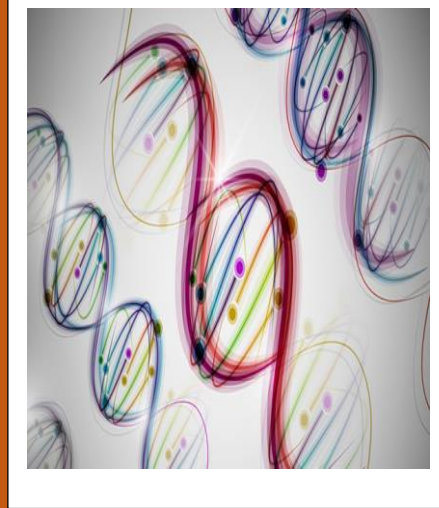


# IMPRESSION 2015-2016



**Indian Association of Blood Cancer &  
Allied Diseases**  
81C, Narkeldanga Main Road  
Kolkata-700054  
Telephone: 03364610972,  
033-23730138  
Email: [iabcd.81c@gmail.com](mailto:iabcd.81c@gmail.com)  
[www.cancerlifeblood.org](http://www.cancerlifeblood.org)

**INDIAN ASSOCIATION OF  
BLOOD CANCER &  
ALLIED DISEASES**



Established on January 2, 1990

## **The Association ■■■**

Indian Association of Blood Cancer & Allied Diseases is a registered, voluntary, national level, medical support service organization, dedicated to provide medical, education, counselling and other rehabilitative services to improve the quality of lives of children suffering from blood cancer i.e. leukaemia and other blood diseases like thalassaemia, haemophilia etc.

The Association (IABCD) is registered under West Bengal Societies Registration Act, 1961 with No. S/63715 of 1989-90. Donation made to IABCD is exempted under section 80G of Income Tax Act, 1961 with No. DIT (E)/8E/15/90-91/728 dated 17.03.2008 which is valid for the assessment year in perpetuity vide letter no. DIT (E)/8E/15/90-91/2439 dated 20.05.2011 issued by DDIT (E-I), Hqrs, & Admn. Kolkata. Our PAN No. is AAAAI0249N.

### **Mission:**

The Association (IABCD) is a multidisciplinary organization dedicated to promoting optimal care to improve the quality of life for children and adolescents affected by blood disorders and blood cancer by advancing research, education, treatment and professional practice.

### **Objectives:**

- (a) To promote and organize voluntary blood donation services.
- (b) To coordinate with medical centers for the purpose of diagnosis and treatment of patients suffering from blood cancer and allied diseases such as leukaemia, thalassaemia, haemophilia etc.
- (c) To provide support services for the rehabilitation of patients and dependents.
- (d) To develop the center for education and counselling.
- (e) To acquire, build, hire, maintain and run research laboratory and related facilities and equip them with amenities considered necessary for proper discharge of the functions of the Association.
- (f) To print, publish, exhibit, and subscribe periodicals, books, pamphlets, posters etc, that may be considered for the desirable promotion of the objectives of the Association.

## President's Remarks ■■■

Dear friends,

Each year, as we prepare the Annual Report, I look back with immense gratitude and much amazement at the accomplishments that association's supporters, board members, staff, and engaged volunteers make possible. This year is no different. Your support helps us make a real difference—even a significant difference in creating facilities for medical care services for patients.

In 2015-2016 we continued to nurture new ideas and promote cooperation between clinical research and blood product units. We are one of the dedicated medical service centre for blood disease children to saving lives through research. Medical team always explore s new technologies and the pace of scientific results are leading us rapidly towards precise treatments that will reduce side effects and help more people survive.

Cancer is a disease of vast complexity and there is much we have yet to learn. However, in recent years, understanding of the disease has improved markedly and significant technological advances have been made. This creates exciting opportunities to develop new diagnostics, therapeutics and prevention approaches which will have a profound impact. We continued to train and develop the next generation of cancer researchers through our Institutes and Centres, as well as developing schemes to provide support for research.

