

Summer Training at

PlasmaGen Biosciences Pvt. Ltd.

**Blood & Plasma Products-A Market Research Project on Blood and Plasma
Products in India**

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Under the Guidance of
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Post Graduate Diploma in Pharmaceutical Management
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Institute of Health Management Research,
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2012

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Certificate

This is to certify that Mr. Sanjeev Sharma from Institute of Health Management Research, Jaipur has undergone summer training in PlasmaGen Biosciences Pvt. Ltd., Bangalore from 18th April to 3th June 2012.

The Candidate himself carried out the project. His approach to the study has been sincere, scientific and analytical. This summer training is partial fulfilment of the course requirement is recommended for the award Post Graduate Diploma in Pharmaceutical Management.

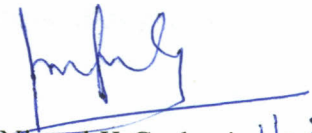
I wish him success in all his future endeavours.



Dr. P.R. Sodani

Dean (Academic and students Affairs)

IHMR Jaipur



Dr. Nirmal.K.Gurbani 1/2/2013

Associate Dean (PG Pharma)

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Acknowledgement

I would like to express my heartiest thanks to **Dr. Ranjeet Ajmani** “*CEO of PlasmaGen Biosciences Pvt. Ltd.*” For granting me an opportunity to undergo summer training in their esteemed organization. The project report on “*Plasma Products Therapy and Blood Banking Scene in India: Facts and Fiction*” has been compiled involving the hard work of many. Now is the time to express my heartiest gratitude towards them.

First of all I am highly thankful to my project guide **Dr. Amit Jha** (*Product Manager of PlasmaGen Biosciences*) and **Mr. Nipun Garg** (*National Manager Plasma Procurement and business Development of PlasmaGen Biosciences*), Who took a lot of pain to supervise this project work. Their guidance, advice, timely suggestion, explicit decision, attention had been privilege for me. I have no words to express my heavy debt of gratitude to them for their encouragement and relevant criticism time to time.

Furthermore, completion of this project was not possible without the valuable suggestions of my faculty mentor **Dr.N.K.Gurbani**. Whose guidance helped me a lot during project.

I would like to express my special gratitude and thanks to **Ms. Arthi** (*HR Manager of PlasmaGen Biosciences*).for mailing me time to time and keeping me updated with all the latest updates and instructions on behalf of the company

Last but not the least from the bottom of my heart I wish to thank my parents, friends for their kind co-operation and encouragement which help me in completion of this project. My thanks and appreciations also go to my colleague in developing the project and people who have willingly helped me out with their abilities

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EXECUTIVE SUMMARY

The project undertaken is a market research on the demand, consumption pattern & personal preferences of doctors while prescribing Plasma products for medication. As we all know that 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 defence 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 of awareness among doctors, patients & paramedical staff regarding its uses & implementation. Therefore the plasma market is not a very favourable place to do business in since the option of minimization of production costs doesn't hold over here

However the purpose of our market research was to determine what the obstacles are 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 my market survey on doctors of reputed hospitals of (Jaipur, Sri Ganganagar, Jodhpur, Bikaner, Sikar). I sought to determine the demand, the consumption pattern, personal preferences and quality & availability of currently available blood & plasma brands in these cities of Rajasthan.

From all the responses I collected from the doctors it was evident that availability and pricing of plasma products are not very satisfactory in these regions. A clear majority of the doctors found that the current prices of plasma products are very expensive. Doctors have unanimously said that awareness is required for patients, paramedical staff and for doctors too regarding plasma products. Consumption rate is very less for plasma products since one in fifty or hundred need to be prescribed with plasma products. And choosing their favourite brand has been done purely 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 I have gathered during my field-work. The intentions are to depict a close

reflection of the Plasma market scenario in some cities of Rajasthan and come up with new business prospects and ways to counter the limitations of trade in Plasma market.

Plasma Market Overview

This section is designed to provide some background information on the Therapeutic Plasma market.

The Overall Therapeutic Plasma Market

Blood plasma products represent a US\$11.7B global market of which Marketing Research Bureau (MRB) estimated US\$1.7B is sold in Asia including China and India¹. This market is dominated by 5 major manufacturers who have undergone considerable consolidation and reorganization in the recent past. Plasma fractionation is a capital intensive, inflexible, high cost production process similar to the old steel mills. According to MRB, US sales of human derived plasma products have grown at a compound rate of 10% over the past 18 years to sales of \$4.0 billion in 2008, which represented an 11.5% increase over 2007.

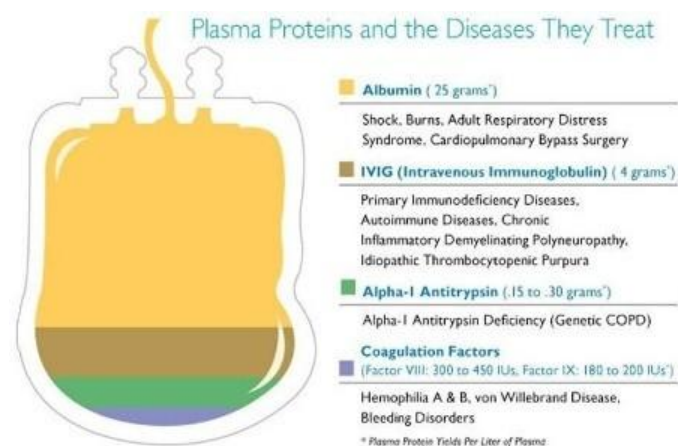
The fractionators are focused on the European and US markets and only supply Asia with excess product. As a result, supply in Asia is variable and pricing high. There are no commercial international Asian plasma fractionators and the minimum capital cost of establishing a new facility is US\$100m for a 100,000 litre facility.

History of the Plasma Fractionation Process

The Plasma fractionation process was originally developed by Dr Edwin Cohn to deliver Albumin for the Allies in World War II³. This process was developed further after the war to produce a number of therapeutic products including Factor VIII and IVIG. The major change to this process occurred in the late 1980s with the realization that viruses could be transmitted via plasma products. As a result, a number of virus removal steps were added to the original Cohn process creating a multi step low yield process.

Current Plasma Fractionation Yields

Today the Therapeutic Plasma Fractionation processes only recover about 50% of the total protein from a litre of plasma. In other words, approximately 50% of the albumin and IVIG is lost in the current fractionation process. For example the Plasma Proteins Manufacturing Association has produced the following table of manufacturing yields:



Asian Therapeutic Plasma market

To put the Asian market into perspective, the Australian Government spent A\$400m⁴ in 2009-10 on Therapeutic Plasma products with a population of 21 m people. On this basis the potential Therapeutic Plasma market of the following Asian countries is:

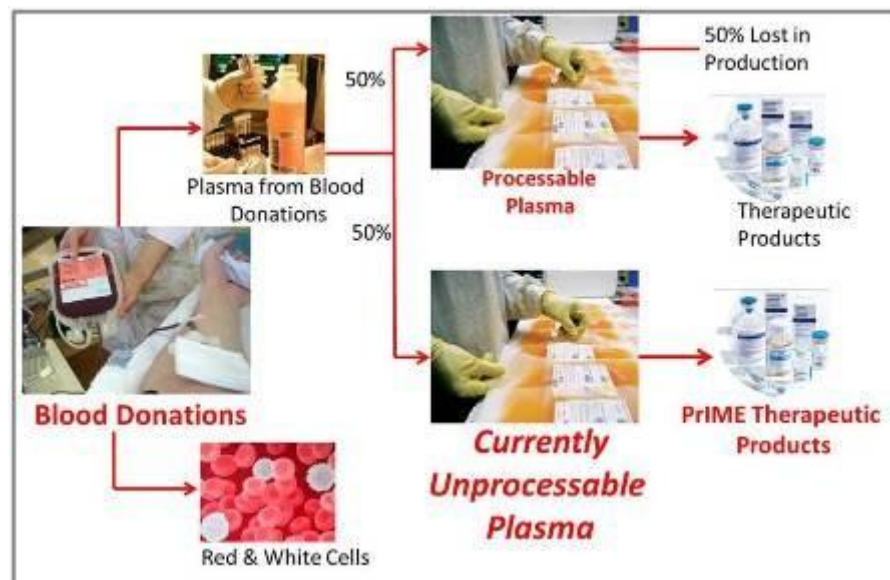
Country	Population	Potential Market Size
Singapore	5m	\$100M
Thailand	60m	\$1.2B
Philippines	90m	\$1.6B
Malaysia	25m	\$470M

The above table indicates the size of the potential for a novel technology like the PRIME to address the significant shortage of Therapeutic Plasma products in Asia. None of these countries are self sufficient and all are looking to increase the supply of Therapeutic Plasma products to meet their local needs.

Currently the European market which represents 11% of the world's population accounts for 36% of the world's Therapeutic Plasma consumption. By comparison the Asia & Pacific markets account for 58% of the world's population but only represent 15% of the world's consumption of Therapeutic Plasma products.

Currently Unprocessable Plasma

In addition, the regulators will not allow the fractionators to process plasma from certain countries for safety reasons no matter what the volume of plasma. This wasted or 'Currently Unprocessable Plasma' accounts for approximately 50% of all the plasma collected in most Asian countries.



As a result most Asian countries are forced to buy from the fractionators and discard the plasma they collect. Significantly, every 50,000L of currently Unprocessable Plasma can generate over US\$30m of Therapeutic Plasma products.

There is an opportunity to supply the Asian plasma market for a technology that:

- ❑ Can process small volumes (less than 10,000L batches); and
- ❑ Is based on a disposable manufacturing system so that it can fractionate *Currently Unprocessable Plasma*.

□ Make countries in Asia self-sufficient in their plasma product requirements in line with 2010 WHO mandate.

This is the unique niche that the PrIME process addresses and on average this Currently Unprocessable Plasma will generate \$30m of sales and \$15M of annual profit per country. The existing fractionators cannot address the Currently Unprocessable Plasma market as it is difficult to validate the removal of pathogens from their manufacturing plants between batches. This is why the regulators, such as FDA, will not allow fractionators in their countries to import Currently Unprocessable Plasma.

Competitive Technologies

The use and manufacture of plasma products was originally set up as a World War II effort to reduce the front line troop deaths. As a result manufacturing processes were developed in a rapid fashion without consideration for cost or efficiency. This process was so successful that after the war it was handed over to the civil sector in order to help save lives in the general community medicine.

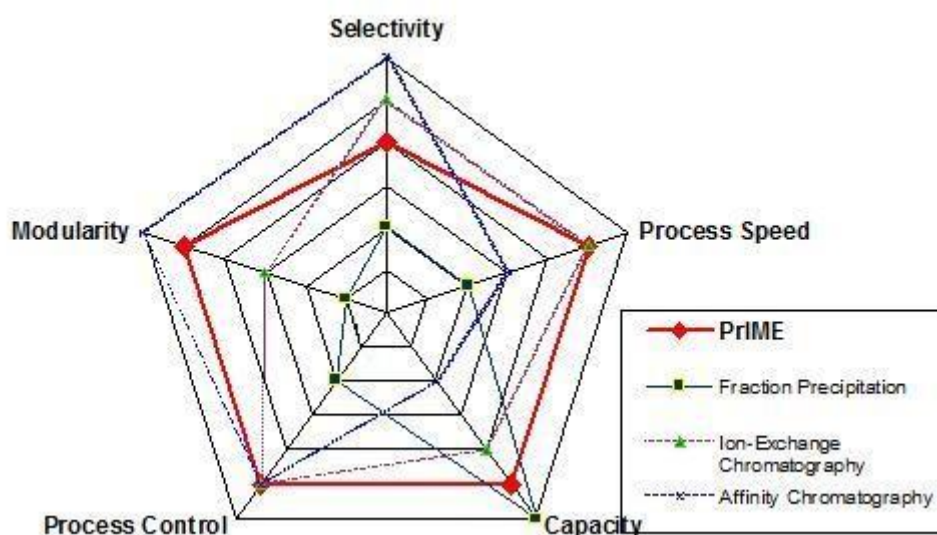
The manufacturing process has changed little since this time. There have been two major changes to the general manufacturing process since this time. The first was in the mid 80s with the realization that HIV could be transmitted via plasma products which led to a number of additional viral removal/inactivation steps being added to the then existing manufacturing processes. The second change came in the late 90s/early 2000s when the US FDA closed a number of the fractionators for failing to meet GMP requirements. This led to an increase of process control, but not a change of actual manufacturing process. As a result the plasma fractionation industry is highly regulated and stuck using a manufacturing process dating back to the 1940s.

Below is a diagram produced by Bayer (now Talecris) that compares a number of different fractionation technologies? As can be seen the existing Cohn process (Fraction Precipitation) is not an ideal system. According to Bayer the best alternative is the PrIME technology. The problem that all the fractionators face is the cost of taking this or any other technology through the regulatory process. Currently they have regulatory approval to manufacture their products in a cascade process. Thus a change to one product would

require validation of all of their products. In their view this would be prohibitively expensive.

The fractionators have used Affinity and Ion exchange chromatography over the years. These processes were developed in the 70s and have been added into the fractionation process by a number of the fractionators to remove various contaminants. They are not considered viable alternatives to Cohn as they are very expensive and introduce their own contaminants.

GE are offering to build a 150,000L affinity chromatography fractionation plant for US\$100m. Chromatography is expensive to set up and the resin beads (media) need to be replaced at regular intervals. By way of example the BAC BV affinity media for purification of IVIG is estimated to cost about US\$2m to process 12,000L pa and would need to be replaced at least every 2 years. To undertake the 80,000L Singapore production using affinity would increase the budgeted COGS by 50% before adding any CIP costs.



The PrIME process is the only disposable selective plasma fractionation process available. This allows for significant reduction in CIP costs. These costs represent at least 20% of the general COGS for the existing fractionators. It is also the main area of

concern for the regulators, as any failure in CIP can lead to virus etc passing from one production batch to the next. By using the PrIME process the Singapore Company will be able to process plasma from all of ASEAN/China/India.

Much of this plasma is *Currently Unprocessable Plasma* referred to above and is thrown away as the regulators in the countries in which the fractionators operate will not allow plasma from these countries to be processed in their plants. The regulators fear that the CIP will not remove some contaminants from the *Currently Unprocessable Plasma* leading to contamination of their home Therapeutic Plasma products. Again this is not an issue when using the PrIME process.

Worldwide Supply and Demand of Plasma and Plasma-Derived Medicines

1) The Early Years of the Plasma Industry

In the early 1940's, Dr. E. Cohn discovered the plasma fractionation process in Boston

(1). After it was found that albumin was an efficacious and safe drug, and could be produced in large quantities, several manufacturing plants were built in the United States. Pharmaceutical companies involved at the early stage of the fractionation industry included Parke Davis, which built a plant in Los Angeles (now operated by Grifols), Armour near Chicago, now operated by CSL Behring, Cutter in Berkeley, and Baxter in Glendale, near Los Angeles. Some public entities also built facilities to process human plasma, such as the Michigan Biological Laboratory. In Europe, fractionation plants were built in Germany (Behringwerke, part of the Hoechst pharmaceutical concern), Italy (Farma Biagini, Sclavo), France (Centre National de Transfusion Sanguine and Institut Merieux), Grifols in Spain, and the Swiss Red Cross Blood Transfusion Service in Switzerland.

(2). In Japan the Green Cross corporation built the first fractionation plant in Asia (3). These facilities began producing albumin, and some "normal" (polyvalent) or specific immune globulin preparations, such as anti-tetanus, anti-hepatitis B, anti-rabies immune globulin, and others. Rho(D) immune globulin was discovered in the late 1960's, as were antihemophilic factors VIII and IX.

2) From Albumin to IVIG: the “Market Drivers”

Until the 1970's, the fractionation plants produced as much albumin as the market required, and they purchased the quantities of plasma they needed to meet the production requirements for this protein. Albumin was the market driver. When plasma-derived factor VIII began to be commercialized in the late 1970's, it became the market driver because larger volumes of plasma were needed to meet the demand for it. By that time, the U.S. fractionators produced albumin, intramuscular immune globulin and coagulation factors for the domestic market as well as for export because the U.S. fractionation plants were significantly larger than those operating in other countries. At the beginning of the 1980's, intravenous immune globulin (IVIG) was introduced in the United States. It became the market driver in the 1990's when plasma-derived factor VIII, and soon, factor IX, were replaced by recombinant products.

3) Recovered Plasma: An Untapped Source of Life-Saving Medicines

In the blood collection sector, the priority given to the procurement of adequate quantities of labile components, notably red cells and platelets, tends to relegate plasma to a low priority. The term of “recovered” plasma is in itself rather diminishing, as if it was a by-product – which it is many blood centres. Yet, recovered plasma is just as good as source plasma to produce therapeutic proteins, if not better in the case of some of them.

4) Worldwide Demand for Finished Plasma-Derived Medicines

In 2009, the worldwide demand for plasma-derived medicine was estimated at \$11.8 billion, IVIG representing 46% of the total, albumin 10% and factor VIII, Plasma-derived medicines are primarily used in the industrialized countries, due to the comparatively high cost of therapy. For example, the European market, which only had 11% of the world population, represented close to 36% of the world market, while the Asian & Pacific market represented 15%, with 58% of the world population. These discrepancies are illustrated by wide variations in per capita usage.

5) Conclusion: Improving Global Access to Plasma Derived Medicines

Plasma-derived medicines produced today are safe, efficacious and available in large quantities. The cost of therapy remains the main barrier for access to these drugs in the emerging countries. The use of recovered plasma which is currently destroyed by many blood centers could alleviate some of these barriers in some countries.

Organization Profile

PlasmaGen Biosciences



About Us

PlasmaGen Biosciences is a young biopharmaceutical 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

We do realize that there is a huge gap between demand and supply of plasma products in most of the developing economies including India. We also recognize that India has immense potential to generate huge amount of surplus plasma and produce plasma products like Albumin, Immunoglobulin, Factor VIII, Factor IX, Fibrinogen, Fibrin Glue, etc. Many of these products are used as life- saving medicines.

With very clear vision fuelled by passion and commitment, we aim to represent the modern face of Transfusion Medicine in India. We have a team of young, dynamic and experienced people who are committed and determined to translate vision into reality.

We have people of board with international experience who have worked at very senior positions in private sector and have been serving in high-level delegations/committees in Govt. Of India.

PlasmaGen is 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 up to 24 million US \$ by 2011-12 & 30 million US \$ by 2015. With a capacity of 1, 00,000 litres 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.

Mission statement

PlasmaGen's mission is to propagate the blood component therapy for optimum use of each drop of blood donated and, use surplus unutilised plasma for preparation of plasma products for India and south Asian Association of Cooperation (SAARC) region.

PlasmaGen is committed to provide quality plasma products to its valuable customers.

Products of PlasmaGen



OBJECTIVES OF THE STUDY

Primary Objective

- To evaluate the present scene of plasma product as well as to find out the huge gap between the demand and supply of plasma products.

Secondary Objective

- To study the perception of doctor's while prescribing any brand of plasma products.
- To study the perception of doctor's regarding availability, pricing and quality of plasma products.

Methodology

Research Design

➤ **Type Of Research Design**

The market survey undertaken is an example of a descriptive / quantitative research since the overall research design is rigid and pre-planned all throughout our study.

➤ **Research Tool**

Structured Questionnaire is used and framed in a way so as to derive maximum information from the doctors especially their perception about the different brands of plasma products that are available and most importantly the reasons behind their prescribing a product and the brand associated with it

➤ **Scope Of The Study**

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 of money for any donation of blood they make. Despite the fact that all Plasma products are life saving drugs & the last line of defence 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.

The study will us to determine what the obstacles are and to draw a perfect reflection of the current plasma market thereby finding new prospects of business for them, as it sets foot into the plasma market on their own.

➤ **Data Collection Method**

- **Primary Data Collection**

The Data is collected for the first time & thus happens to be original in character. It was collected through means of a structured questionnaire. The structured questionnaire was designed covering close ended and open ended questions.

It was aimed to derive maximum information from the doctors.

Sampling Characteristics

Products

- IVIG
- Human Albumin
- Hepatitis B Immunoglobulin
- Anti-D
- Tetanus Hyper Immunoglobulin
- Fibrin Sealant
- Factor VIII
- Factor VII
- Fibrinogen
- Thrombin
- Anti Thrombin III

Specialties

- Hematologists, Nephrologists, Oncologists, Neurologists, Immunologists
- Hematologists, Nephrologists, Oncologists, Gynecologists
- Physician(MD), Gastroenterologists, , Nephrologists, Organ Transplant Cardiologists, Gastroenterologists, Pulmonologists
- Gynecologists
- Internal Medicine, Physician MD, Pediatricians
- Neuro Surgeon, Plastic surgeon, General Surgeon, Cardiac Thoracic Surgeon, Eye Surgeon, Cardiac Surgeon
- Hematologists, Intensivist, Pediatricians
- Hematologists, Pediatricians, Neuro Surgeon, CTVS, Cardiac Surgeon
- Vascular Surgeon, Hematologists, Neuro Surgeon, Cardiac Thoracic Surgeon, Cardiac Surgeon , General Surgeon
- CTVS, Neuro Surgeon, Cardiac Surgeon , General Surgeon
- Liver Surgeon, Paediatric Physicians or Surgeon, Kidney Transplant Surgeon, Cardiac Thoracic

Surgeon.

- Prothrombin Complex
- Gynecologists, Neuro Surgeon, Physicians, Pediatricians.

➤ **Sampling Units**

Sampling units were the Government and Private Hospitals of Jaipur, Shri Ganganagar, Bikaner, Jodhpur, Pali, Barmer, and Sikar.

➤ **Sample Size**

200 doctors of different specialties were taken as sample

➤ **Time Period of Project** - 60 Days

➤ **Sampling Technique**

Simple Random Sampling

➤ **Data Analysis Technique**

The data was compiled and analysed in the Microsoft Excel

Data Analysis and Interpretation of IVIG

Open ended questions answers given by doctors regarding IVIG (Intravenous Immunoglobulin)

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company
- Bharat Serum
- Alburil
- Intas
- Reliance
- Rhoclone

Q7. Any safety issues for IVIG?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing IVIG to the patients?

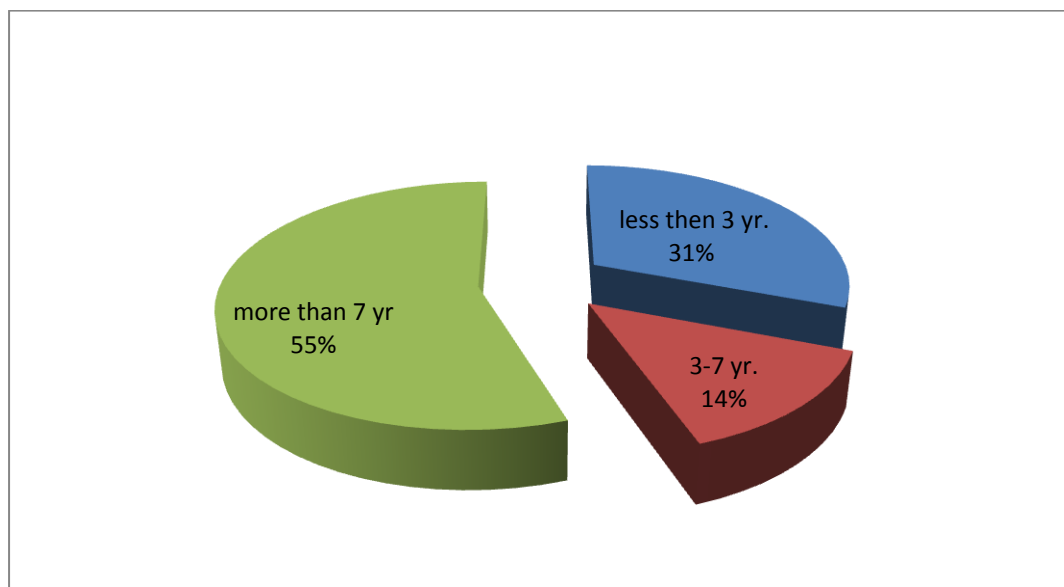
- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of IVIG

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis:



Interpretation:

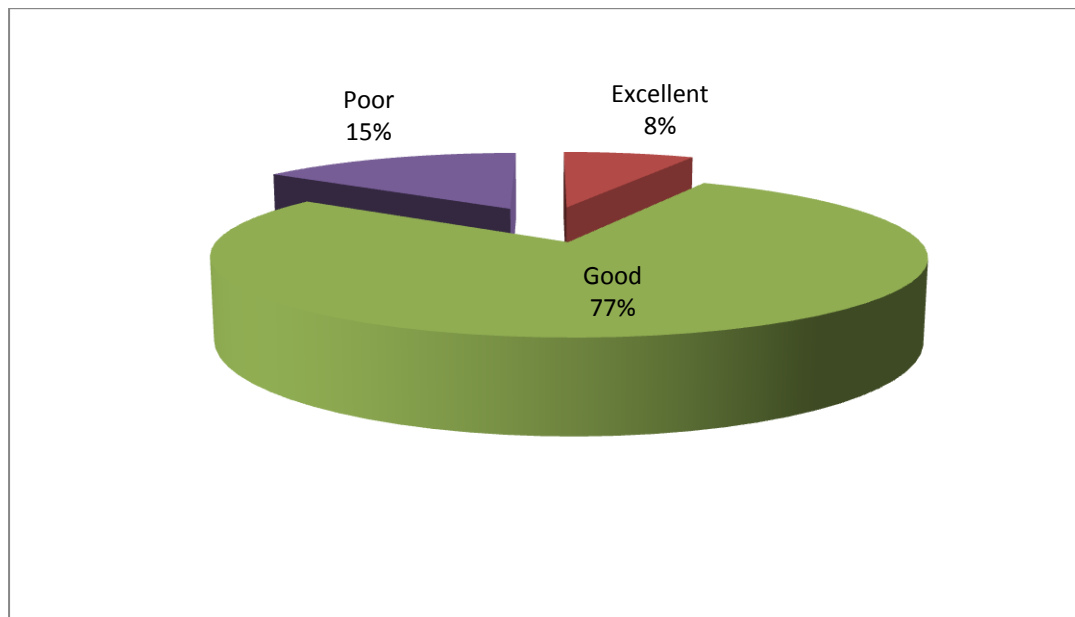
On the basis of this Pie chart, it is analysed that:

- 31% doctors are using IVIG less than 3 yrs
- 14% doctors are using the same between 3 to 7 yrs
- There are 55% doctors who are using IVIG more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



Interpratation:

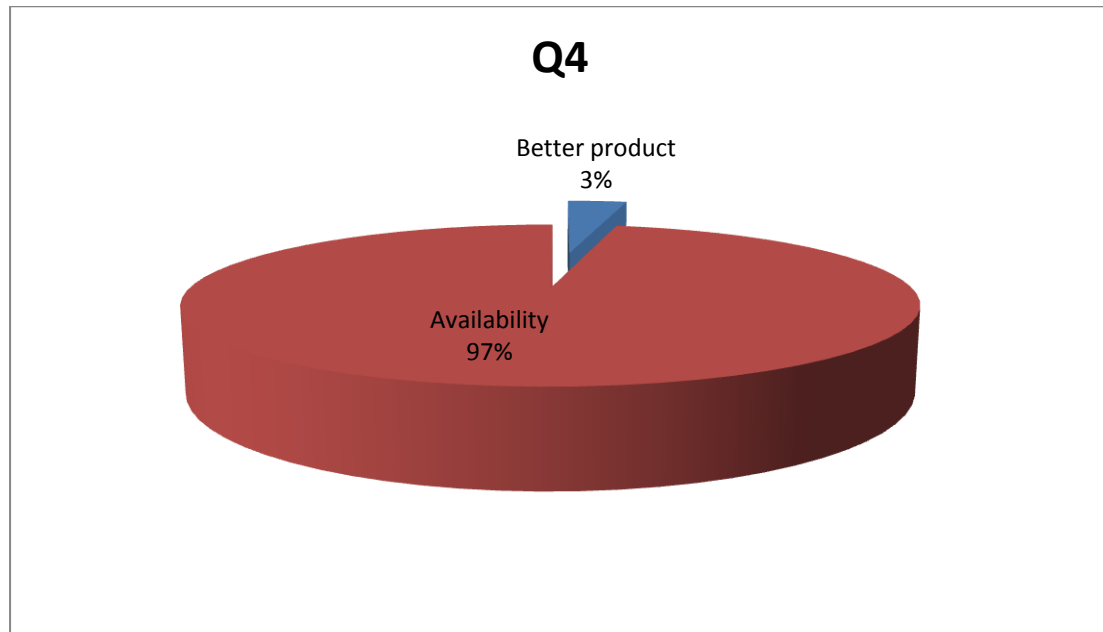
From the above Bar Graph, it is analysed that availability of IVIG is good.

- According to 8% of doctors availability of IVIG is Excellent
- 77% doctors said that the availability is good
- 15% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



Interpratation:

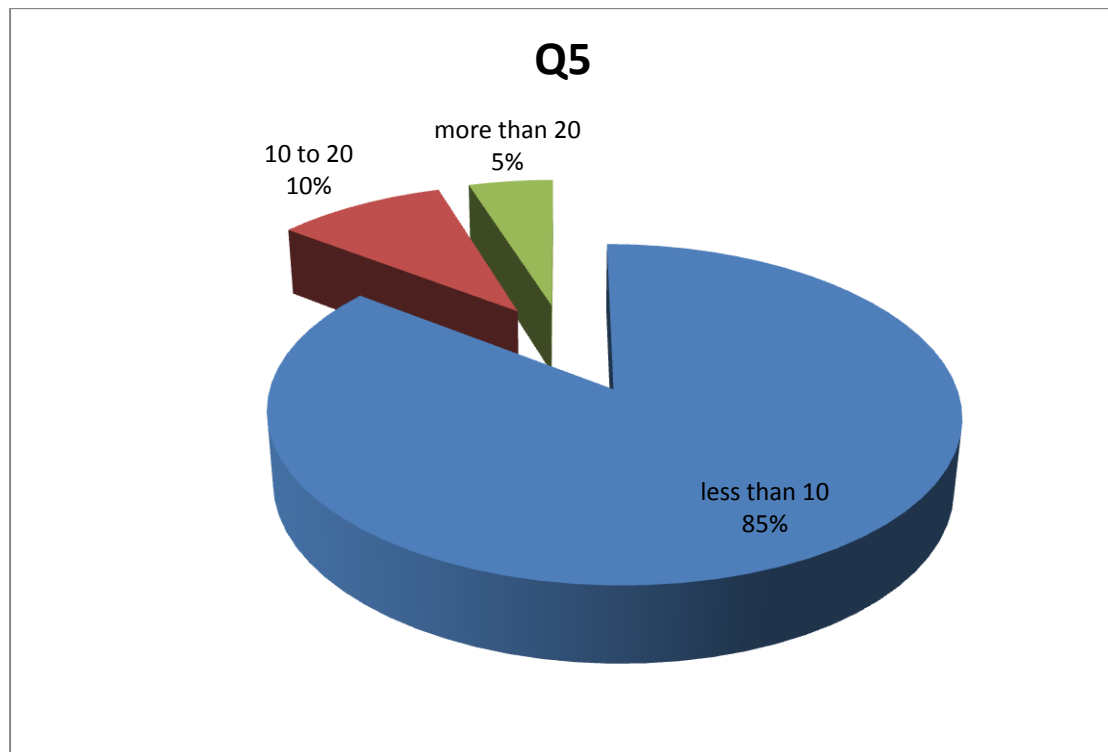
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- Around 3% doctors prefer any brand just because of better product.
- 97% doctors prefer due to availability

Q5. What is general consumption pattern of IVIG?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis:



Interpratation:

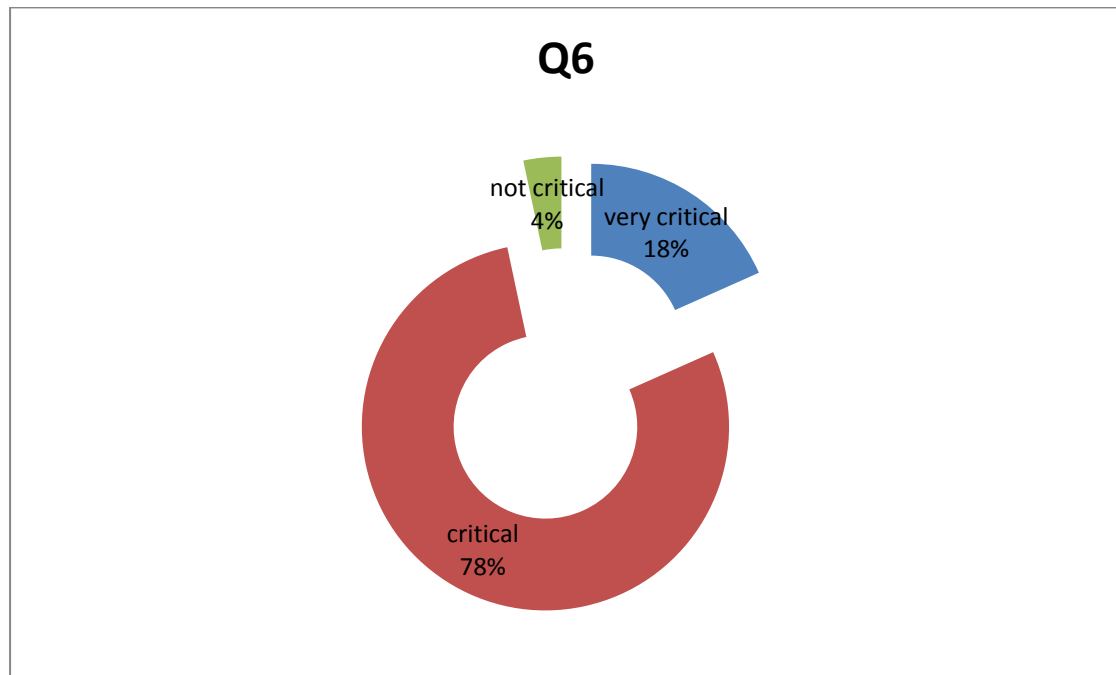
According to the above Pie chart. The general consumption pattern per month of IVIG is:

- 85% doctors whose consumption pattern per month is less than 10
- 10% doctors having consumption pattern is 10-20
- 5% doctors having the same is more than 20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:



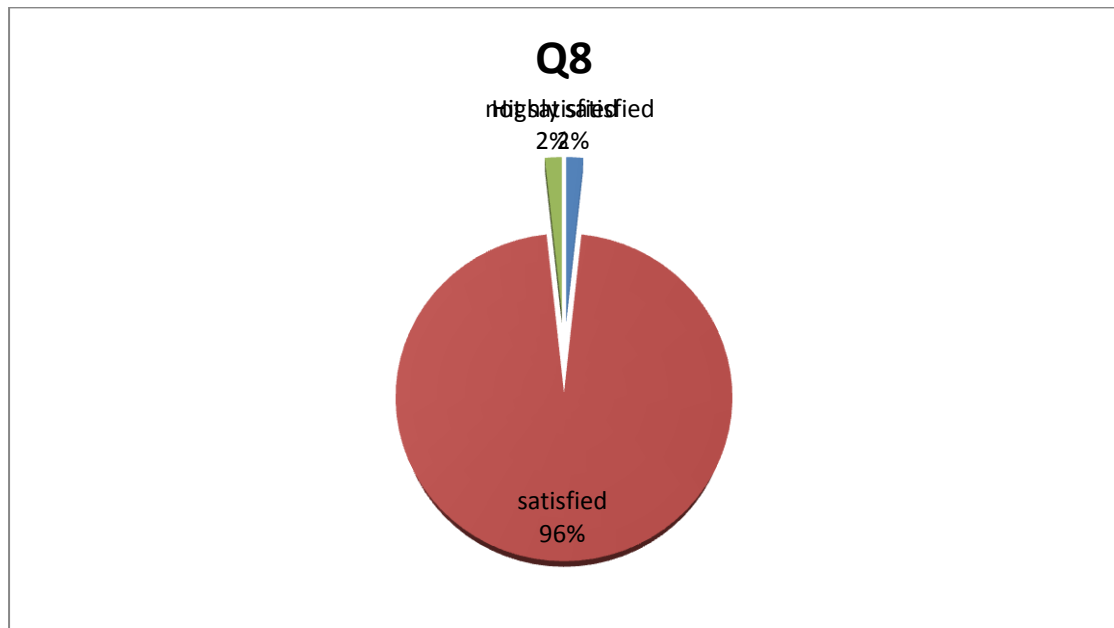
From the above Bar graph. it is estimated that no doctor said that source of plasma is not the critical process.

