OT SCHEDULING—CAUSES OF DELAY

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SPECIAL LEARNINGS & OBSERVATIONS IN AIMS

1. Special Services for International Patients- SIM card immediately provided to them after their arrival, so that they can talk to their relatives back home, VISA/FRRO assistance,Treatment packages in advance, Airport Pick-n-Drop facility. Hotel reservations, if needed, Language interpreters, Foreign Exchange conversion at the hospital, Follow up assistance for future appointment scheduling after discharge.
2. The most comprehensive cancer centre equipped with Varian's Trilogy with Rapid Arch – IGRT and IMRT Linear Accelerator for radiation oncology. This is the first machine to be installed in North India. This supports the surgical and medical oncology departments.
3. Staff lacking in some of the major departments like OT, Financial Counseling, causing inconvenience to patients making them hyper in front of the other patients.
4. Wheels of stretchers and trolleys in pre holding area not cleaned when brought in from recovery room.
5. No signage for attendants to wear mask and head cap before entering CTVS, Sitting arrangement for nursing staff poor in ER, Only 1 fire extinguisher in whole ER Complex
6. A 250-seat auditorium and amphitheatre for education, conferences, workshops and seminars. The auditorium is connected to a live stream from all operation theatres.

INTRODUCTION-

1. OT delay reduces the efficiency and manpower utilization of the hospital.
2. Every two or three years, someone, usually a hospital administrator, decides that delays in operating room (OR) turnover time needs to be looked into.
3. A committee of 20 or 30 stakeholders is appointed and assigns someone the job of measuring the time between cases and identifying reasons for delays.

RATIONALE-

Late starting of scheduled operations is a major cause of inefficient use of operating room time and wastage of resources. Delays during operating time are associated with dissatisfaction for health care providers and patients alike. Efficient use of theatre sessions relies on **prompt start times**, an appropriately booked theatre case-mix and **finishing on time** to reduce overtime delays. Hence, scrutinizing the causes affecting the start time delays is a key area of concern.

RESEARCH QUESTIONS-

1. What are the causes of delay of starting the first case in respective OTs?
2. Is there any difference in delay based on type of Anesthesia used w.r.t.different parameters?

AIM-To identify the causes of delay in Operation Theater.

OBJECTIVE-

- To understand the causes of delay in starting surgery in respective OTs.
- To find out any difference in relation to the type of Anesthesia given.

METHODOLOGY-

STUDY DESIGN – Cross Sectional Analytical Study. Prospective Study.
STUDY DURATION- 4th April – 13th April 2017.
LOCATION- Operation Theatre department in AIMS,FBD.
SAMPLE SIZE- 197 Patients.

PROCESS MAPPING

1. Doctor calls up OT for OT booking one day prior to the day of surgery.

2. Patient admitted atleast 1 day prior to surgery to the hospital except CGHS and GYPSA cases.
   - Investigations, Clearances, Consent.
   - Pre-Anesthetic check up conducted by the Anesthetist.

3. Patient is reviewed by the doctor.
   - OT Coordinator gives a call in the Ward to send the patient 30 minutes before the surgery.

4. Patient is brought to Pre-hold area by the sister with the ward boys of respective OT- Handover Is Given by the staff of the respective ward.

5.
   - After surgery patient is moved to Recovery Room/ICU till he/she regains conciousness.
   - If the surgery adons during a particular surgery then the surgeon or the assistant of the surgeon calls and informs the financial counseller for the recounselling.

6.
   - From recovery room patient is then moved to respective ward/room after complete monitoring.

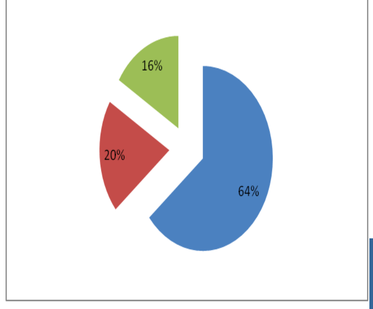
TYPE OF SURGERIES	OT NUMBER
INFECTED CASES	1
UROLOGY CASES	2
GYNECOLOGY CASES	3
LAPROSCOPIC/LAP CHOLECYSTECTOMY	4
ORTHO CASES	5
ONCOLOGY/PLASTIC SURGERY	6
NEUROSURGERY CASES	7
GENERAL SURGERY	8
EYE CASES	9
CARDIAC SURGERY	10

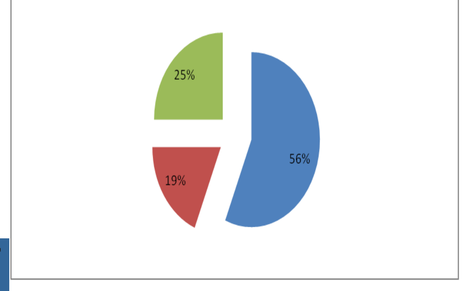
OT Timings – 8 A.M. to 5:30 P.M.

