"Analysis of Admission process through Emergency Room In Indian Spinal Injuries Centre, New Delhi"

Presented By:
Dr. Nanda Kumar KN

CONTENTS

INTRODUCTION

‘Admission’ means the process or fact of entering or being allowed to enter a place or organization.

In a hospital day to day or daily lots of admissions happens. It can take place in two ways, first through Emergency room and second through Out Patient Department. Both have their own differences in procedures and protocols to be followed.

The Emergency Department is the "front door" of the hospital, where patients first enter . A busy, overflowing Emergency Department is no longer an indication of profitability. Thus in this study employee’s level of perception is very much needed.

SCOPE OF THE STUDY

- The study was carried out to define how the ER of ISIC Hospital should work in terms of streamlining the admission process.

OBJECTIVES

To streamline the admissions happening through emergency room

To provide valuable recommendations to the management on formulating a streamlined process in admissions.

METHODOLOGY

- **STUDY DESIGN**: Descriptive Cross-Sectional Study
- **SETTING:** Indian Spinal Injuries Centre, New Delhi.
- **STUDY TOOLS**: For conducting survey study, a structured questionnaire was used and secondary data from hospital was also used.
- **DURATION OF THE STUDY**: 23st Mar 2021 to 21th Jun 2021

SAMPLING TECHNIQUE

- **Primary Data**
- **SAMPLE SIZE**: 61
- **SAMPLING METHOD**: Convenient Sampling.

Consultants	5
PCE	3
Front Office Staff	11
ER Nursing staff	18
ER Doctors	7
Billing Dept	6
Nursing Incharges	11

N = 61

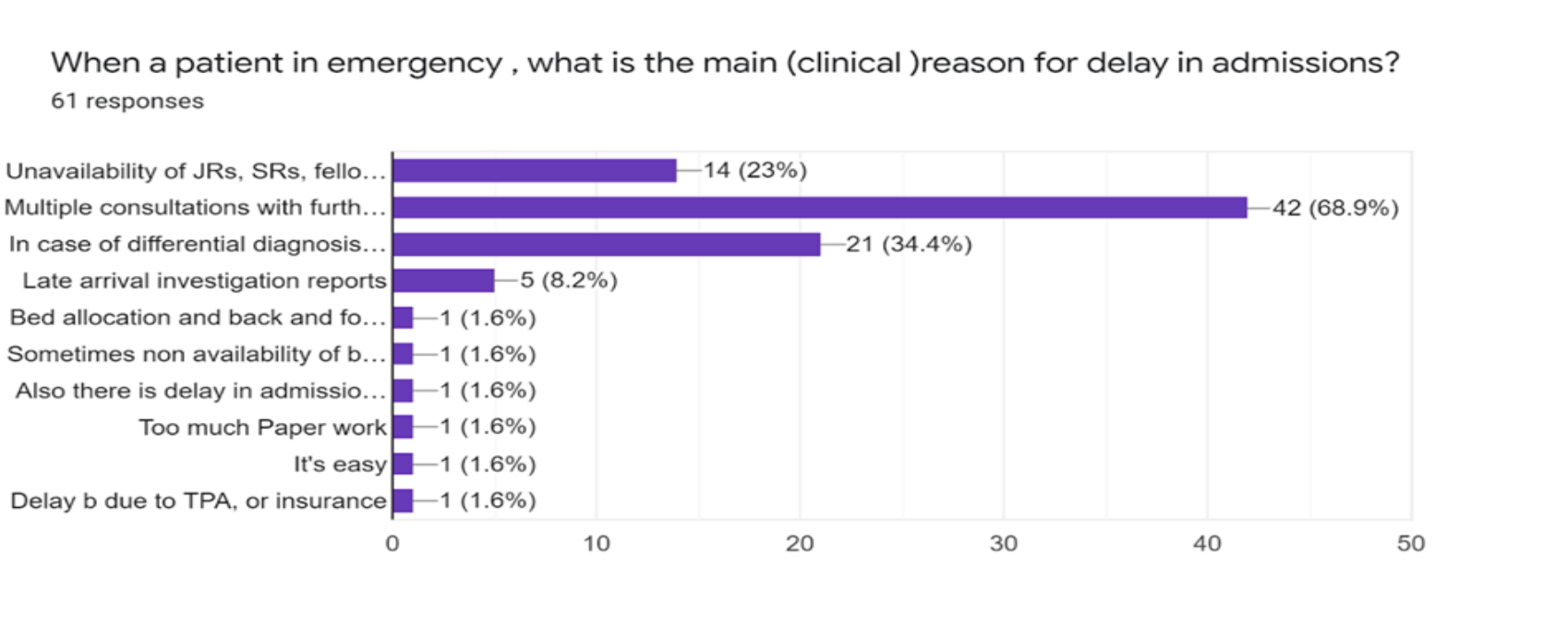
DATA COLLECTION METHOD AND ANALYSIS

Data collection tool: Structured questionnaire and Secondary data from HIS.

Data Analysis: Raw data was entered and analysed from Microsoft Office Excel spreadsheet.

