

**Summer Training at
PLasmaGen Biosciences,Bangalore
(April 16,2012-02June, 2012)**

**Plasma Products Therapy and Blood Banking Scene in India: Facts and
Fiction**

Plasma Products Therapy and Blood Banking Scenario in India

**By
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**Under the Guidance of
Dr. Tanjul Saxena**

**Post Graduate Diploma in Pharmaceutical Management
2011-2013**



**Institute of Health Management Research,
Jaipur
2012**

**INSTITUTE OF HEALTH
MANAGEMENT RESEARCH**

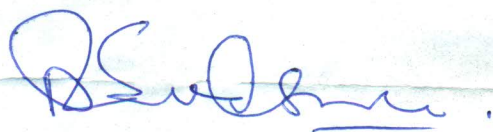
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Certificate

This is to certify that Paramjeet Singh has undergone Summer Training in Plasmagen Biosciences, Bangalore (Headquarter Ludhiana) from 16th April to 2nd June, 2012

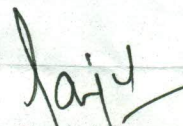
The candidate carried out all the studies related to summer training himself. His approach to the studies has been sincere, scientific, and analytical. This summer training in fulfillment of the course requirement is recommended for the award of Post Graduate Diploma in Pharmaceutical Management.

I wish him success in all future endeavors.



Dr .P. R.Sodani

(Dean Academics and student affairs)



Dr.Tanjul Saxena

(Assistant Professor)

ACKNOWLEDGEMENT

“Successful passage and outcome of every work comes with dedication, determination and team work. All these turn futile in the absence of visionary guidance.”

I acknowledge and express my hearty gratitude for the help, guidance, co-operation and assistance expanded to me by different individuals.

I shall always be indebted to **Dr.Ranjeet Ajmani (CEO,PlasmaGen Biosciences),Dr.Amit Jha(Product Manager),Mr.Nipun Garg(National Manager)** for giving me an opportunity to undergo this project and also for their immense contribution towards execution & completion of this project.

I am especially thankful to **Dr. Tanjul Saxena**, my project mentor ,who guided me through the whole course of my project and without her eloquent guidance this project could not have seen the light of this day. She helped me bridge the gap between text book learning and real market environment.

I would like to thank our placement officer **Mr.Dalbir Singh**,for giving me an opportunity to work with PlasmaGen Biosciences.

I would like to thank **Mr.Ajay Kumar Singh** (ABM of Punjab region)for their valuable guidance & time during the market research work.

We would like to express my special gratitude and thanks to all the doctors and Blood Bank staff for giving me such attention and time.

Finally I would like to thank all, without their support I wouldn't have been able to do the project.

Paramjeet Singh

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EXECUTIVE SUMMARY

The project undertaken is a market research on the demand, consumption pattern & personal preferences of doctors & patients while buying plasma products for medication. The plasma products such as IVIG, Human Albumin, Anti-D, Hepatitis and Tetanus Immunoglobulin are all very expensive in the market because their only source is human blood & blood donors charge a hefty sum for any donation of blood they make. Despite the fact that all plasma products are life saving drugs & the last line of defense for many doctors, many patients refrain from buying it as their price are well beyond the reach of many poor people which form a large percentage of our population. Also because of the fact that plasma products are new in the market, there is not much awareness among doctors & patients regarding their use. Therefore the plasma market is not very suitable for business, because the option of minimization of production costs doesn't hold here.

The purpose of this market research was to determine what the obstacles are in doing business in Plasma Products market and to draw a perfect reflection of the current plasma market thereby finding new prospects for Plasmagen Biosciences, a branch of Trigenesis as it sets foot into the plasma market on their own. Throughout the market survey on doctors of reputed hospitals in the northern region of India (Delhi and Noida), I seek to determine the demand, the consumption pattern, personal preferences, quality & availability of currently available blood & plasma products in the northern region of India.

From all the responses collected from the doctors it was evident that availability of plasma products is not excellent in the northern region. A clear majority of the doctors found that the current prices of plasma products was very high. Doctors have unanimously marked that awareness is required for both patients and doctors on plasma products. The doctors choose the plasma products on the basis of availability, quality of the product and price.

The following few pages are a detailed account along with graphical representations of all the responses gathered during the field-work. The intentions are to depict a close reflection of the Plasma market scenario in the northern region of India and come up with new business prospects and ways to counter the limitations of trade in Plasma market.

A.ORGANIZATION PROFILE

PlasmaGen Biosciences Pvt. ltd. an offshoot of Trigenesis Lifesciences situated in Chamarajapet, Bangalore is a pharmaceutical company incorporated in the field of 'Transfusion Medicine', which includes operation of blood centres and plasma fractionation. The company's goal is to achieve self sufficiency in blood/plasma products in India and SAARC nations and grow globally.

The following few paragraphs are a brief introduction of its parent company Trigenesis Life sciences, its history and its business activities. In the history of Indian Pharmaceutical Lifesciences industry, one name is worth a reckon i.e Trigenesis Lifesciences (Pvt.) Ltd. It is the dominant and vital arm of RSM group having diversified business areas such as Textile clothings, Finance consulting and Plastic additives & mouldings along with Pharmaceuticals.

In the realm of success, today RSM group earns a standing as one of the top 20 well trounced conglomerate business group of the Indian Inc. with group turnover exceeding Rs 1600 million. RSM pharmaceuticals, the Flag Ship Company of the group struck its roots in the Indian pharmaceutical distribution and marketing industry in 1987 and presently is one of the top 5 distribution houses, employing around 500 people having an annual turnover of Rs. 500 Million. RSM group is built on the sturdy pillars of reliability, sound infrastructure, operational expertise and financial stability.

The success of RSM group in the distribution sector has given a strong footage for Trigenesis Lifesciences (P) Ltd - A business venture destined to the noble cause of social welfare in the emergency and critical care segment.

The Therapeutic Marvels include :

- Biologicals; Plasma Products
- Hormonal Therapy
- Recombinant Therapeutics
- Sterile anti Infectives
- Oncology
- Antibiotics lypophilised
- Anesthetics
- Endocrinal Steroids
- Cardiovascular drugs
- Nutritional Supplements

Plasma Products Therapy and Blood Banking Scene in India: Facts and Fiction

B.RESEARCH METHODOLOGY

B.1 Problem Statement

The project has been undertaken to understand the facts related with the Plasma Products Therapy

The study was done to identify and analyses various factors (availability,pricing,better product,awareness etc) which constrain any consumer towards prescription of any Plasma Product.

For an aspiring company to do business in protein therapy, the plasma market is not a very congenial since plasma products such as IVIG, Human Albumin, Anti-D, Hepatitis and Tetanus Immunoglobulin all are very expensive, their only source being Human Blood & blood donors have to be paid hefty sums of money for any donation of blood they make.

Another issue, which is troubling , is the lack of awareness since plasma products are new to the market and there is little awareness among doctors & patients alike regarding its usage & implementation.

Some of the other concerns would include :

1. Ever rising cost of plasma.
2. Government control of pricing.

Since the government does not want the prices of plasma products to jet off beyond the reach of the common man.

- Poor worldwide harmonization of regulatory issues.
- Import Limitations.

With an in depth market survey on the plasma market the project seeks to determine the demand, the consumption pattern, personal preferences of doctors for Plasma Products in Northern Region of India(Delhi and Noida) which will hopefully come handy when embarking on new business propositions in the plasma market.

B.2 Research Objectives

The Key Research Objectives are:

- ✓ Identifying factors that determine the prescribing behaviour of doctors.
- ✓ To evaluate the present scenario of blood banks and find out the gap between the demand and supply of plasma.
- ✓ To determine availability of surplus plasma with the blood banks.
- ✓ To study the requirement of formation of a consortium between blood bank and plasma fractionation company

B.3 Research Methodology

Research Design

Research design is a total plan or strategy of a proposed research.

A Structured questionnaire was designed to gather information. The data was recorded, analysed and interpreted within the scope of the given objectives.

The territory was divided into 5 cities for this survey.

The 5 cities included-

- LUDHIANA
- JALANDHAR
- HOSHIARPUR
- FEROZPUR
- AMRITSAR

B.4 Data Collection

Structured Questionnaire was designed considering the various factors identified, so that the data collected would be in compliance with the information needed.(Copy Enclosed)

In-depth interviews were conducted which were optimal for collecting data on individuals personal perspectives, and experiences.

B.5 Sample Design

Target population:

The doctors prescribing Plasma Products were the respondents of the Questionnaire .The doctors selected were of reputed hospitals.

Sample Size:

The sample size was around 120 due to time constraint and other factors related to plasma products.

Sampling Technique:

Judgemental sampling method was used.

B.6 Field Work

The survey was conducted keeping in view the prescriber and users of Plasma products. The survey was conducted in Punjab region.

C. Data Tabulation and Analysis

Data obtained from the questionnaires was summarized in MS-Excel 2007.

The Data Analysis was done using analytical tools of MS-Excel 2007.

