

Summer Training at

Plasma Gen Biosciences, Bangalore
(April-June 2013)

**STUDY ON HYPER-IMMUNE PLASMA PROTEINS IN
INDIANS TIER 1 AND TIER 2 CITIES**

By
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Under the guidance of
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Post Graduate Diploma in Pharmaceutical Management
2012-2014



Institute of Health Management Research,
Jaipur
2013

Certificate

This to certify that Sanjay Limbani student of Post Graduate Diploma in Pharmaceutical Management (PGDPM) from Institute of Health Management Research, Jaipur, Batch 4th has successfully undergone his summer training in PlasmaGen Biosciences, Bangalore and has done projects on:

- "Study on Hyper-Immune plasma proteins in Indians Tier 1 and Tier 2 Cities".

The candidate has successfully carried out the mentioned studies assigned during his summer training from 26 April 2013 – 15 June 2013 and his approach towards the study was sincere, scientific and analytical.

We wish him success in all his future endeavors.


Mr. Abhishek Dadhich

Assistant Professor
IHMR, Jaipur


Dr. Ashok Kaushik

Dean Academics and Student Affairs,
IHMR, Jaipur

ACKNOWLEDGEMENT

I wish to take this opportunity to convey my sincere gratitude to all those who has helped me in the successful completion of this project.

I am extremely grateful to my college mentor, Mr. Abhishek Dadhich for his support during and after the project.

I am also extremely thankful to Mr. Dalbir Singh the placement co-ordinator of our institute who being very generous and kind hearted man had never been miser in sharing valuable advises and experiences with me & had been very instrumental in choosing my course of action throughout the project.

My heartiest thanks to **PlasmaGen** team for mailing us from time to time and keeping us updated with all the latest updates and instruction on behalf of the company.

Finally my sincere acknowledgements to all the doctors who gave me time in the midst of their busy schedule and helped me pursue this otherwise impossible project.

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EXECUTIVE SUMMARY

The Project undertaken is a market research on availability, affordability, safety, consumption pattern and market potential of plasma product. As we all know plasma products such as IVIG, Human Albumin, Anti D, Hepatitis and Tetanus Immunoglobulins are all very expensive in the market because their only source is Human Blood & blood donors charge hefty sums of any donations 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 the large proportion 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 regarding its uses & implementation.

This project is the GAP analysis of demand and supply of Hyper immune proteins in the Indian plasma product industry.

Throughout my market survey on doctors of reputed hospitals throughout the given areas I sought to determine the demand, the consumption patterns, personnel preferences, quality & availability of currently available blood & plasma brands in this region of the country.

I was assigned to do work in following cities in the western region of India:

Nashik, Ahmadnagar, Aurangabad, Nanded, Solapur, Hubli, Belgaum & Kolhapur

GENERAL PURPOSE

This project would enable us to understand the public health aspect and the market dynamics of hyper immune proteins in India. Through this we want to determine the health perspective on the availability, affordability, safety, consumption pattern and market potential of each product.

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TITLE

“Hyper-immune Plasma Proteins in Indian Tier I and Tier II Cities- determine the public health perspective on the availability, affordability, safety, consumption pattern and market potential of each product.”

OBJECTIVES

For each category of product:

- To estimate awareness about hyper immune products
- To understand public health perspective of hyper immune products in the regions.
- To determine the number of diagnosed cases in the given region.
- To understand the disease management by doctors
- To analyze whether the existing demand for the products are fulfilled.
- Perception of doctors in these regions regarding the hyper immunes.
- Factors affecting the growth of hyper immune plasma protein market in Tier I and Tier II cities
- To determine the factors that would promote usage of these products in Tier I and Tier II cities

RESEARCH METHODOLOGY

This project was all about conducting a survey on prescribing pattern of doctors regarding plasma products. This data was recorded, analyzed & interpreted within the scope of the given objectives.

1. AREA

Zone	Cities Covered
West II	Nashik, Ahmadnagar, Aurangabad, Nanded, Solapur, Hubli, Belgaum & Kolhapur

2. RESEARCH DESIGN

The research design put to use is descriptive design as all the study was pre-planned & rigid.

3. SAMPLING

Judgemental and simple random sampling is used for this study.

Judgemental because specialties of all the doctors were pre-defined and simple random because doctors were surveyed as & when they were available.

TARGET POPULATION

The target population was doctors of both corporate and government hospitals of the given areas.

The main specialties of doctors interviewed were:

Gynecologists, Pediatricians, Neonatologists, Medical oncologists, Hematologists, Intensivists, Hepatologists, Gastroenterologist, General physicians, Emergency ward doctors BAMS, BHMS.

The sample size was 75 (different for each product on the basis of its usage and popularity)

4. DATA COLLECTION

TOOL –

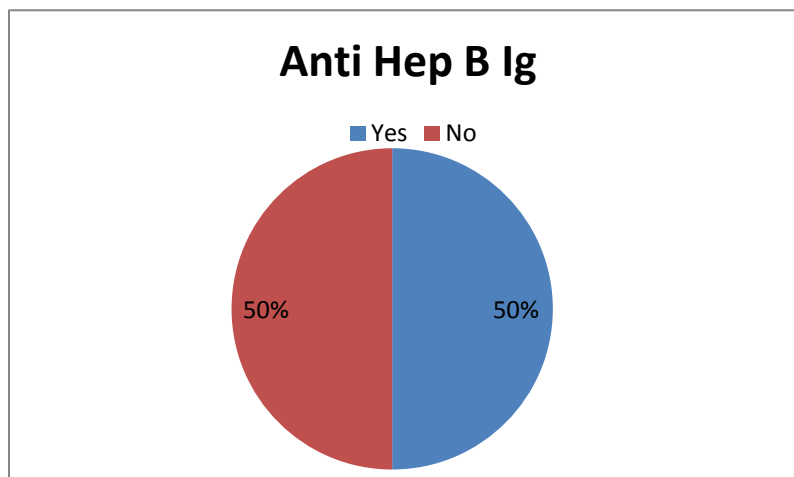
Structured Questionnaire comprising of both closed & open ended questions was used which was provided by the organization.

TECHNIQUE –

Face to face interview of the doctors were conducted.

DATA ANALYSIS FOR “Hepatitis B”

Question 1: Are you using any of the plasma products (Albumin, Immunoglobulins, **Anti D IG, Anti Rabies IG, Hep-B IG, Anti Tetanus IG,** Coagulation Factor, alpha-1 Antitrypsin) in course of your treatment?



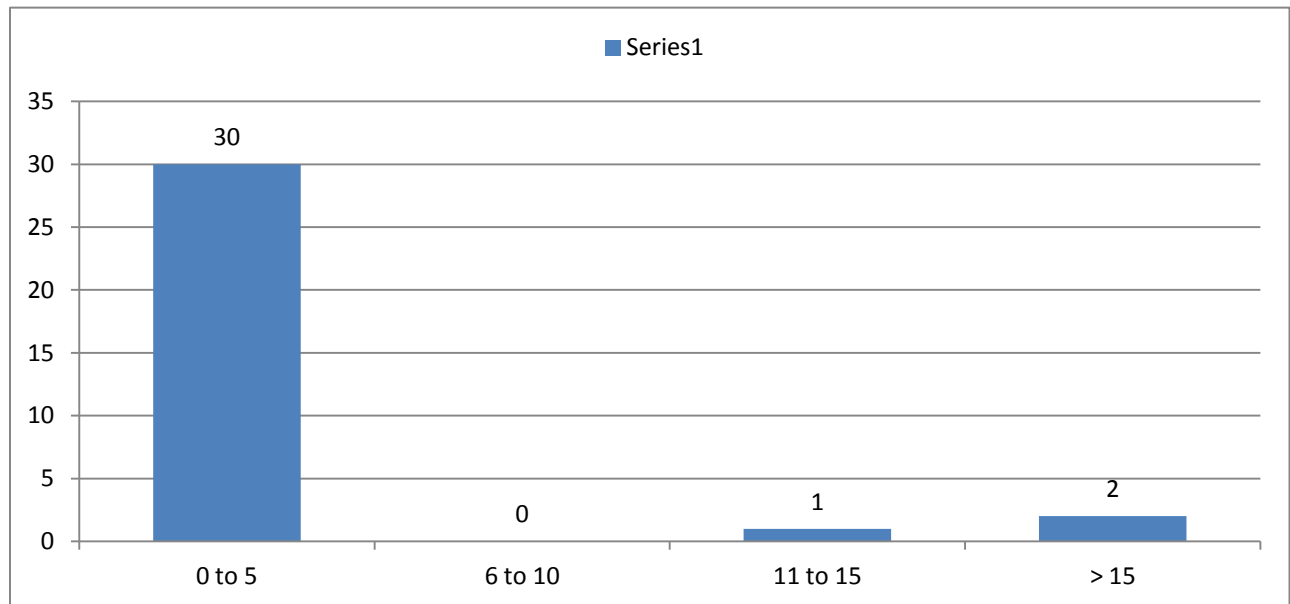
For the Hepatitis B sample size was 66 doctors out of which 50% doctors were using Hepatitis B Immunoglobulins.

Question 2: How easy/difficult it is to get this product?

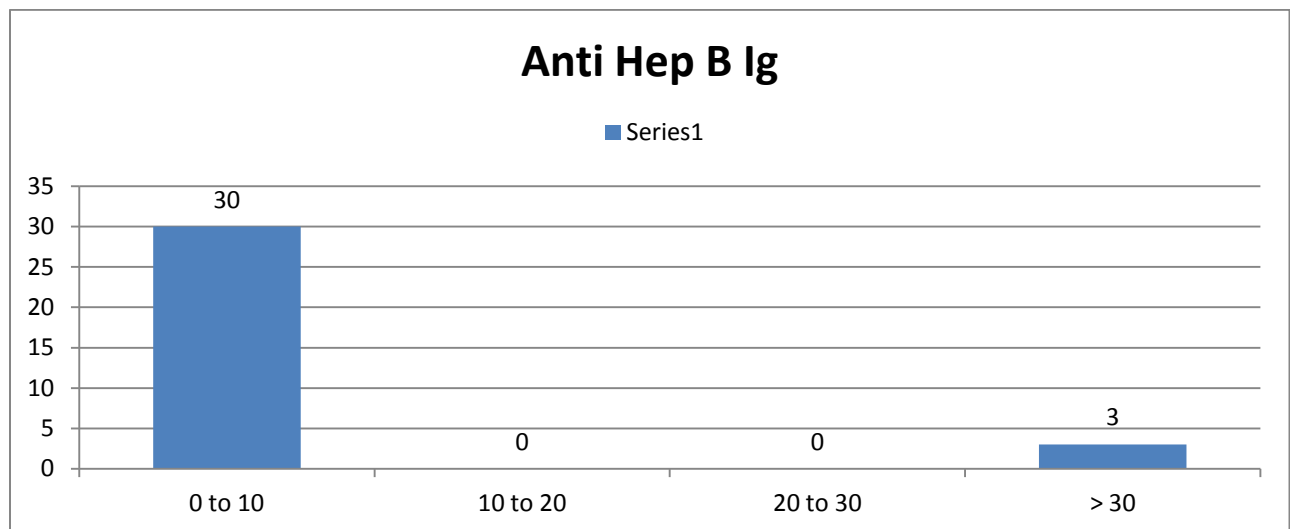
It was easy to get Hep-B Immunoglobulins for all the doctors who were using it.