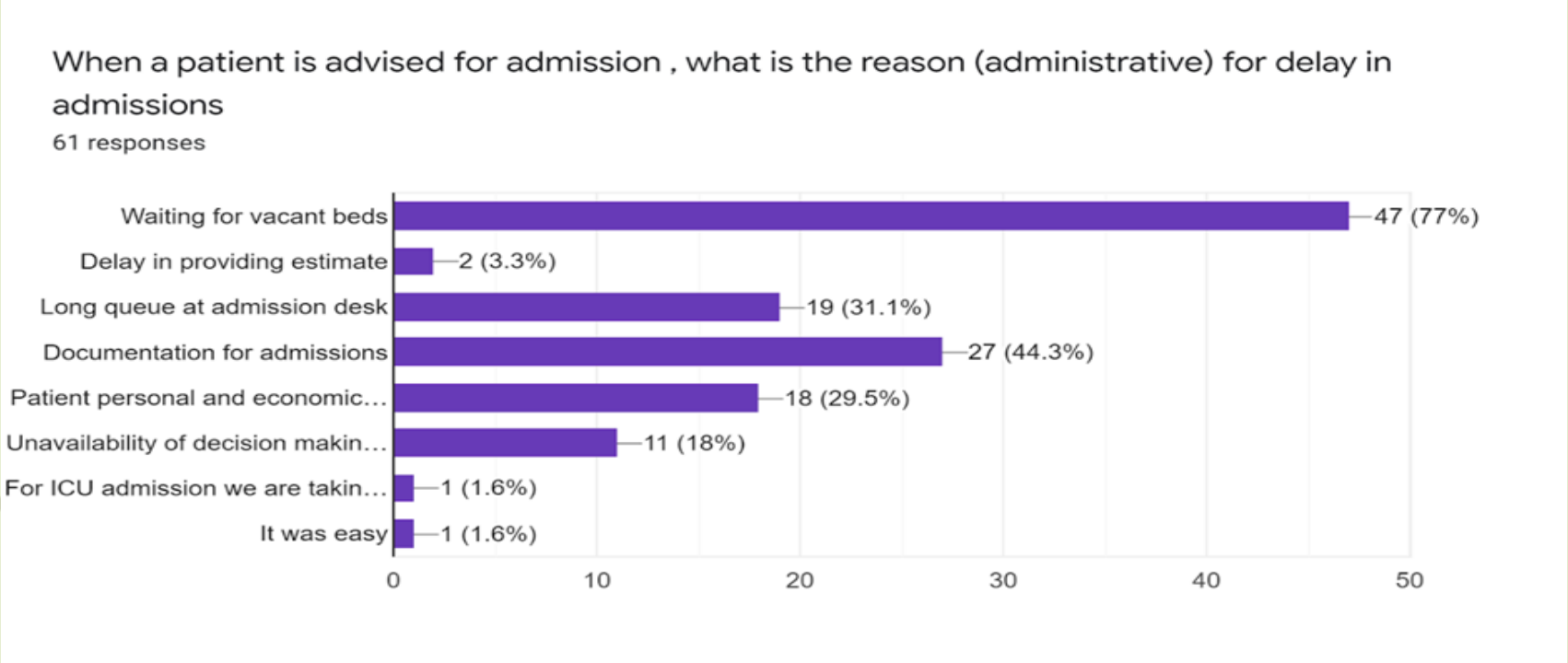
RESULTS

1.Clinical reasons for the delay in the admissions through ER.



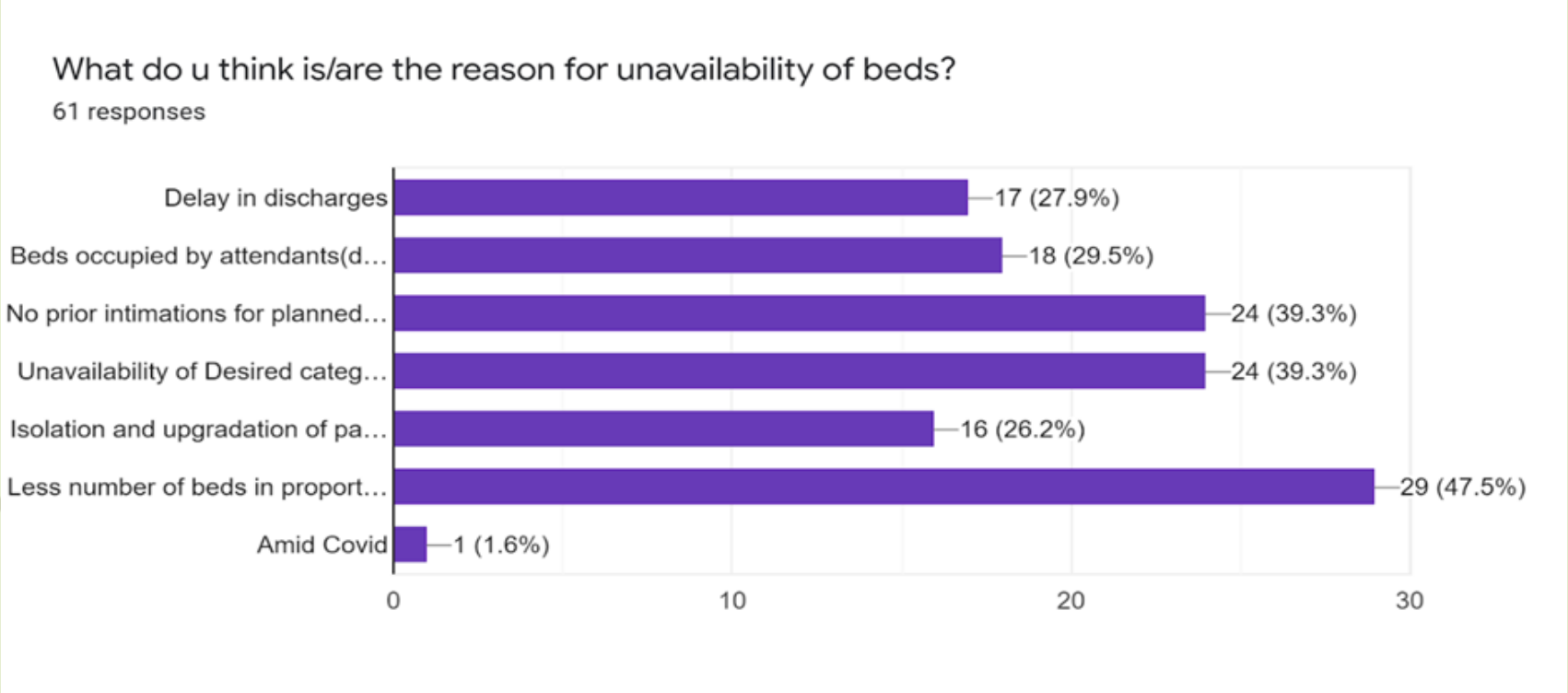
- **Inference**. This question was a multi answer type. Here 42 responses are with multiple consultations with further investigations advised. 21 responses showing dilemma of specialty for admission of patient.14 responses depicting unavailability of JRs, SRs, fellow doctors. 5 responses showing late arrival of reports too. The rest of the options are being marked as single response. They are like bed allocation, bed availability, too much paper works etc.