We have been struck by the sense of excitement and optimism, which spans those directly involved in the research endeavour, to those who use the outputs of that research to deliver better care for patients. While no one underestimates the challenges and barriers we have yet to overcome, there is an overriding belief that the next several years can, and will, transform the outlook for cancer patients.

We could not achieve anything without the generosity of our supporters and the dedication of the cancer patients who selflessly participate in our medical care and research. They make the extraordinary possible and enable us to have belief in our vision of bringing forward the day when all cancers are cured.

I invite you now to take a moment to enjoy this report. It's a small window into some of the work made possible due to donors' support. That work is far from over, but I remain ambitious and optimistic in pushing for practical solutions for shared prosperity; after all, development is a win-win proposition—a better world for children suffering from blood diseases and blood cancer.

Best wishes,

Amalendu Pal  
President

Kolkata  
April 8, 2016

## **Patient Care ■■■**

### Meeting the transfusion needs of patients

#### 1. Build our understanding of cancer

- Increase our knowledge of how cancers start, develop and spread, including understanding how the disease evolves over time.
- Develop our Institutes and Centres.
- Grow and develop new and existing funding streams
- Develop the cancer research leaders of tomorrow.

#### 2. Reduce people's risk of developing cancer

- Develop new approaches to cancer prevention.
- Help people reduce their risk of cancer.
- Work towards the day when the India is tobacco-free.
- Develop an international consortium to build a global approach to tobacco control.

#### 3. Facilitate a major shift in early diagnosis

- Lead progress in investigation of early-stage disease.
- Develop new methods of detecting and screening for cancer.
- Enhance uptake and targeting of screening programmes.
- Engage and influence the public and health professionals.
- Build expertise and collaboration in early diagnosis research to transform outcomes for patients.

#### 4. Develop and improve treatments for blood cancer and blood disorders patients

- Lead innovation in therapy and treatment protocol.
- Discover and develop new drugs and new treatment combinations.
- Improve access to cutting-edge treatments for patients across Asia region.
- Support research to develop more tailored treatments.

#### 5. Boost research into rare and hard to treat blood cancer and blood disease patients

- Focus on blood cancers and blood disorders
- Increase research into cancers affecting children and young people, to improve survival and reduce side effects of treatment.
- Create and develop collaborations and international partnerships to tackle these cancers
- Develop centre for technology innovation, application of bio-technology for diagnosis, product development and development of devices

## 6. Engage and empower patients, patients’ families and the public

- Promote the publication of the cancer and blood disease prevention strategy
- Engage patients and the public in the fight against blood cancer and blood diseases
- Tailor our cancer information for patients and the public.
- Engage local communities and policy-makers with our research across the region.

Transfusion practice has come a long way due to WHO’s intervention and continuous research by many national international institutes of repute but advances are still being made. IABCD’s Better Blood Transfusion Programme (BBTP) ensures that every donor’s gift is used appropriately, safely and efficiently.

Ensuring that blood transfusion is as safe as it possibly can be is a crucial part of association’s role, which is why every blood donation is tested rigorously for infectious diseases. The serology unit tests blood donations that have shown up positive in screening tests. It is their job to confirm which of these initial reactive actually true infections are. Blood-borne infectious agents present naturally in the human population are an inherent risk in treatment with blood products and pose a major challenge to Transfusion Medicine. The risk is greatest when an infectious agent is new or unknown since many patients may be infected before the viruses responsible can be identified.

### Blood Products

A number of medicinal products are manufactured from human blood. They fall into two categories: (a) blood components, such as red cells, platelets, cryoprecipitate and plasma and (b) bio-pharmaceutical proteins (also referred to as plasma products), such as albumin, immunoglobulins and coagulation factors, that are derived from human plasma using highly specialized manufacturing processes (see tables below).