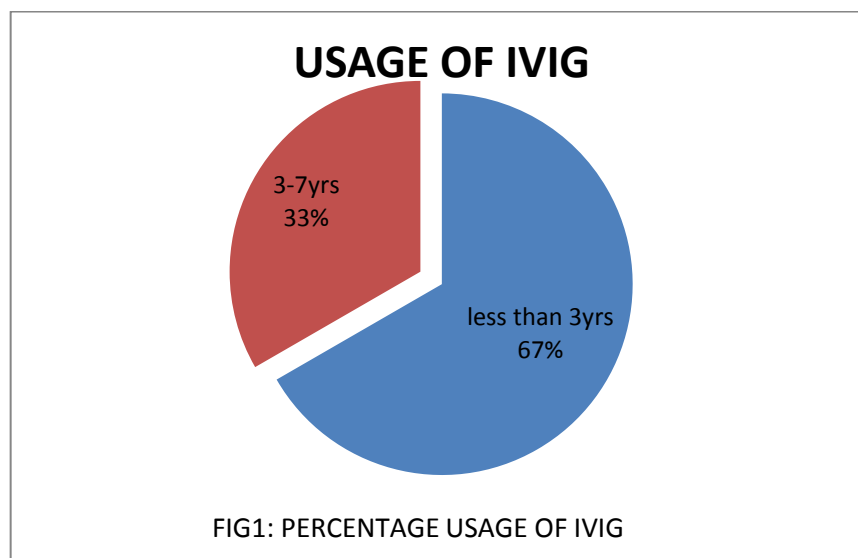
The Analysis of the data has been done separately for each product from Question 1 to Question 5,thereafter a common analysis for all the products is presented from Question 6 to Question 12.

Analysis of Data

1. IVIG

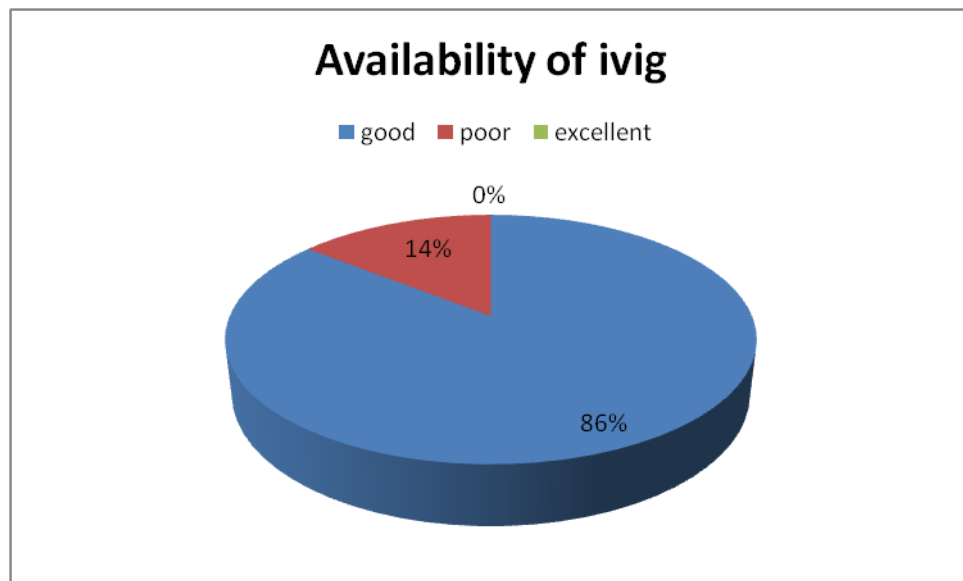
1.Usage of IVIG.

Out of 21 respondents 38% of the respondents have been using IVIG for less than 7 years,62% for 3-7 years.



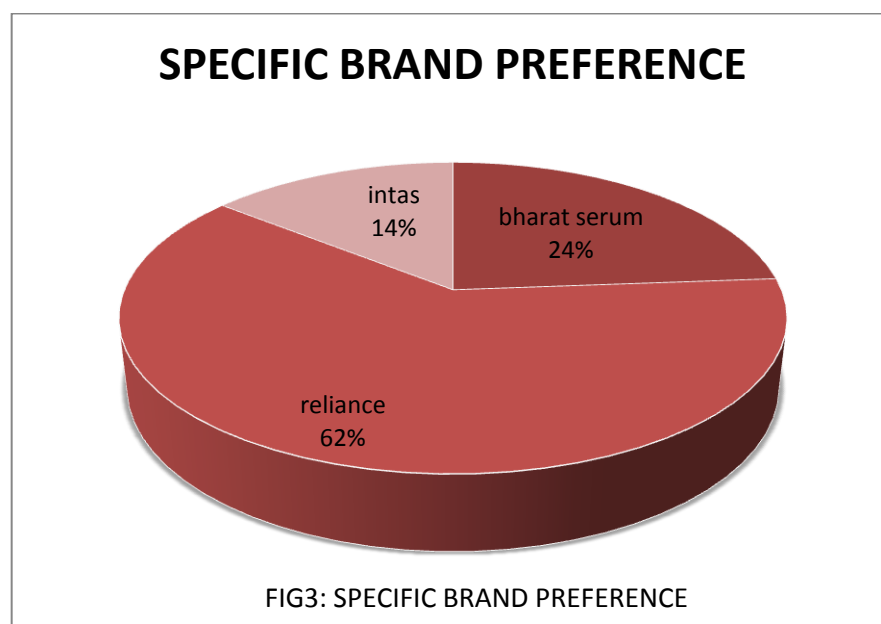
2.Availability of IVIG.

The availability of IVIG has been good for 86% respondents, while 14% of respondents report poor availability of the product.



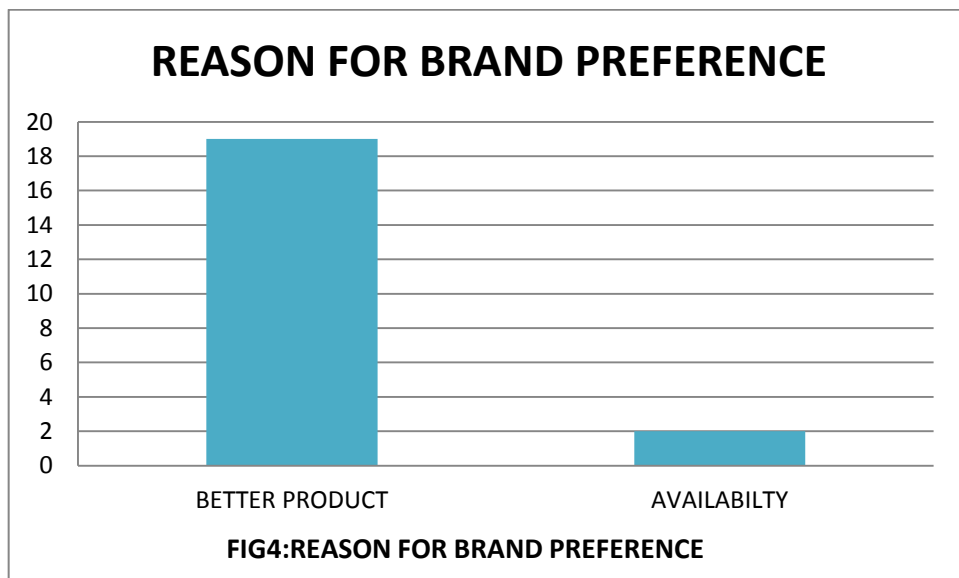
3.Specific Brand Preference:

Most of the doctors prefer reliance around 62%,24% doctors prefer Bharat Serum(Gamma IV) followed by 14% for intas IVIG.



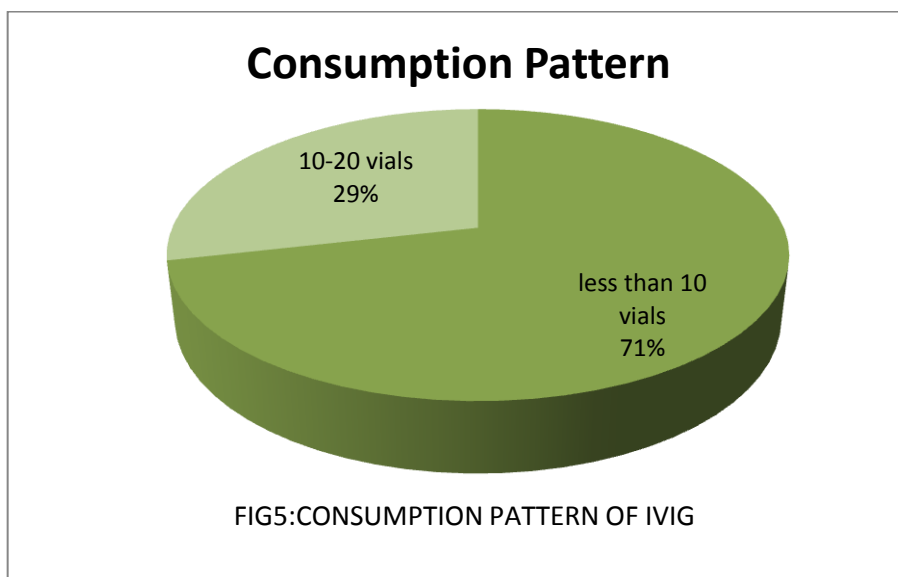
4.Reason For Brand Preference.

The reason for preferring any IVIG brand is better product in 90.47% of the cases, followed by better product 10% of the respondents.



