ENSURING COMPLIANCE OF OPERATION THEATRE COMPLEX AS PER NATIONAL ACCREDITATION BOARD FOR HOSPITALS AND HEALTHCARE PROVIDERS STANDARDS

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OBJECTIVE

- To observe issues in the functioning of OT followed by their root cause analysis, corrective action and preventive action on routine basis.
- To enhance utilisation of OT and quality of patient services for an excellent patient experience during hospital stay.
- To ensure compliance of various parameters of OT as per NABH standards.

PROBLEM STATEMENT:

As established, OT is a complex structure, revenue generating and an essential department of hospital with its huge interdependence on coordination among department of surgery, anaesthesia, laboratory, CSSD, billing. There are numerous causes which result in delay, cancellations, add on in the scheduled OT list disturbing the turn-around time and hampering the quality of services delivered.

SURVEY METHODOLOGY AND INSTRUMENT USED

Quantitative and qualitative method

INSTRUMENT:

1.CPRS Audit Checklist

2. Surgical Safety Audit Checklist

3. Staff Awareness Audit Checklist

4. Daily data on status and delay of OT

❖Period Of Study : February’18 to April’18

❖Location : Max Super Speciality hospital, Shalimar Bagh, New Delhi

❖Inclusion criteria :

❑All cases scheduled through telemedicine software for OT 1, OT 2, OT 3, OT 5, OT 6, OT 7, Day care OT, Caesarean section OT from various departments.

❖Exclusion Criteria:

❑Cases posted on Sundays and other holidays as they aren’t preplanned.

❑Cases posted in 0T 4 (cardiac OT) were not included in the study.

DATA COLLECTION

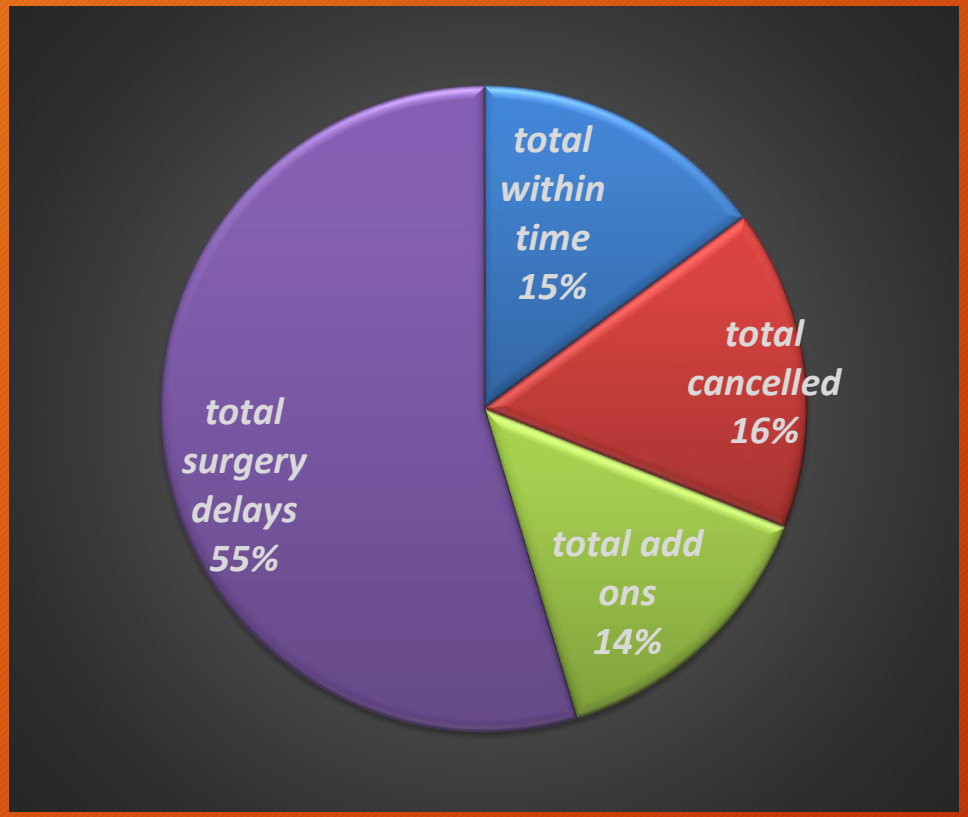
- Primary data collection from CPRS, hospital records, personal observation.
- Secondary data collection through coordinators, technicians, nursing supervisors, nursing educators, infection control nursing staff.

DATA ANALYSIS

- Quantitative analysis of collected data on number of cases within time, delayed, add-on, cancelled using Microsoft excel .
- Quantitative analysis of CPRS audit checklist, surgical safety audit checklist to ensure compliance of documentation and
- Qualitative analysis of staff awareness audit.

