

PROCESS FLOW MAPPING AND IDENTIFICATION OF BOTTLENECKS IN ONCOLOGY CHEMOTHERAPY DAYCARE CENTRE

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NEED FOR THE STUDY

Diagnosis of cancer can cause huge emotional and financial burden for a family. In addition to declining self-esteem, personal relationships are impaired due to lack of confidence and may induce feeling of loneliness.

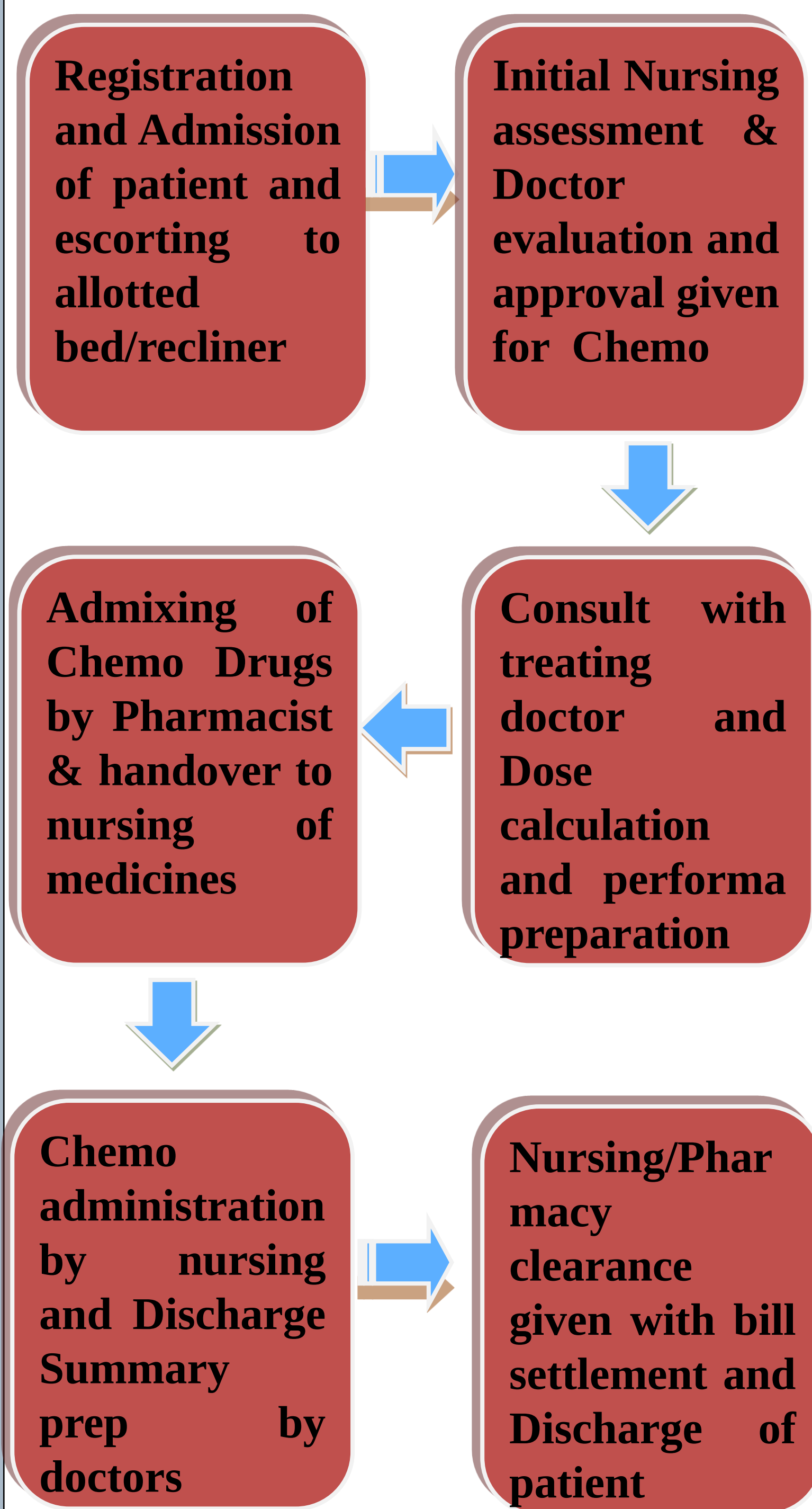
Excessive patient wait time for chemotherapy can add on to become a major source of patient dissatisfaction.

