Summer training at

Max Superspeciality hospital,mohali

(April-3rd –June -3rd 2015)

- A time motion study to probe in the reason for delay in inpatient discharges

By
Surbhit gupta

Under the guidance of
Dr. j.P.singh

MBA-Hospital & Health Management(MBA-HM)
2013-2015

The IIHMR University,Jaipur
2015

INSTITUTE OF HEALTH MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that Dr.Surbhit gupta has completed his summer training in MAX HOSPITAL MOHALI from 3rd April-3rd June 2015.The candidate himself carried out all the studies related to his summer training.His approach in the study has been scientific and analytical.This summer training in partial fulfillment of course requirement is recommended for the award of Masters Of Business Administration in Hospital & Health Management.

I wish him success in all his future endeavors.

Col.(Dr.)Ashok Kaushik
Dean(Academic&Student affairs)
IIHMR,Jaipur

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MAX HEALTHCARE
Super Speciality Hospital

Max Super Speciality Hospital, Mohali
(A unit of Hometrail Estate Pvt. Ltd.)
Near Civil Hospital, Phase-6,
Mohali, Punjab-160055,
Phone: +91 172 6652 000
www.maxhealthcare.in

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Dr.surbhit gupta** has completed his internship in the department of Front Office,at Max Superspeciality Hospital Mohali.He did his training from 3rd april 2015-3rd june 2015.

The projects undertaken by him during the training period were

- A time motion study to probe in the reason for delays in inpatient discharges

For Max Superspeciality Hospital Mohali

Mr.Abhinav Srivastav

HOD(Front office)

MAX SUPER SPECIALITY HOSPITAL
(A UNIT OF HOMETRAIL ESTATE PVT. LTD.)
NEAR CIVIL HOSPITAL, PHASE-6
MOHALI-160055 (PUNJAB)

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Jun 3, 2015

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Surbhit Gupta has completed his training in the department of Front Office (Project: A time motion study to probe in the reason for delays in inpatient discharges) at Max Super Speciality Hospital, Mohali on 3rd June, 2015.

During his training (3rd April 2015 to 3rd June 2015) he was part of hospital set up and was reporting to Mr. Debobrata Nandi.

We wish him all the best in his future endeavors.

For Max Super Speciality Hospital

Lily Sahota

Lily Sahota
AGM-Human Resources

MAX Superspeciality Hospital Mohali

Acknowledgement

Nothing really can be accomplished alone. It's the direction, guidance, involvement & support of more than a few that results into realization.

My institute-Institute of health management research (IIHMR), Jaipur and its education deserves the foremost appreciation for providing me the opportunities to understand my individual capabilities. All the facilities at IHMR had facilitated the Endeavour; I acknowledge the contribution of my **mentor Dr.J.P. Singh** in completion of the project right from the word go.

My heartfelt gratitude to **my hospital mentor, Mr.Abhinav srivastav**(HOD,FRONT OFFICE,MAX MOHALI),Mr.Subodh kumar(DUTY MANAGER,FRONT OFFICE,MAX MOHALI) and entire Front Office staff for their kind support & guidance.

Thanking you

Dr.Surbhit gupta


Emergency
Cancer Centre
Trauma & Ortho
Cardiac Sciences
Neurosciences
Surgical Services
Mother & Child
Critical Care
Super
Speciality
Hospital

CONTENTS

ABBREVIATIONS

UHID : unique hospital identity
HGT : haemo glucose test
HIS : hospital information system
EMG : electro myography
EEG : electro encephalogrphy
ECG : electrocardiograph
HOD : head of department
CCD : customer care department
PCE : patient care executive
PCC : patient care coordinator
MOU : memorandum of understanding
HCU : health checkup
EPABX: electric private automatic branch exchange

ICU : intensive care unit
CT : computerized tomography
MRI : magnetic resonance imaging
HR : human resource
CSSD : central sterile supply department
H/K : house keeping
SICU : surgical intensive care unit
MICU : medical intensive care unit
IV : intravenous
ENT : ear nose throat
CRF : chronic renal failure
Liq d : liquid diet
GI : gastro intestinal
Ld : light diet
POF : plenty of fluids
DAT : diet as tolerated
F&B : food and beverage
CAG : coronary angiography
ABG : arterial blood gas
AHU : air handling unit
AIDS : Acquired immune deficiency syndrome
ASD : atrial septal defect
AVR : aortic valve replacement

BMFT: barium meal flow through
CABG: coronary artery bypass graft
CPR : cardio pulmonary resuscitation
CT : computed tomography
CTVS : cardio thoracic vascular surgery
BME : biomedical engineering
MRD : medical records department
GDA : general duty assistant

Purpose and objective of summer training

Summer training is the integral part of MBA(hospital and health management)course.As part of the curriculum students of first year are required to undergo summer training at any reputed organization to get an indepth exposure to the functioning of various departments in an organization

OBJECTIVES

1.To get exposure to functioning of the organization
2.To undergo an observational training in various departments to understand their basic functioning.
3.To understand the application of managerial tools and techniques involved in the organization
4.To get involved in the ongoing project assigned by the organization and provide voluntary services

5.Report writing and presentation

METHODS OF DATA COLLECTION

Data collection involved discussion with HOD's on managerial issues and talking to other staff and going through various records

SOURCES OF DATA

1.Primary source of data
2.Secondary source of data

PRIMARY SOURCE OF DATA
1.By interaction with head of the departments,managers,executives and other members of the hospital
2.Through direct observation of functioning of various departments

SECONDARY SOURCE OF DATA
1.By going through various records of the hospital
2.Through website of the hospital www.maxhealthcare.in
3.Through the internet

4.By going through the literature available about the hospital for example:- information booklets,pamphlets and other various written documents

DOCUMENTATION

1.Description of departmental study

2.Critical analysis on the project

INTRODUCTION

Max superspeciality hospital,Mohali is another milestone towards realizing the dream of a great visionary Mr.Analjit Singh, chairman and managing director of Max healthcare limited.

With over 1900 beds and 11 top hospitals in Delhi-NCR, Punjab and Uttarakhand, 2100 world-class doctors and 9300 support staff, Max Healthcare is one of the leading chain of hospitals in India.

With 525 ICU beds & the most advanced technology, Max healthcare's state-of-the-art infrastructure is rated the best in North India thereby making Max Healthcare one of the best hospitals in India.

Max healthcare is committed in meeting all healthcare needs of customers,starting from the maintenance of good health to providing global standards in diagnostics,therapeutics and surgical requirements at the time of need.It aims to exceed customer's expectations in terms of quality,service,safety and value for money through constant innovation and better product delivery

HOSPITAL OBJECTIVES

1.To facilitate hospital dissemination about MAX

2.To give a broader outlook about the infrastructure,functioning of various departments

3.To serve as a basic document defining the facility

To achieve the above objectives,the hospital plans to setup a hub and spoke delivery system starting from Northern India.It consists of following levels for total healthcare management.

LEVEL 1

A hub hospital,a super speciality unit equipped with all OPD and IPD facilities

LEVEL 2

Medical centres as stand alone units for providing ambulatory and daycare surgery along with high level diagnostics

LEVEL 3

Health maintenance clinics for providing preventive health management,wellness programmes and basic diagnostics

VISION

MAX INDIA

To be one of India's most admired corporates for service excellence – in what we do, how we do it and the positive impact we have on society and our stakeholders.

MAX HEALTHCARE

Quality, medical & service excellence and detailing are the pillars of this institution. To deliver International Class healthcare with a total service focus, by creating an institution committed to the highest standards of medical & service

excellence, patient care, scientific knowledge and medical education.

DESIGN PHILOSOPHY

- *Max healthcare is now a Leed(Leadership in energy and environmental design)Certified Green hospital-4 out of 6 such hospitals in india are Max hospitals*
- To design development for maximizing the accessibility and operational efficiency to deliver improved patient care by appointing the world renowned architect Mr.Richard Wood

This international architecture award winning facility has a remarkable design feature-all rooms have soothing views,natural light and facilities for attendants.

COLLABORATION

- Max healthcare and GE healthcare have joined hands to advance Cancer care in India through research and Co-creation of multifaceted cancer care solutions

Collaboration between Max Planck society-Germany and Department of Science and Technology India to understand the role of Ubiquitin-related modifiers in regulation of RNA splicing

FACTS AND FIGURES

- Name: Max Superspeciality Hospital Mohali
- Location: Phase 6 Mohali Punjab
- Speciality Tertiary care Superspeciality Hospital

No.of beds 213

Important dates to remember-

September 2011-OPD was inaugurated by honorable chief minister of Punjab shree prakash singh badal

December 2011-IPD was inaugurated

NUMBER OF DEPARTMENTS

CLINICAL DEPARTMENTS

- Infection control
- CSSD
- Physiotherapy
- CTVS ICU
- NICU
- LDR
- Operation theatres
- Triage\emergency
- HDU
- Radiology
- General ward
- Laboratories
- MICU
- CCU
- Cath lab
- Dialysis

Preventive health packages

- Dietetics
- Ortho ICU
- SICU
- RICU
- LINAC
- BRACHYTHERAPY
- Oncology
- Nuclear medicine

Blood bank

NON-CLINICAL DEPARTMENTS

- Biomedical engineering
- Engineering
- Finance
- Human resource
- Housekeeping
- Laundry
- Pharmacy
- Medical records
- Food and beverages
- Security

- Central stores
- Quality assurance
- Research
- Patient welfare department
- Information technology

SERVICES PROVIDED

CLINICAL SERVICES

- Cardiac surgery
- CTVS
- Renal science
- Nephrology
- Urology
- Neurology
- Neuro surgeon
- Gastro intestinal diseases
- Internal medicine
- Pulmonology
- Endocrinology
- Dermatology
- General surgery
- Paediatrics
- Obstetric surgery

- Gynaecology
- Paediatric
- Neonatology

NON CLINICAL SERVICES

- House keeping and laundry
- Pharmacy
- Medical records
- Security
- Training and development

FACILITY LAYOUT

	Floor	Number
Basement 2		
1	Onco Day Care	2
2	Dietetics	1
3	LINAC	1
4	Brachytherapy	1
5	Admixing room	1
6	Treatment planning room	1
Basement 1		

1	Biomed Engg.	1
2	IP Pharmacy	1
3	Physiotherapy	1
4	Housekeeping	1
5	CSSD	1
6	Laundry	1
7	Security	1
8	IT	1
9	Engineering	1
Ground Floor		
1	OPD	2
2	PHP	1
3	Billing/Front Office	1
4	OP Pharmacy	1
5	Emergency	1
6	Ambulatory Day Care	1
7	Radiology	1
8	Nuclear medicine	1
9	Non Invasive cardiology	1
10	Treatment room	1
11	Sample collection	1
First Floor		
1	Gynae OT	1
2	Labor Room	1
3	NICU	1
4	Nursery	1
5	Old SICU	1
6	Ortho SICU	2

7	PAC Room	1
8	OT	2
9	CCU	1
10	Cath lab	1
11	CTVS SICU	1
12	Endoscopy	1
13	HDU	1
SecondFloor		
1	MICU	3
2	Dialysis	1
3	Wards	4
4	HDU-CTVS	1
5	RICU	1
6	OT	2
Third Floor		
1	LAB	1
2	Blood bank	1
3	Medical Admin	1
4	Doctors lounge	1
5	Wards	4
6	Ecoward	1
2nd Building		
1	Admin	1
2	Kitchen	1

BED LAYOUT

- There are a total of 217 beds allotted to different specialities
- The distribution is depicted in the image on next page

TOTAL BEDS OCCUPIED	
Category	
Criticalcare-beds (2nd Floor)	Total beds
CTVS	6
SICU	5
SICU -1	10
SICU -2	8
CCU	11
MICU	24
NICU	8
RICU	4
CTVS- HDU	4
HDU	4
Total	84
Ward (2nd Floor)	
Single Room	14
Clasic Delux	1
Double Bed	14
Economy Bed	28
Total (2rd Floor)	57
Ward (3rd Floor)	
Suite	1
Single Room	14
Clasic Delux	1
Double Bed	18
Economy Bed	28
Ecoward Bed	14
Total (3rd Floor)	76
Grand Total (Ward)	133
Grand Total	217