<b>Principal Blood Components Derived from Human Blood and their Medical Applications</b>	<b>Medical Applications</b>
Red cells	Acute anaemia (due to haemorrhage) and chronic anaemia
Platelets	Prevention or treatment of bleeding due to chemotherapy; Management of major bleeding in surgery, trauma or obstetrics
Plasma	Treatment of deficiency of coagulation proteins when no specific plasma or recombinant product is available; Management of major bleeding in surgery, trauma or obstetrics
Cryoprecipitate	Treatment of deficiency of fibrinogen associated with major bleeding, for example in post-partum haemorrhage; Factor VIII for treatment of bleeding due to haemophilia (still used in some countries for this indication)

Association's Better Blood Transfusion (BBT) programme is all about partnership and collaboration, because only through working with other hospitals, clinics, research laboratories its clinical and laboratory colleagues and those within IABCD. Association achieves its objective, which is to ensure that every donor's gift is used appropriately, safely and efficiently. Only ever transfusing blood when it is appropriate to do so is another of IABCD's tenets, and over the years it has completed a number of clinical effectiveness in blood transfusion services.

This year's focus of attention has been an international randomized control trial on the age of blood, looking at how transfusions of relatively older and younger blood affect patients. IABCD has been involved in this important study, which will inform clinical practice in the future.

Through activities such as these and by everyone working together to promote best practice, training and education is another mainstay of IABCD activity. Safety remains of critical importance and in its continued drive to ensure that the whole transfusion process is as safe as possible, IABCD has introduced a national Zero Tolerance policy on sample labelling. If the label on any samples for blood transfusion does not exactly match the details on its accompanying request form, the sample is automatically rejected, in line with the Central Drug Control Standard Operating Guidelines recommendations.

To more directly support the core activity of the organization, the number of theme groups has been reduced to three: Clinical Transfusion and Therapies, Serology and Microbiology and Components, and Blood Processing and Testing respectively. As a result, Research and Development changed its name to Research, Development and Innovation to more accurately reflect its instrumental role in shaping the future.

Supporting the Better Blood Transfusion (BBT) programme's work on the clinical implications of the age of blood, the Research, Development and Innovation Unit started to look at what happens to red cells as they age. Further laboratory and clinical studies require to be carried out into the impact of ageing cells, and product development.

The association provides a range of life-saving and life-enhancing therapeutic services for a growing number of patients throughout the year. To help optimize blood component stock management, IABCD has invested considerable time in developing a system which will provide a valuable insight into the clinical context in which blood components are used. 'Account for Blood', as it is called, will identify the types of patients IABCD will support in the future and, for the first time, will provide a picture of where and how the blood is used on a real time basis. Using comparative data, it will also help to identify variations in practice, pinpointing where IABCD can support clinical teams to further optimize the use of blood.

### Post transfusion adverse events

**Allergic Reactions:** Allergic reactions are due to recipient antibodies to donor plasma proteins. Allergic reactions can result in a broad spectrum of severity from focal mild urticarial to systemic, life-threatening anaphylaxis. To mitigate these reactions, AIABCD can provide washed products to nearly eliminate plasma in red cell and platelet products or platelets stored in additive solution with less plasma.

**Hemolytic Reactions:** Transfusion of incompatible red blood cells or plasma can lead to hemolysis. These reactions can be secondary to ABO-incompatibility or other minor red cell antigens. Hemolytic reactions can be acute, occurring immediately, or delayed, occurring days to weeks after the transfusion, and result in fever, chills, and back pain. To mitigate these reactions, IABCD ensures blood components are appropriately labeled, labeling group O platelets if they have high titer ABO antibodies, and providing red cell antigen negative units for alloimmunized patients upon request.

**Febrile Non-Hemolytic Reactions:** Febrile non-hemolytic transfusion reactions are defined as a temperature increase of 1 degree C or greater associated with a transfusion with or without chills/rigors. These are due to either white blood cells or cytokines in the product. To mitigate these reactions, IABCD advises leukoreduces all blood components.

**Post-Transfusion Purpura:** Post-transfusion purpura, which occurs rarely, is secondary to recipient platelet antibodies against transfused platelet antigens resulting in severe thrombocytopenia. To mitigate these reactions, it is suggested to have leukoreduces all blood components, which may help.

