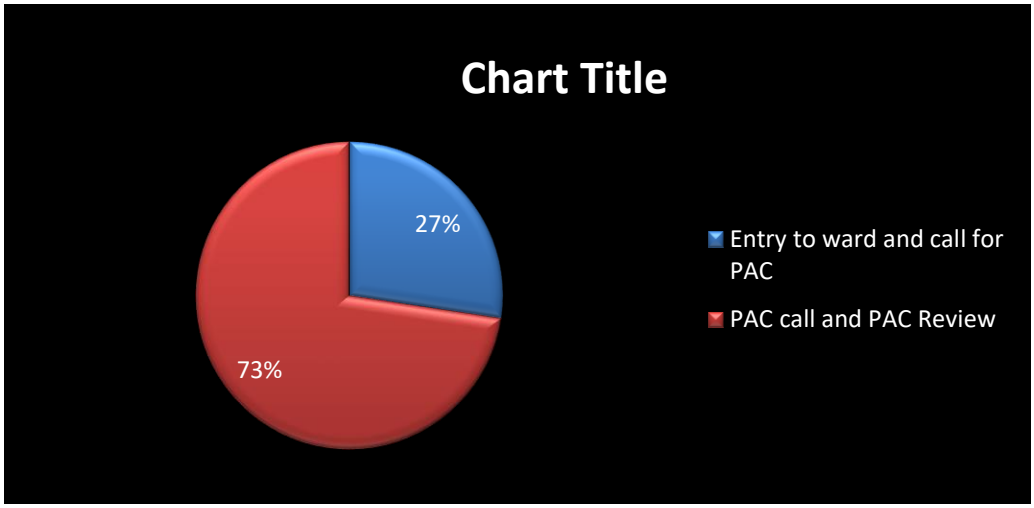
Mean time =80 minutes

Figure-5:% GAP AT DIFFERENT LEVELS OF THE PATIENT FLOW FROM WARD TO OT EXIT



INTERPRETATION
It is seen that the delay within the economic ward from patient's entry to exit for OT is 56%.
This process also includes call to the anaesthetist and PAC review. There was a delay of 17% associated with the call to PAC and PAC review.
The delay of 6% is seen in entry in the ward and call to PAC

Figure – 6: % GAP – DELAY IN ECONOMIC WARD



CONCLUSION:

In our study of two months, we came across delays at various levels of the patient's process flow.

We observed that delay occurs due to financial clearance, medical clearance, lab reports not ready which all together accounts to 56% There was 21% delay observed in OT which includes unavailability of surgeons, anaesthetist, GDA, OT not prepared. Whereas 17% delay was due to Pre-Anaesthetist Check-up (PAC) and 6% is recorded by the nurses in the ward in calling the anaesthetist.

RECOMMENDATIONS AND SUGGESTIONS

- The financial clearance of the patient should be done before scheduling of the surgery to avoid hindrance during the process flow
- The call to anaesthetist for pre-anaesthetic check-up (PAC) should be done as early as possible to avoid further delays.
- A day before the surgery, a list of the patients should be made and given to the anaesthetist, to help him with scheduling of PAC.
- There should be a turn-around time (TAT) for PAC to be done by the anaesthetist as PAC clearance has been observed to be one of the major reasons behind the delay.
- It should be the duty of the nursing staff to check that the patient's record file contains all the required reports needed before surgery. And then only the bed should be allotted to the patient.
- Any additional test recommended by the doctor at the time of PAC, should be done as soon as possible and reports should be made on an urgent basis.
- There should be no delay by the OT team in sending the GDA to the economy ward to shift the patient to the OT.
- The patient should not wait unnecessarily in the pre-operative recovery area due the improper management of OT scheduling.
- There should be availability of concerned surgeon and anaesthetist and no delay on their part.
- The OT should be prepared and cleaned before the arrival of the patient.
- There should always be availability of the GDA to shift the patient from post recovery area to the ward.

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