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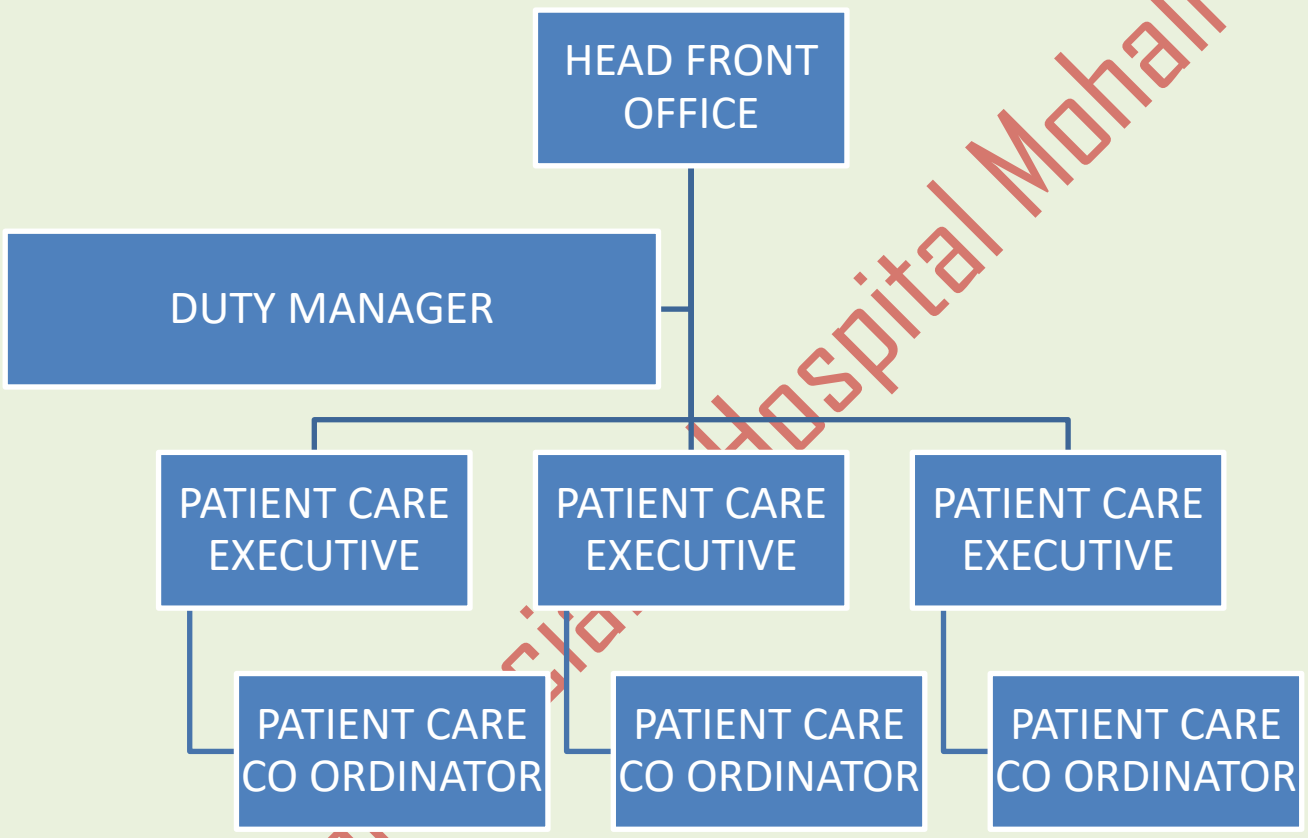
OUT PATIENT DEPARTMENT

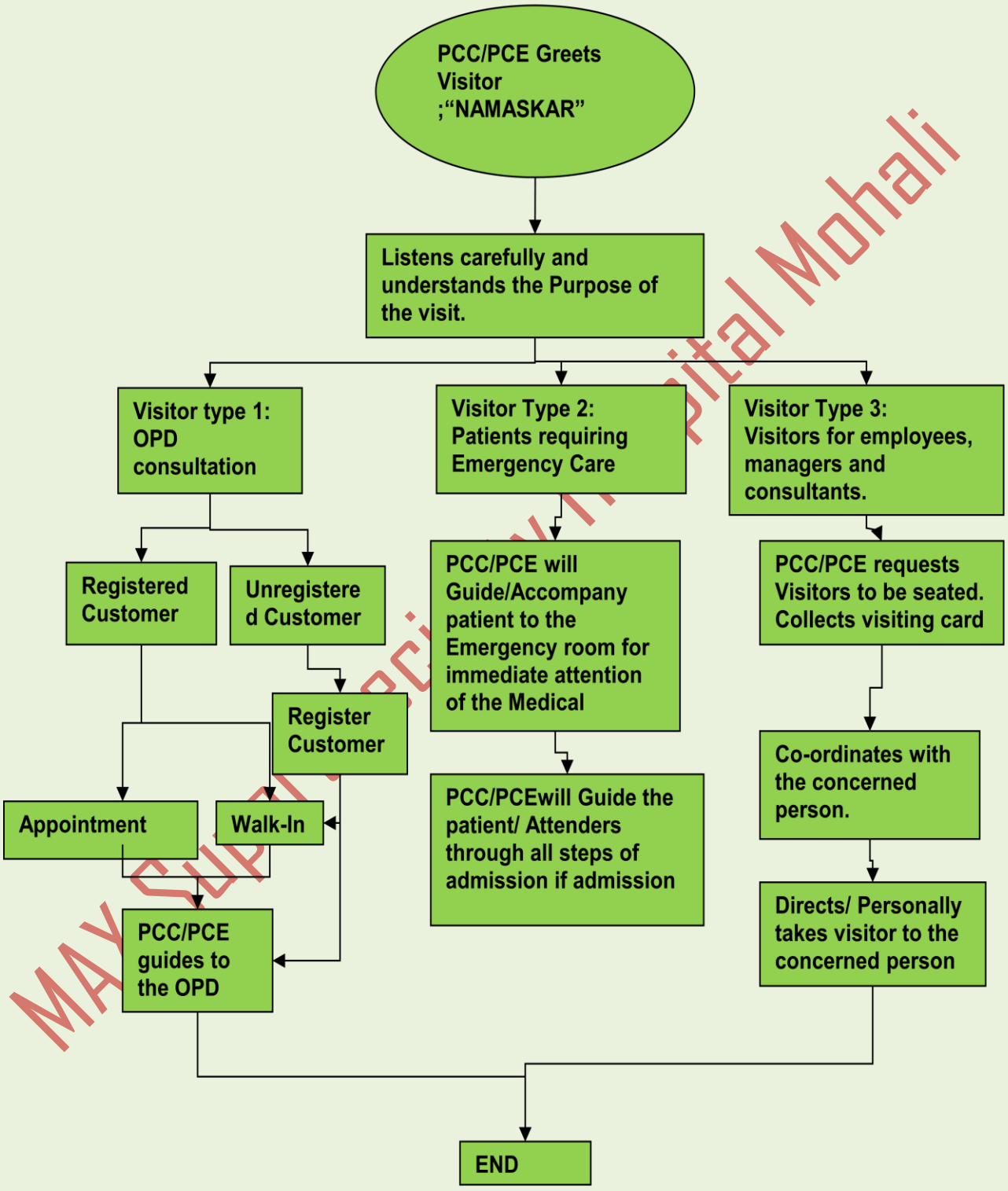
As defined in the UK, a hospital department where healthcare professionals see outpatients, which consists of consulting rooms and support areas—e.g. nurses station, treatment rooms, waiting rooms. Outpatient departments are often physically located near support services (e.g. X-ray, ECG, surgical appliance department, pharmacy etc.).

FUNCTIONS:-

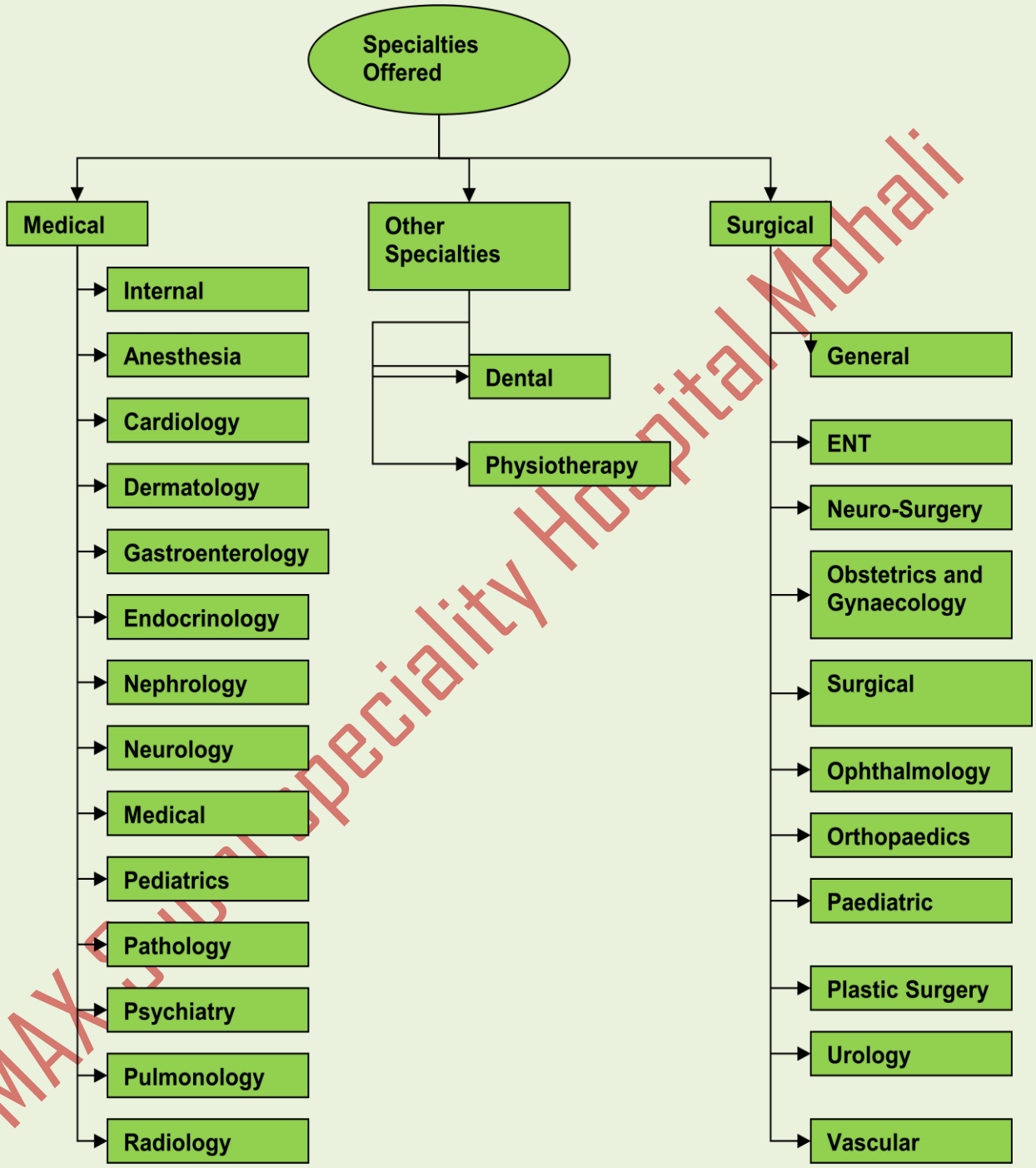
- To provide community major source of specialist diagnostic medical opinion
- To refer patients for admissions to the hospital
- Medical rehabilitation after discharge



HANDLING VISITOR

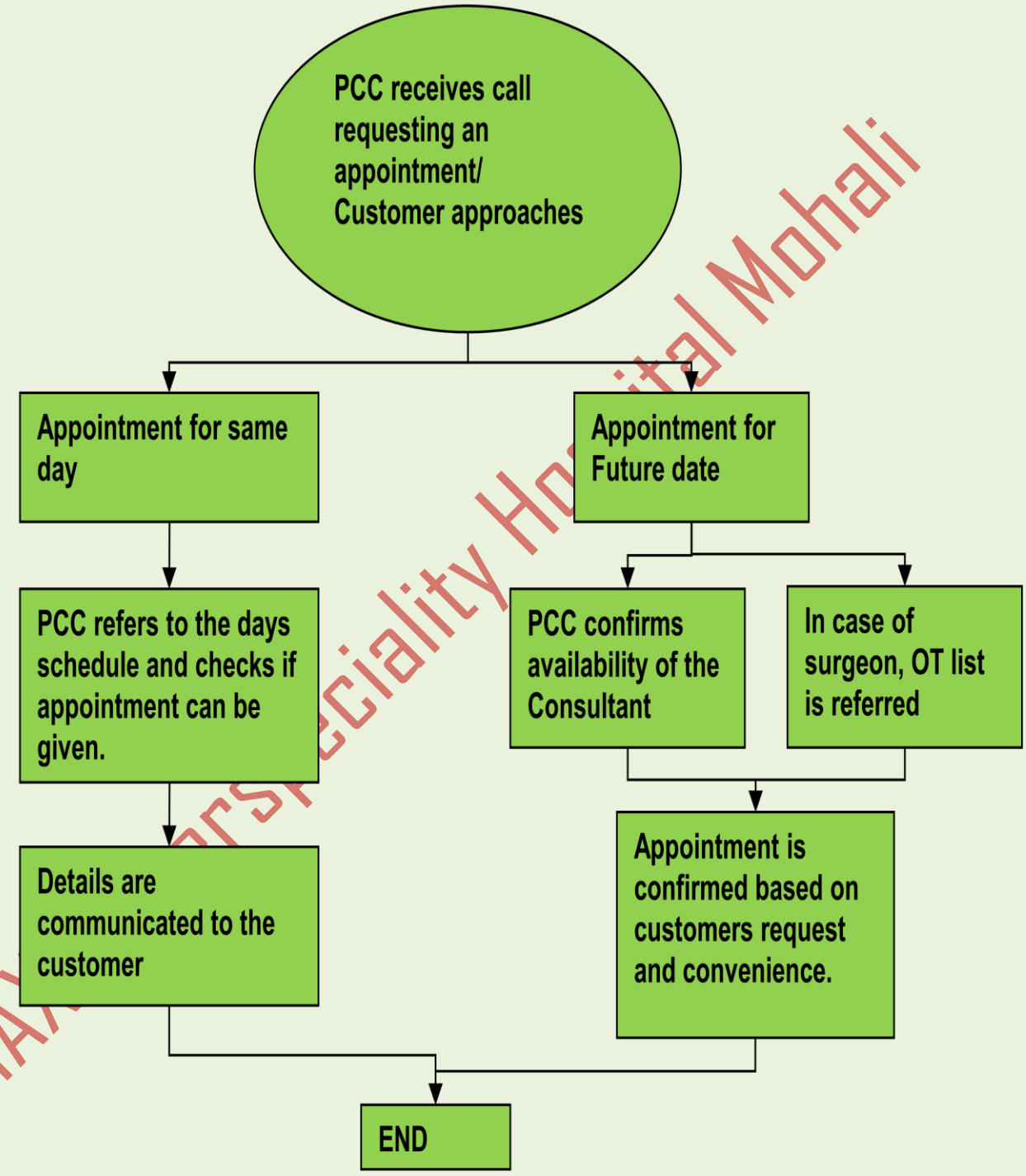


OPD SERVICES(SPECIALITIES OFFERED)

