Summer Training at
Columbia Asia Hospital,
Pune

Study on Issue Return of Medicines and Consumables from Nurse Station to Pharmacy Department

By
Chandni Kumawat

Under the guidance of
Dr. S.D. Gupta

MBA Hospital and Health Management
2015-2017

The IIHMR University, Jaipur
2016

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

IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that **Ms. Chandani Kumawat**, student of MBA in Hospital and Health Management from The IIHMR University, Jaipur has undergone summer training at **Columbia Asia Hospital, Pune** from **1st April 2016** to **31st May 2016.**

The candidate has successfully carried out the study designated to her during summer training and her approach to the study has been sincere, scientific and analytical.

The summer training is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

Col (Dr) Ashok Kaushik
Dean, Academic and Student Affairs
The IIHMR University, Jaipur

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COLUMBIA ASIA

01st June, 2016

INTERNSHIP COMPLETION LETTER

This is to certify that **Ms. Chandani Kumawat** has successfully completed her Internship Programme in Operations Department in our hospital for the period of 2 months from 1st April 2016 to 31st May 2016.

During her Internship period she has completed her project on **"A Study on Issue Return of Medicines and Consumables from Nurse Station to Pharmacy".**

Her behaviour was found satisfactory during her internship period.

We wish her success in her future.

Yours Sincerely,
For Columbia Asia Hospital - Pune

Columbia Asia Hospitals Pvt. Ltd. PUNE 411014

Pankaj Wagh
Human Resource Manager

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ACKNOWLEDGEMENT

I am immensely grateful to all those who have been involved in my project. My project would not been possible without the kind support and help of many individual in organization.

The project training at **Columbia Asia Hospital, Pune** provided me both learning experience as well as glimpse into the daily management functions of a renowned hospital. I was fortunate enough to interact with the people, who in their own capacities have encouraged and guided me in each and every step.

I owe a great debt to **Dr. Shamim khan (General Manager)**, my guide and mentor at Columbia Asia, Pune, **Mr. Jayesh Nair (Operations Manager)** and **Mr. Naazzir Shiekh (Executive Pharmacy)** for showing their interest and sharing their valuable views in spite of their busy schedule. It has been our privilege to work under their dynamic supervision in the hospital.

I'm grateful to my guide **Dr. S.D. Gupta** President IIHMR Jaipur, and other departmental heads for their cooperation, help and wholehearted encouragement. Their assistance enabled me, to overcome many obstacles during the work of my project study.

I am thankful of all those who directly or indirectly encouraged me to complete this project.

Chandni Kumawat

Pune

31st may 2016

ABBREVIATION

OPD- Out Patient Department

IPD- In Patient Department

OT- Operation Theatre

ICU- Intensive Care Unit

NICU- Neonatal Intensive Care Unit

ER- Emergency Room

LDR- Labour Delivery Room

CSSD- Central Sterile Supply Department

TAT- Turnaround Time

ADR- Adverse Drug Reaction

NDPS- Narcotic and Psychotropic Substances

DTC- Drugs and Therapeutics Committee

VED- Vital, Essential, Desirable

RL- Responsibility Level

LASA- Look Alike Sound Alike

CMS- Chief Medical Services

CNS- Chief Nursing Superintendent

ICN- Infection Control Nurse

MOR- Management Operational Review

HVAC- Heating Ventilating and Air Conditioning

AHU- Air Handling Unit

HEPA Filter- High Efficiency Particulate Air Filter

DG- Diesel Generator

UPS- Uninterrupted Power Supply

In order to undertake this crucial project it was important for me to understand set protocols and find the gaps, if any, while implementing these protocols. It was the utmost importance for me to understand processes, however small, to come to any conclusion.

Aims:-

- To understand working of whole of the hospital and to seek opportunities that will provide wholesome experience
- To study hospital operations/medical services departments in detail
- To study process flow of drug distribution to IPD patients as well as the process flow of other departments

Primary objective of my summer internship program is to have experience and knowledge on the management and operational aspect of the hospital.

HOSPITAL PROFILE

The company is based in Kuala Lumpur, Malaysia and was founded in 1994. The company offer full-service hospital built in neighbourhoods, rather than the central city. Columbia Asia is the chain of hospitals in Asia, with 23 medical facilities across India, Malaysia, Vietnam and Indonesia. Columbia Asia's target market is fast-growing middle-income group. Columbia Asia hospitals are clean, efficient, affordable and accessible. The innovative design of Columbia Asia hospitals, from their manageable size to their advanced technology, is focused on creating the most positive experience for patients. Patient service, efficiency and medical excellence are all part of Columbia Asia's model to deliver the best medicine. Columbia Asia's highly skilled doctors and nurses deliver care in modern hospitals located close to where people live and work. Columbia Asia hospital specifically designed for the needs of patients and built for maximum comfort and efficiency. Patients benefit from advanced medical diagnostics, treatment and personal care that only comes in facilities where the focus is on each patient. Their transparent rate structure for medical procedures allows patients to know in advance how much their care will cost.

Columbia Asia, India

East

Columbia Asia Hospital- Salt lake, Kolkata

West

Columbia Asia Hospital- Pune

South

Columbia Asia Hospital- Hebbal, Bengaluru

Columbia Asia Hospital- Mysore

Columbia Asia Refferal Center- Yeshwanthpur, Bengaluru

Columbia Clinic- Doddaballapur

North

Columbia Asia Hospital- Patiala

Columbia Asia Hospital- Ghaziabad

COLUMBIA ASIA HOSPITAL, PUNE

Columbia Asia today serves more than one million patient every year. Hospital offer comprehensive clinical programmes that are supported by a list of ancillary services (ICU, NICU, referral lab, physiotherapy, teleradiology/telemedicine, pharmacy and imaging facilities). A comprehensive medical records system forms the core of the hospital information system (HIS) that supports clinical decision making.

Columbia Asia Hospital, Pune is a 100 bedded multi specialty facility situated close to IT parks at Kharadi. The hospital has highly qualified medical personnel and technicians to ensure healthcare delivery of the highest quality. The hospital's infrastructure along with internationally benchmarked standards of medical, nursing and operating protocols are the key component that will make it a preferred hospital in pune. A proprietary hospital information system and electronic medical record management assures error free and convenient patient records management, thereby greatly minimizing patient waiting time.

