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1. Gap Analysis of Multispeciality Operation Theatres (MSOT) Complex

2. Gap Analysis of MyFortis Doctor App

Fortis Hospital Mohali

Presented By

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Overview of the presentation

- About the Fortis Hospital, Mohali
- Introduction
- Literature Review
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About the Hospital

•Fortis Hospital Mohali (FHM) was established in the year 2001.

•It has been Internationally Accredited by Joint Commission International (JCI) since 2007(renewed for the 5th consecutive time in 2019).

• It is also the proud recipient of accreditation from National Accreditation Board of Hospitals (NABH), India (renewed for the 4th time in 2017).

•It has 348 operational beds (159 ward beds divided between ward A1, A2, A3, A4 & A6 and 189 ICU beds) and 85 non census beds.

Multispeciality Operation Theatres (MSOT) Gap Analysis: A Time & Motion Study

Introduction

•Operation theatre complex is the core of any hospital.

•The most expensive department in terms of equipping, staffing and maintaining.

•To achieve maximum utilization of OTs, it is essential to coordinate activities and personnel.

The MSOT complex in the hospital conducts around 20-24 surgeries per day, but this can be increased easily if the gaps in the MSOT complex are addressed and worked upon.

Literature Review

Calculating the average non-productive time (NPT) in each Operation theatre is a good way to quantify the observations recorded inside the theatres and is very helpful in giving relevant recommendations. (Gaur K,2019)

By proper communication and utilisation of resources, the time wasted at the starting of each surgery can be saved, which can lead to better utilization of Operation theatres. (Naik SV, 2018)

By recording the time spent on each step, knowing the scheduled time of the surgery and recording the reasons for the delays, the utilization of the theatres can be increased largely. (O' Donnell, 1976)

The utilization of OTs is found to be around 72.51% , which is optimum and it is seen that most of the hours were scheduled for elective surgeries while unscheduled hours were used for emergency surgeries (Bhaskar L, 2007)

All of these reasons which lead to cancellation of the surgeries can be avoided by proper planning and coordination between the operation theatre team. (Garg R, 2009)

Research Question

What are the gaps present in the utilization of Multi Speciality Operation Theatres in Fortis Hospital, Mohali?

Objective

To observe day to day functioning of MSOTs in Fortis Hospital Mohali, identifying the gaps present and giving recommendations for the same.

Methodology

Research design: This is a cross sectional study conducted in Fortis Hospital, Mohali.

Sample Size: 21 patients admitted in MSOT for surgery.

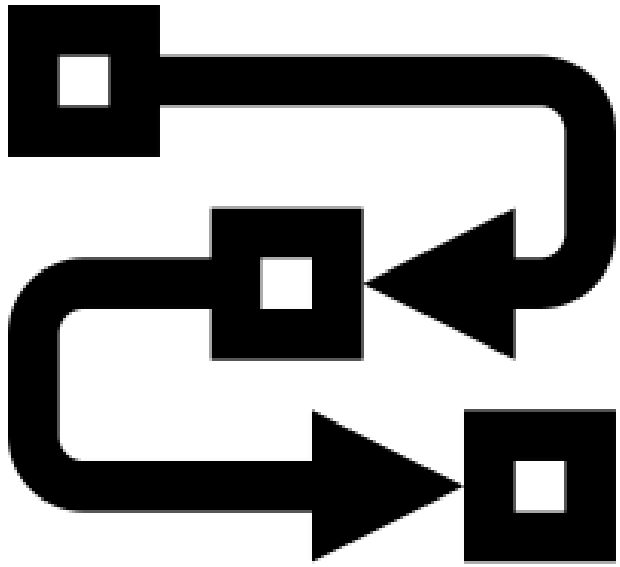
Sampling Technique: Purposive Sampling

Study Period: From 20th May to 7th June 2021

Mode of data collection: The observations were made on all working days, except Sundays, from 8 am to 4 pm.

Steps taken into consideration while observation:

- Patient brought/came into pre -Op
- Sign in by the surgeon and anesthetist
- Wheel in (patient shifted to OT)
- Start of administration of anesthesia
- Patient positioning
- Paint & Draping
- Time out
- Incision/surgery start time
- Surgery end time
- Anesthesia end time
- Wheel out (patient shifted to post -Op)



Multispeciality Operation Theatres (MSOT)

Consists of:

- Pre op area (10 beds)
- Post op area (8 beds)
- 7 functional, non covid operation theatres (Total 9 OTs)
- Total nursing staff : 47
- Total technicians : 23
- 3-4 surgeries per operation theatre per day