- Around 18% doctor thinks that is very critical process
- 78% doctors believes it's a critical process
- 4% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



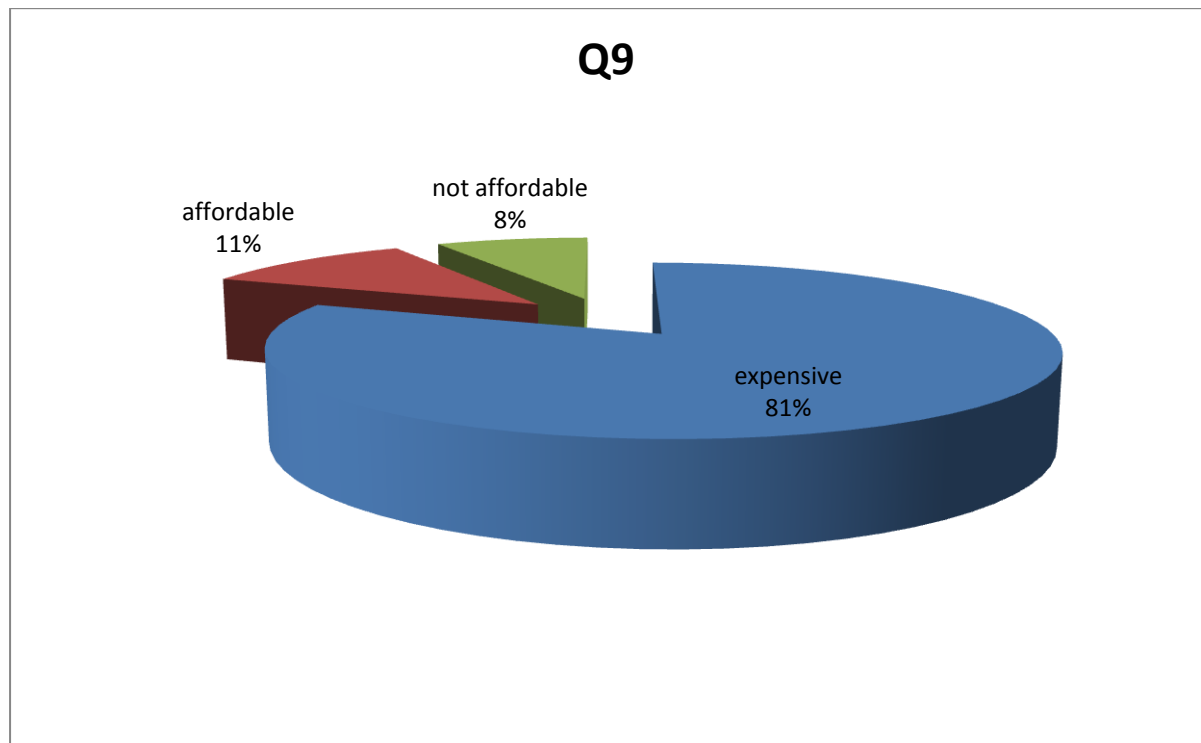
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- It is estimated that 2% doctors are highly satisfied with the quality of currently available brands of plasma products.
- 96% doctors are only satisfied
- 2% are not satisfied

Q9. Pricing of currently available brands of IVIG?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



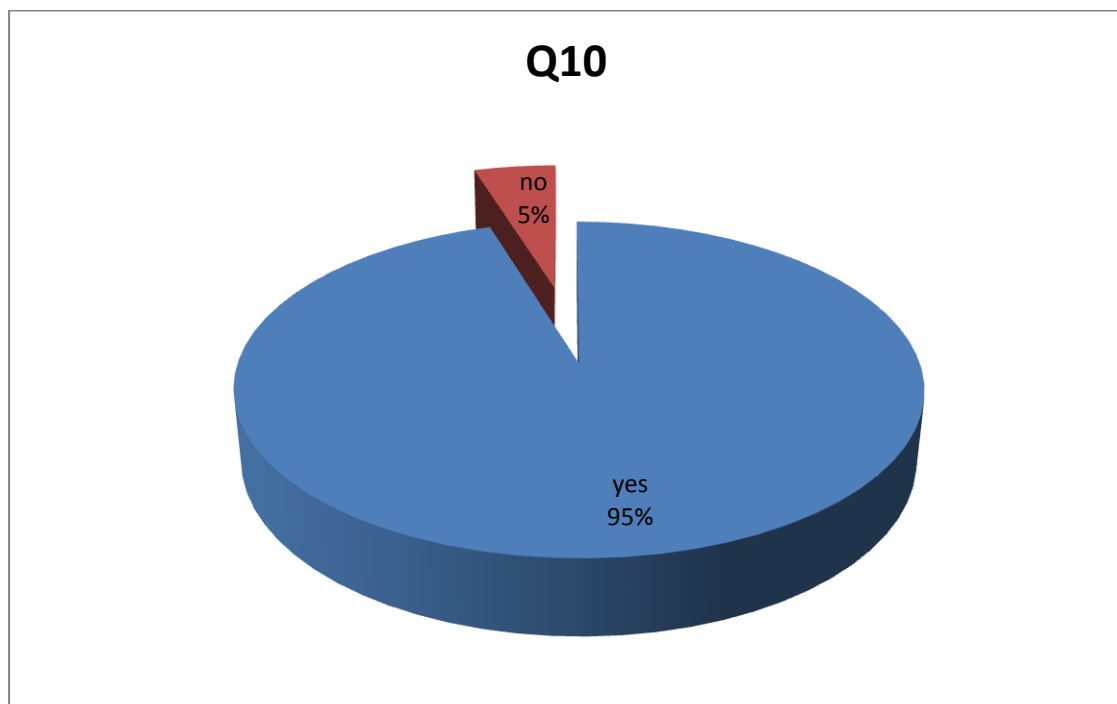
From the above graph it shows the pricing of currently available plasma products:

- 81% doctors said that currently available brands of IVIG are expensive.
- 11% doctors said it can be affordable by the patients.
- 8 % said that it is not affordable

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

- A. Yes
- B. No

Analysis:



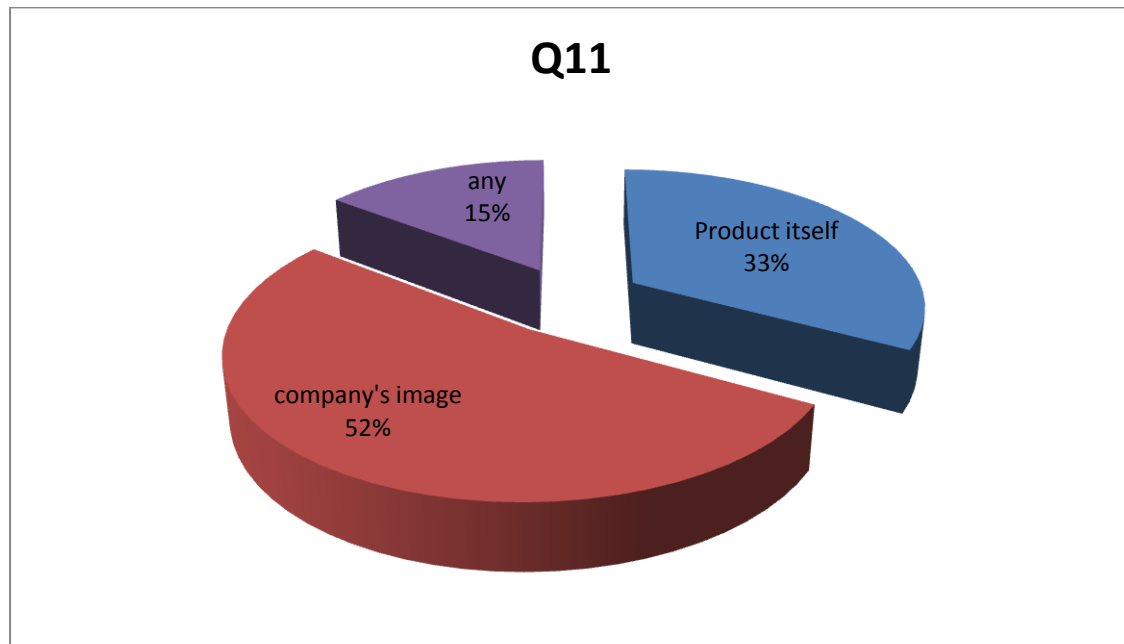
It is analysed from the above Pie chart that:

- According to 95% doctors they believes that yes awareness program is required regarding plasma products.
- 5% doctors said no there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (IVIG)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 33% doctors believe that product itself must be good.
- 52% doctors said that company's image and safety records are important
- 15% doctors think that long term relationship is there.

Data Analysis and Interpretation of Albumin

Open ended questions answers given by doctors regarding Albumin.

Q3. Any specific brand you prefer.....

- Any available Brand
- Using brands which are from standard company
- Bharat Serum
- Alburil
- Intas
- Reliance
- Rhoclone

Q7. Any safety issues for Albumin?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing Albumin to the patients?

- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of ALBUMIN

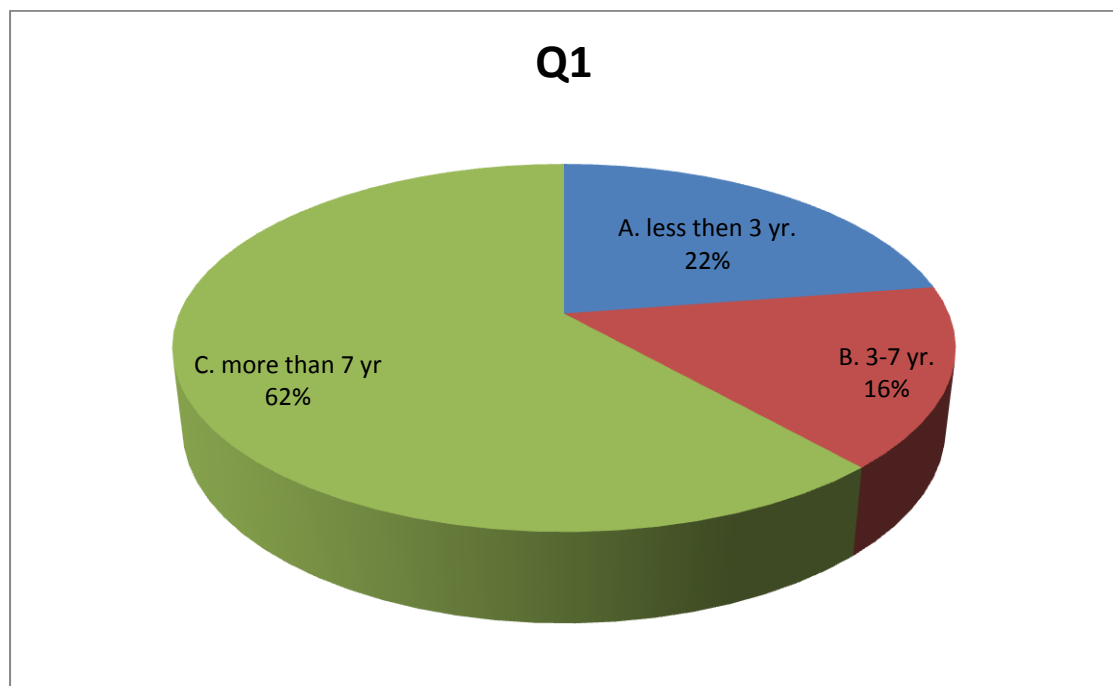
Q1. How long you have been using?

A. Less than 3yrs

B.3-7 yrs

C. More than 7 yrs

Analysis



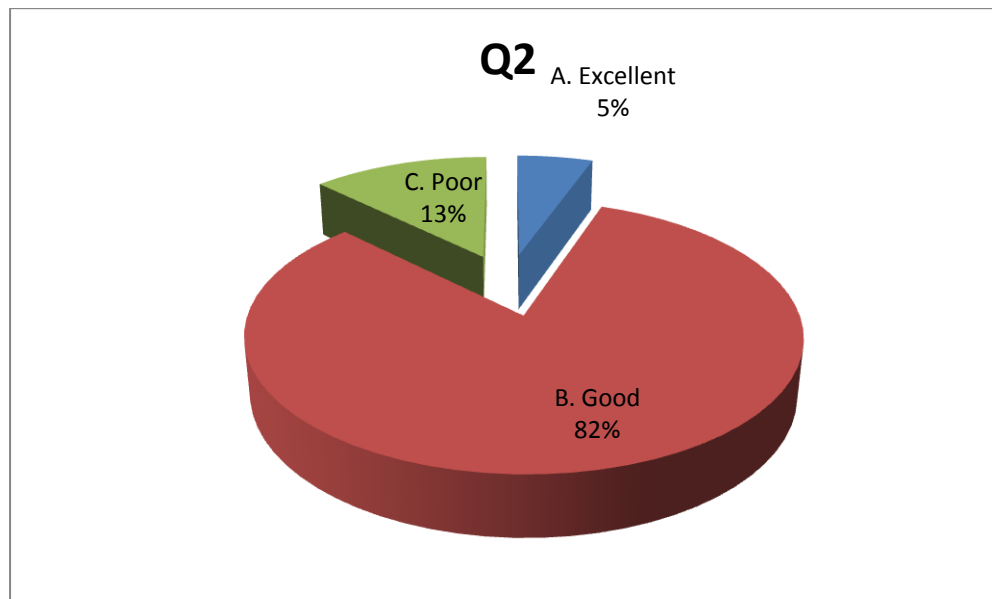
On the basis of this Pie chart, it is analysed that:

- 22% doctors are using Albumin less than 3 yrs
- 16% doctors are using the same between 3 to 7 yrs
- There are 62% doctors who are using same more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



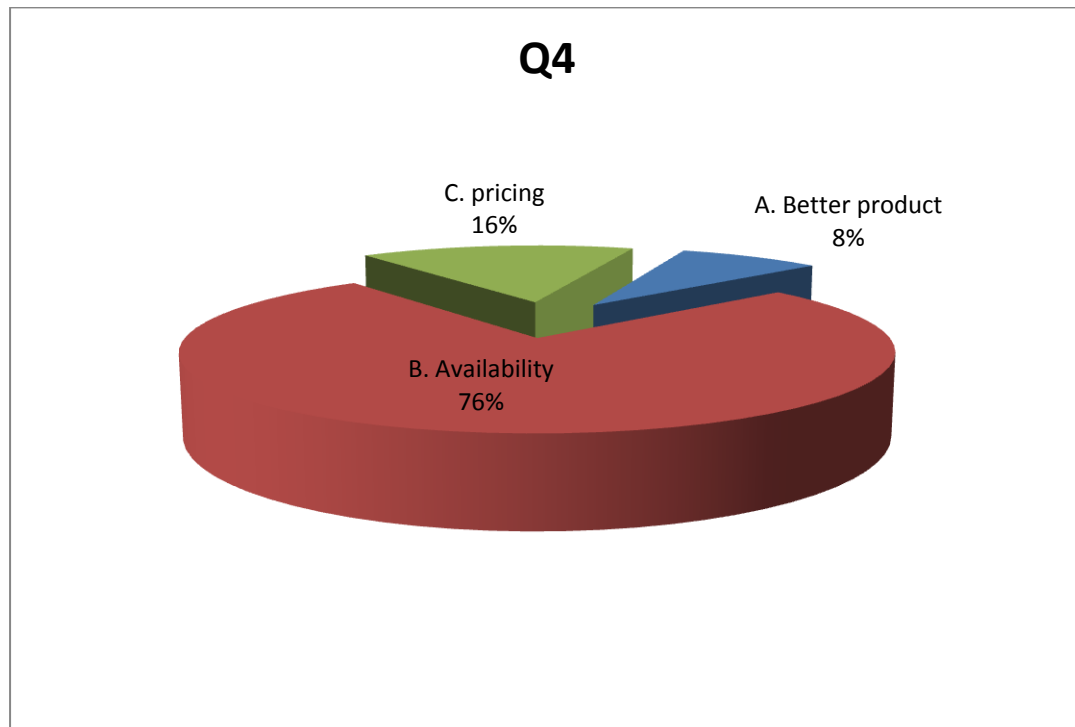
From the above Bar Graph, it is analysed that availability of Albumin is good.

- According to 5% of doctors availability of Albumin is Excellent
- 82% doctors said that the availability is good
- 13% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



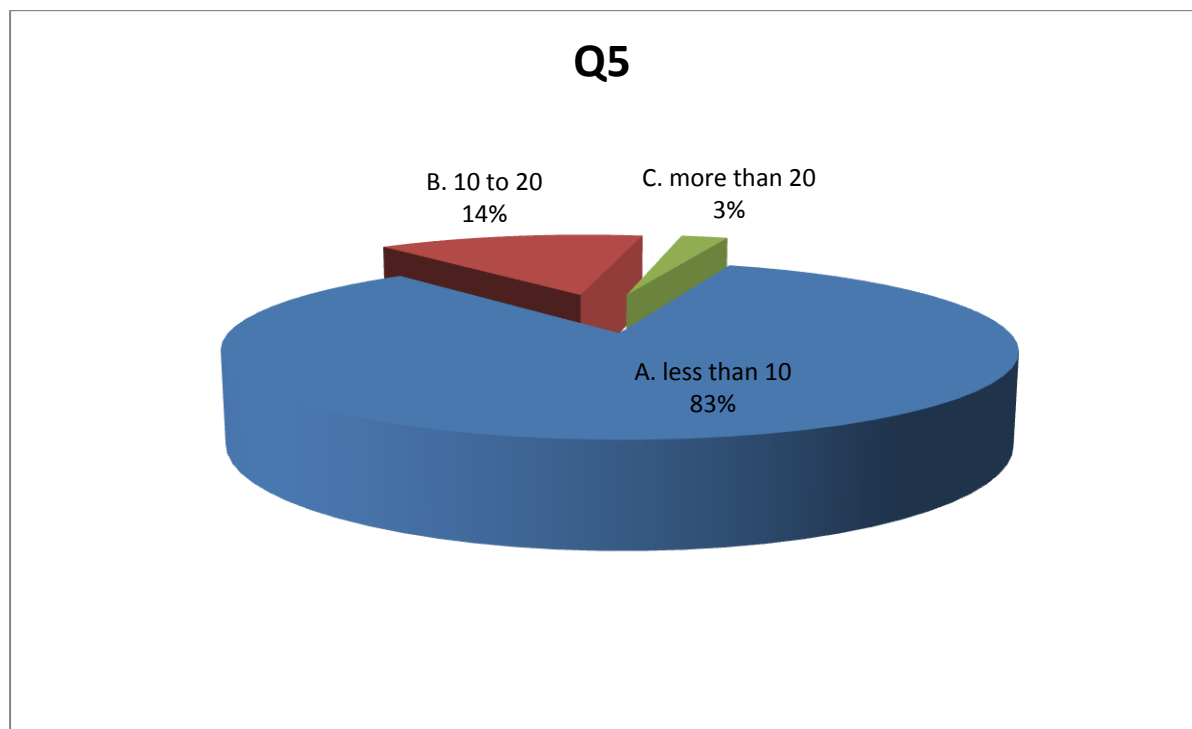
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- Around 8% doctors prefer any brand just because of better product.
- 76% doctors prefer due to availability
- 16% prefer pricing before using Albumin.
- 0% said other factors are there while using any brand.

Q5. What is general consumption pattern of Albumin?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis



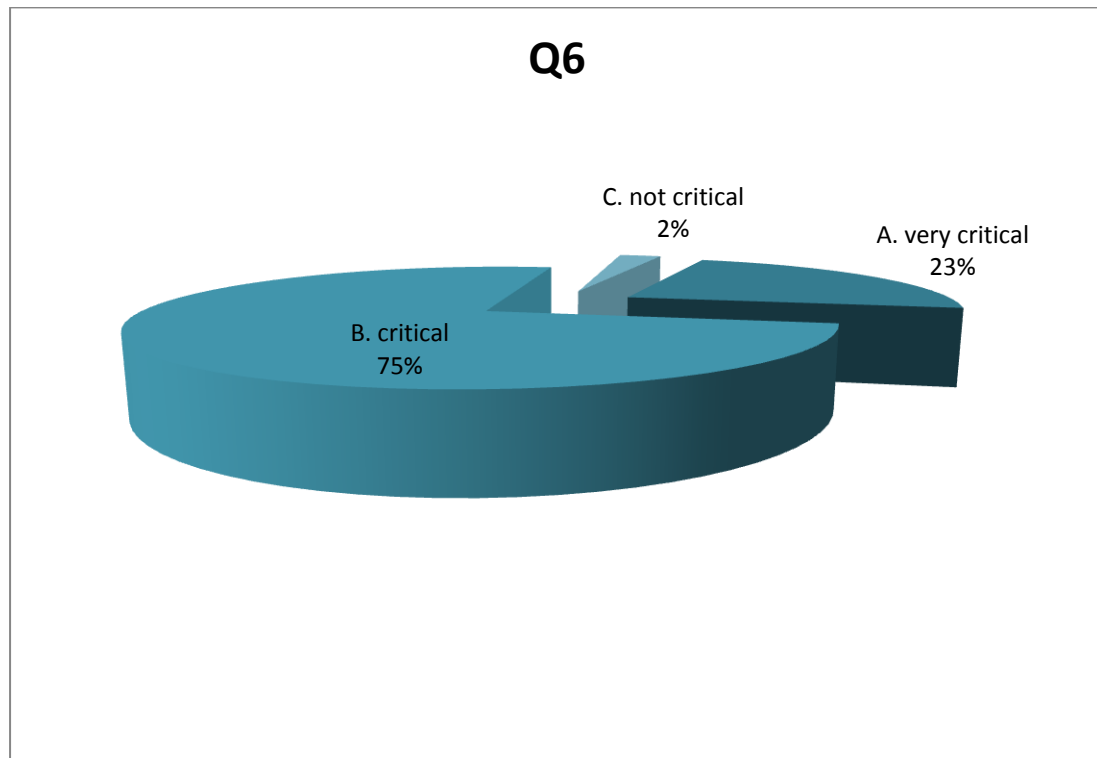
According to the above Pie chart. The general consumption pattern per month of Albumin is:

- 83% doctors whose consumption pattern per month is less than 10
- 14% doctors having consumption pattern is 10-20
- 3% doctors having the same is more than 20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:



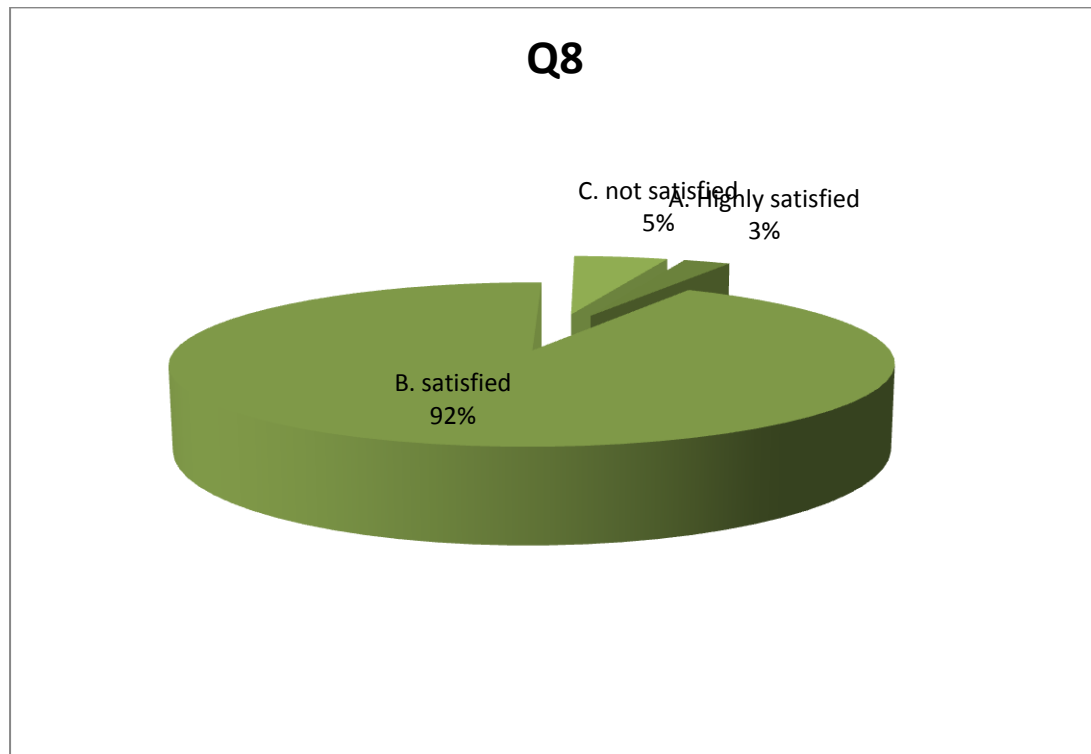
From the above Bar graph. It is estimated that no doctor said that source of plasma is not the critical process.

- Around 23% doctor thinks that is very critical process
- 75% doctors believes it's a critical process
- 2% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



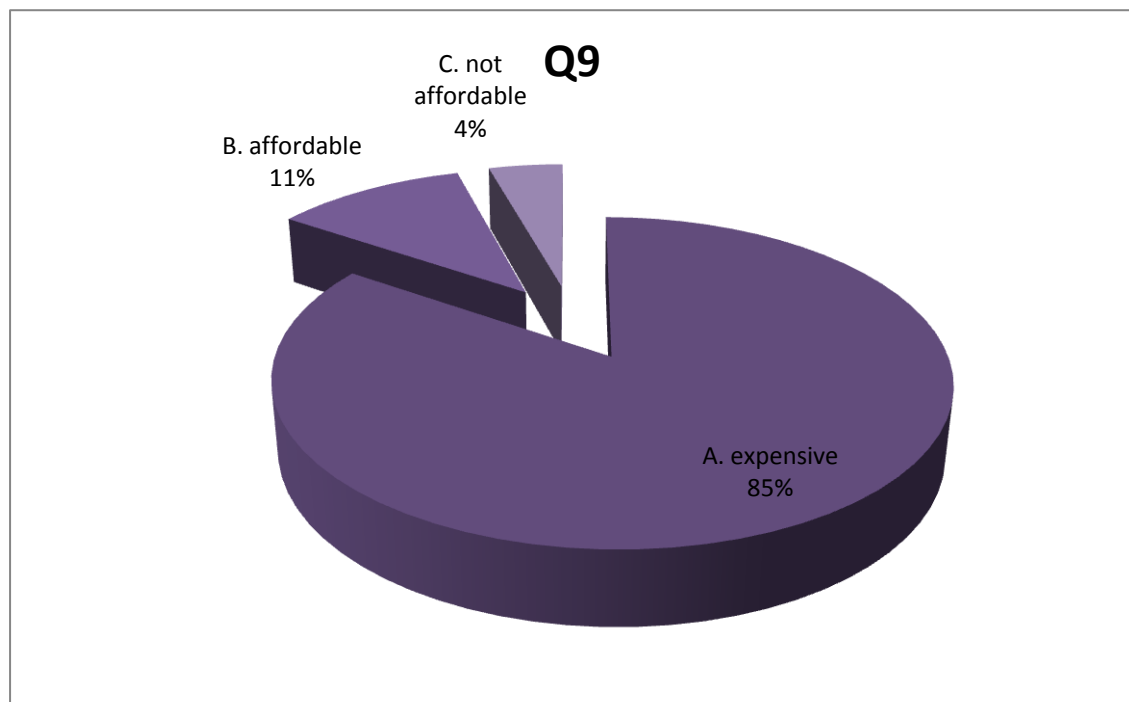
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- It is estimated that 3% doctors are highly satisfied with the quality of currently available brands of plasma products.
- 92% doctors are only satisfied
- 5% are not satisfied
- And according to 0% doctors the brands of plasma products need improvement.

Q9. Pricing of currently available brands of Albumin?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



From the above graph it shows the pricing of currently available plasma products:

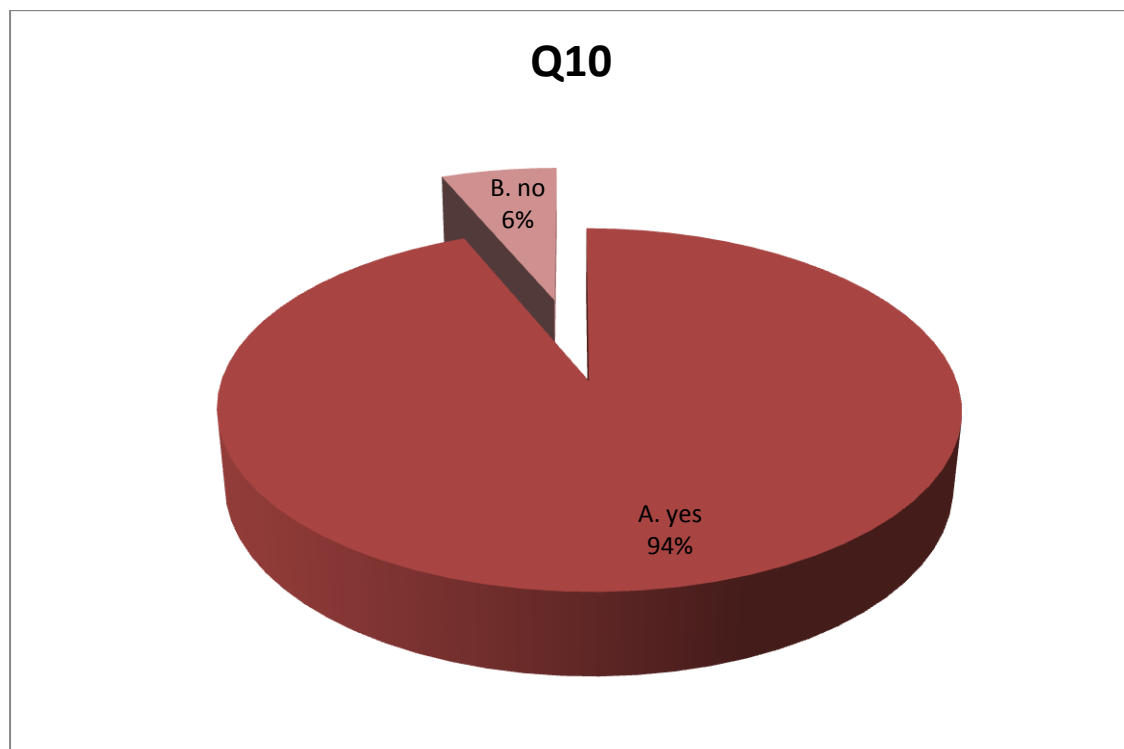
- 85% doctors said that currently available brands of Albumin are expensive.
- 11% doctors said it can be affordable by the patients.
- 4% said that it is not affordable

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

A. Yes

B. No

Analysis:



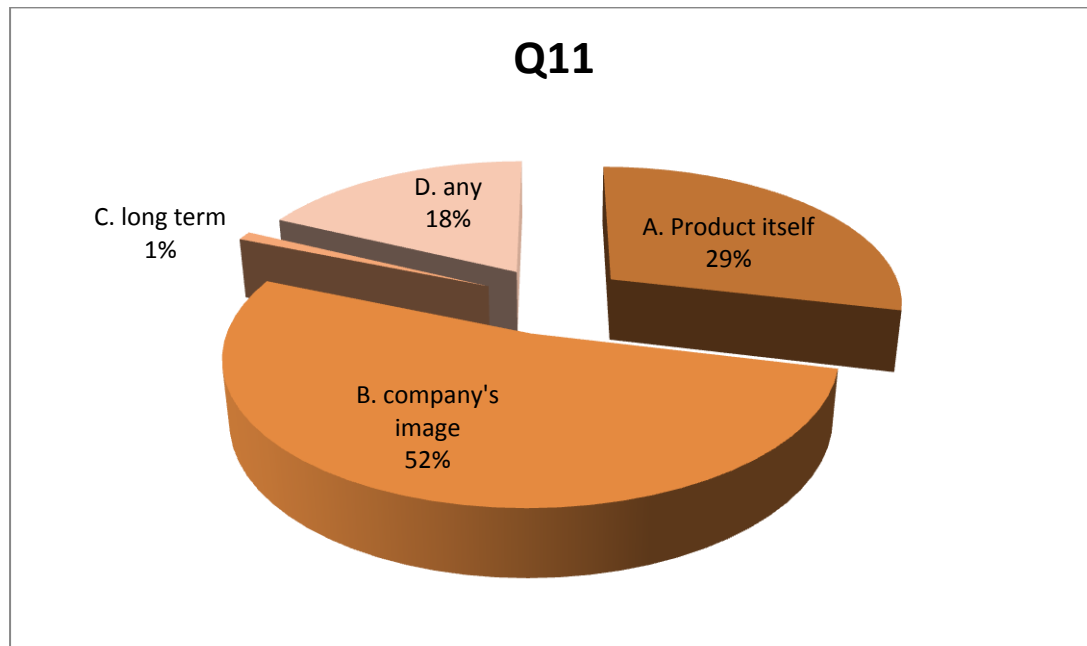
It is analysed from the above Pie chart that:

- According to 94% doctors they believes that yes awareness program is required regarding plasma products.
- 6% doctors said no there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (Albumin)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 29% doctors believe that product itself must be good.
- 52% doctors said that company's image and safety records are important
- 18% doctors think that long term relationship is there.
- 1% doctors said for any other factor.

Data Analysis and Interpretation of Hepatiti Immunoglobulin

Open ended questions answers given by doctors regarding Hepatitis B Immunoglobulin.

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company
- Bharat Serum
- Reliance
- Religare

Q7. Any safety issues for Hepatitis B Immunoglobulin?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing Hepatitis B Immunoglobulin to the patients?