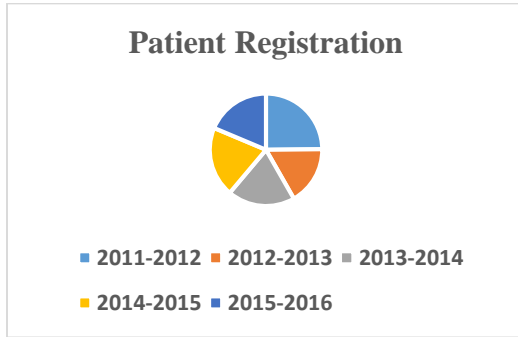
**Transfusion-Associated Circulatory Overload:** Transfusion-associated circulatory overload results from circulatory overload following transfusion. Symptoms include dyspnea, orthopnea, hypertension, headache, and cyanosis.

**Transfusion- Associated Graft-Versus-Host Disease:** Transfusion-associated graft versus host disease is a rare, but highly fatal complication of transfusion. This occurs when donor lymphocytes engraft into a recipient resulting in decreased blood counts, rash, and diarrhea. To mitigate these reactions, IABCD can irradiate products for high risk recipients, like those with immunodeficiency syndromes, hematologic malignancies, and on certain immunosuppressive medications.

**Septic Reactions:** Bacterial contamination of blood products may result in bacterial infection of the recipient, resulting in fever and other signs of sepsis. Platelet products have the highest risk of bacterial contamination followed by red blood cell products. To mitigate these reactions, IABCD disinfects donor's arms, diverts the initially 30-50 ml of drawn blood, and cultures all platelet products.

**Transfusion Transmitted Diseases:** Transfusion transmitted diseases include HIV, hepatitis B and C viruses, cytomegalovirus, syphilis among others. The blood supply is the safest it has ever been due to testing of donors for a variety of infections and taking donor histories to ensure the people who donate are well. To mitigate transfusion transmitted diseases, IABCD tests donors for HIV, hepatitis B and C viruses and syphilis.

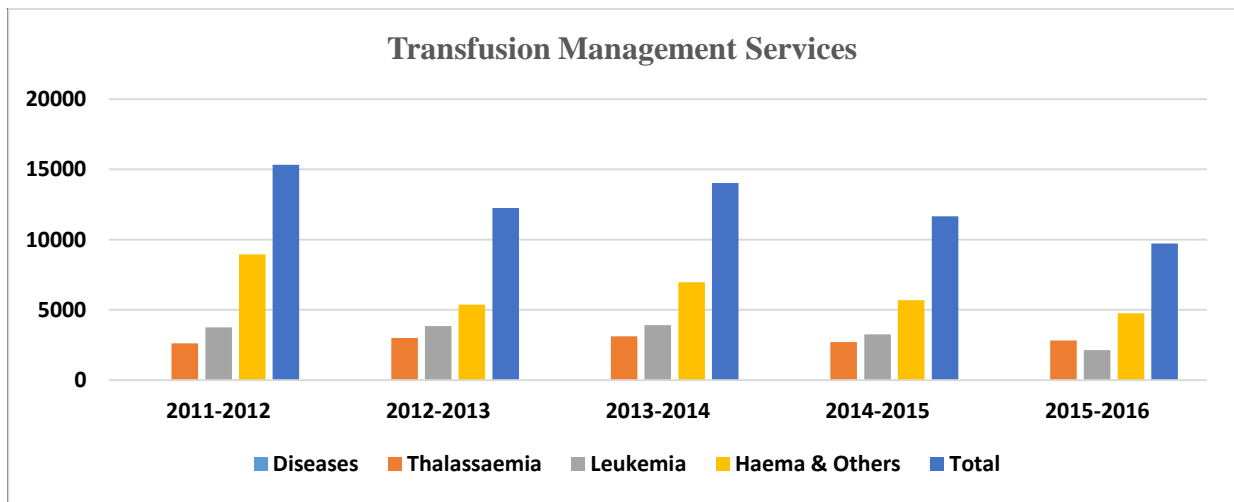
**Table -1: Patient Registration**



2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
706	4566	5235	5451	5039

**Table-2: Transfusion Management Services**

Diseases	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Thalassaemia	2617	3014	3125	2716	2823
Leukemia	3765	3859	3921	3250	2141
Haema & Others	8946	5375	6973	5689	4771
<b>Total</b>	<b>15328</b>	<b>12248</b>	<b>14019</b>	<b>11655</b>	<b>9735</b>