5.Consumption Pattern Per Month:

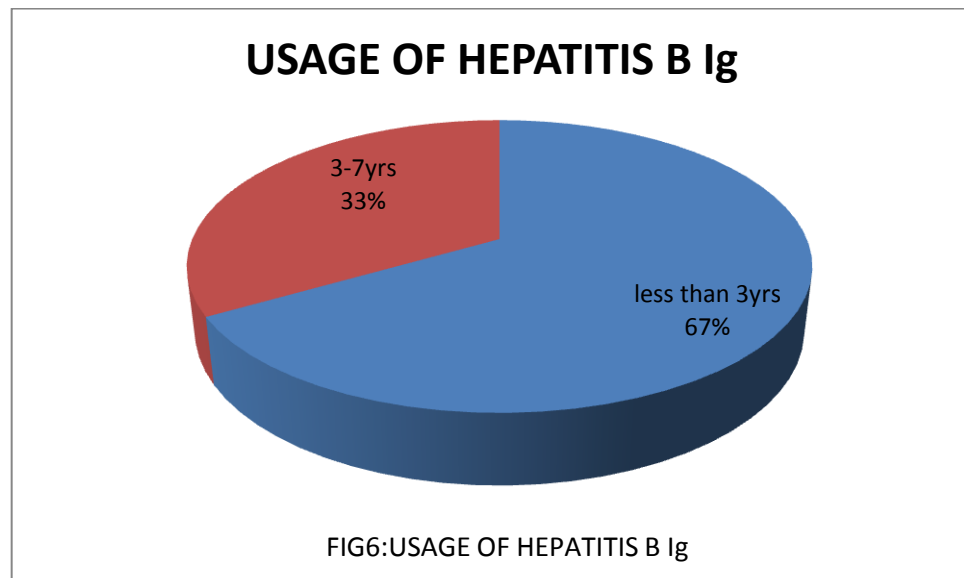
Out of total respondents, 71% of respondents prescribe <10 IVIG per month on an average, followed by 29% of respondents who prescribe 10 to 20 IVIG per month.



C.2 Hepatitis B Immunoglobulin

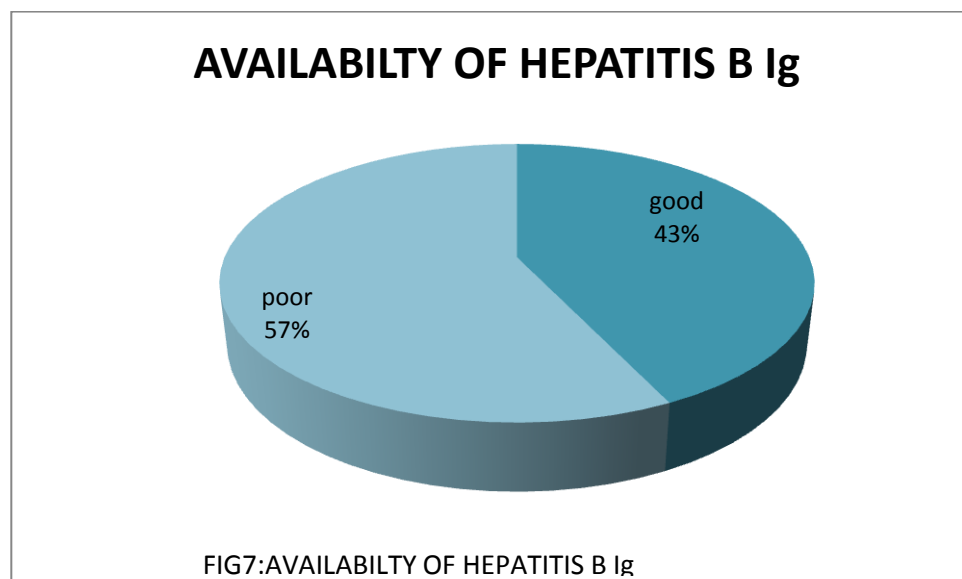
1.Usage of Hepatitis B Immunoglobulin

Out of the respondents, 67% of the respondents have been using Hepatitis B Immunoglobulin for less than 3years, and 33% for 3-7 years respectively.



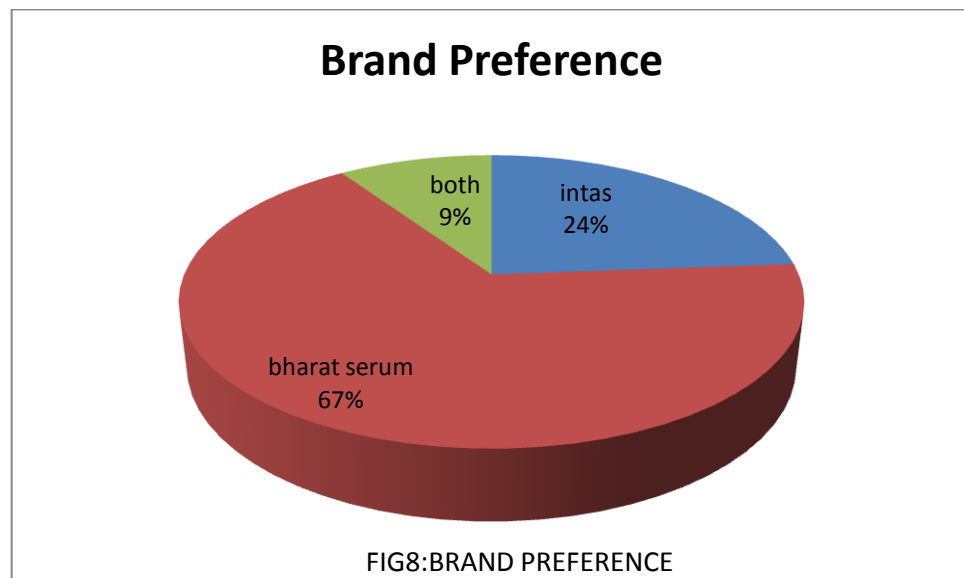
2.Availability of Hepatitis B Immunoglobulin.

The availability of Hepatitis B Immunoglobulin has been good for 43% of respondents, good and poor for 57% of respondents.



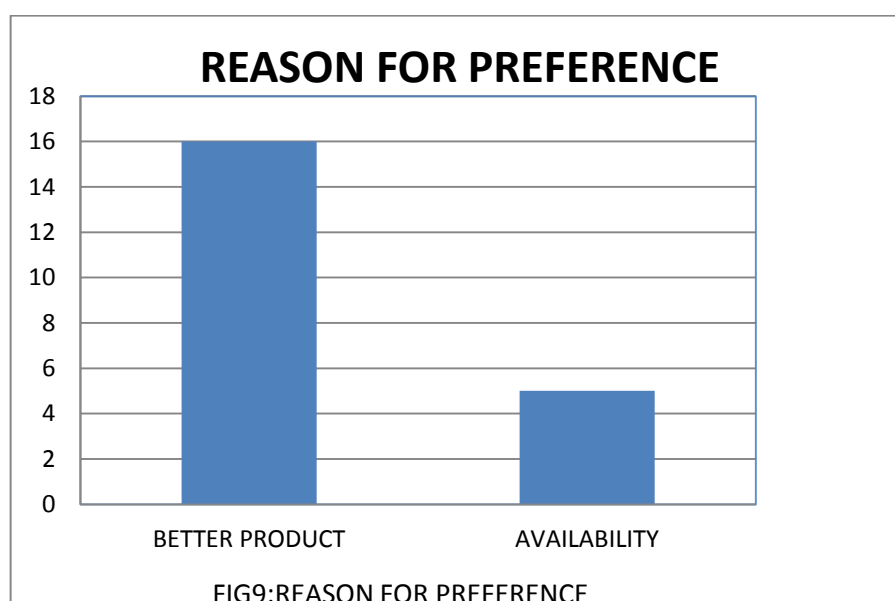
3. Specific Brand Preference.

Most of the doctors i.e 67% while prescribing any Plasma Product prefer Bharat Serum while 24% doctors prefer Intas.



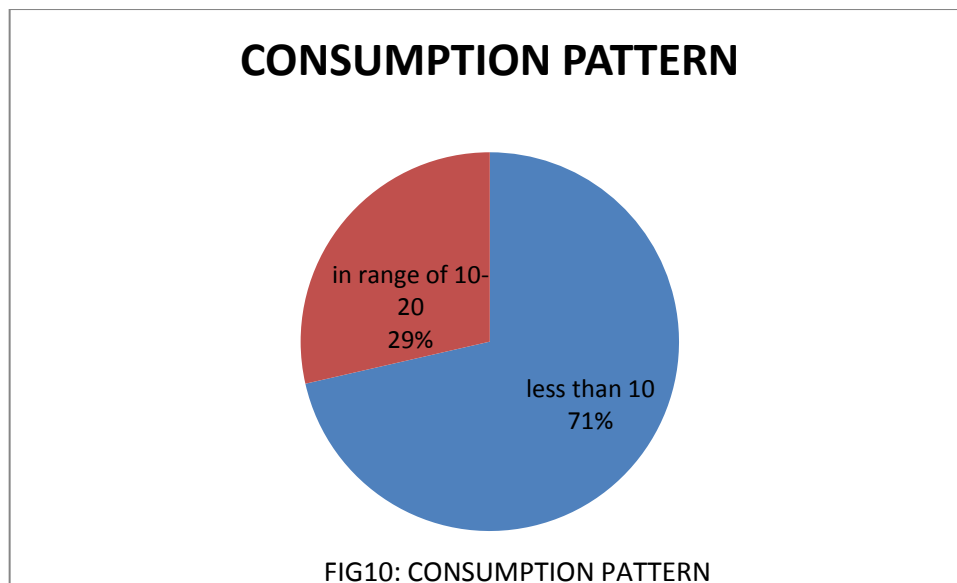
4. Reason For Brand Preference.

The reason for preferring any Hepatitis B Immunoglobulin brand is product characteristic a better product in 76.19% of the cases, followed by availability in 23.87% of the respondents.