- **Mission:** "To deliver the best clinical outcomes in the most effective, efficient and caring environment"
- **Vision:** "We have a passion for making people better"
- **Moto:** "Customers First"
- **Values:** "Caring, Community Involvement, Excellence, Integrity and Team Work"

Scope of Services at Columbia Asia Pune:

- Anaesthesia

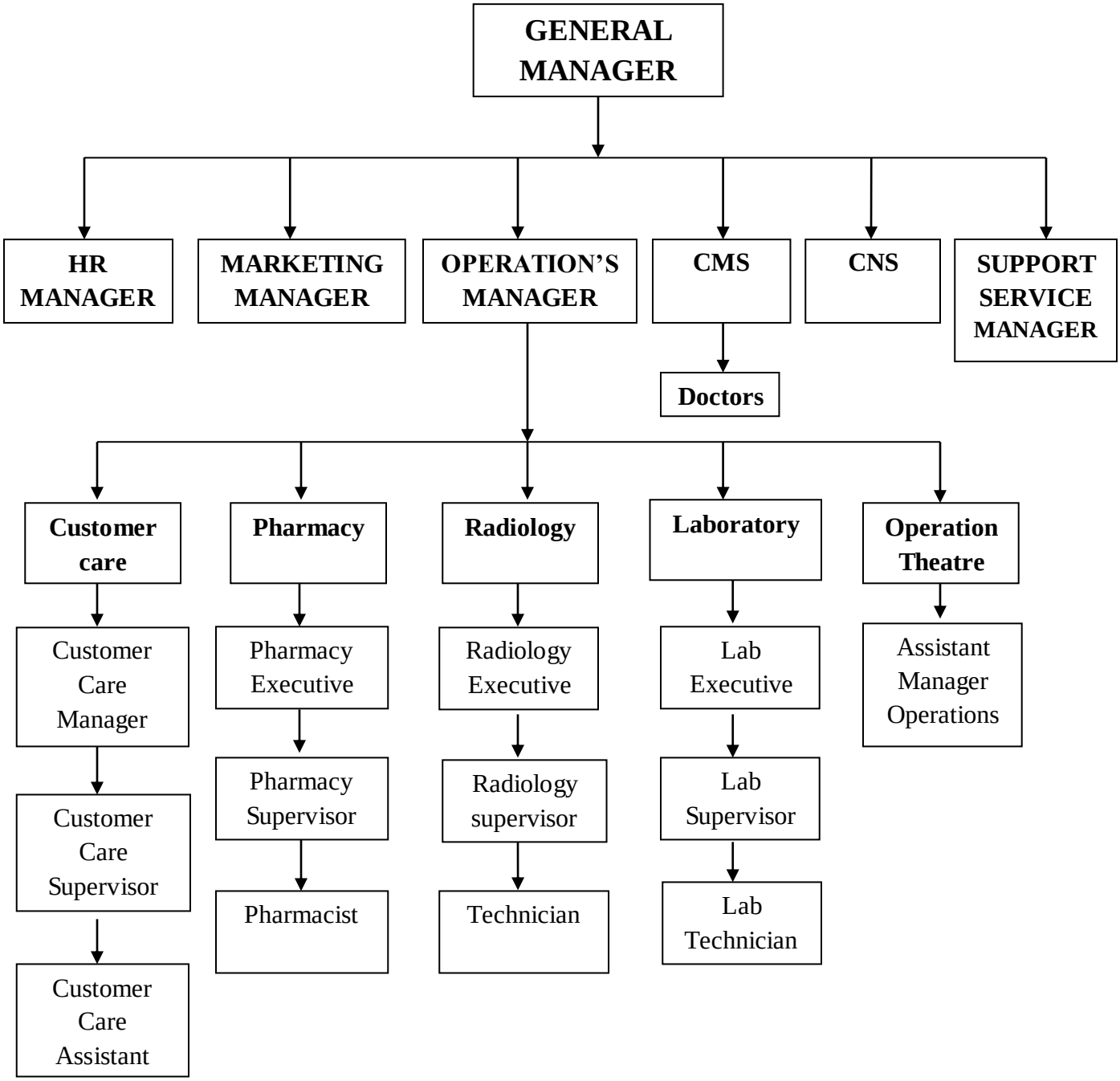
- Arthroscopic Surgery
- Bariatric Surgery
- Cardiology
- Clinical Hematology
- Clinical Psychology
- Critical Care Medicine
- Dental Services
- Dermatology
- Emergency Medicine
- Endocrinology
- ENT
- Gastroenterology
- General Surgery
- Hand Surgery
- Infectious Diseases
- Internal Medicine
- Interventional Radiology
- Interventional Neuro Radiology
- Laparoscopic Surgery
- Medical Oncology
- Minimal Invasive Surgery
- Neonatology
- Nephrology
- Neurology
- Neuro Surgery
- Obstetrics and Gynaecology
- Onco Surgery
- Ophthalmology
- Oral and Maxillofacial Surgery
- Orthopedics and Joint Replacement
- Pediatrics
- Pediatric Surgery

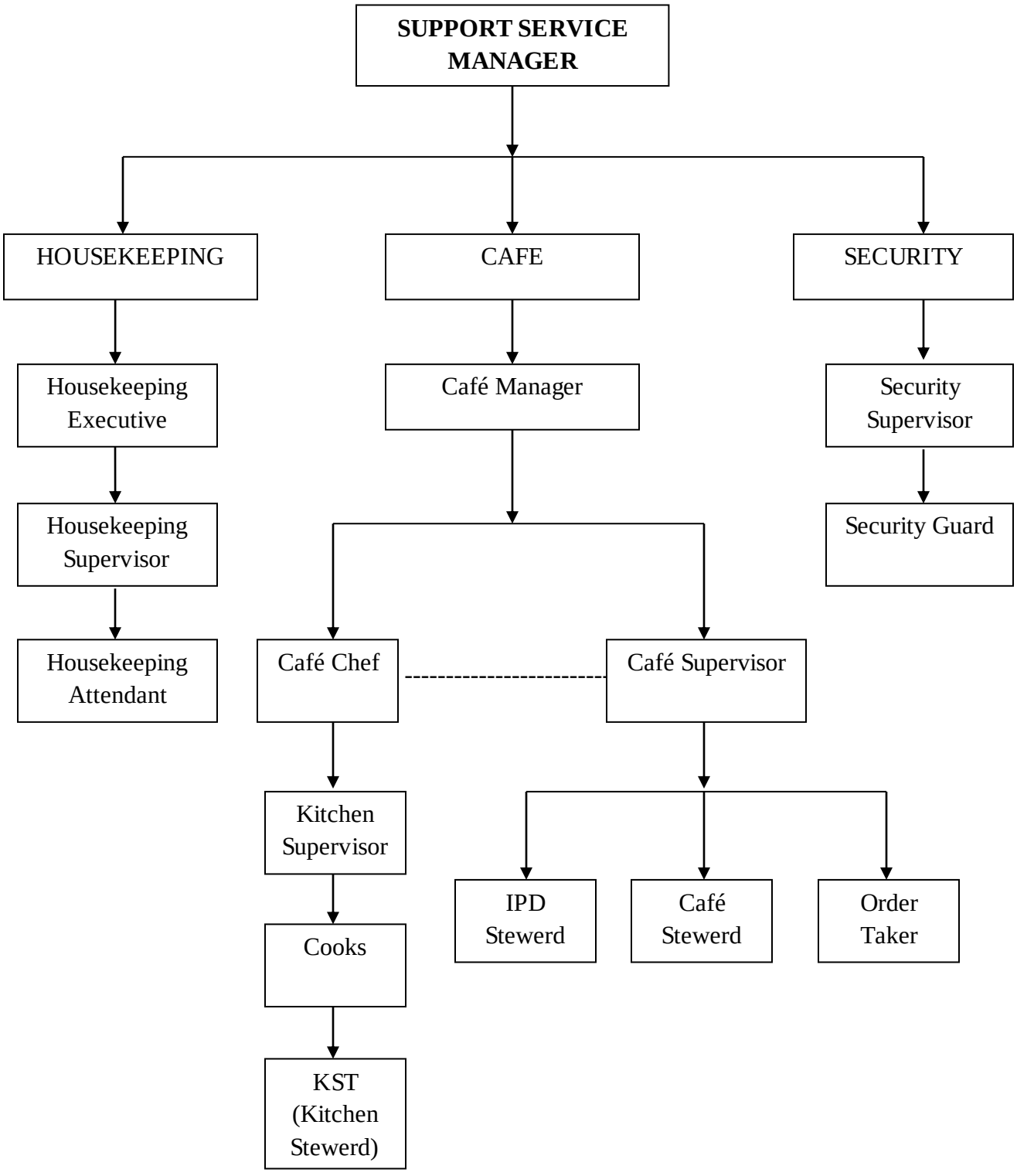
- Psychiatry
- Plastic and Reconstructive Surgery
- Pulmonology
- Rheumatology
- Spine Surgery
- Sports Medicine
- Urology
- Vascular Surgery