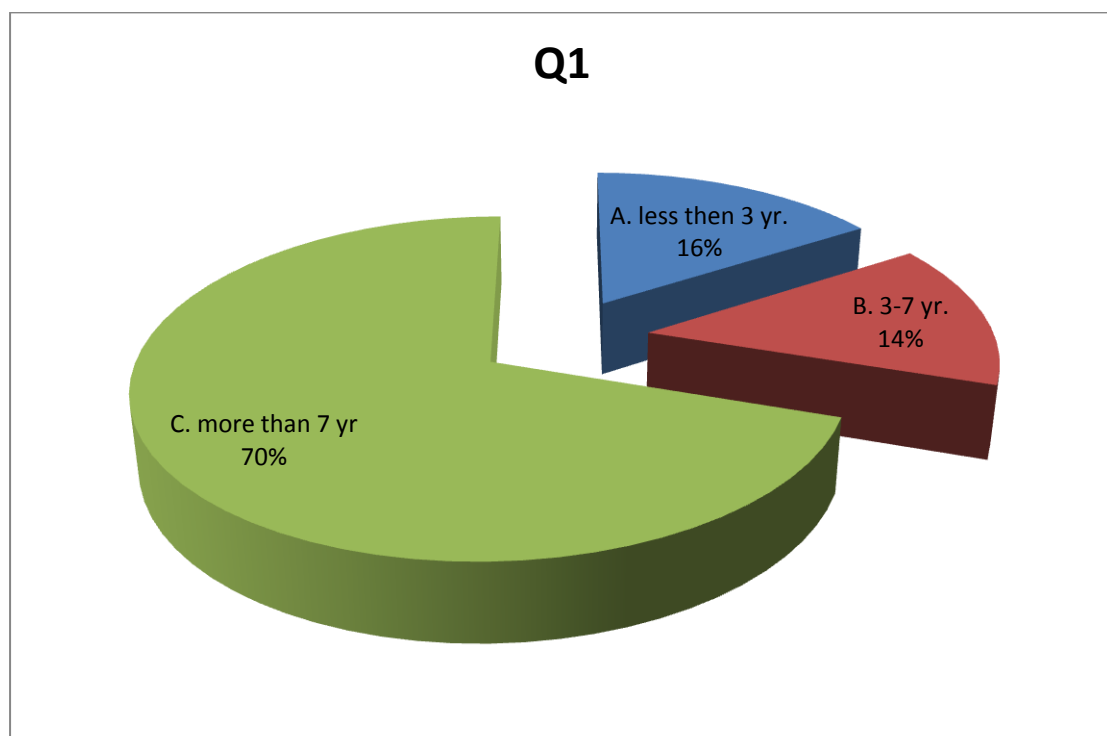
- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of Hepatitis B Immunoglobulin

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis:



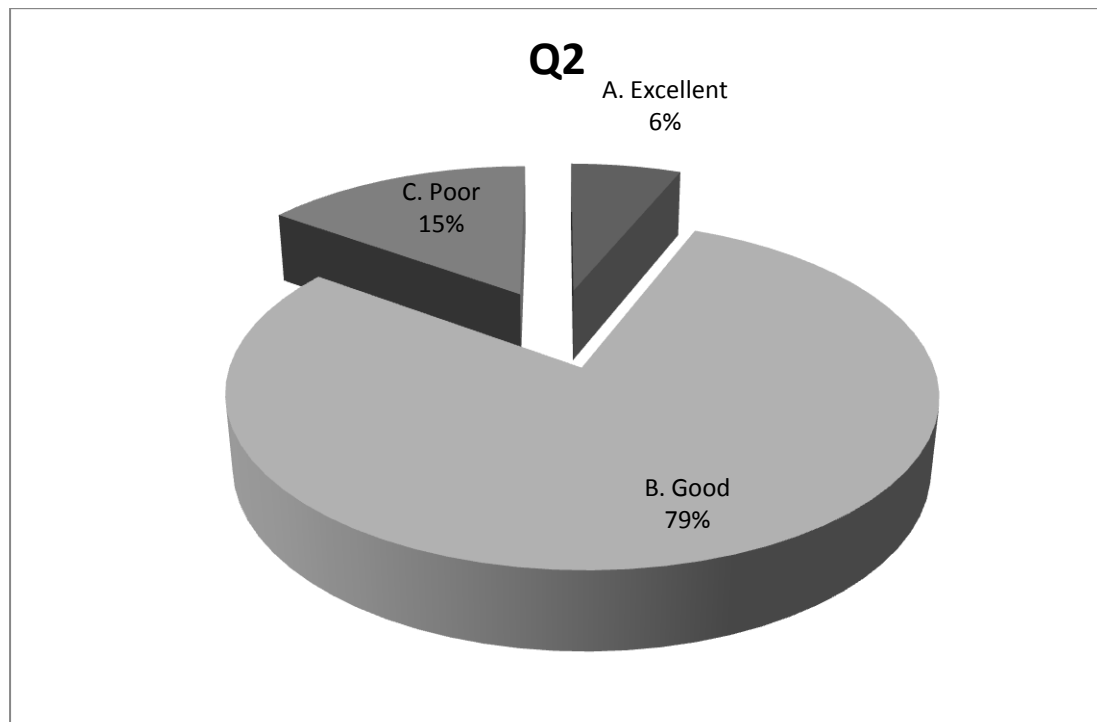
On the basis of this Pie chart, it is analysed that:

- 16% doctors are using Hepatitis B Ig less than 3 yrs
- 14% doctors are using the same between 3 to 7 yrs
- There are 70% doctors who are using same more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



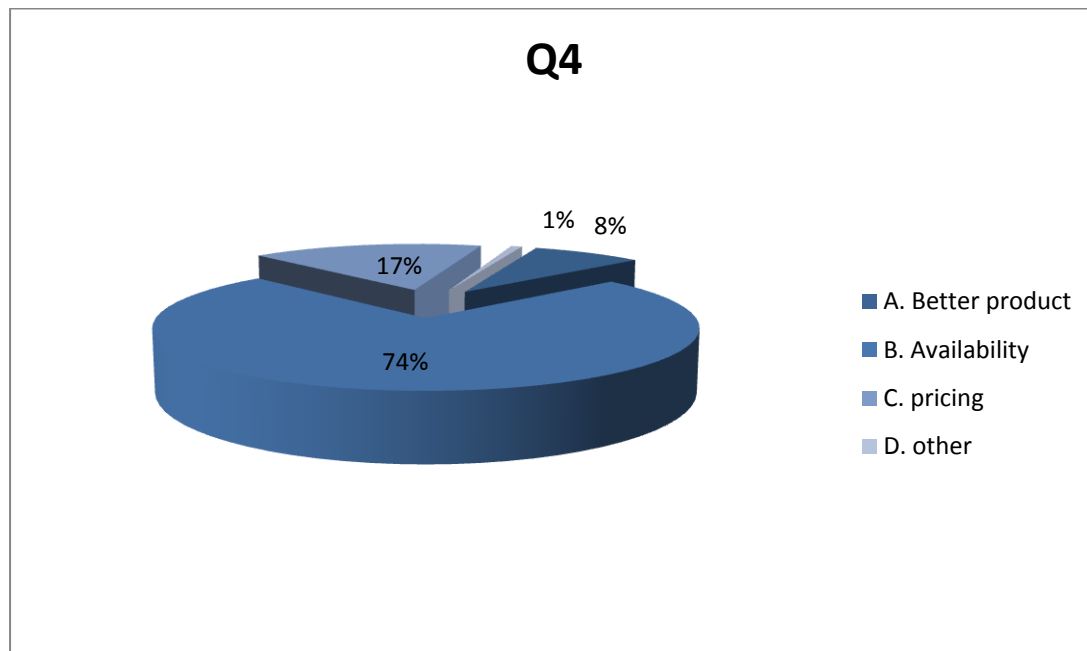
From the above Bar Graph, it is analysed that availability of Hepatitis B Ig is good.

- According to 6% of doctors availability of Hepatitis B Ig is Excellent
- 79% doctors said that the availability is good
- 15% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



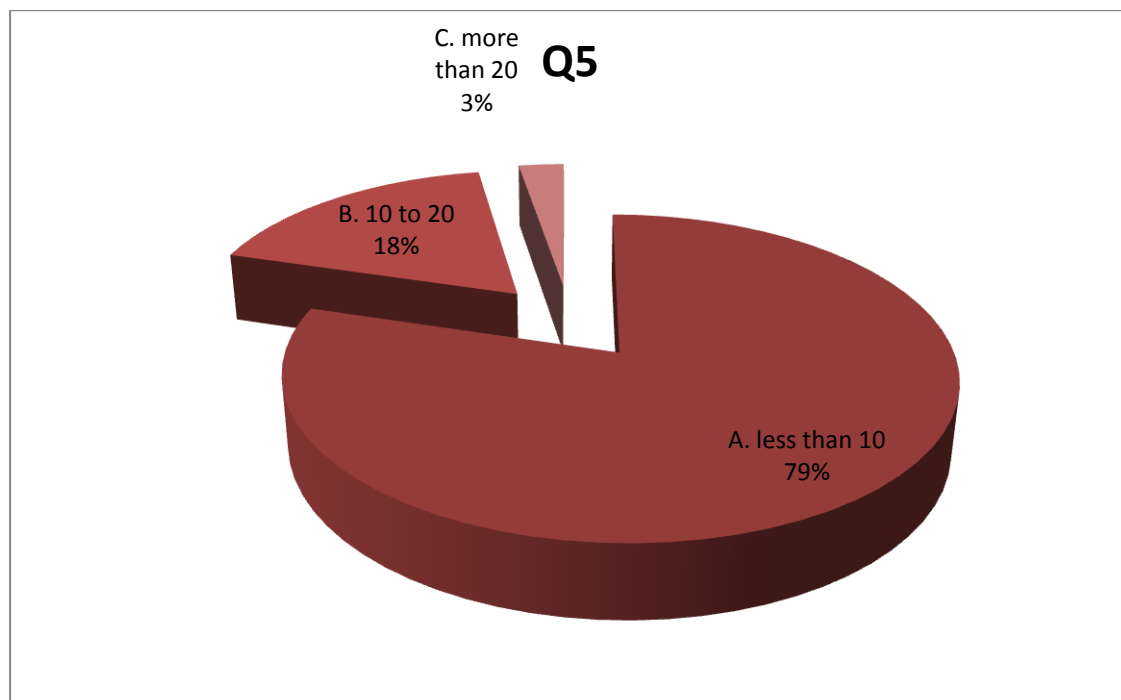
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- Around 8% doctors prefer any brand just because of better product.
- 74% doctors prefer due to availability
- 17% prefer pricing before using Hepatitis B Ig
- 1% said other factors are there while using any brand.

Q5. What is general consumption pattern of Hepatitis B Ig?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis:



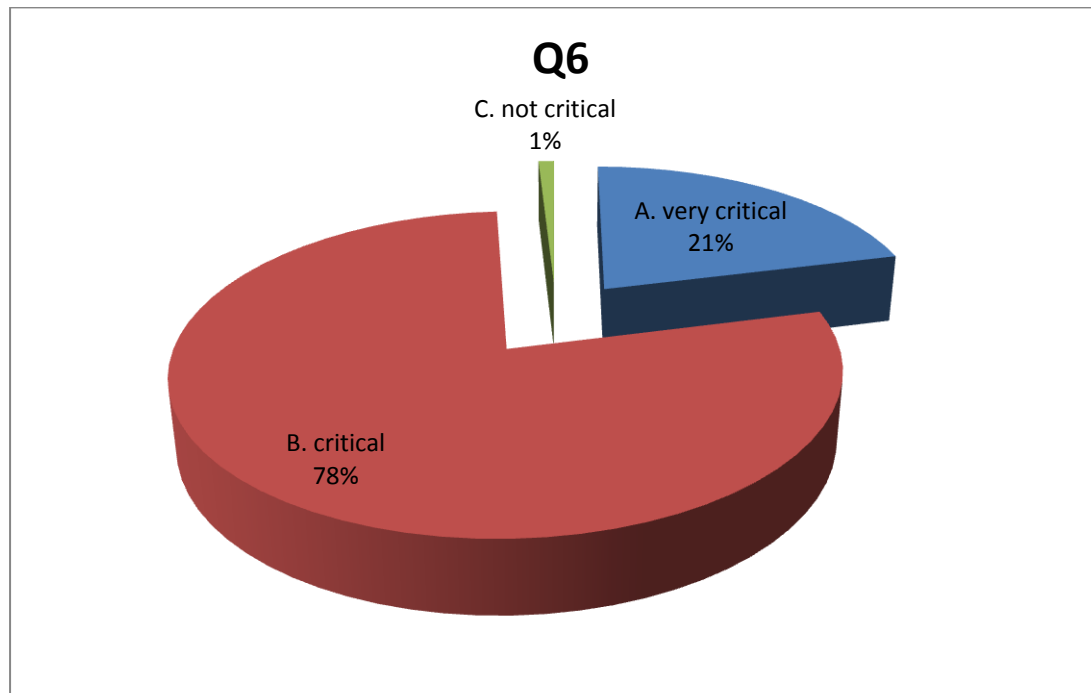
According to the above Pie chart. The general consumption pattern per month of Hepatitis B Ig is:

- 79% doctors whose consumption pattern per month is less than 10
- 18% doctors having consumption pattern is 10-20
- 3% doctors having the same is more than 20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:



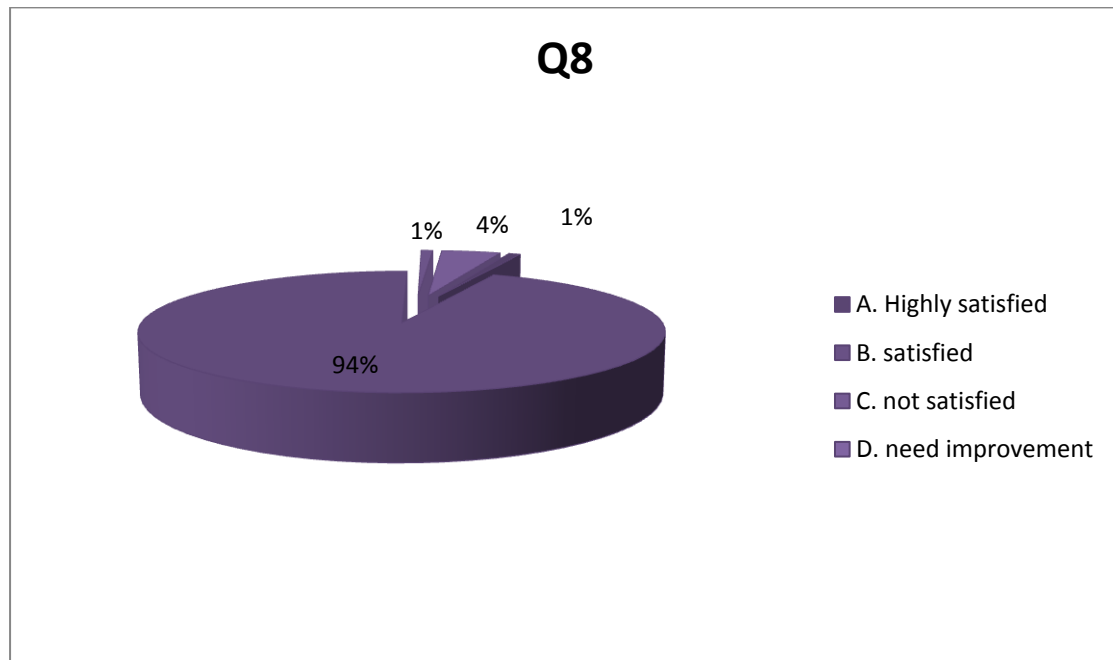
From the above Bar graph. It is estimated that no doctor said that source of plasma is not the critical process.

- Around 21% doctor thinks that is very critical process
- 78% doctors believes it's a critical process
- 1% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



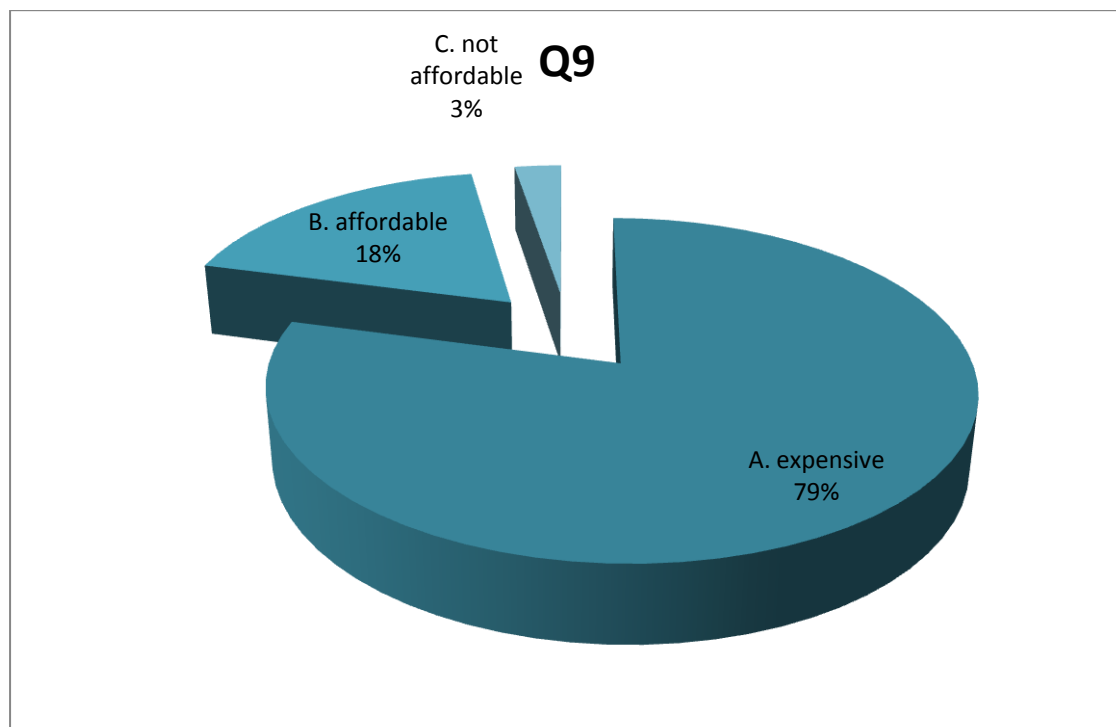
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- It is estimated that 1% doctors are highly satisfied with the quality of currently available brands of plasma products.
- 94% doctors are only satisfied
- 1% are not satisfied
- 4% are need improvement

Q9. Pricing of currently available brands of Hepatitis B Ig?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



From the above graph it shows the pricing of currently available plasma products:

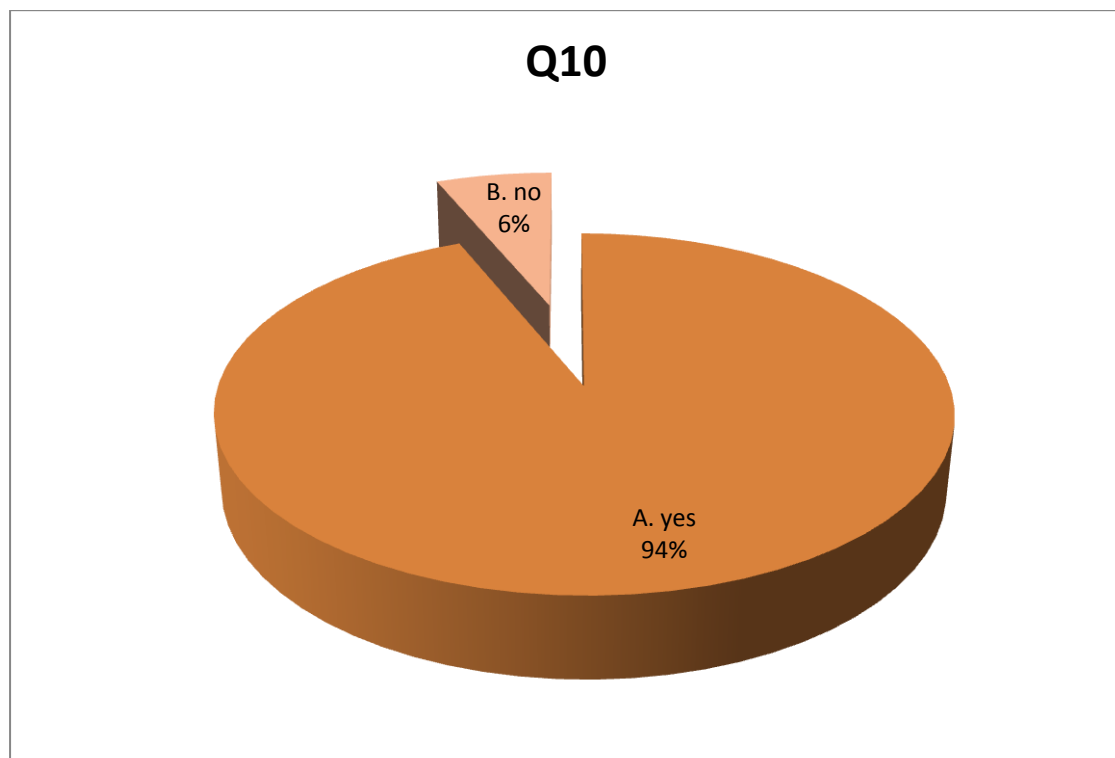
- 79% doctors said that currently available brands of Hepatitis B Ig are expensive.
- 18% doctors said it can be affordable by the patients.
- 3 % said that it is not affordable

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

A. Yes

B. No

Analysis:



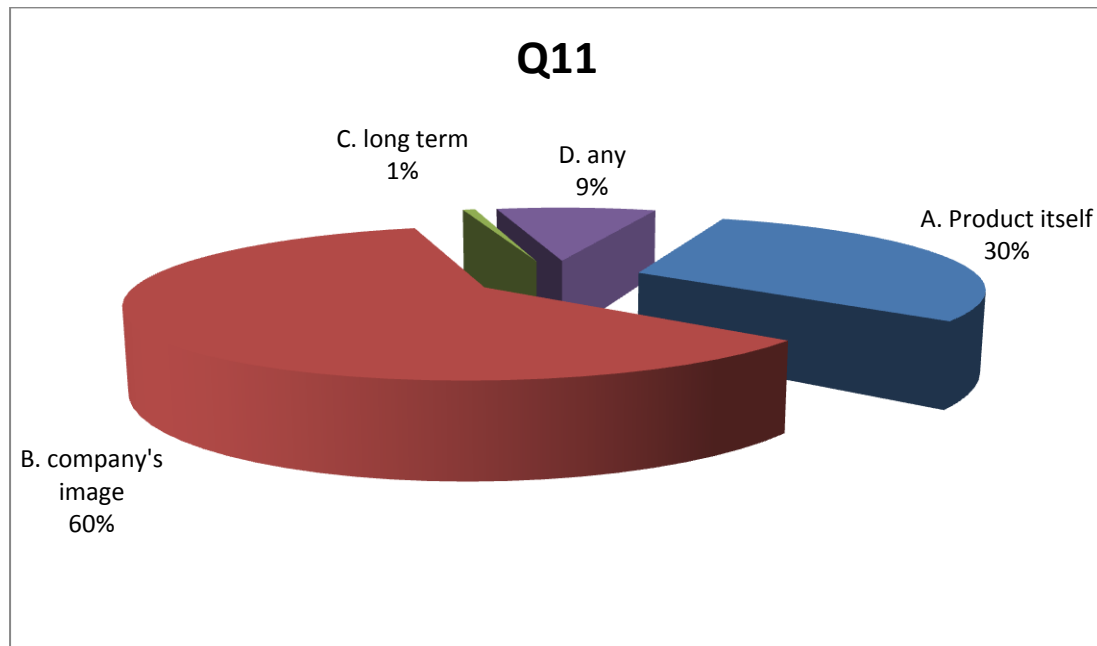
It is analysed from the above Pie chart that:

- According to 94% doctors they believes that yes awareness program is required regarding plasma products.
- 6% doctors said no there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (Hepatitis B Ig)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 30% doctors believe that product itself must be good.
- 60% doctors said that company's image and safety records are important
- 1% doctors think that long term relationship is there.
- 9% doctors said for any other factor

Data Analysis and Interpretation of Anti-D Immunoglobulin

Open ended questions answers given by doctors regarding Anti -d Immunoglobulin.

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company
- Bharat Serum
- Alburil
- Intas
- Reliance
- Rhoclone

Q7. Any safety issues for Anti-D?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing Anti-D to the patients?

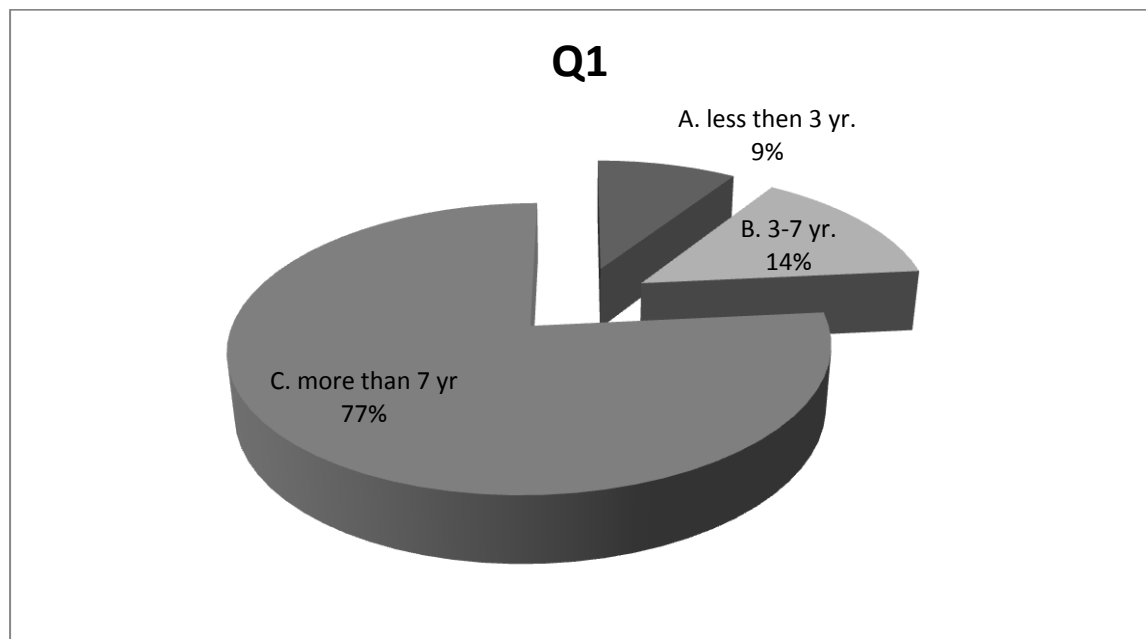
- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of Anti-D

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis:



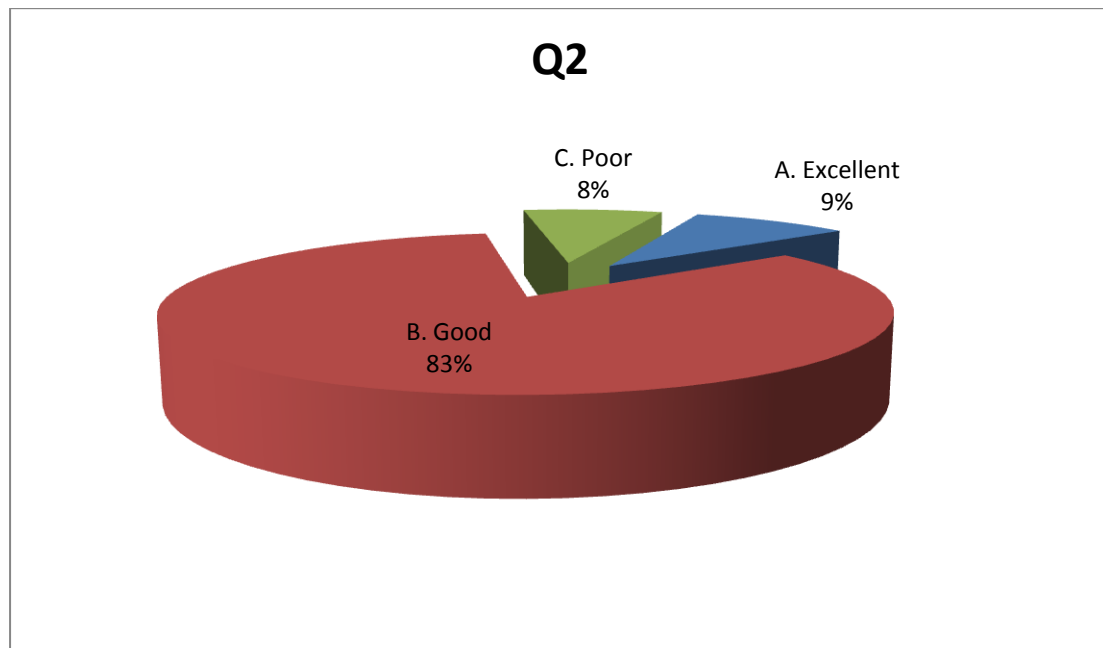
On the basis of this Pie chart, it is analysed that:

- 9% doctors are using Anti-D less than 3 yrs
- 14% doctors are using the same between 3 to 7 yrs
- There are 77% doctors who are using Anti-D more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



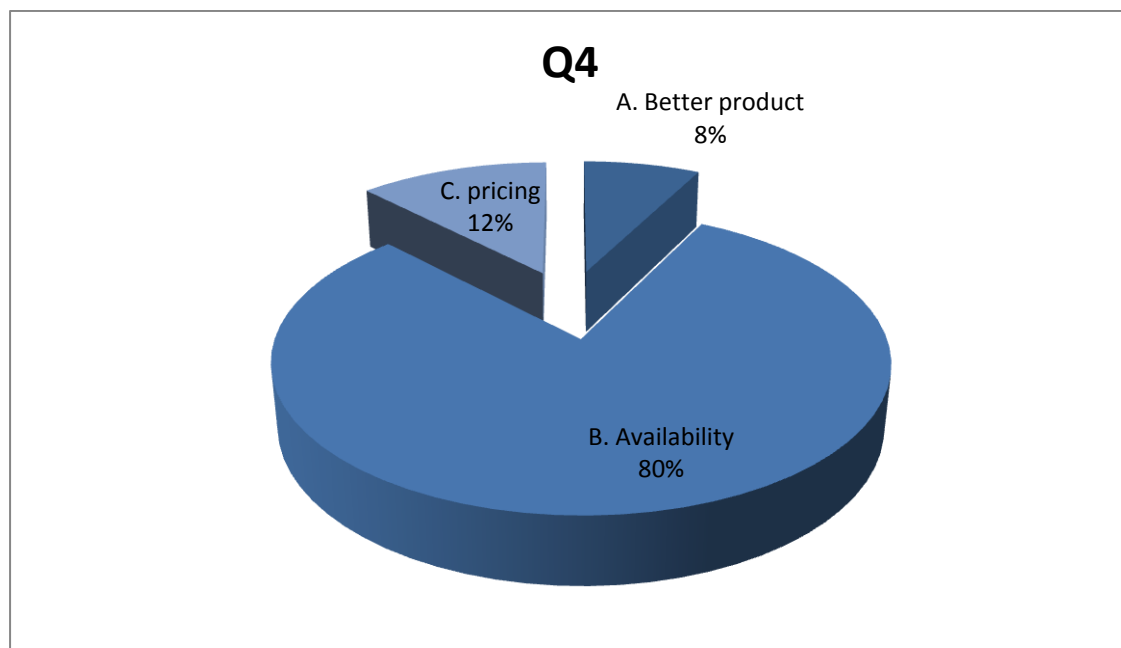
From the above Bar Graph, it is analysed that availability of Anti-D is good.

- According to 9% of doctors availability of Anti-D is Excellent
- 83% doctors said that the availability is good
- 8% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



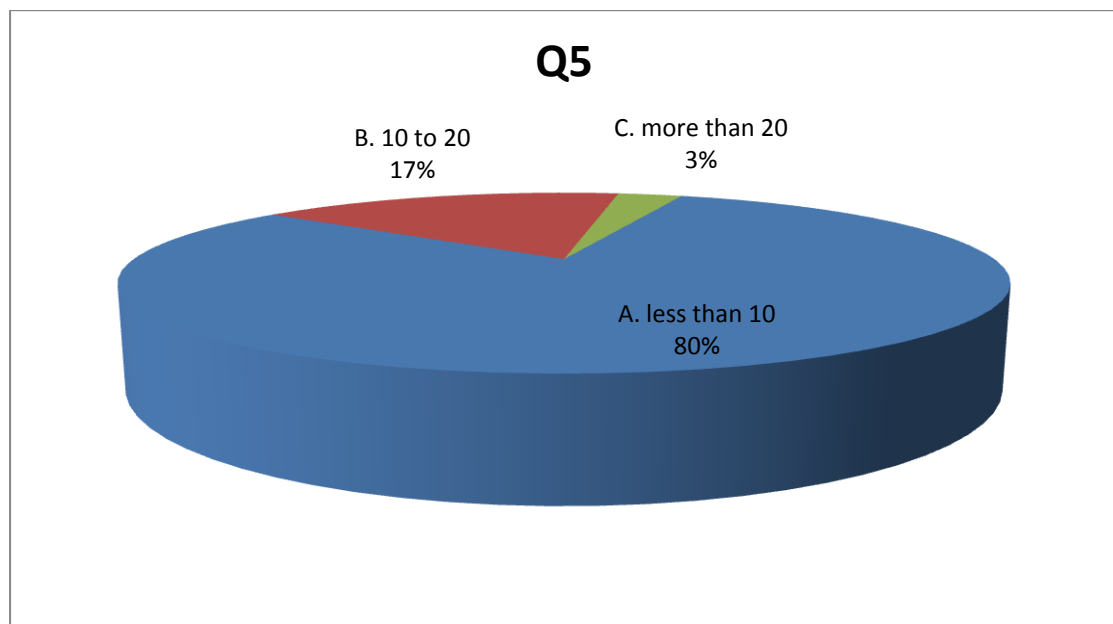
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- Around 8% doctors prefer any brand just because of better product.
- 80% doctors prefer due to availability
- 12% prefer pricing before using Anti-D
- 0% said other factors are there while using any brand.

Q5. What is general consumption pattern of Anti-D?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis:



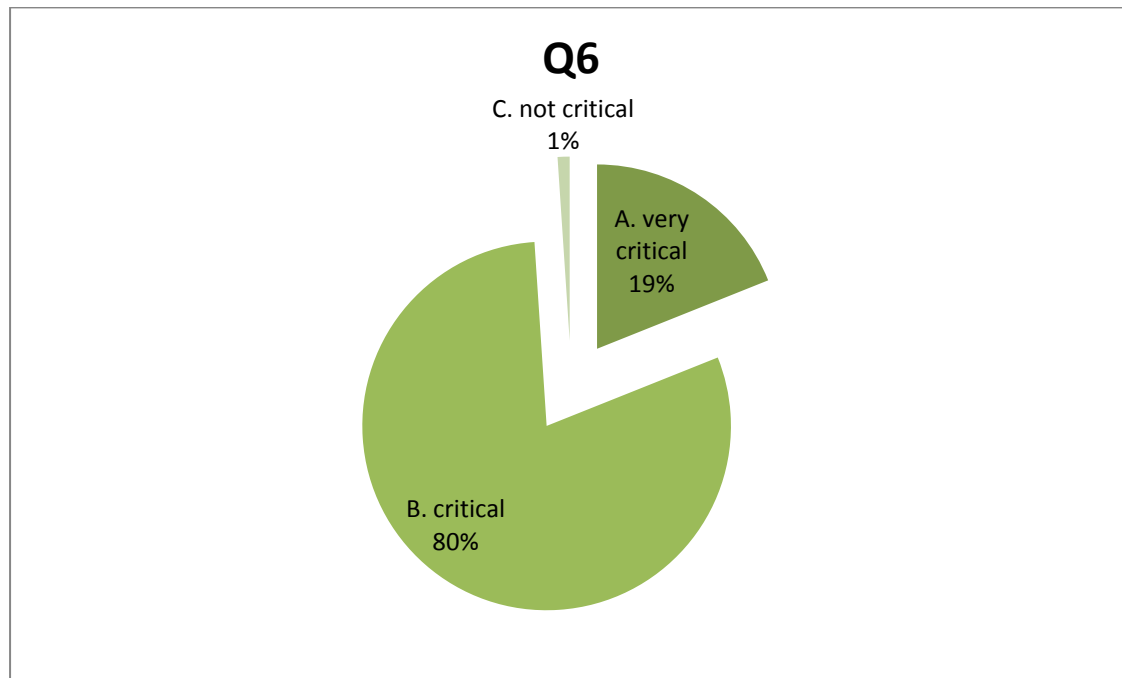
According to the above Pie chart. The general consumption pattern per month of Anti-D is:

- 80% doctors whose consumption pattern per month is less than 10
- 17% doctors having consumption pattern is 10-20
- 3% doctors having the same is more than 20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:



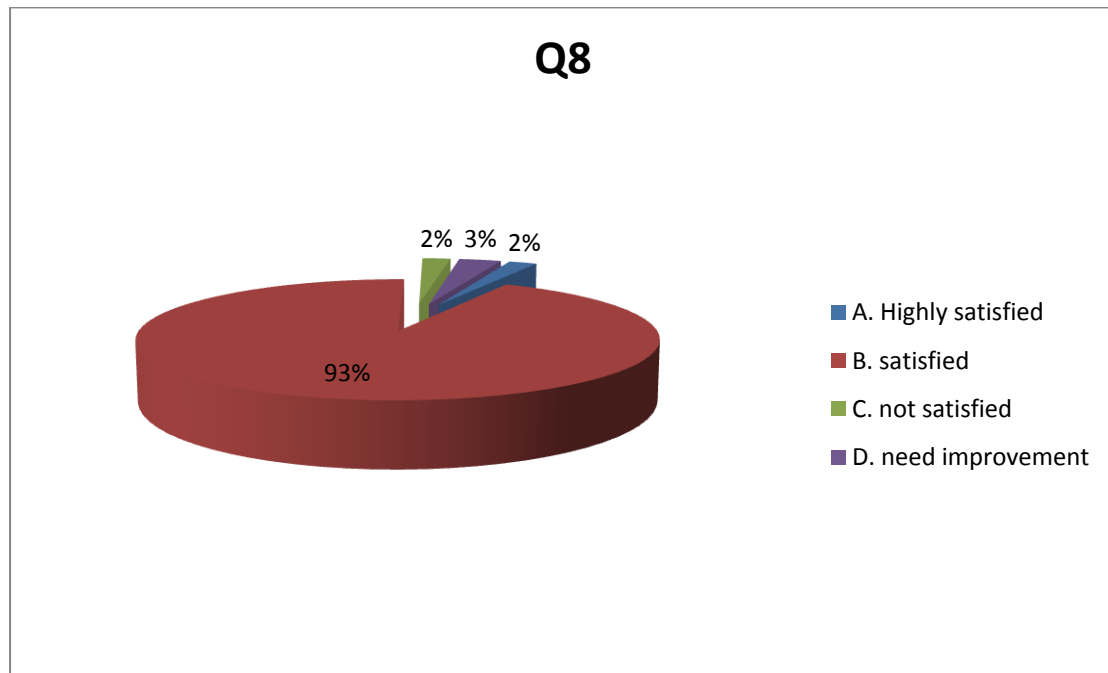
From the above Bar graph, it is estimated that no doctor said that source of plasma is not the critical process.