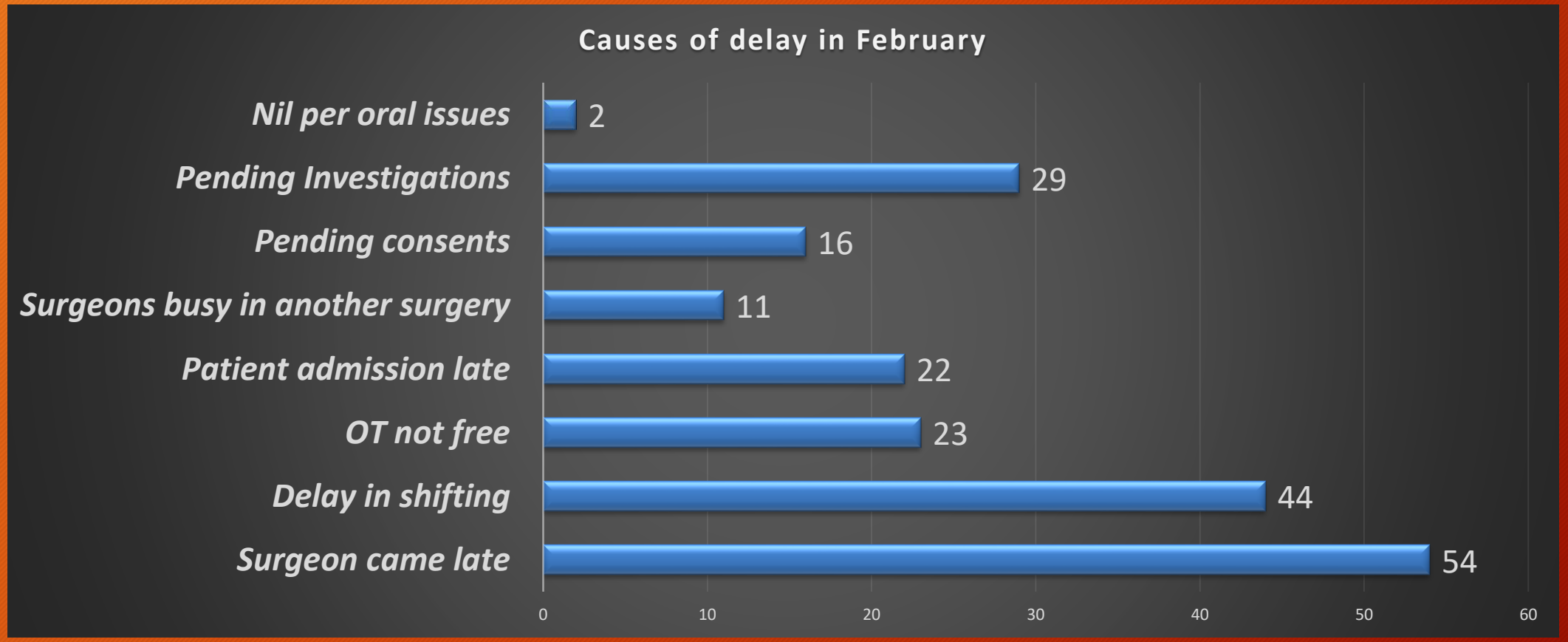
OBSERVATIONS AND ANALYSIS

In February, 410 surgical cases could be captured and analyzed.

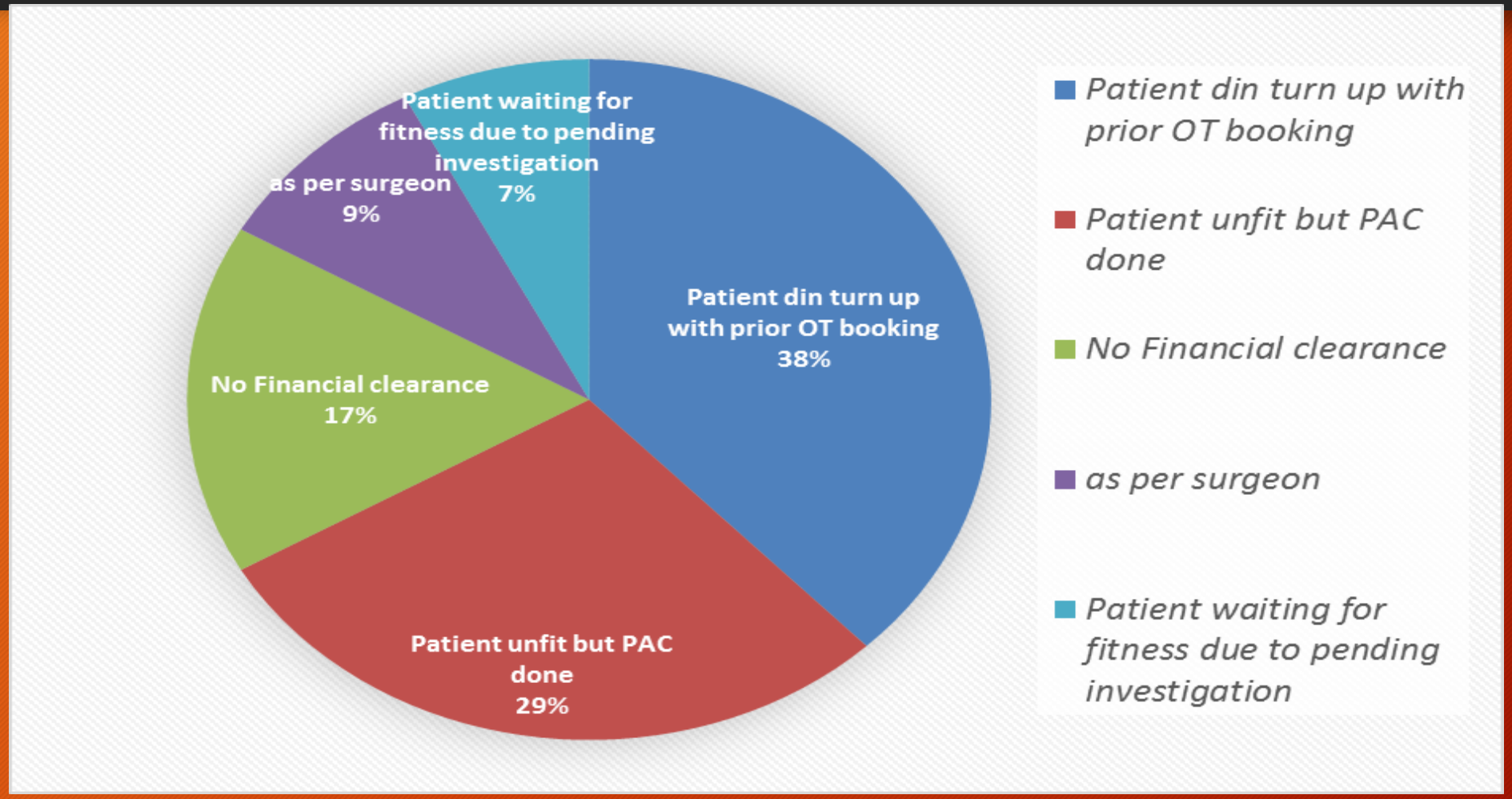


Total within time	61	14.42%
Total cancelled	66	15.60%
Total add-on	59	13.90%
Total surgery delays	224	52.90%