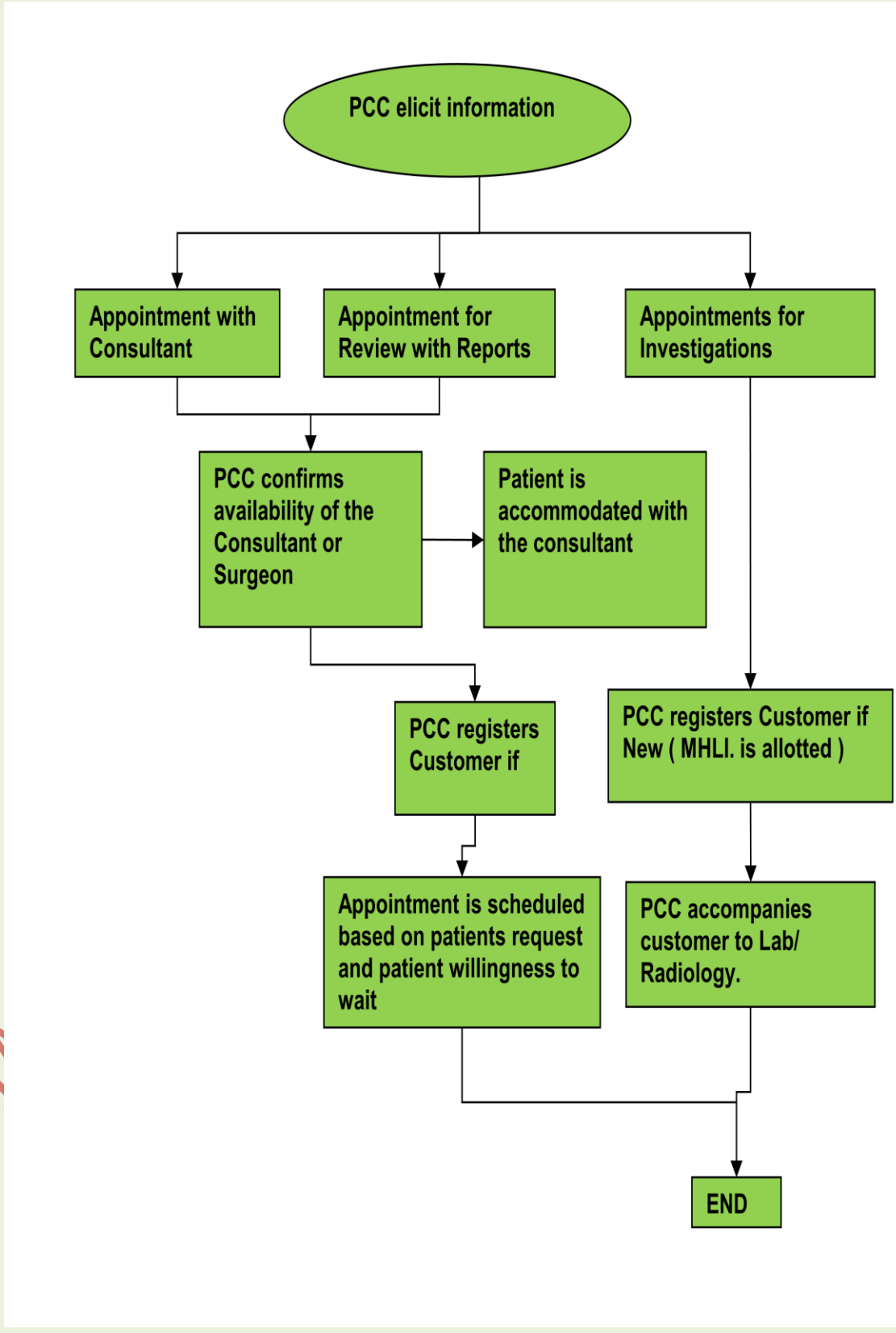


RECENTLY NUCLEAR MEDICINE HAS BEEN ADDED AS A SPECIALITY IN THE YEAR 2015

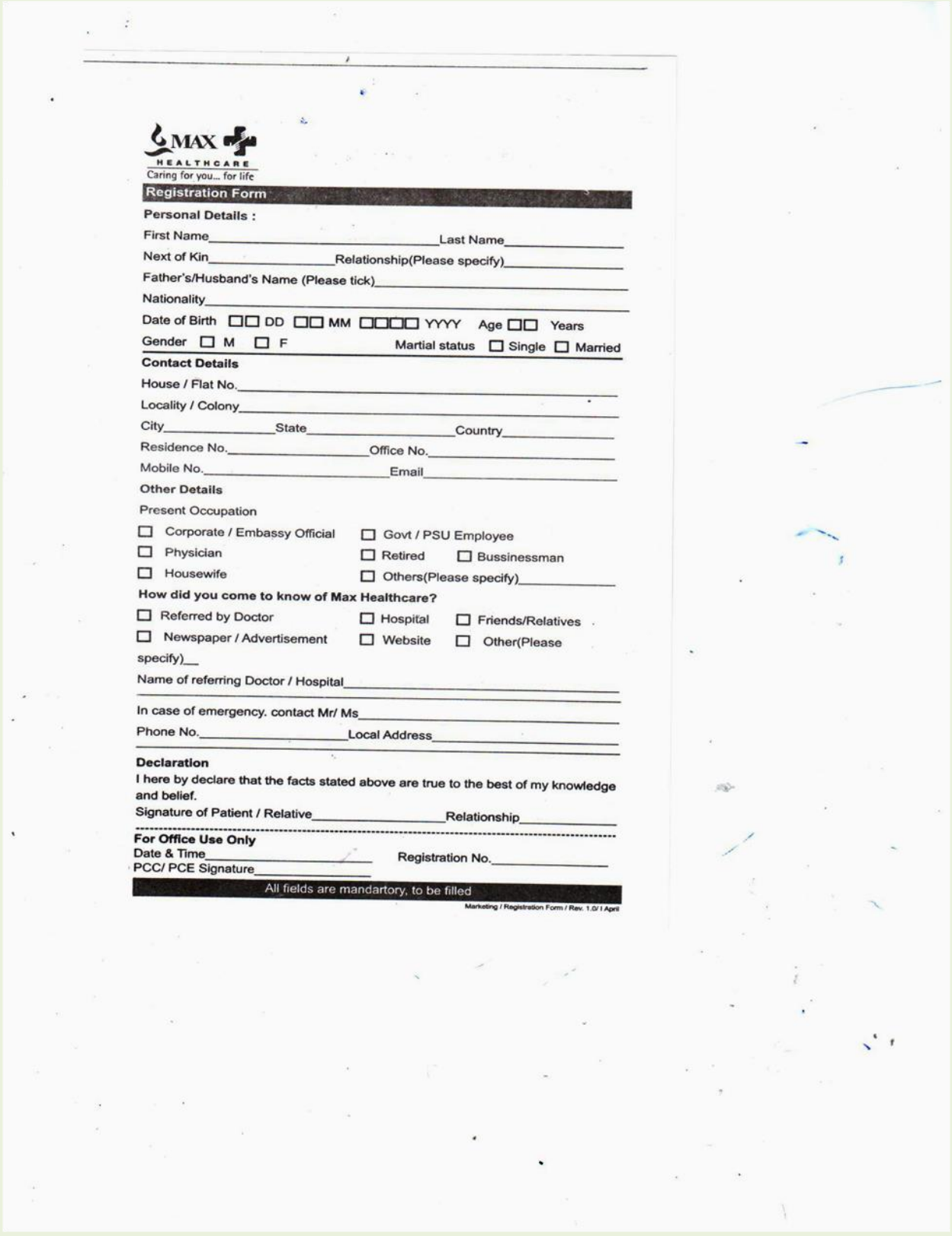
HANDLING APPOINTMENTS



ACCOMODATING WALK-IN APPOINTMENTS



REGISTRATION FORM



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Registration Form

Personal Details :

First Name_____Last Name_____

Next of Kin_____Relationship(Please specify)_____

Father's/Husband's Name (Please tick)_____

Nationality_____

Date of Birth ☐☐ DD ☐☐ MM ☐☐☐☐ YYYY Age ☐☐ Years

Gender ☐ M ☐ F Martial status ☐ Single ☐ Married

Contact Details

House / Flat No._____

Locality / Colony_____

City_____State_____Country_____

Residence No._____Office No._____

Mobile No._____Email_____

Other Details

Present Occupation

☐ Corporate / Embassy Official ☐ Govt / PSU Employee

☐ Physician ☐ Retired ☐ Bussinessman

☐ Housewife ☐ Others(Please specify)_____

How did you come to know of Max Healthcare?

☐ Referred by Doctor ☐ Hospital ☐ Friends/Relatives

☐ Newspaper / Advertisement ☐ Website ☐ Other(Please specify)__

Name of referring Doctor / Hospital_____

In case of emergency. contact Mr/ Ms_____

Phone No._____Local Address_____

Declaration

I here by declare that the facts stated above are true to the best of my knowledge and belief.

Signature of Patient / Relative_____Relationship_____

For Office Use Only

Date & Time_____ Registration No._____

PCC/ PCE Signature_____

All fields are mandartory, to be filled

Marketing / Registration Form / Rev. 1.0/ 1 April

GENERAL REPORTING

Section	Report Generated	TAT
Cardiology	Cardiology TAT	Daily
EMERGENCY	IP Conversion Report	Weekly
EMERGENCY	Ambulance Booking	Weekly
HR	Roster	Updated
HR	Training Attendance	According to Calendar
HR	Training Planned	According to Calendar
IPD	Discharge TAT Report	Daily
IPD	BTD Report	Daily
IPD	IPD Monthly Presentation	4th of the Month
IPD	Estimation Report	Daily
IPD	Daily Credit In Patient	Daily
IPD	Daily ESIC Report	Daily
IPD	Credit Bill Submission(IPD)	Daily
IPD	Pending Credit Bill (IPD)	Daily
MBRM	MBRM Presentation	4th of the Month
OPD	OP Monthly Presentation	4th of the Month
OPD	OP Refund Report	Daily
OPD	OP CONSULT NEW	Daily
OPD	OPD TAT	Daily
OPD	Credit Bill Submission	Daily
OPD	Credit Bill Submission	Daily
OPD / IPD	VIP MOVEMENT	Daily
PHP	PHP Monthly Presentation	4th of the Month
PHP	PHP/Immigration Booking Report	Daily
PHP	PHP/Immigration Monthly Report	1st Of the Month
Quality	Quality Indicator	4th of the Month
RADIOLOGY	Radiology TAT	Daily
Stock	Stock Report	Weekly
TPA DESK	TPA Tracker	End Of the Month

LOCATION

- Ground floor,basement 2
- Number of consult chambers-39
- OPD timings-9am-7pm
- Appointment system-through max mohali internal call centre
- OPD record keeping-OPD slip
- No.of opd/day-300(approx.)

RECOMMENDATIONS

- Token system should be adopted
- Waiting space should be increased

Appointment patients should be given priority

IPD WORKING

INPATIENT SERVICES

Inpatient services are hospital services and items furnished to inpatients of a hospital by the hospital including beds,nursing and related services.Diagnostic and therapeutic services and medical and surgical services

DEPARTMENTAL OVERVIEW

The patient care coordinator is responsible for carrying out multiple sequential tasks while admitting a patient to the hospital

ADMISSION PROCEDURE

PRE ADMISSION INVESTIGATION PROCESS

Patient approaches IP desk with admission request form issued by the doctor

Patient details entered in HIS , advance collected and Estimation is provided to the patient.