- Around 19% doctor thinks that is very critical process
- 80% doctors believes it's a critical process
- 1% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



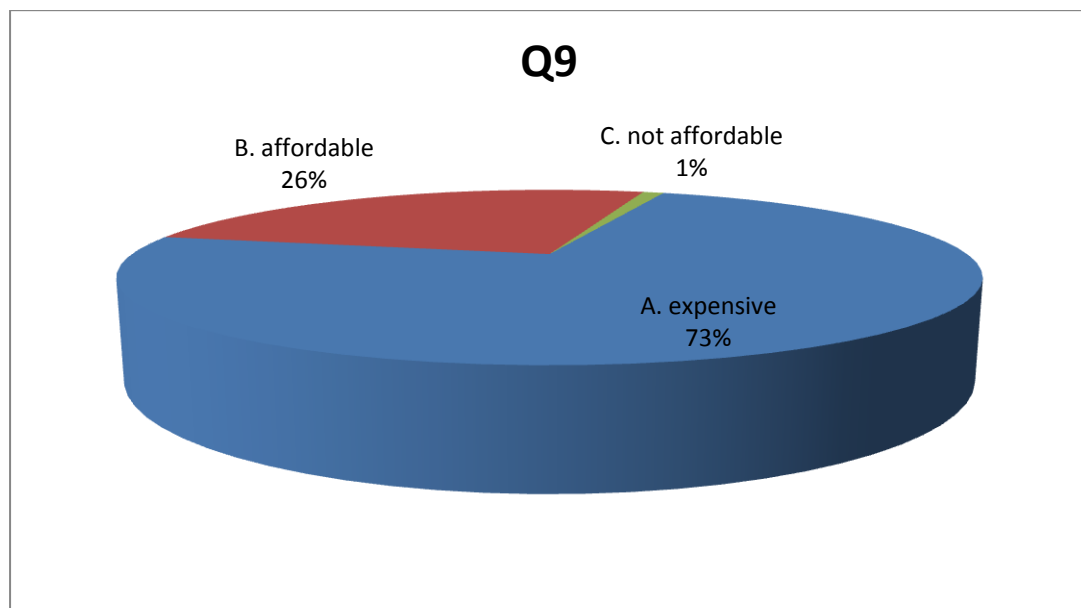
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- It is estimated that 2% doctors are highly satisfied with the quality of currently available brands of plasma products.
- 93% doctors are only satisfied
- 3% are not satisfied
- And according to 2% doctors the brands of plasma products need improvement.

Q9. Pricing of currently available brands of Anti-D?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



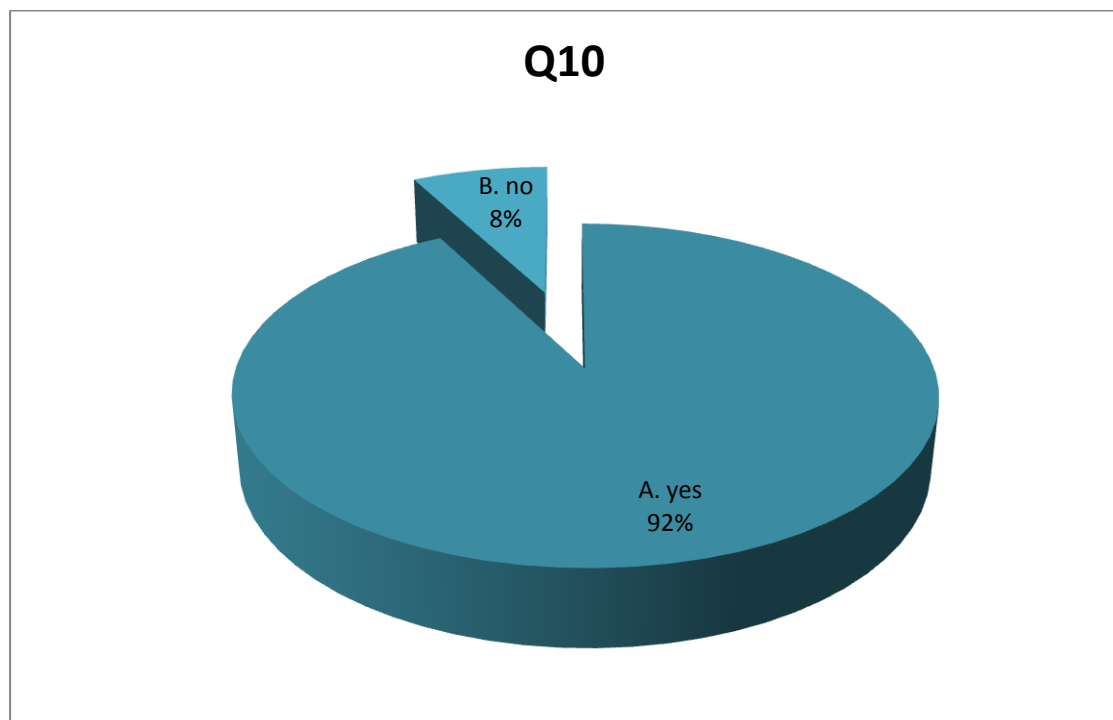
From the above graph it shows the pricing of currently available plasma products:

- 73% doctors said that currently available brands of Anti-D are expensive.
- 26% doctors said it can be affordable by the patients.
- 1% said that it is not affordable

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

- A. Yes
- B. No

Analysis:



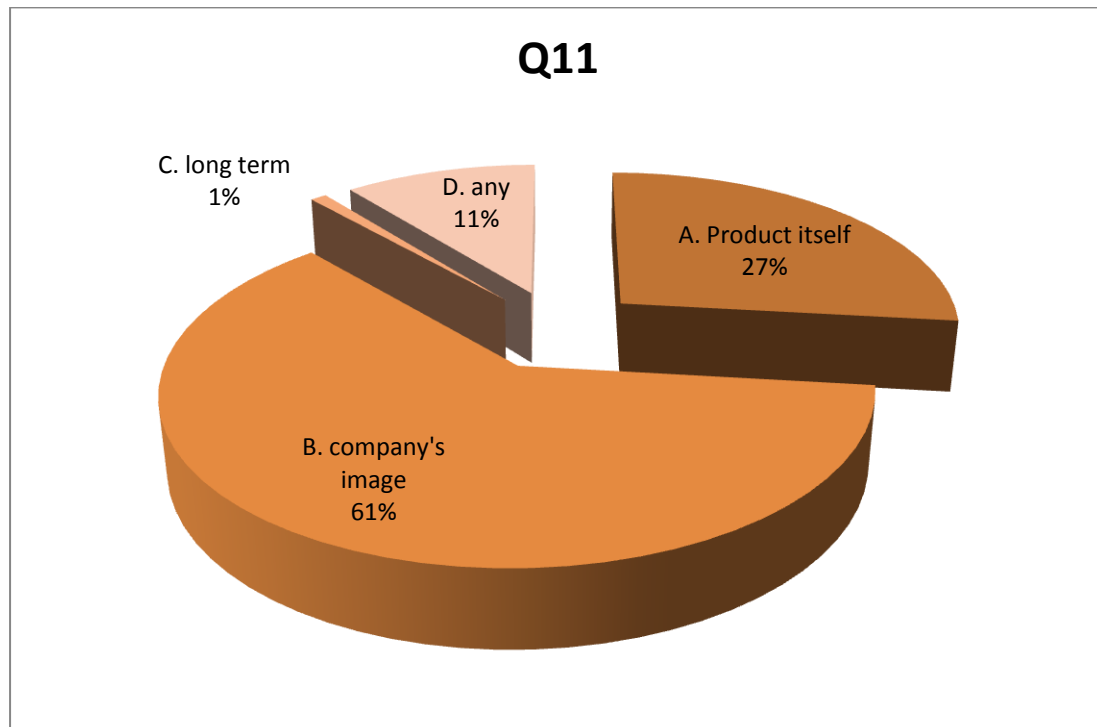
It is analysed from the above Pie chart that:

- According to 92% doctors they believes that yes awareness program is required regarding plasma products.
- 8% doctors said no there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (Anti-D)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 27% doctors believe that product itself must be good.
- 61% doctors said that company's image and safety records are important
- 1% doctors think that long term relationship is there.
- 11% doctors said for any other factor.

Data Analysis and Interpretation of Anti Rabies Ig (immunoglobulin)

Open ended questions answers given by doctors regarding Anti Rabies Ig (Immunoglobulin)

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company
- Bharat Serum
- Alburil
- Intas
- Reliance
- Rhoclone

Q7. Any safety issues for Anti Rabies Ig (Immunoglobulin)?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing Anti Rabies Ig (Immunoglobulin) to the patients?

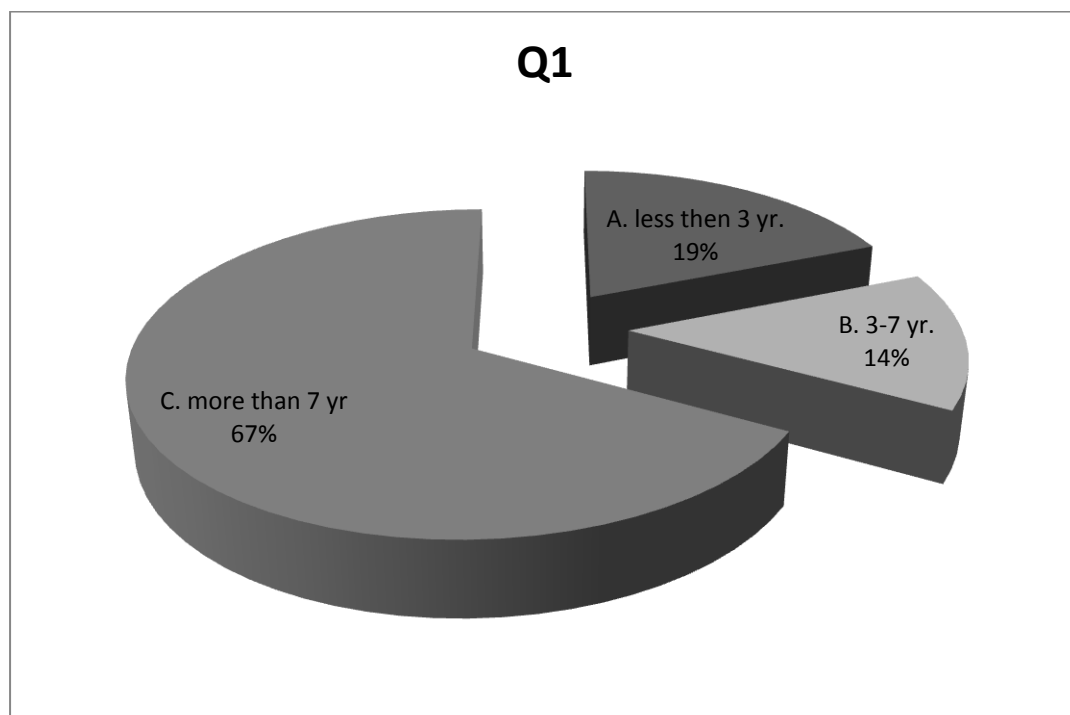
- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of Anti Rabies Ig (Immunoglobulin)

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis:



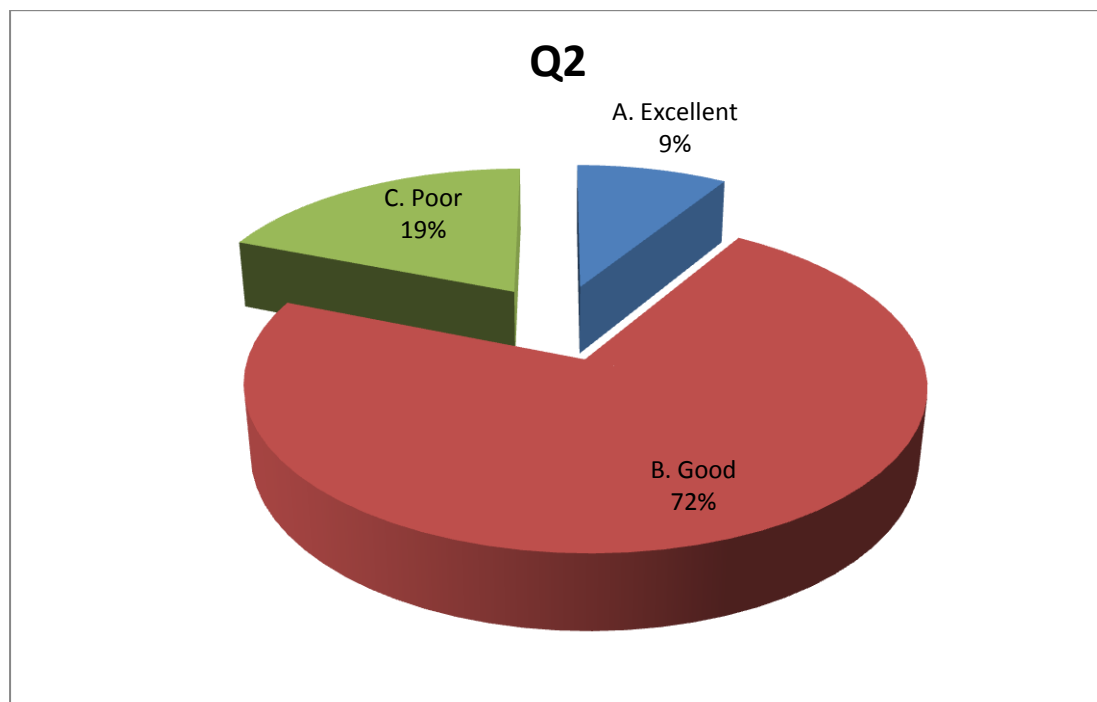
On the basis of this Pie chart, it is analysed that:

- 19% doctors are using Anti Rabies Ig (Immunoglobulin) less than 3 yrs
- 14% doctors are using the same between 3 to 7 yrs
- There are 67% doctors who are using Anti Rabies Ig (Immunoglobulin) more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



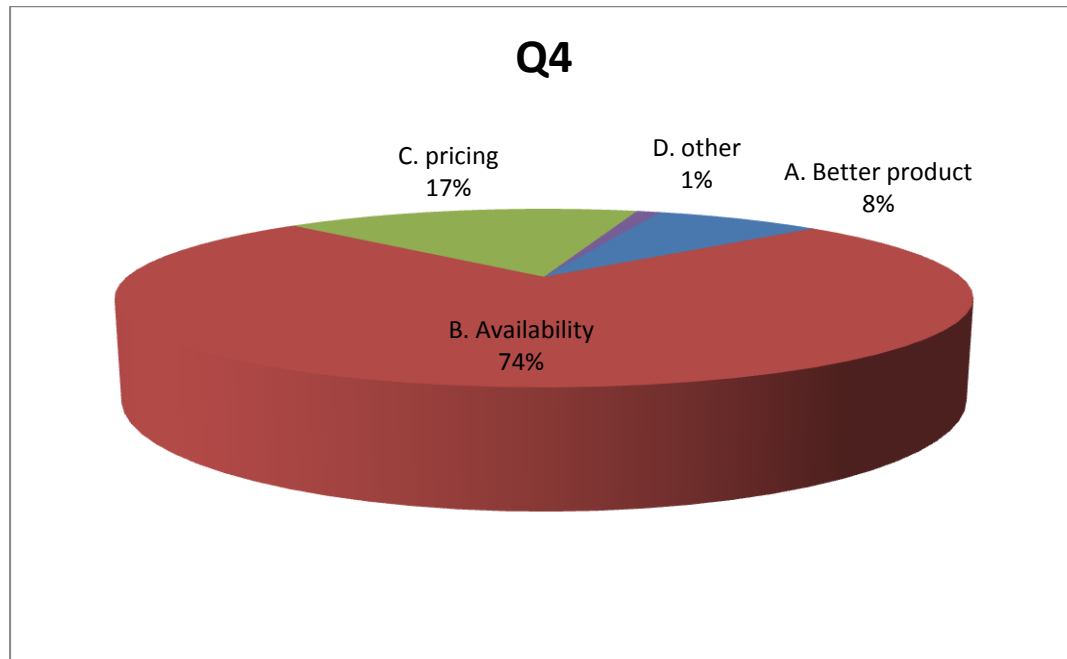
From the above Bar Graph, it is analysed that availability is good.

- According to 9% of doctors availability of Anti Rabies Ig (Immunoglobulin) is Excellent
- 72% doctors said that the availability is good
- 19% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



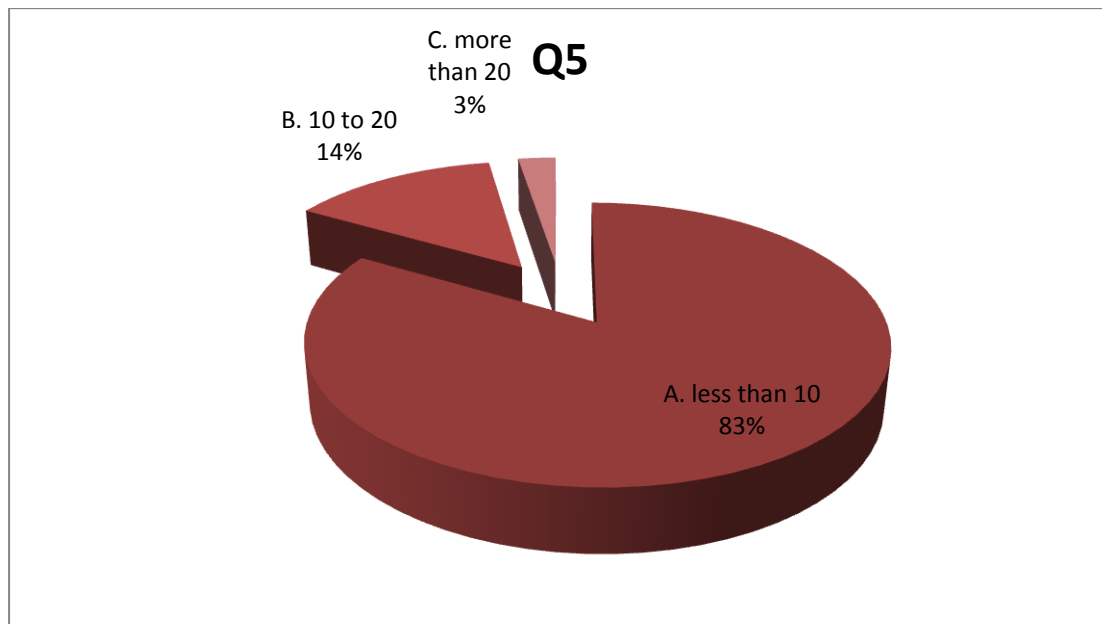
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- Around 8% doctors prefer any brand just because of better product.
- 74% doctors prefer due to availability
- 17% prefer pricing before using Anti rabies Ig
- 1% said other factors are there while using any brand.

Q5. What is general consumption pattern of Anti Rabies Ig?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis:



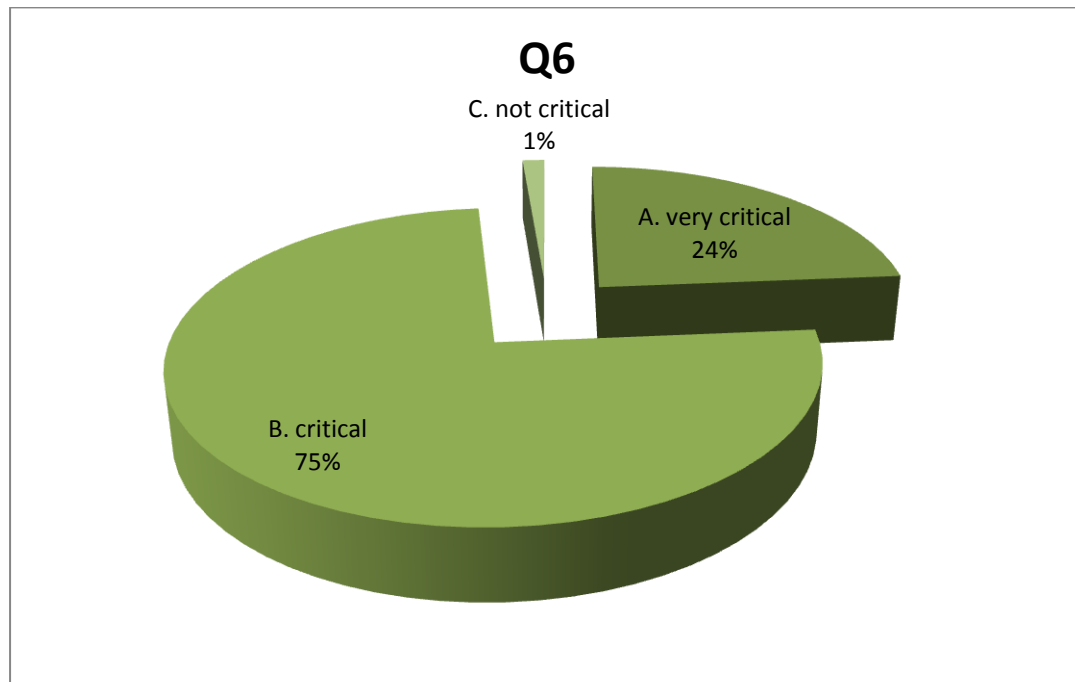
According to the above Pie chart. The general consumption pattern per month of Anti Rabies Ig is:

- 83% doctors whose consumption pattern per month is less than 10
- 14% doctors having consumption pattern is 10-20
- 3% doctors having the same is more than 20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis



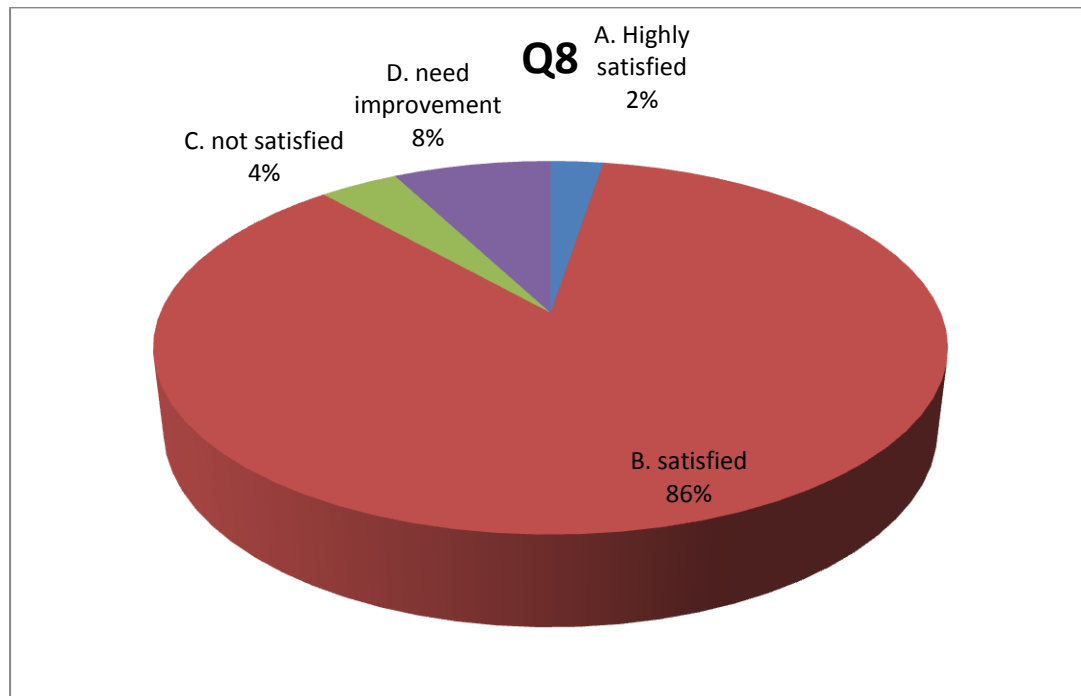
From the above Bar graph. it is estimated that no doctor said that source of plasma is not the critical process.

- Around 24% doctor thinks that is very critical process
- 75% doctors believes it's a critical process
- 1% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



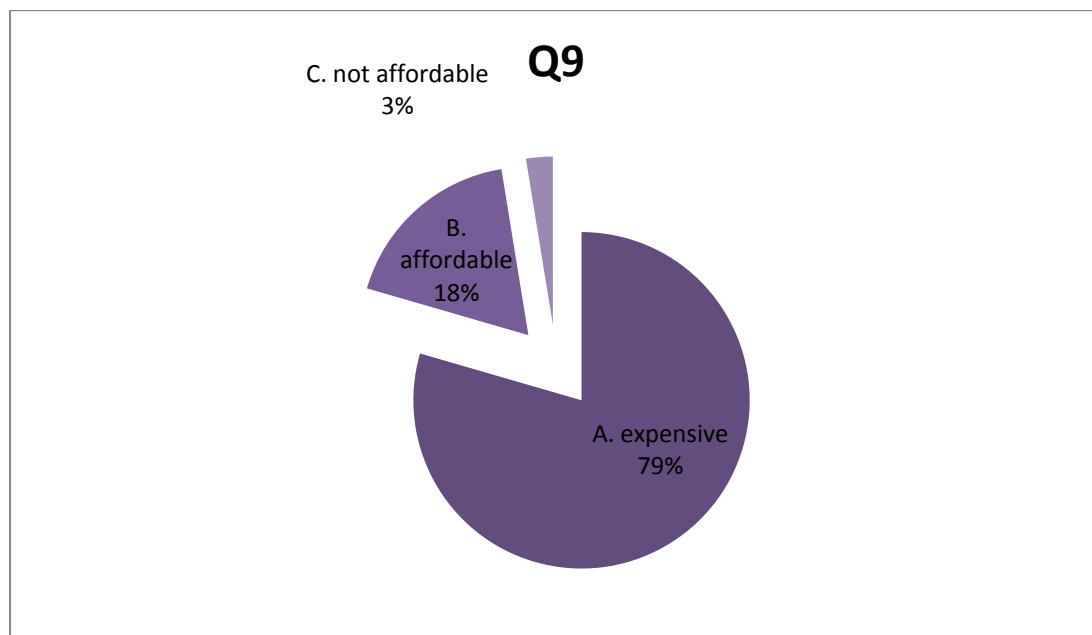
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- It is estimated that 2% doctors are highly satisfied with the quality of currently available brands of plasma products.
- 86% doctors are only satisfied
- 4% are not satisfied
- And according to 8% doctors the brands of plasma products need improvement.

Q9. Pricing of currently available brands of Anti Rabies Ig?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



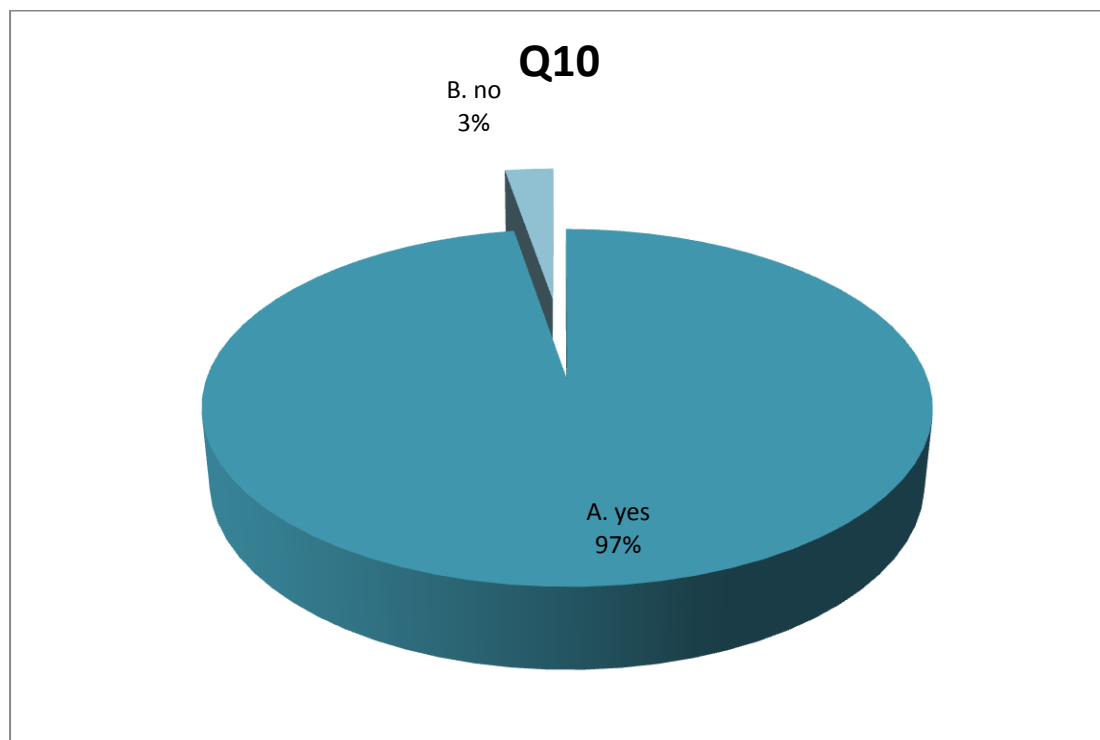
From the above graph it shows the pricing of currently available plasma products:

- 79% doctors said that currently available brands of Anti Rabies Ig are expensive.
- 18% doctors said it can be affordable by the patients.
- 3% said that it is not affordable

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

- A. Yes
- B. No

Analysis:



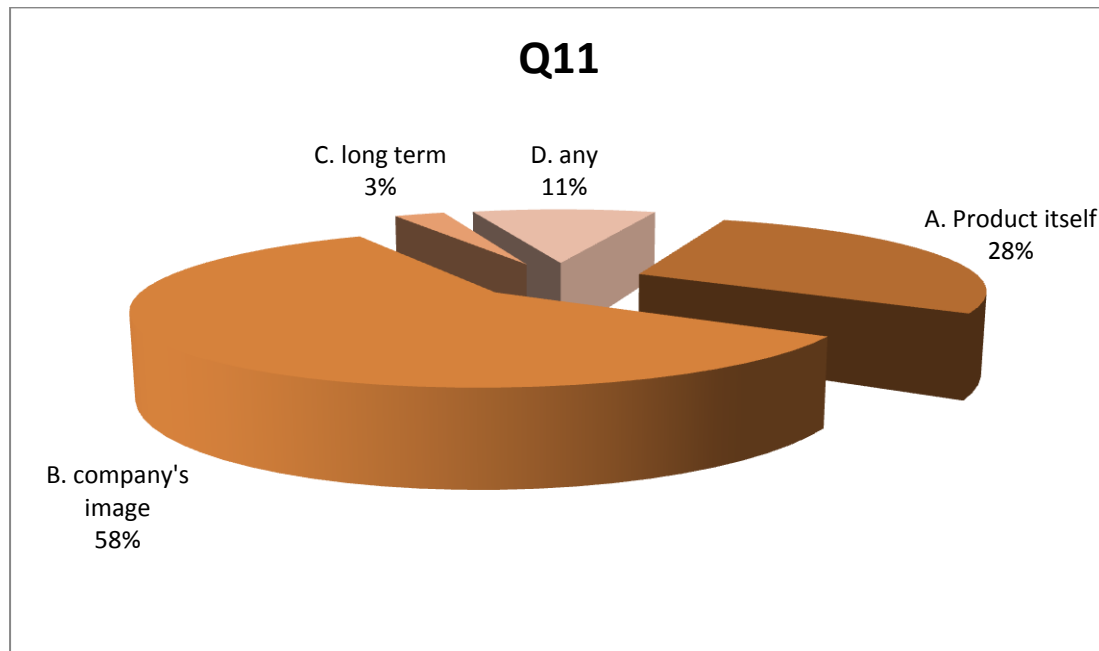
It is analysed from the above Pie chart that:

- According to 97% doctors they believes that yes awareness program is required regarding plasma products.
- 3% doctors said no there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (Anti Rabies Ig)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 28% doctors believe that product itself must be good.
- 58% doctors said that company's image and safety records are important
- 3% doctors think that long term relationship is there.
- 11% doctors think for any other factor.

Data Analysis and Interpretation of FIBRIN SEALANT

Open ended questions answers given by doctors regarding Fibrin Sealant

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company
- Bharat Serum
- Reliance

Q7. Any safety issues for Fibrin Sealant?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing Fibrin Sealant to the patients?

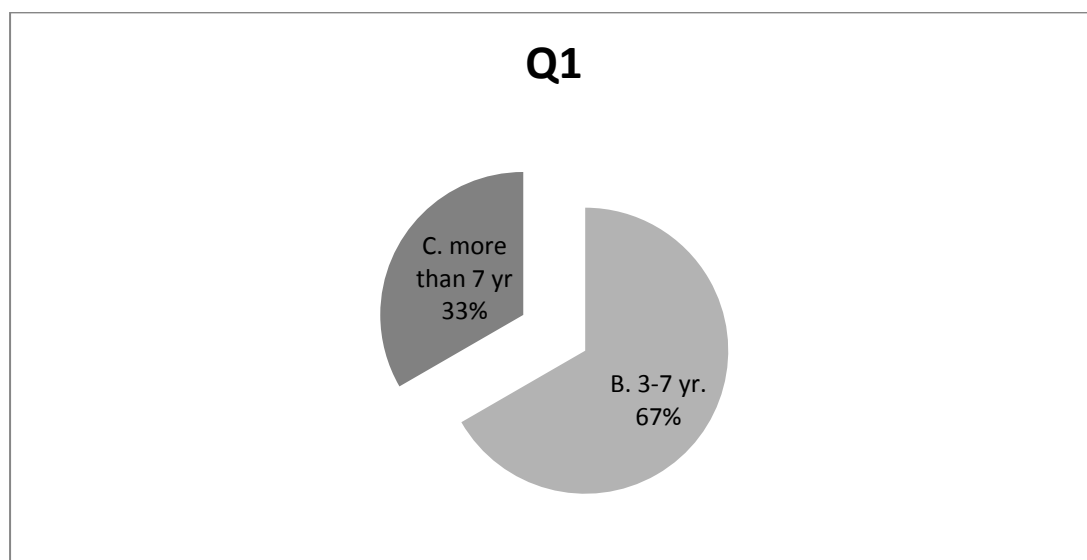
- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of FIBRIN SEALANT

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis



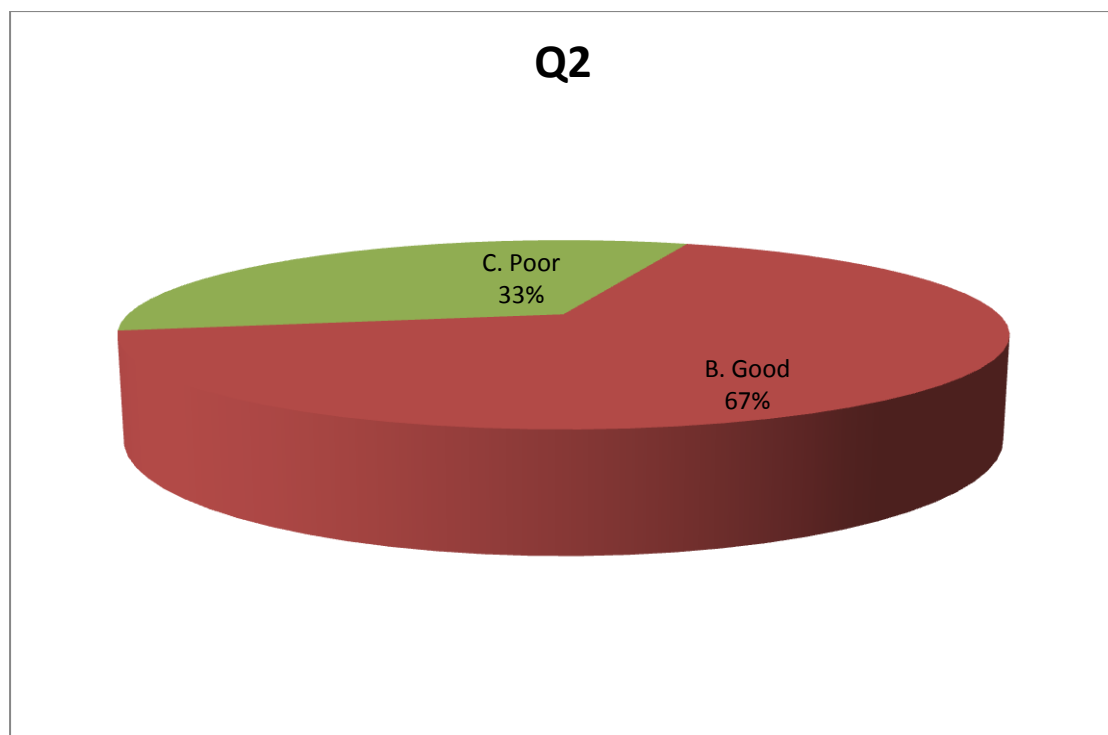
On the basis of this Pie chart, it is analysed that:

- 0% doctors are using Fibrin Sealant less than 3 yrs
- 67% doctors are using the same between 3 to 7 yrs
- There are 33% doctors who are using Fibrin Sealant more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



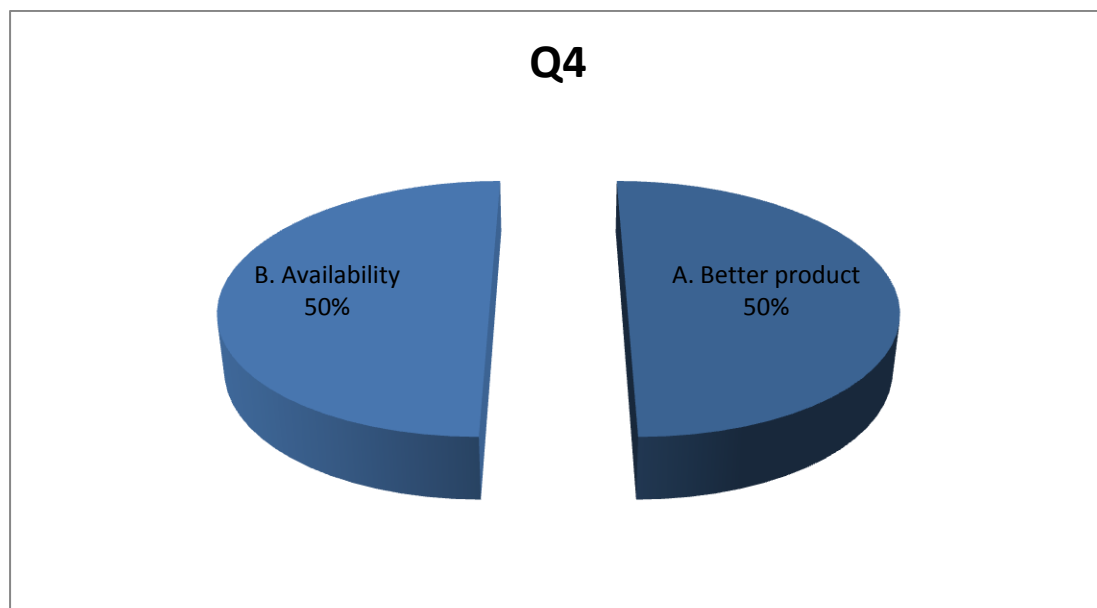
From the above Bar Graph, it is analysed that availability of Fibrin Sealant is good.