2. Administrative reasons for the delay in the admissions through ER.



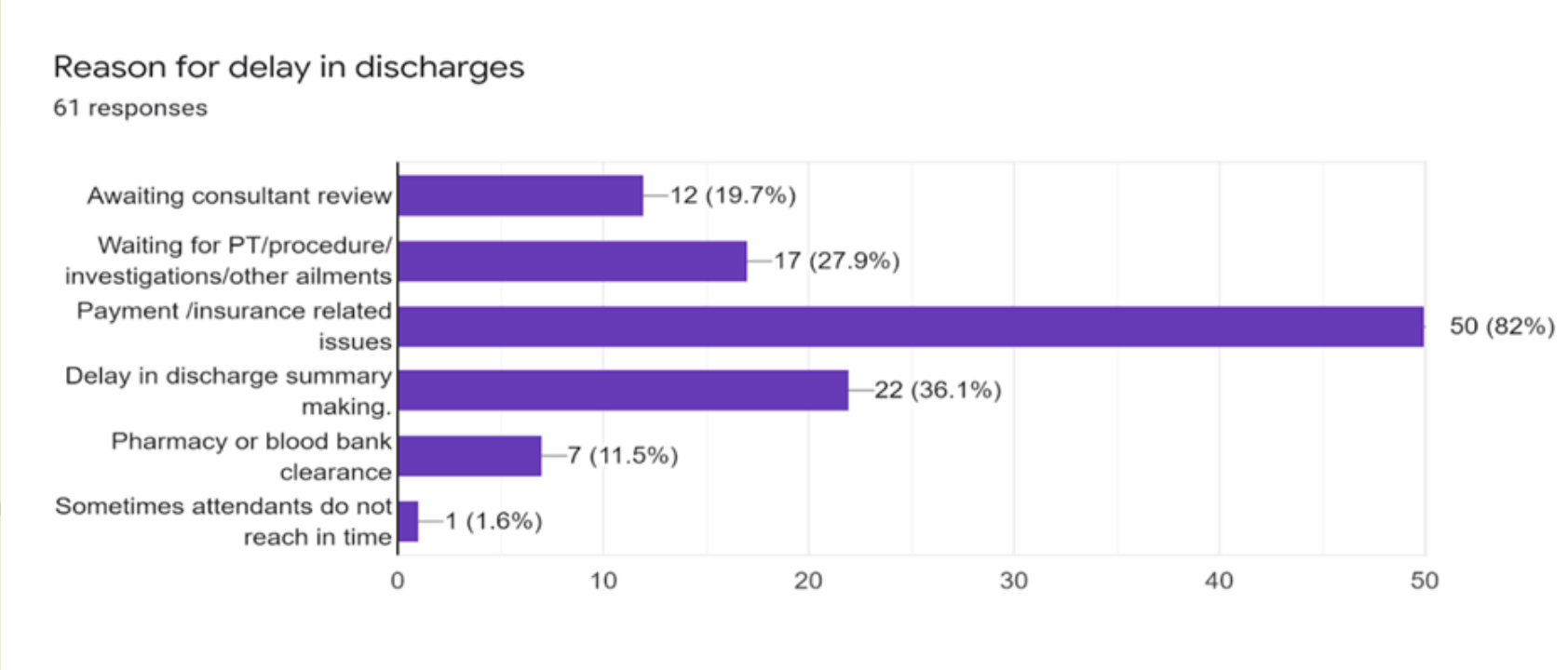
- **Inference**. Here it's a multiple answering type question. The 47 responses showing waiting for vacant beds are the main administrative cause. 27 responses depict that documentation related issues. 19 responses says that long queue at the administrative desk. 18 responses depict that personal and economic constraints. 11 responses shows unable to make proper decisions from the patient side. 2 responses shows delay in providing estimates to the patient.

