

A Retrospective Study of Whole Blood Donor Deferral Pattern in a Tertiary care hospital in Southern Rajasthan

INTRODUCTION

- In India, demand of blood and blood products more than supply.
- Donor screening ensures donor and patient safety.
- The criteria for these deferrals and their implementation significantly impact the overall quality of the blood supply within a population.
- As such, each blood center must carefully strike a balance between maintaining acceptable quality standards and ensuring the desired quantity of donations
- Retention of non remunerated voluntary donors is essential for uninterrupted supply chain and understanding causes of donor deferral

AIMS AND OBJECTIVES

- To analyze the incidence and patterns of deferrals among blood donors at an Indian blood center
- To evaluate the Blood Centre's policies on donor recruitment and formulate strategies for donor retention.

MATERIALS AND METHODS

- Retrospectively analysis of whole blood donations
- Study period - 9 months from January 1st 2024 to September 30th 2024.
- Criteria for prospective blood donor selection and deferral -the Drugs and Cosmetic Act 1940 (and rules thereunder) supplemented by the Technical Manual (Directorate General of Health Services, MOH and FW, Govt. of India)
- The reasons for deferral were analyzed after classification into the following categories, namely, replacement-voluntary blood donors and gender-based (male-female). Causes for deferral are classified into 4 categories

- Cat 1** Donors whose own health might be affected by donating
- Cat 2** Donors at risk of transmitting TTI
- Cat 3** Donors with a condition where transmissibility by blood is unknown or donors with diseases or a condition not suitable for blood donation

RESULTS

	Registered donors	Donated	Deferred	Deferral rate(out of registered)
Voluntary	9012	8816	196	2.17%
Replacement	12809	12489	320	2.49%
Male	20730	20305	425	2.05%
Female	1091	1000	91	8.34%
TOTAL	21821	21305	516	2.36%

CAUSES OF TEMPORARY DEFERRAL

CATEGORY 1	Male	female	Total	Percentage	Causes in category 3	Male	female	Total	Percentage
Anemia	93	36	120	23.25%	Medications	45	3	48	9.30%
Underweight	62	20	82	15.89%	Infections	14	-	14	2.71%
Hemorrhoids/ulcers/ bleeding	7	-	7	1.35%	Surgery/dental procedures	12	1	13	2.51%
Typhoid	2	-	2	0.39%	Phlebotomy site and venous access	8	7	15	2.90%
Last blood donation less than 3 months	18	1	19	3.68%	Dog bite/ Vaccination history	5	-	5	0.96%
Menstruation and lactating female	-	10	10	1.93%	Fever	9	3	12	2.32%
Underage	13	-	13	2.5%	H/o blood transfusion	2	-	2	0.39%
TOTAL	195	67	262	50.78%	H/o travel to other countries/ Non- Indian	2	-	2	0.39%
					Alcohol intoxication	16	-	16	3.10%
Causes in category 2	Male	female	Total	Percentage	TOTAL	113	14	127	24.63%
Malaria	2	-	2	0.39%					
Tattoo made within 1 year	43	5	48	9.30%					
TOTAL	45	5	50	9.69%					

85% of total donor deferred- TEMPORARY

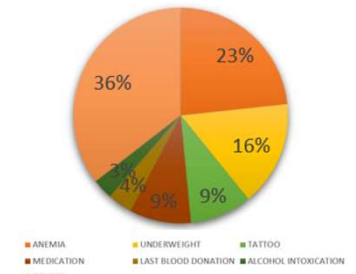
CAUSES OF PERMANENT DEFERRAL

CATEGORY 1	Male	Female	Total	Percentage	CATEGORY 2	MALE	FEMALE	TOTAL	PERCENTAGE
Systemic hypertension	14	-	14	2.71%	Jaundice	4	-	4	0.77%
Diabetes mellitus	10	-	10	1.93%	HIV	1	-	1	0.19%
Cardiac diseases	4	-	4	0.77%	TOTAL	5	-	5	0.96%
Endocrine disorders	7	5	12	2.32%					
Respiratory diseases(bronchial asthma + pulmonary TB)	14	-	14	2.71%	CATEGORY 3	MALE	FEMALE	TOTAL	PERCENTAGE
Epilepsy/ psychiatric disorders	7	-	7	2.32%	Professional Donor	1	-	1	0.19%
Overage	4	-	4	0.77%					
Rheumatic diseases	6	-	6	1.16%					
TOTAL	66	5	71	13.75%					

15% OF TOTAL DONORS - DEFERRED PERMANENTLY

Author	Study year	Deferral rate	Main causes for deferral
Agnihotri, et al. ¹	2008-2009	11.6%	Low Hb> abnormal BP> ongoing medication
Shrivastava, et al. ²	2001-2013	11.5%	Low Hb>malaria
Kandasamy, et al. ³	2014-2018	10.6%	Low Hb> underweight
Domakonda Saisudha, et al. ⁴	2018-2020	6.8%	Low hemoglobin > tattooing
Kothari, et al. ⁵	2021	14.34%	Low Hb> underweight> post covid vaccination

LEADING CAUSES OF DEFERRAL



- REFERENCES
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