

❖ OBJECTIVES

1. To observe the supply chain management of the central pharmacy.
2. To understand the drug distribution system of the hospital pharmacy for both inpatients and outpatient.
3. To observe the inventory management in the central pharmacy store.

❖ METHODOLOGY

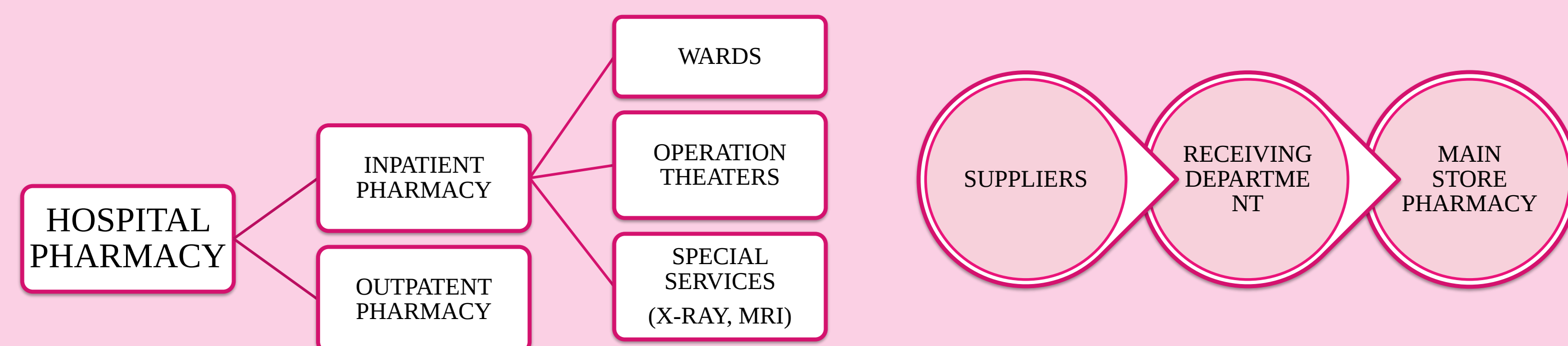
- **STUDY TYPE** – Observational and Descriptive
- **STUDY DURATION** – One month (April 2016)
- **STUDY AREA** – a. Main pharmacy store
b. Inpatient pharmacy
c. Outpatient pharmacy
d. Staff dispensary

- **STUDY PARTICIPANTS** – Staff of the respective departments, nurses at nursing station and head of the pharmacy department.
- **STUDY TOOL** – Interview with staff members and keen observation

❖ OBSERVATION

• HOSPITAL PHARMACY

The hospital pharmacy is the department in which the drugs are stored, compounded, checked for quality, dispensed, manufactured, packed and distributed to all the patients by the pharmacists. This department provide services according to the needs of physicians, nurses, technicians and other staff members of the hospitals. It may also provide drug information and drug monitoring services.



➤ MAIN STORE

STORAGE OF DRUGS – As the drugs are received in the main store, the drugs are stored according to A, B, C class which describes –

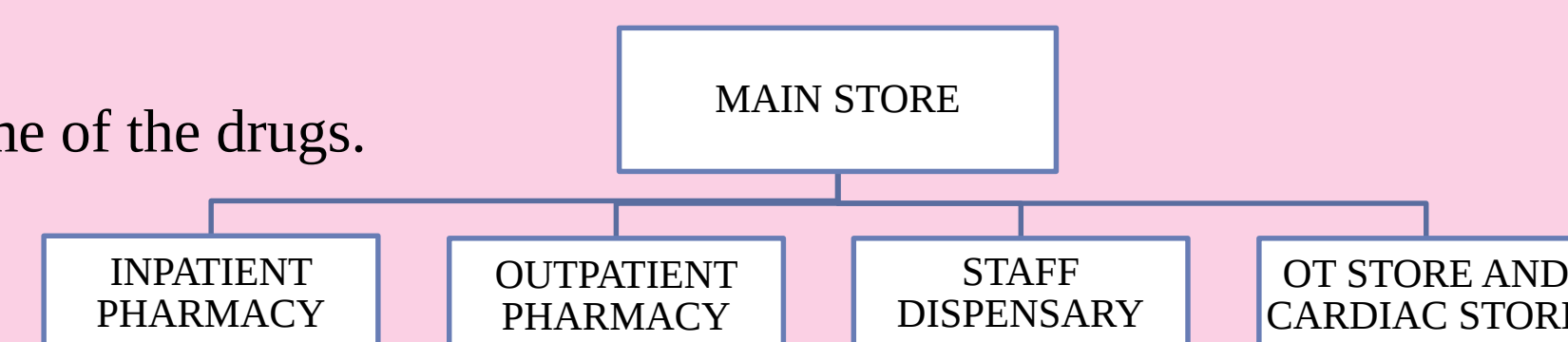
A-Class items are expensive drugs that cost more than Rs.150 per strip.