Thus, a decrease in this wait time would improve patient satisfaction, create more time for staff to better manage patients and create opportunities for bettering the outcome and response of patients to their treatment

OBJECTIVES

- To observe and analyze the current process flow of Oncology Chemotherapy Centre at Max Super Specialty Hospital, Saket.
- To identify bottlenecks and track reasons for the same.
- To problem solve the delays and provide recommendations for further improvement in the process flow and minimize the patient waiting time.

PROCESS FLOW



METHODS AND MATERIALS

The study involved two elements –

- Study of the process flow of the department and analysis of the gaps in the current process.

- A dashboard created in MS-Excel to capture delays in delivery of treatment.

Study location: Oncology Chemotherapy Centre First Floor, Max Super Specialty Hospital, Delhi

Study Design: Descriptive cross-sectional

Sampling: A Convenience Non-Probability Sampling technique would be followed.

Sample Size: 145

Duration of Study: 4 weeks

Inclusion Criteria: All the patients coming to Onco Chemo Centre for chemotherapy at Max Saket Hospital(including morning and afternoon patients) .

Exclusion criteria: Patients going for radiation prior to chemo treatment.

DATA COLLECTION

Type of Data: Quantitative(2weeks) & Qualitative(1 week)

Technique: Direct Observation of Operations and collection of primary and secondary data.

Source of Data:

a. Primary Data

Shadowing patients from Appointments-admission-discharge and follow-up

b. Secondary Data

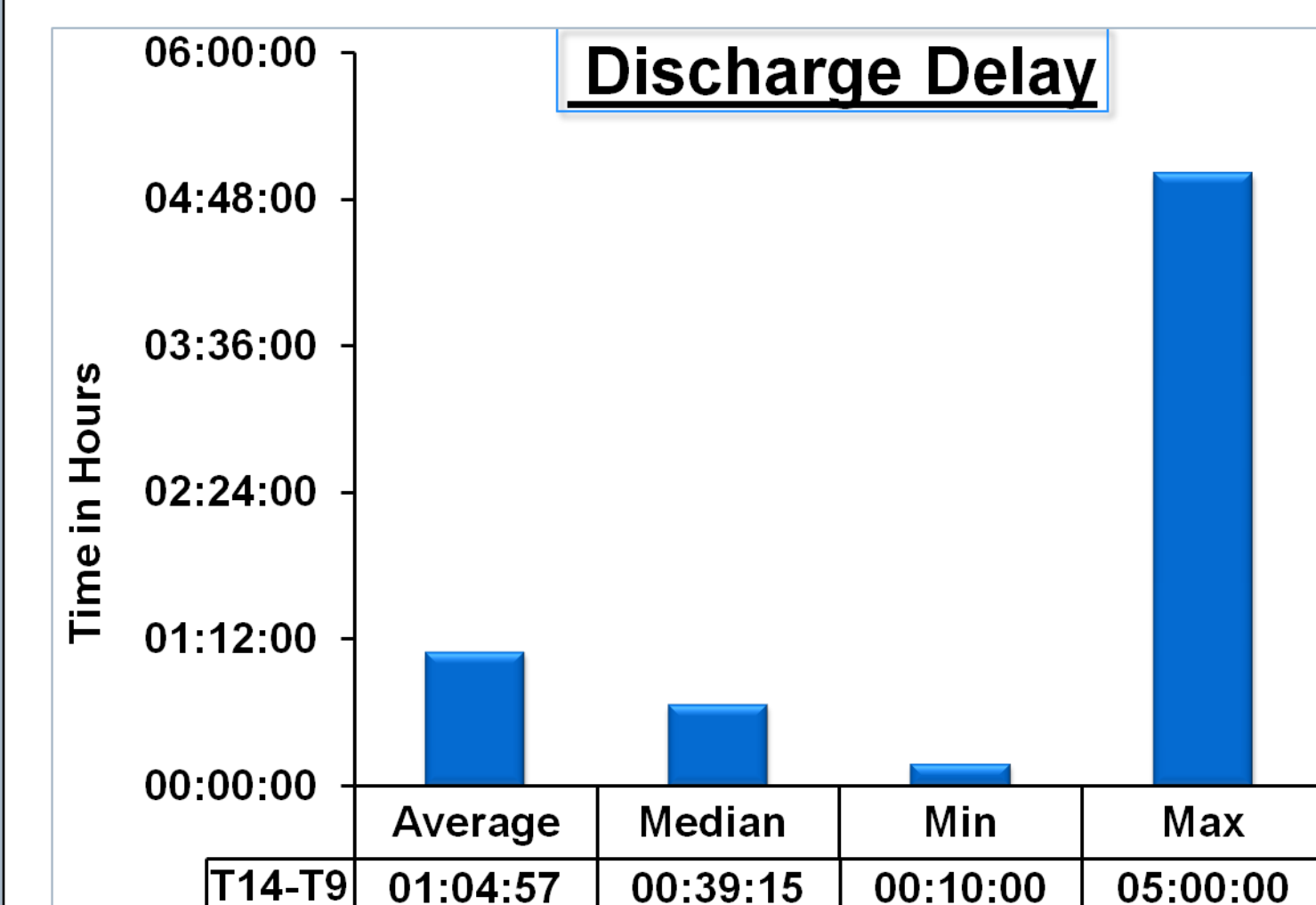
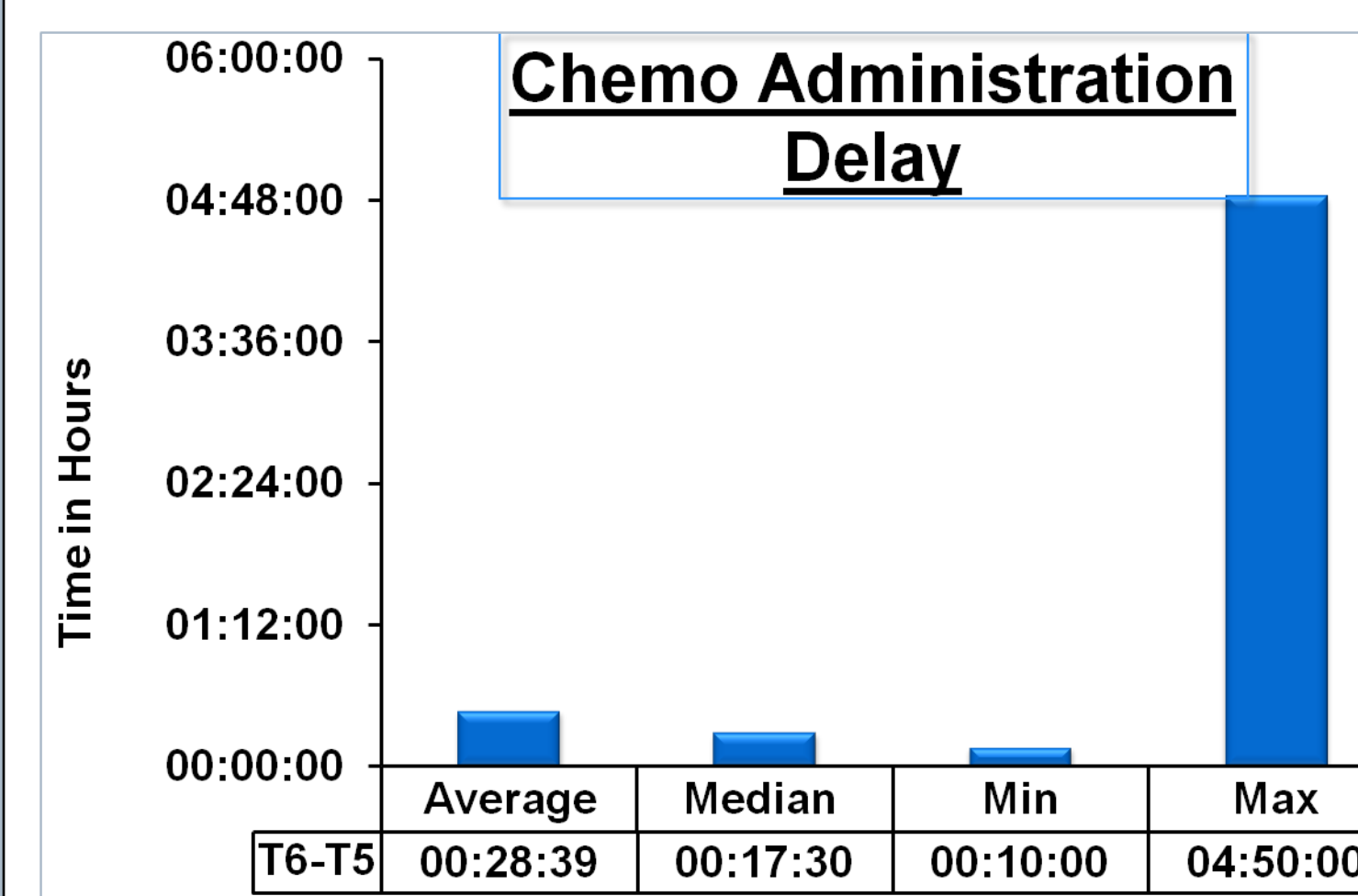