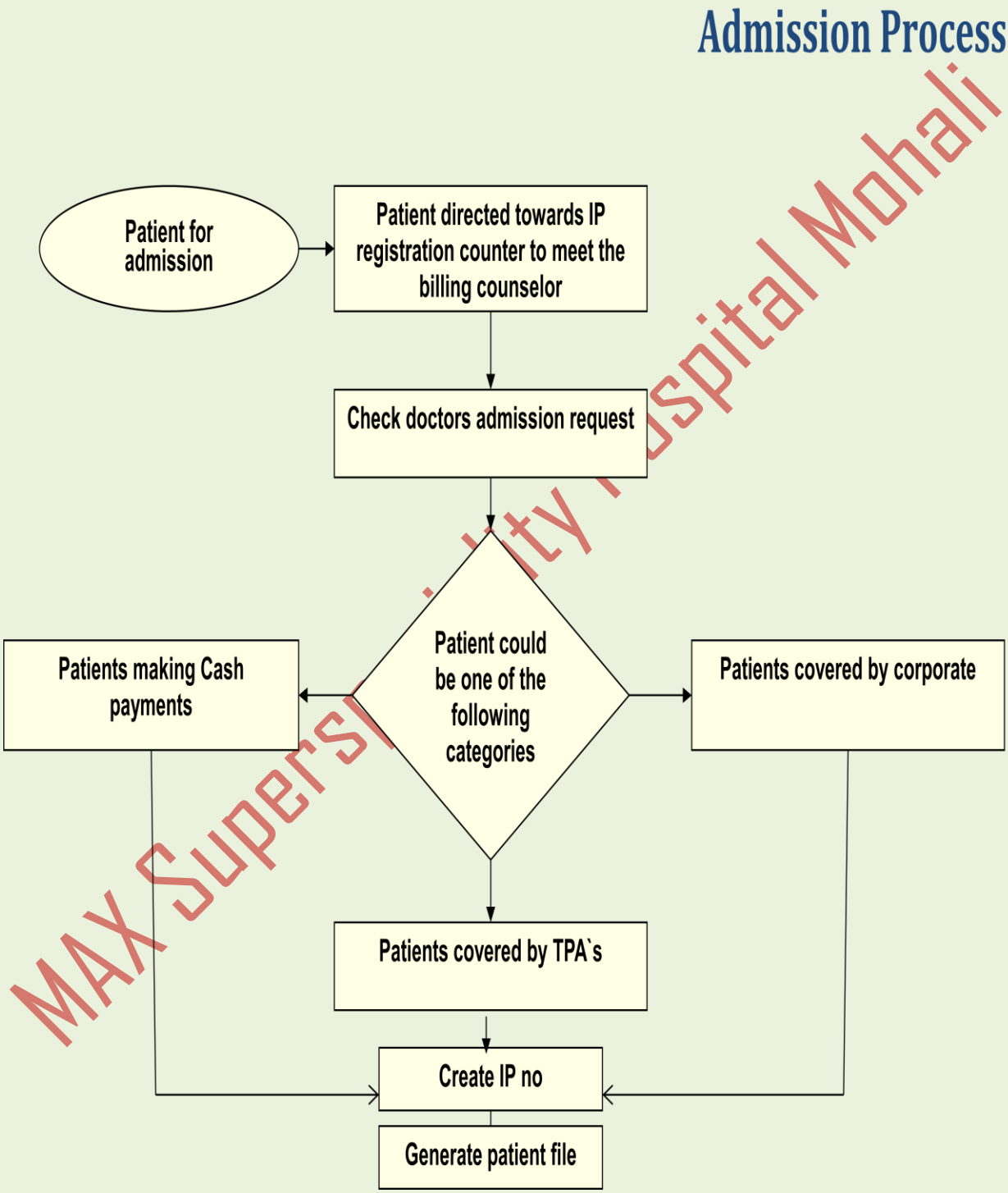
Advance receipt & Pre admission no generated

Patient is told about the reporting time and entry is made in Expected Admission register

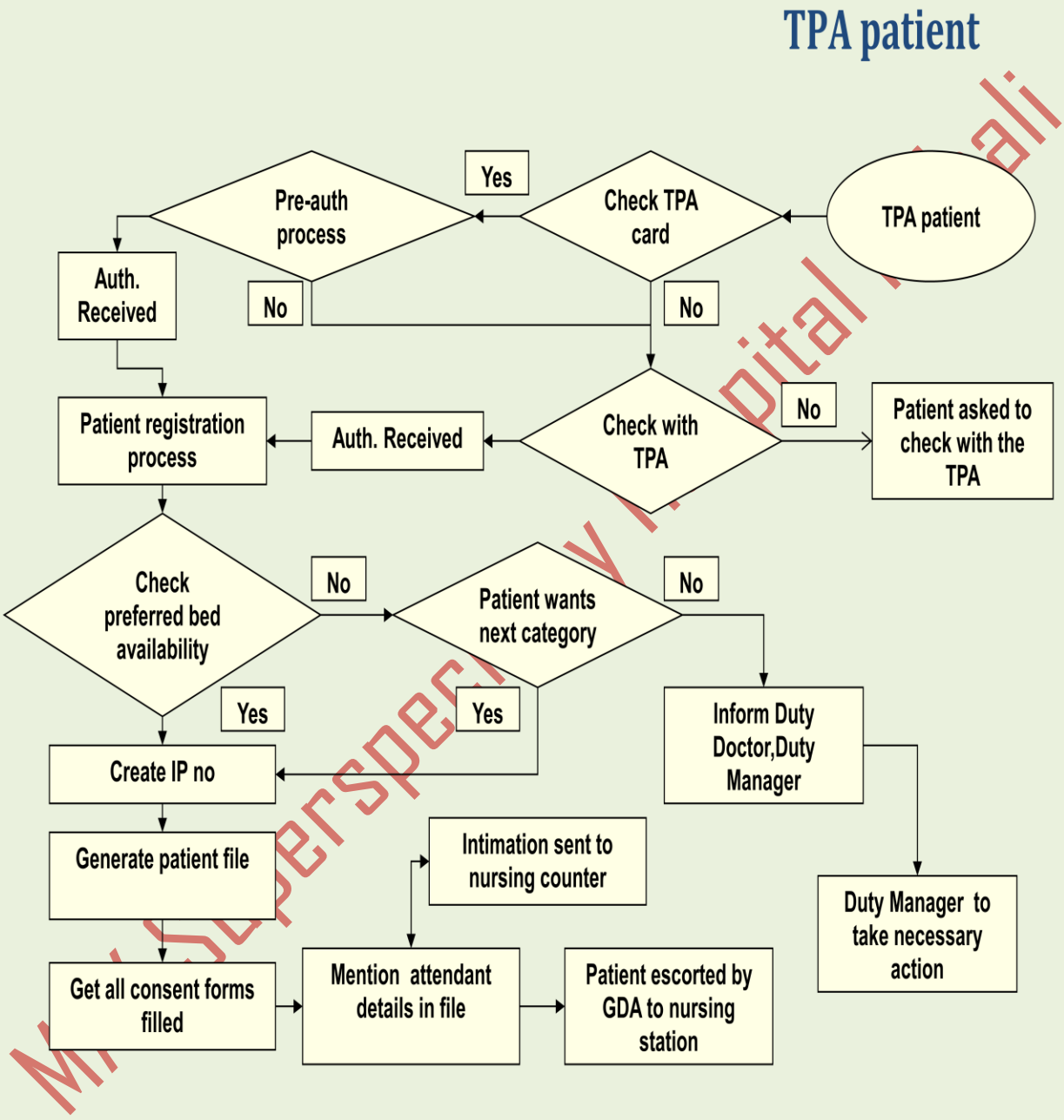
PATIENT ADMISSION PROCESS

- Patient informed about the charges and other essential details like Estimated Expense , inpatient Information, etc required during the stay.
- Availability of room is checked from the Bed manager.
- Patient details entered in HIS and face sheet generated
- Advance amount taken from the patient by cash / credit card / as per the estimated cost
- For TPA patient pre auth form is given to be filled up by the patient and the doctor (see insurance process)and signature is taken on In patient Information Sheet for TPA Hospital Policy.
- Passes are issued to the patient as per visitor policy and entry made on Face Sheet (Office Copy)
- Patient folder is created & sent to the wards along with a Front Office Staff / GDA
- For any International patient International Patient Services are informed

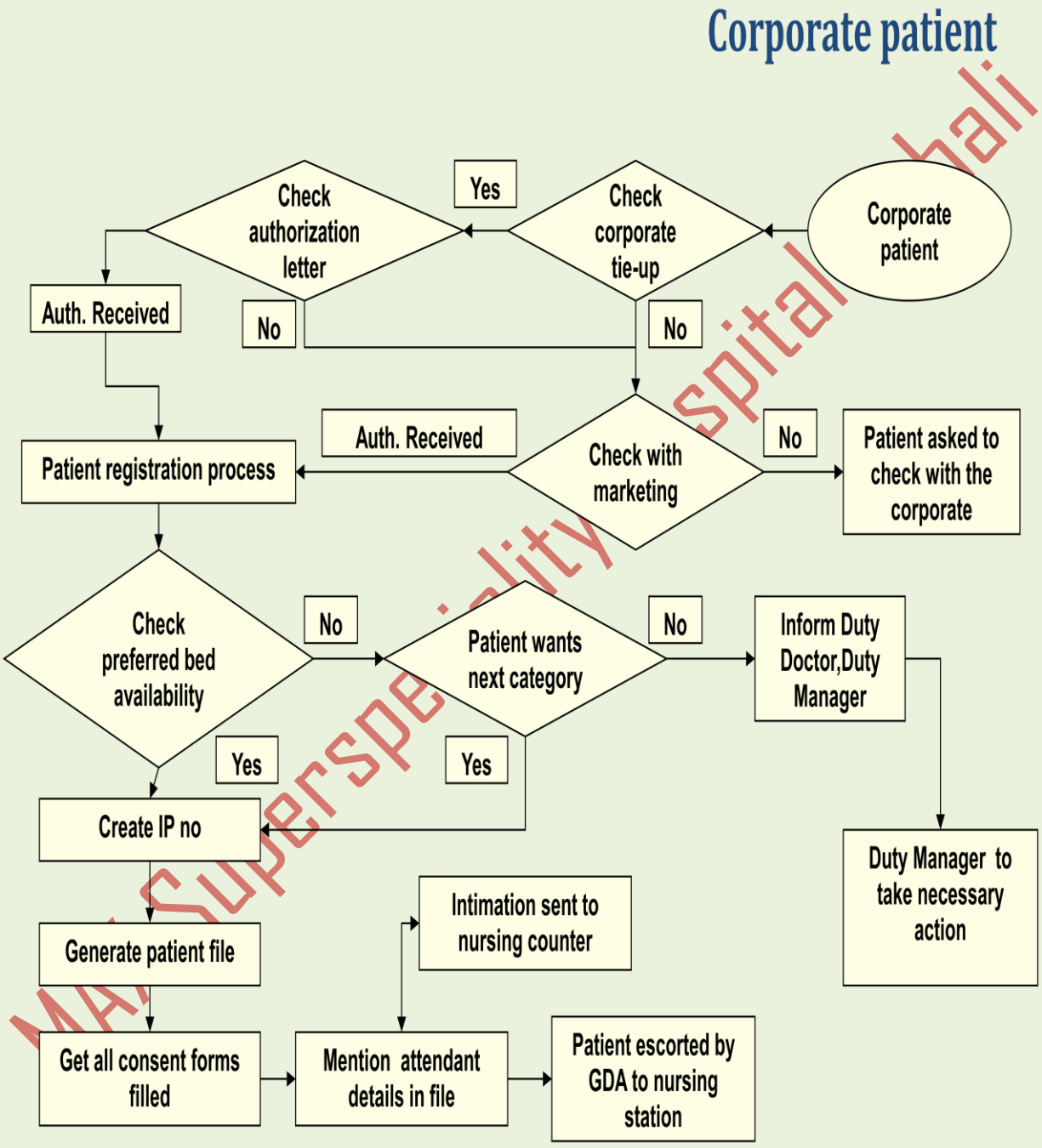
ADMISSION PROCESS MAP



PROCESS FLOW OF TPA PATIENT



PROCESS FLOW OF CORPORATE PATIENT



- There are 4 nursing stations equipped with HIS,CPRS,call bell,printers,computers
- Rs 500 are medical record charges
- More than 400 nursing staff are there
- For 4-5 patients,there is 1 nurse
- Admission intimation is given by the doctor
- Then room preparation is done
- The nurse call system is in the form of a call bell-#2828
- Nursing station#-2274,Nursing supervisor#-8223
- Billing-Back office checks with the nursing staff and then does the billing
- Arranging ambulance-comes under front office
- Waste management-Three separate bins(colour coded)BLACK,YELLOW,BLUE

RECOMMENDATIONS

- Krash kart should be there on every nursing station
- Dressing trolley should be there on every nursing station
- Holding rod should be there for patients in wash room

MULTISPECIALITY OPERATION THEATRES

There are 8 OT rooms-6 on 1st floor & 2 on 2nd floor.(2 for ortho cases,1 for cardiac cases,1 for general cases,1 for gynae cases,1 OT is on sharing i.e.from morning till 1 for Ortho cases & after 1 pm for General cases and 2 for minor surgeries)

Pre/post operative room-here patient is prepared before operation takes place like fixing IV lines,ECG,BP check,pre medication etc.