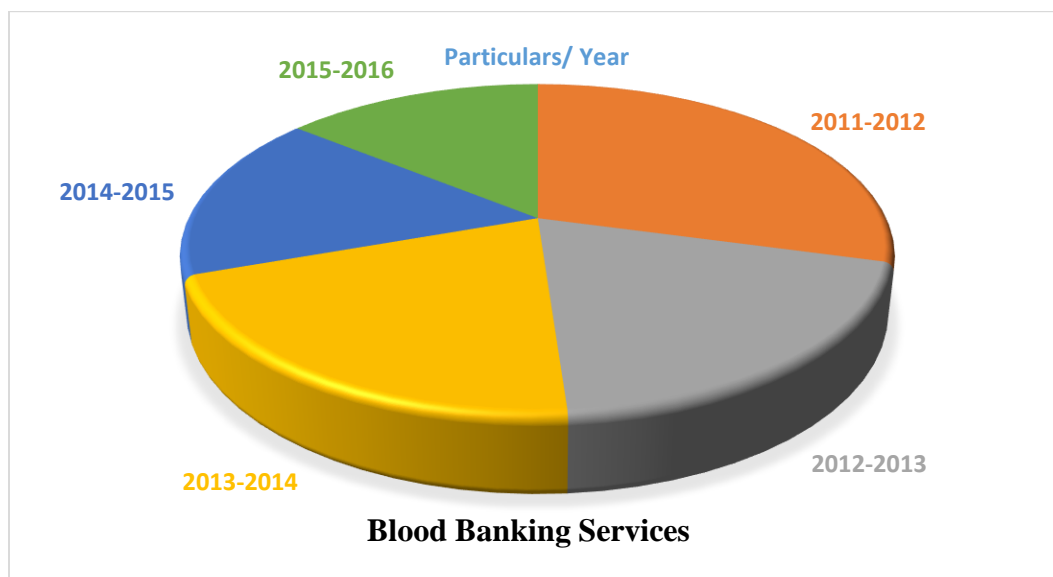




## Blood Banking Services ■■■

**Table-3: Blood Banking Services**

Particulars/ Year	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Number of groups	143	96	101	80	69
Number of volunteers	11917	7011	7952	7172	5919
Number of blood units collected	10747	6506	7614	6492	5333