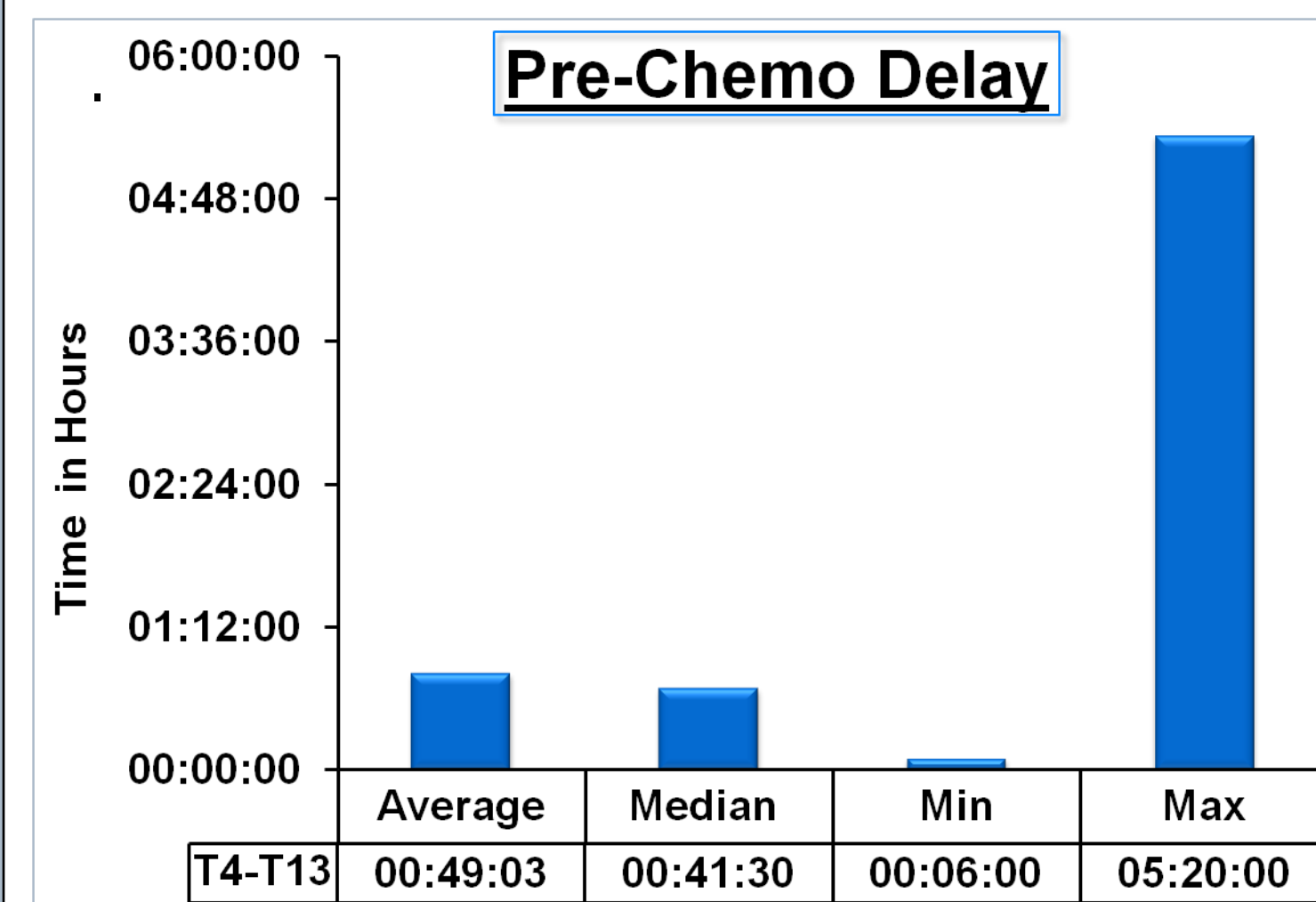
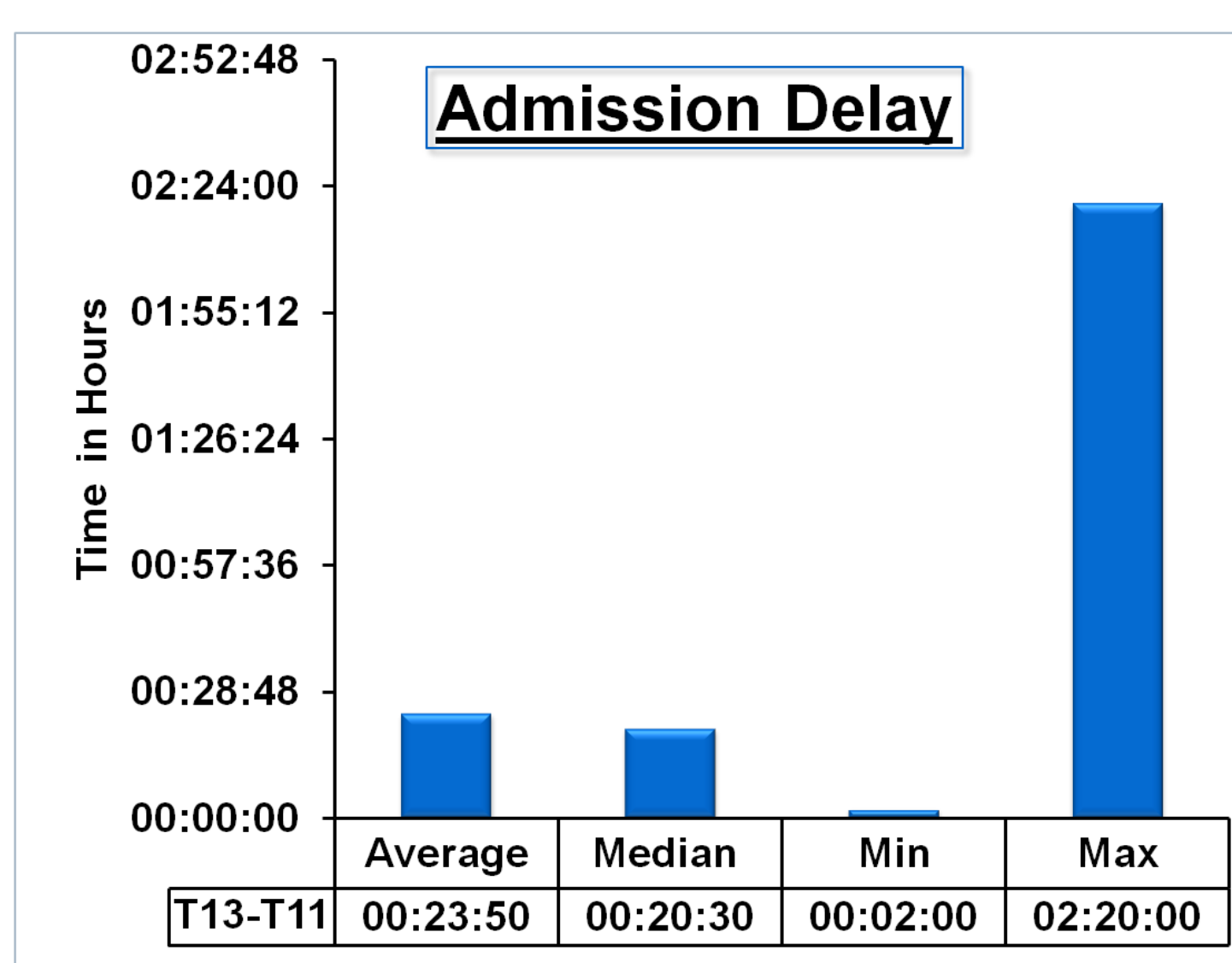
- Interviews with the stakeholders (Oncologists,Nursing,Junior doctors, other Daycare staff)
- Departmental Manuals (Standard operating protocols, ISO manuals and the NABH manual)
- Shadowing the stakeholders and tracking all the processes involved.

