



A STUDY ON THE WASTAGE OF BLOOD AND ITS COMPONENTS IN THE BLOOD BANK OF CARE HOSPITALS, NAMPALLY



INTRODUCTION

Blood is a specialized fluid which provides nutrients and oxygen to various body parts and hence it is very significant for human life and its transfusion is a life saving intervention. The most common reasons of usage of blood are surgery, anaemia, accidents, clotting disorders, burns, viral infections, skin disorders and dialysis. However, according to the WHO data, the demand for blood surpasses its supply in many countries and what is noticeable is that, in developing countries the supply is less than half of the demand. Since blood is a precious commodity, which countries like India with a population of about 120 million cannot afford to waste; this study at blood bank of CARE Hospitals, Nampally, focuses on identifying the reasons for the wastage of blood and its components and providing suggestions to minimize the preventable errors.

BACKGROUND

CARE Hospitals, Nampally had been facing a problem of excessive wastage of blood components which was evident in their monthly reports of discards. Hence, this project was assigned in order to find out the reasons for the wastage of blood components and provide implementable solutions.

OBJECTIVES

- To find out the reasons for the wastage of blood and its components in the blood bank of CARE Hospitals, Nampally.
- To provide solutions to reduce the preventable errors in the blood bank of CARE Hospitals, Nampally.

METHODOLOGY

It is a retrospective study in which data relating to collection and usage of blood and its components from January 2017 to March 2017 was collected and analyzed.

DATA COLLECTION

Data regarding the donation and discard of blood and its components was collected from the database for 3 months starting from January 2017 to March 2017. Collected data was processed and categorized into the following categories:

1. Comparative utilization of components, and
2. Reasons for the discard of blood components

DATA ANALYSIS

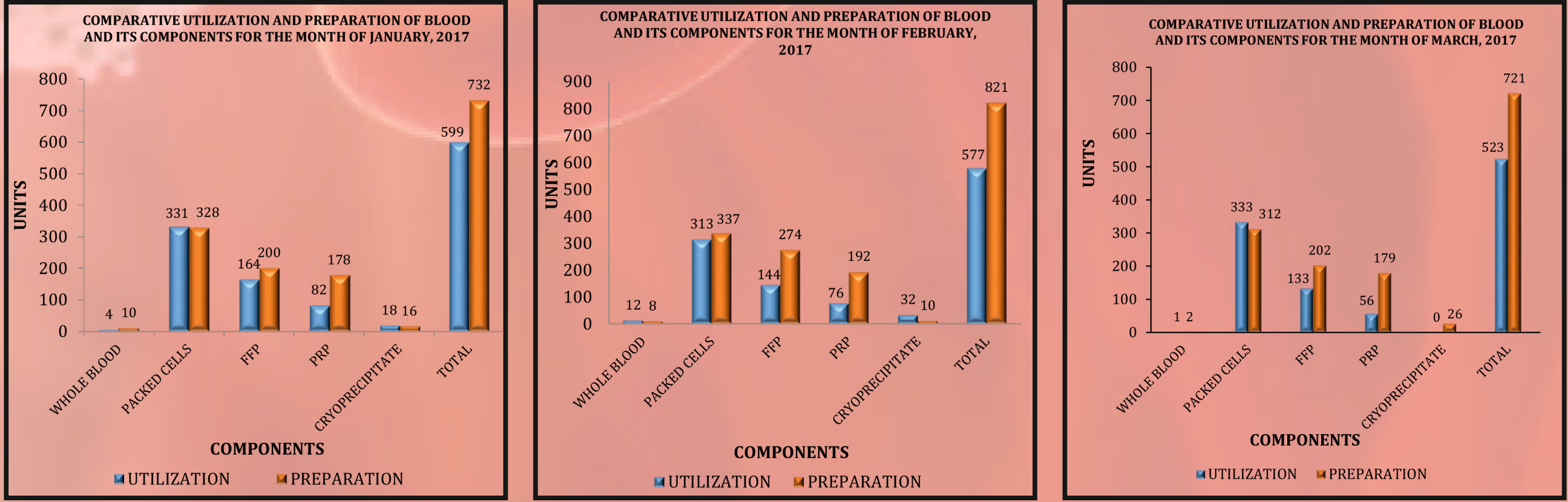
Comparative Utilization of Blood Components

COMPONENTS	JANUARY	FEBRUARY	MARCH
WHOLE BLOOD	4	12	1
PACKED CELLS	331	313	333
FFP	164	144	133
PRP	82	76	56
CRYOPRECIPITATE	18	32	0
SINGLE DONOR PLATELETS	26	4	4
TOTAL	625	581	527