- According to 0% of doctors availability of Fibrin Sealant is Excellent
- 67% doctors said that the availability is good
- 33% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



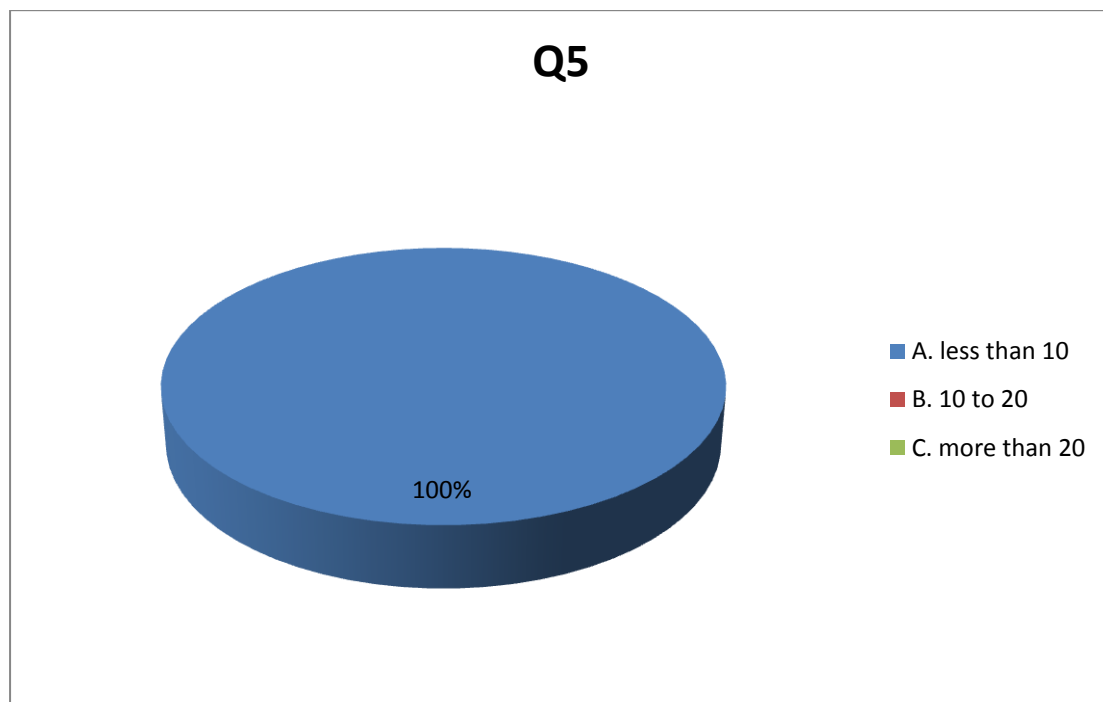
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- Around 50% doctors prefer any brand just because of better product.
- 50% doctors prefer due to availability
- 0% prefer pricing before using Fibrin Sealant
- 0% said other factors are there while using any brand.

Q5. What is general consumption pattern of Fibrin Sealant?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis:



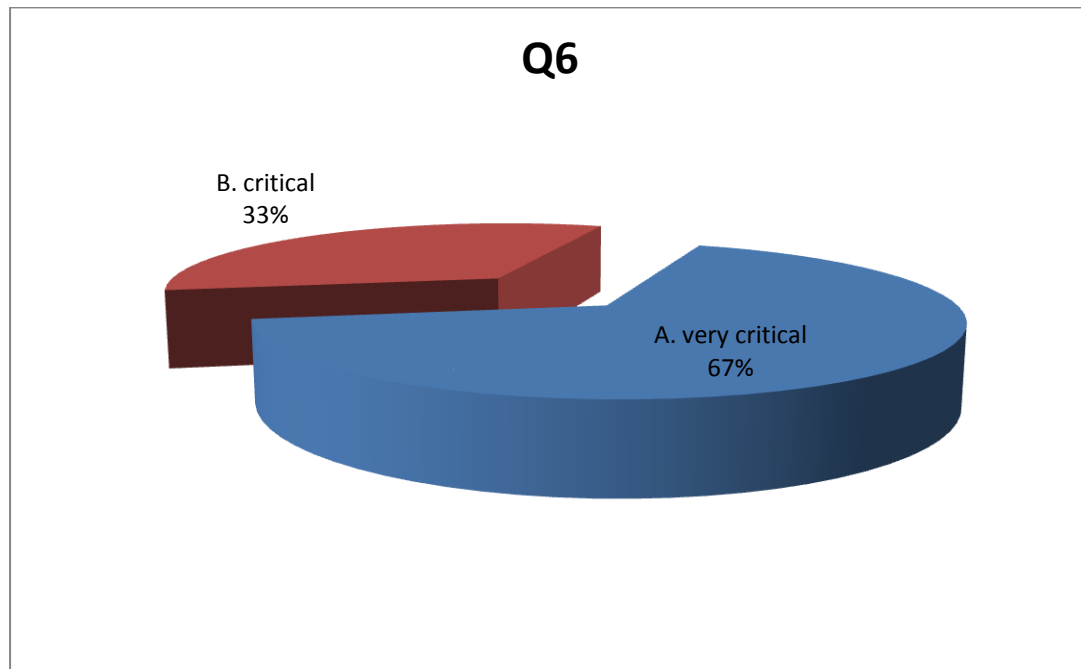
According to the above Pie chart. The general consumption pattern per month of Fibrin Sealant is

- 100% doctors whose consumption pattern per month is less than 10
- No doctors having consumption pattern is 10-20
- No doctors having the same is more than 20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:



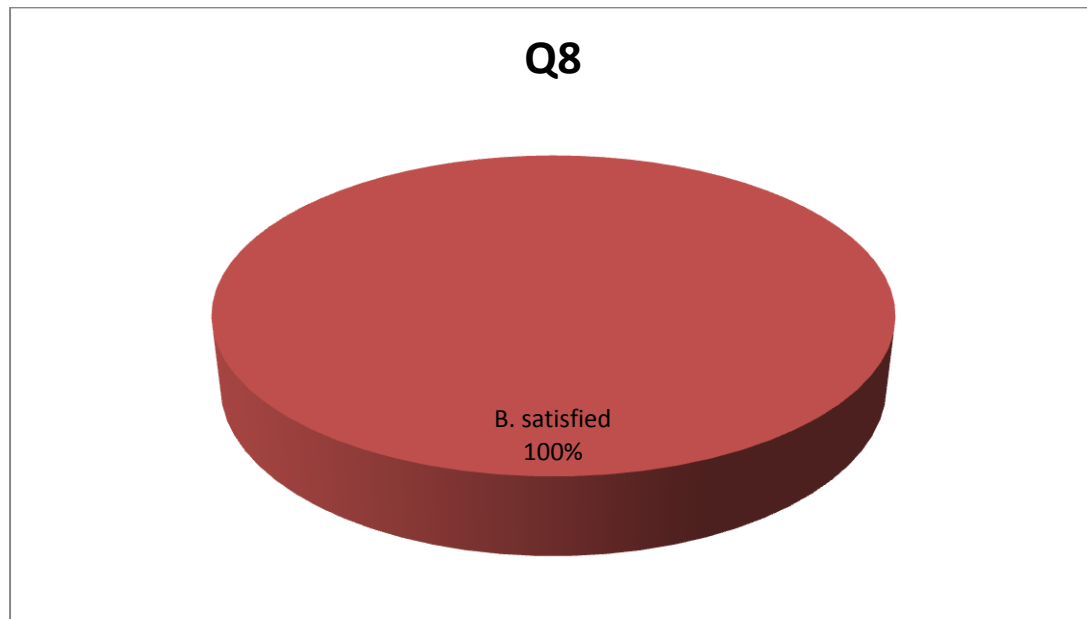
From the above Bar graph. It is estimated that no doctor said that source of plasma is not the critical process.

- Around 67% doctor thinks that is very critical process
- 33% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



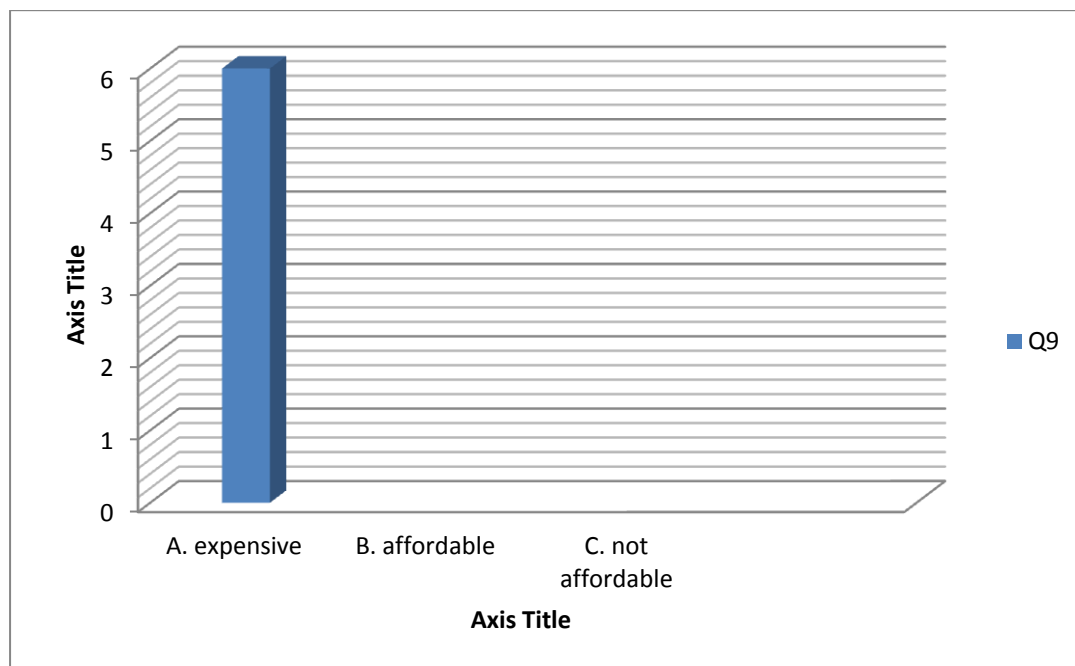
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- It is estimated that 0% doctors are highly satisfied with the quality of currently available brands of plasma products.
- 100% doctors are only satisfied
- None are not satisfied
- And according to No doctors the brands of plasma products need improvement.

Q9. Pricing of currently available brands of Fibrin Sealant?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



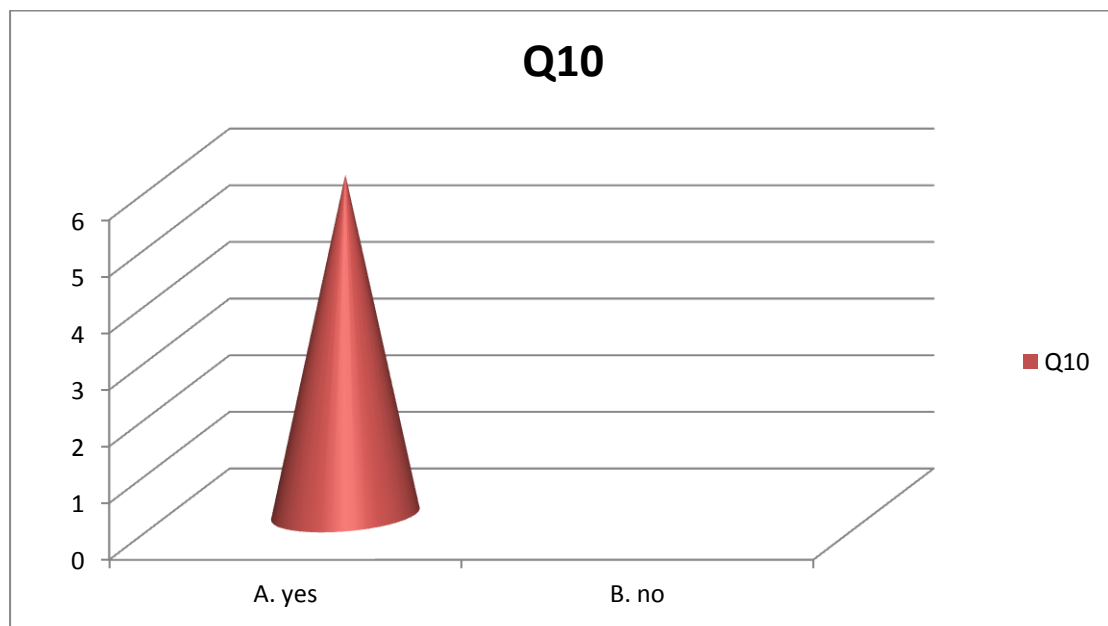
From the above graph it shows the pricing of currently available plasma products:

- 100% doctors said that currently available brands of Fibrin Sealant are Expensive.
- No doctors said it can be affordable by the patients.
- No said that it is not affordable

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

- A. Yes
- B. No

Analysis:



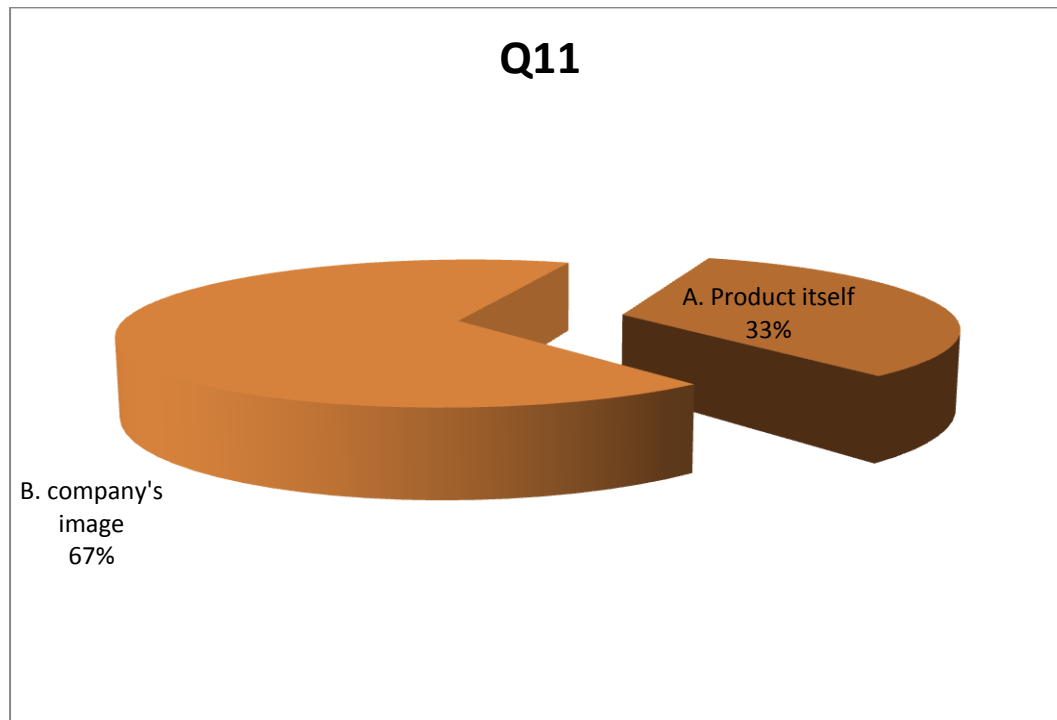
It is analysed from the above Pie chart that:

- According to 100% doctors they believes that yes awareness program is required regarding plasma products.
- 0% doctors said no there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (Fibrin Sealant)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 33% doctors believe that product itself must be good.
- 67% doctors said that company's image and safety records are important
- No doctors think that long term relationship is there.

Data Analysis and Interpretation of FACTOR VII

Open ended questions answers given by doctors regarding Factor VII

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company
- Bharat Serum
- Alburil
- Intas
- Reliance
- Rhoclone

Q7. Any safety issues for Factor VII?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing Factor VII to the patients?

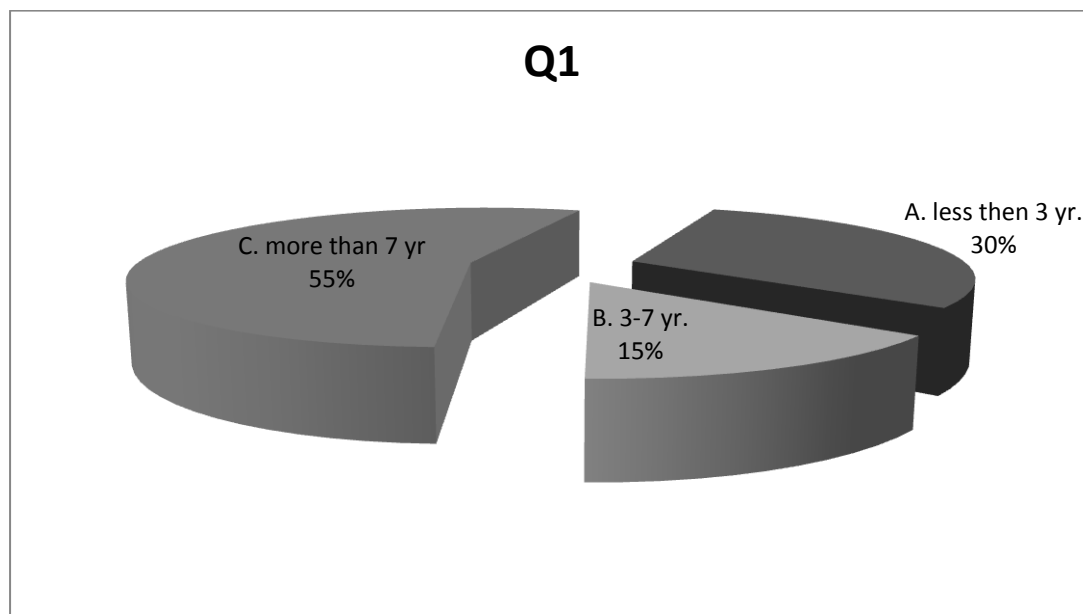
- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of FACTOR VII

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis:



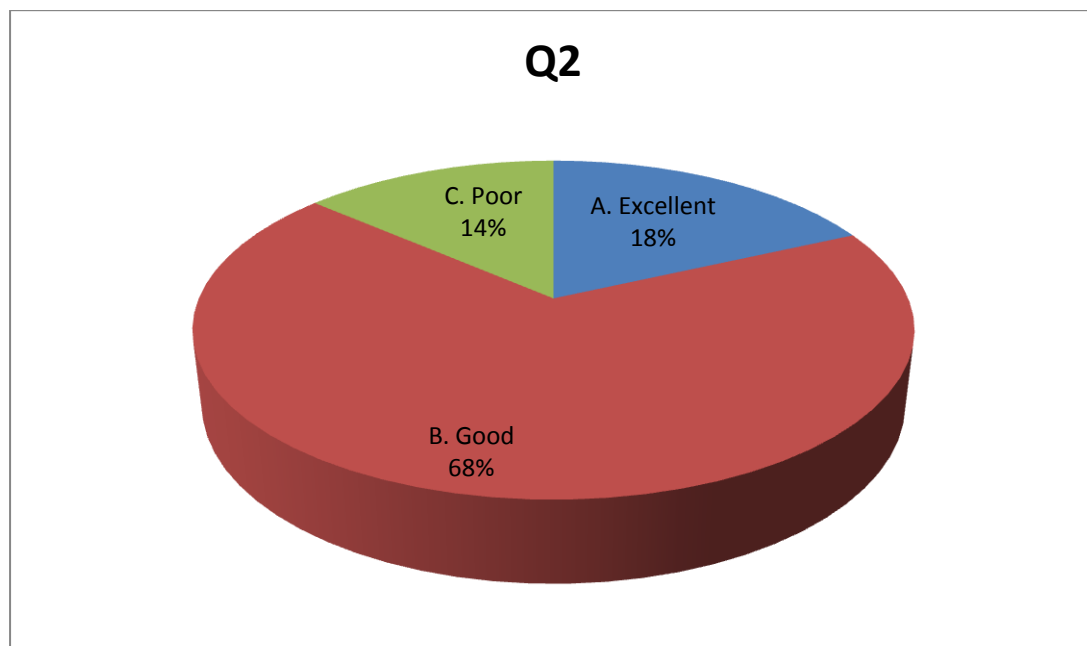
On the basis of this Pie chart, it is analysed that:

- 30% doctors are using Factor VII less than 3 yrs
- 15% doctors are using the same between 3 to 7 yrs
- There are 55% doctors who are using same more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



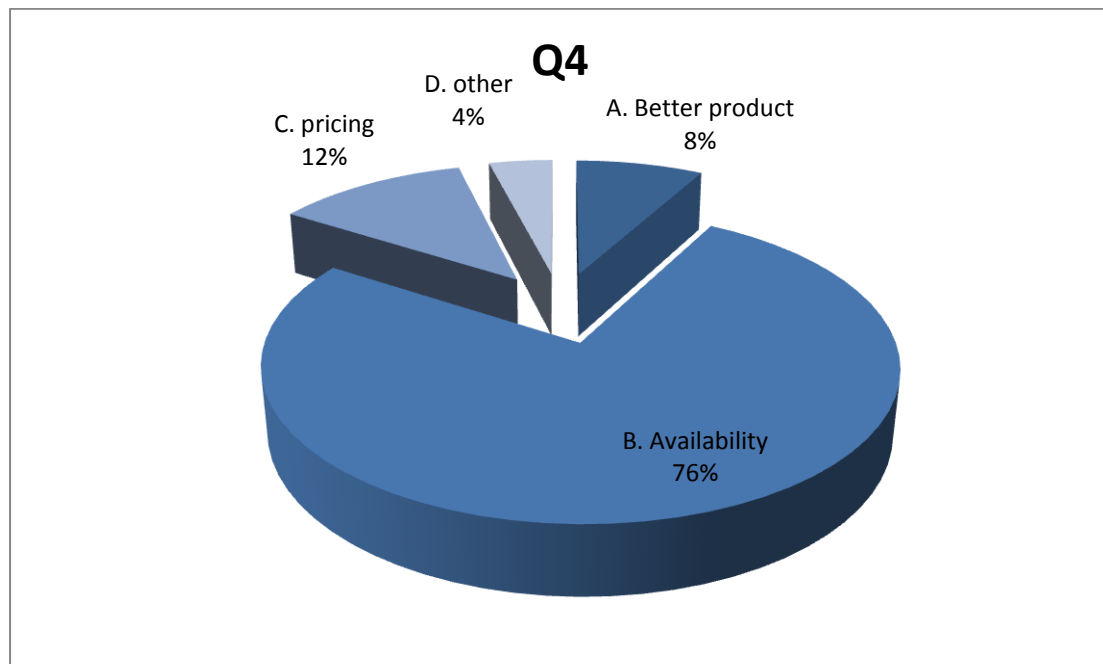
From the above Bar Graph, it is analysed that availability of Factor VII is good.

- According to 18% of doctors availability of Factor VII is Excellent
- 68% doctors said that the availability is good
- 14% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



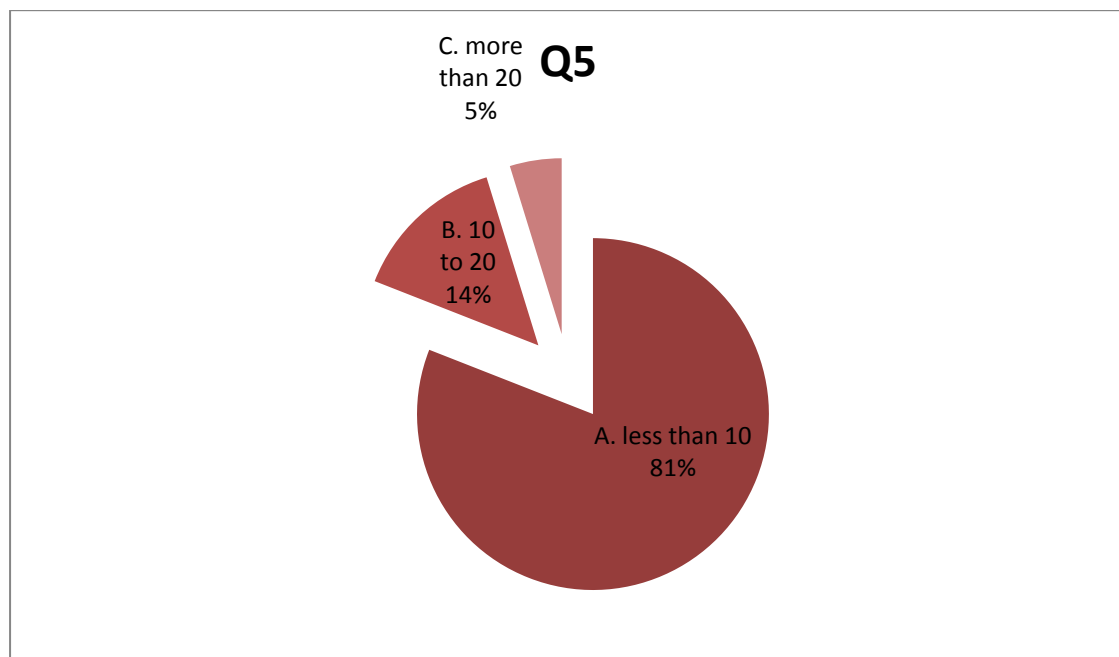
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- Around 8% doctors prefer any brand just because of better product.
- 76% doctors prefer due to availability
- 12% prefer pricing before using Factor VII
- 4% said other factors are there while using any brand.

Q5. What is general consumption pattern of Factor VII?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis:



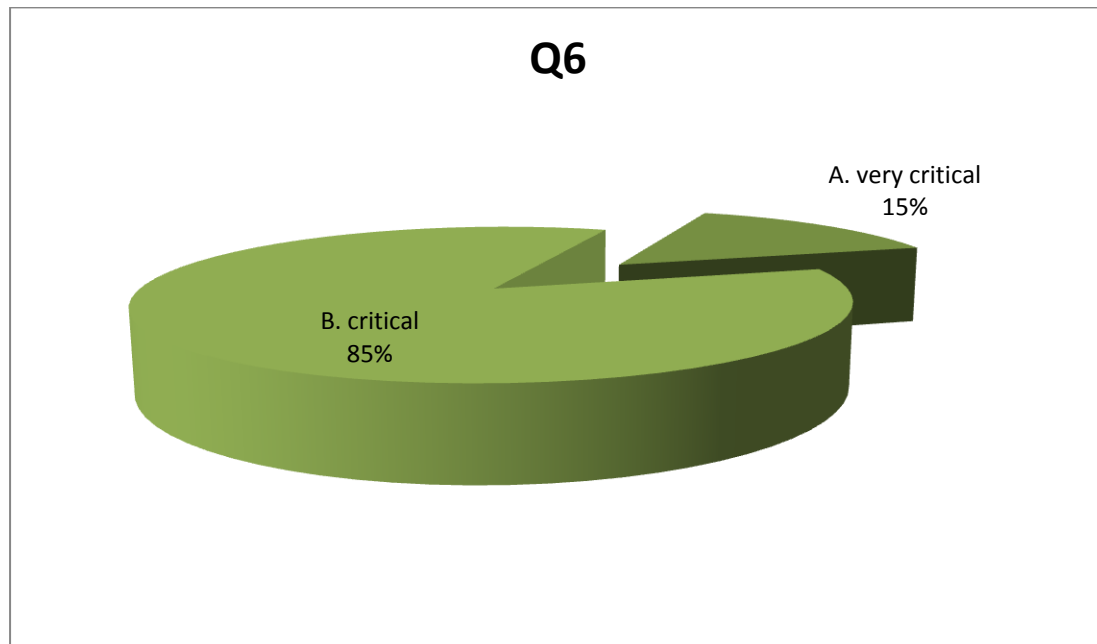
According to the above Pie chart. The general consumption pattern per month of Factor VII is :

- 81% doctors whose consumption pattern per month is less than 10
- 14% doctors having consumption pattern is 10-20
- 5% doctors having the same is more than 20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:



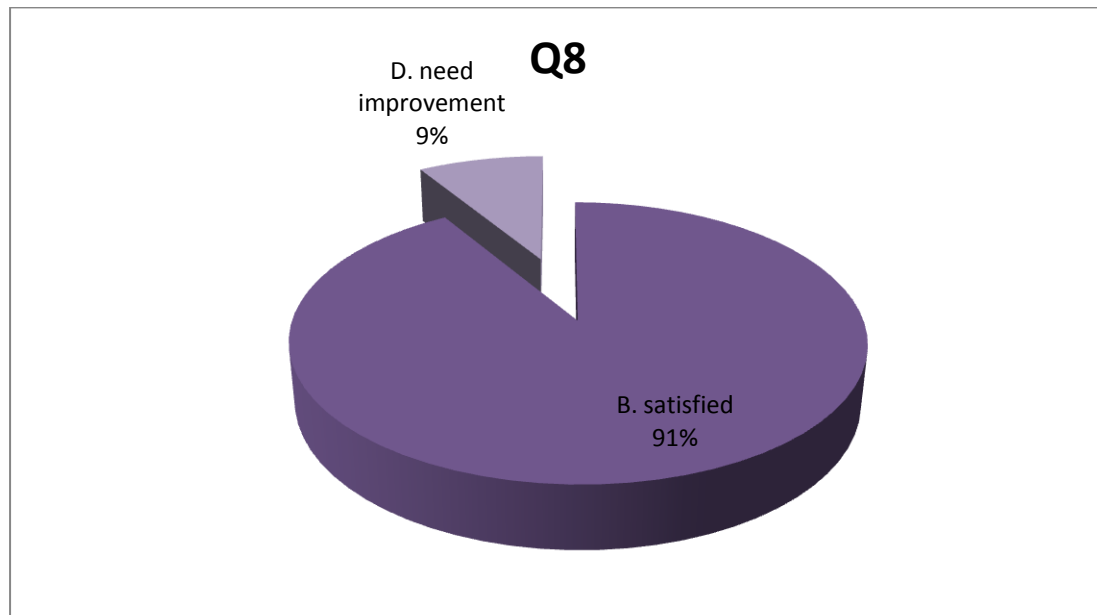
From the above Bar graph. it is estimated that no doctor said that source of plasma is not the critical process.

- Around 15% doctor thinks that is very critical process
- 85% doctors believes it's a critical process
- 0% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



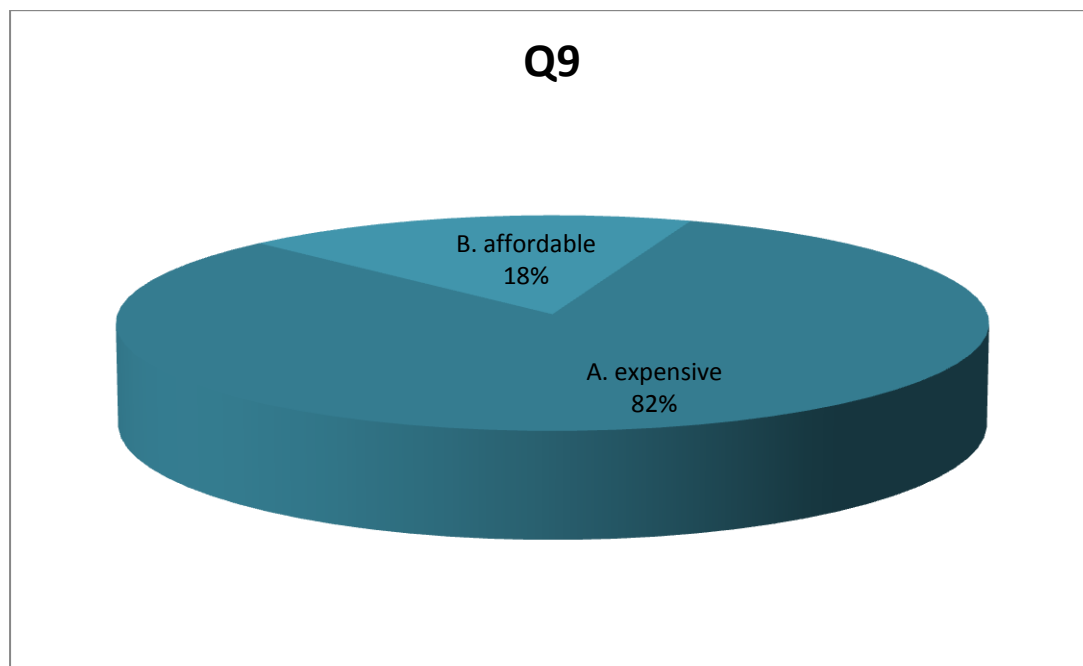
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- It is estimated that 0% doctors are highly satisfied with the quality of currently available brands of plasma products.
- 91% doctors are only satisfied
- 0% are not satisfied
- And according to 9% doctors the brands of plasma products need improvement.