Question 3:

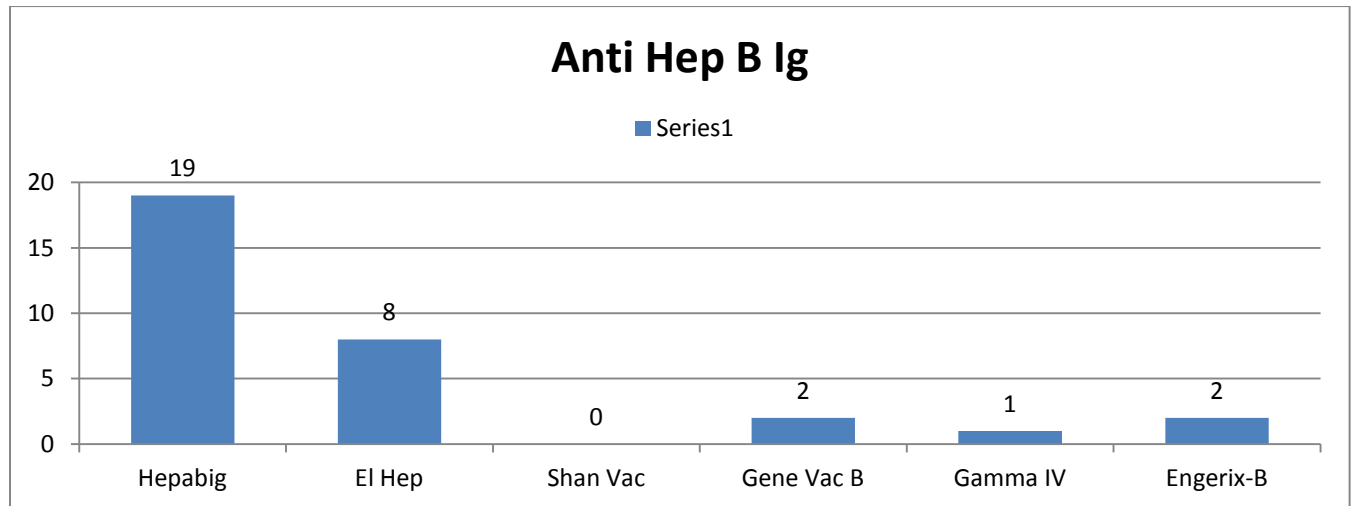
A: - No of cases of Hepatitis B per month



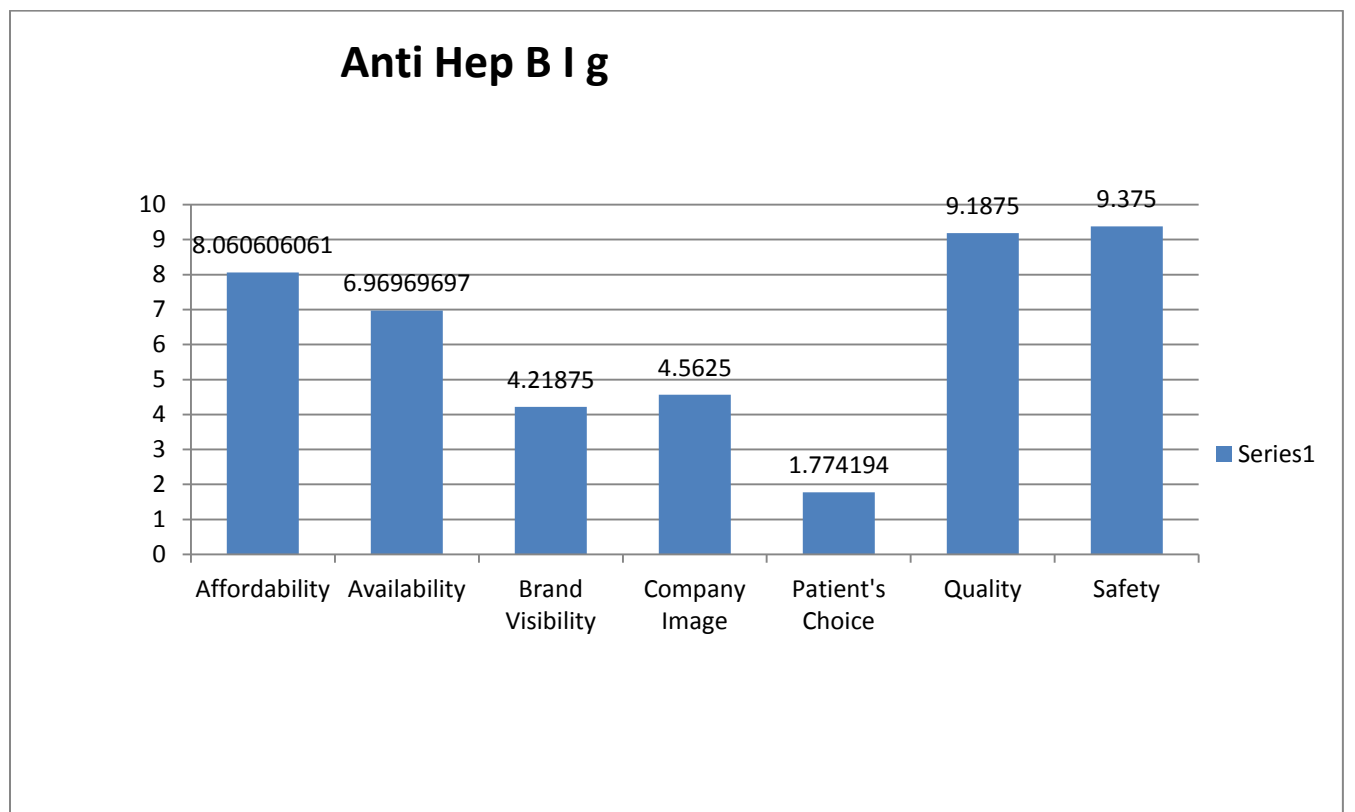
B: - % of patients who can be administered Anti Hep B Ig



Question 4: Brand Preference



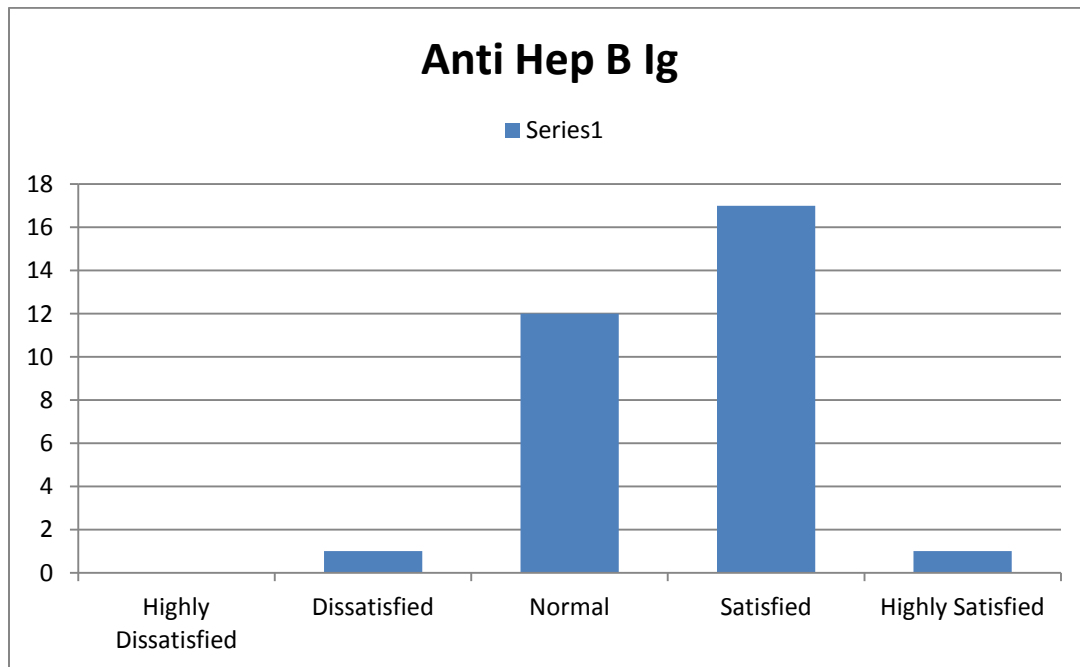
Question 5:



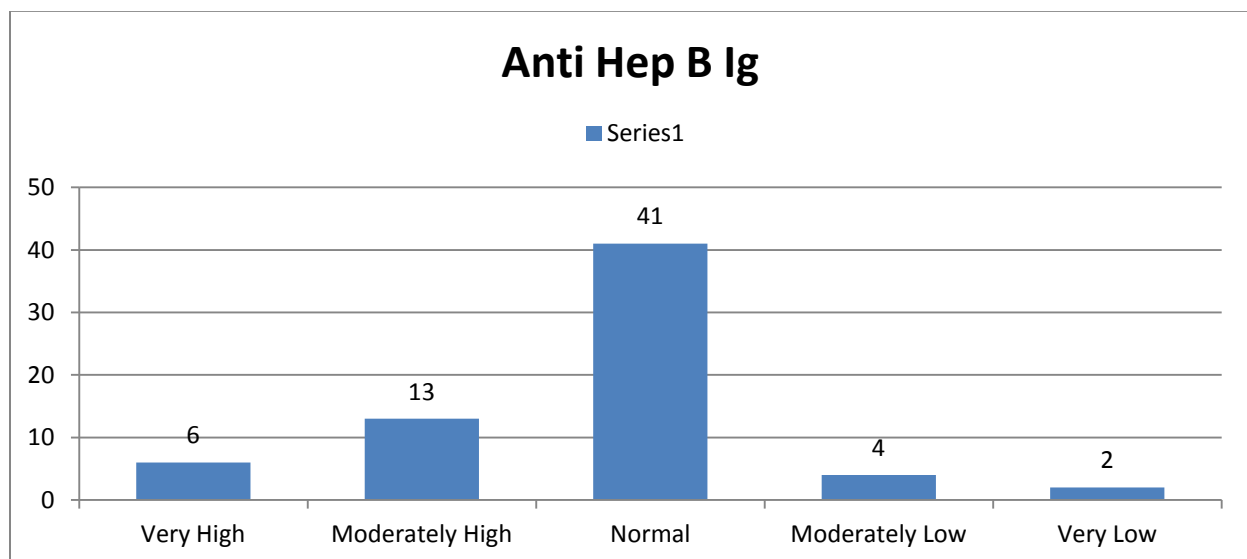
Question 6: Any other indication for which Anti Hep-B Ig can be prescribed?

One respondent suggested Anti Hep-B Ig for sepsis and another one for Antenatal Prophylaxis.