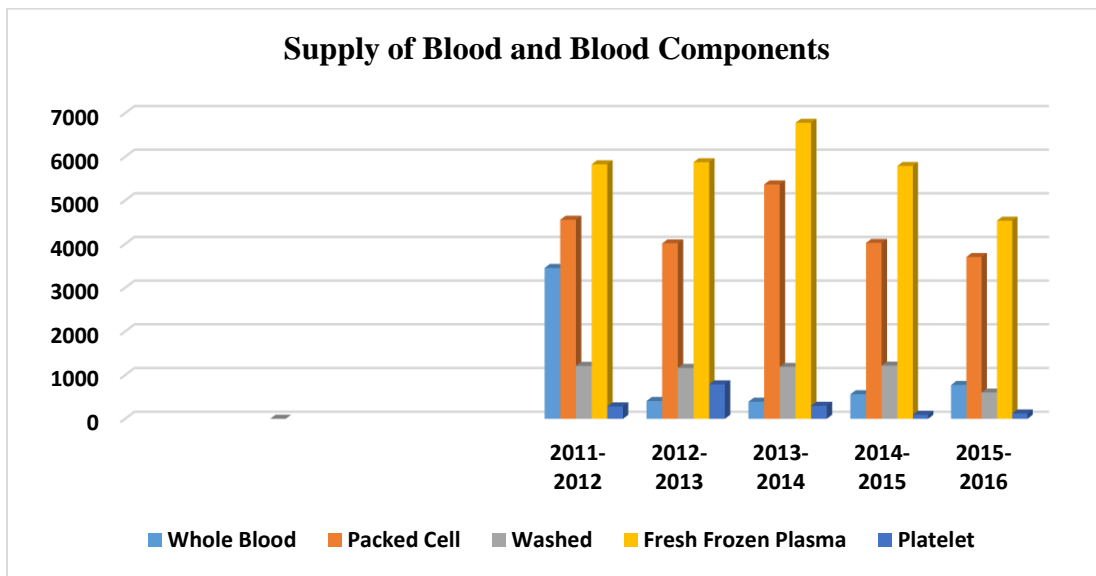


**Table-4: Institution wise Supply of Blood and Blood Components**

Category	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Charitable Hospitals	5247	4888	5607	5625	3991
Non-Government Hospitals	5140	3910	4487	3256	2142
Government Hospitals	4941	3423	3925	2774	3602

**Table-5: Supply of Blood and Blood Components**

Blood/Blood Components	Whole Blood	Packed Cell	Washed R BC	Fresh Frozen Plasma	Platelet
2011-2012	3451	4555	1212	5826	284
2012-2013	407	4014	1164	5874	789
2013-2014	391	5366	1188	6778	298
2014-2015	561	4025	1216	5789	91
2015-2016	775	3702	602	4533	122



**Table-6 Screening Tests for Hbs Ag, HIV, HCV & VDRL**

Year	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Tests/Persons	11620	6810	7820	7172	5920
Hbs Ag	1.3%	1.2%	1.1 %	1.0%	0.5
HIV	0.6%	0.7%	0.5%	0.4%	0.2%
HCV	0.7%	0.4%	0.6%	0.4%	0.6%
VDRL	0.9%	0.9%	0.8%	0.8%	0.6%

## Indian Academy of Transfusion Medicine ■■■

Academy team is accelerating impact through unique research, disruptive technologies, transformed systems, and clinical driven- evidence based insights. They create an opportunity to chart a course for action that will let us fully realize the power of innovation and disruptive solutions to tackle some of biggest global challenges associated with medical care especially blood cancer and blood diseases.

### Research

**Transfusion Medicine:** Association's Blood Center is a center of excellence in the field of transfusion medicine .The association's blood banking and clinical and basic investigators have been at the forefront of cutting edge research whose focus is on identifying new approaches in developing high quality infectious-free blood products with extended shelf-life, evaluating state of the art advanced technologies and reagents for matching donated blood to patients including thalassemia to reduce the risk of complications and identifying blood-based biomarkers to enable new tools and strategies for safer transfusions.

**Hematology:** Investigators at the Center have a longstanding interest in understanding the molecular and cellular basis of hematological disorders including anaemia, thalassemia, platelet disorders and bone marrow failures. Current research focus is on regulation of blood cell production, identifying novel drug candidates and strategies for preventing blood cell destruction while increasing patients' own blood cells in platelet and red cell disorders, and immune profiling studies to optimize treatment strategies.

**Education: Fellowship:** Our focus is to help each fellow become a successful, independent scientific professional, while connecting with the patients, patients' families, medical centre, laboratory and other resources available within the organization.

**Paediatric Haematology/ Oncology:** The purpose of this fellowship program is to prepare trainees for successful careers in academic paediatric haematology/oncology. The three-year training program will prepare graduates to diagnose, treat, and follow children with a full range of haematologic and oncologic diseases.

**Oncology Social Work:** The association offers Oncology Social Work Fellowship programme (six months) to post graduate students who are interested in patient care, counselling, medical social work for blood cancer and blood disorder patients and support services.

**Summer Undergraduate Research Fellowship:** The association offers the Summer Undergraduate Research Fellowship (SURF) program, to support undergraduate students (medicine/science/ technology group) that are interested in research in blood banking, transfusion medicine, biotechnology and/or biomedical sciences. Any student who is currently enrolled at any degree granting University or College is eligible to apply, with preference given to those students interested in a career in research.