Q9. Pricing of currently available brands of Factor VII?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



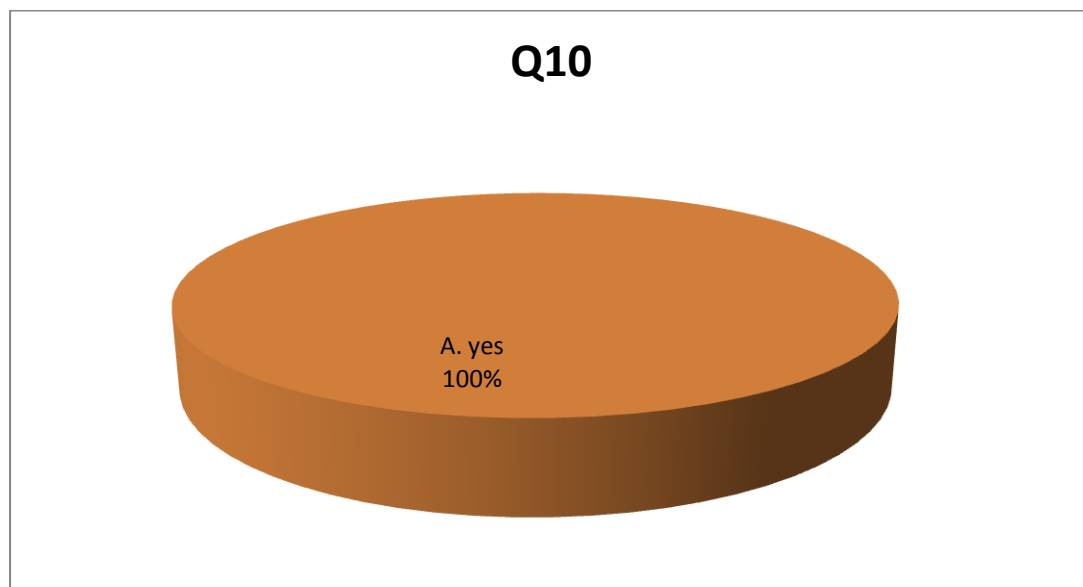
From the above graph it shows the pricing of currently available plasma products:

- 82% doctors said that currently available brands of Factor VII are Expensive.
- 18% doctors said it can be affordable by the patients.
- 0% said that it is not affordable

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

- A. Yes
- B. No

Analysis:



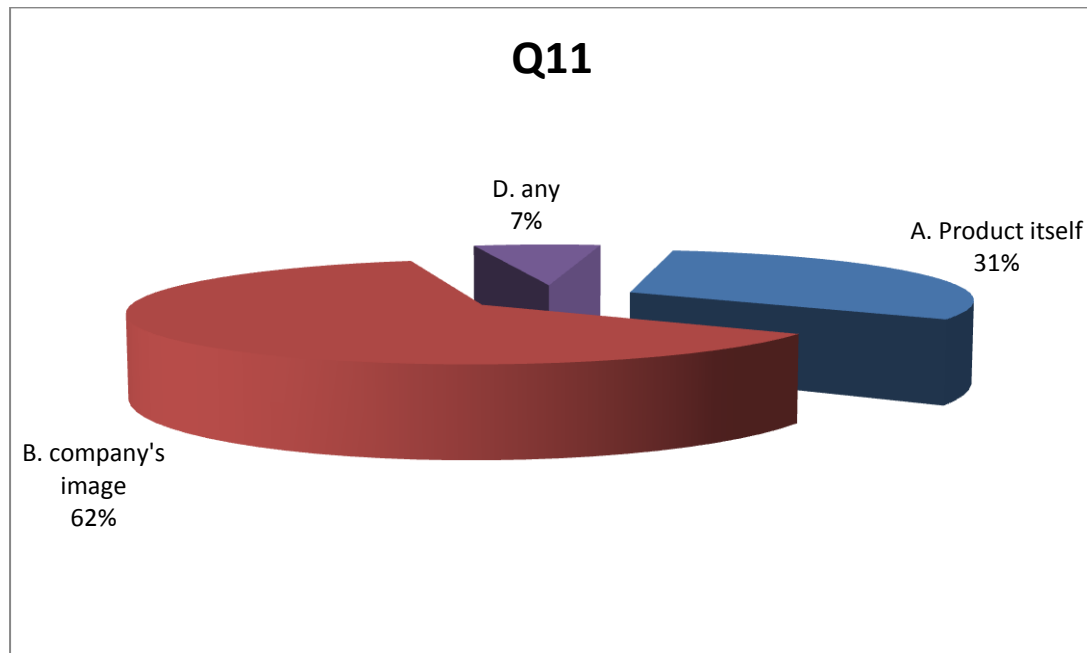
It is analysed from the above Pie chart that:

- According to 100% doctors they believes that yes awareness program is required regarding plasma products.
- 0% doctors said no there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (Factor VII)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 31% doctors believe that product itself must be good.
- 62% doctors said that company's image and safety records are important
- 0% doctors think that long term relationship is there.
- 7% doctors said for any other factor

Data Analysis and Interpretation of FACTOR VIII

Open ended questions answers given by doctors regarding Factor VIII.

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company
- Bharat Serum
- Intas
- Reliance

Q7. Any safety issues for Factor VIII?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing Factor VIII to the patients?

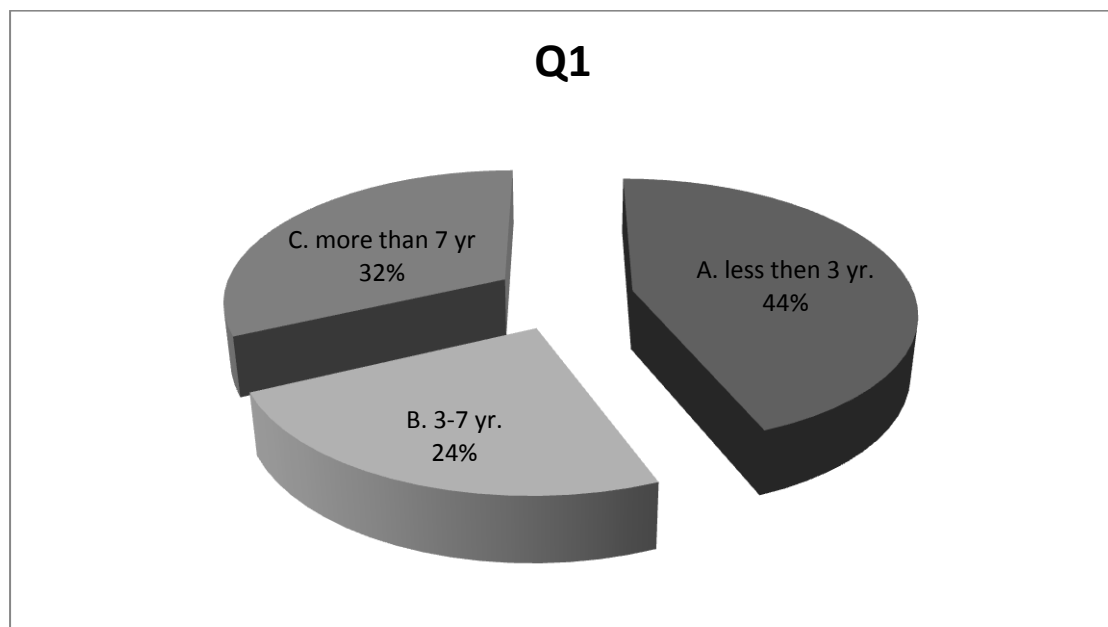
- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of Factor VIII

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis:



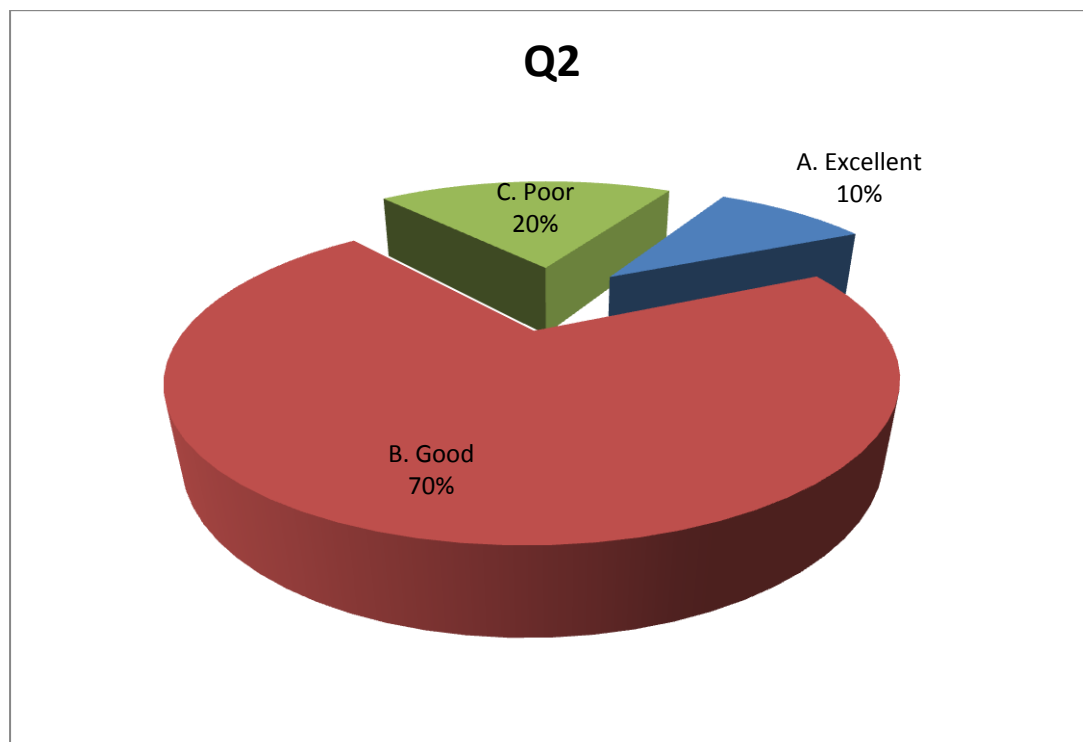
On the basis of this Pie chart, it is analysed that:

- 44% doctors are using Factor VIII less than 3 yrs
- 24% doctors are using the same between 3 to 7 yrs
- There are 32% doctors who are using Factor VIII more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



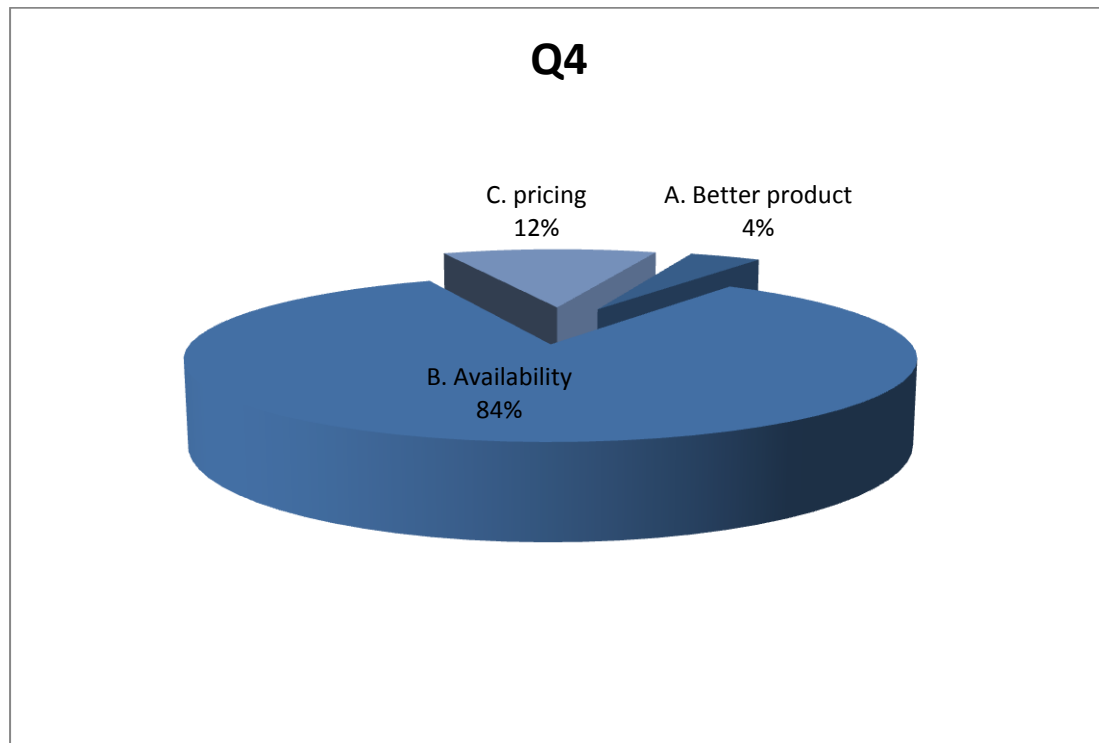
From the above Bar Graph, it is analysed that availability of Factor VIII is good

- According to 10% of doctors availability of Factor VIII is Excellent
- 70% doctors said that the availability is good
- 20% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



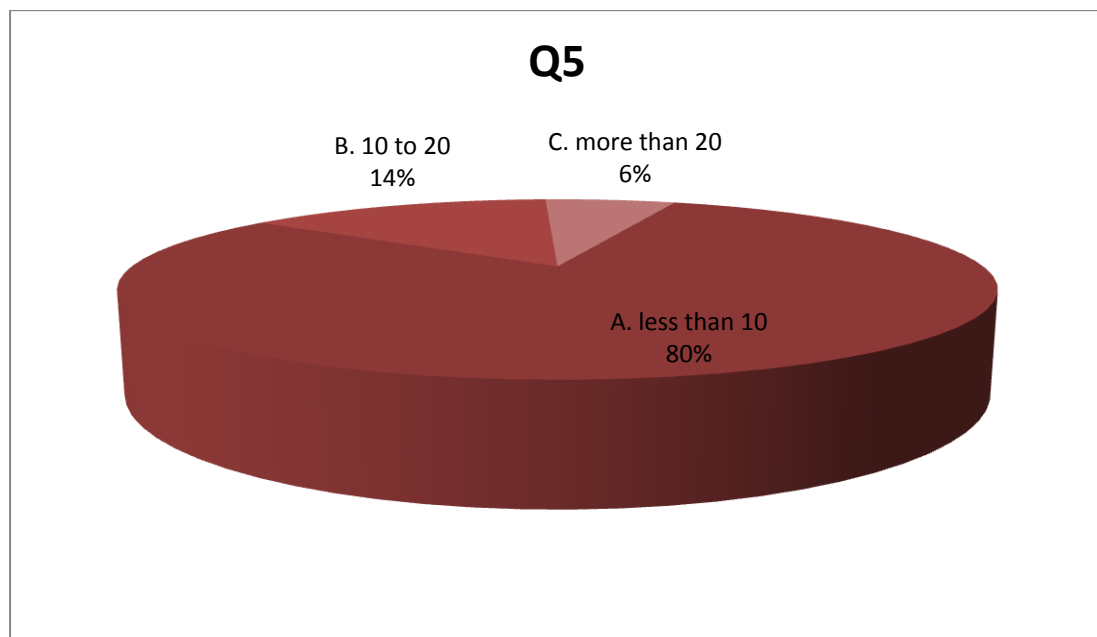
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- Around 4% doctors prefer any brand just because of better product.
- 84% doctors prefer due to availability
- 12% prefer pricing before using Factor VIII

Q5. What is general consumption pattern of Factor VIII?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis:



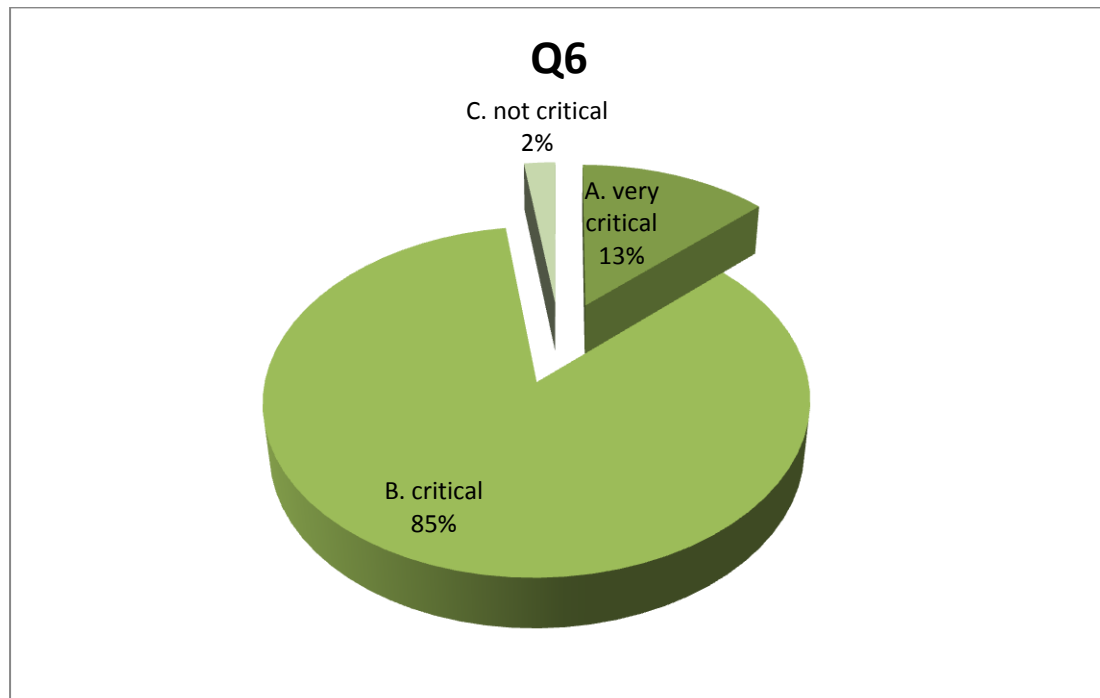
According to the above Pie chart. The general consumption pattern per month of Factor VIII is

- 80% doctors whose consumption pattern per month is less than 10
- 14% doctors having consumption pattern is 10-20
- 6% doctors having the same is more than 20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:



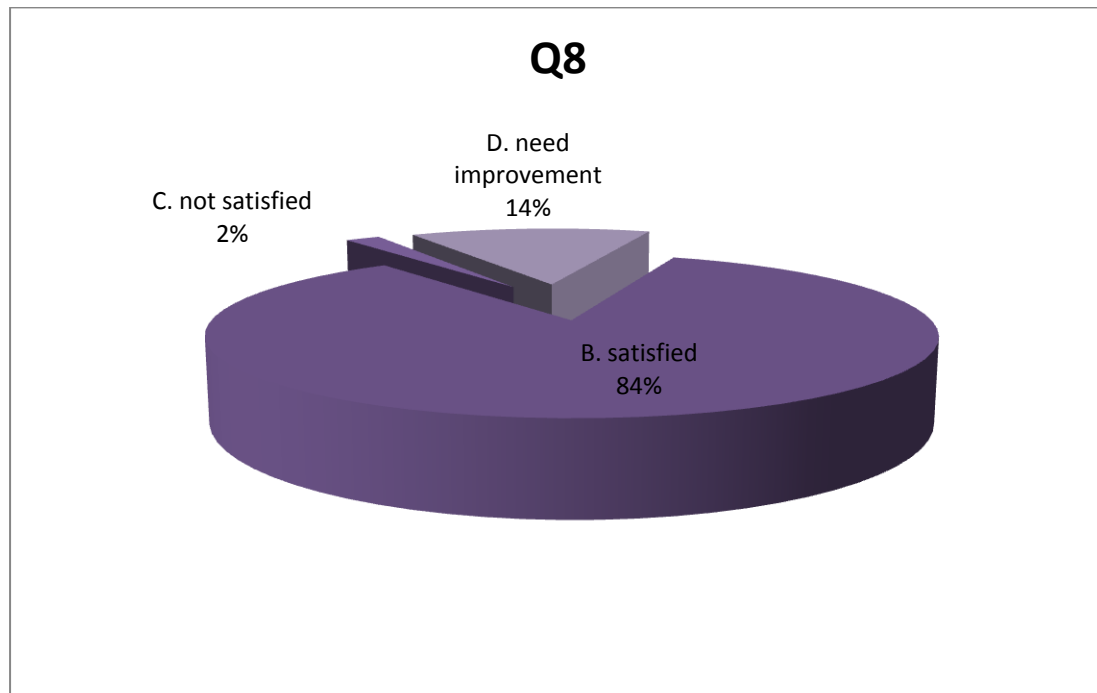
From the above Bar graph. it is estimated that no doctor said that source of plasma is not the critical process.

- Around 13% doctor thinks that is very critical process
- 85% doctors believes it's a critical process
- 2% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



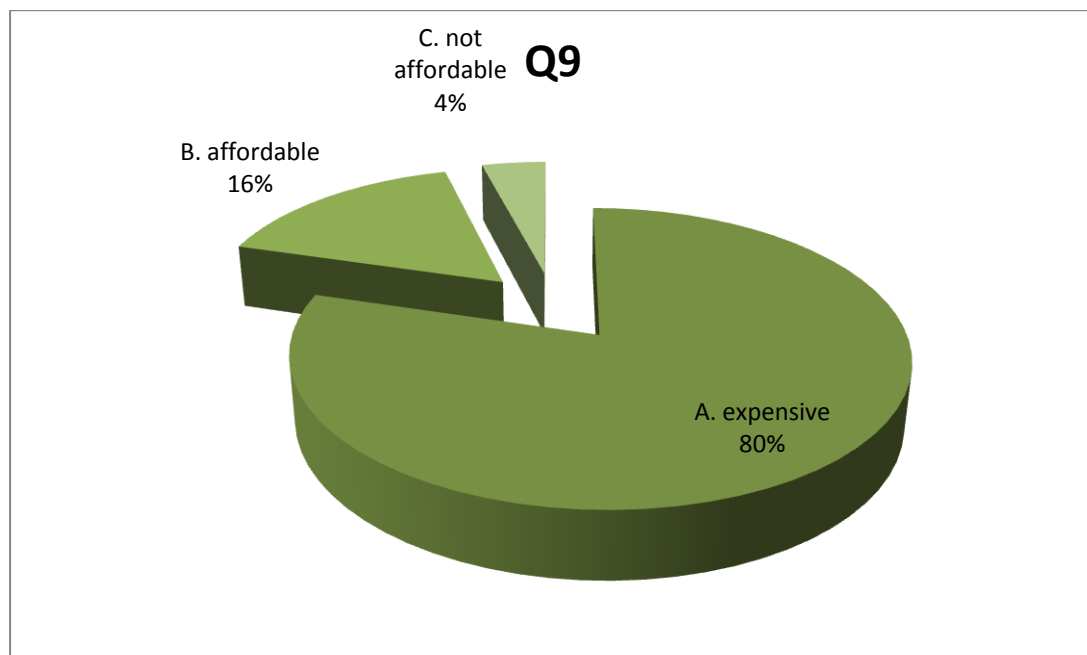
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- It is estimated that 0% doctors are highly satisfied with the quality of currently available brands of plasma products.
- 84% doctors are only satisfied
- 2% are not satisfied
- And according to 14% doctors the brands of plasma products need improvement.

Q9. Pricing of currently available brands of Factor VIII?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



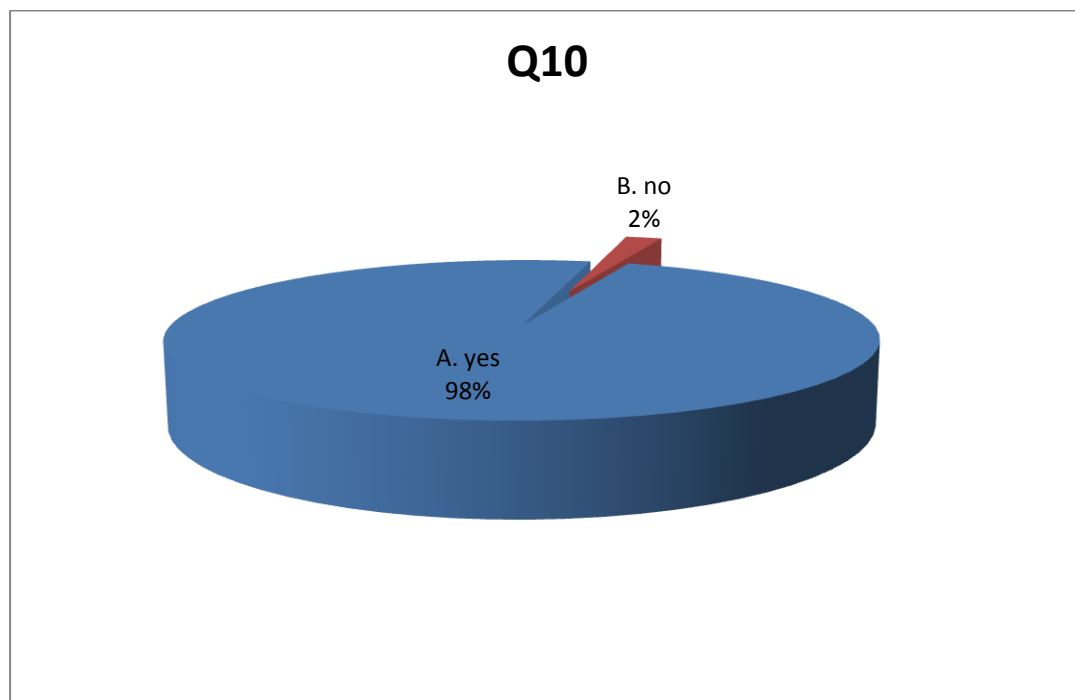
From the above graph it shows the pricing of currently available plasma products:

- 80% doctors said that currently available brands of Factor VIII are Expensive.
- 16% doctors said it can be affordable by the patients.
- 4% said that it is not affordable

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

- A. Yes
- B. No

Analysis:



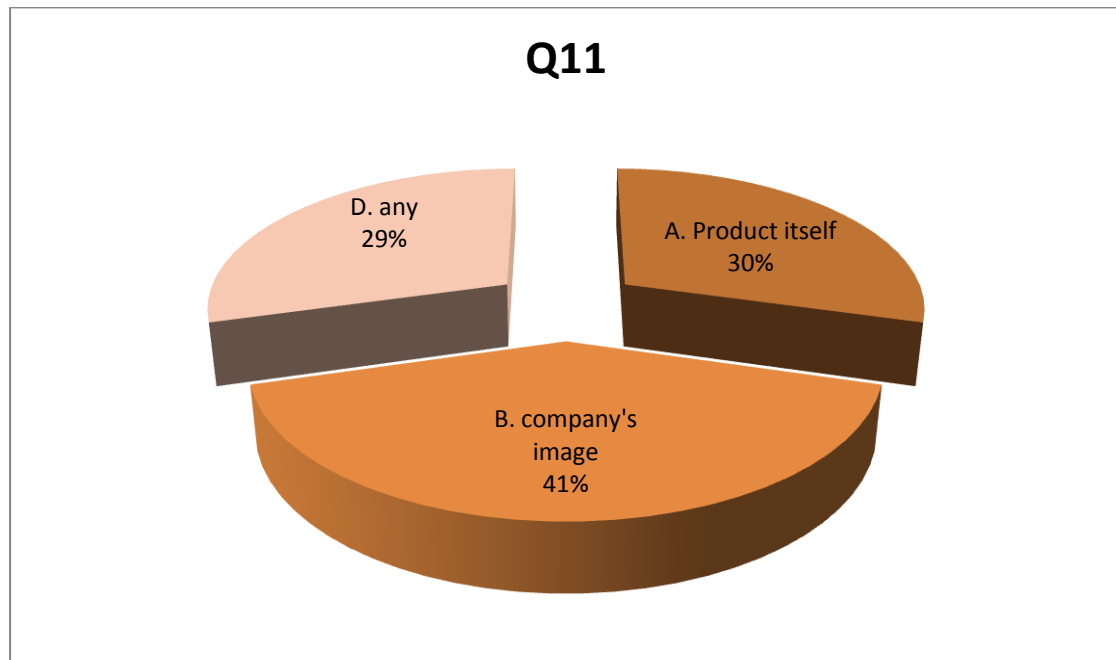
It is analysed from the above Pie chart that:

- According to 98% doctors they believes that yes awareness program is required regarding plasma products.
- 2% doctors said no there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (Factor VIII)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 30% doctors believe that product itself must be good.
- 41% doctors said that company's image and safety records are important
- 29% doctors think that any other factor is there.

Data Analysis and Interpretation of FIBRINOGEN

Open ended questions answers given by doctors regarding Fibrinogen.

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company
- Bharat Serum
- Intas
- Reliance

Q7. Any safety issues for?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing Fibrinogen to the patients?

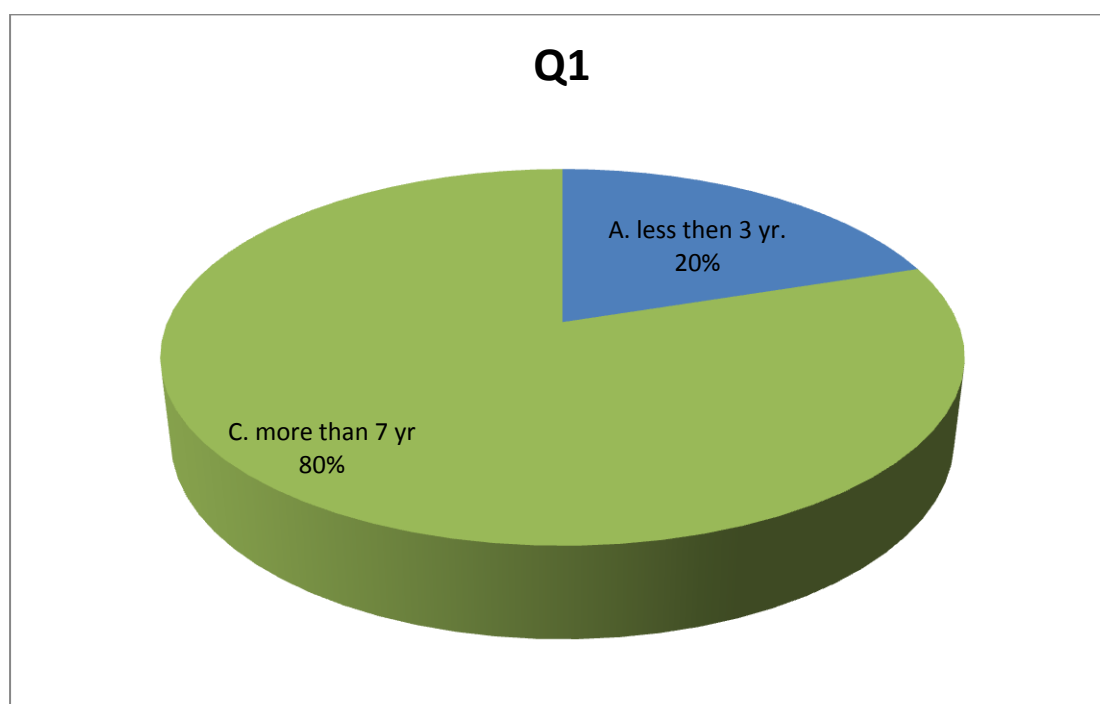
- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of FIBRINOGEN

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis



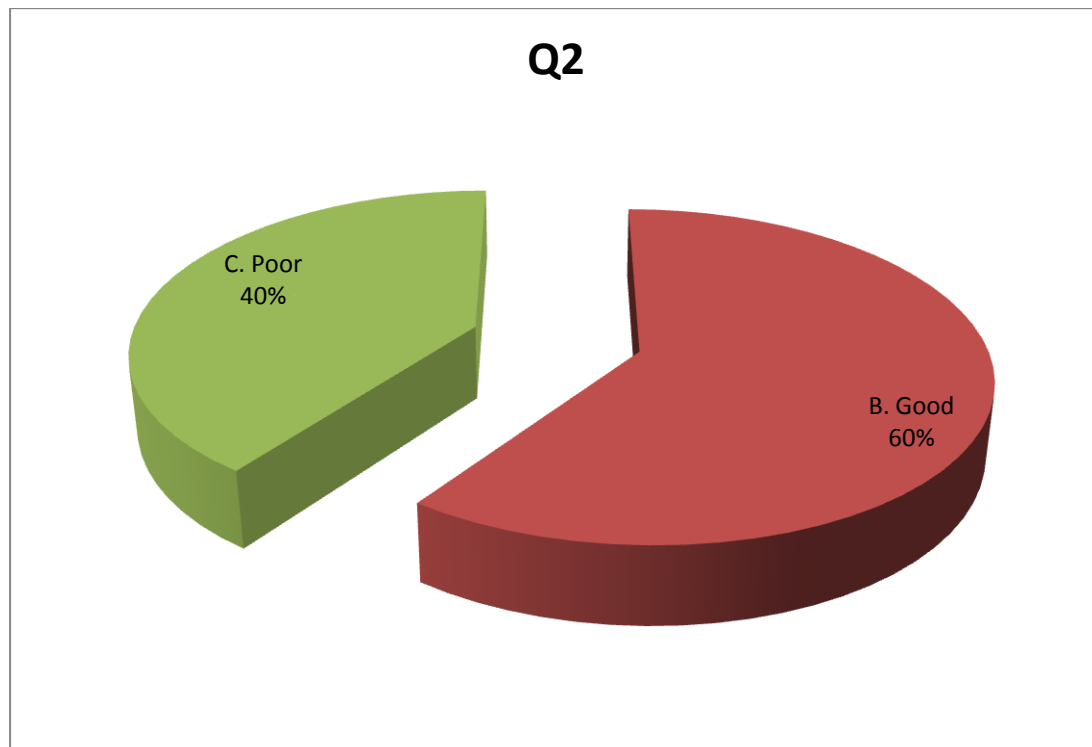
On the basis of this Pie chart, it is analysed that:

- 20% doctors are using Fibrinogen less than 3 yrs
- No doctors are using the same between 3 to 7 yrs
- There are 80% doctors who are using same more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



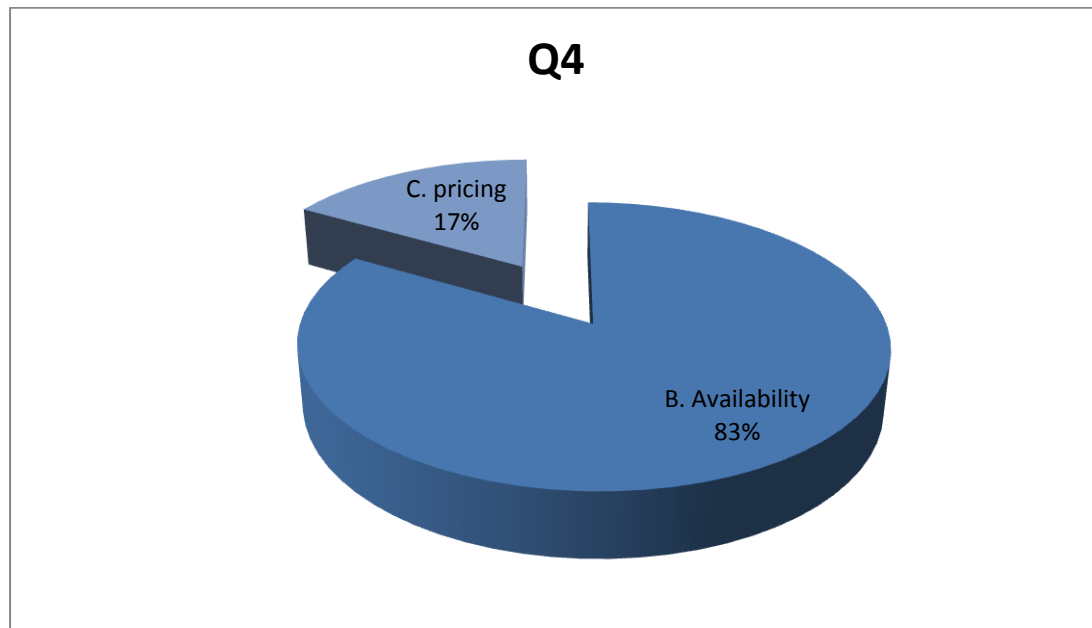
From the above Bar Graph, it is analysed that availability of Fibrinogen is good.