- The patient is kept here for around 15-20 minutes.It has a bed capacity of three(2nd floor OT) & five(1st floor OT).
- It is attached with pantry,clean utility room&work stations

SUGGESTIONS

- There is only 40% compliance for signing of consent form & site marking in general cases which can be improved & made to 100%
- Manpower needs to be increased especially for Ortho cases in OT
- Patient waiting time in pre-operative area needs to be reduced by taking patient in time inside OT.

EQUIPMENTS

OT table-SCHIMTZ&MAQUET

Anaesthesia-DRAGER

Monitors-PHILIPS

Cautery-VALLY LAB&ERBE

Laproscopy systems-CARLSTORES&STRIKER

C-arm-SIEMENS

Microscopes-Neuro&ophthalmology-KARL ZIESS

Ortho drills

Brain lab system-In ortho OT

OT lights-MACQUET

CARDIAC OT

Heart lung machine-MACQUET

IABP(INTRA AORTIC BALOON PUMP)-MACQUET

ECO machine

HEAT&COLD UNIT

ORTHO OT lights-LED

Normal OT's-Halogen

INTENSIVE CARE UNIT/CRITICAL CARE UNITS

Medical intensive care unit(MICU)

Surgical intensive care unit(SICU)

Renal intensive care unit(RICU)
Neonatal intensive care unit(NICU)
Cardiothoracic and vascular surgery(CTVS ICU)

MEDICAL ICU
Location-2nd floor
Number of beds-24,type-with air mattress+keys
ACLS protocol is being followed on each bed

- Both open(half cubicle) n cubicles
- Duty roster-3 shifts,15-16 members in each shift
- Daily volume-16-17 patients per day
- Quality indicators-Pressures sore,return to ICU(within 24 hrs),risk of fall
- MIS &computerization-HIS&CPRS
- Processes-admission 1.Direct admission 2.Through triage 3.From IPD
- Rounds-Doctor comes at 9 am,before lunch and night rounds(2-3 doctors at night)
- Patient transfer-Transferred to MICU-3 for stable patients(*STEP DOWN*)
- Medicines-three cupboards

1.Narcotics-double lock &key(red sticker)1 key is with team leader n another with shift incharge
Unused narcotics after opening are discarded in running water to prevent misuse

- High risk(orange sticker)-single lock,unused medicine discarded after 24 hrs
- Normal antibiotics
- Reports-through UHID system
- Bed side x-rays-done through portable x-ray machines
- Machines n furniture) Furniture-Goodrej interio
- Ventilator-Servo Maquet,ECG machine-philips,Echo machine-sonosite,ABG machine- ,Dialysis-Fresenius medical,Crash kart-

NEONATAL ICU

- Lpcation-1st floor
- Beds-9,isolation beds-1
- Equipments-nebulizers,resuscitator-1,incubators-2(1 is mobile which can be taken to other hospitals for taking baby),baby cradles
- Disinfection-By Na hypochlorite &Bacillol
- If babies number exceed,baby cradles are used-it has all facilities

QUALITY INDICATORS IN ICU

- Return to ICU within 48 HRS
- Incidence of bed sores after admission
- Nurse patient ratio for ICU
- ICU utilization rate

RADIOLOGY/IMAGING SERVICES

- Location-Ground floor
- X-ray-250-300/DAY
- X-ray machines(Digital radiography technique)-1(ALLENGERS),Digital-1,portable-3(SIEMENS)
- Ultrasound-3(WIPRO GE)
- Mammography-1(WIPRO GE)
- CT scan machine-1(WIPRO GE)16 slice,daily 25-30 scans
- MRI machine-1(WIPRO GE)1.5TESLA,daily-10-15
- Fluoroscopy-1(SIEMENS)
- Bone densitometry-1(WIPRO GE)

NUCLEAR MEDICINE

- Location-Ground floor-adjacent to the PHP room
- 1 consulting chamber
- Equipments-Dual head Gamma camera,by SIEMENS is latest in nuclear medicine
- PET-CT machine
- 1 Hot Lab
- 4-5 cases/day
- Nuclear medicine can tell about organ functioning,whereas normal ultrasound can tell only about presence/absence of kidney
- 1 hot lab

RADIATION ONCOLOGY

- Location-basement 2

- LINAC(Linear accelerator)company-ELEKTA SYNERGY-Patients are treated from a distance
- Tumor should get lethal dose,normal tissue should get below lethal dose
- Cast is used to immobilize the patient,cast becomes malleable in hot water,solidifies again after 25 minutes

BRACHYTHERAPY

- Radiation is given very close or inside tumor.
- Patient is kept unconscious as radiation is very strong.
- EQUIPMENTS-GAMMA ZONE MONITOR-is must for brachytherapy
- MICRO SELECTRON-High dose rate machine,6 channelled machine,IRRIDIUM 192-source used in the machine(emits gamma radiation),diameter-0.9mm,length-3.5mm
- Regulated by ATOMIC ENERGY REGULATORY BOARD(AERB)

CATH LAB

- Location-2nd floor
- For intervention procedures only
- Number-2 labs
- Quality assurance-reporting errors
- Machines-Philips,Siemens(these machines are referred to as Cath lab)

DIALYSIS

- Location
- # of dialysis machines-9
- Dialysis/day-30-35
- Tariff-Rs2450-10000

BLOOD BANK

- Location-3rd floor
- Licenses-Major 3 licenses are there-Whole blood license,component license,apheresis license
- Equipments-Amicus cell separator,Gel cards-used for cross matching,non-reactive blood bags
- Blood stored at 4 degree Celsius.so must be transfused within 30 minutes

PATHOLOGY

- Location-3rd floor
- HAEMATOLOGY-Machines-Coulter LH-750 analyzer(Beckman Coulter),Tests-PTT,APTT,ACL-7000 instrumentation laboratory

- IMMUNOLOGY&SEROLOGY-Machines-System vitros ECI,For immunodiagnosis-Access 2 immunoassay system(Beckman coulter)

- CLINICAL PATHOLOGY-Machines-IQ200(IRIS),Ichem velocity urine chemistry system(IRIS)

- MICROBIOLOGY-Machines-Vitik 2 compact(Biomerieux),Incubator(Tanco),Bact/alert 3d(BIOMERIEUX)-1.aerobic blood culture bottle,2.anaerobic blood culture bottle

- BIOCHEMISTRY-Machines-AU480(Beckman coulter).Merck Millipore,RQFV-170,BIO-RAD-D-10,Remi R-8CBL,Millipore(Elex)

- HISTOPATHOLOGY-Machines-HM525(MICROM),Statspin cytofuge

- Separate FNAC room is there

- Separate cold storage room for samples(Machine-blue star)

- Entire laboratory is connected to hospital HIS,CPRS

- Most of the machines in pathology are on RENTAL BASIS

EMERGENCY SERVICES

- Location-ground floor
- Department provides 24*7 emergency&trauma care
- Subdivided into-A)prehospital service,also called Ambulance service
- 2 ACLS ambulance(1 in house,1 outsourced)
- 2 BLS ambulance(2 in house)
- Staff-Mostly BSC nursing
- Ambulance-charges-Rs 500(mohali),Rs 1000(panchkula,kharar),Out station-Rs 45/km.If doctor goes then Rs 4200 would be of doctor

MEDICAL RECORDS

Extension #-2175

Type of medical record system-Electronic medical record

Duration-Pediatric file has to be kept till child is 18 years of age

Medico legal cases, death cases-files have to be kept forever

Retrieval-Doctor can see on CPRS system

Arrangement of MR-Ideally should be according toIPD#

Destroying files-1 month prior notice is given in newspapers before destroying files

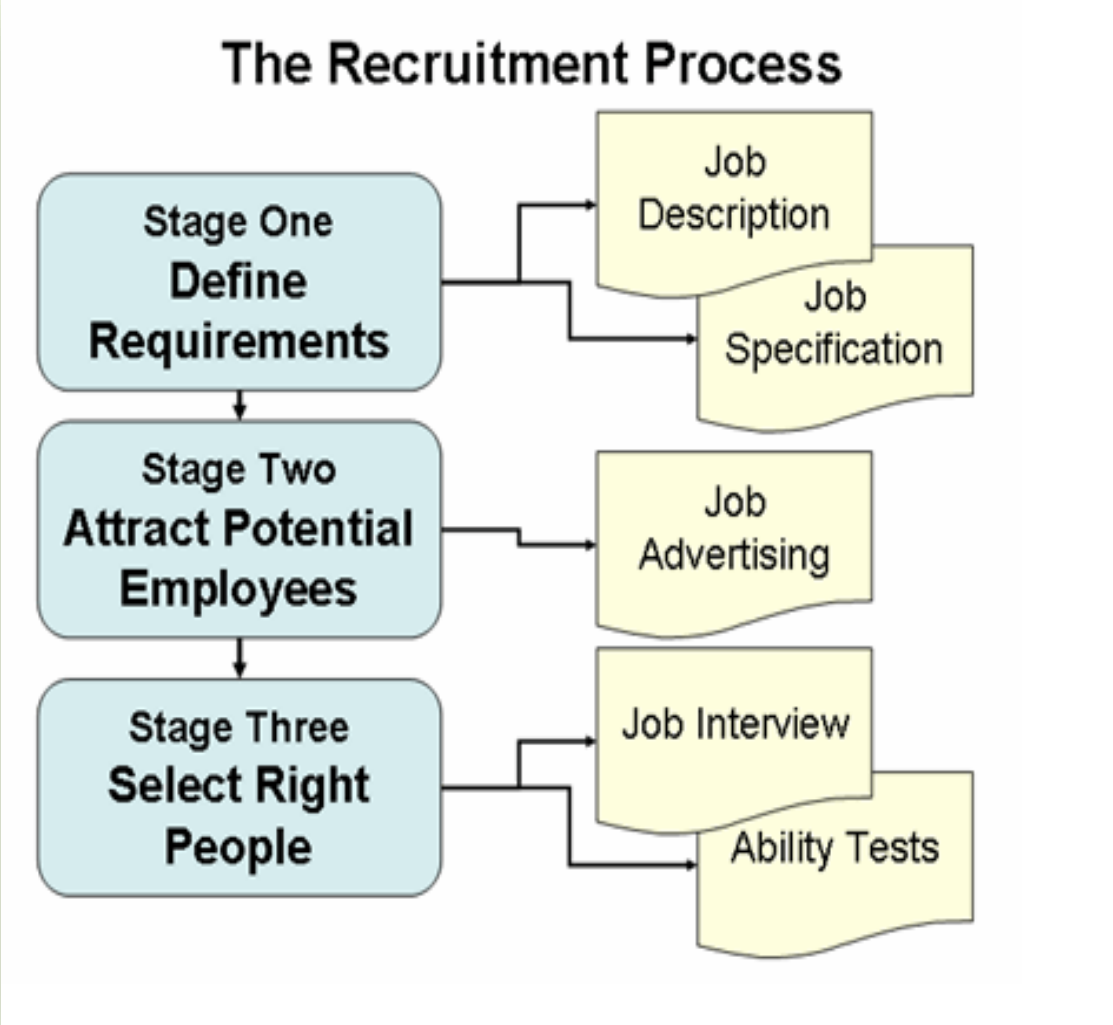
HUMAN RESOURCE DEPARTMENT

Extension#-2177

HEADCOUNT

MAX SUPER SPECIALITY HOSPITAL	
Category	**No: Employees**
Front Office	37
Nursing	361
Paramedics	128
Physician	126
Support	141
Grand Total	**793**

RECRUITMENT PROCESS

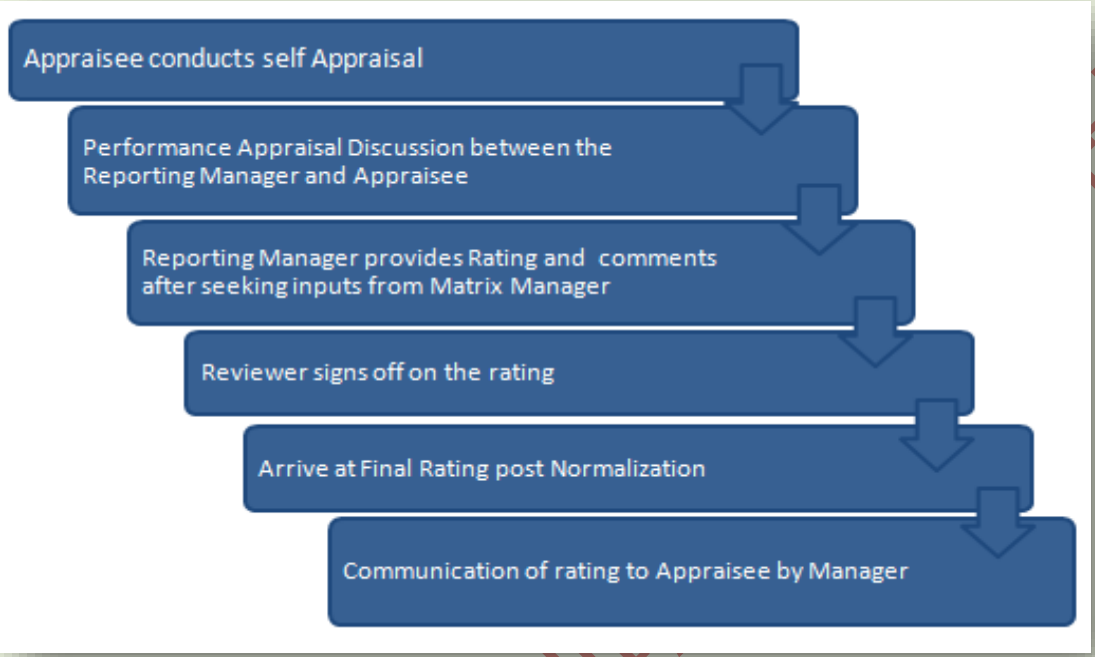

The Recruitment Process
Stage One
Define Requirements
Job Description
Job Specification
Stage Two
Attract Potential Employees
Job Advertising
Stage Three
Select Right People
Job Interview
Ability Tests