Services Not Offered:

- Burns
- Cardio Thoracic Surgery
- Nuclear Medicine and Radiotherapy

ORGANOGRAM OF HOSPITAL




SUPPORT SERVICE MANAGER
HOUSEKEEPING
CAFE
SECURITY
Housekeeping Executive
Café Manager
Security Supervisor
Housekeeping Supervisor
Security Guard
Housekeeping Attendant
Café Chef
Café Supervisor
Kitchen Supervisor
IPD Stewerd
Café Stewerd
Order Taker
Cooks
KST (Kitchen Stewerd)

DEPARTMENTS

The floor plan of hospital is as follows:

Basement:-

- HR Department
- Marketing
- Support Service Department
- Housekeeping Department
- Purchase Department
- EMRD

Ground Floor:-

- Customer Care
- Finance
- Insurance Department
- OPD
- Pharmacy
- Radiology
- Laboratory
- Accident & Emergency
- Cafeteria
- Dietician

First Floor:-

- Nursing Station- A,B,C,D
- IPD
- NICU
- Labour Ward
- Dialysis
- Physiotherapy

Second Floor:-

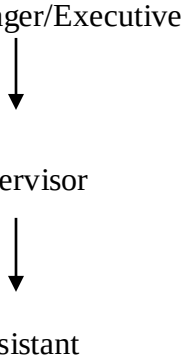
- Nursing Station- C,D

- OT
- CSSD
- ICU
- Cath Lab & Endoscopy

DEPARTMENT WISE OBSERVATION

HR Department

ORGANOGRAM:-



The services for this department include:

- Job recruitment & analysis
- Assessment of application
- Interview processes
- Joining formalities
- Performance appraisal
- Compensation & benefit
- Training & development
- Employer engagement & relation
- Management info system

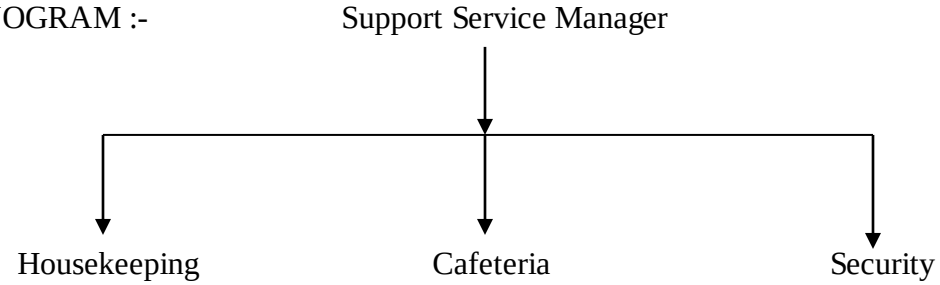
Marketing Department

ORGANOGRAM:-

The segment in which marketing is done includes corporate, refferal and international patients. The unique selling proportion of Columbia Asia is the In-house cafe, ethical practice and uniform price rate policy. Columbia Asia hospital is associated with 108 corporate including public sector units and school. It is also associated with nursing homes, clinics and doctors for referrals. Columbia Asia also serves international patients from different countries.

Support Service Department

ORGANOGRAM :-

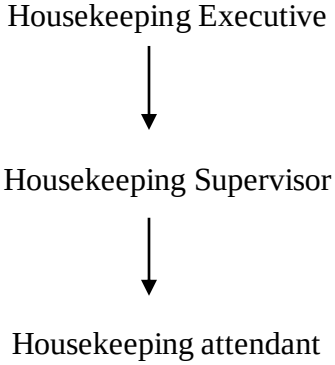


SERVICES**:-**

- Support services shall consist of facility maintenance, bio-medical, housekeeping linen & laundry, security and food services
- Support services shall ensure that all fixed assets are tagged, that their movements are monitored and that proper records are maintained
- The hospital shall ensure that movement of items in and out of the premises is done after obtaining due authorization and with relevant supporting documentation

Housekeeping Department

Organogram (Housekeeping):-



Services:-

- The primary function of housekeeping department is to ensure overall cleanliness and maintenance of all areas of hospital
- The housekeeping department will use a combination of a efficient procedure, appropriate tools and methods with trained man power thereby ensuring a hygienic atmosphere in the hospital
- Deep cleaning (top to bottom) in critical areas like OT, ICU, NICU twice a month and in other areas once a month
- Room deep cleaning is done on Sundays
- Checklist is provided in each room, to be filled daily
- Different chemicals for different areas of the hospital, Basilocite for OT and BHU, R1 for washroom, R2 for floor cleaning
- Maximum cleaning is done before 10:30 am (before rush hours)
- Maximum 20 minutes per room

Linen & Laundry

- All the linen transferred to linen exchange sheet
- When the dirty linens are handed over to the vendor its entered into laundry exchange sheet (Three copies- Linen department, Security, Vendor)
- Five stocks are maintained-
  -Laundry stock
  -Patient stock
  -Linen stock
  -Store stock
- Linen Life Cycle- (min) 200/cycle and (max) 300/cycle

Cafeteria

- The food services shall be managed in-house and will be referred as Cafe Columbia
- The food services shall ensure that the food served is presentable, palatable and safe for consumption

- The hospital serves 6 meals a day to the patients, with dietician consultation (included in room charges)

  -Breakfast with tea/coffee

  -Mid-morning soup

  -Lunch

  -Snacks with tea/coffee

  -Dinner

  -Night cap milk
- Shop act licence and FDA licence
- Patient feedback is taken daily

Security

- The security department is responsible for the overall safety and security of the hospital infrastructure, the external customers and internal customers

EMRD (Electronic Medical Record Department)

The medical records department is responsible for maintaining medical records in a standardized and professional manner in order to protect patient confidentiality while allowing adequate access to providers in order to promote quality patient care.

Coding and release of information are some of the other major duties performed in medical records department.