- According to 0% of doctors availability of Fibrinogen is Excellent
- 60% doctors said that the availability is good
- No doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



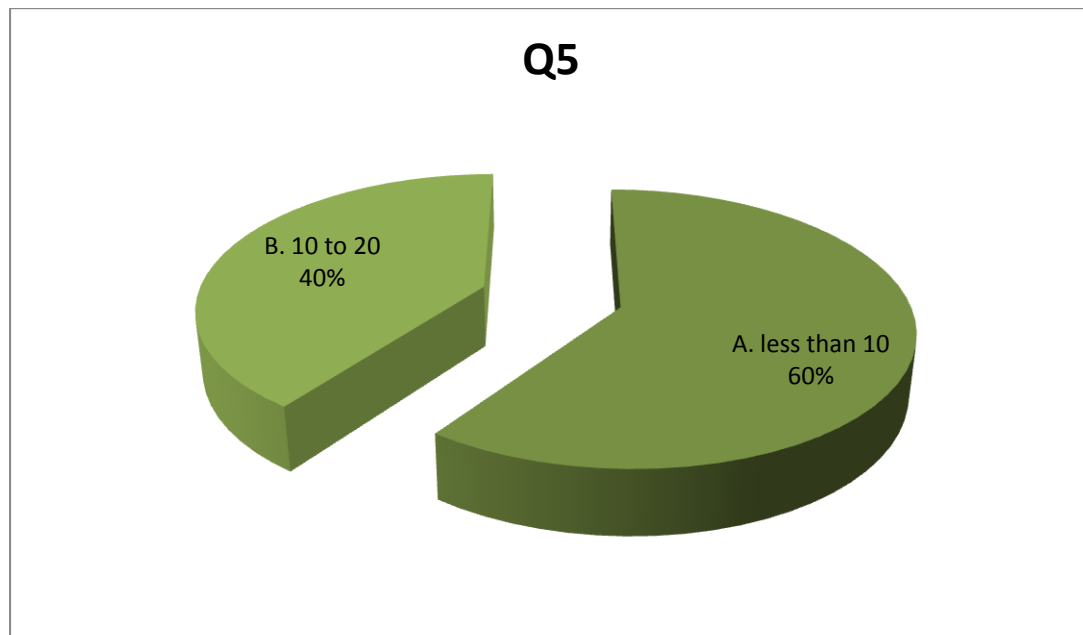
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- Around No doctors prefer any brand just because of better product.
- 83% doctors prefer due to availability
- 17% prefer pricing before using Fibrinogen
- No doctor said other factors are there while using any brand.

Q5. What is general consumption pattern of Fibrinogen?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis:



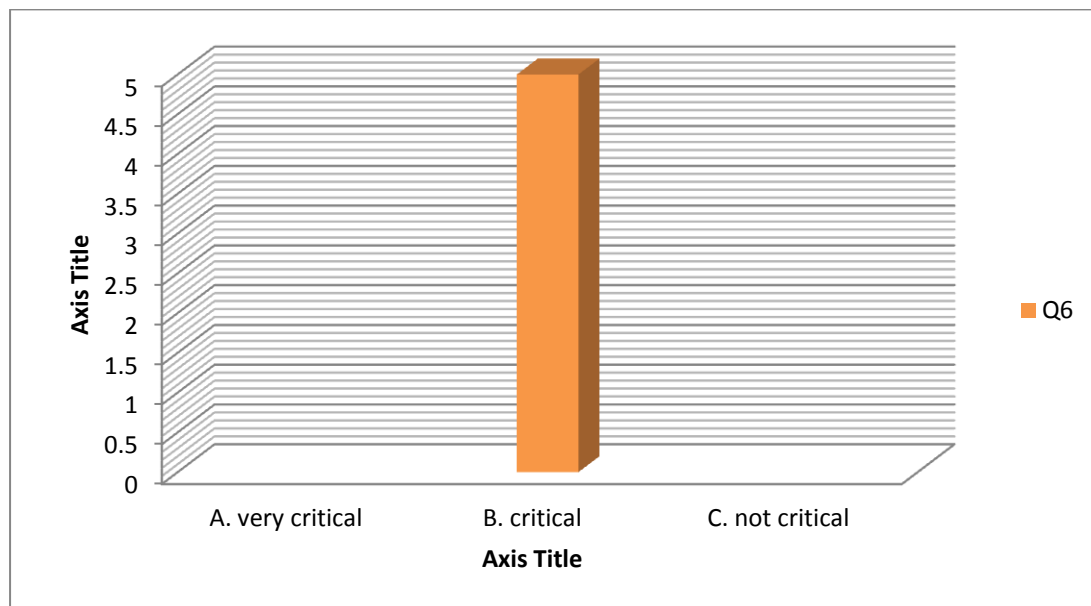
According to the above Pie chart. The general consumption pattern per month of Fibrinogen is:

- 60% doctors whose consumption pattern per month is less than 10
- 40% doctors having consumption pattern is 10-20
- No doctors having the same is more than 20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:



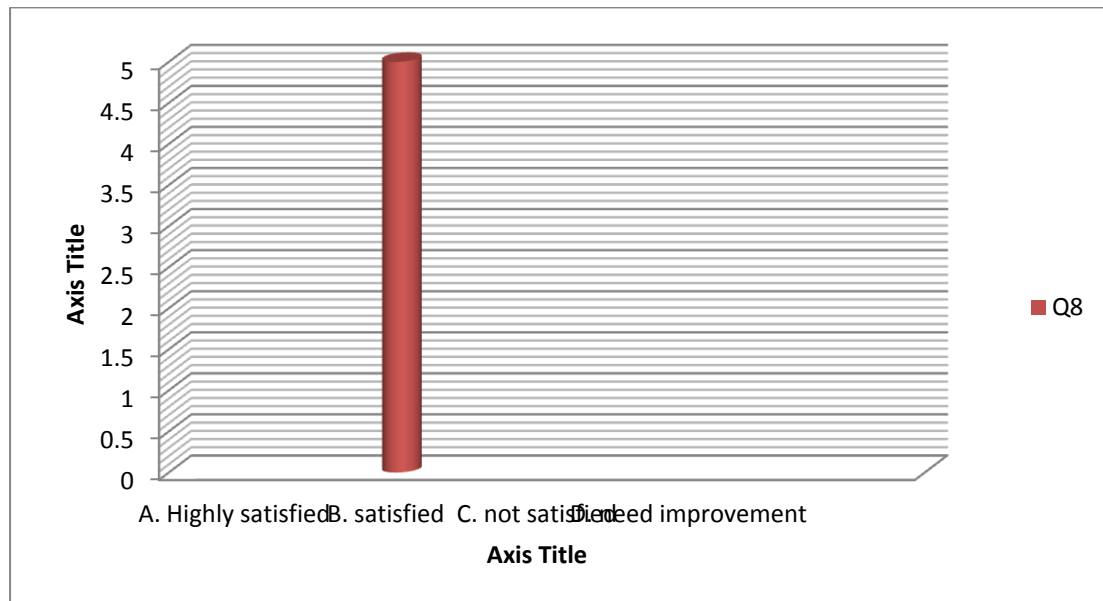
From the above Bar graph. it is estimated that no doctor said that source of plasma is not the critical process.

- No doctor thinks that is very critical process
- 100% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



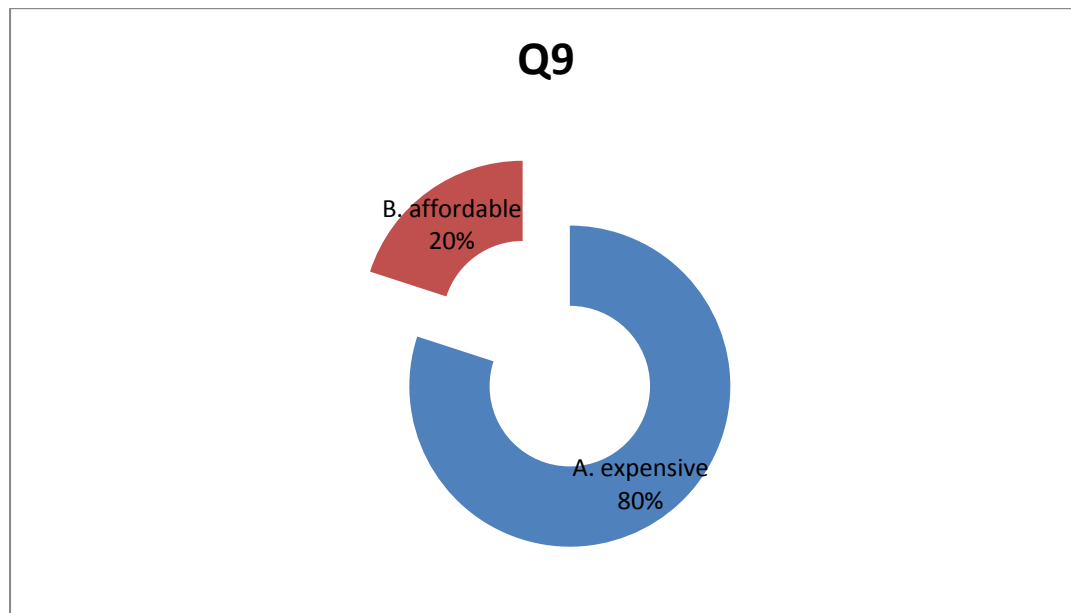
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- It is estimated that No doctors are highly satisfied with the quality of currently available brands of plasma products.
- 100% doctors are satisfied

Q9. Pricing of currently available brands of Fibrinogen?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



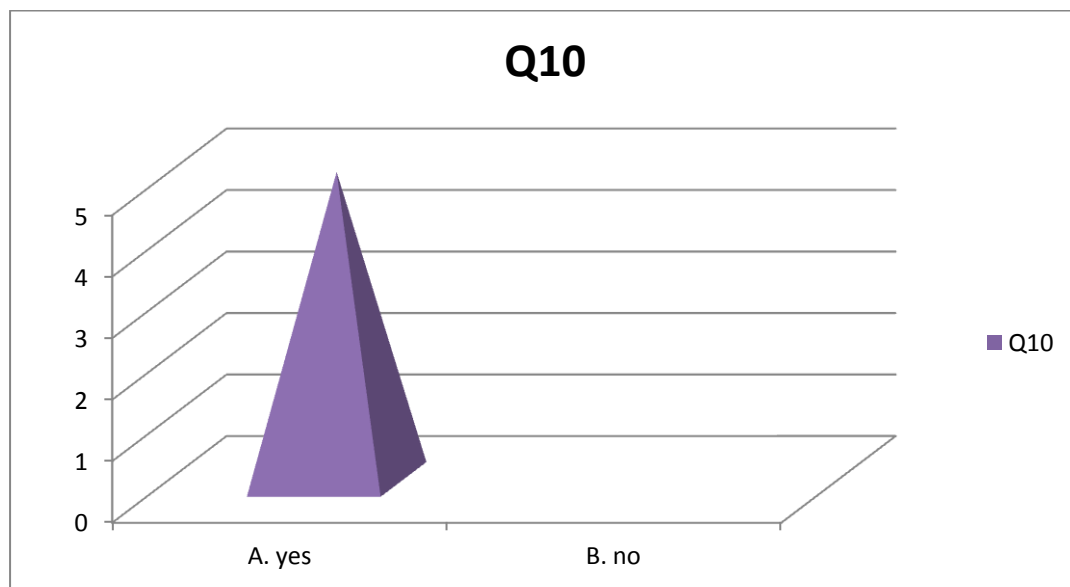
From the above graph it shows the pricing of currently available plasma products:

- 80% doctors said that currently available brands of Fibrinogen are Expensive.
- 20% doctors said it can be affordable by the patients.
- No one said that it is not affordable

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

- A. Yes
- B. No

Analysis:



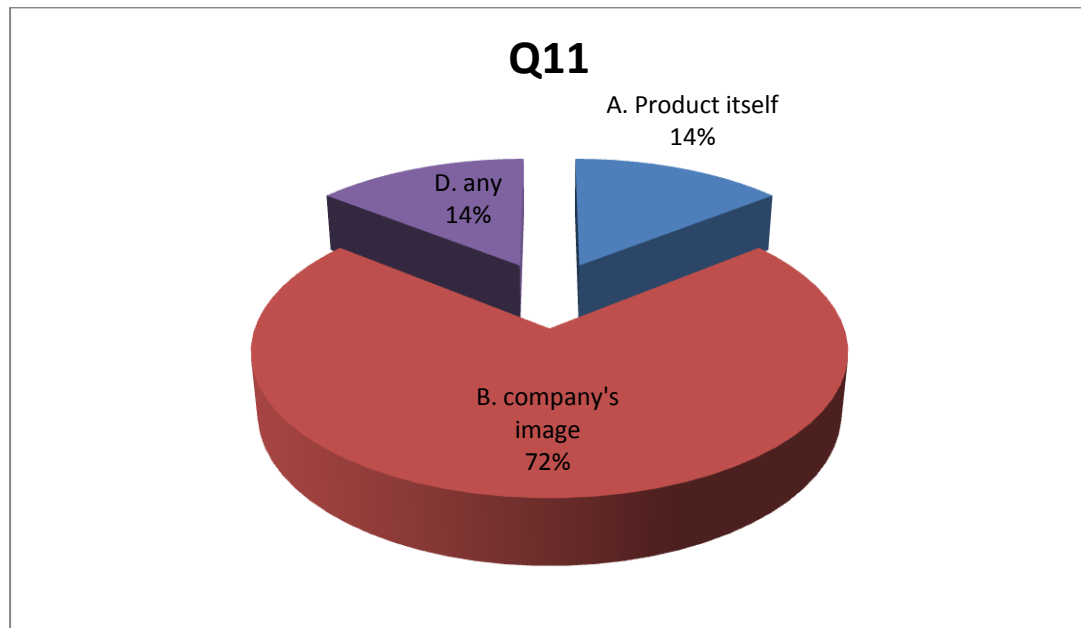
It is analysed from the above Pie chart that:

- According to 100% doctors they believes that yes awareness program is required regarding plasma products.
- No one doctor said there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (Fibrinogen)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 14% doctors believe that product itself must be good.
- 72% doctors said that company's image and safety records are important
- 14% doctors think that long term relationship is there.

Data Analysis and Interpretation of Anti Thrombin III

Open ended questions answers given by doctors regarding Anti Thrombin III

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company

Q7. Any safety issues for Anti Thrombin III?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing Anti Thrombin III to the patients?

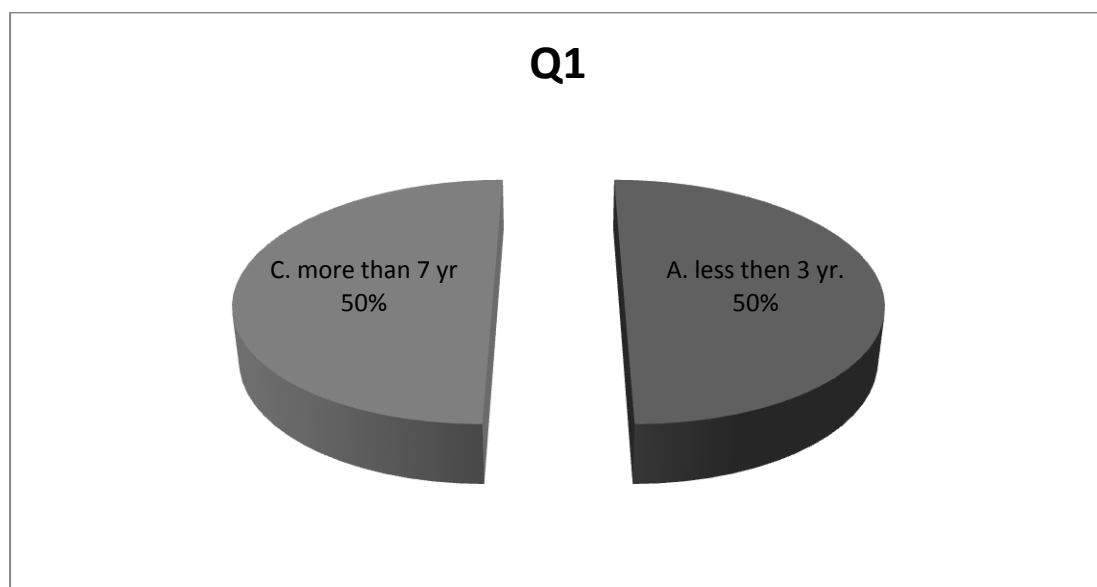
- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of Anti Thrombin III

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis



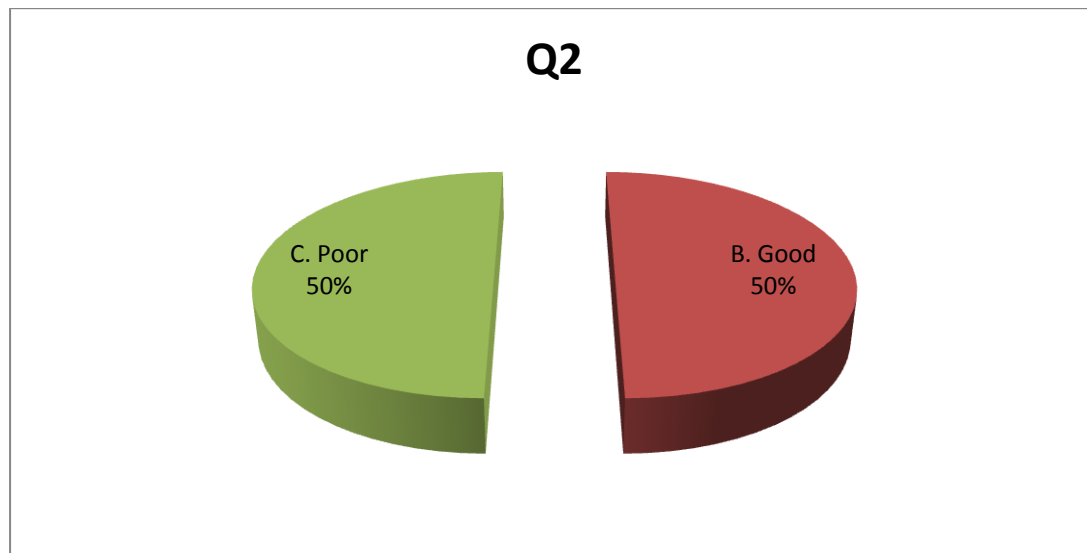
On the basis of this Pie chart, it is analysed that:

- 50% doctors are using Anti Thrombin III less than 3 yrs
- No one doctor is using the same between 3 to 7 yrs
- There are 50% doctors who are using same more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



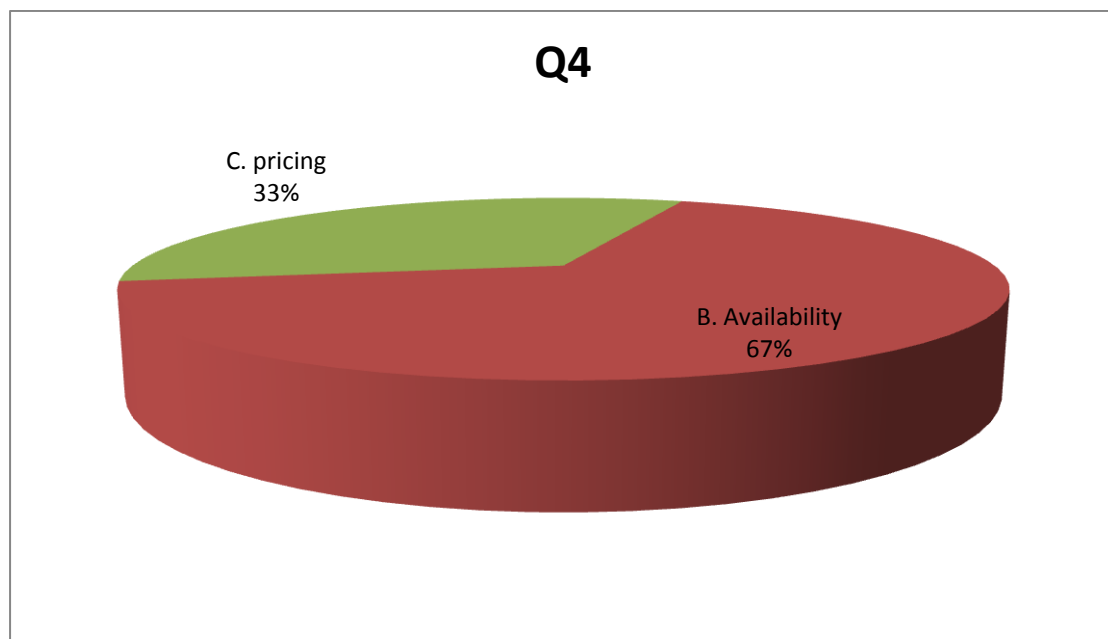
From the above Bar Graph, it is analysed that availability of Anti Thrombin III is good.

- 50% doctors said that the availability is good
- 50% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



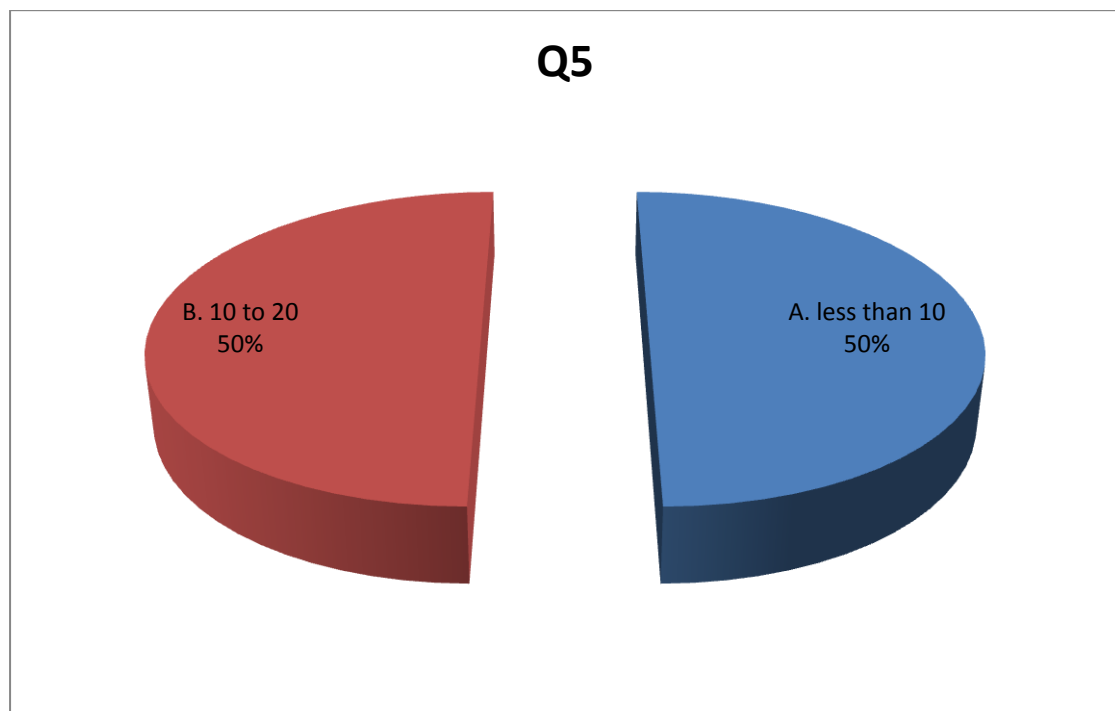
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- No one doctor prefers any brand just because of better product.
- 67% doctors prefer due to availability
- 33% prefer pricing before using Anti Thrombin III

Q5. What is general consumption pattern of Anti Thrombin III?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis:



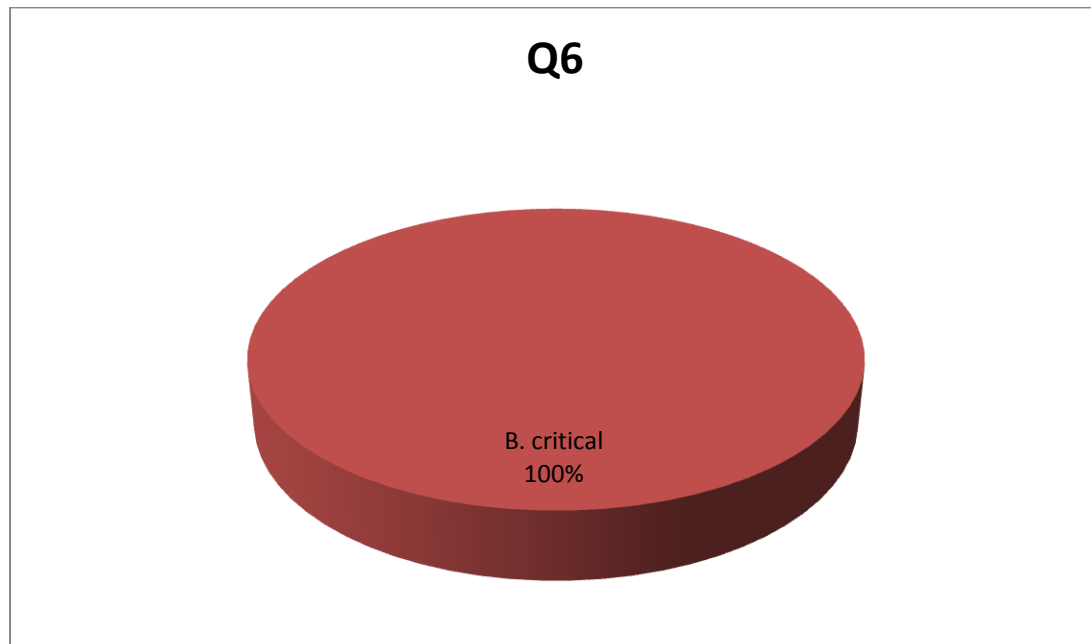
According to the above Pie chart. The general consumption pattern per month of IVIG is:

- 50% doctors whose consumption pattern per month is less than 10
- 50% doctors having consumption pattern is 10-20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:



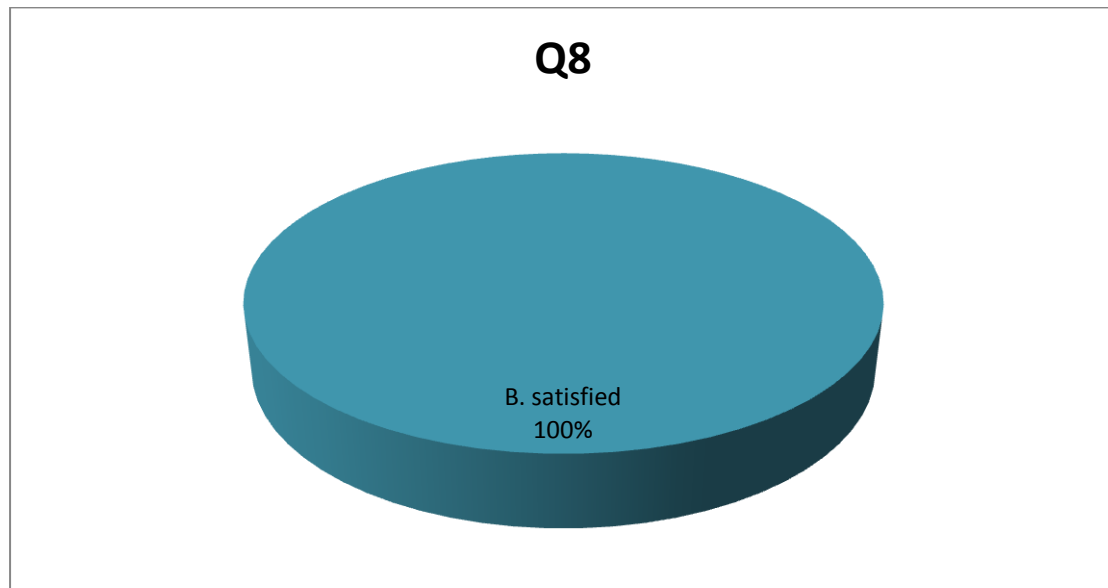
From the above Bar graph. it is estimated that no doctor said that source of plasma is not the critical process.

- 100% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



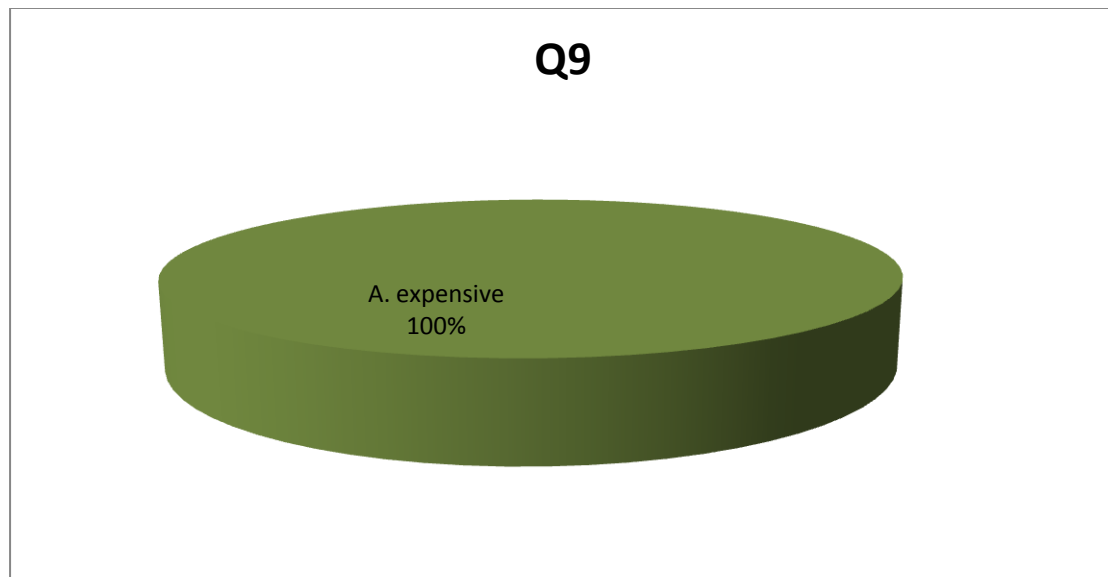
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- 100% doctors are satisfied

Q9. Pricing of currently available brands of Anti Thrombin III?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



From the above graph it shows the pricing of currently available plasma products:

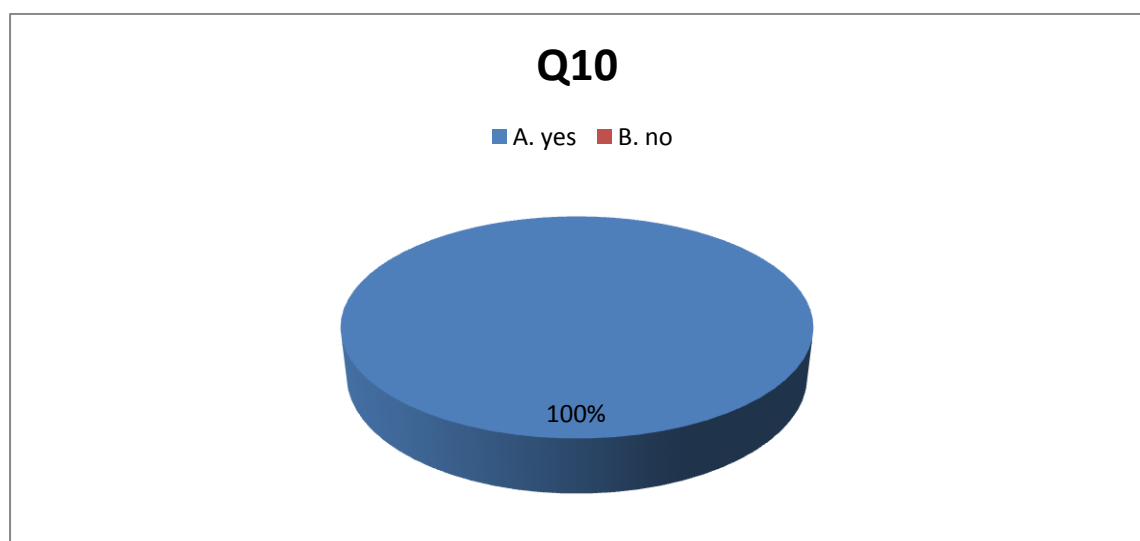
- 100% doctors said that currently available brands of Anti Thrombin III are Expensive.

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

A. Yes

B. No

Analysis:



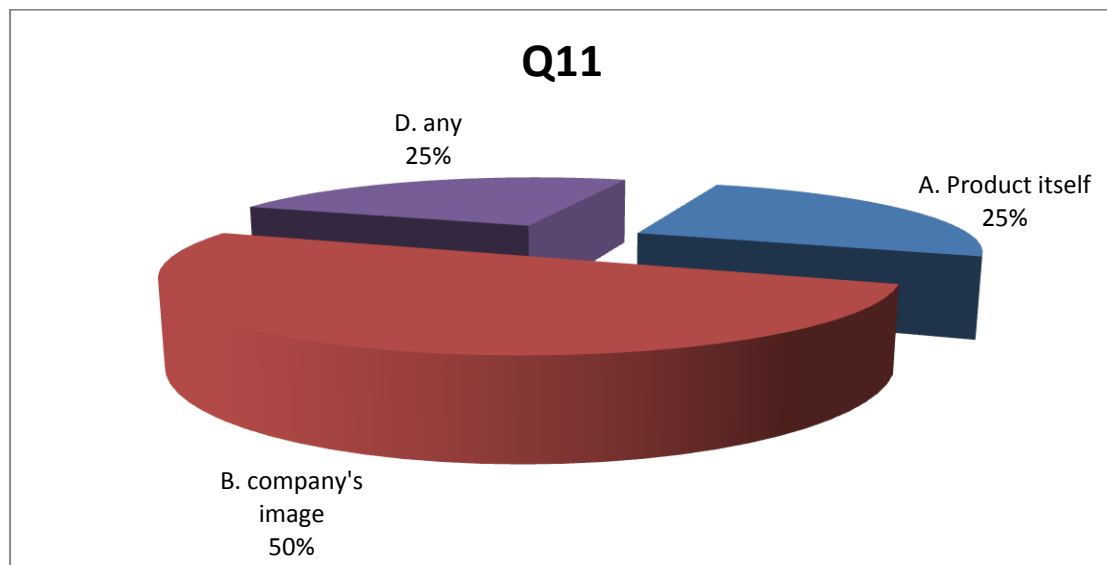
It is analysed from the above Pie chart that:

- According to 100% doctors they believe that yes awareness program is required regarding plasma products.
- No one doctor said no there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (Anti Thrombin III)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 25% doctors believe that product itself must be good.
- 50% doctors said that company's image and safety records are important
- 25% doctors think that any other factor is there.

Data Analysis and Interpretation of Tetanus Ig

Open ended questions answers given by doctors regarding Tetanus Ig (Immunoglobulin)

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company
- Bharat Serum
- Alburil
- Intas
- Reliance
- Tatglobe
- Rhoclone

Q7. Any safety issues for Tetanus Ig?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing Tetanus Ig to the patients?