RATINGS
1
2
3
4
5

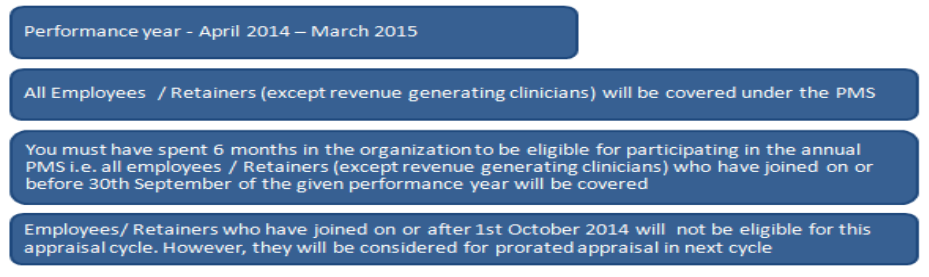
PERFORMANCE LEVELS

Performance Definition	Definition
Far exceeds expectations	Employee consistently and significantly exceeds all of the responsibilities of the position and the goals of the plan. This rating is reserved for those few individuals who strive for and achieve excellence.
Exceeds expectations	Employee frequently exceeds many of the responsibilities of the position and the goals of the Plan, while successfully achieving all others.
Meets expectations	Employee fully and consistently meets position requirements, objectives and expectations. Employee performs good, solid, commendable work.
Meets Some expectations	Employee does not achieve the responsibilities of the position and the goals of the Performance Plan most of the time. Immediate improvement is required as specified in a corrective action plan.
Below expectations	Employee does not achieve the responsibilities of the position and the goals, and is not able to follow a corrective action plan. Separation is recommended.

PERFORMANCE APPRAISAL(PROCESS FLOW)



ELIGIBILITY



BAND	DESCRIPTION

OL1-OL2	STAFF/DOCTORS
PL1-PL3	DOCTORS
ML1-ML3	DEPARTMENT / REGIONAL HEAD

RATINGS	DESCRIPTION
1	As per their rating, recommentiondations of supervisor will be considered by UNIT HR HEAD, FINANCE HEAD, UNIT HEAD - OPERATIONS. Final sheet will be sent to H.O for approval.
2	
3	
4	
5	

GRIEVANCE HANDLING-ESCALATION MATRIX

Escalation Matrix

Escalation level	Authority
1st Level	Supervisor
2nd Level	Skip Level Manager
3rd Level	HOD / Unit HR / Zonal HR / Unit Head/ any member of Senior Management Team
4th Level	**Grievance Resolution Committee Members:** • Head of HR - Pan Max Healthcare • Clinical Director - Pan Max Healthcare • Head of Operations - Pan Max Healthcare

MARKETING

Location-Adjacent to HR department

Extension #-2174

Catchment area-200-250 km

Promotional activities-1)INTERNAL PROMOTION-Walk in channel-consists of patients who directly walk in. Within hospital-Pamphlets n other materials

EXTERNAL PROMOTION-Hoardings of Ortho,cardiac,tie-up with various housing societies and doing health talks there

2)Referral channel-team members go and meet the doctors, doctors are given payout

3)Outreach OPD-Targeted specialities,Hospital doctors go to partnered hospitals and other cities and bring patients to MAX Hospital

4)CME-Continued medical education programme for doctors

Tie-up with various IMA doctors and expose hospital specialities

5)PSU(Public sector undertaking)channels-ECHS,CGHS

6)TPA corporate channel-For approval of patients

Documents are sent by front office

7)Non-TPA companies-E.g. ICICI LOMBARD

8)Corporates-1)Direct corporate-Direct link to hospital

2)Corporate set by TPA(indirect hospital link through TPA)

9)International channel-1)Healthcare facilitators-they work in and outside India with doctors abroad to send patients to India

PHARMACY

- Centralized purchase from Delhi(Okhla).
- Outpatient &Inpatient pharmacy is separate.
- Drugs are stored at 2-8 degree Celsius in refrigerator
- Sound alike drugs-blue coding
- Look alike drugs-pink coding
- High alert drugs(diabetic chemo only)-Orange

HOUSEKEEPING

Location-Basement

Manpower-76

Housekeeping is outsourced

Laundry-Outsourced

DIETARY

Nutritional assessment of patient is done within 24 hrs

Reassessment is done after 7days

Notes-Are put in a gap of 2 days

ICU notes are put daily

Diet chart is given to patient during discharge

Dietician rounds-Morning 9-11

Evening 3-4

A midnight census is prepared which goes to the kitchen, then dietician comes and with patient consultation diet is administered

Small coupons are prepared for specific meals

MAINTENANCE

Location-basement

Outsourced-Manpower is outsourced

Engineers are in house

2 generators-625K.V. each

RO water is being used for DIALYSIS,BLOOD BANK

MEDICAL GASES

Manifold room-In this room gases are stored

Medical gases-O_2-(Identification)-Yellow pipe, white bend(pressure-4.5 kg)

Air-4 kg(pressure) air is used(black& white bend)

7 kg(pressure) air-used in pneumatic drills in CSSD(Identification)(Black white black)

Nitrous oxide-used in anesthesia(Identification)(yellow pipe, French blue bend)

Co_2-Yellow pipe,grey bend(identification)(used in laproscopy system in OT)

Medical air(99.5% o_2+0.5% other gases)

CSSD(Central sterile supplies department)

Location-basement

Objective-To provide all hospital departments adequate supply of sterilized goods conforming to highest standards of sterilization from a central place thus reducing the overall cost and contributing towards reduction in hospital acquired infection

Equipments

1.Steam sterilizers: 2 in number(capacity 16&32 cu f)

2.Ethylene oxide gas sterilizer : 1 no.(capacity 4 cu f)

3.Automatic water disinfector- 1 no.

4.Ultrasonic cleaner- 1 no.

THREE METHODS

1.Steam sterilization-(for linen) at 134 C for 4 minutes,

121 C for 16 minutes

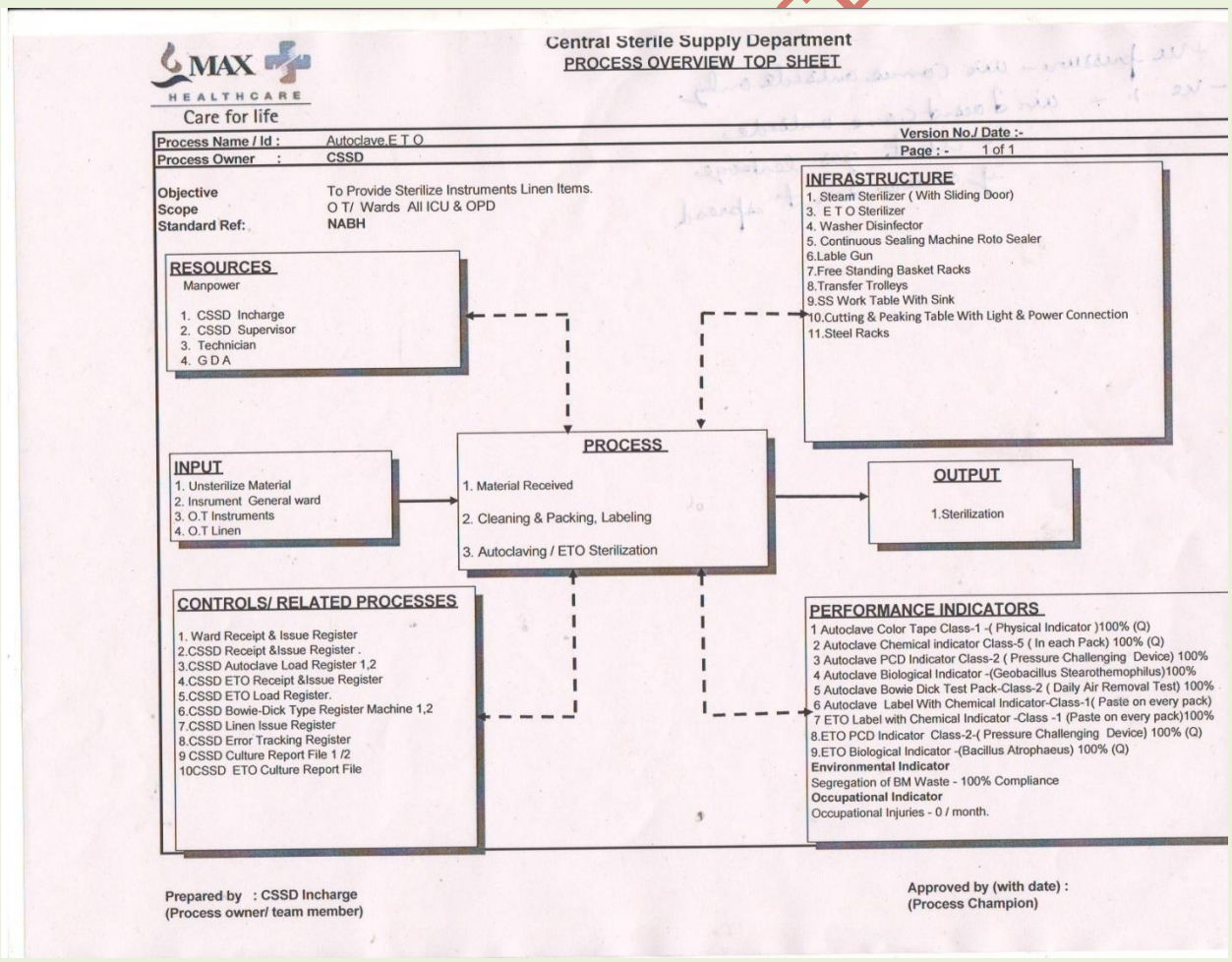
2.Ethylene oxide sterilization-(only plastic items) at 55 C(hot cycle) for 12 hrs,at 37 C(cold cycle) for 24 hrs

3.Glutaraldehyde

Ethylene oxide treated items-6 months storage life

Steam sterilization treated items-7 days life

PROCESS FLOW OF CSSD



BIOMEDICAL DEPARTMENT

The following information about the machines used in various departments & their CMC(Company maintenance contract)&AMC(Annual maintenance contract) is as follows:-

SICU

Machines

Adult weighing scale-SECA

Monitors-GOLDWAY

Defibrillators-Philips

Central monitoring system-GOLDWAY

Ventilators-SERVO S

Syringe pumps-B.BROWN

Infusion pumps-B.BROWN

Nebulizers-Dr.GAYNA

Glucometers-ROSCHE

NICU

Machines

Phototherapy units-PHOENIX

Baby warmers-PHOENIX

Baby cots-PHOENIX

Incubators-PHOENIX

Humidifiers-FISCHER&PACKEL

Nebulizers-DR.GAYNA

Glucometers-ROSCHE

Baby weighing scale-GOLDWAY

Monitors-GOLDWAY

Special high frequency ventilators-WIPRO GE,SERVO I

These machines are in addition to the common machines for all ICU's mentioned in SICU.

RICU

Machines

Nebulizers-DR.GAYNA

Glucometers-ROSCHE

Adult weighing scale-SECCA

Monitors-GOLDWAY

These machines are in addition to the common machines for all ICU's mentioned in SICU.

MICU

Machines

ABG-RADIOMETER

Dialysis-FRESENIUS

ECG-PHILIPS

ECO-SONOSITE

Bed pan washer(only in MICU)-GETTING

Central monitoring system-GOLDWAY

These machines are in addition to the common machines for all ICU's mentioned in SICU.

CTVS ICU

Machines

Patient warmer-BEAR&HUGER

Portable light-SURGEDENT

Abg-RADIOMETER

These machines are in addition to the already common machines for all ICU'S mentioned in SICU.

CAMC(comprehensive annual maintenance contract),AMC(annual maintenance contract)

CAMC-under CAMC machine is completely maintained by the company.