5. Consumption Pattern Per Month.

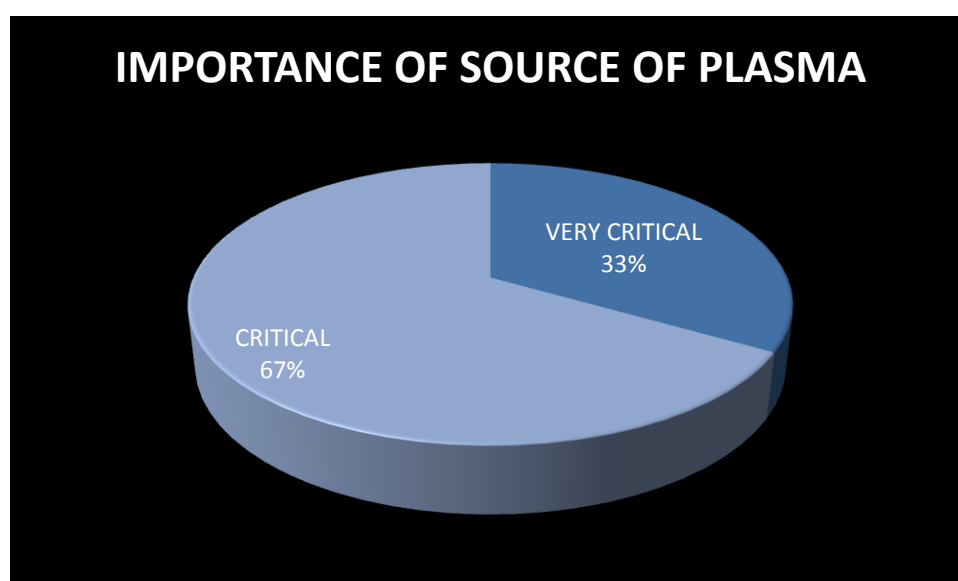
Out of total respondents, 71% respondents prescribe <10 Hepatitis B Immunoglobulin per month on an average, followed by 29% respondents who prescribe 10 to 20 Hepatitis B Immunoglobulin per month.



C.3 Common Analysis of Questionnaire for all Plasma Products from Question 6 to Question 12

1. Importance of Source of Plasma

33% of the respondents consider source of plasma as a very critical factor in the selection of Plasma Product, While 67% of the respondents consider it critical.



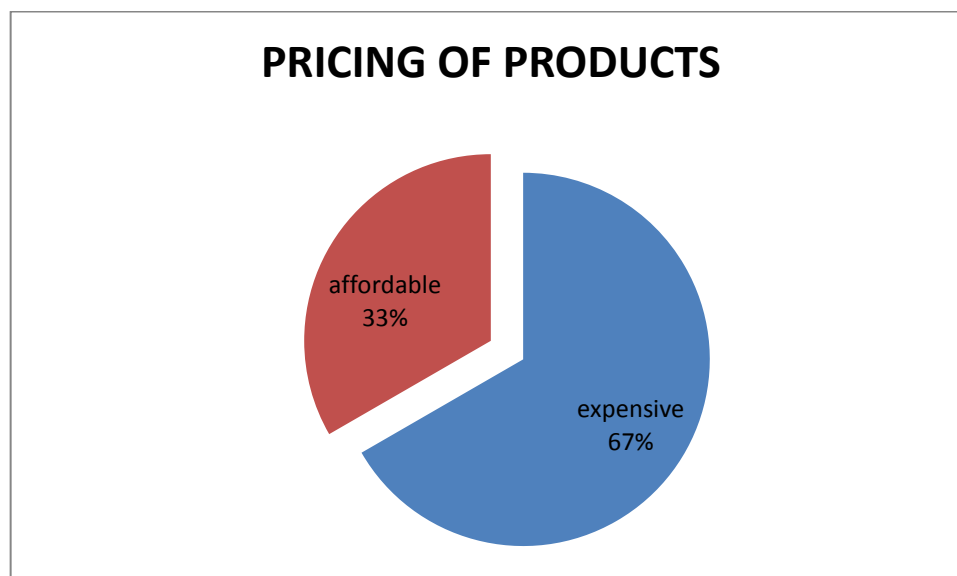
2.Satisfaction on the Quality of Currently Available Brands.

62% of respondents were satisfied with the quality of currently available brands, 33% were highly satisfied and 5% were not satisfied with the quality of the product.



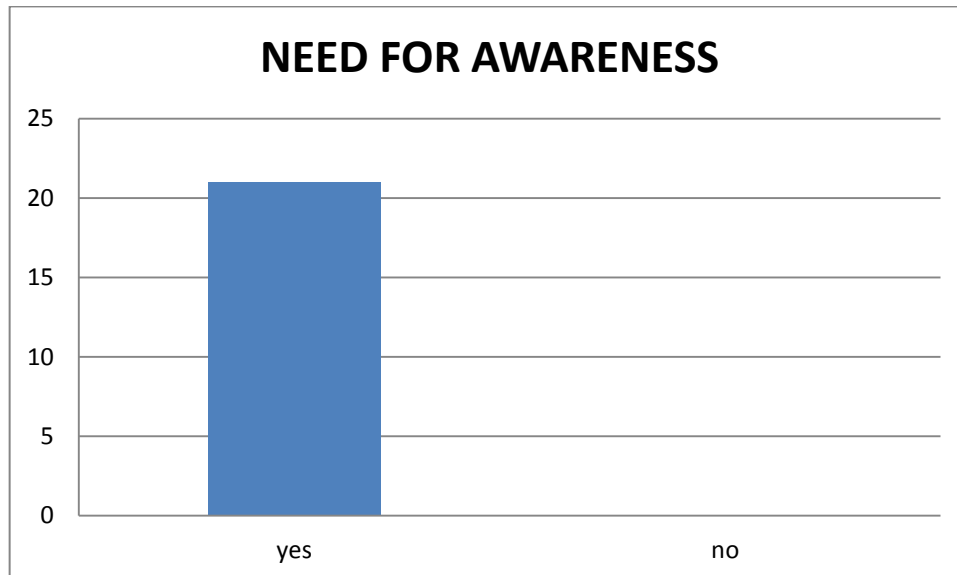
3..Pricing of the Currently Available Products.

Majority i.e 67% of the respondents opinion is that IVIG is expensive, rest 33% of the respondent think its affordable .



4..Need for Awareness Program

Out of total respondents all respondents feel there is a need of awareness program for patients doctors and paramedical staff.



CONCLUSION:

- Blood banks are the backbone of plasma industry,so there is a need for proper fund allocation from companies to blood banks
- As,surplus plasma is needed by the industry for preparation of products,so there should be a consortium between plasma fractionation company and the blood banks
- Use of plasma for fractionation should come under the health implementation rules which is still lacking,and the free usage of plasma for fractionation is still not permitted in our country.
- There should be more voluntary participation,so availability of blood for component preparation does not become a issue.

E. RECOMMENDATIONS

1. As Availability of few Plasma Products is not found to be very good, and majority of plasma products are used mainly on the basis of availability, the company should try to make this product readily available in the market.
2. The companies should follow competitive pricing, as has been found by the analysis, these products are expensive but the major concern for doctors is quality and availability.
3. The doctors want the Plasma product to be of high quality, so that the reactions caused due to their administration is minimum, therefore the company can highlight on the quality, purification and safety record part, which could add to their benefit.
4. The doctors are not very well aware about the usage of these products, therefore the company should also focus on increasing the awareness about the usage of these products by incorporating awareness programs on these plasma products.
5. Many of the doctors visited were not aware of any brand from PlasmaGen Biosciences, So the company should try to increase their products awareness by increasing their sales team and by making frequent visits to the doctors

F. REFERENCES

1. www.plasmagen.in

G. ANNEXURE**PlasmaGen Biosciences Pvt. Ltd.****No.160, KCI Chambers, 2nd Floor, 5th Main Road,****Chamarajapet, Bangalore-560018.****Ph: + 91-80-42154535/36/37 Fax: + 91-80 - 421 545 38 Email : info@plasmagen.in****Name:.....****Address.....**

.....

.....

.....

.....

City**Ph.No. Mobile :.....****Email:.....**

1. How long you have been using ?

- a. Less than 3 yr, b. 3-7 yr, c. More than 7 yr.

2. Availability of product has been...

- a. Excellent, b. Good, c. Poor.

3. Any specific brand you prefer ?

4. Is it because of

- a. Better Product b. Availability c. Pricing d. Other ()

5. What is general consumption pattern?

- a. Less than 10, b. 10- 20, c. More than 20.

6. Because it is a biologic “made out of human plasma”; would you consider source of plasma important criterion in selection of the product?

- a. Very critical, b. Critical, c. Not critical.

7. Any safety issues for these products?

8. Your opinion on the quality of currently available brands?

- a. Highly satisfied b. Satisfied c. Not satisfied d. Need improvement

9. Pricing of currently available brands?

- a. Expensive, b. Affordable, c. Not Affordable.

10. Does any awareness program about blood/ plasma products is required for patients / doctors / paramedical staff?

- a. Yes b. No.

11. How do you trust a brand of blood plasma product ?

- a. Product itself
- b. Company's image / safety record
- c. Long term relationship
- d. Any other factor ()

12.What are the major issues in prescribing plasma products to the patients.

13 Any references, if you would like to give.....

Plasma Products Therapy and Blood Banking Scenario in India

EXECUTIVE SUMMARY

BLOOD BANKS AND BLOOD TRANSFUSION SERVICE

In India, blood collection, storage and issue of blood for transfusion are done mainly in the blood banks attached to hospitals, run mostly by the state and central governments. Voluntary agencies and private blood banks also carry out significant proportions of blood banking activities. There are a total of 2465 licensed blood banks in India. Out of them, about 55% are from public sector, 25% are from non government organizations (NGO), 8% blood banks are managed by Indian Red Cross Society and rest are from corporate and profit making sector.