GAPS OBSERVED

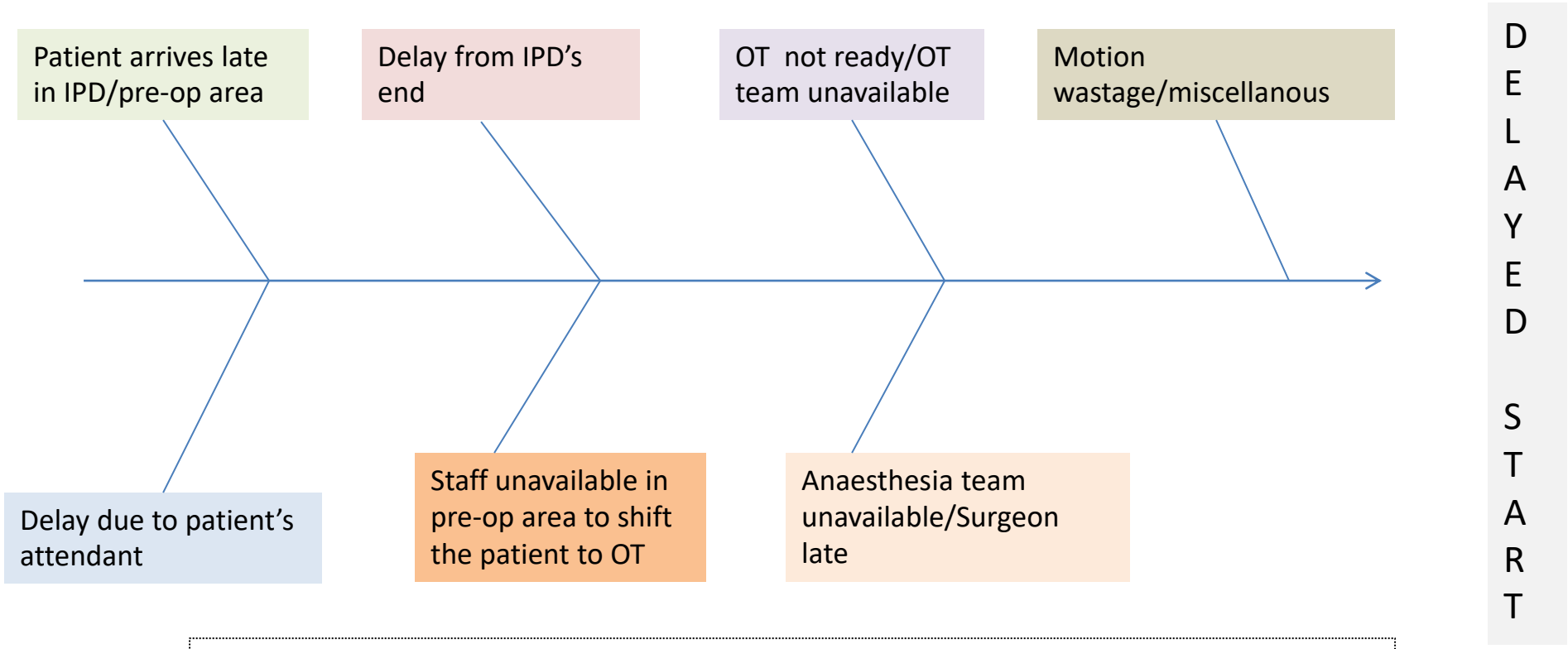
DELAYED START

Wheel in time of patient is late than the planned start time

NON PRODUCTIVE TIME

The time inside the Operation theatre which is not being utilised for any activity

Data Analysis Findings



Out of the 21 surgeries observed, 16 surgeries had delayed start

Average delayed start time : 39 minutes

Non-productive Time inside the operation theatre (NPT)

NPT 1: From wheel in to start of anaesthesia administration

NPT 2: Paint & Drape/positioning completion to incision

NPT 3: End of anaesthesia to wheel out

Out of the 21 surgeries observed, 19 surgeries had a Non-productive time of more than 10 minutes

Average NPT per surgery per OT: 35 minutes

Data Analysis Findings

Surgeon not available (on rounds/ OPD)

Surgeon called in after Paint & Drape completion

GDA unavailable to shift the patient from OT to post op area

Non Productive Time in OT

Conclusion

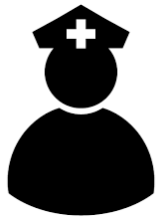
GENERAL GAPS

- Surgery delayed as suction stopped working mid surgery
- Time out not done in many surgeries
- No staff available at IPD's entrance (in hospital) to guide the patient/attendant or to give directions to OT (especially early morning)

Recommendations

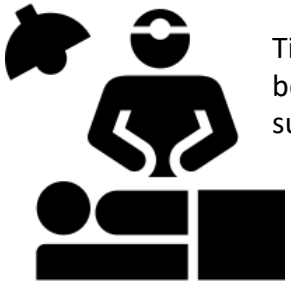
Patient should be explained the importance of arriving on time with all the required documents during slot booking (Delay in one surgery can lead to delay in subsequent surgeries)

Surgeons should be called before beginning paint & drape/ positioning to accommodate scrub time with that.