Dashboard:

A prestructured dashboard was created in Excel to capture the delays in the daycare which consisted of-

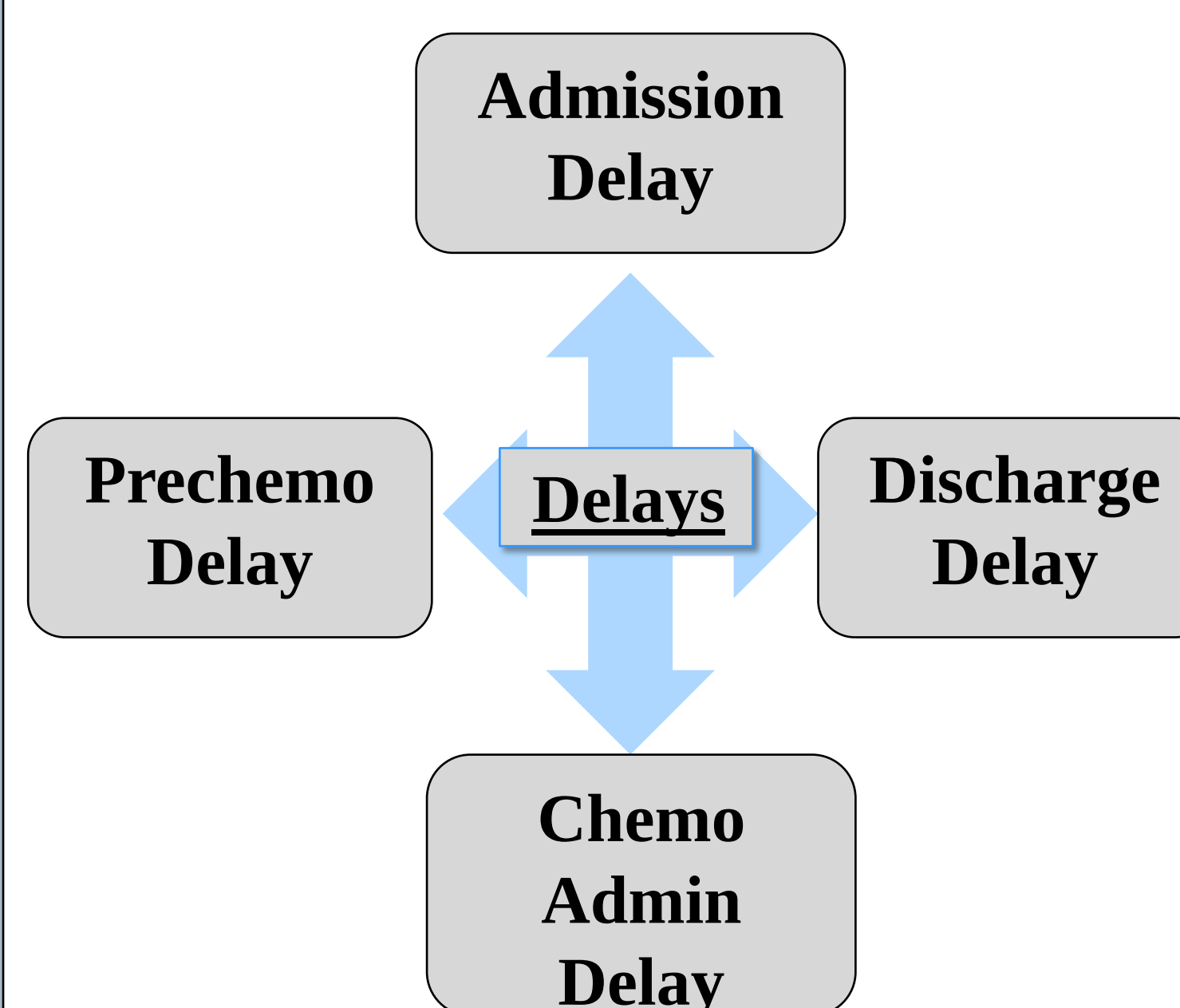
- Admission delay
- Prechemotherapy delay
- Chemotherapy Administration delay
- Discharge delay