Though the voluntary donations are increasing (45% in 2002 to 53% in 2008) this is very common in hospital based government and private blood banks leading to all sort of malpractices. Many blood banks show replacement donations as voluntary donations on record. It is difficult to track later.

In India, the ratio of use of blood components to whole blood is 15:85, while globally it is 90:10. This shows how poorly equipped we are. Many blood banks in India still not equipped to make components. They also try to malign the one those who separate components attaching religious values. Most of the blood banks issue whole blood. Even majority doctors prescribe whole blood, without understanding advancement in transfusion medicine. As a result they contribute to shortage of blood in the country and also overburden the patient unnecessarily causing harm at times. Blood Transfusion reactions are common in whole blood transfusions.

A well organised Blood Transfusion Service (BTS) is a vital component of any health care delivery system. An integrated strategy for Blood Safety is required for elimination of transfusion transmitted infections and for provision of safe and adequate blood transfusion services to the people. The main component of an integrated strategy include collection of blood only from voluntary, non-remunerated blood donors, screening for all transfusion transmitted infections and reduction of unnecessary transfusion.

The Blood Transfusion Service in the country is highly decentralised and lacks many vital resources like manpower, adequate infrastructure and financial base. The main issue, which plagues blood banking system in the country, is fragmented management. The standards vary from state to state, cities to cities and centre to centre in the same city. In spite of hospital based system, many large hospitals and nursing homes do not have their own blood banks and this has led to proliferation of stand-alone private blood banks.

The blood component production/availability and utilisation is extremely limited. There is shortage of trained health-care professionals in the field of transfusion medicine.

For quality, safety and efficacy of blood and blood products, well-equipped blood centres with adequate infrastructure and trained manpower is an essential requirement. For effective clinical use of blood, it is necessary to train clinical staff. To attain maximum safety, the requirements of good manufacturing practices and implementation of quality system moving towards total quality management, have posed a challenge to the organisation and management of blood transfusion service.

Advantages of component therapy are:

- the recipient can be treated with only those blood components that are lacking, reducing the occurrence of adverse transfusion reactions;
- more than one patient can be treated with blood components derived from one donation;
- therapeutic support for patients with special transfusion requirements can be provided, for example, plasma that often is not directly needed for transfusion can be used manufacturing of Factor VIII concentrate for Haemophilia A patients;
- Improved quality and functional capacity of each component when varied storage conditions and shelf lives were applied.

ORGANISATION PROFILE

The study is conducted by Plasmagen Biosciences pvt. ltd. an offshoot of Trigenesis Lifesciences situated in 160,KCI Chambers,2nd Floor,5th Main Road,Chamarajapet,Bangalore-560018 which is a pharmaceutical company dealing in protein therapy & plasma products for Indian & global markets. Its estimated sales for 2010-11 is approximately 5.3 million US \$ which would most likely to go upto 24 million US \$ by 2011-12 & 30 million US \$ by 2015.With a capacity of 1,00,000 liters of Plasma collection & having an employee strength of 150 people, they are all set to embark into the plasma market by themselves. Their action mainly includes direct sales in the International & domestic market and plasma products manufacturing by the process of fractionation.

The following few paras are a brief introduction of its parent company Trigenesis Lifesciences, its history and its business activities. In the history of Indian Pharmaceutical Lifesciences industry , one name is worth a reckon i.e Trigenesis Lifesciences (P) Ltd. It is the dominant and vital arm of RSM group having diversified business areas such as Textile clothing's, Finance consulting and Plastic additives & mouldings along with pharmaceuticals.

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The Therapeutic Marvels include:

- Biological Plasma products
- Hormonal Therapy
- Recombinant Therapeutics
- Sterile anti infective
- Oncology
- Antibiotics lyophilised
- Anaesthetics
- Endocrinal Steroids
- Cardiovascular drugs
- Nutritional Supplements

METHODOLOGY ADOPTED

Problem Statement

The project has been undertaken to study the present scene of Blood Banks and the challenges in making India self sufficient in the field of blood plasma.

The study was done to identify and fill the gap between demand and supply of Plasma and its products.

Research Objectives-

The key research objectives are:

- ✓ To study the availability of surplus plasma and its usage at various Blood Banks.
- ✓ To evaluate the present scenario of blood banks and find out the gap between the demand and supply of plasma.
- ✓ To determine availability of surplus plasma with the blood banks.
- ✓ To study the requirement of formation of a consortium between blood bank and plasma fractionation company.

Research Design: DESCRIPTIVE RESEARCH

Research Design:

Research design is a total plan or strategy of a proposed research.

A fully structured questionnaire was designed to gather information. The data was recorded, analysed and interpreted within the scope of the given objectives.

The Blood Banks were categorised as under:

- Government Blood Banks
- Private Blood Banks
- Hospital Associated
- Charitable Blood Banks

Collection of Data:

Structured questionnaire was designed considering the various factors identified, so that the data collected would be in compliance with the information needed.(Copy Enclosed).

In-depth interviews were conducted with the doctor and technical staff of the Blood Banks.

Sample Design:

Target population:

The Blood Banks that were listed are covered. All the Blood Banks in entire Punjab region Ludhiana, Jalandhar, Hoshiarpur, Ferozpur, Amritsar are covered

Sample Size:

The sample size was 24.

Sampling Technique:

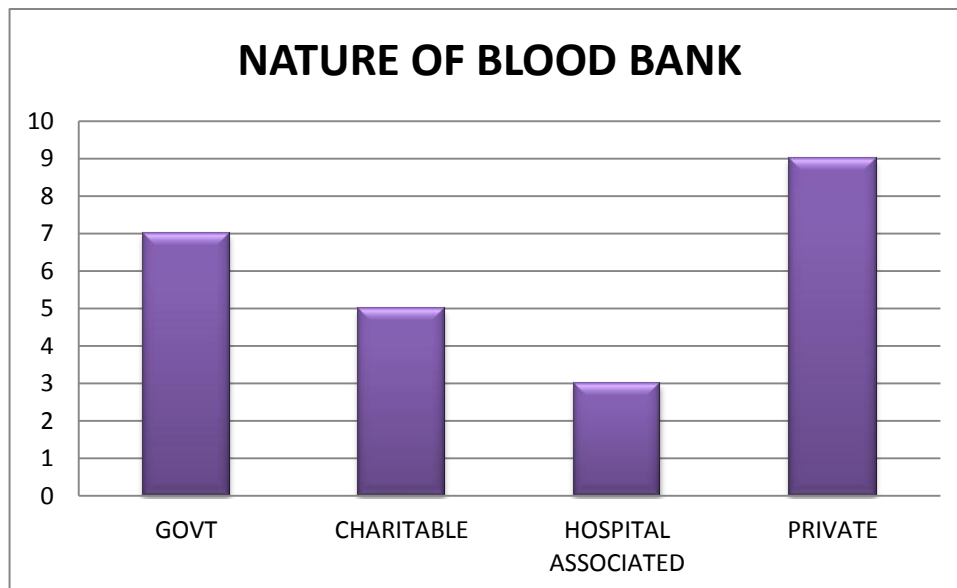
Judgemental Sampling method was used.

Field Work: The survey was conducted in all the Blood Banks of the given region. The survey was conducted in PUNJAB.

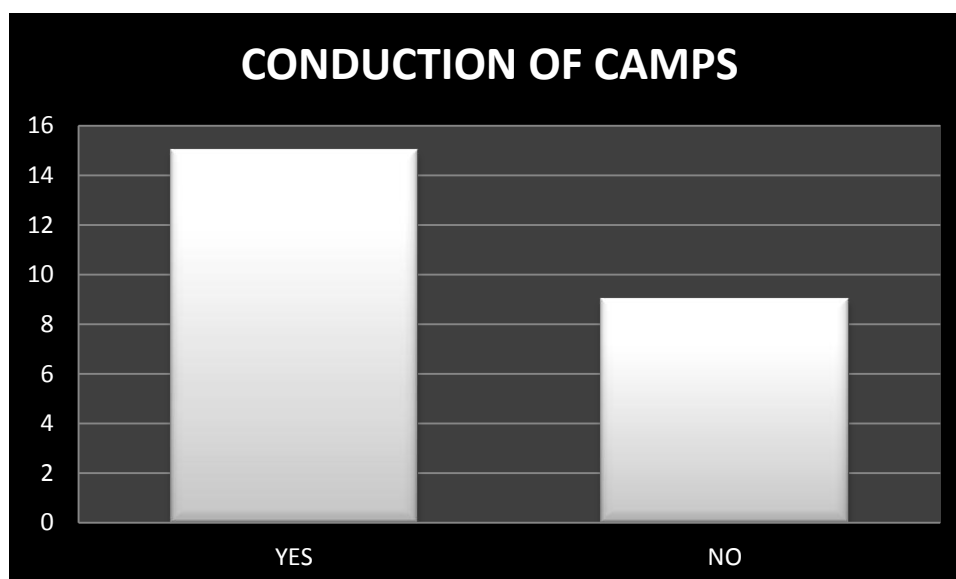
Data Tabulation and Analysis:

Data obtained from the questionnaires was summarized in MS-Excel 2007. The analysis was done using excel tools.