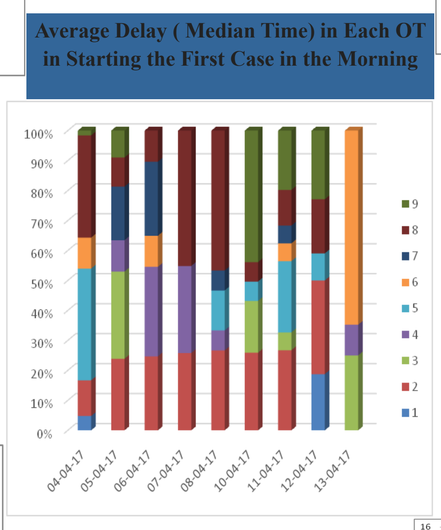
IMPORTANCE OF OT SCHEDULING-

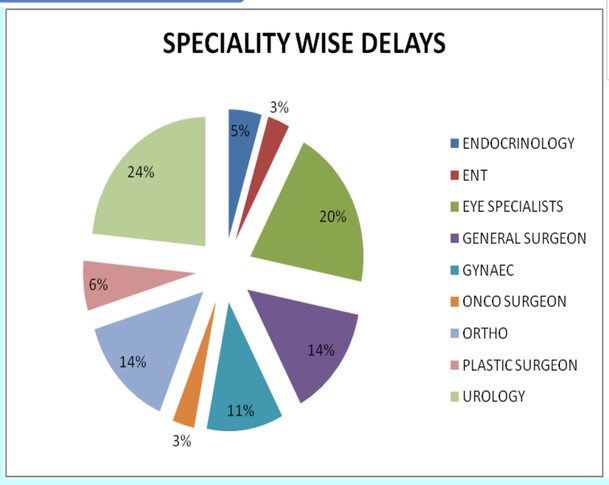
- To ensure patient safety and optimal patient outcome.
- To provide surgeons with the appropriate access to the operating room so that patients can have operations in a timely manner.
- To maximize the efficiency of operating room utilization, staff and materials.
- Decrease patient delays.

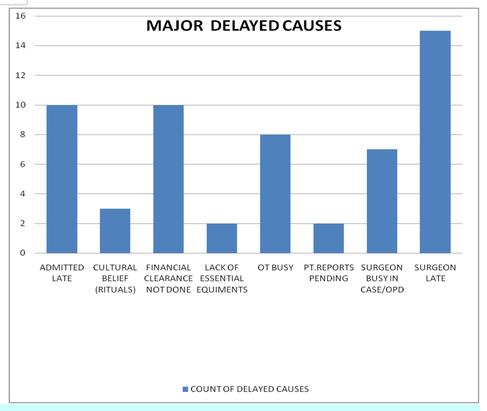
DATA ANALYSIS











RESULTS-

1. 23.43% cases were delayed as the surgeons did not arrive on time that became the cause for the most common problems, 'investigations, clearances, consent not complete'. A few more of the top 10 included surgeons running two rooms, surgeon unavailable.
2. Other 15.62% cases were delayed as financial clearance not done. (reasons as mentioned above); other than that there may be slow registration process/slow admission process which may lead to late financial approval.
3. 15.62% delays due to late admission of the patients due to the late arrival or non-availability of rooms of their choice. (Cabin/Semi-Cabin)
4. 12.05% of time OT is occupied with other cases.
5. 10.93% cases delay due to Surgeons busy in OPDs.
6. 4.68% delays due to Cultural beliefs and family rituals of the patients. (specially in the Cesarean cases)
7. 4.68% of delays as patient reports were pending.

BARREIRS-

Cancellation of cases.
Same day scheduling.
Postponement of cases.
Delay /preponemnet of Scheduled cases.
Late start of OT for the day.

Reasons of cancellation -

Cardiac clearance; patient not fit for surgery.
Consent not signed by the interpreter.
Funds not deposited. (life threatening cases are taken into consideration)
Change of care plan.

Same day scheduling –
Emergency cases.
Surgeon's preference according to their own convenience.
If the coordinator forgets/skips to mention in the list.

Postponement of the cases-

TPA approval pending.
CGHS approval pending. } Financial Causes
ESI approval pending.
Consent not signed.
Investigation reports pending,
Patient late admission due to the late arrival of patient from home or sometimes the reason being the non-availability of rooms according to their preference. (Cabins/Semi-Cabins)

FINDINGS -

1. Total OT hours = 8:30 AM to 5:00 PM
   = 8.5 hours
   = 510 minutes
2. Total number of surgeries = 197
3. Average number of surgeries per day = 22
4. Total number of delays = 64
5. Average number of delays per day = 7
6. GA cases were delayed more than SA and LA cases i.e. (36)
7. Urology and Eye Cases were highly delayed.
8. Week 1st has highest delays = 35
   Week 2nd = 29
9. Highest cases were delayed in OT 2 = 17. (OT1-3, OT3-5, OT4-6, OT5-6, OT6-4, OT7-5, OT8-9, OT9-9)
10. Average delay time i.e Median Time maximum in OT 2 (17.17 HRS) and OT 8 (13.92 HRS)

CONCLUSION-

1. Delays most frequently occur in the operating room and have a huge effect on patient flow and resource utilization. Thorough study of pan operative delays provides a basis for the development of solutions for improving operative room efficiencies and illustrates the principles underlying the causes of operating room delays across surgical disciplines.
2. This study demonstrates that delays are mostly in **Urology Operating Room** that lessons from the data analyses.
3. The most common types of delays were , "untimely arrival of the surgeons, financial clearance due, late admission of the patients, lack of essential equipments, patient investigation reports pending," measures devised to combat inefficiency in the operating room will have to primarily target these areas.
4. This could improve quality assurance in the operating room, patient satisfaction and flow and decrease frustration and

OTHER PROJECT-

ANALYSIS OF CONSUMABLES CONSUMPTION OF LSCS TO INCREASE THEIR OPTIMAL UTILIZATION.