***Support Required: Blood Cancer Life Services***

Particulars	Quantity	Amount in Rupees
Blood Bag Monitoring System	Two	3,50,000
Deep Freezer ( -40)	One	5,70,000
Deep Freezer ( -80)	One	7,63,000
Elisa Reader and Washer	One	9,00,000
Computer with Printer	Four	2,40,000
Mobile Van	Two	25,00,000
Blood Donor Couch	Two	3,50,000
Tube Sealer	Two	4,00,000
Portable Tube Sealer	One	1,80,000
Blood Weighing Scale	One	60,000
Air Conditioners	Ten	3,50,000
Blood Bank Refrigerator	One	3,20,000
Refrigerated Centrifuge	One	35,00,000
Multi Pipette	Four	1,60,000
Photocopier	One	2,00,000
Projector	One	50,000
Laminar Airflow	One	3,00,000
Microscope	One	50,000
<b>Total:</b>		<b>1,12,43,000</b>

**We Need Your Support: The Way You Can Help Us for Providing Quality Care**

Particulars	Services/Type	Amount in Rupees
Patient Care-Medical Services	Blood Transfusion Services for one year	26,400/-
Blood transfusion	Cost of one unit blood transfusion	2200/-
Prevention:		
HIV/AIDS	Screening 100 Nos @Rs.140/-	14,000/-
Hepatitis B Prevention	Screening 100 Nos@ Rs.90/-	9,000/-
Hepatitis C Control	Screening 100 Nos@ Rs.105/-	10,500/-
Voluntary Blood Donation	Motivation & collection 50 donors	11,250/-
Thalassaemic Care	Iron Chelating- per patient per year	35,700/-
Education-Transfusion Medicine	Fellowship Prog.- per participant for three years	18,00,000/-
Training-Oncology Social Work	Fellowship per participant for six months	2,10,000/-
Research Fellowship	Fellowship per participant for three months	90,000/-
Research	Technology Innovation- Pilot Study	25,80,000
Extension Medical Education	Workshop- 50 medical professional	1,30,000

## Acknowledgements ■■■

**Names of organizations/ trusts who have kindly contributed to IABCD for providing services to suffering humanity**

Ashiwaini K. Bajaj	S B Prabhakar
B.M.Khaitan	Sardar Chetan Singh CharitableTrust, Ludhiana
Bhaskar Ghose	SHCIL Foundation
Blue Star Foundation	Shri MoolChand Dua Memorial Trust
	Shri Shri Thakur Sitaramdas Onkarnath Seva
CESC Limited	Pratisthan
D N Jalan Seva Trust	Sitaram Jindal Foundation
Fena Foundation	State Bank of India
IFFCO Kishan Sewa Trust	Super Forgings & Steels Limited
J K Cement Nimbahera Foundation	Syndicate Bank
Meera Kapur	Tata Steel Foundation
Morarji Bhagwandas Shivji Sanatorium	Thaku Bhojwani Charitable Trust
MulrajT.Thakkar	Thanwala Consultancy Services
Patel Bhogilai Hargovindas Charitable Trust	The Printer House ( P) Ltd
Patodia Syntex Limited	The Sukriti Trust
Rajiv Kapur	VST Industries Ltd
Ravi Shankar Tulsan	

**Acknowledgement:** Govt. of West Bengal, Directorate of Drugs Control, C.D.S.C.O.-EZ-Govt. of India, State Blood Transfusion Council, Department of Social Welfare, West Bengal Pollution Control Board, WB State AIDS Prevention & Control Society, The Kolkata Municipal Corporation

**A New Path to Progress: Support the Association for medical care, blood cancer and blood disorders research with technology innovation.**

## **Highlights ■ ■ ■**

**1989-1990 -Registration of the Association under West Bengal Societies Registration Act and Income Tax Act  
1961.Introduction of ambulance service, Promotion of voluntary blood donation, Sponsorship programme for treatment of patients**