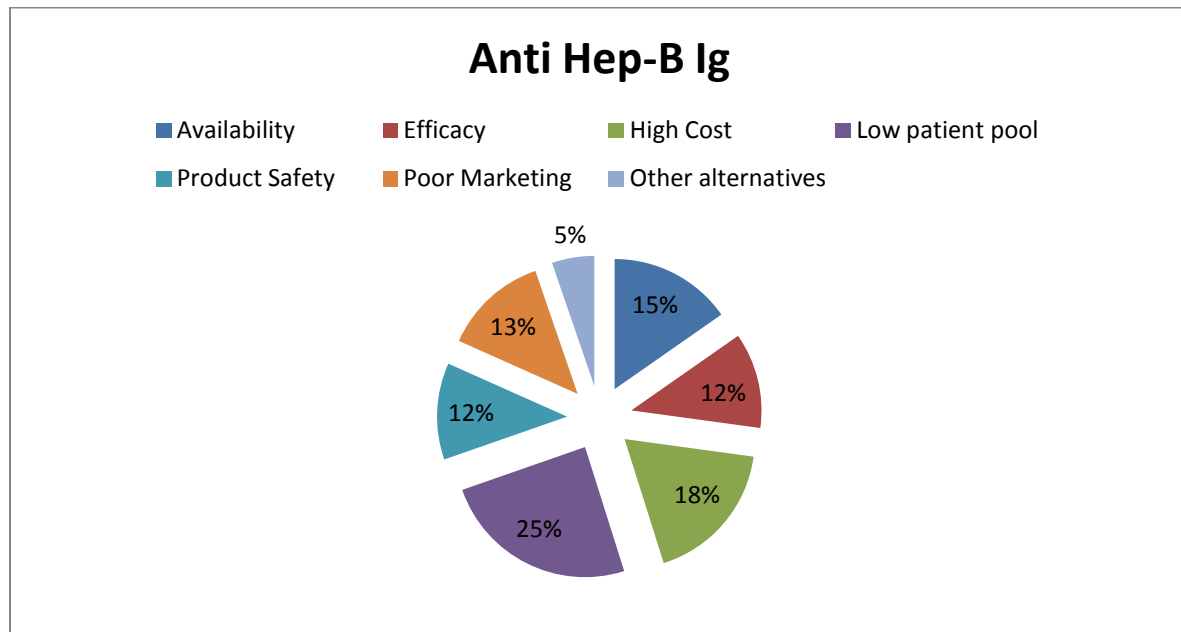
Question 7: Your opinion on the usage of currently available brands?



Question 8: Present awareness level about Anti Hep-B Ig in the medical fraternity:



Question 9: In spite of awareness about Anti Hep-B Ig, but it is not part of your therapy regimen due to:

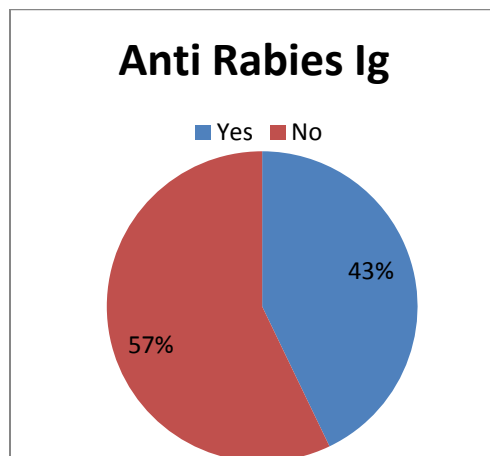


Question 10: Do you think conducting awareness program would help the medical fraternity? If so, what kind of awareness program you would recommend.

Almost all the respondents replied yes and recommended CME (Continuous Medical Education).

DATA ANALYSIS FOR *"Anti Rabies Ig"*

Question 1: Are you using any of the plasma products (Albumin, Immunoglobulins, **Anti D IG, Anti Rabies IG, Hep-B IG, Anti Tetanus IG,** Coagulation Factor, alpha-1 Antitrypsin) in course of your treatment?



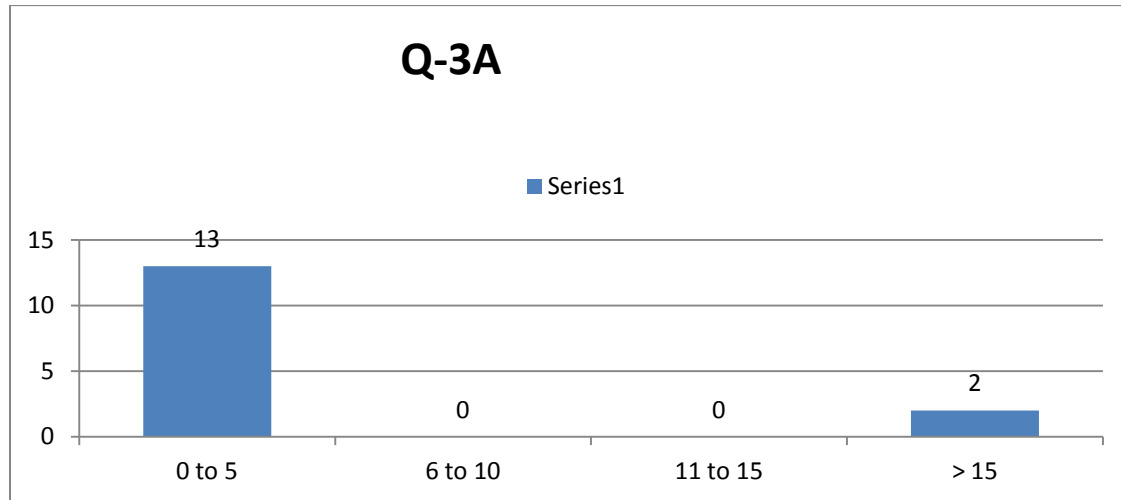
For the Rabies sample size was 35 doctors out of which 57% doctors were using Anti Rabies Immunoglobulins.

Question 2: How easy/difficult it is to get this product?

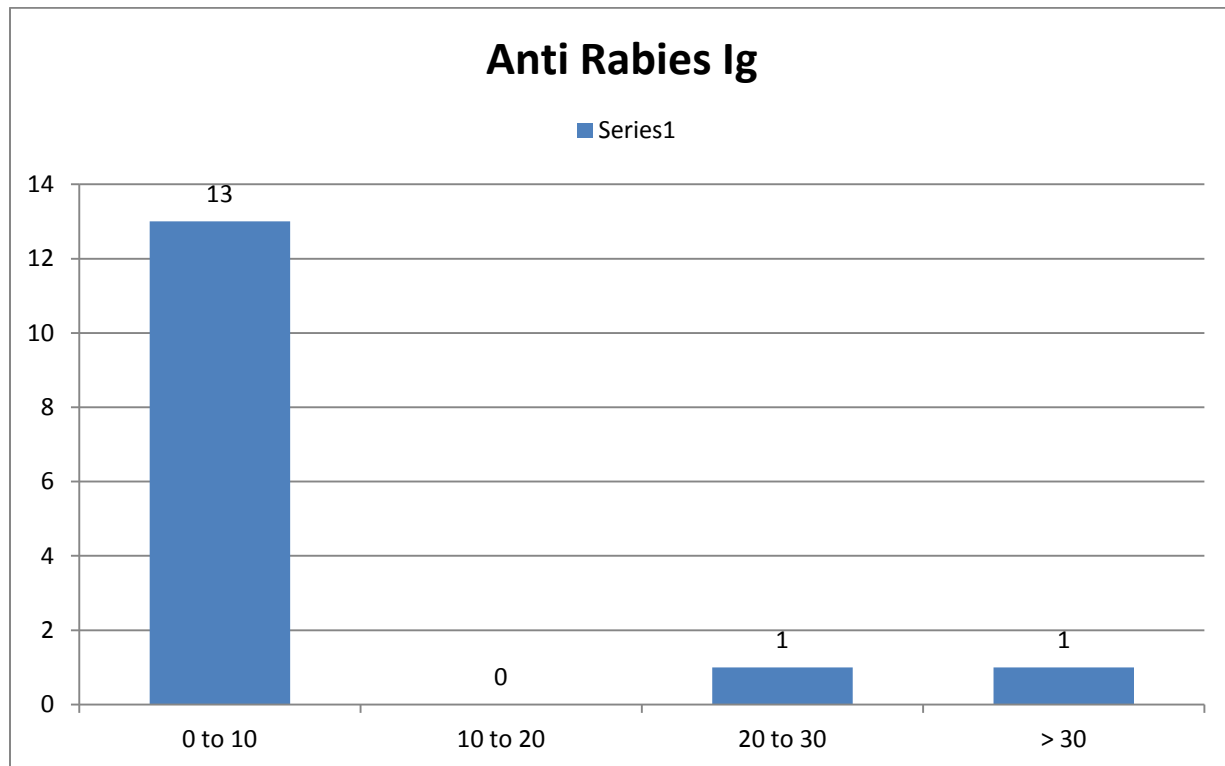
It was easy to get Anti Rabies Ig for all the doctors who were using it.

Question 3:

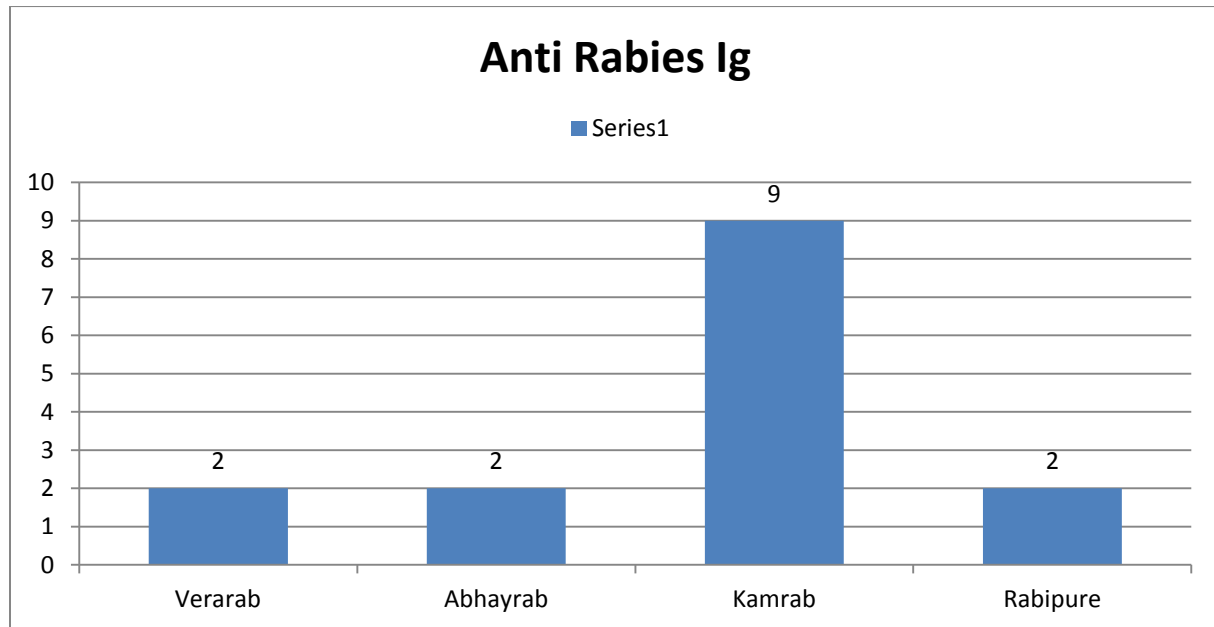
A: - No of cases of Rabies per year



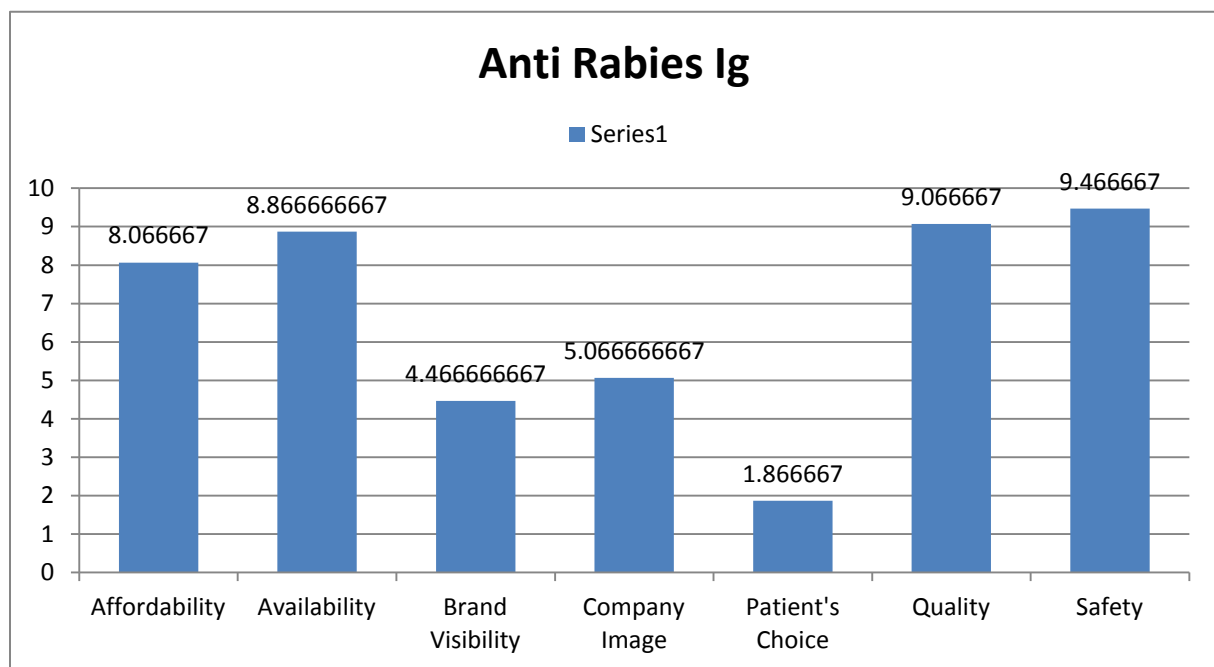
B: - % of patients who can be administered Anti Rabies Ig



Question 4: Brand Preference



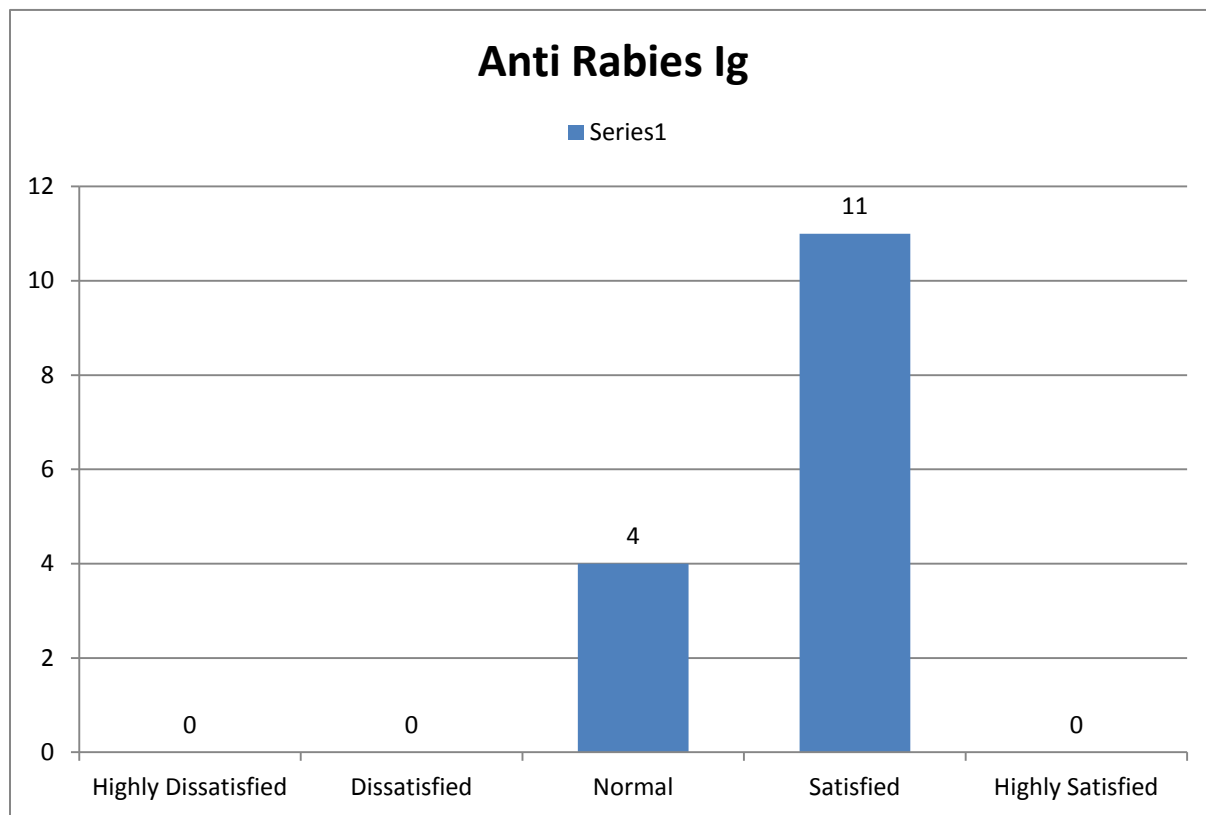
Question 5:



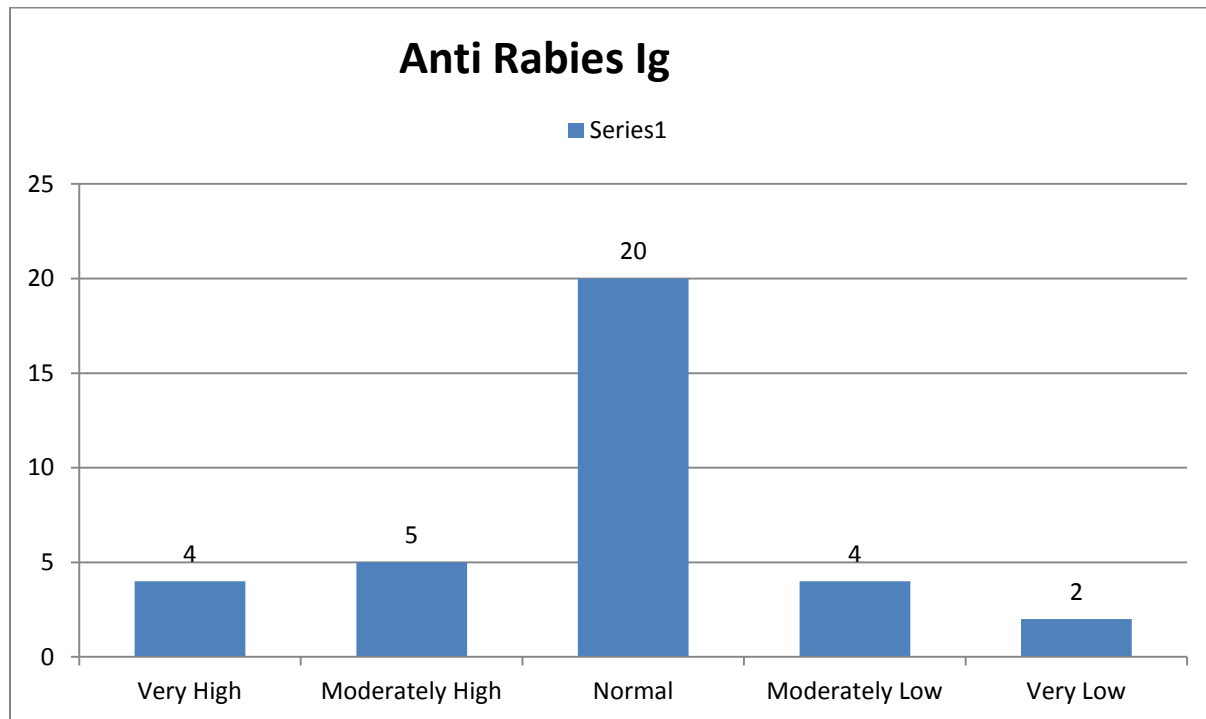
Question 6: Any other indication for which Anti Rabies Ig can be prescribed?

No respondent suggested any other indication for Anti Rabies Ig.

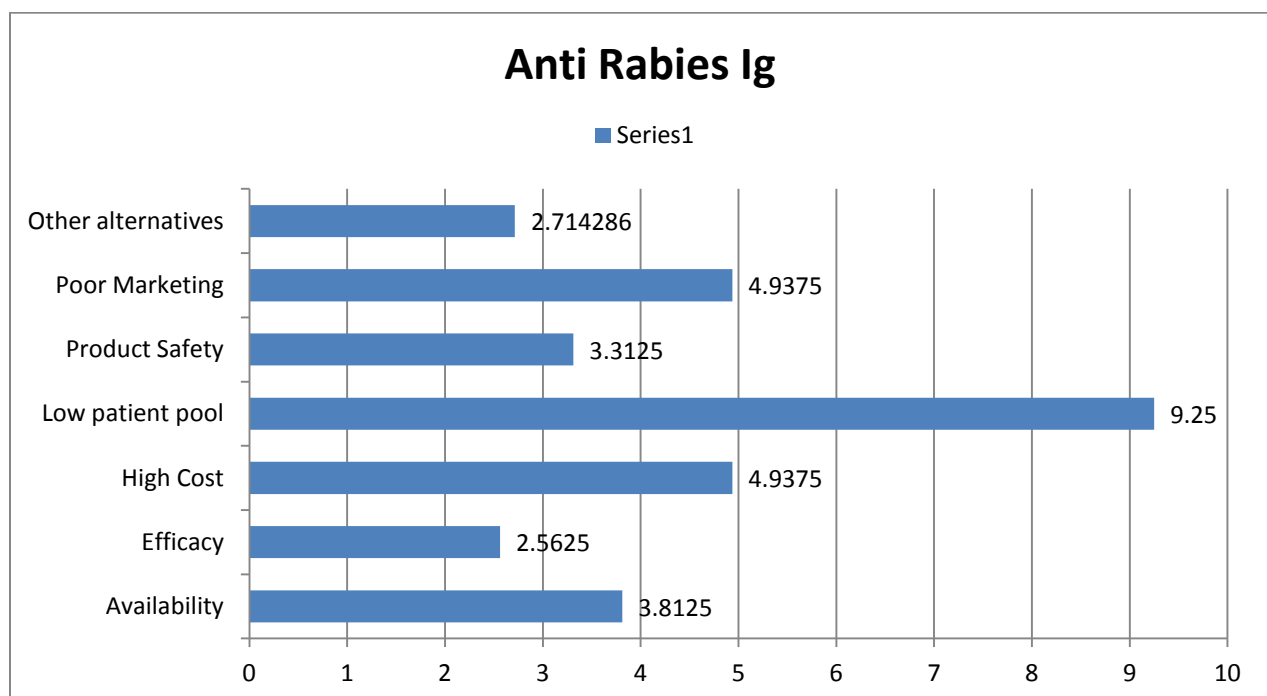
Question 7: Your opinion on the usage of currently available brands?