ORGANOGRAM:-

Chief Of Medical Services

↓

Medical Record Supervisor

↓

Medical Record Assistant

SERVICES:-

- Compiling of daily hospital census and reporting to authorized personnel
- Updating statistics of all OP and IP census to monthly statistics
- Collecting discharge files from all the wings
- Systematic maintenance of medical records
- Coding as per ICD norms

Customer Care

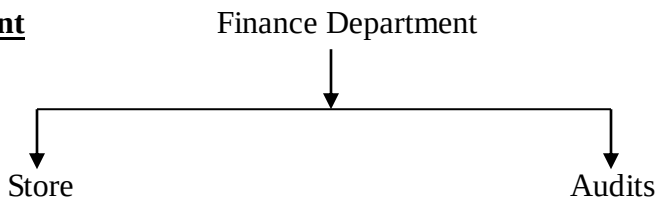
SERVICES:-

- **Enquiry Desk**- Enquiry is manned by a customer care assistant 24hrs/day, and is supervised by the customer care supervisor. Handles all doubts, new registration, enquiries and questions concerning the services Columbia Asia provides.
- **Console**- Handles internal calls (call transfers and enquiry) and external calls (call transfers, enquiry, scheduling appointments, rescheduling and dissemination of the information concerning health checks and other hospital services.
- **OPD**- Processing of appointment schedules and consultation with the respective consultants**.**

  Nurse Station (A) - Consultation payment and visit activation for OPD-A and health check-ups patients, vitals check

  Nurse Station (B) – Consultation payment, visit activation, vitals check, vaccination for OPD-B patients and payment for lab reports and radiology reports.
- **Inpatient Services-** Customer service assistant will guide and accompany the patient/patient attender through all formalities of the admission process.
- **Health Check-ups-** Offer different health check-up packages for men and women of different ages tailored to their requirements.

Finance Department



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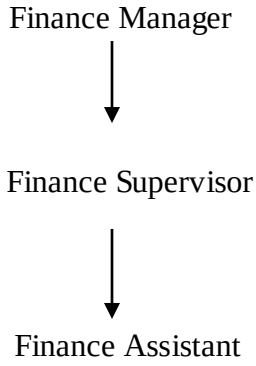


SERVICES:-

- Finance department provides reports and analysis on expenditure and income throughout the year, setting budgets and providing financial information and support.

Pharmacy

SERVICES:-

- Strict formulary followed-only 2 brands are allowed per molecule, formulary controlled centrally
- Only online prescription are allowed, no retail prescriptions are entertained
- Cash collected by an employee of finance department
- Possess NDPS licence
- Department/ wing wise indent schedule
- Drugs are arranged alphabetically
- NDPS drugs are kept in double lock & key
- Expiry & near expiry drugs and high value drugs are stored separately
- DTC committee for introduction of new formulations
- ABC, VED analysis implemented in the store
- Inventory count done weekly

Radiology

SERVICES:-

- The department is committed to the high profile, high quality, precise, timely diagnosis and interventional procedures in a safe and caring environment
- Provide tele-radiology facilities that conform to the international standards of care to our referring consultants and hospital

EQUIPMENT:-

- CT Scan
- MRI
- Digital X-ray machine
- Mammography machine
- USG machine

Laboratory

The laboratory is a full service facility located on the ground floor near the OPD. It was NABL accredited

SERIVICES:-

The functional components of laboratory were-

- Microbiology
- Biochemistry
- Hematology
- Cytology
- Histopathology
- Immunology
- Serology

Accident and Emergency

Emergency medical services are dedicated to offering immediate, acute medical care out of the hospital or in an emergency room. The aim of emergency medical services is to provide treatment to those in need of urgent medical care.

At Columbia Asia Hospital, emergency department and emergency room is equipped with all the necessary facilities to administer the right emergency medical services.

WHEN TO CONTACT EMERGENCY MEDICAL SERVICES-

- Choking
- Breathing difficulty or stopped breathing
- Severe or mild head injury with/without loss of consciousness, vomiting or abnormal behavior like aggressiveness
- Injury to spine or neck
- Seizure that lasted for 3-5 minutes
- Bleeding that is not controlled and is heavy

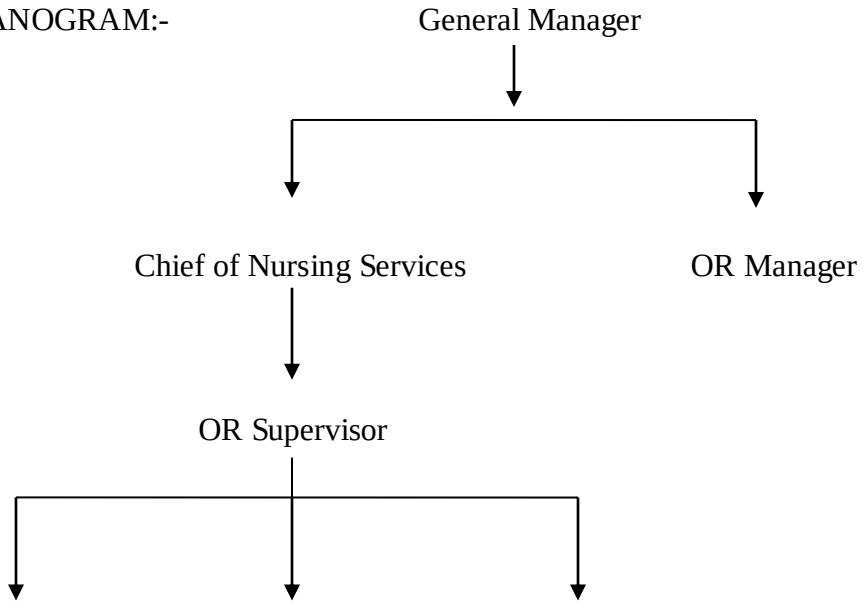
EMERGENCY CARE IN COLUMBIA ASIA HOSPITAL:-

Once the patient reaches the emergency room, the first step is to assess and stabilize the patient. The concerned specialist is informed and investigations are started. Depending on the treatment proposed patient may be admitted to ICU or ward. In some cases, patient may be treated as an out-patient. Support of the laboratory and radiology department is available round the clock.

Operation Theatre

The objective of operating room is to provide highest level of surgical care to patients undergoing surgical treatment.

ORGANOGRAM:-



PROCEDURE:-

- Pre-operative care
- Pre anaesthesia checkup
- Surgical procedure
- Post-operative care

CSSD (Central Sterile Supply Department

The Central Sterile Supply Department provides complex services including the preparation of sterile medical supplies for the surgery rooms.

The Central Sterile Supply Department provides specialized hygienic operations (complex pre-sterilization preparation, high-temperature sterilization, low-temperature sterilization) whose outputs are sterile medical supplies.

SERVICES:-

- Disinfection, mechanical treatment, special treatment of all medical supplies
- Organizing and completing surgical instruments into sets

- Visual control of completeness, preparation and packing of surgery room cloths
- Moist heat sterilization
- Ethylene oxide sterilization

ICU (Intensive Care Unit)

It is located on second floor. There are one general ICU and one NICU. Intensive care unit cater to patients with severe and life-threatening illnesses and injuries, which required constant, close monitoring and support from specialist equipment and medication in order to ensure normal body functions. Patients may be transferred directly to an ICU from emergency department if required, or from a ward if the rapidly deteriorate, or immediately after surgery if the surgery is very invasive and the patient is at high risk of complications.