3. Reasons for Unavailability of Beds



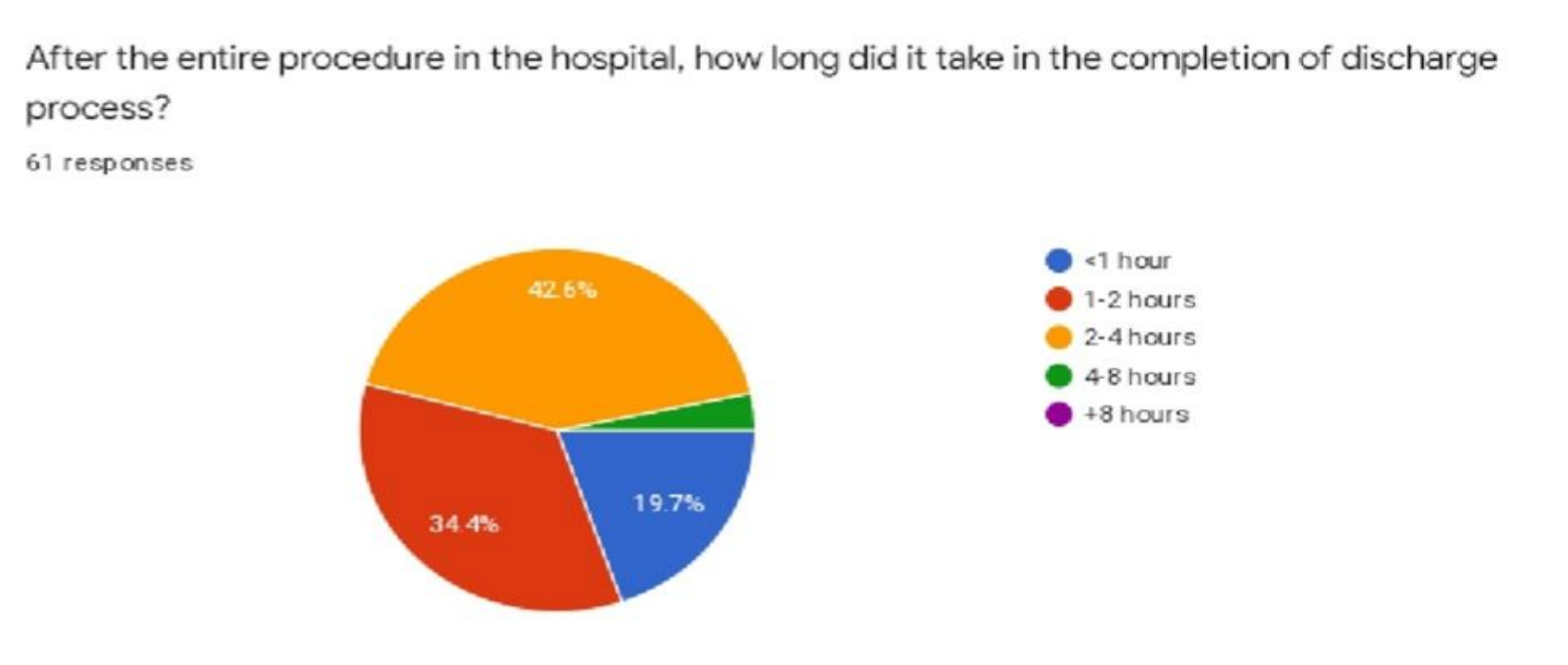
- **Inference:**Here multiple answers were allowed. 29 responses depicted less number of beds in proportion to occupancy. 24 responses showed that due to no prior intimations for planned admissions, unavailability of bed is present. 24 responses showed that unavailability of desired category of beds. 18 responses showed that double occupancy is another main feature for unavailability of beds. 17 responses showed that delay in discharges are the main reason. And 16 responses depicted that isolation and up gradation of patient to higher category