- A Fee is paid by the hospital to the company.
- In turn company covers any damage of parts, replaces them free of cost and maintains the machine
- CAMC is generally done of high end revenue generating expensive machines, whose parts are very costly eg-MRI,CT SCAN,LINAC,BRACHYTHERAPY.

AMC-under AMC cost of machine parts are covered by the hospital and repair is done by the company engineer.

- AMC is usually done of equipments which are less expensive eg:-nebulizer

TAT-turnaround time for CAMC is 24 hrs.Company either has to get the machine repaired within 24 hrs,or provide a substitute

For high end machines it is not possible to provide a substitute,so they have to be repaired

For less expensive machines if not repaired a substitute has to be provided within 24 hours.

PROJECT REPORT

A time motion study to probe in the reason for delay in inpatient discharges

ABSTRACT

Discharge is defined as, “a release of a hospitalized patient from the hospital by the admitting physician after providing necessary medical care for a period deemed necessary”.

It is also defined as, “the process of activities that involves the patient and the team of individuals from various disciplines working together to facilitate the transfer of patients from one environment to another”.

Discharge process is initiated only after the patient’s consultant deems his/her fit for discharge. Discharge timing ideally is before 12 pm . In case a patient does not wish to continue his/her stay at hospital,they can in consultation with their doctor,ask for the LAMA(leave against medical advice)

- The process comprises of clinical,financial,legal,admininstrative and recordkeeping aspects,it starts right from writing of discharge orders to settlement of all sort of bills of hospitals
- The process is time consuming.but if executed in an organized manner with assistance from trained

medical,para-medical and administrative staff,can be completed as per global standards.

- Before leaving, the patient's attendant needs to check his/her room carefully for any personal belongings,hospital is not liable for their belongings.
- To avail an ambulance/transport facility,the patient can put in a request at the nursing counter/reception counter.
- When patient is being discharged from the hospital,doctor and nurse,dietician,pharmacies will explain the treatment plan,which the patient should follow.
- Dietician can be consulted for nutritional queries.

- The time study measures the time required to perform a given task in accordance with a specified method and is valid only as long as the method is continued.
- When a new work method is developed,the time study must be changed to agree with the new method
- Time study is a direct and continuous observation of a task,using a stopwatch to record the time taken to accomplish a task

REVIEW OF LITERATURE

If we compare a hospital to a manufacturing unit, than the discharge process can be compared to the final finishing of the

manufactured product. If the finishing is not done in a proper manner, the product won't be sustainable for a long time. Similarly, if there are bottlenecks in the discharge process, not only will it cause mental agony for the patient but also might result in a patients revisit due to carelessness of the team discharging the patient. Patient discharge has received critical attention because variation and delays in this process create 'bottlenecks' that ultimately delay most care pathways, especially new admissions from the ED[7].

In the United States where hospitals are reimbursed prospectively, one study found that ~7% of hospital days were judged unnecessary and were due to difficulty finding a bed in a skilled nursing facility[8].Studies have shown that by streamlining the discharge process the median LOS decreased and the average number of inpatient admissions increased[6].

Methodology

This observational study was carried out in a tertiary care 217 bedded superspeciality hospital in mohali city on 130 discharged patients comprising of CASH patients, TPA patients(Both planned &unplanned).

RATIONALE

Max hospital mohali has a monthly patient discharge of 1300 patients(approximately) for the month of may 2015.It has been observed that numbers of unplanned discharges are more than planned. The study aims at finding the reasons for delays in discharge cases and to make recommendations for it.

AIM

To analyze the reason for delay in inpatient discharges and to make recommendations for reducing the discharge time.

OBJECTIVES

1)Identify the root causes for delay in discharges

2)To provide recommendations

METHODOLOGY

A. STUDY AREA

MAX Superspeciality Hospital, Mohali

B.STUDY POPULATION

Patient discharges from the ICU'S-
NICU,SICU,RICU,MICU,CTVS-ICU for a period of 60 days.

C.SAMPLE SIZE
130 cases

D.STUDY METHOD
A prospective time motion study was carried out in Max Superspeciality Hospital,Mohali on patients of Ortho-ICU,SICU,MICU,RICU,CTVS-ICU, to determine the reason for delay in discharges.

E.DATA COLLECTION TOOLS
OBSERVATION
F.SAMPLING METHOD
Simple random sampling

G.STUDY TYPE
Descriptive

METHODS

This observational study was carried out in tertiary care 217 bedded hospital in Mohali city. The time taken for discharge from physician writing orders on the case sheet to completion of billing process in all the departments was

observed and measured using a stop watch. The data was collected for patients from 1st-31st may.

Total 130 discharges of inpatient discharges were included during this period.

A survey of the internal layout of the hospital was also done to assess the transit time for discharge procedures according to locations of concerned departments.

The data collected was analyzed using percentages and was presented in a tabular format

RESULTS & DISCUSSION

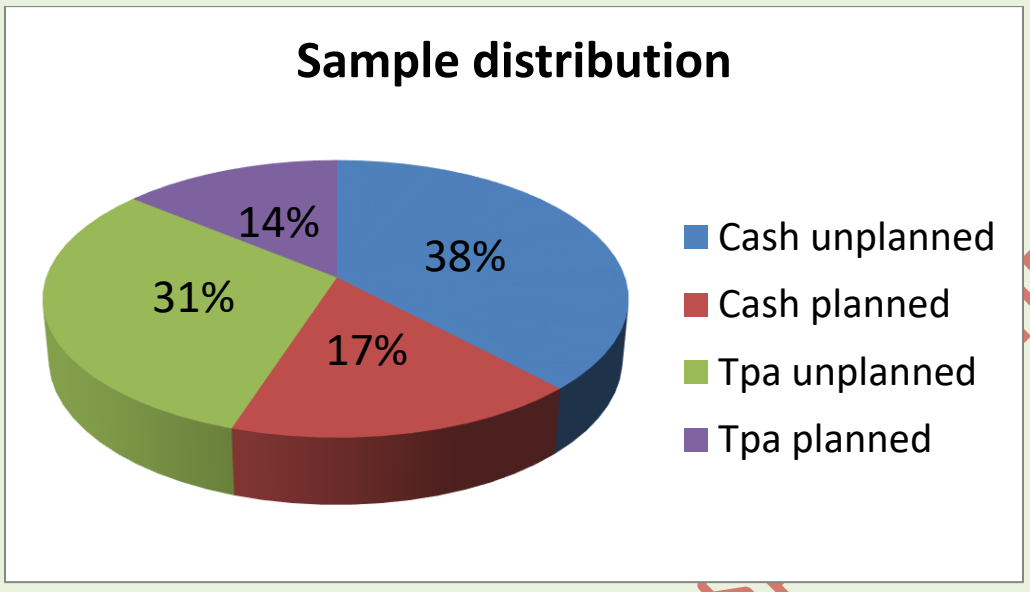
The result shows that there is a delay in all types of patient discharges in the hospital

Average time taken according to

- Type of discharges
- Steps in discharge procedure
- Average time taken according to type of discharge(in minutes rounded off)

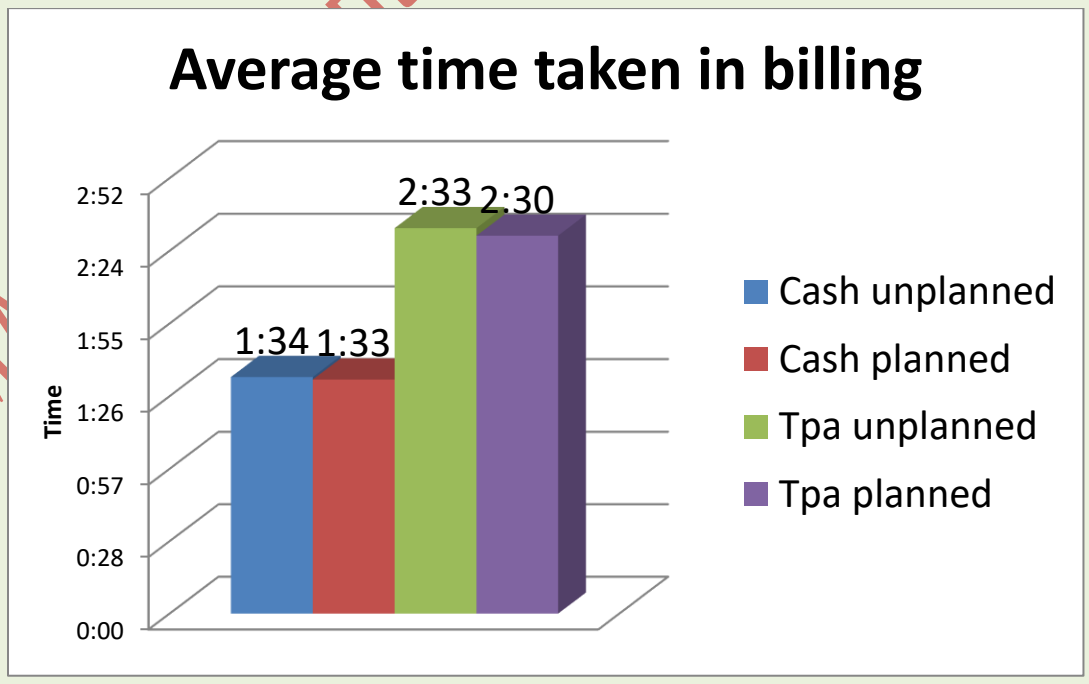
DATA ANALYSIS

Graph 1



- The graph depicts the distribution percentage of patients
- Maximum %age is of cash unplanned.

Graph 2

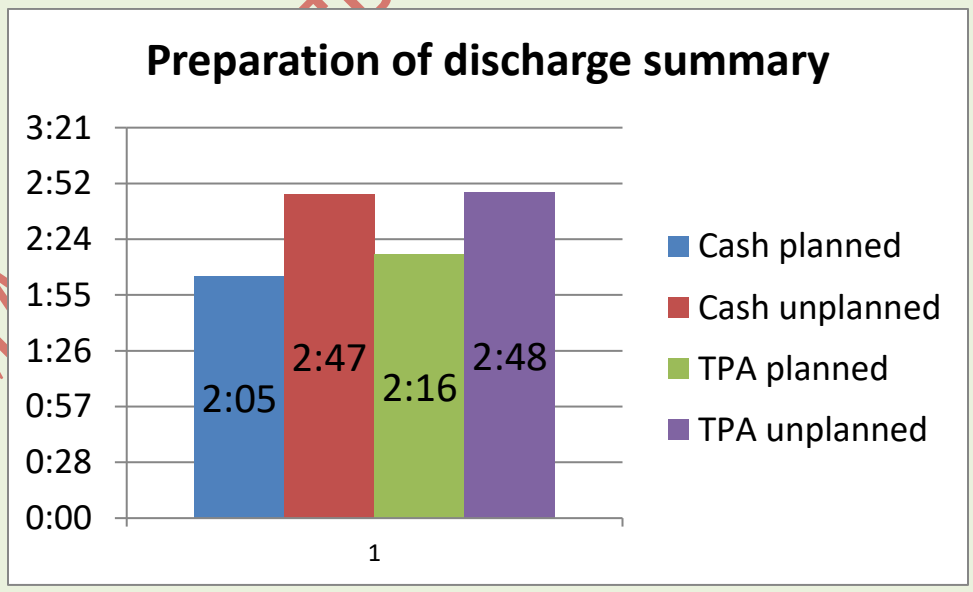


- The curve shows that TPA patients take more time in getting their bills ready as compared to cash patients. This is because TPA process takes a long time and all the patient final reports have to be sent to TPA and when TPA approval comes then only billing can be done.
- Even cash planned patients take a substantial time because1)-Service excellence team sends the discharge report of patient at 5 pm everyday 2)Doctors complain that they haven't taken patient rounds till 5 pm

Suggestions

- Service excellence team should send the discharge reports after 6 pm when doctors have taken rounds.

Graph 3



The above curve shows time taken for final discharge summary to be prepared. For planned and unplanned both, the discharge summary takes up a substantial time because of its long procedure of writing, rechecking and final printing.