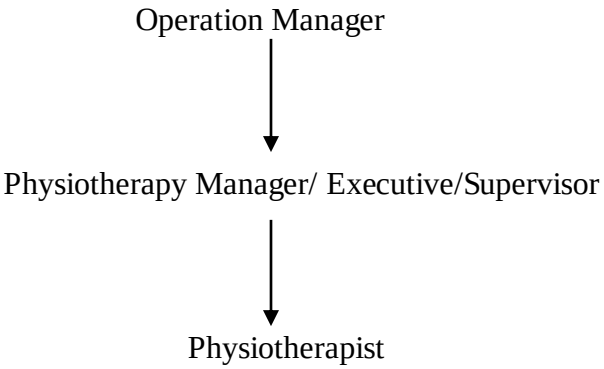
NICU (Neonatal Intensive Care Unit)

This specialty unit cares for neonatal patients who have not left the hospital after birth. Common conditions cared for include prematurity and associated complications, congenital disorders resulting from the birthing process.

Physiotherapy

The objective of physiotherapy is to provide effective rehabilitation for a variety of musculoskeletal, neurological, respiratory conditions and other medical problems related to physiotherapy for patients in Columbia Asia hospital. The physiotherapists within Columbia Asia Hospital are committed to providing a service that is responsive to the needs of the patients, innovative and based on current evidence and research.

ORGANOGRAM:-



SERVICES:-

- Interferential Therapy (IFT)
- Ultrasound Therapy (UST)
- Short Wave Diathermy (SWD)
- Traction (Cervical and lumber)
- Wax Therapy (WXT)
- Moist Therapy (MOT)
- Combi Therapy
- Laser Therapy
- Continuous Passive Motion
- Shoulder Pulley and Wheel
- Wall ladder
- Parallel Bar and Mirror
- Quadriceps Table
- Gym Ball
- Multi Gym
- Exercise Therapy

CONCLUSION:-

A well organized and well maintained hospital, with all the amenities a multi-specialty hospital should possess. Located strategically near IT parks and townships. Customer centric approach ensures patient satisfaction. Good consultant empanelment has ensured steady increase in patient flow.

LIMITATIONS:-

- Not affordable to the middle class society
- No general wards
- Not tie ups with government insurance scheme likes CGHS, ESIC etc.
- Low OTC pharmacy sale as they don't accept prescriptions from other hospitals or consultants
- Shortage of staff

A STUDY ON ISSUE RETURN OF MEDICINES AND CONSUMABLES FROM NURSE STATION TO PHARMACY DEPARTMENT

Introduction:-

Pharmacy in **Columbia Asia** is located on ground floor near entrance and provides 24 hour services. It is a branch of the health sciences dealing with the preparation, dispensing and proper utilization of drugs. Hospital pharmacy is the profession that strives to continuously maintain and improve the medication management and pharmaceutical care of the patients to the highest standards in a hospital setting. There are two branches of pharmacy department- **pharmacy store and pharmacy dispensary**. Medical supplies/consumables are issued from pharmacy store and medicines are issued from pharmacy dispensary. Drug distribution systems in the hospital setting should ideally prevent medication error, and facilitate the appropriate allocation and use of available resources.

In healthcare service sector, inventory management and distribution has important role in determining its success. Besides medicines, most of hospital inventories are medical devices and consumable goods such as syringe, bandage, and etc. This study is aiming to observe distribution of medical consumables and medicines in hospital and to provide solutions for problems that often happened.

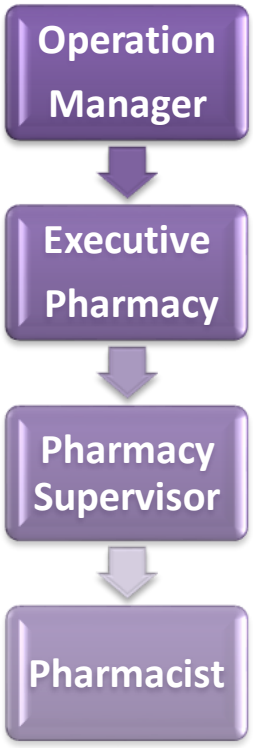
In **Columbia Asia Hospital** doctors prescribes medicines through a computerized system and medicines are then delivered on an individual patient basis by pharmacy dispensary under which the physician wrote the prescription, and then a nurse transcribed the prescription to a medication administration profile and generated a medication order for the pharmacy. The pharmacist then dispensed an adequate supply of medication to cover a specific period, usually several days. But **the pharmacy faces the problem of considerable amounts of medicines returned called "Issue Return".**

Issue return means when an indent for medicines and consumables received by pharmacy department they supply those items to the respective department but the whole quantities ordered by the department and supplied by the pharmacy department is not administered to the patient and is returned back to the pharmacy department. Then this return of medicines and consumables is called issue return.

Because of this issue return there are more exchange of medicine and consumables, chances of error increases, inventory increases and this may indirectly affect patients.

Any improvements in hospital medicine distribution system can lead to better inventory management, enhance patient's satisfaction and elevate effectiveness of hospital employees work flow. So this study is conducted to identify the reasons of issue return and to find out that in the process of medication use where the problem originated: the prescription, dispensing by the pharmacy, picking operation by nurses, administration to the patients, and management.

ORGANOGRAM:-



STAFFING AND SHIFTS TIMING:-

Shifts	Timings	Pharmacist per shift
Morning	7am-4pm	1
General	8:30am-5:30pm	2
Evening	12:30pm-9:30pm	2
Night	9:30pm-7:30am	1

PROCESS IN PHARMACY DEPARTMENT:-

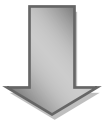
- OP dispensing
- IP dispensing
- Medicine refund
- Wing transfer
- Inventory control
- Medicine arrangement
- Stock checking

PROCESS OF ISSUE RETURN OF MEDICINES AND CONSUMABLES:-

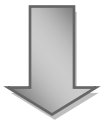
All departments including ICU/NICU, nurse station (IPD patients), labour ward, emergency department, OT order medicines from pharmacy dispensary and medical supplies/consumables from pharmacy store

(Prescription indent ordered by doctors and medical supplies indent ordered by nurses through system)

Than pharmacy department issued the medicines and consumables to respective department

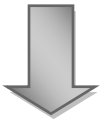


After treatment nurses send issue returns draft for unused medicines and consumables to pharmacy dispensary and pharmacy store



Issue returns draft received by pharmacy department

Than after issue return indent within one or two hour one attendant from nursing station came and gives unused medicines and consumables back to the pharmacy dispensary and pharmacy store



Pharmacy department than cross check the quantities returned and accept the issue return

Problem Statement:-

A quantitative analysis to study the issue return of medicines and consumables form nurse station to pharmacy department.