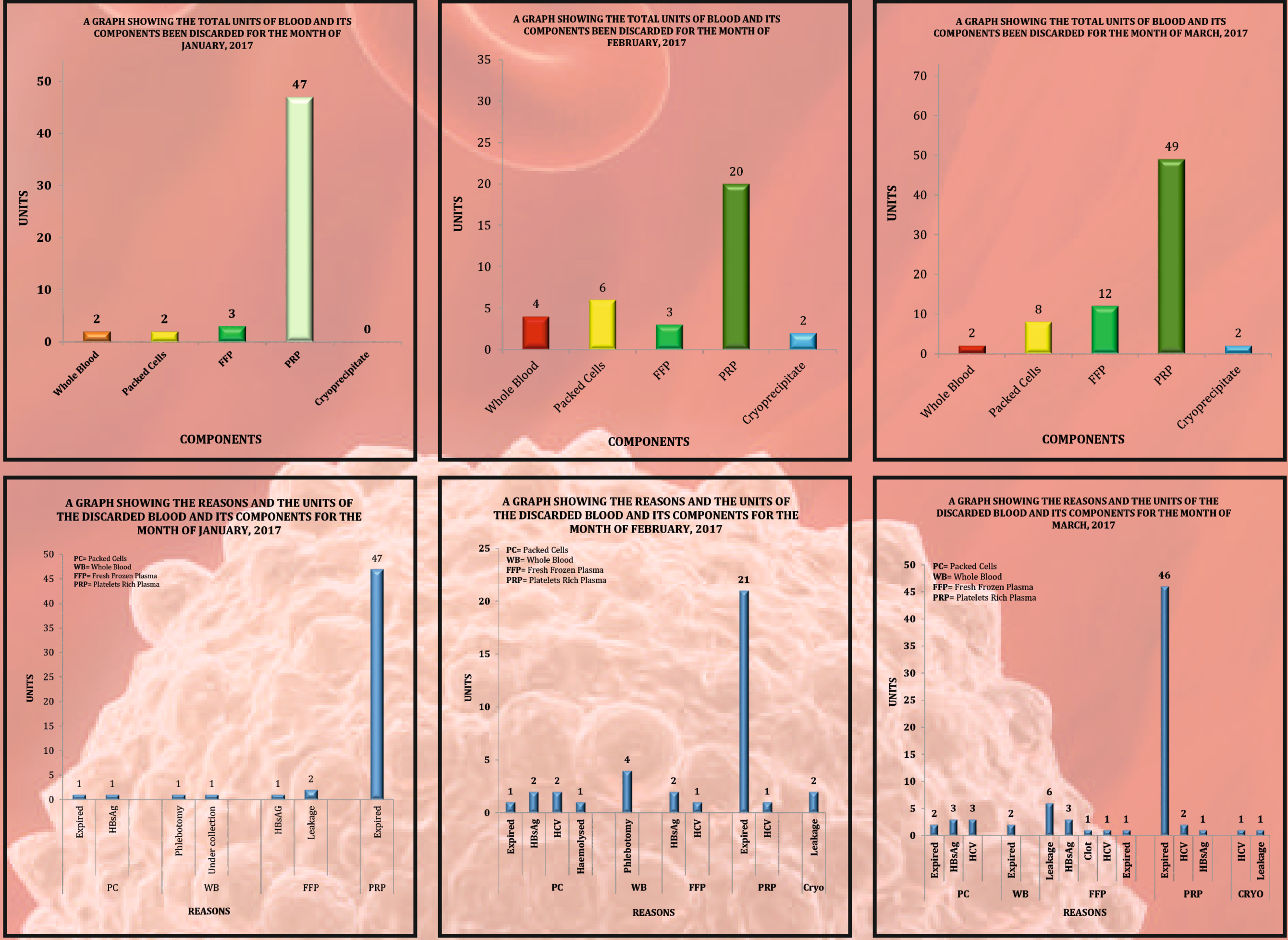
CONCLUSION

Blood is a precious resource and in an ideal setting the wastage of blood components should be zero. However attainment of this target is not possible due to various environmental and human factors. An effort has to be made to reach as close as possible to the target. Working upon some preventable errors and certain steps by the administration can help in reducing the discard of the blood and its components to a minimum level.

A comparison between the preparation and utilization of blood and its components



Analysis of Wastage of Blood and Its Components and Its Reasons for 3 Months



GAPS AND SUGGESTIONS

	REASONS FOR THE WASTAGE	SUGGESTIONS
INPUT	Over preparation is the major reason for the excessive discard of the blood and its components.	Check on the over production and stor age of blood and its components by taking out an average estimate based on past record s and keeping a margin of error.
		Tie up with blood banks, government hospitals and companies preparing plasma derived medicines.
		As soon as the platelets reach 3.5 days of their shelf life and Fresh Frozen Plasma and cryoprecipitate reach 10 months of their shelf life, efforts should be made to contact the hospitals which have the requirement for the same.
		An initiative to star t the preparation of album in and globulin within the hospital is adv ised to reduce the discard of Fresh Frozen Plasma and Cryoprecipitate.
PROCESS	Preventable human errors such as leakage and under collection have also been not ed in some cases.	Regular training programmes for blood bank technicians to decrease the preventable human errors.
	A large number of units are discarded due to seropositivity.	Pre-screening of blood to check seropositivity.
	Lack of following of universal precautions.	Regular training programmes for blood bank technicians to enhance their knowledge
	Low efficiency of centrifugal machine.	Regular maintenance of the machines and up gradation of inventory.
OUTPUT	Higher demand for SDPs rather than PRPs due to lower number of platelets prepared by the centrifugal machine.	Regular checks of the equipment by the bio-medical department
	Up to date maintenance of the records.	Maintaining the records on a daily basis.