4. Reasons for delay in discharges



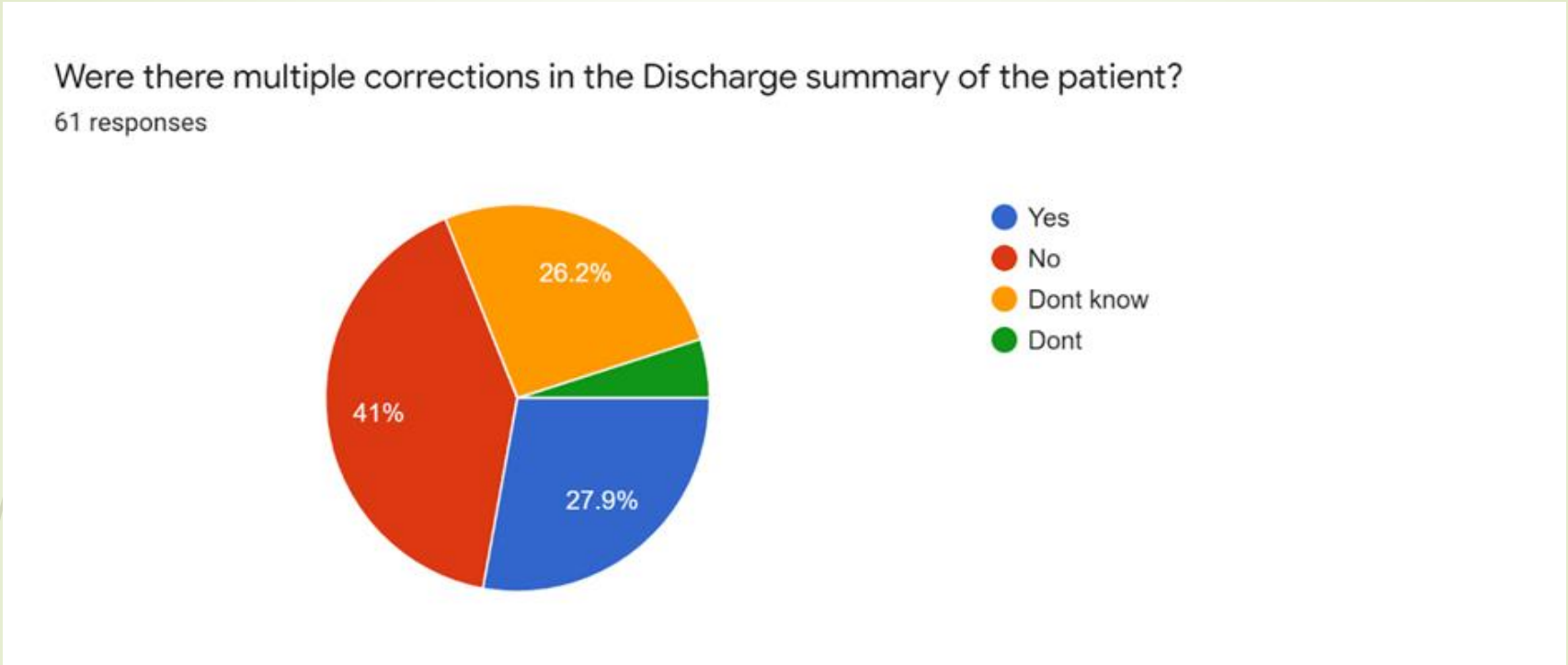
- **Inference:** Here multiple answer type was asked. About 50 responses showed that delay in discharge is due to payment/insurance related issues. 22 responses showed delay in discharge summary making. 17 responses showed waiting for PT/procedure/investigations and other ailments. 12 responses showed awaiting consultant review. 7 responses depicted that delay in pharmacy and blood bank clearance. And 1 response showed that attendants not reaching in time.

5. Waiting Time before discharges



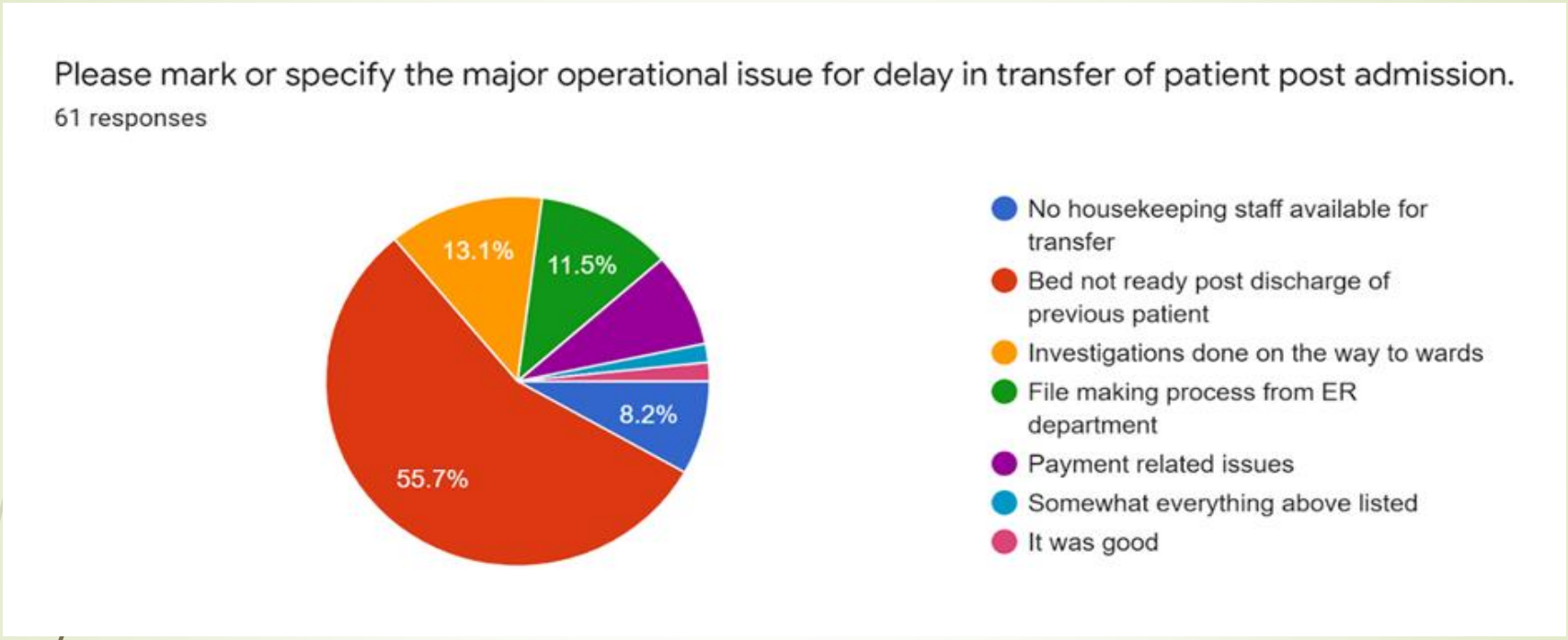
- **Inference:**Here single answering type question was asked. About 42.6% responses showed that 2-4 hours of delay in the discharges take place. 34.4% responses showed that 1-2 hours delay takes place. 19.7% responses showed that 4-8 hours of delay also takes place. There were no responses marked for +8 hours option.