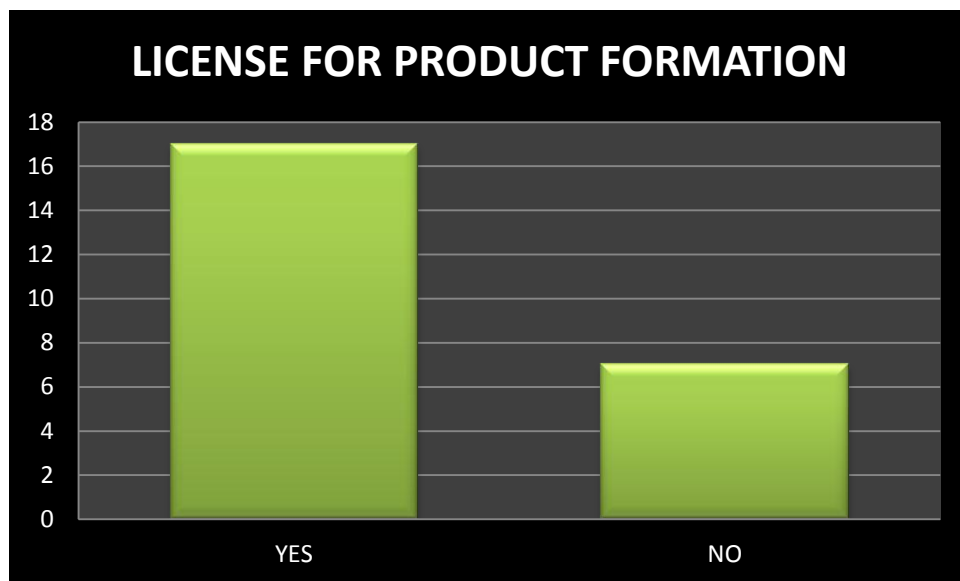
The Analysis of the data has been done separately for each Question.

(A) NATURE OF BLOOD BANK:

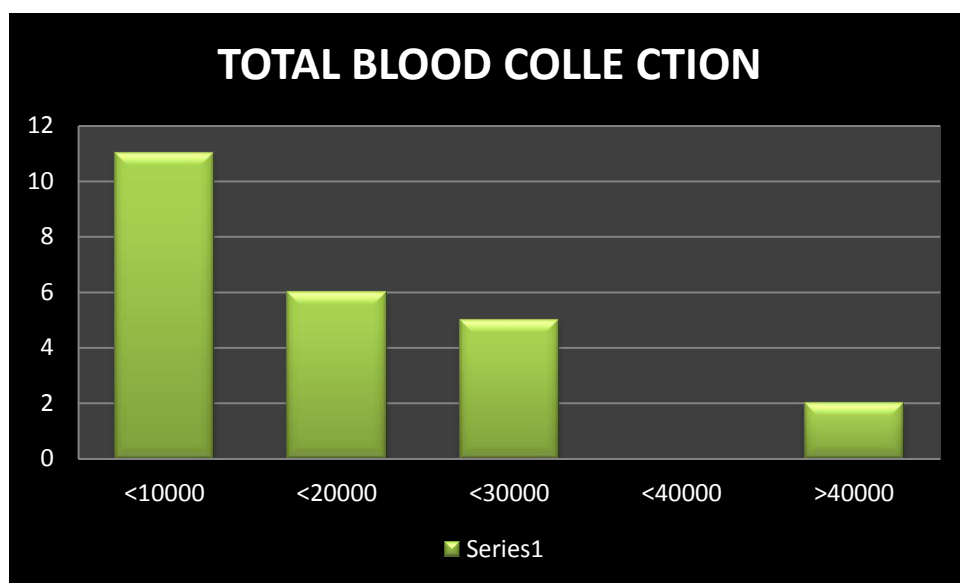
INFERENCE: 29.16% of Blood banks surveyed govt. blood banks, 20.8% are charitable blood banks, 12.5% of blood banks are hospital associated & 37.5% blood banks are private blood banks.

(B) BLOOD BANKS HAVING PERMISSION FOR CONDUCTION OF BLOOD CAMPS:

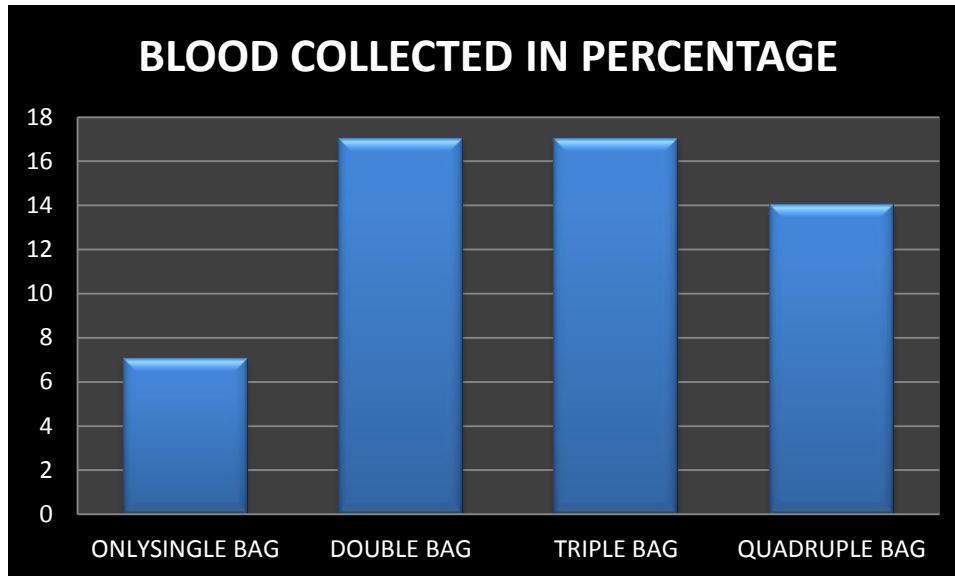
INFERENCE: 62.5% Of Blood Banks Surveyed have permission to conduct blood camps

(C)License for Product Formation:

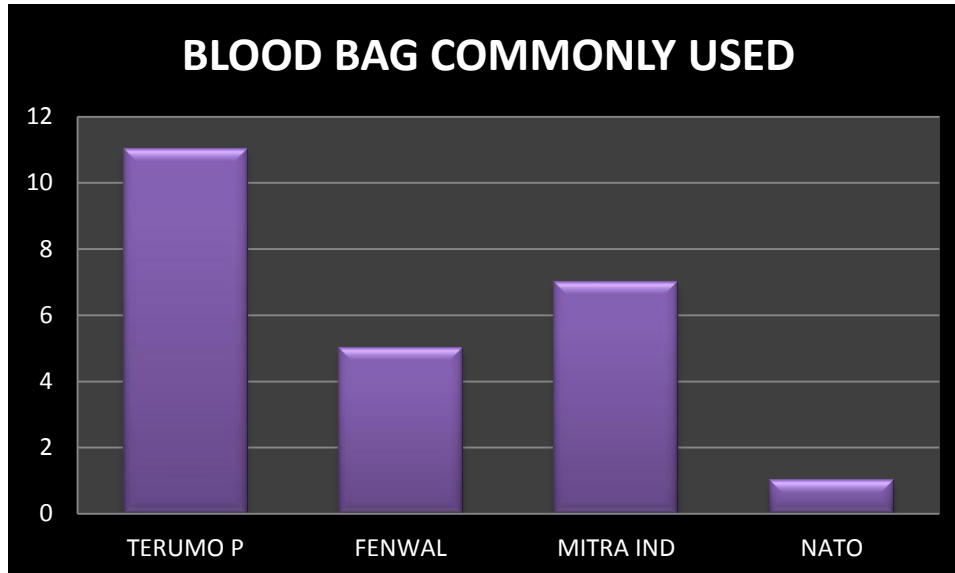
INFERENCE: 70.83% of blood banks in the survey have got the licence for product formation, whereas 29.17% of blood banks are processing only with the whole blood.

(D)TOTAL BLOOD COLLECTION (IU) FOR THE YEAR 2011-2012:

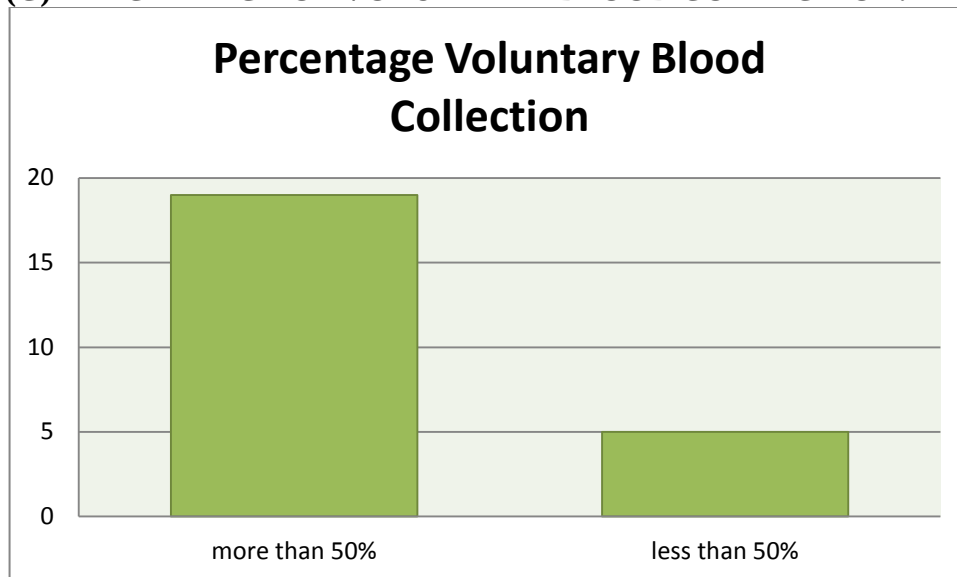
INFERENCE: There are 45.83% blood banks which are having less than 10000 IU of blood collection whereas only 8.33% of blood banks are having more than 40000 IU of blood collection.