B-Class items are those drugs which are less expensive that cost less than Rs.150 per strip.

C-Class items includes all the surgical items and syrups.

The drugs in all the classes are further managed and stored alphabetically according to the brand name of the drugs.

All the vaccines are stored in the refrigerators at 35°F to 40°F.



➤ **INPATIENT PHARMACY** – Inpatient pharmacy stores and distributes the drugs to those patients that are admitted in the hospital.

STORAGE OF DRUGS – The drugs in the inpatient pharmacy are stored in the racks alphabetically, according to the brand name of the drugs which makes it easier for the pharmacist to locate the required drug and saves the time.

The expensive drugs that are above Rs.200 per strip are stored separately.

Narcotic drugs are stored in lockers.

Cytotoxic drugs are also stored separately in lockers.

➤ **OUTPATIENT PHARMACY** – Outpatient pharmacy stores and distributes the drug to the patients that do not stay in the hospital.

STORAGE OF DRUGS – The drugs in the outpatient pharmacy are stored in the racks. They are stored alphabetically according to the generic name of the drugs.

➤ **STAFF DISPENSARY** – Staff dispensary stores and distributes drugs to the staff members and the patients of the economically weaker section. Both these categories do not have to pay for the drugs, they get the free treatment and medicines from the hospital. This is also a type of outpatient pharmacy.

STORAGE OF DRUGS – The drugs are stored in racks. They are arranged alphabetically according to the generic name of the drugs.



❖ OBJECTIVE

1. To study the blood donation and blood transfusion process in the hospital.
2. To study the rejection criteria of the donors in the blood bank.

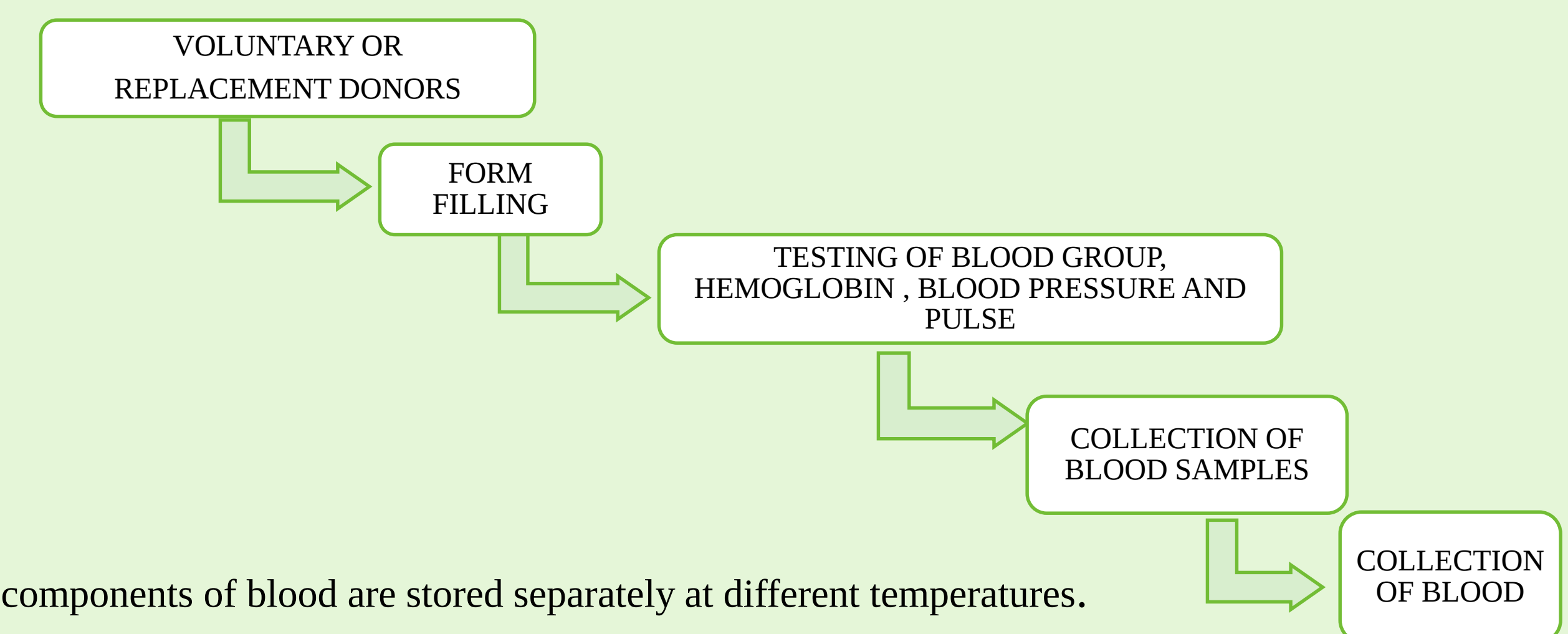
❖ METHODOLOGY

- **STUDY TYPE** – Descriptive and observational
- **STUDY DURATION** – One month (May 2016)
- **STUDY AREA** – Blood bank
- **STUDY PARTICIPANTS** – Staff of the bank, Nurses performing all the procedures and medical counselor
- **STUDY TOOL** – Interview with staff members and keen observation