Question 8: Present awareness level about Anti Rabies Ig in the medical fraternity:



Question 9: In spite of awareness about Anti Rabies Ig, but it is not part of your therapy regimen due to:



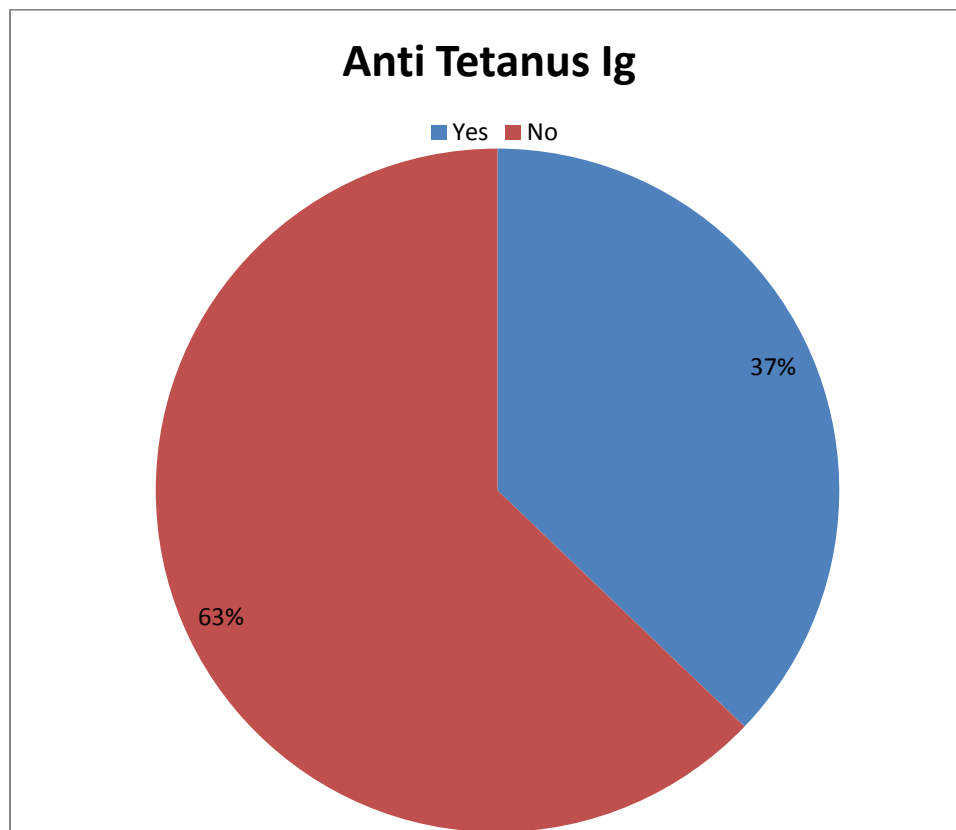
Question 10: Do you think conducting awareness program would help the medical fraternity? If so, what kind of awareness program you would recommend.

Almost all the respondents replied yes and recommended CME (Continuous Medical Education) to enhance awareness.

DATA ANALYSIS FOR “Tetanus”

Question 1: Are you using any of the plasma products (Albumin, Immunoglobulins, **Anti D IG, Anti Rabies IG, Hep-B IG, Anti Tetanus IG,** Coagulation Factor, alpha-1 Antitrypsin) in course of your treatment?

For the Tetanus sample size was 35 doctors out of which only 37% doctors were using Anti Tetanus Immunoglobulins.

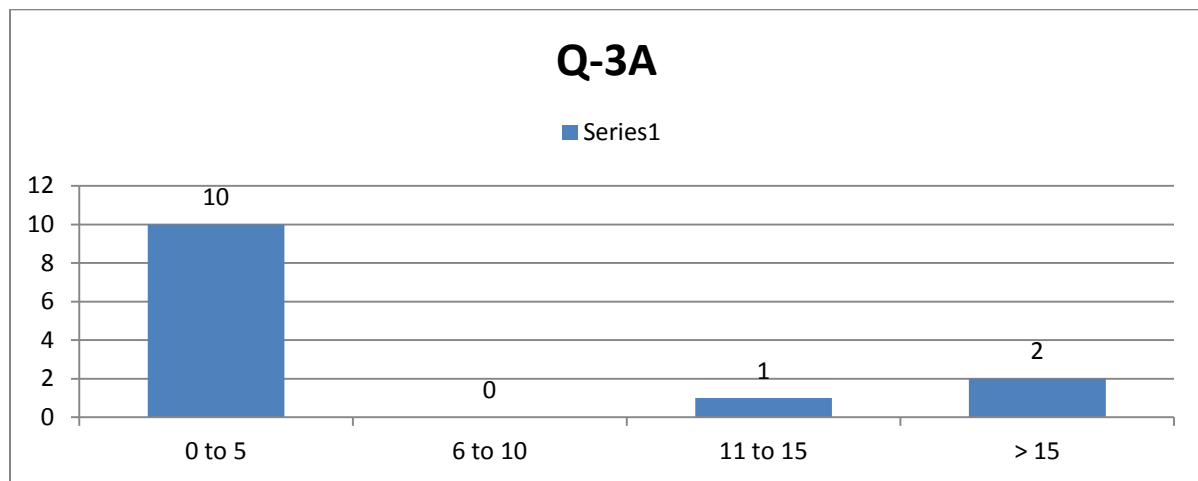


Question 2: How easy/difficult it is to get this product?

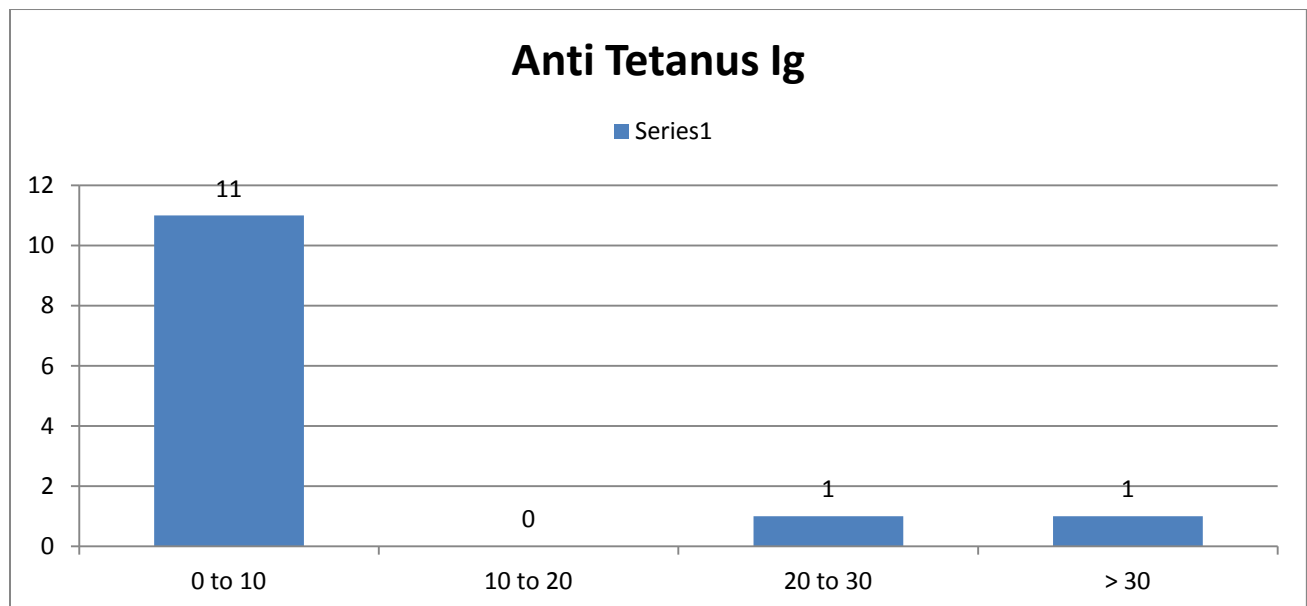
It was easy to get Anti Tetanus for all the doctors who were using it.

Question 3:

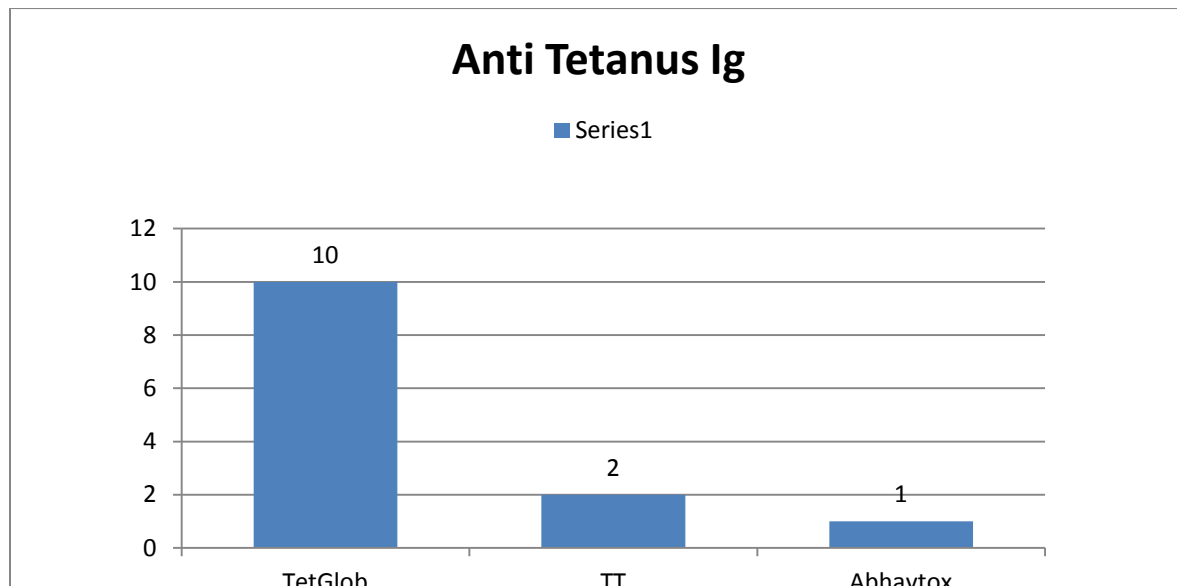
A: - No of cases of Tetanus per year



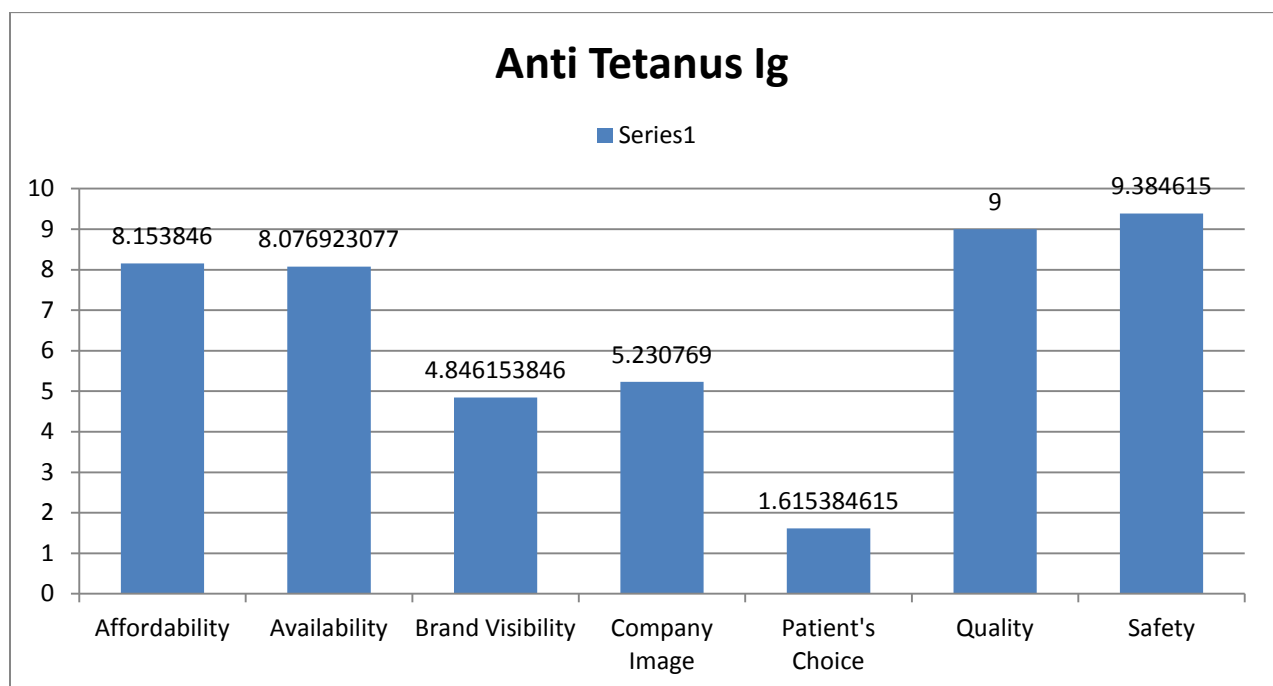
B: - % of patients who can be administered Anti Tetanus Ig