Review of Literature:-

Root causes of returned medicines in hospital pharmacy; a lean approach in CHU Mont-Godinne Hospital, Eur J Hosp Pharm 2012

Summary:-

In CHU Mont-Godinne, physicians prescribe medicines through a CPOE system and medicines are then delivered on an individual patient basis by the pharmacy. The amounts are generated according to a 'limit date system'. The pharmacy faces the problem of considerable amounts of medicines returned. The study was conducted on the 'Respiratory & Oncology' ward and focused on all medicines returned in relation to 31 patients who had been admitted to the unit for a period of 5 weeks. Currently, one out of four medicines supplied to the 'Respiratory & Oncology' ward is not administered to the patient and is returned to the pharmacy.

Cause analysis was conducted retrospectively and according to a lean approach. It is a structured process used to improve process cycle time through the identification, reduction and elimination of process waste and non-value-added activities. 1754 returned medicines were analyzed. The three main root causes of returned medicines were: a discharge date not recorded in the CPOE system (22.86%), inappropriate use of electronic prescribing (10.15%), and late capture of a known discharge date (7.98%).

Rationale of Project:-

Pharmacy department in any hospital is a revenue generating department. The services provided by the hospital will be incomplete if medicines are not dispensed in a manner that is quick, efficient, error free. The goal of the project is to analyze the problem of issue return between pharmacy and nursing department and to suggest the solutions to the hospital for improving the process flow.

Research Objective:-

- To study the process of the issue return of medicines and consumables from nurse station to pharmacy department
- To identify the gaps associated with this process
- To identify their underlying causes
- To provide suggestions to reduce issue return of medicines and consumables

Research methodology:-

- All the analysis and graphical depictions were done with the help of MS-Excel

- **Study Design**

  Observational and Descriptive study

- **Sample Size**

  Census

- **Inclusion Criteria**

  All IPD (In patient department), emergency, OT, ICU, NICU, Labour ward patients prescriptions were included and scrutinized

- **Exclusion Criteria**

  All OPD (Out patient department) patient prescriptions

- **Study Area**

  Ground floor Pharmacy department at Columbia Asia Hospital, Pune

- **Time Duration of Study**

  Data was collected in the duration from 5th April 2016 to 20th April 2016

  Data analysis and Interpretation were carried out from 21st April 2016 to 30th may 2016

- **Source of Data**

  Primary and Secondary data

Primary data includes:-

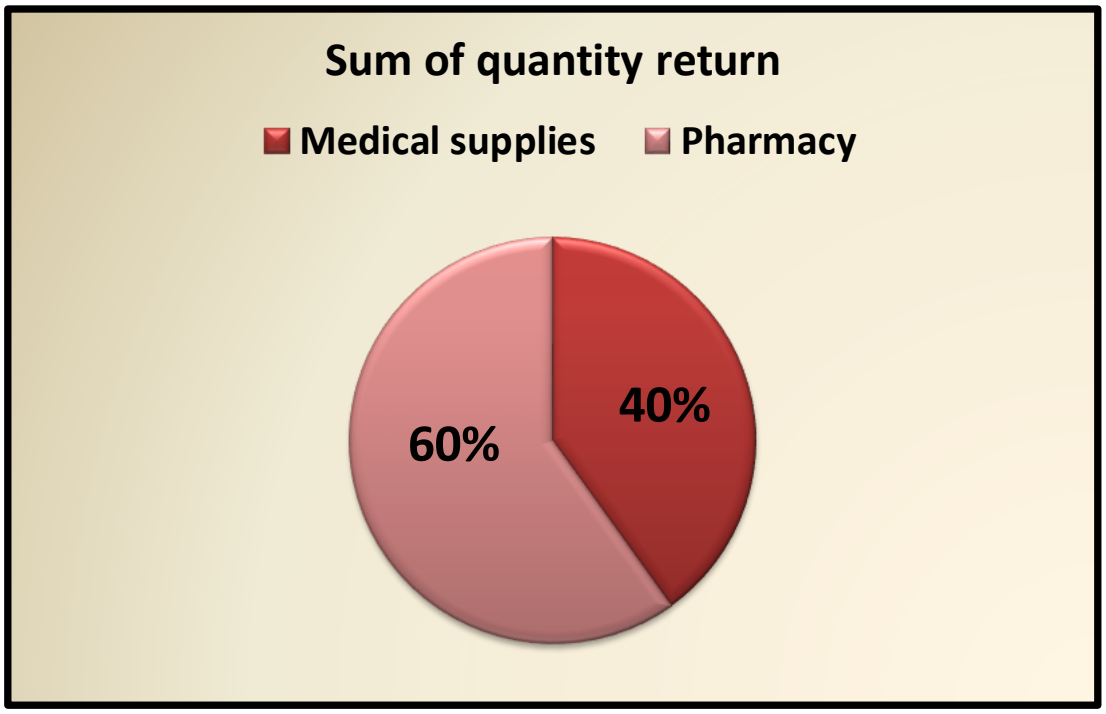
- Direct observations
- Interaction with both the nursing staff and pharmacy staff

Secondary data includes:-

- Required data was extracted from various hospital records (care21 system) and report

Data Analysis and Interpretation:-

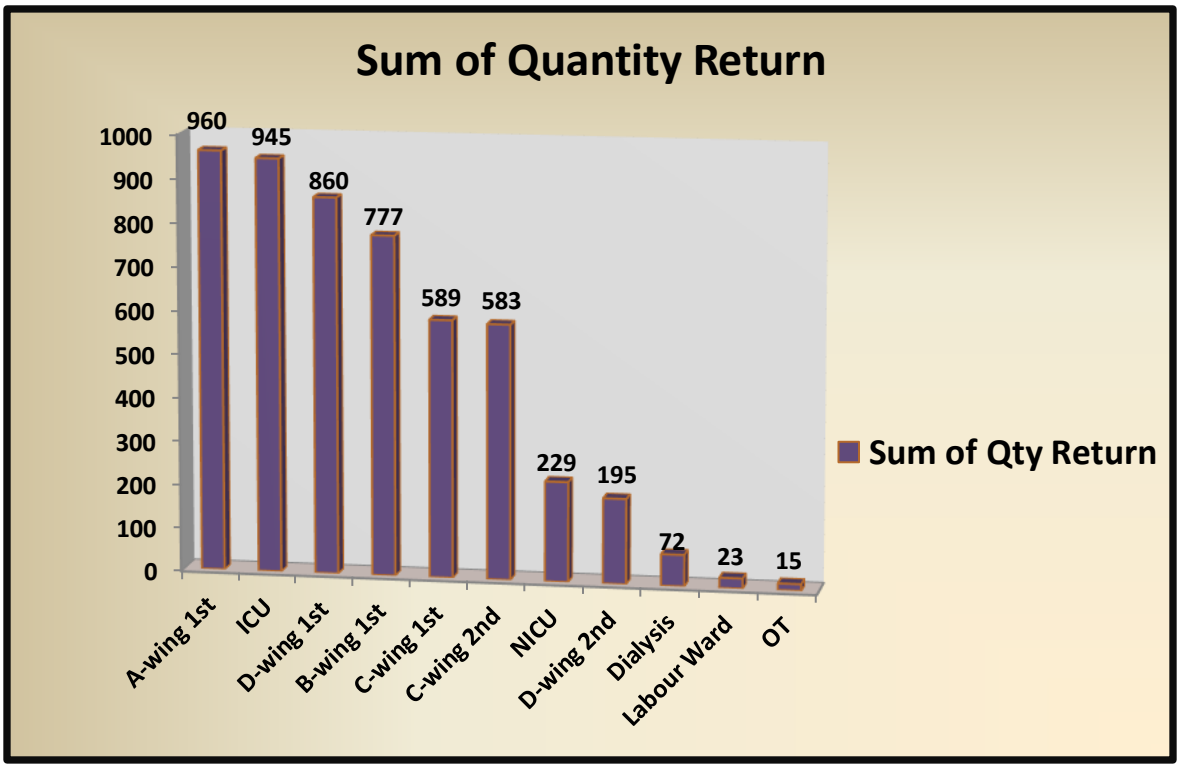
Figure 1.