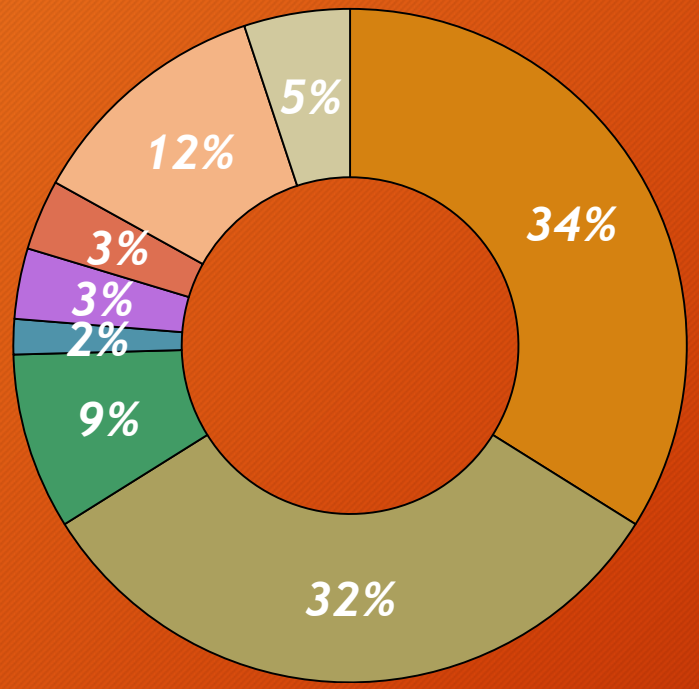
Causes of Delay



Causes of Cancellation in Feb



Add ons Department wise

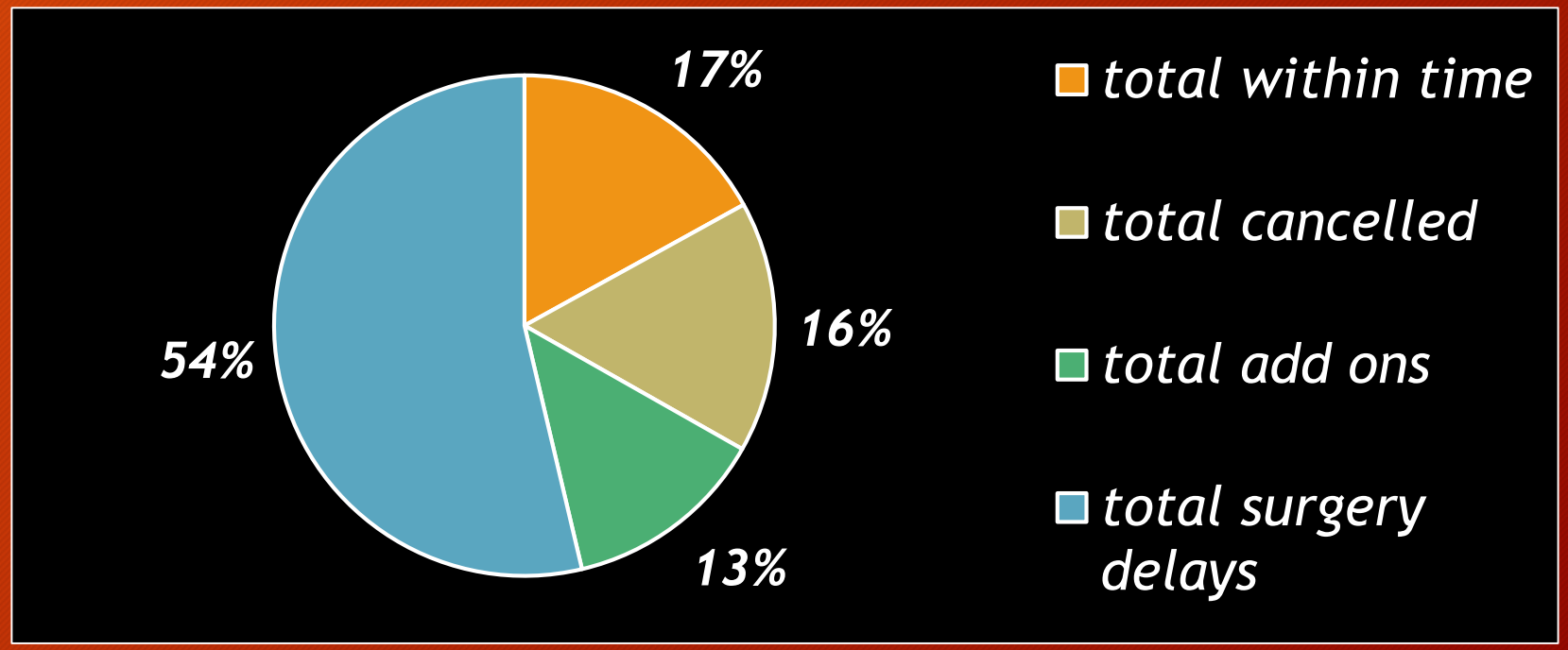


- OG
- General Surgery
- Urology
- Neurology
- E.N.T
- Peadiatrics
- Ortho
- Neuro Surgery

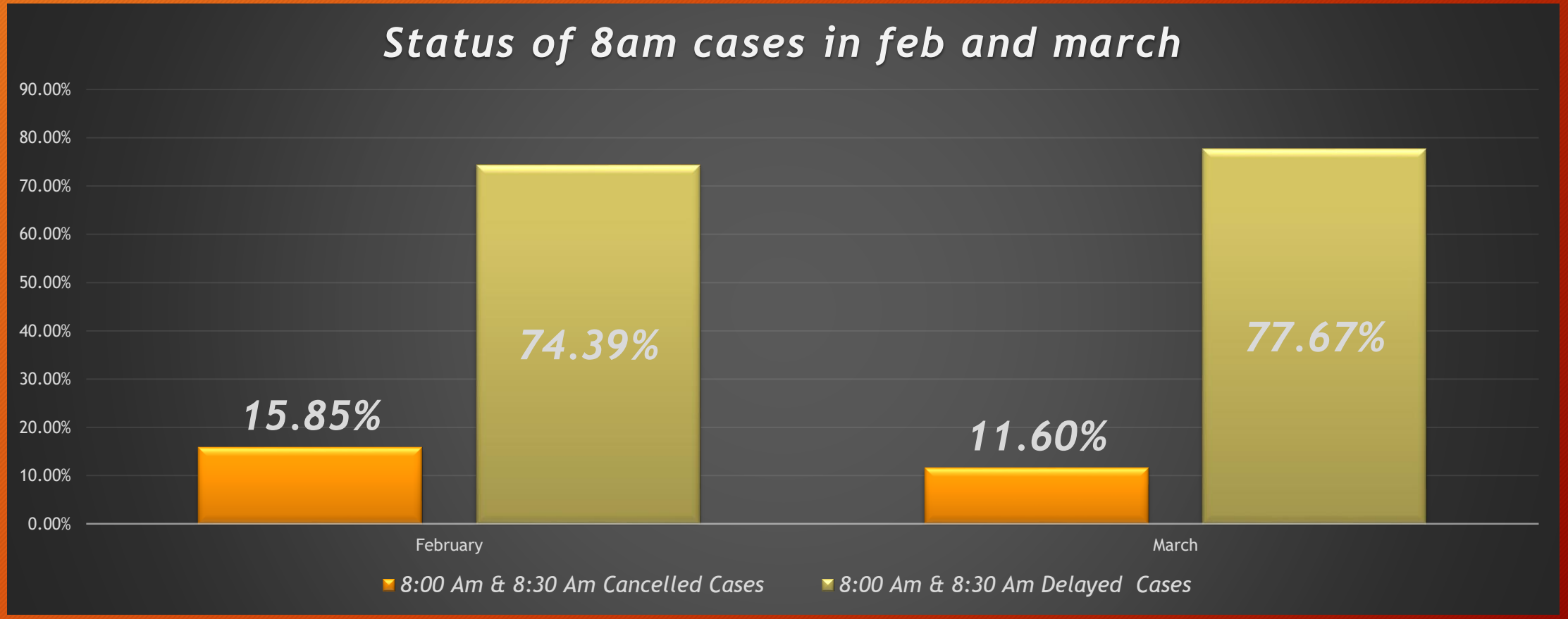
In the month of March,

548 cases analysed.