6. Documentation Corrections in discharge summary



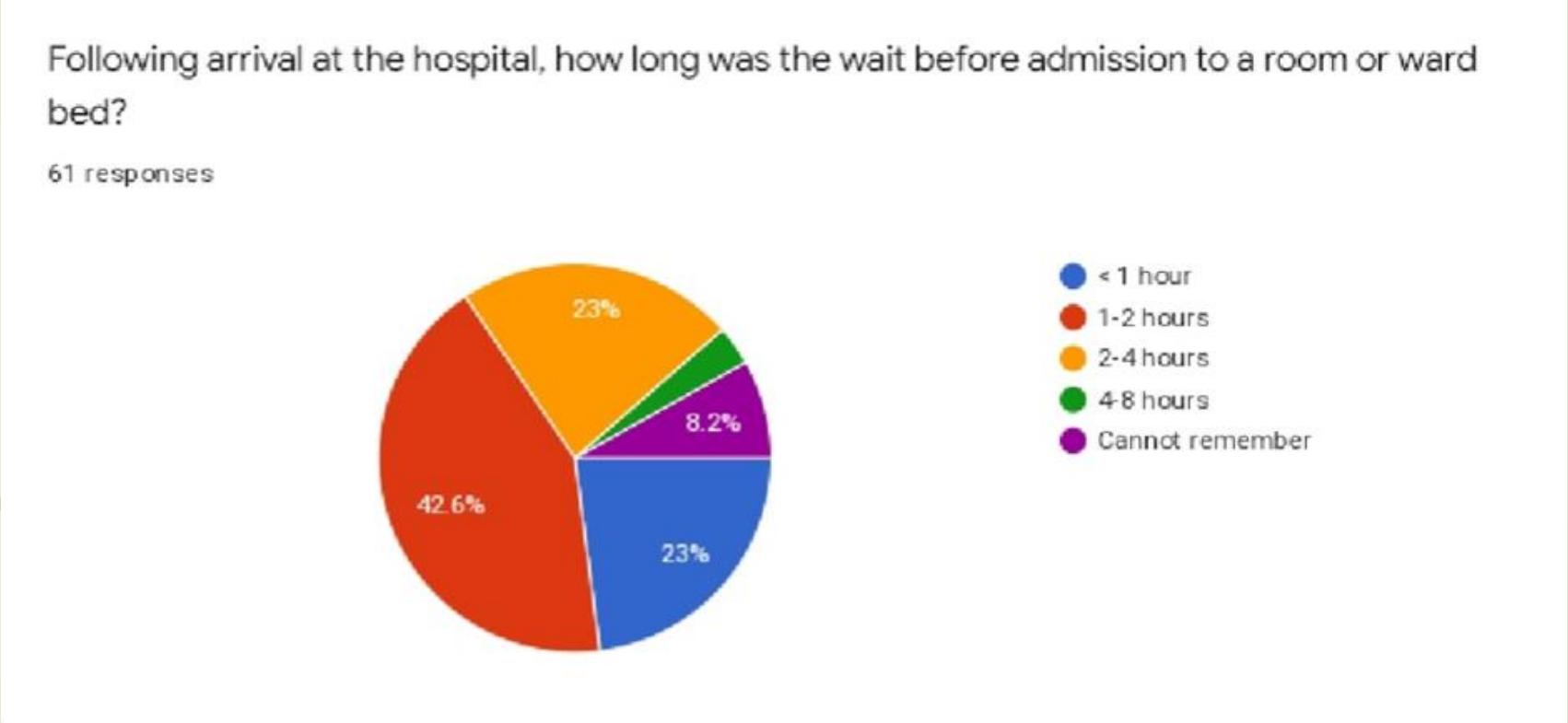
- **Inference:**Here single answer MCQ was asked. About 41% responses showed that there were no multiple corrections in the discharge summary of the patient. 27.9% responses depicted that yes there were multiple corrections in the discharge summary. Remaining part showed that employees don’t know about the multiple corrections ever happened in the discharge summary**. .**