Proportion of the issue return of medicine and medical supplies:-

- Total issue return=5423 out of 7822 which is approx 69.33%
- The graph shows that the issue return of medicines (that is 60%) is more than the issue return of medical supplies/consumables (that is 40%)

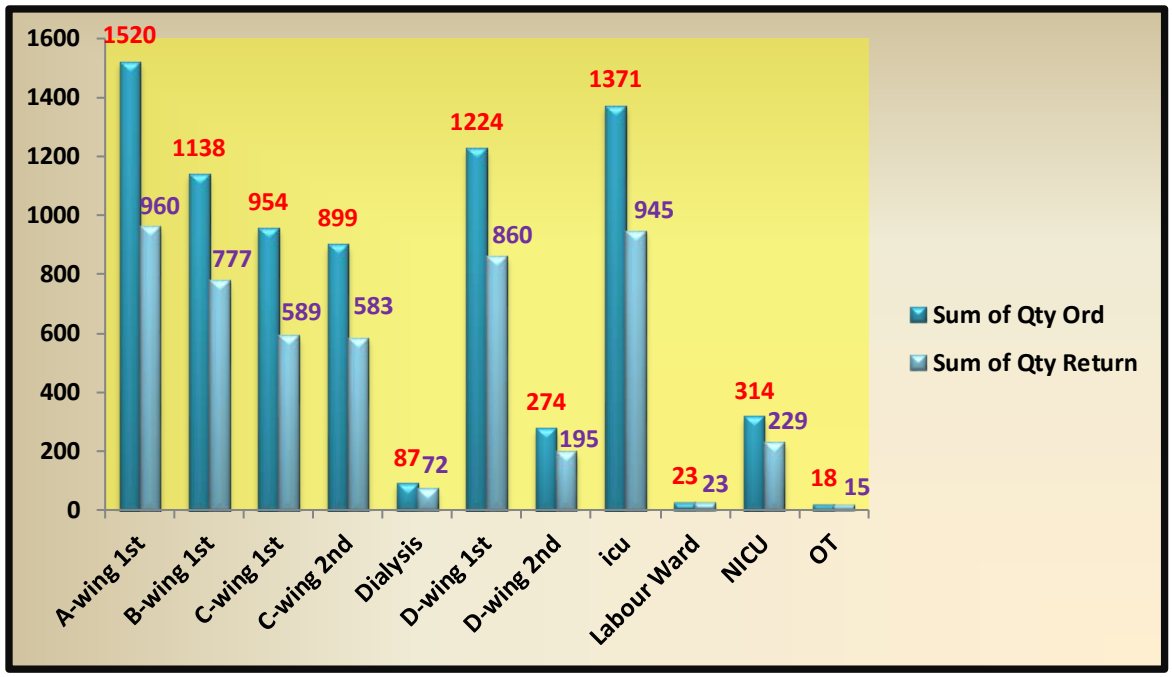
Figure 2.



Sum of quantity returned from individual departments:-

- The graph shows the overall returned quantities of medicines and consumables from different departments
- As shown in the graph maximum quantity is returned from A-wing(960), D-wing(860), B-wing(777), C-wing(589) from the 1st floor and ICU(945), C-wing(583) from the 2nd floor
- Interpretation shows the primary concerned area is the nurse station of 1st floor and ICU, C-wing of 2nd floor from which the returned quantities are maximum.
- In these departments the process of issuing the medicines and consumables needs to be improved

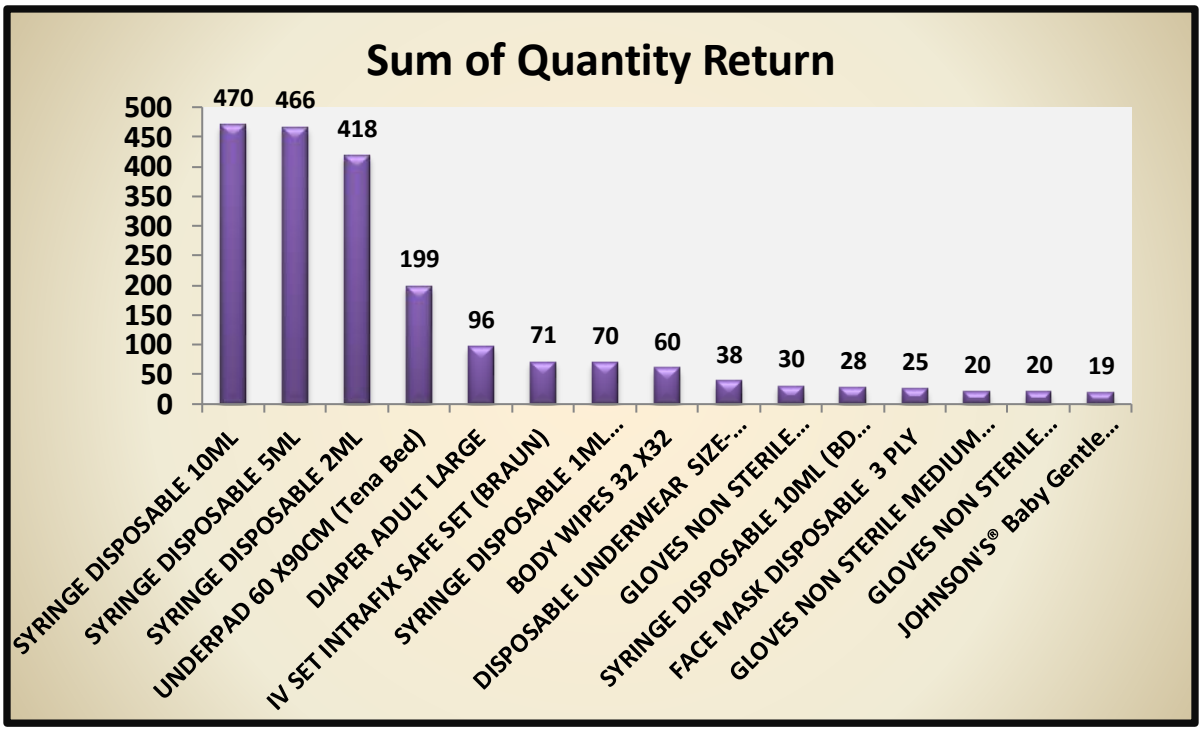
Figure 3.