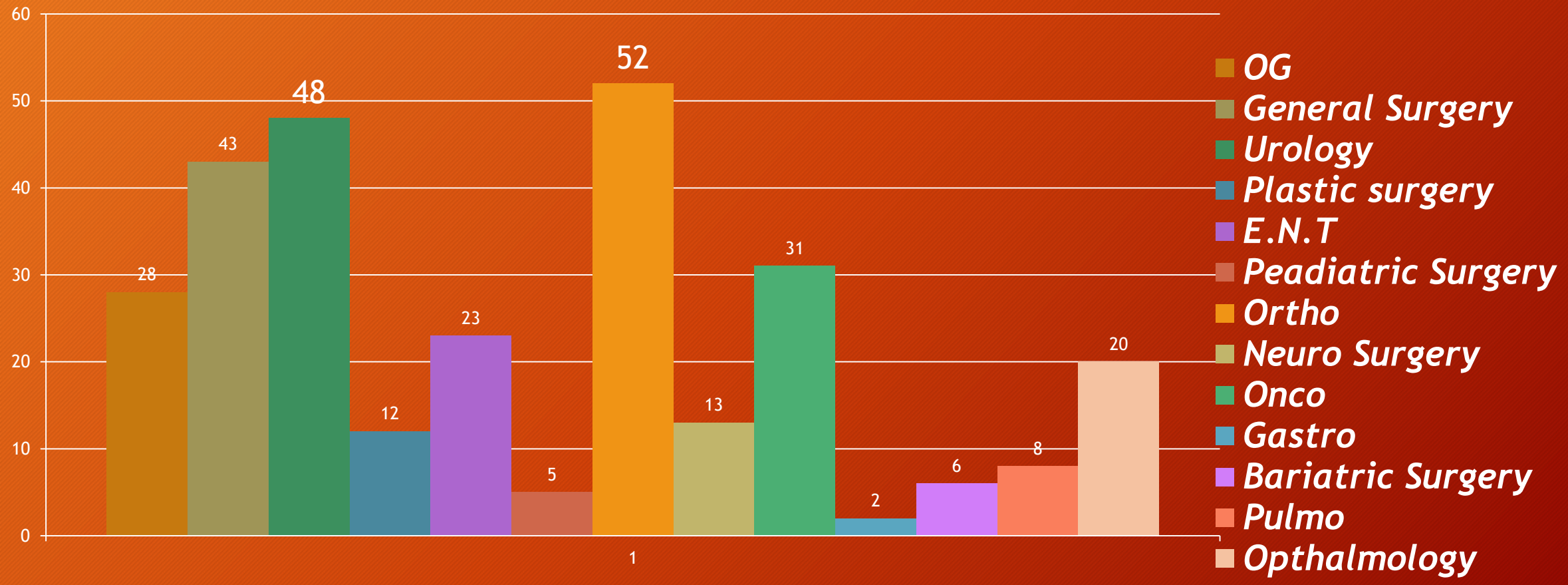
54% surgeries delayed, 16% cancelled. Comparing it to February, drop of 1% in delay and increase of 2% within time cases seen.



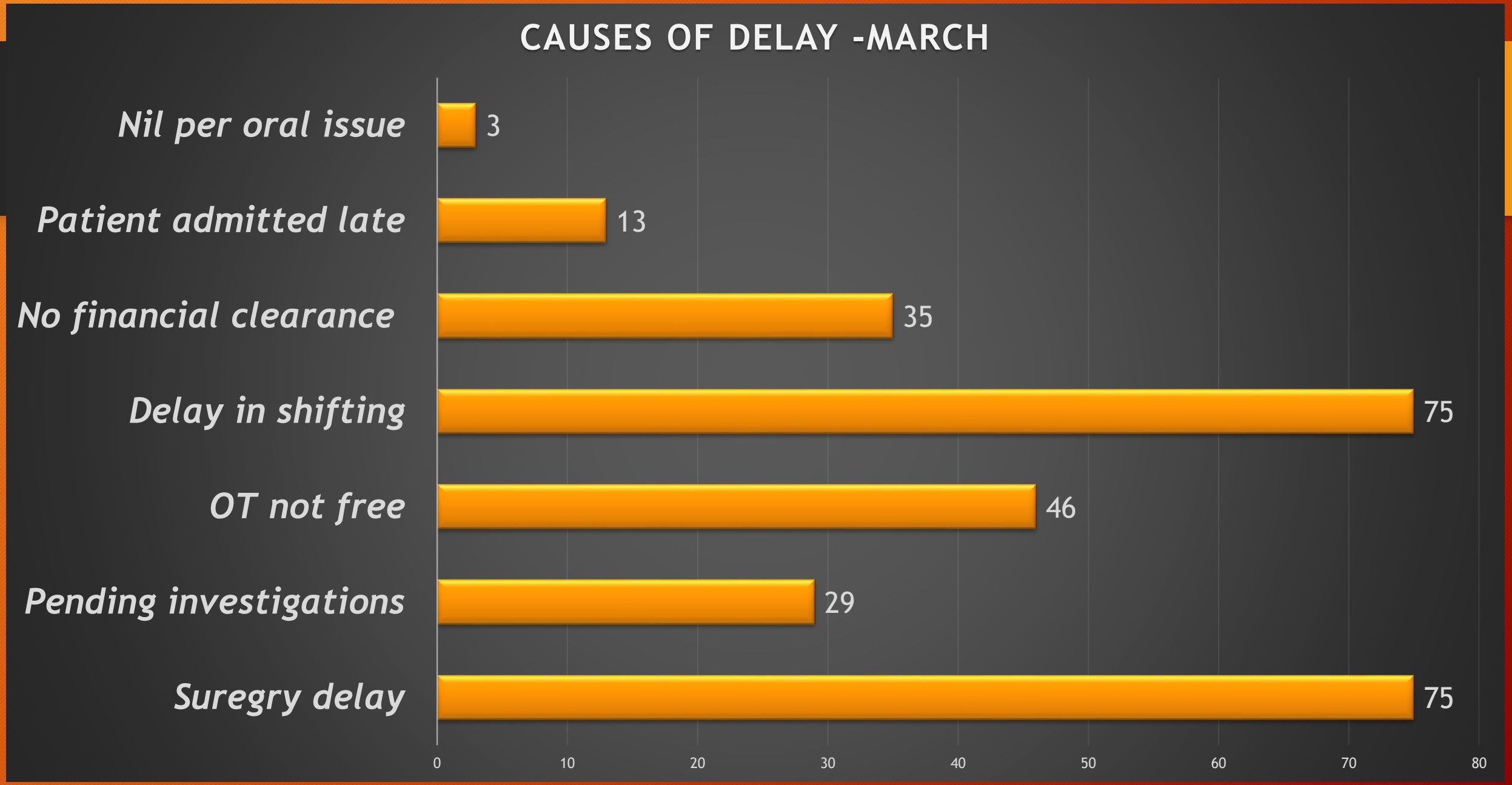
- Delay in first case results in delay of subsequent scheduled cases