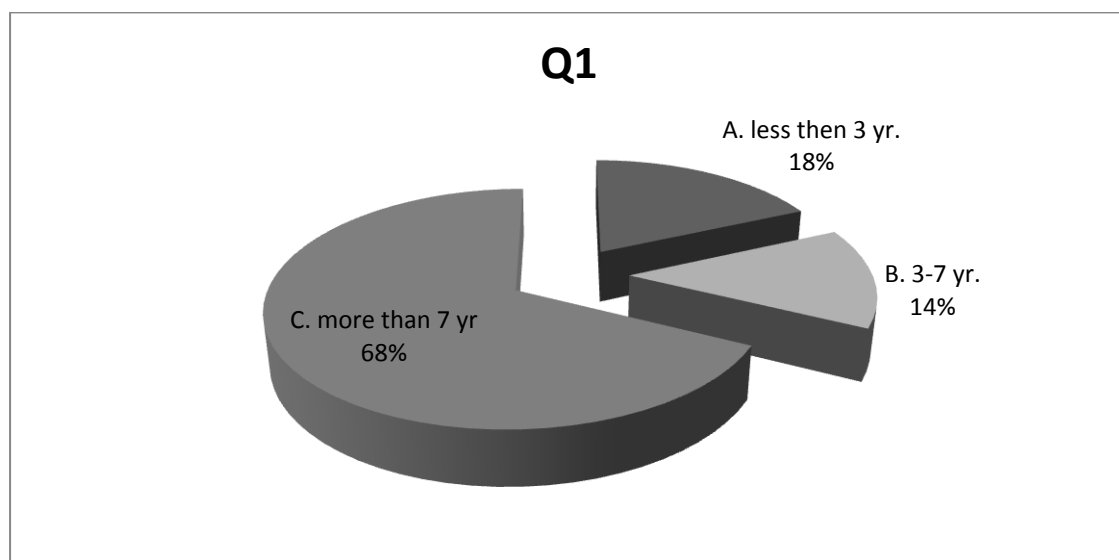
- Availability
- Pricing
- Affordability
- Need
- Safety

Data Analysis of Closed ended questions of Tetanus Ig(immunoglobulin)

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis



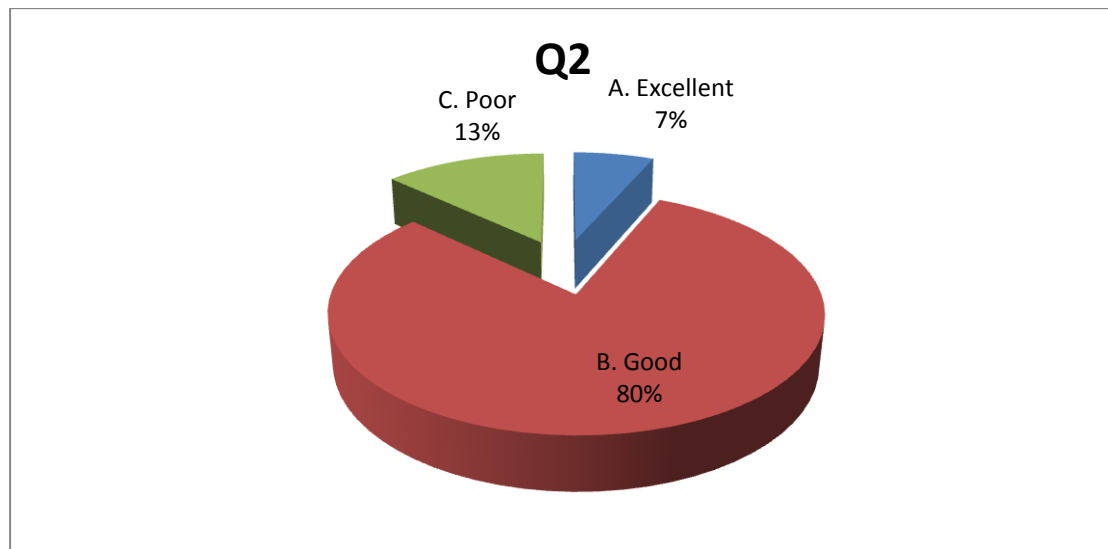
On the basis of this Pie chart, it is analysed that:

- 18% doctors are using Tetanus Ig less than 3 yrs
- 14% doctors are using the same between 3 to 7 yrs
- There are 68% doctors who are using same more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



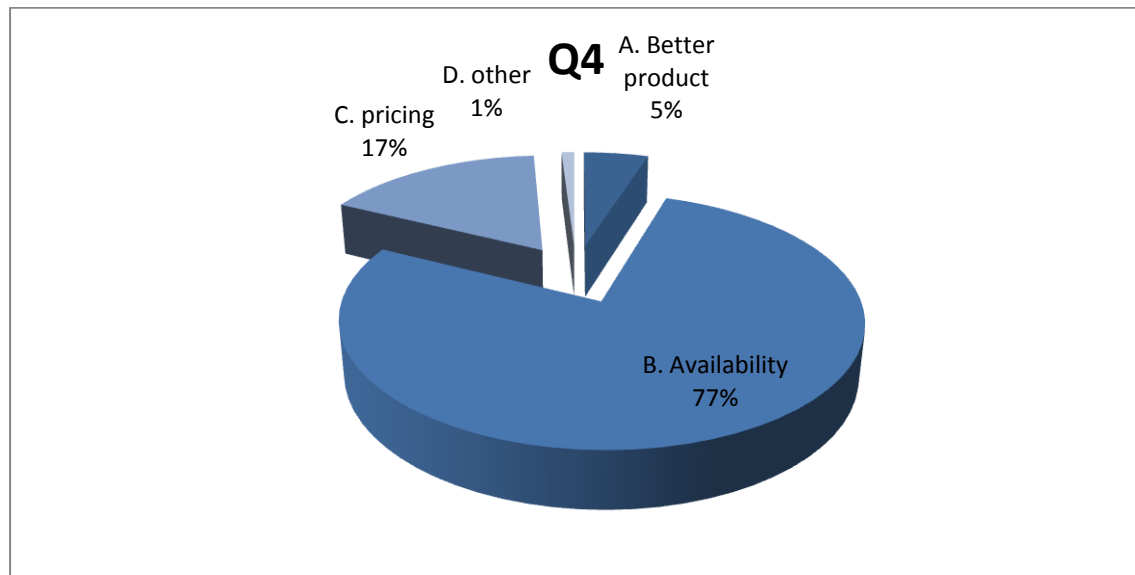
From the above Bar Graph, it is analysed that availability of Tetanus Ig is good.

- According to 7% of doctors availability of Tetanus Ig is Excellent
- 80% doctors said that the availability is good
- 13% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



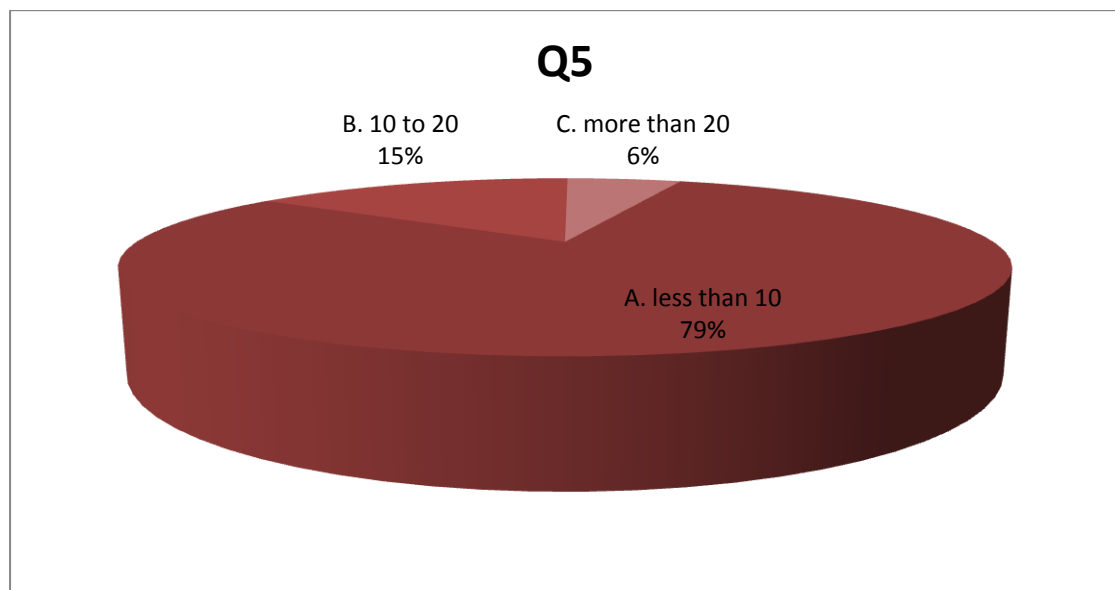
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- Around 5% doctors prefer any brand just because of better product.
- 77% doctors prefer due to availability
- 17% prefer pricing before using Tetanus Ig
- 1% said other factors are there while using any brand.

Q5. What is general consumption pattern of Tetanus Ig?

- A. Less than 10
- B. 10-20
- C. More than 20

Analysis:



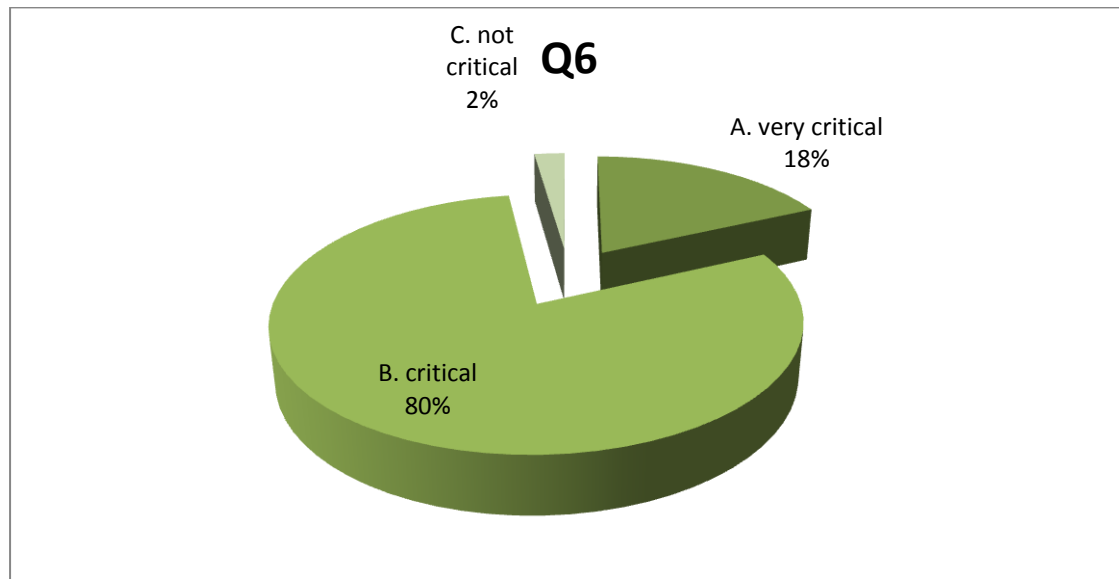
According to the above Pie chart. The general consumption pattern per month of Tetanus Ig is:

- 79% doctors whose consumption pattern per month is less than 10
- 15% doctors having consumption pattern is 10-20
- 6% doctors having the same is more than 20

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:



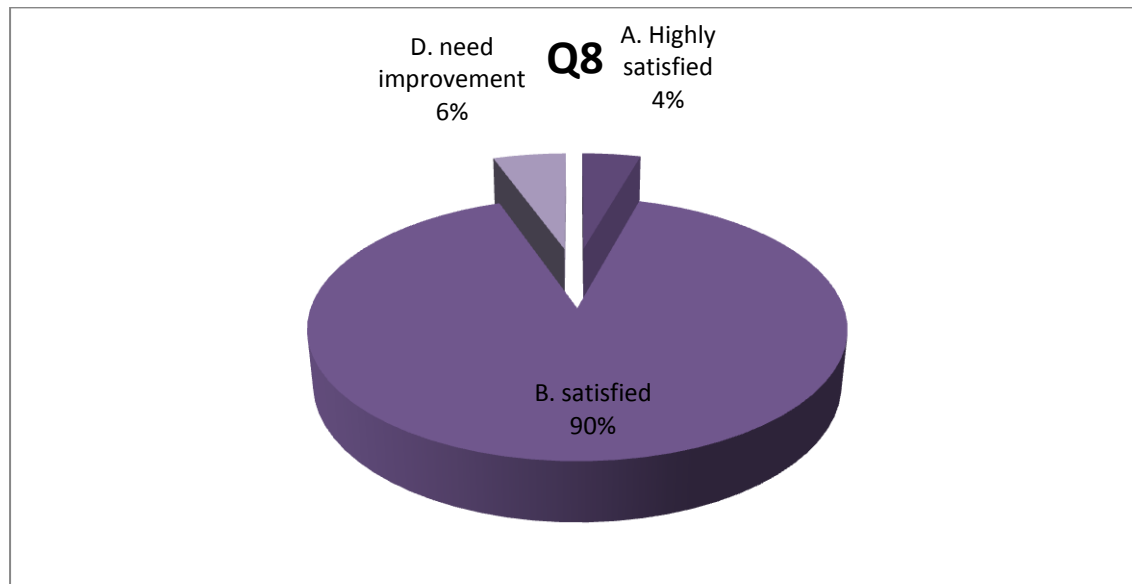
From the above Bar graph. It is estimated that no doctor said that source of plasma is not the critical process.

- Around 18% doctor thinks that is very critical process
- 80% doctors believes it's a critical process
- 2% doctors believes it's not a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



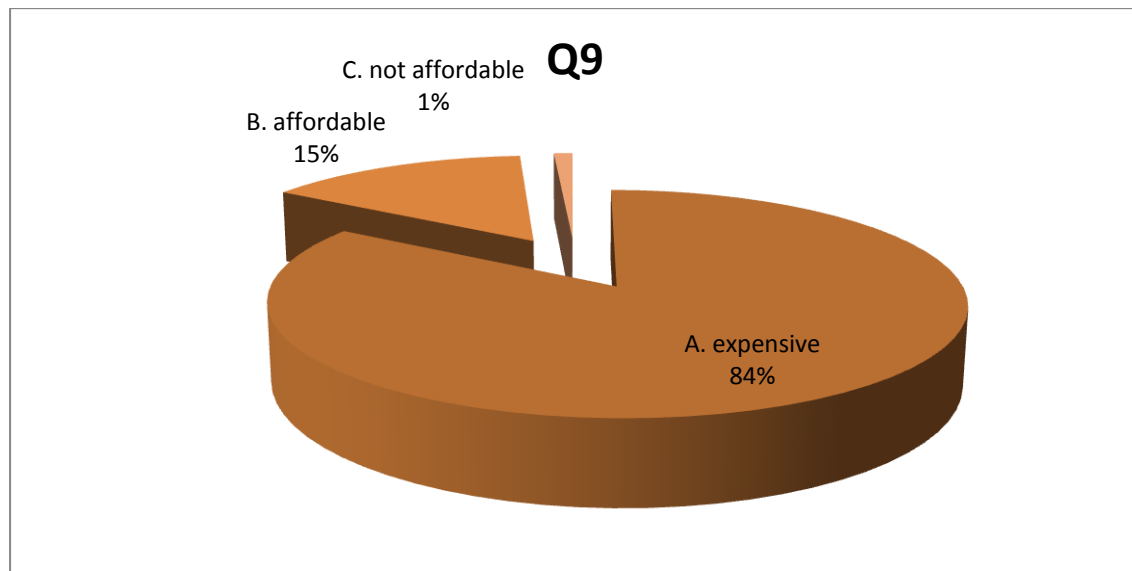
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- It is estimated that 4% doctors are highly satisfied with the quality of currently available brands of plasma products.
- 90% doctors are only satisfied
- And according to 6% doctors the brands of plasma products need improvement.

Q9. Pricing of currently available brands of Tetanus Ig?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



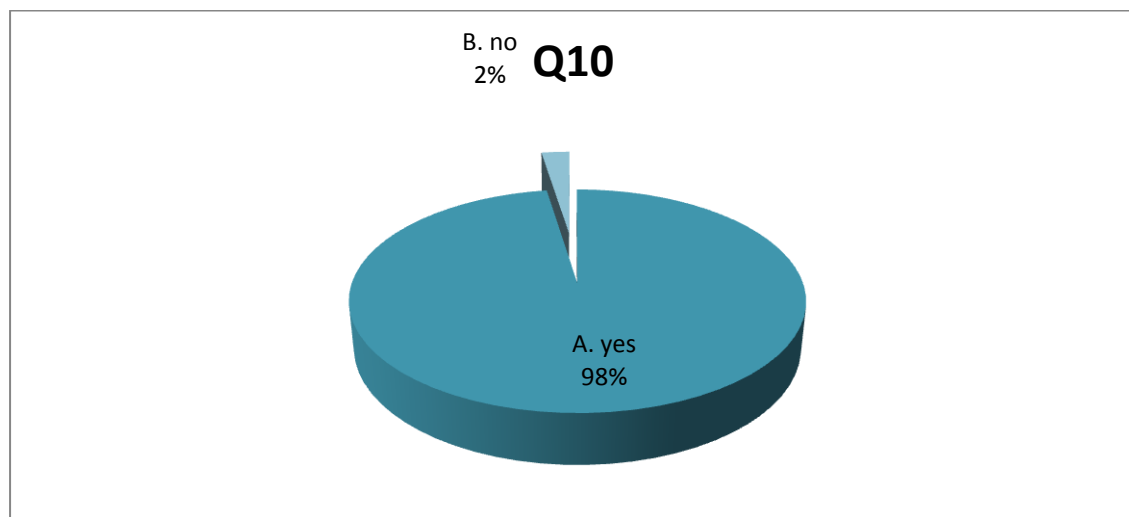
From the above graph it shows the pricing of currently available plasma products:

- 84% doctors said that currently available brands of Tetanus Ig are Expensive.
- 15% doctors said it can be affordable by the patients.
- 1% said that it is not affordable

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

- A. Yes
- B. No

Analysis:



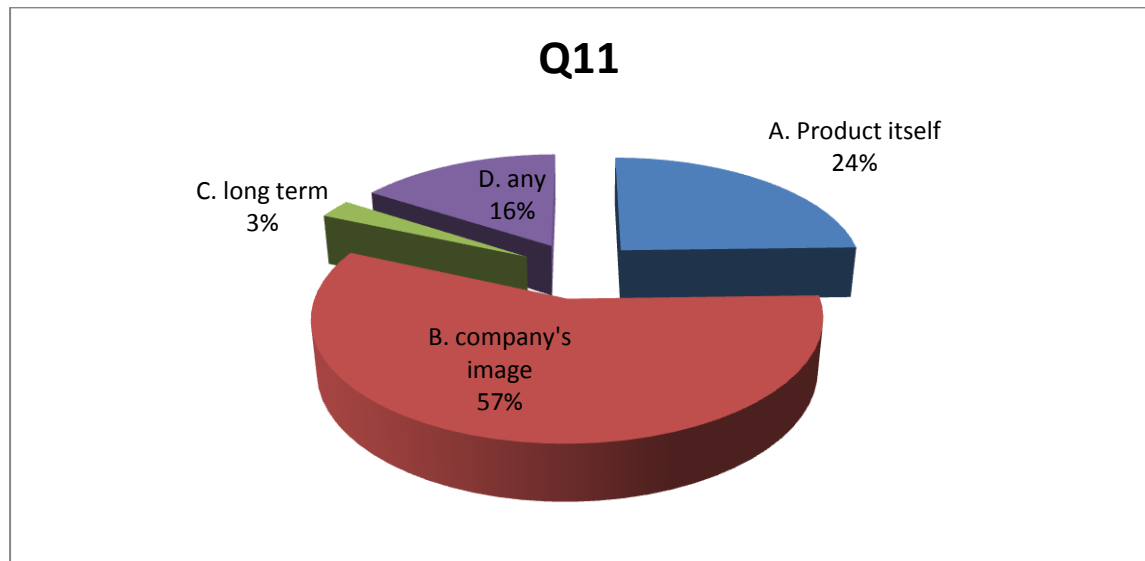
It is analysed from the above Pie chart that:

- According to 98% doctors they believes that yes awareness program is required regarding plasma products.
- 2% doctors said no there is no requirement for awareness program

Q11. How do you trust a brand of Blood plasma product (Tetanus Ig)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 24% doctors believe that product itself must be good.
- 57% doctors said that company's image and safety records are important
- 3% doctors think that long term relationship is there.
- 16% doctors think that any other factor is there

Data Analysis and Interpretation of PROTHROMBIN COMPLEX CONCENTRATE (PCC)

Open ended questions answers given by doctors regarding PCC

Q3. Any specific brand you prefer.....

- Any Available Brand
- Using brands which are from standard company
- Bharat Serum
- Alburil
- Intas
- Reliance

Q7. Any safety issues for PCC?

- Safe from allergic reactions
- Well tested and less side effects
- Should be sterilised properly
- Safe from HIV, Hepatitis C, B
- Safe from blood borne infection
- Certain regulatory body must be there
- Cold chain Maintenance
- Storage and transportation issues

Q12. What are major issues in prescribing PCC to the patients?

- Availability
- Pricing
- Affordability
- Need
- Safety

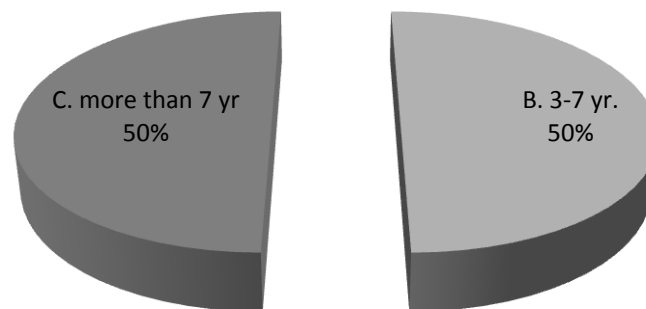
Data Analysis of Closed ended questions of PCC

Q1. How long you have been using?

- A. Less than 3yrs
- B. 3-7 yrs
- C. More than 7 yrs

Analysis:

Q1



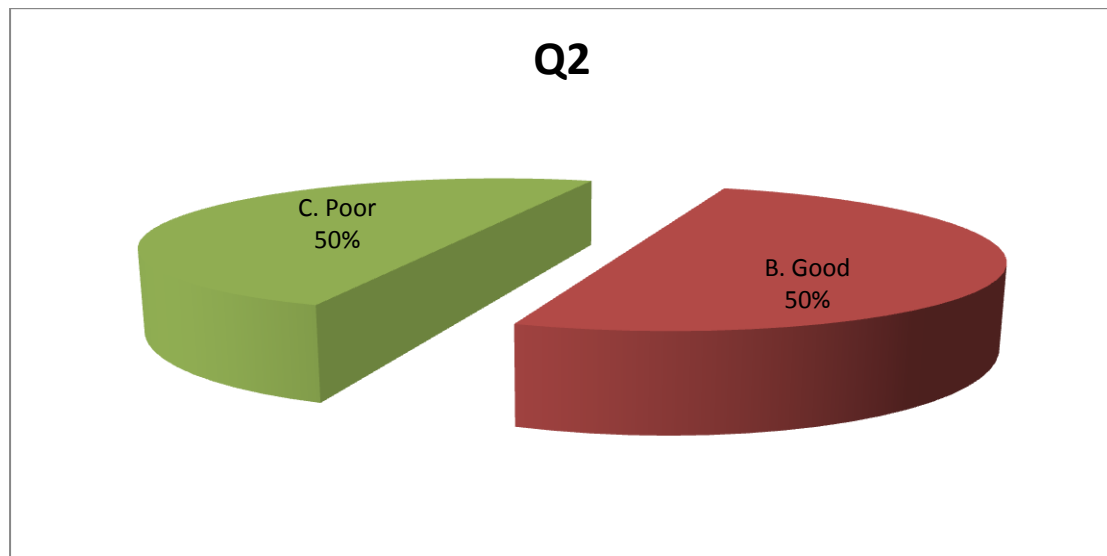
On the basis of this Pie chart, it is analysed that:

- 0% doctors are using PCC less than 3 yrs
- 50% doctors are using the same between 3 to 7 yrs
- There are 50% doctors who are using PCC more than 7 yrs

Q2. Availability of product has been.....

- A. Excellent
- B. Good
- C. Poor

Analysis:



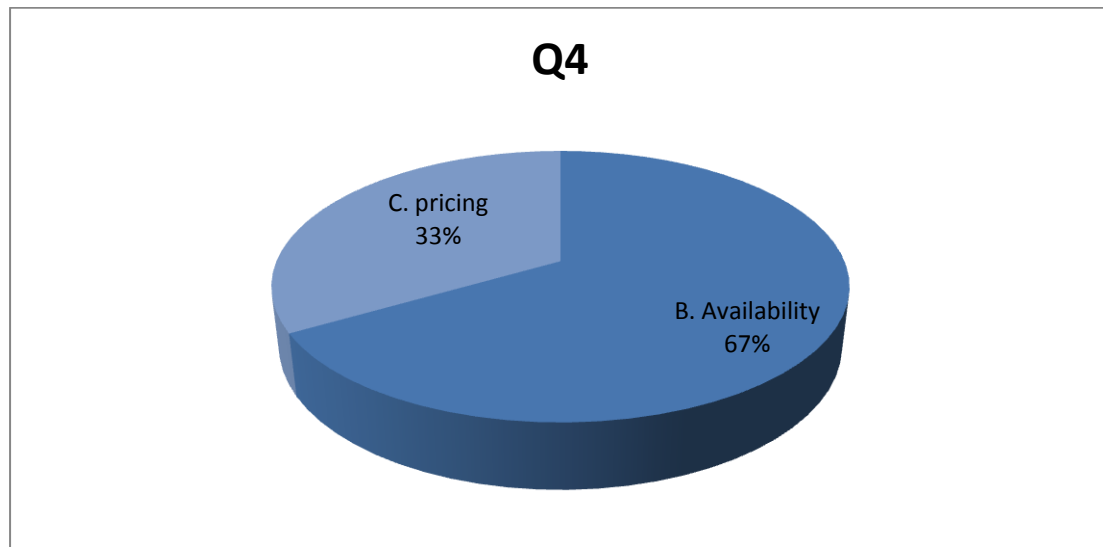
From the above Bar Graph, it is analysed that availability of PCC is good

- According to 0% of doctors availability of PCC is Excellent
- 50% doctors said that the availability is good
- 50% doctors said that the availability is poor

Q4. If any brand they prefer because of.....

- A. Better product
- B. Availability
- C. Pricing
- D. Other

Analysis:-



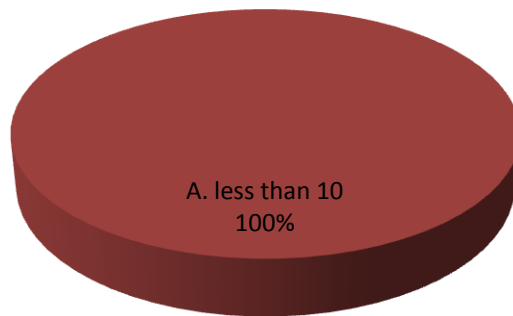
It is analysed with this Bar Graph that doctors are using any brand because of its availability:

- No one doctor prefers any brand just because of better product.
- 67% doctors prefer due to availability
- 33% prefer pricing before using PCC

Q5. What is general consumption pattern of PCC?

- A. Less than 10
- B. 10-20
- C. More than 20

Q5



According to the above Pie chart. The general consumption pattern per month of PCC is:

- 100% doctors whose consumption pattern per month is less than 10

Q6. Because it is biologic “made out of human plasma” would you consider the source of plasma important criterion in selection of product?

- A. Very critical
- B. Critical
- C. Not critical

Analysis:

Q6



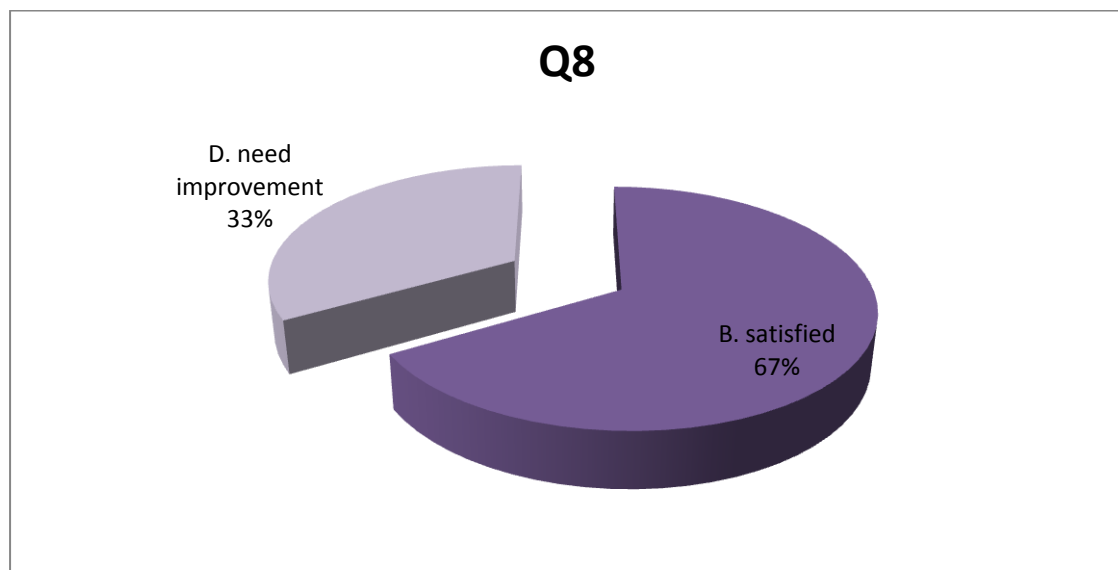
From the above Bar graph. It is estimated that no doctor said that source of plasma is not the critical process.

- Around 50% doctors think that is very critical process
- 50% doctors believes it's a critical process

Q8. Your opinion on the quality of currently available brand?

- A. Highly satisfied
- B. Satisfied
- C. Not satisfied
- D. Need improvement

Analysis:



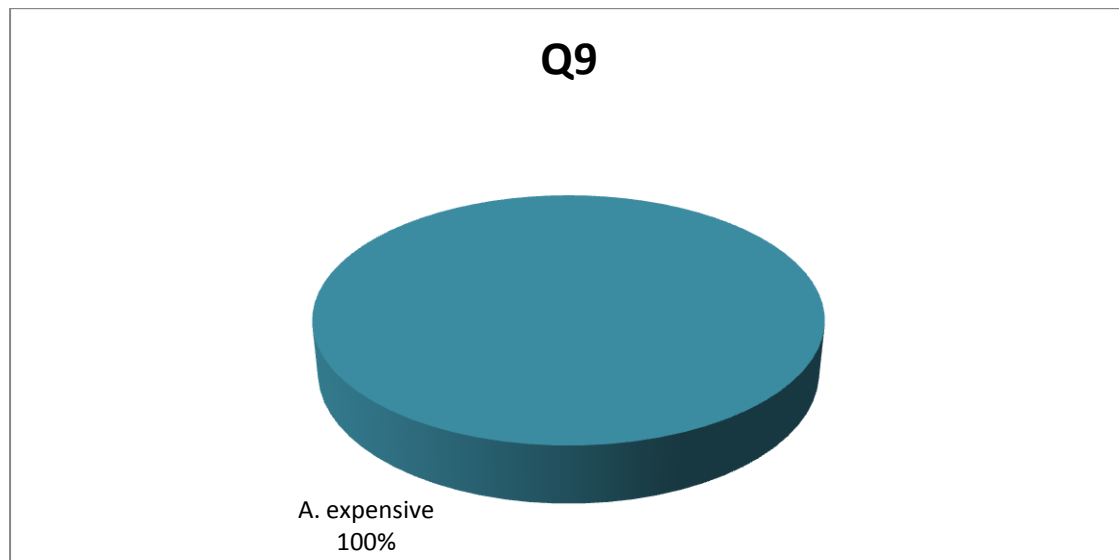
The above Bar graph shows that doctors are satisfied or not from the plasma products or they need improvement:

- 67% doctors are only satisfied
- And according to 33% doctors the brands of plasma products need improvement.

Q9. Pricing of currently available brands of PCC?

- A. Expensive
- B. Affordable
- C. Not Affordable

Analysis:



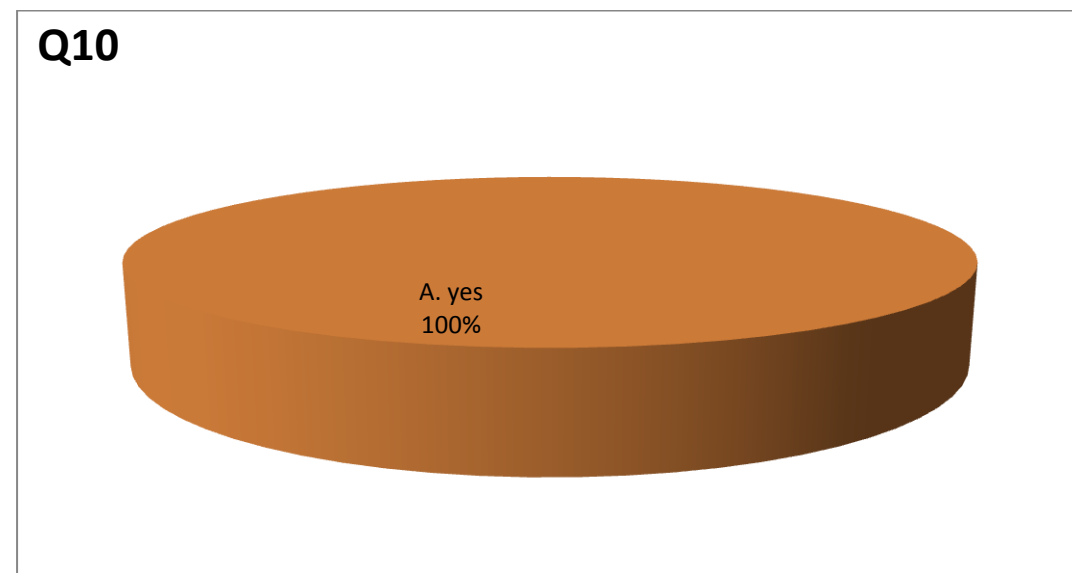
From the above graph it shows the pricing of currently available plasma products:

- 100% doctors said that currently available brands of PCC are Expensive.

Q10. Does any awareness program about blood plasma products is required for patients / doctors / paramedical staff?

- A. Yes
- B. No

Analysis:



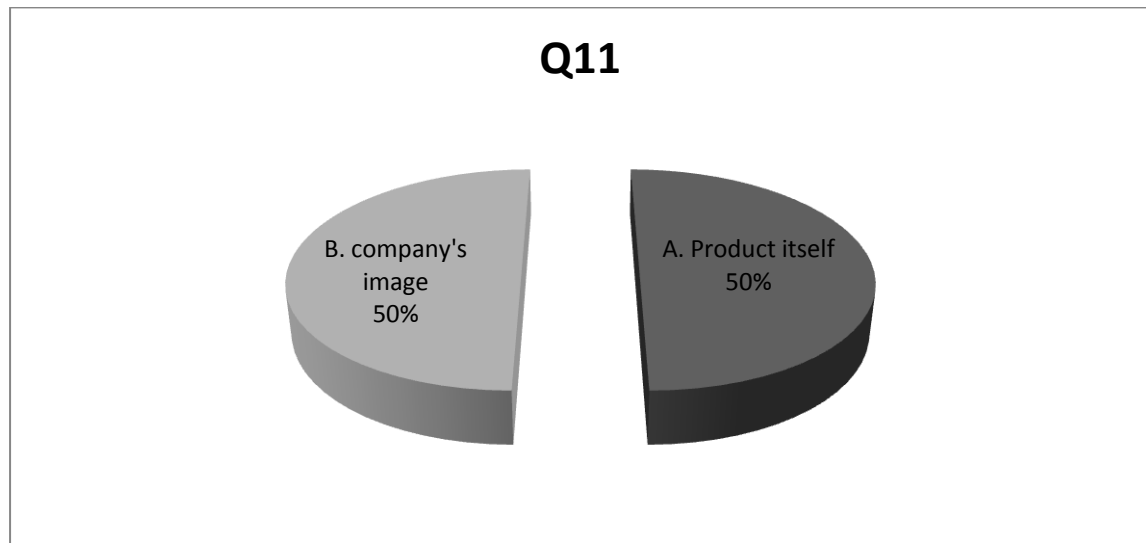
It is analysed from the above Pie chart that:

- According to 100% doctors they believes that yes awareness program is required regarding plasma products.

Q11. How do you trust a brand of Blood plasma product (PCC)?

- A. Product itself
- B. Company's image / safety records
- C. Long term Relation ship
- D. Any other factor

Analysis:



The above bar graph shows that which one is the most used criteria for doctors while choosing or having trust on any brand:

- 50% doctors believe that product itself must be good.
- 50% doctors said that company's image and safety records are important

Recommendation

- During survey i found that pricing is very important factor both for the doctors as well as patients so it must be reduce at certain level.
- Places like Sri Ganganagar, Bikaner, Sikar, Jodhpur, including Jaipur where availability is an important factor which is still lacking in these areas so this must be improved.
- During the survey I found that many of the doctors don't know about the plasma products like IVIG (basically in Ganganagar) and what its use so the proper awareness programs regarding plasma products must be conducted time to time by the company which would be beneficial for the doctors as well as paramedical staff.
- **Some of the Doctor's were not entertaining just because of time shortage. One of the doctor said me that he can't give me time for these useless survey he charges 150Rs/5 min. From one patient. So it is the wastage of time and money to him.**
- There are maximum doctors whose general consumption pattern is less than 10. This shows that either doctor not aware about plasma products or they are not prescribing due to lack of availability.
- During collection of data I realized that doctors are very conscious regarding the safety issues for plasma products because these are life saving products and must be maintained in proper manner.

Annexure

QUESTIONNAIRE

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.....

.....

.....

.....

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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 specificbrand 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.

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

- a. Yes b. No.

12. 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 ()

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

.....

14 Any references, if you would like to give

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