Quantity returned v/s quantity ordered from individual departments:-

- The graph shows the sum of quantity returned with respect to the sum of quantity ordered from different departments
- The sum of quantity returned is less than the sum of quantity ordered but return is almost 60% of the quantity ordered which is very high
- The major problem is in A-wing, B-wing, C-wing, D-wing from the 1st floor and ICU and C-wing from the 2nd floor
- So the training of the nursing staff of these departments are required

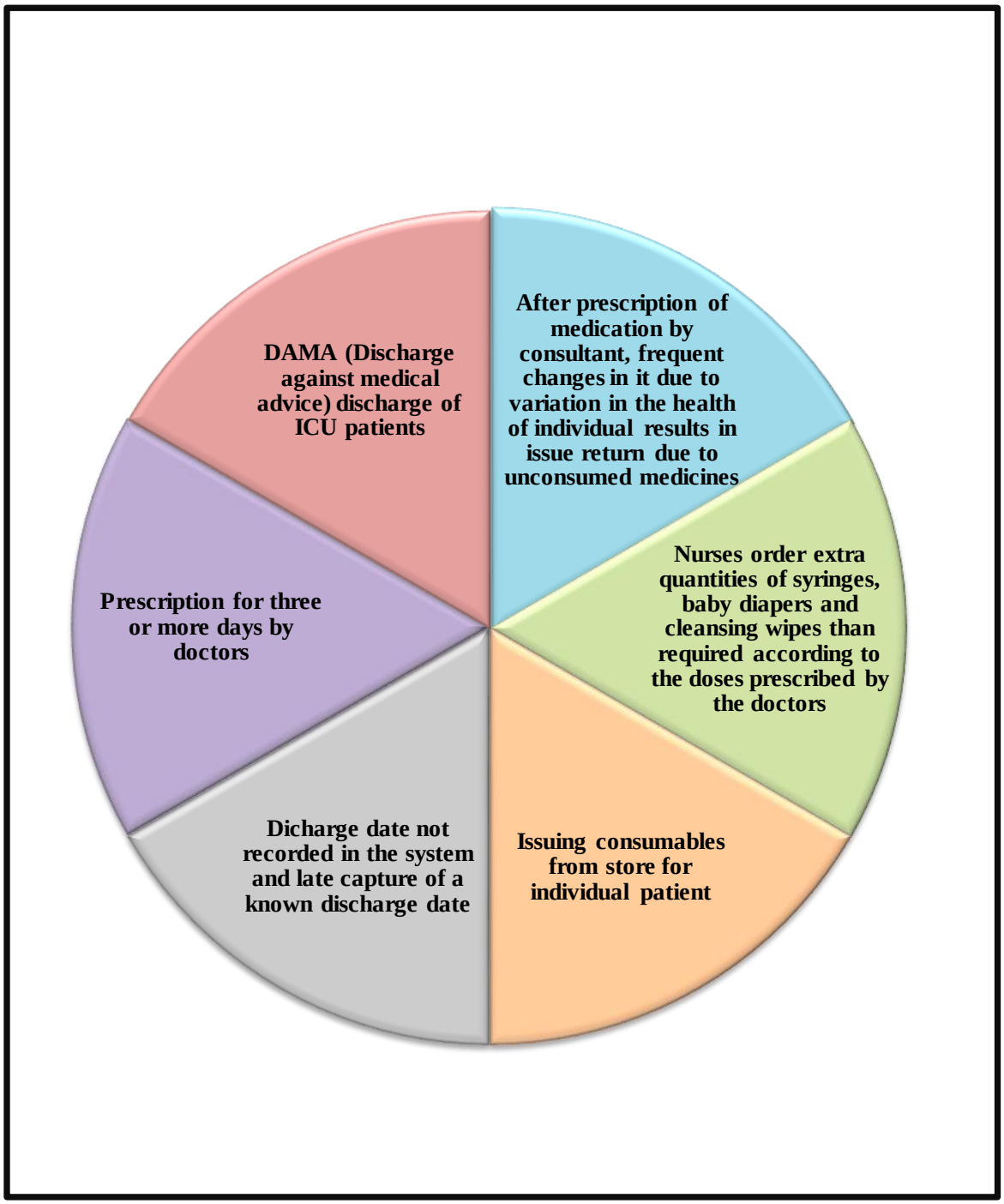
Figure 4.



Sum of the returned quantities of individual items:-

- This graph shows the sum of the returned quantities of different consumables
- Graph depicts that the return of disposable syringe 10ml, 5ml, 2 ml is more and return of disposable syringe 1 ml is comparatively less
- Return of under pad (Tena bed) is more
- Return of IV set intrafix safe set, disposable syringe 1ml and Body wipes is almost similar

POSSIBLE REASONS OF MORE ISSUE RETURN FROM OBSERVATIONS ARE:-



Recommendations:-

- Prescription can be given on daily basis, it will reduce the medicines returned due to changes in prescription
- Once the discharge date of the patients is known, imperatively record this information as quickly as possible in the system
- Instead of issuing consumables from pharmacy store ward stock consumables should be used
- Nurses should order syringes in accordance to the injection prescribed by the doctors
- Periodic training of nursing staff to ensure the accuracy of the indenting practice from medication stocked areas
- **Internal transfers of medicines between wards and theatres: -** The ward that requires the medicines or consumables must check if any neighboring wards hold that required medicines or consumables. A complete audit trail for all medicines must be available from the point of receipt at ward/department level to administration to patients or return to pharmacy.
- For a particular procedure like delivery etc., the required medicines and consumables can be dispensed in the form of a kit that contains all items
- Periodic inspection by the pharmacy staff to keep a vigilance of appropriate level of stocks in medication storage areas and to remove the unnecessary stock or ward based pharmacy technician service

Conclusion:-

Pharmacy department and nursing department both form an important part of the hospital. For the successful management of the issue return of medicines and consumables in the hospital, it is important to ensure smooth running of these two departments.

The main objective of this study is to analyze the pattern of issue return of medicines and consumables from various departments of the hospital to pharmacy department.

Major reasons responsible for more issue return include changes in prescription and untrained staff. Because of these reasons, there is more exchange of medicines and consumables, inventory increases, chances of error increases and indirectly this may affect patients (such as extra medicines charged to the patients which are not used by them).

Ambiguity in coordination of services is a common issue which can create a major turnaround in longer run, so analysis of such critical problems can not only highlighting the existing as well as upcoming shortcomings and implementation of recommendations will instill an end on the issues such as revenue leakage, patient dissatisfaction & resource management creating a better environment for growth and sustainability. Resolving this issue would definitely reduce the chances of error and would improve the overall working of the hospital in regards of money, manpower and time at a broader aspect.

The training from this hospital was very helpful for me to improve my knowledge and skills. My project placement in this hospital was very impactful and productive. I express my sincere thanks to all who helped me by giving their valuable information about the procedure.

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ANNEXURE

Data collection table

Date	S. No	Patient name	Dept.	Item code	Descrip -tion	Order date	Order dept.	Qty Ord.	Unit price	Qty Return draft	Qty return	Return to