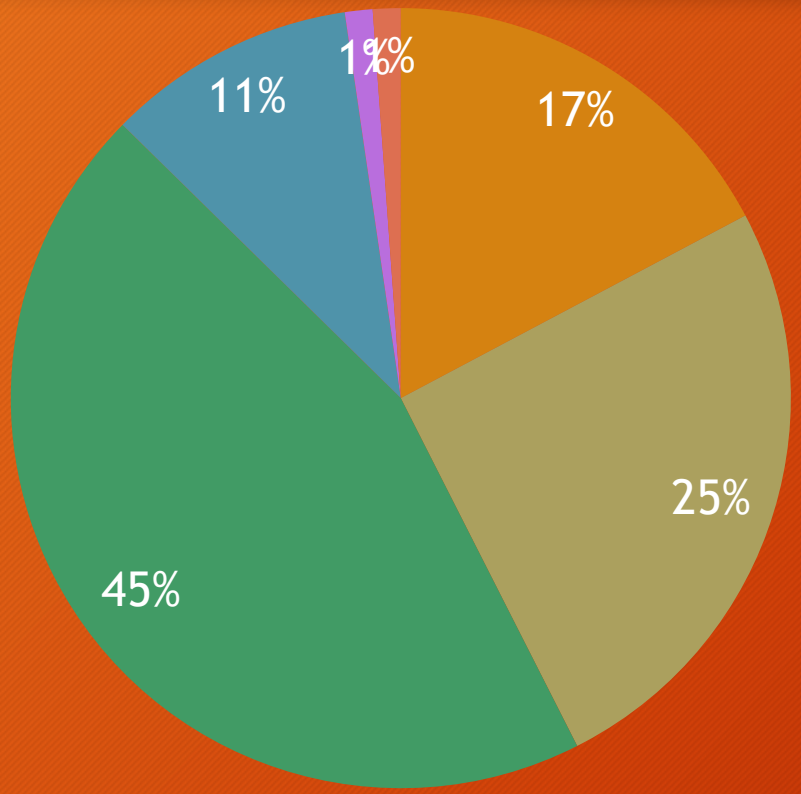
- Maximum delay in March seen from the department of orthopedic and urology.