7. Operational issues for the delay in the admissions through ER.



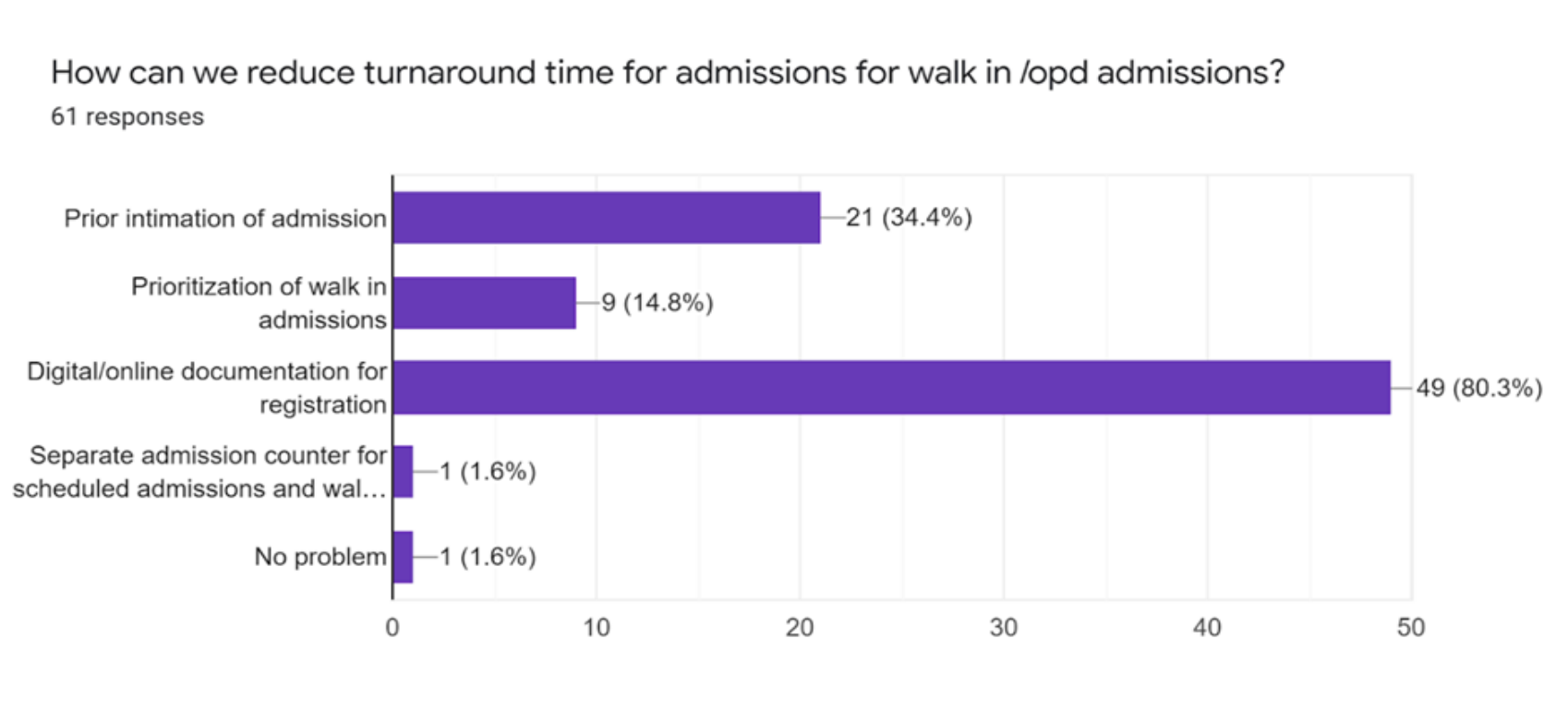
- **Inference**. Here single answering MCQ was asked. Out of 61 responses 55.7% responses were with bed not ready post discharge of previous patient. 13.1% depicts that delay occurs due to investigations happening on the way to the ward. 11.5% says due to file making process from ER department. 8.2% responses says that no housekeeping staff availability for arrangement to be made. 8.2% shows that due to payment related issues this happens

8. Waiting Time Before Admissions



- **Inference:**Here single answering type was asked. About 42.6% responses were showing delay of 1-2 hours delay in admissions. 23% showed less than 1 hour and also 23% showed that in between 2-4 hours. 8.2% marked as they cannot remember exactly how much was the delay. 3.2% showed that delay of 4-8 hours also take place in admissions.

9. Reduction of Turn Around Time for Admissions



- **Inference:**Here multiple answering was used. About 49 responses depicted that digital/online documentation for registration. 21 responses showed that prior intimation of admissions. 9 responses showed prioritization of walk-in admissions. One response showed that separate counter for scheduled admissions and walk-in admissions.

Number of cases and delay time from the secondary data taken from the Hospital

Delay Time	Number of Cases	Percentage (out of 38)
<1 hour	20	52%
1-2 hours	14	36%
2-4 hours	2	5%
>4 hours	2	5%
No delay	62	

N = 100

Inference: From the secondary data which has been collected from the hospital, it was found that few cases took delay in admissions. Most of the delays were observed less than 1 hour time. About 20 were in number. 14 cases took 1-2 hours of delay. 89% of the delays are in the range of 15 minutes to 2 hours. As we can see even greater than 2 hours can also be seen. Out of total samples, 62 % are showing no delays and 38% of cases are showing delays.