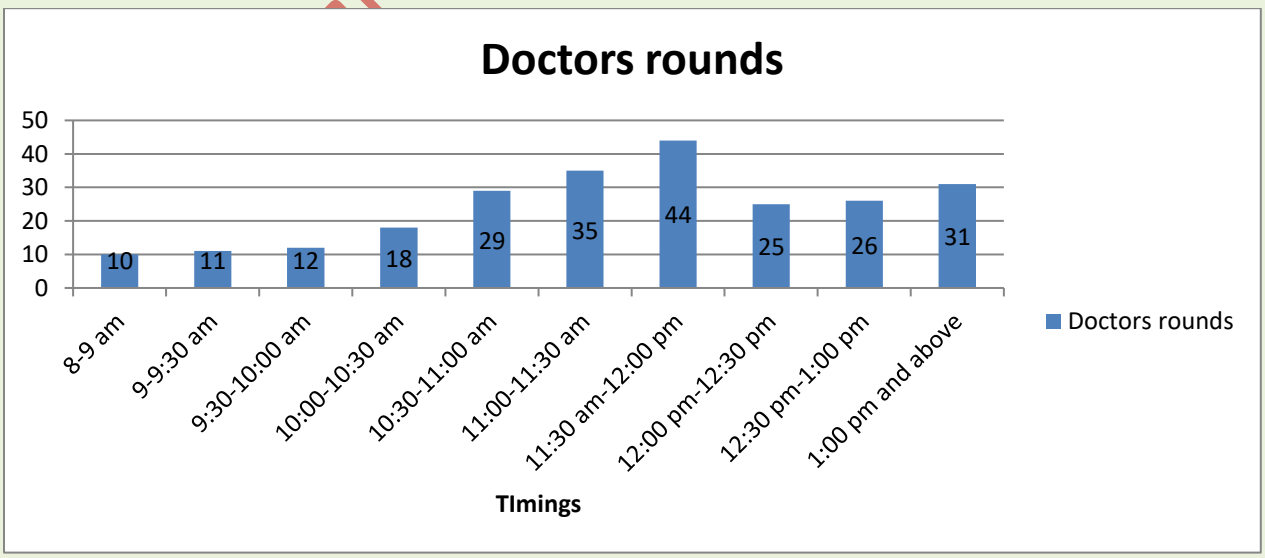
KEY POINTS

- Sometimes doctor's rounds don't happen on time.
- Sometimes number of RMO's is less.

SUGGESTIONS

- Hospital should keep medical transcriptionists
- Coordination between senior doctors and RMO'S

Graph 4

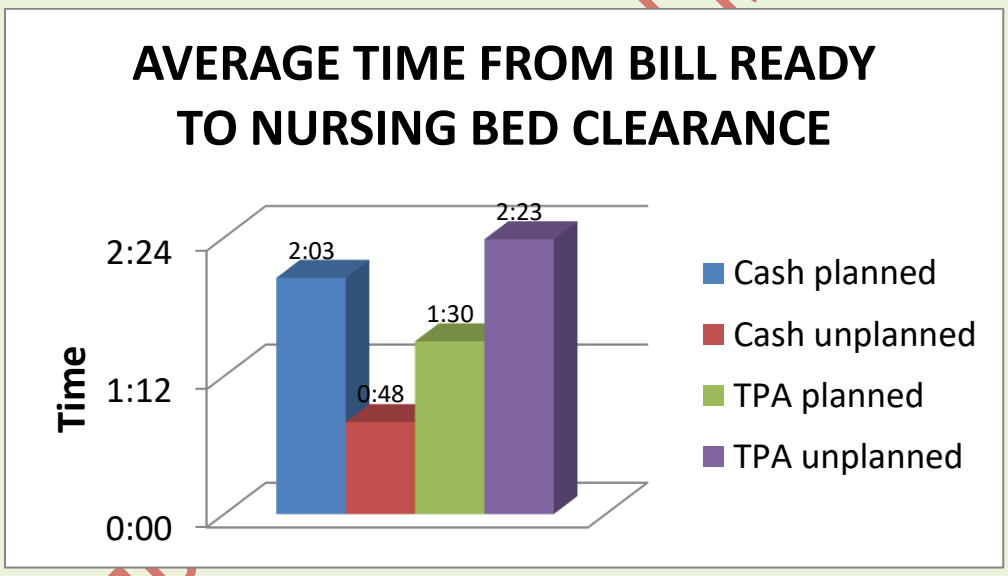


- The graph shows that maximum no. of doctors rounds are happening between 11:30 am-12:00 pm.

KEY POINTS

- Doctor rounds are not happening on time.

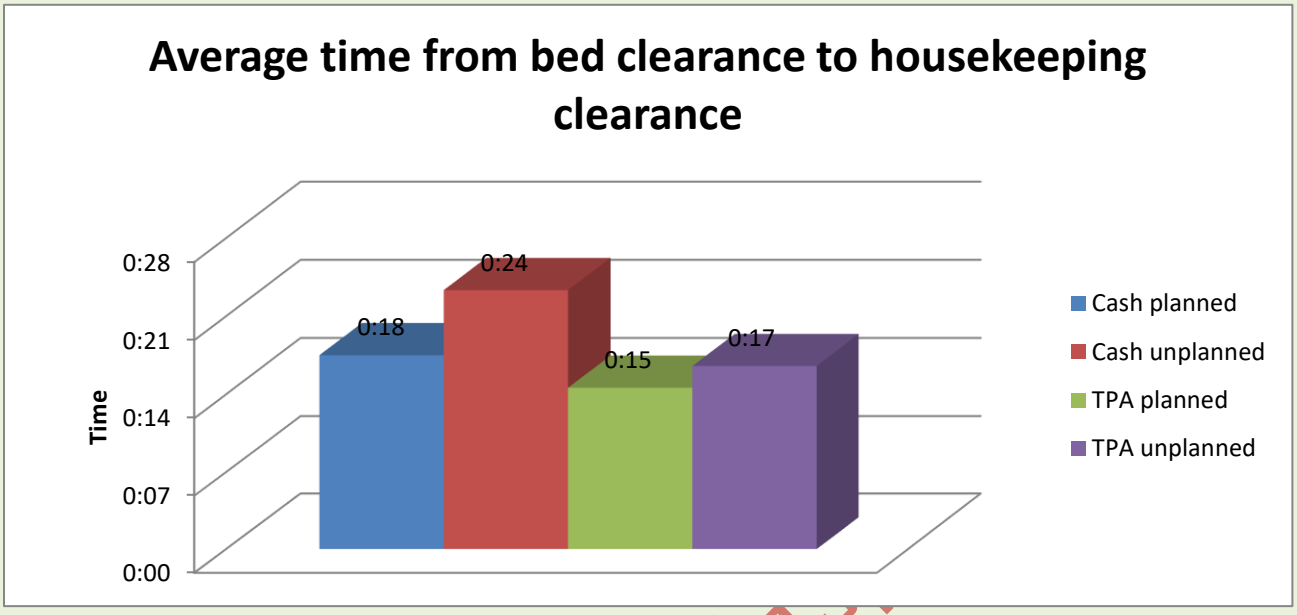
Graph 5



Above graph shows the time taken by the patient in vacating the room, this time is roughly fifteen minutes KEY POINTS

- Nurses have a huge workload,so bed clearance takes substantial time.

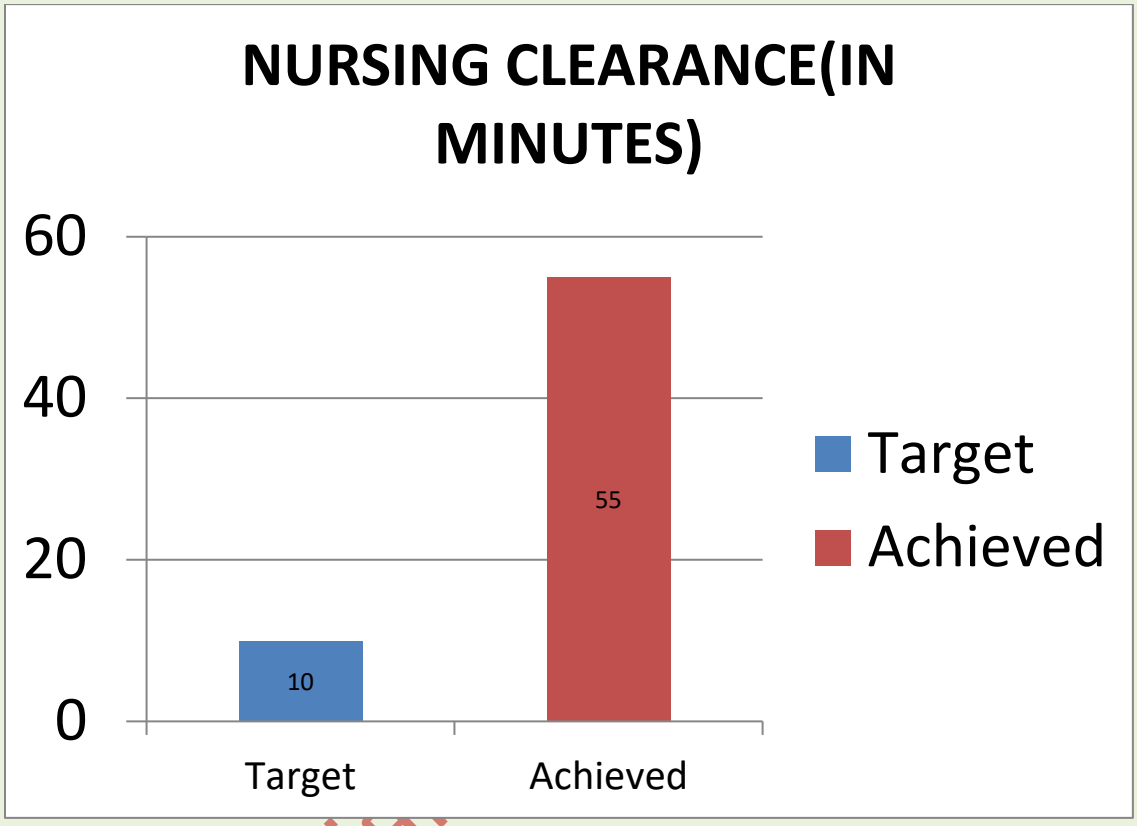
Graph 6



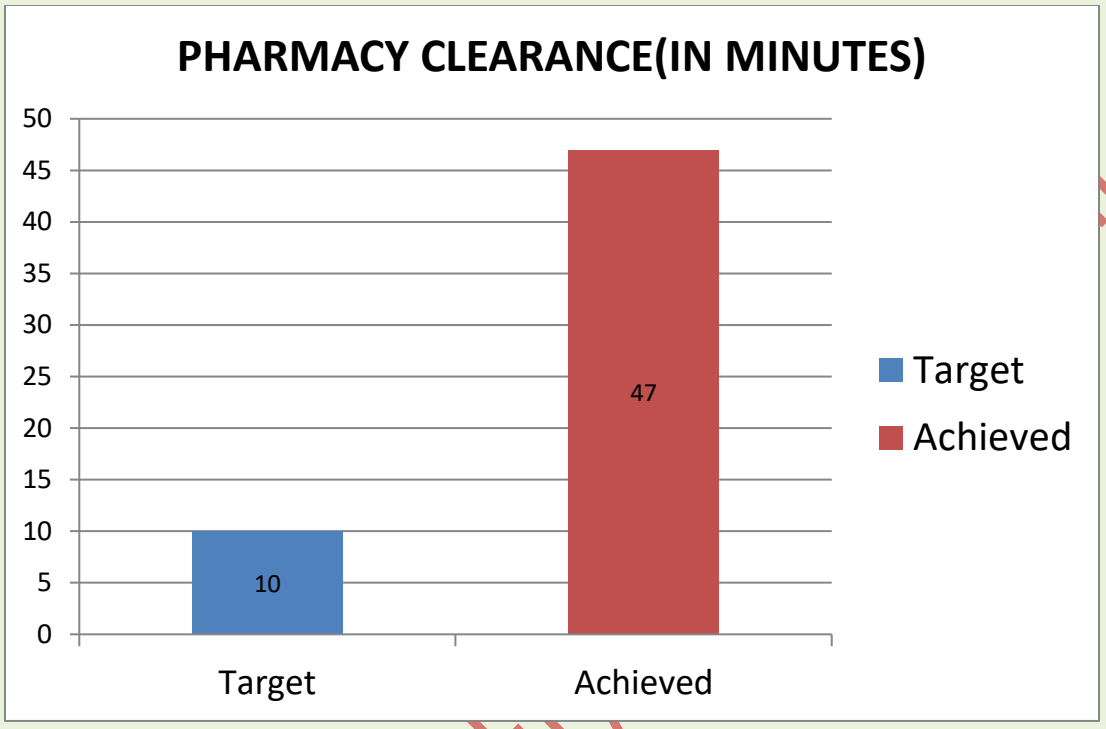
KEY POINTS

- These 15 minutes can be utilized in preparing the room for the next patient.

Graph 7



Graph 8



RECOMMENDATIONS

- GDA's should be assigned to each nursing station for important documents such as investigation reports.
- Short discharge summary can be prepared for every patient by the RMO depending upon the patients estimated stay, which can be updated on a daily basis.
- Number of planned discharges should be increased
- Hospital should keep medical transcriptionists
- Doctor's rounds should happen on time.

REFERENCES

1. Shu K, Boyle D, Spurr C, *et al*. *Comparison of time spent writing orders on paper with computerized physician order entry*. Medinfo 2001;10(2):1207–1211.

2. Vij S. Saying no to Discharge Woes. *Express Healthcare* 2009; (): .

3. Maloney CG., Wolfe D., Gesteland PH., Hales JW., Nkoy FL.. *A Tool for Improving Patient Discharge Process and Hospital Communication Practices: the Patient Tracker. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2655791/ (accessed 30 April 2014).*

4. Asplin BR, Magid DJ., *If you want to fix crowding, start by fixing your hospital.* Ann Emerg Med 2007; 49(3) :273-4.

5. Carey MR, Sheth H, Braithwaite RS. *A prospective study of reasons for prolonged hospitalizations on a general medicine teaching service*. J Gen Intern Med 2005;20(2):108-15.