CAUSES OF DELAY -MARCH

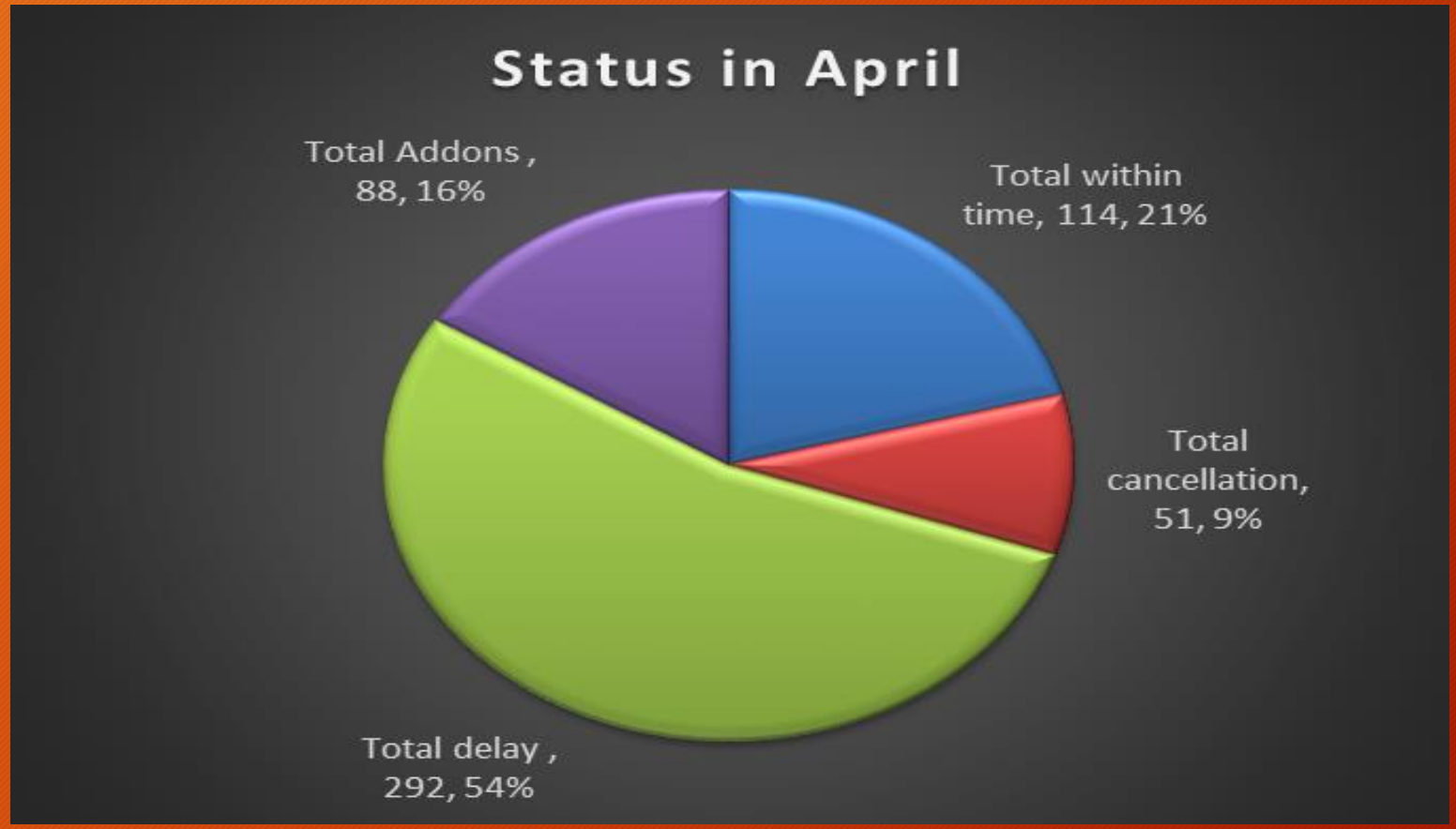


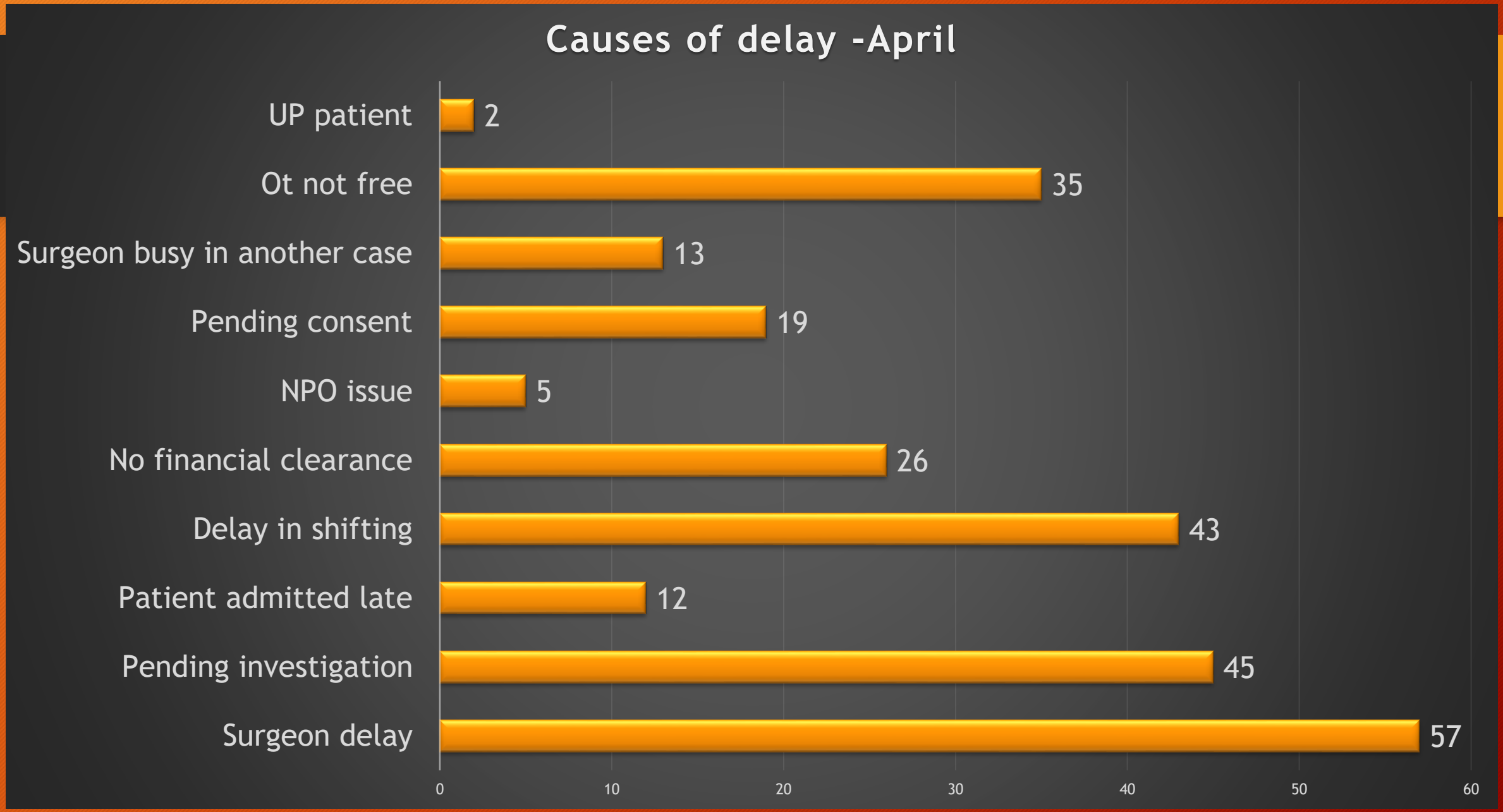
CAUSES OF CANCELLATION IN MARCH :



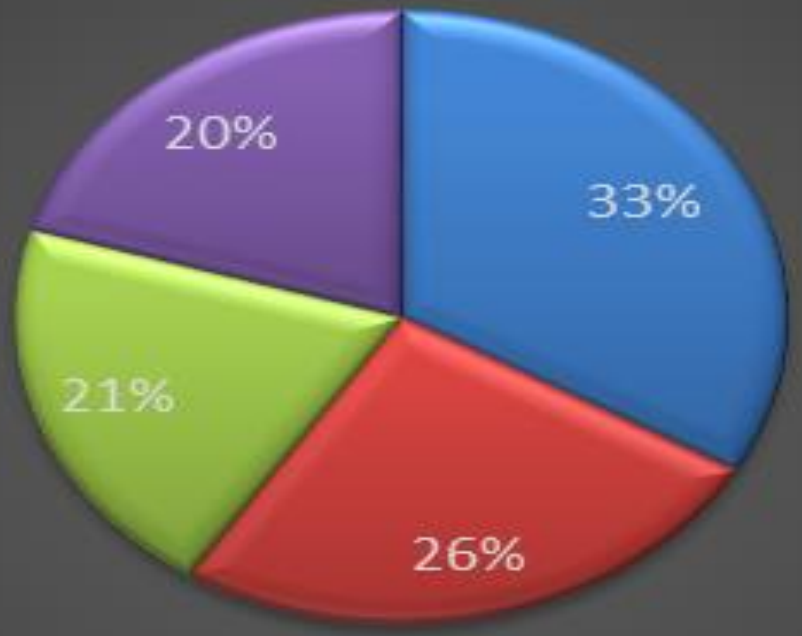
- *No financial clearance*
- *Patient unfit but PAC done*
- *patient din turn up with prior ot booking*
- *As Per Surgeon*
- *Bed Not Available*
- *Nil Per Oral Issue*

- In April, status of 498 cases of various departments captured , 9% total cancellation, 54% delay observed.