Question 4: Brand Preference



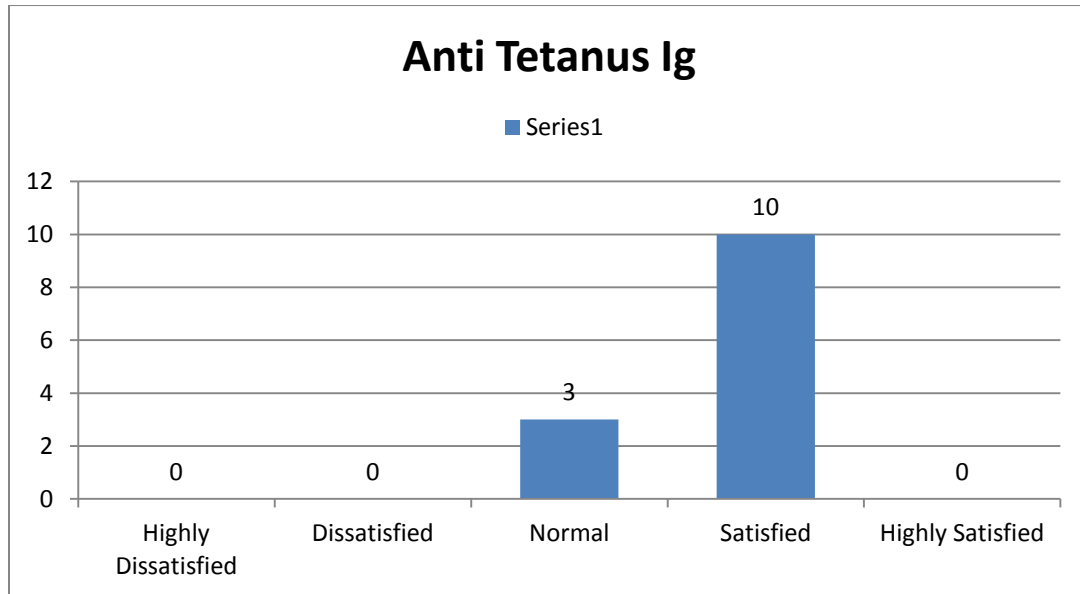
Question 5:



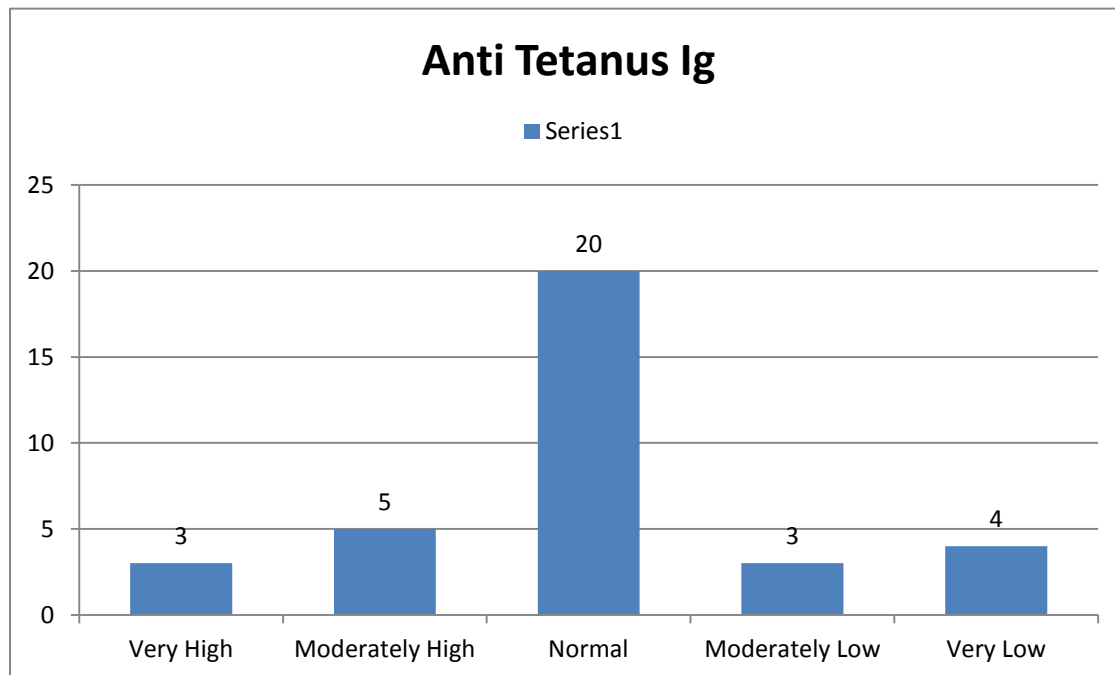
Question 6: Any other indication for which Tetanus Ig can be prescribed?

No respondent suggested any other indication for Anti Tetanus Ig.

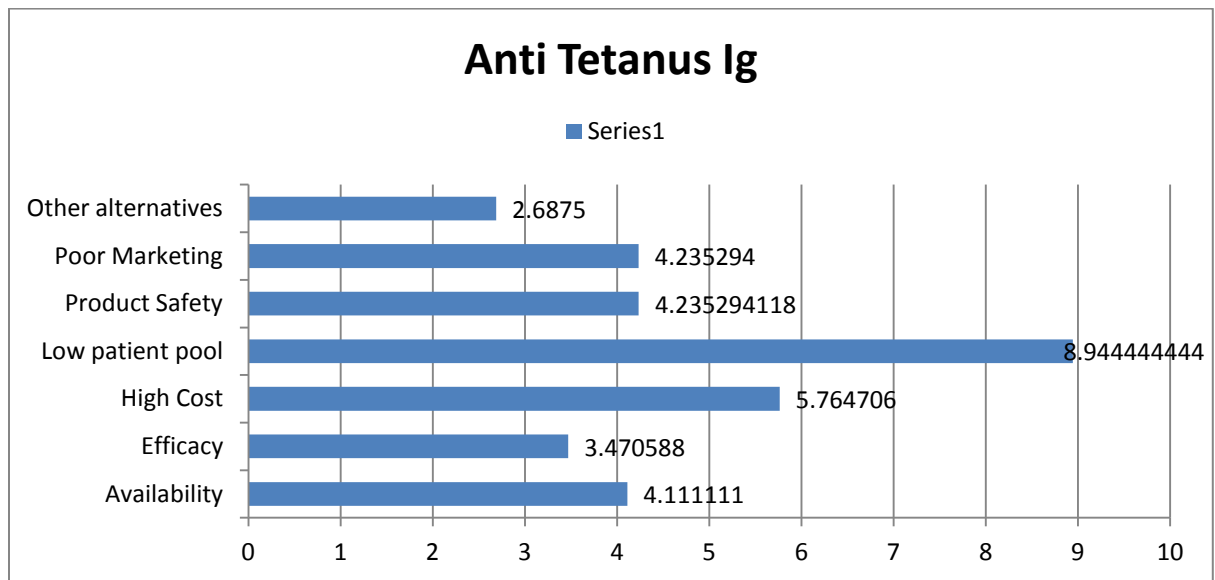
Question 7: Your opinion on the usage of currently available brands?



Question 8: Present awareness level about Anti Tetanus Ig in the medical fraternity:



Question 9: In spite of awareness about Anti Tetanus Ig, but it is not part of your therapy regimen due to:



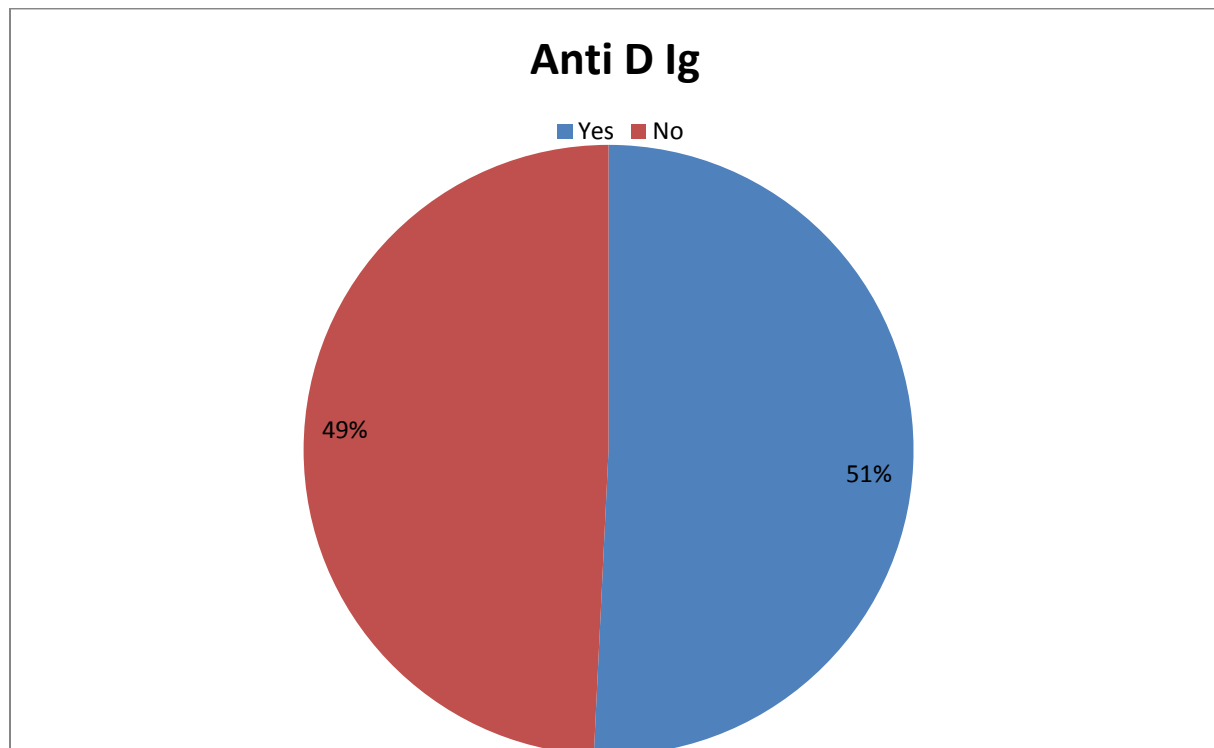
Question 10: Do you think conducting awareness program would help the medical fraternity? If so, what kind of awareness program you would recommend.