(E) TOTAL BLOOD COLLECTED IN PERCENTAGE:

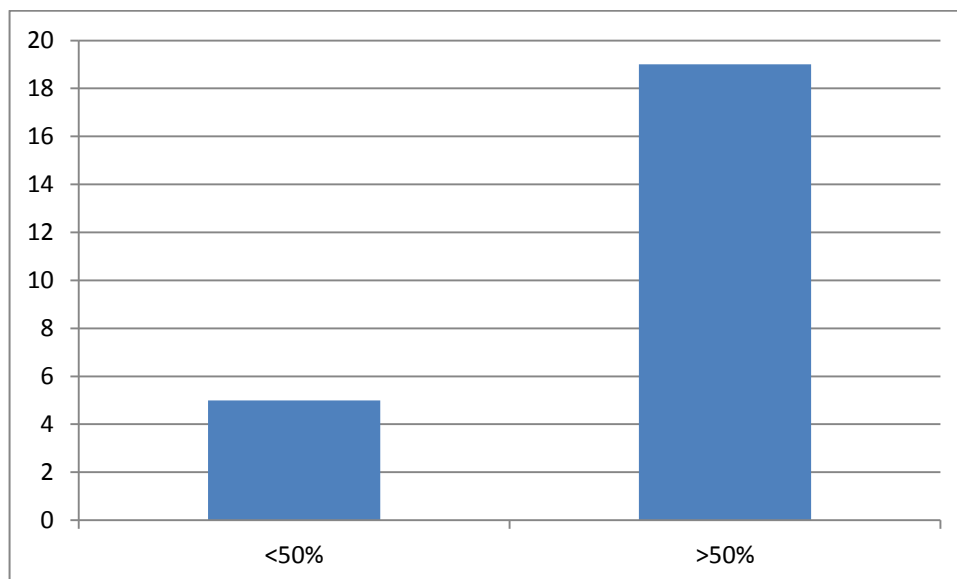
INFERENCE: 29.16% OF BLOOD BANKS Are using only single bag for blood collection which also signifies that this much percentage of blood banks does not have licence to prepare components while 70.83% of blood banks are using double triple bags respectively.

(F) BLOOD BAG COMMONLY USED:

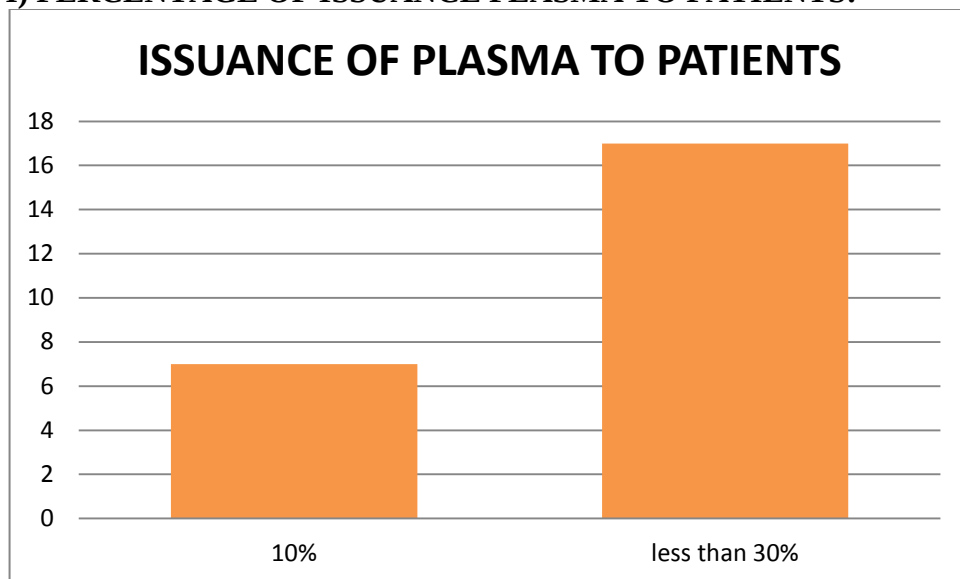
INFERENCE: 45.83% Of blood banks surveyed are using terumo pempol blood bag, 20.8% of blood bank are using fenwal, 29.16% using mitra industries while only 4.16% of blood banks are using NATO.

(G) PERCENTAGE OF VOLUNTARY BLOOD COLLECTION:

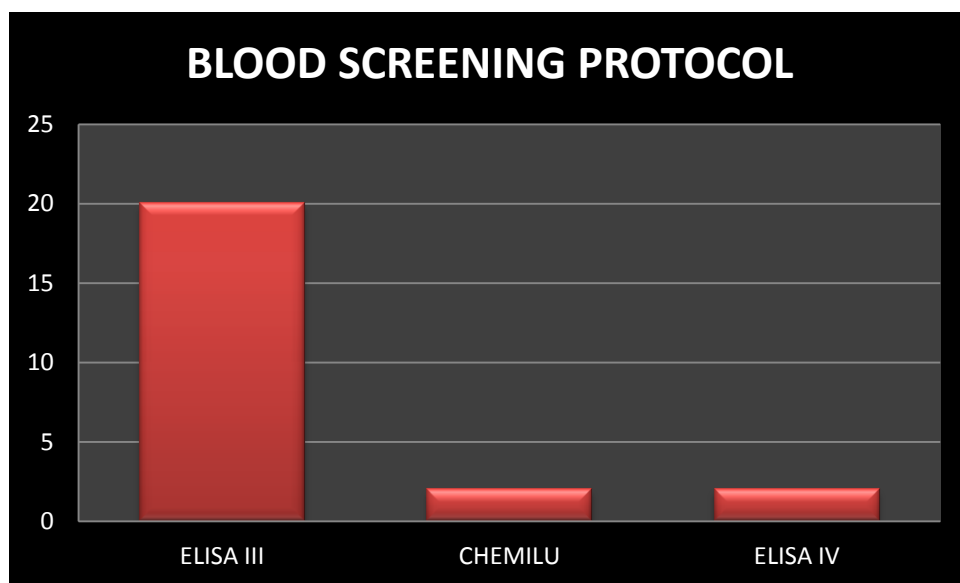
INFERENCE: 79.16% of blood banks surveyed reports more than 50% of voluntary blood collection while only 20.84% of blood banks show less than 50% of voluntary blood collection where the target was for more than 90%.

(H) Percentage for Blood Componentization:

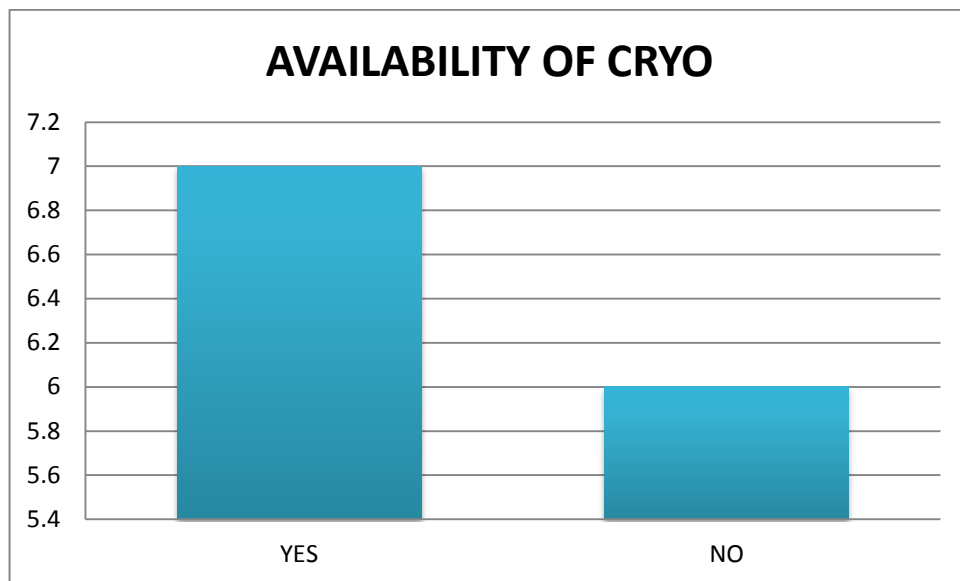
INFERENCE: 79.16% of blood banks surveyed reports more than 50% of blood componentization while 20.84% of blood banks show less than 50% of blood componentization.

I) PERCENTAGE OF ISSUANCE PLASMA TO PATIENTS:

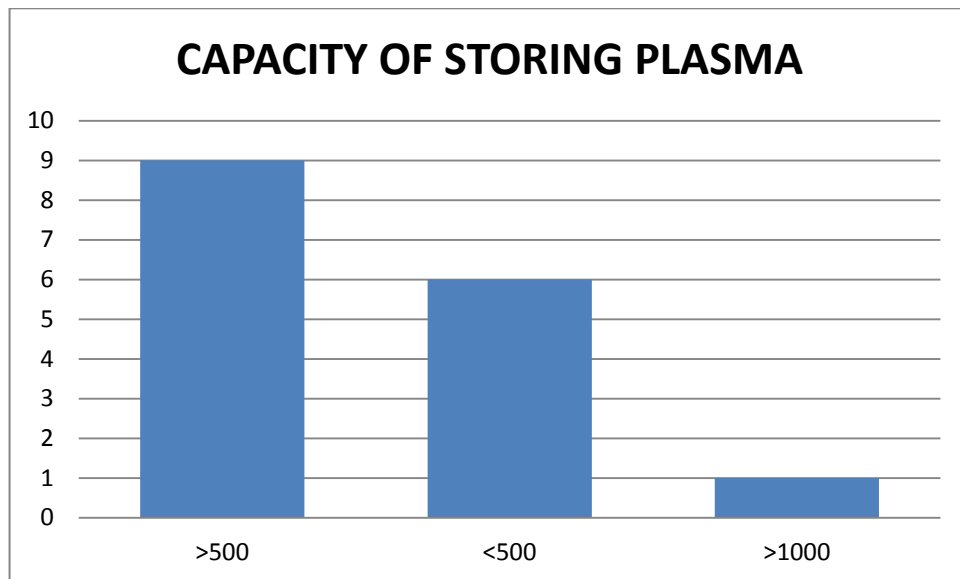
INFERENCE: 29.16% of blood banks surveyed are issuing 10% of plasma to patients while 70.83% blood banks issue less than 30% of plasma to patients.