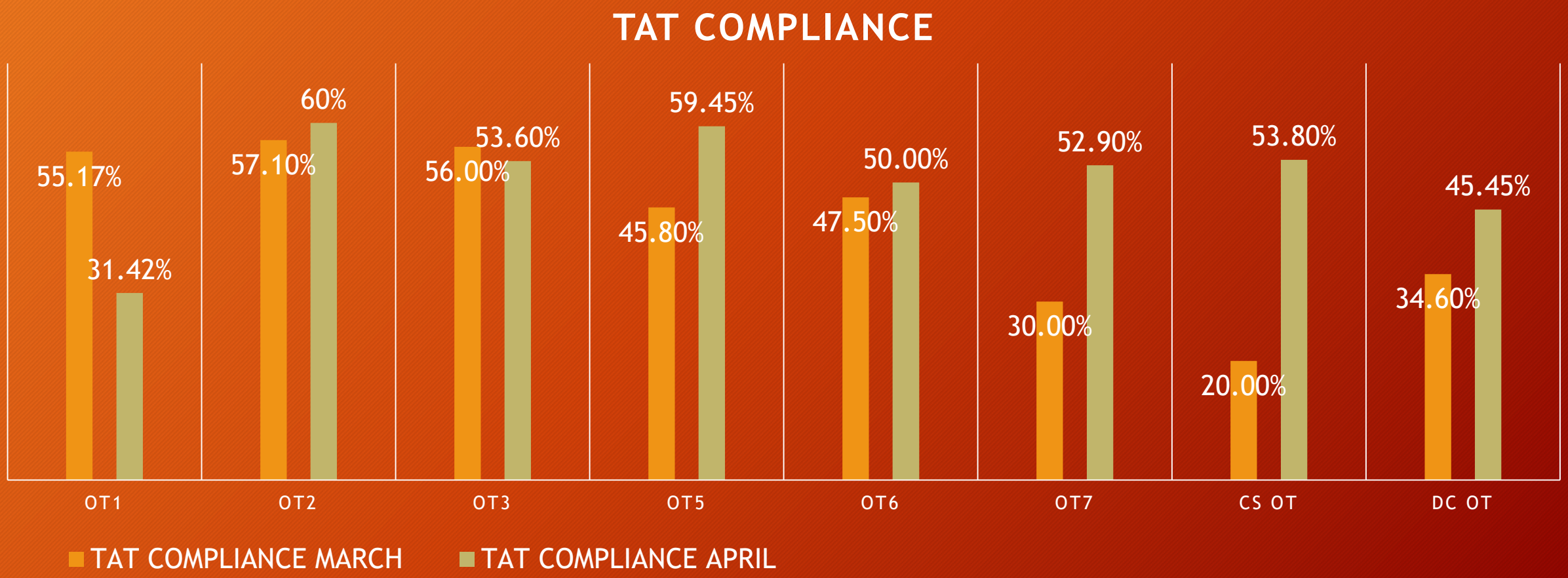



Causes of delay -April
UP patient
2
Ot not free
35
Surgeon busy in another case
13
Pending consent
19
NPO issue
5
No financial clearance
26
Delay in shifting
43
Patient admitted late
12
Pending investigation
45
Surgeon delay
57
0
10
20
30
40
50
60