One GDA should be allotted the duty of shifting the patient from OT to post op everyday to avoid increase in NPT

At least one attendant of the patient should be informed to stay until the patient is wheeled inside the OT.

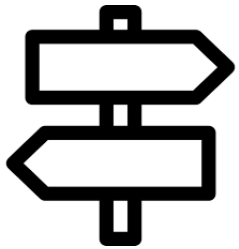


Time out must be done in every surgery

All technical instruments (suction, debrider etc) should be checked at the start/end of the day for their functioning

Any delays due to the staff (IPD/surgeons/anaesthetist) should be recorded along with the reasons to help the OT to be more efficient in future

A Lay-up room can be set up for laying of sterile trolleys which can be brought prepared inside the OTs to save NPT.



Signage/Map to OT should be put on IPD/OPD's entrance to save time

Gap Analysis of MyFortis Doctor App

Introduction

➢The hospital already had an application named My Fortis, which was running smoothly and was liked equally by the consultants as well as the patients.

➢ The organization had to break up with the previous partner and wanted to launch a new app with add on features to comply with the ever changing environment and hence this new app was launched.

➢The previous app was made dysfunctional as soon as the new app was launched and integrated with the hospital information system.

➢This new app was launched in the first phase, with very minimal features when the study was conducted.

The study was expected to find out the limitations present in the new application so that they can be corrected and improved for smooth functioning of the app.

Literature Review

Healthcare apps have transformed the lives of Healthcare professionals (HCPs)as they are helpful in information gathering and management, communication, patient and health record management along with being convenient to use, more efficient, accurate and productive
(C. Lee Ventola,2014).

A study based on mobile apps (2019) demonstrates the kind of healthcare apps that are downloaded more widely and encourages the use of health care apps to improve patient care(Throat M, 2019)

Since the Health care providers are able to download medical apps on the mobiles, it has opened several opportunities for a lot of clinical resources being made available via apps. (Payne, 2012)

Medical apps have many uses like they can help simulate the surgical procedures, help in prescribing drugs online, help in diagnosis and treatment of patients, online learning, billing etc. (Mickan S, 2013)

In a study, it was concluded that people mostly prefer downloading a free app rather than a paid one, initially but will readily do the in-app payments and paid upgrades, if required later on. (Murfin M, 2013)

Research Question

What is the view/opinion of consultants (Doctors) of Fortis Hospital, Mohali on the new My Fortis Doctor App that was launched ?

Objective

To know the opinion of consultants (Doctors) on the new My Fortis Doctor web portal and mobile application that had been launched for their use.

Methodology

Primary data was collected from 30 consultants by conducting face to face interview and asking open ended questions.

Research design: This is a qualitative study conducted in Fortis Hospital, Mohali.

Sample Size: 30 consultants (doctors) of the hospital

Sampling Technique: Purposive Sampling

Mode of data collection: Face to face interview with consultants

Following are some of the questions that were asked:

- Are you aware about the new My Fortis Doctor App that has been launched?
- If yes, have you downloaded the app?
- Did you face any problem while downloading it?
- Are you facing any issues with the app?
- Are there any features you want to suggest in the update?

Data Findings

Some common issues faced by the doctors

An error message flashing on the screen after/ before logging in

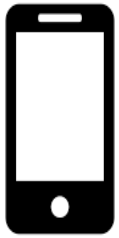
The app self logs out after logging in

A message containing ‘please wait’ flashing on the screen 4-5 times before Opening anything

Appointments not shown in the correct sequence

Unable to mark the patient as attended/unattended/not-arrived on the app

Unable to separately view the physical patients and tele consultation patients’ list on the app



Mobile numbers of the patients unavailable

Scheduling for doctors unavailable

Recommendations

•The app should have been launched after conducting a proper trial run, to rule out most of the technical glitches.

•A trial team of consultants should have been made to use the app initially, to get their views on it and make the changes accordingly, before launching it for everyone's use

•The team involved in the designing and development of the app should have taken suggestions from a few consultants to understand things from their perspective as ultimately the app was made to help consultants.

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THANK YOU