❖ OBSERVATIONS

➤ **BLOOD DONATION** – Donors at Sir ganga ram hospital are either voluntary donors or replacement donors. Blood donation process takes place from Monday to Saturday.

BLOOD COMPONENTS	STORAGE	SHELF LIFE
1. RED BLOOD CELLS	4°C	35 – 42 DAYS
2. PLATELETS	20 - 22°C	5 DAYS
3. PLASMA (FRESH FROZEN PLASMA)	-40°C	1 YEAR



➤ **STORAGE OF BLOOD COMPONENTS** – All the three components of blood are stored separately at different temperatures.

➤ **BLOOD TRANSFUSION-** Blood transfusion is defined as a process of receiving blood products into one's circulation intravenously. It is a lifesaving procedure and it requires adequate amount of safe blood.

Blood transfusion involves the use of whole blood, Red blood cells, white blood cells, Plasma, clotting factors and platelets.

Transfusion usually involve the use of two sources of blood.

1. Autologous transfusion (one's own)
2. Allogenic transfusion (someone else)

➤ SELECTION AND REJECTION CRITERIA OF THE DONORS –

1. General appearance - Donor should be in good health, mentally alert and physically fit.
2. Age – Any healthy adult donor between 18 & 65 years of age can donate blood.
3. Weight – 45 – 50 kg (can safely donate 350 ml of blood)
55 kg and above (can safely donate 450 ml of blood)
4. Frequency of donation – Male and female both after 3 months
5. Temperature – It must not exceed 37.5°C or 99.5°F (Donor with temperature more than upper limit shall be brought to the notice of medical officer, who shall decide upon final fitness of the donor).
6. Pulse – 50 to 120/min and regular
7. Blood pressure – Blood pressure should not be higher than 180mm of Hg systolic and 100 mm of Hg diastolic.
8. Lower limit – Systolic pressure should not be below 100 mm of Hg and diastolic should not be below 60 mm of Hg.
9. Hemoglobin – Hemoglobin should be between 12.5gm% & 18gm% for males and 12.5gm% & 16gm% for females.
10. Food – If donor has not eaten anything for last 3-4 hours, he/she should be asked to eat something before donating blood.
11. Skin – The skin at vein puncture site, should be free from any lesion or scar of needle puncture, and should not have any contagious skin diseases like – scabies, eczema etc.
12. Sporting activities – If any donor has to go for any sporting activity, in short period, he should be advised against donating blood.

S.NO.	CONDITIONS	PERIOD OF DEFERMENT
1.	Abortions	6 months
2.	H/o Blood transfusion	12 months
3.	Alcoholism	'Till intoxicated, donor should not be "under the influence"
4.	Minor surgery	6 months
5.	Major surgery	12 months
6.	Typhoid	12 months after recovery
7.	H/o malaria, duly treated	3 months (endemic), 3 years (non endemic)
8.	Tattoo/Ear piercing	6 months
9.	Acute nephritis	6 months after recovery
10.	Breast feeding	12 months after delivery
11.	Dental extraction	3 days if under Local anesthesia & 1 month after GA
12.	Immunization	(Vaccination) killed/Toxoid No deferral otherwise
13.	Rabies vaccination	1 year after bite of rabid animal
14.	H/o Hepatitis in family or close contact	12 months
15.	Immunoglobulin	12 months
16.	Jaundice	
	Hepatitis A & E	1 week after recovery
	Hepatitis B & C	Deferred permanently
	If type not known	After 1 year
17.	Hypertension under control	Accept if mild hypertension and should be taking only one medicine (diet / mild medication-diuretics, beta blockers)
18.	Antibiotics	48 hours after completion of the course
19.	Aspirin	After 72 hours
20.	Cold / Cough	Accept if no fever, and expectoration (if present) is not purulent
21.	Open wound (Skin breached)	Accept when healed
22.	Acute infection	Accept when cured
23.	Dengue	Without blood transfusion – 3 months With blood transfusion – 1 year
24.	Chikungunya	Permanently Deferred
25.	Tuberculosis	5 years after completion of the complete treatment
26.	Mensural bleeding	+2 days of active bleeding
27.	Sex outside marriage	Permanently deferred