Almost all the respondents replied yes and recommended CME (Continuous Medical Education) to enhance awareness.

DATA ANALYSIS FOR “Anti D Ig”

Question 1: Are you using any of the plasma products (Albumin, Immunoglobulins, **Anti D IG**, **Anti Rabies IG**, **Hep-B IG**, **Anti Tetanus IG**, Coagulation Factor, alpha-1 Antitrypsin) in course of your treatment?

For the Anti D Ig sample size was 65 doctors out of which 51% doctors were using Anti D Immunoglobulins.

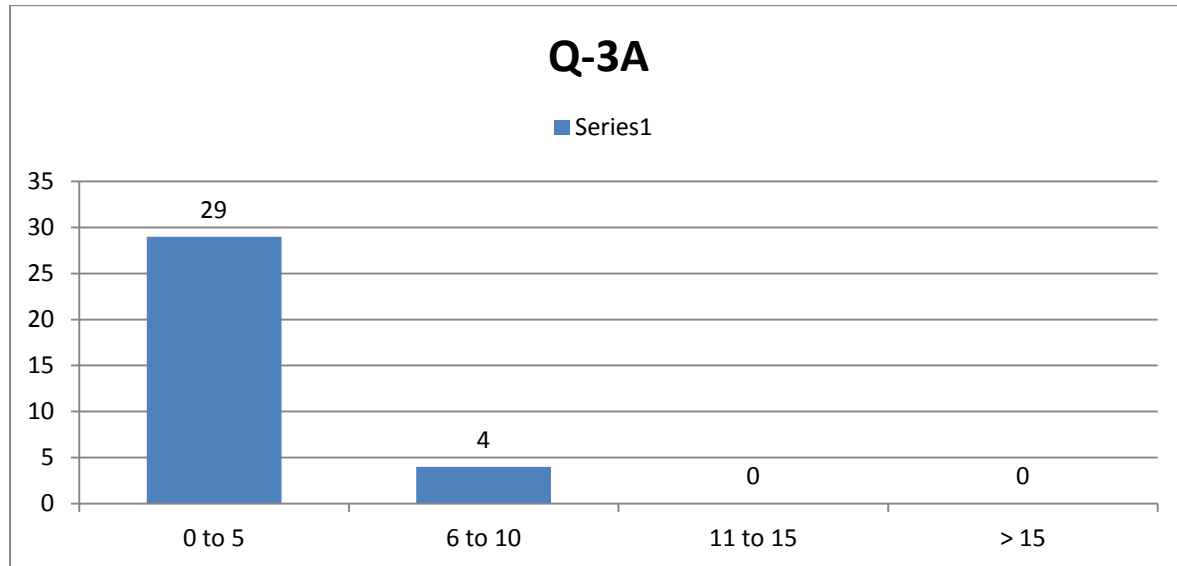


Question 2: How easy/difficult it is to get this product?

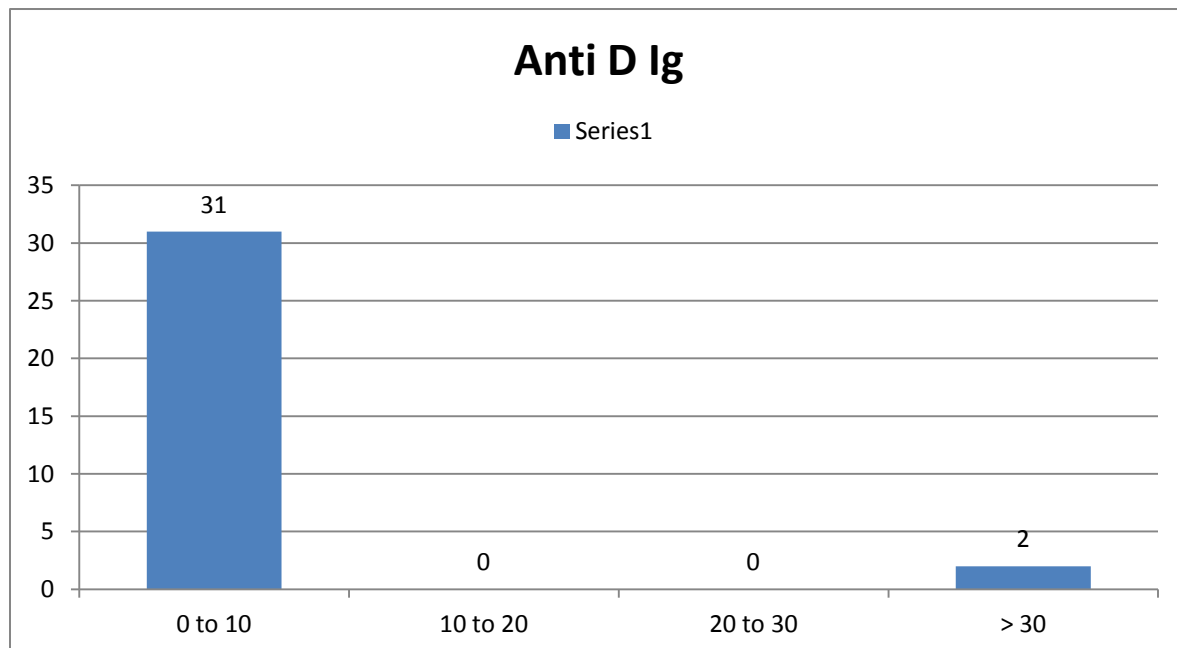
It was easy to get Anti D Ig for all the doctors who were using it.

Question 3:

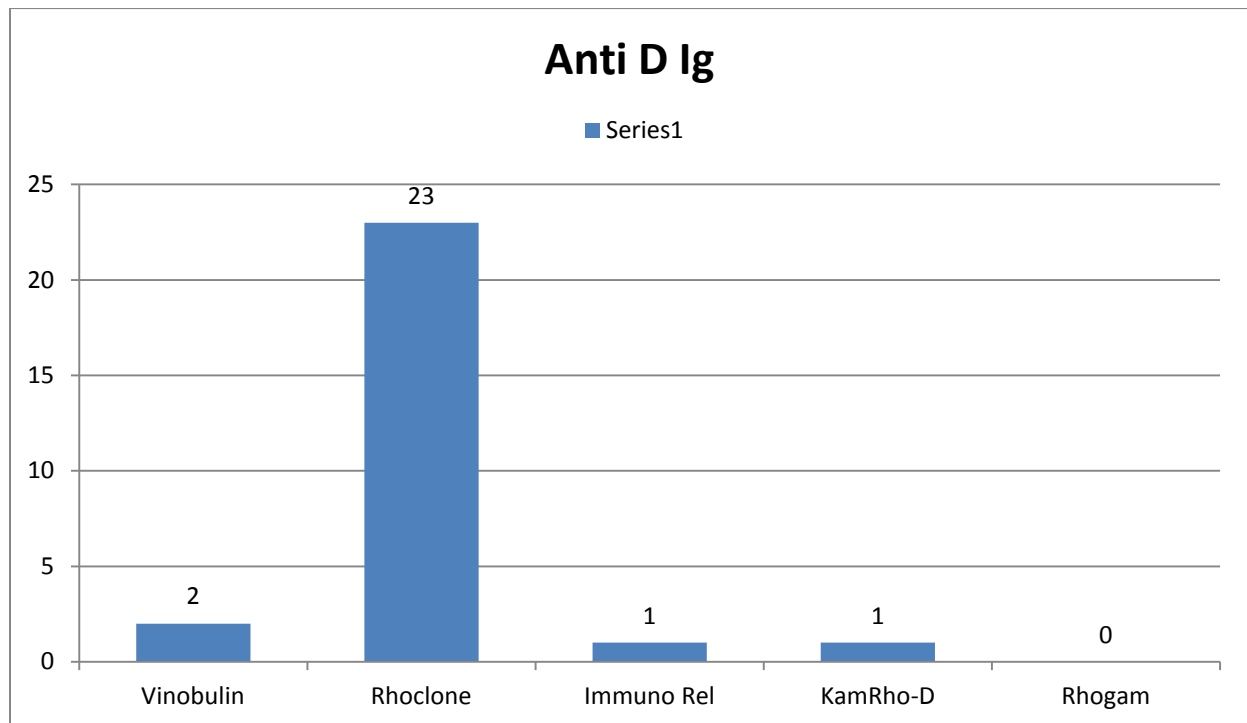
A: - No of cases of Rh Incompatibility per month



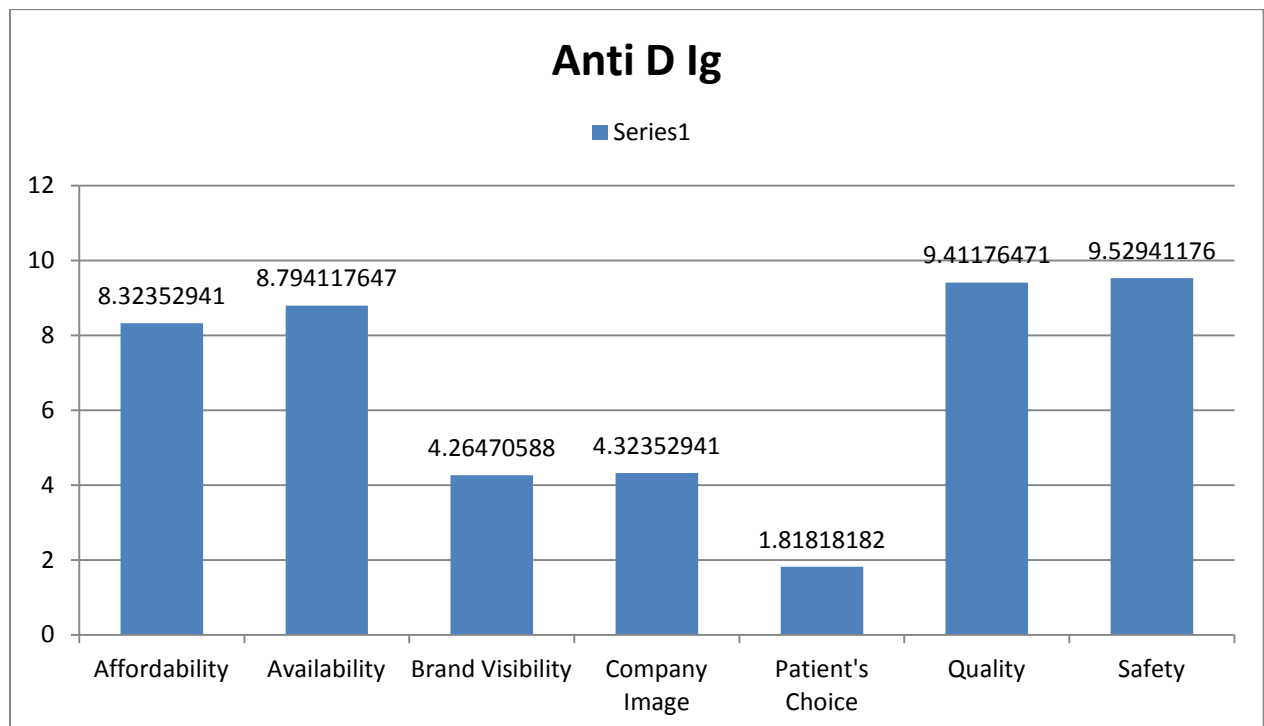
B: - % of patients who can be administered Anti D Ig