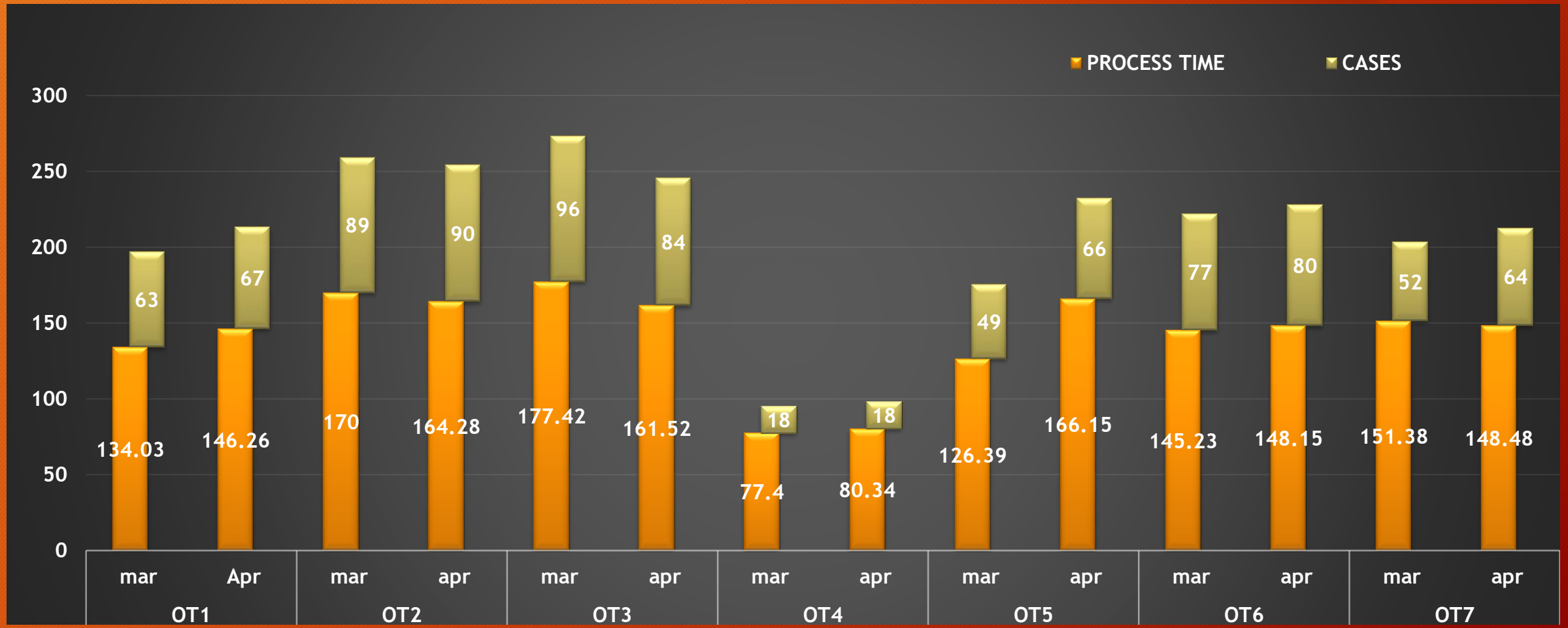
Causes of cancellation-April



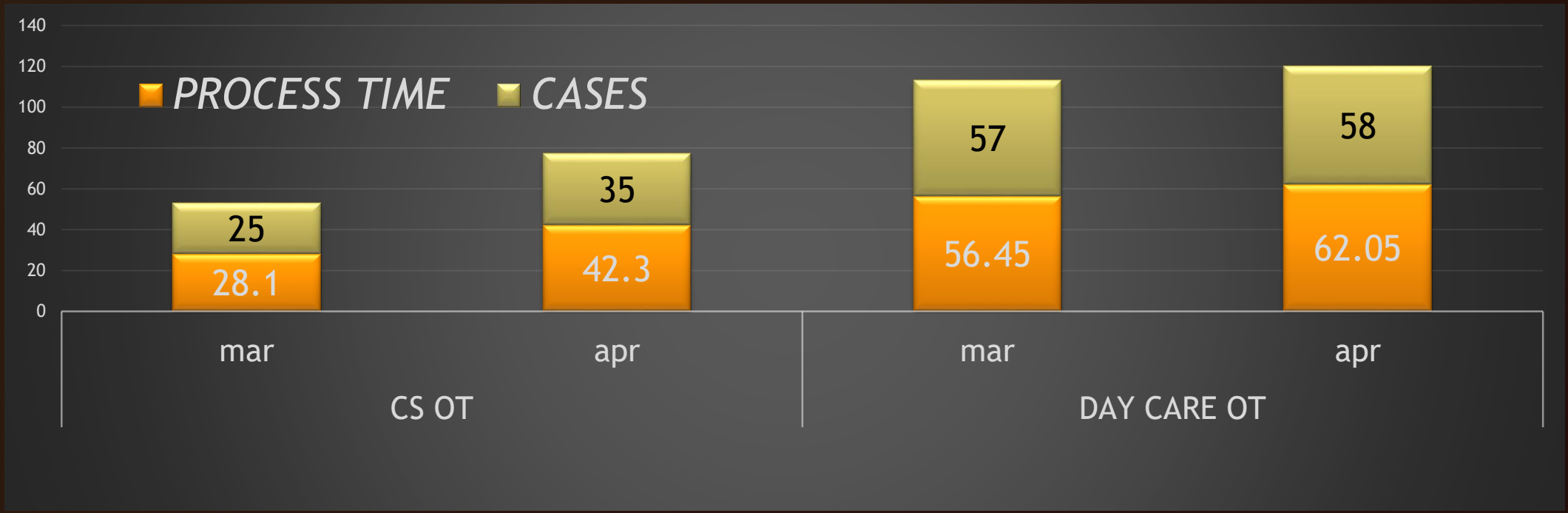
➢ TAT compliance improved in all except OT-1 and OT-3



➢ PROCESS TIME IN HOURS AND NUMBER OF CASES OT WISE



For CS OT and Day Care OT:



- Enhanced utilisation of OT -1, 4, 5, 6 and CS OT , Day care OT in April than March observed along with increase in number of cases in all except OT 3.

- **Compliance of scheduling:**

	OT CASES				
2018	*Booked*	*Done*	*Cancelled*	*Rescheduled (out of cancelled)*	*Compliance of scheduling*
February	*485*	*454*	*76*	*15*	*87.60%*
March	*613*	*584*	*97*	*24*	*88.09%*
April	*609*	*596*	*61*	*17*	*92.70%*

➢ Additional quality parameters observed

MONTH	*FEBRUARY*	*MARCH*	*APRIL*
Total number of Surgeries	*454*	*586*	*596*
Total number of unplanned return to OT	*8*	*6*	*3*
Total number of Emergency Surgeries	*53*	*59*	*34*
Adverse Anaesthesia events, If any	*0*	*0*	*0*

Surgical safety audit

- To find out the compliance of documentation of surgical safety checklist, anaesthesia record, antibiotic prophylaxis, site marking, a surgical safety audit of 50 files was done randomly over a period of 1 week in April

Surgical safety Audit

- Site marked on patient : 58.3%
- Side marked on patient : 100%
- Site marking documented : 85.1%
- Antibiotic prophylaxis documentation : 80%
- WHO surgical safety checklist
- Sign In : 92%
- Time Out : 88%
- Sign Out : 98%
- Consent form Date : 88% ,Time : 60%

- Blood loss documentation in
- Anaesthesia record : 30.61%
- In Surgical safety checklist : 98%
- Anaesthesia Record
- Induction time : 100%
- Incision time : 97.9%
- Shifting time : 84%
- Pre Op checklist compliance : 84 %

CPRS AUDIT OF OT FILES :

- OT files were audited throughout the period of February to April.
- Target : To achieve 100% compliance of documentation.
- Inclusion criteria : Active in patient files
- A sample of 44 files in February, 100 files in March and 100 files in April was taken.

Compliance of	*% in Feb*	*% in Mar*	*% in Apr*
Departmental Initial assessment	*88.63*	*85*	*89*
Fall Risk Assessment	*95.45*	*89*	*93*
Provisional Diagnosis	*54.54*	*72*	*88*
Current Medications	*27.27*	*20*	*24*
Progress Note	*54.54*	*78.3*	*94.4*
Active Problems Entered	*38.63*	*37*	*54*
Allergies assessed	*70.45*	*73*	*81*
Pain assessment	*0*	*0*	*0*
VTE prophylaxis	*70*	*92.5*	*93.93*

Nutritional assessment within 24 hrs of admission	*93.18*	*93*	*92*
Plan of Care with counter signature of treating Doctor	*88.63*	*93*	*86*
Treatment mentioned under heading of plan of care	*13.63*	*26*	*24*
Socio-economic & psychological status	*18.18*	*13*	*17*
Desired Outcome	*0*	*4*	*7*
Full name of procedures mentioned	*65.9*	*67*	*70*
OT Notes by team operating	*86.36*	*94*	*100*
Estimated Blood loss	*0*	*0*	*0*
Transfer Notes	*22.72*	*65*	*69*

Interpretation of CPRS audit

- Compliance of initial assessment improved to 89% in April, VTE prophylaxis documentation to 93.93%,
- OT notes by performing team to 100%,
- Transfer notes compliance significantly improved from 22.72% to 69%,
- Allergy assessment from 70% in February to 81% in April.
- Compliance of pain assessment and estimated blood loss by surgeons was found to be 0%.

Qualitative Analysis Of Staff awareness Audit

- It included sample of 15 human resources out of which 10 were nursing staff and 5 technicians.
- Interpretation : Some more training and education is required on the importance of documentation, quality indicators of OT, and on emergency codes in hospital.
- The staff seemed to be well aware on the parameters of hand hygiene movements, narcotic discarding policy and spillage policy.
- Same was conveyed to the nursing supervisor to ensure further education and training sessions for the required staff.

ISSUES WHICH COULD BE RESOLVED:

1. Installing of hygrometer in TSSD room to monitor temperature and humidity.
2. Vulnerable ID bands for all post-operative patients.
3. Documentation of diagnosis in the controlled OT register.
4. Documentation of information about the implant label handover and about the shifting of post operative patients to ICU/wards to their attendants.

5.Compliance of counter signature by the anesthetist in the narcotic register.

6.Root cause analysis and corrective/preventive action taken for samples(histopathology/frozen) being sent to laboratory ensuring timely being sent, proper billing done before sample transferred.

Recommendations :

- Continuous efforts of reinforcement on adherence to standard protocols.
- Behaviour change communication to ensure implementation of standard practices. In order to address few non-compliances such as unrestricted use of OT slippers, 0% documentation on estimated blood loss by surgeons and pain assessment.

- Training of staff on awareness and importance of documentation, quality indicators of OT.
- Proper coordination and communication between various surgeons, anaesthetists, departmental coordinators, billing desk, front office, nursing staff and technicians.
- Frequent audits and timely meetings to monitor and review utilization and compliance of OT.

THANK YOU ☺