(J) PROTOCOL FOLLOWED FOR SCREENING OF BLOOD PLASMA:(HIV,HBV,CHEMILU)

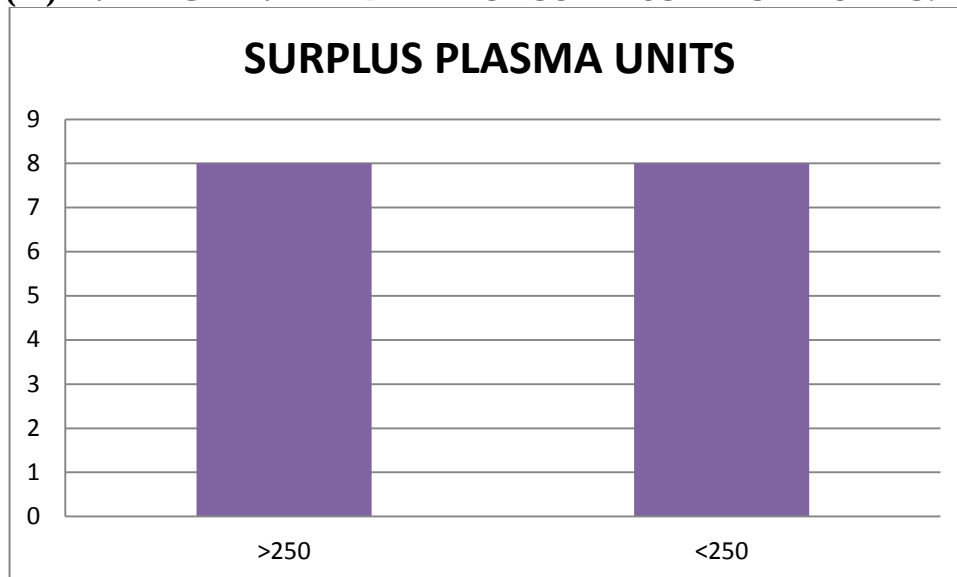
INFERENCE: 83.33% OF blood banks surveyed use ELISA(III) for blood screening while only 8.33% of blood banks are using CHEMILU and ELISA(IV) respectively..

(K) AVAILABILITY OF CRYOPRECIPITATE:

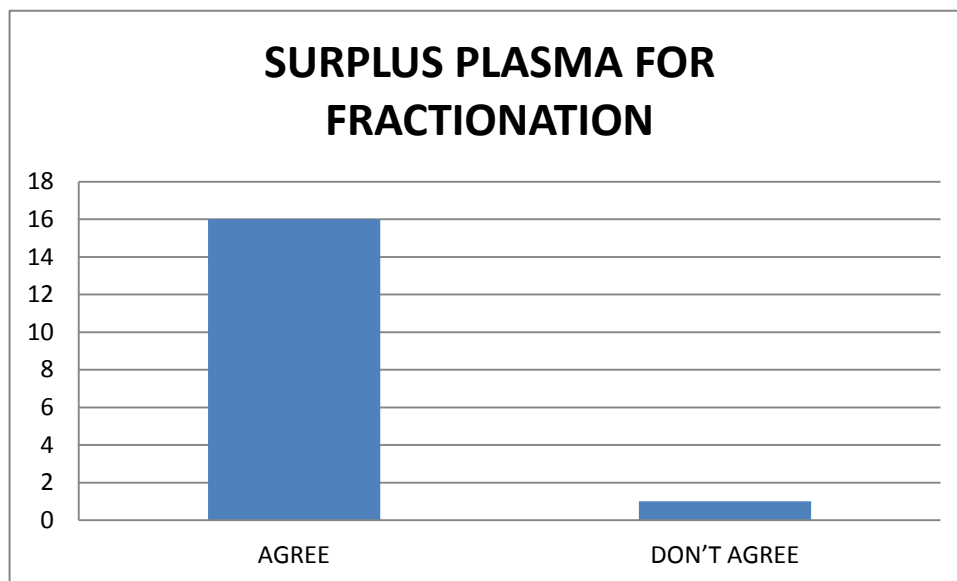
INFERENCE: 29.16% OF blood banks surveyed shows availability of cryo with them.

(L) CAPACITY FOR STORAGE OF PLASMA (UNITS):

INFERENCE: 37.5% of blood banks have more than 500 plasma units of storing capacity of plasma units, 25% of blood banks have less than 500 units of storing capacity.

(M) AVERAGE AVAILABILITY OF SURPLUS PLASMA UNITS:

INFERENCE: 33.33% of blood banks surveyed are having less than 250 units of surplus plasma.

(N) SURPLUS PLASMA USED FOR FRACTIONATION:

INFERENCE: 66.66% of blood banks surveyed agree for the use of surplus plasma for fractionation.

CONCLUSION:

- Blood banks are the backbone of plasma industry,so there is a need for proper fund allocation from companies to blood banks
- As,surplus plasma is needed by the industry for preparation of products,so there should be a consortium between plasma fractionation company and the blood banks
- Use of plasma for fractionation should come under the health implementation rules which is still lacking,and the free usage of plasma for fractionation is still not permitted in our country.
- There should be more voluntary participation,so availability of blood for component preparation does not become a issue.

E. RECOMMENDATIONS:

- As Availability of Plasma Products is not found to be very good, and majority of plasma products are used mainly on the basis of availability, the company should try to make a consortium between plasma fractionation companies and blood banks
- As,surplus plasma is needed by the industry for preparation of products,so there should be a consortium between plasma fractionation company and the blood banks
- Use of plasma for fractionation should come under the health implementation rules which is still lacking,and the free usage of plasma for fractionation is still not permitted in our country.
- There should be more voluntary participation,so availability of blood for component preparation does not become a issue.

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Name of Blood Bank

Name of Doctor

Address.....

City..... State.....

Ph.No.....

Mobile.....

Email.....

1. What is the nature of Blood Center?

(a) Govt (b) Charitable (c) Hospital Associated (d) Private/Stand Alone

2. Blood Center License Number and Validity of License?

3. Do you have permission to conduct blood collection drives/camps? If yes, how many drives/camps do you conduct?

4. Your Blood Center is having License to prepare

(a) Packed RBC's (b) Platelets (c) Plasma (d) Cryoprecipitate (e) (f)

5. Total Blood collection (Units) for the Year 2011-2012?

(a) <10000 (b) <15000 (c) <20000 (d) <25000 (e) <30000 (f) <35000 (g) <40000 (h) >40000 (i) >50000 (j) specific.....

6. Total Blood Collected in as percentage:

Blood Bag	Single Bag	Double Bag	Triple Bag	Quadruple Bag
450 ml				
350 ml				

7. Which Company Blood Bag is mostly used for blood collection?

(a) Terumo Pempol (b) Fenwal (c) HLL (d) Mitra Industries

8. What is the percentage of Voluntary Blood Collection?

(a) 100 (b) >90 (c) >80 (d) >70 (e) >50 (f) specific.....

9. What is the percentage of blood componentization?

(a) 100 (b) >90 (c) >80 (d) >70 (e) >50 (f) specific.....

10. What is the percentage of Issuance of plasma component to patients?

(a) 10 (b) <20 (c) <30 (d) <40 (e) <50 (f) specific.....

11. Which protocol is followed for screening of Blood/Plasma?

Name of TTI	ELISA (Generation)		NAT (Generation)	Chemiluminiscence
ELISA	III	IV	III	IV
HIV				
HBV				
HCV				

12. How many cases individually recorded for all Transfusion-Transmissible Infections?

Year	HIV	HBV	HCV	SYPHILIS	MALARIA
2010-11					
2011-12					

13. How do you prepare and store Plasma?

(a) Blast Freezer (b) Cold Room (c) Freezer

14. Is cryoprecipitate component prepared? If Yes, what percentage?

(a) Yes (b) % of Plasma (c) No

15. Do Hemophilic Patient's approach your blood center for Cryoprecipitate? If Yes, How many patients/Month?

(a) Yes (b) Patients/Month (c) No

16. What is the maximum capacity for storage of plasma at your Blood Center?

(a) > 500 (b) > 1000 (c) > 2000 (d) > 3000 (e) > 5000 units (f) specific.....

17. What is the monthly average availability of surplus plasma units?

(a) > 250 (b) > 500 (c) > 1000 (d) > 2500 (e) Specific

18. Do you think forming a consortium between blood banks and plasma Fractionation Company would help all concerned?

(a) Yes (b) No

19. Do you agree that Surplus plasma available with blood banks can be utilized for fractionation?

(a) Yes (b) No

20. Would your Blood Center like to give plasma for Fractionation?

(a) Yes (b) No

21. Details of Blood Center Staff:

Description	No. of Persons	Name and Contact Details
Administration		
Technical		
Non-Technical		