Question 4: Brand Preference



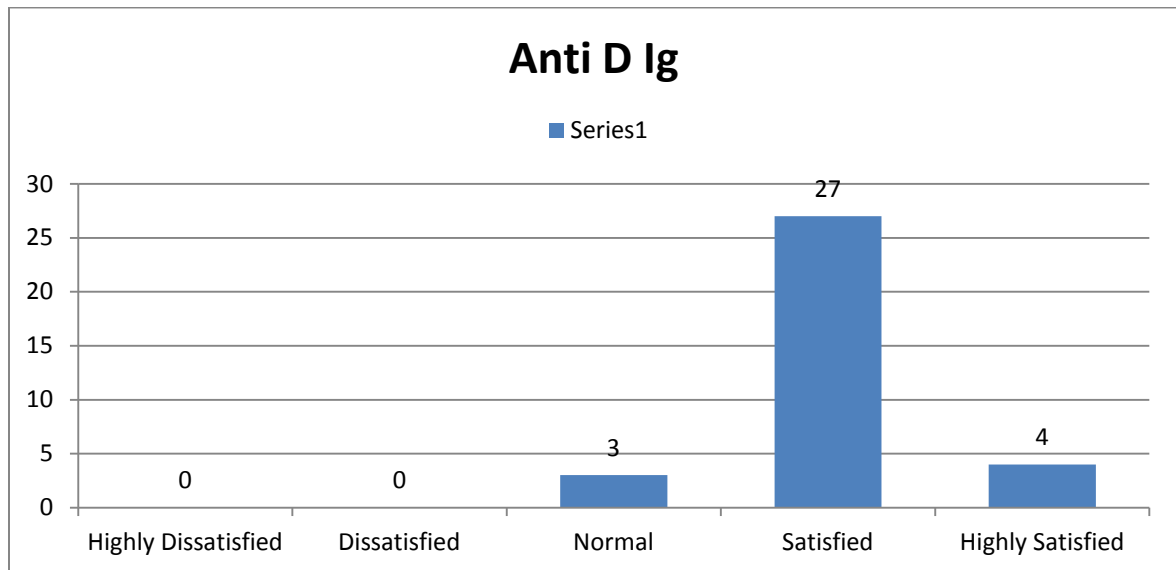
Question 5:



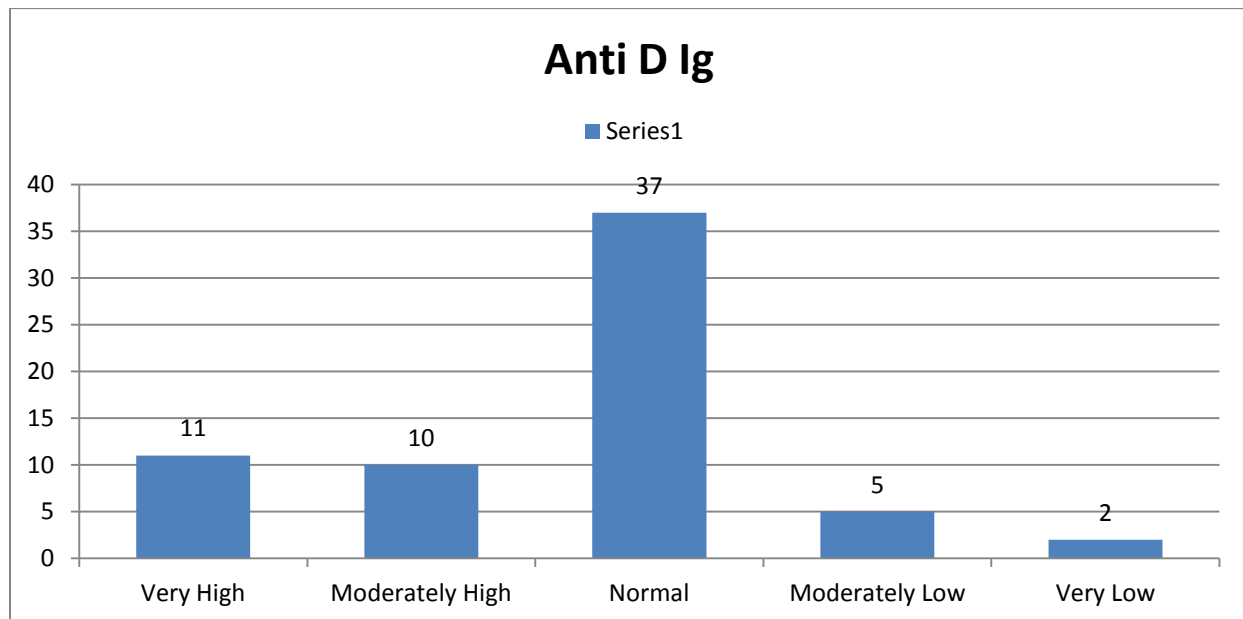
Question 6: Any other indication for which Anti D Ig can be prescribed?

No respondent suggested any other indication for Anti D Ig.

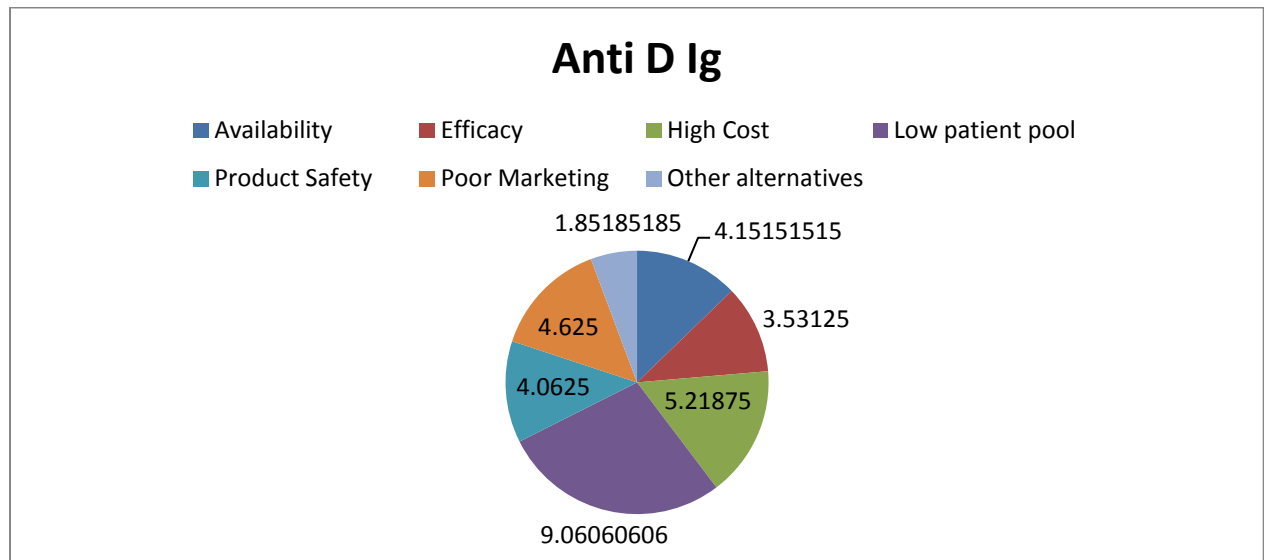
Question 7: Your opinion on the usage of currently available brands?



Question 8: Present awareness level about Anti D Ig in the medical fraternity:



Question 9: In spite of awareness about Anti D Ig, but it is not part of your therapy regimen due to:



Question 10: Do you think conducting awareness program would help the medical fraternity? If so, what kind of awareness program you would recommend.

Almost all the respondents replied yes and recommended CME (Continuous Medical Education) to enhance awareness.

OBSERVATIONS AND FINDINGS

For Hepatitis B Ig: -

- Data suggest that 50% of the doctors were prescribing Hep B Ig.
- There is easy availability (100%) of the product and also majority of the doctors (55%) are satisfied for the brands they are using.
- Out of 66 doctors interviewed 60% doctors prefer Hepabig of VHB Life sciences Ltd.
- The market reach of **VHB Life sciences** is supposedly very good as out of 60% most doctors prescribed it due to quality, safety, affordability & availability of the product.
- The second market leader is **El Hep** of El-Shaddai Biological Ltd having 25% of the market share.
- Out of the total doctors half of the doctors are not using the product mainly because of the low patient pool.
- This 50% can be a very potential market & a great opportunity for PlasmaGen to capture.
- About 90% doctors use Hep B Ig in less than 10 % patients per month. This suggests that demand is not very high.
- The data suggest that pricing is still an issue as 18% of the doctors give it as reason for not prescribing it.

For Anti Rabies Ig: -

- About 57 % doctors are using Anti D Ig.
- There is easy availability (100%) of the product and also majority of the doctors (55%) are satisfied for the brands they are using.
- Majority doctors (60%) prefer KamRab of Synergy Diagnostics.
- The second most preferred brand in this category is Verorab of Sanofi Company.
- Out of the total doctors 43% doctors are not using the product mainly because of the low patient pool.
- This 50% can be a very potential market & a great opportunity for PlasmaGen to capture.
- About 87% doctors use Anti Rabies Ig in less than 10 % patients per month. This suggests that demand is not very high.

For Anti Tetanus Ig: -

- Only 37% doctors are using Anti Tetanus Ig.
- There is easy availability (100%) of the product and also majority of the doctors (55%) are satisfied for the brands they are using.
- But there are limited options for doctors to prescribe as only 3 brands are available in the market.
- Among these brands TetGlog of **Bharat Serum** is the market leader capturing 77% of market.
- Data shows that TT (Tetanus Toxoid) of Serum Institute of India Ltd comes second with 15% market share.
- Majority (63%) doctors do not prescribe Anti Tetanus mainly because of low demand & high cost of the product.

For Anti D Ig: -

- Almost half of the doctors are using Anti D Ig.
- Majority (94%) who are using the product give to less than 10 % of the patients. This shows poor demand.
- However, there are some doctors (6%) who give this product to most of the cases. These 6% doctors can be major consumer of the product.
- Among the 5 brands available, **Rhoclone** of *Bharat Serum* is the clear market leader having (85%) market share.
- Another brand, Vinobulin is also of Bharat Serum occupying 7% market. Thus **Bharat Serum** covers 92% of Anti D Ig market.

Thus Low demand & affordability are the main reasons for most of the doctors behind less usage of above 4 Immunoglobulins.

On the other hand, most of the doctors are well aware of the products.

RECOMMENDATIONS AND CONCLUSION

- ✓ With the data collected at the time of the project, now we have clear understanding of the market position of the company & loopholes in the demand & supply of the product.
- ✓ Bharat Serum is undoubtedly market leader in this segment whereas there are also some players giving competition.
- ✓ But PlasmaGen also have the opportunity to cover the untapped market.
- ✓ Also PlasmaGen will have to do extensive marketing so as to establish the brand and create awareness about the company and its products available.
- ✓ Besides, company must expand its research and development laboratories and come up with wider product mix.