Cause of delay in patient admission taken from the secondary data of

Cause of Delay	Number of Cases
No Bed availability	15
Documentation delay	21
Insurance panel approval	5
Initial Investigation delay	5
Delay from doctor's side	1
Patient transfer	1
No Cause	62

Inference: As discussed above, time range was seen that 89% of the delayed cases are in the range of 15 minutes to 2 hours, there are few causes to which were recorded from the patient's ER card. Documentation delay is seen in 21 times in the 38 delayed cases. Non availability of bed becomes second most occurring reason with 15 times in the 38 delayed. Panel approval, initial investigation delay too takes up 5 times each. Thus the main causes for the delay also becomes clear with the secondary data of patients.

Admission Process through ER of ISIC Hospital

CONCLUSIONS

- It is seen that delay caused in the admitting process through ER is a major issue in not only the functioning of the ER but the entire hospital.
- As discussed before, the main reasons for the delay may be lack of availability of on call doctors, resident doctors, delays causing in the documentation process as a lot of approvals and formalities are required, any prior investigation if needed which only can help the doctors to reach up to a diagnosis etc.
- After stabilizing the patient properly, if the ER duty doctors find that the patient is stable and not in any emergency condition, then delay might occur due to other factors like bed availability, insurance approvals, delay from patient side..
- As the main issues in the admissions were recorded, the reduction in these gaps will boost up and streamline the process.

RECOMMENDATIONS

- Proper and adequate quantity of staff should be present in the emergency department so that no delay occurs in terms of lack of availability of resident doctors or specialist consultations in certain special cases.
- Concept of Discharge lounge may be applicable. A room size which is similar to the ICU attendants' waiting lounge would be good. Those patients which need clearance or approval from insurance and TPA could wait there as they might take 3-4 hours also. All basic necessities may be provided there so that the patient should feel comfortable.

RECOMMENDATIONS

- A time motion study to reduce the wastage of movement and time. Even recording of the number of footsteps or time taken to reach admissions department, TPA counter, OPD-IPD billing and even admin office. If all the departments are made close to each other, the time saving may be done for the daily processes.
- In certain emergency cases like spine surgery cases, source of pain might be difficult to find out. In these cases, it takes much more time as confusion pertains under which department the patient should be admitted. In these cases at least the patient may be admitted under the pain management then afterwards the investigations may be done to find the exact cause. By the time critical care and medications required can be given to the patient.

RECOMMENDATIONS

- In the cases of urgent requirement of investigations from ER, they could be put up on priority rather than kept in the waiting list. Other non - priority cases may be kept in the waiting list.
- Since admissions are very much closely related to discharges, therefore it should be planned 24 hours prior so that the bed management may be done smoothly. Also the discharges should be done in the morning time itself and should not exceed into the afternoon period as it can cause discomfort in the patient as well as the attendant. Also for hospital new admissions get delayed due to non- availability of beds or changing the bed category unnecessarily.

REFERENCES

- Clayton Wu, Joy Melnikow, TuDinh, James F. Holmes, Samuel D. Gaona, Thomas Bottyan, Debora Paterniti, Daniel K.Patient Admission Preferences and Perceptions. [Internet], 2015, October, 16(5), 707-714. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4644039/
- NiloySarkar, TatiniNath. Analysis of patient waiting time for hospital admission and discharge process [Internet]. 2016, August 4(8), 1097-1108. Available from: https://www.journalijar.com/uploads/321_IJAR-11829.pdf
- NiloySarkar, TatiniNath. Analysis of patient waiting time for hospital admission and discharge process [Internet]. 2016, August 4(8), 1097-1108. Available from: https://www.journalijar.com/uploads/321_IJAR-11829.pdf
- Rapoport J, Teres D, Lemeshow S, Harris D. Timing of intensivecare unit admission in relation to ICU outcome. Critical careMed. 1990;18:1231-5
- Nguyen HB, Rivers EP, Havstad S, Knoblich B, Ressler JA, MuzzinAM, et al. Critical care in the emergency department aphysiologic assessment and outcome evaluation. AcadEmergMed. 2000;7:1354-61

REFERENCES

- Car ter EJ, Pouch SM, Larson EL. The Relationship BetweenEmergency Department Crowding and Patient Outcomes: ASystematic Review. J NursScholarsh. 2014; 46:106-15
- Chalfin DB, Trzeciak S, Likourezos A, Baumann BM, Dellinger RP.Impact of delayed transfer of critically ill patients from theemergency department to the intensive care unit. CritCareMed. 2007;35:1477-83
- Group L. The results of the American Hospital Associationsurvey of emergency department(ED) and hospital capacity:AmericanHospAssoc 2006
- Rehmani R. Emergency section and overcrowding in auniversity hospital of Karachi, Pakistan. J Pak Med Assoc. 2004;54:233-7.
- BadarAfsal, Emadsiddiqie, GhazalaIrfanKhazi, Nishi shakeel, Impact of delay in admission on the outcome of critically ill patients presenting to the emergency department of a tertiary care hospital from low income country. [Internet] 2016, May, 66(5),509-516 https://www.researchgate.net/publication/301657074_Impact_of_delay_in_admission_on_the_outcome_of_critically_ill_patients_presenting_to_the_emergency_department_of_a_tertiary_care_hospital_from_low_income_country


Thank You