DATA ANALYSIS



OBSERVATIONS

Four major delays were identified after collection of the data through different sources and the reasons for the same were later analysed and probable solutions were then proposed.



A. Reasons behind delays in admission

- Improper planning of patients
- Adjusting New walk-in patients
- Choice/requirement of bed by the patient
- Patients not turning up on the intimated time

B. Reasons behind Pre-chemo delays (Post admission)

- Required lab/radiology tests not being done by patient
- Fluctuation in patient blood counts/lab reports
- Delay in confirmation of patient dose including the time taken to reach out to concerned consultant

- Non availability of desired drug or dose in pharmacy (unplanned / new walk-in patient)
- Additional investigations needed and waiting for the results
- Waiting for referral opinion from other consultants (Cardiac/Nephrologist etc)

C. Reasons behind delay in Chemo administration

- Nurses attending too many patients
- Some adverse drug reaction of the patient

D. Reasons behind delay in patient Discharge

- Delay in clearance from pharmacy & Nursing
- Delay in preparation of discharge summary
- Delay in corporate and insurance clearance
- Lack of awareness about TPA policies among patients leads to delay in financial clearance

RECOMMENDATIONS

A. Solutions for delays in patient admission

- Develop electronic checklist to validate all appointment components
- Proper planning and structure of the list according to different time slots.
- Staggered admissions to be followed in the morning and afternoon

B. Solutions for delays in Pre-chemotherapy

- Discussing dosage/further treatment a day prior to scheduled appointment
- Preplanning of all requirements in the evening briefing a day prior.
- Reducing the time span for reaching out to the referrals and the concerned consultants.

C. Solutions for delays in chemotherapy administration

- Fluctuations in patient reports, changes in doses and drugs, plan of treatment are some of the things which cannot be hampered with in the best favour of patients.
- Incorporating Information Technology Applications
- Proper planning of the attending nurse to the patient ratio and shifts

D. Solutions for delays in discharge of the patient

- Discharge summary prep to be started once chemo has been started
- Improvement in communication protocol regarding TPA, corporate and other policies
- The discharge process should start in the admission point itself, as it is the mismatch between demand and supply of beds that promotes delays and bottlenecks in the system