**1990-1991-Continuation of ambulance service, blood donation, treatment of patients**

**1991-1992-Beginning of project work- Blessed by Mother Teresa on March 5, 1992.**

**1992-1993-Setting up Information, Education and Communication Unit**

**1993-1994-Computer services unit**

**1994-1995-Acquiring new premises for Blood Centre for Children.**

**1995-1996-Completion of first phase of project- Blood Center for Children**

**Inaugurated by Mr. A.B.N. Morey, British Deputy High Commissioner, Calcutta.**

**1996-1997-Opening of Modern Blood Bank**

**1997-1998-Opening of Blood Transfusion Center**

**1998-1999-Acquiring of instruments for blood components unit**

**1999-2000-Extension unit for blood centre for children**

**2000-2001-Opening of Blood Research Center, Blood Components Unit**

**2001-2002- Beginning of work of Indian Academy of Transfusion Medicine**

**2002-2003-Oncology Social Work Programme, Establishment of Rural Community Clinic**

**2003-2004-Cancer Life Centre**

**2004-2005-Certificate of Registration ISO 9001:2000**

**2005-06-Setting up unit for Cell Counter & Immuno Analyzer**

**2006-07-Established International Network System**

**2007-08-Initiated Short Stay Home in Delhi and Partnership Programme with Indian Corporate**

**2008-09-Exchange Education Program with National and International Universities**

**2009-2010-Standardization of blood banking operating and quality control system**

**2010-11-Up gradation of blood components preservation unit**

**2011-12-Introduction of Gel Technology for blood banking services**

**2012-2013- Specialized Mobile Medical Services**

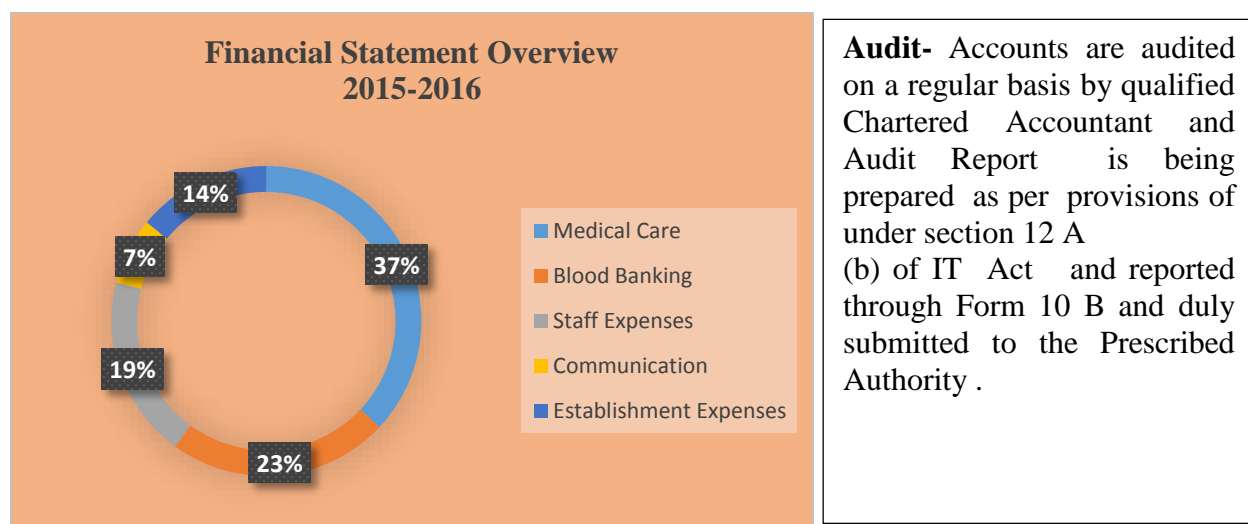
**2013-2014-Upgradation of blood components preparation unit**

**2014-2015-Installation of new Microprocessor High Speed Centrifuge**

**2015-2016-Modernization of blood collection room**

## Governance, Finance and Integrated Reporting ■ ■ ■

Board members are the fiduciaries who steer the organization towards a sustainable future by adopting sound, ethical, and legal governance and financial management policies, as well as making sure the association has efficiently utilized its resources to advance its mission through medical care and brings transparency with commitment to all its donors and stakeholders. Members offers their services voluntarily and have no material conflict of interest either directly or indirectly.



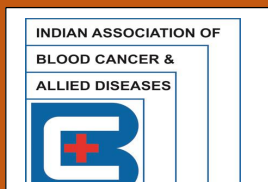
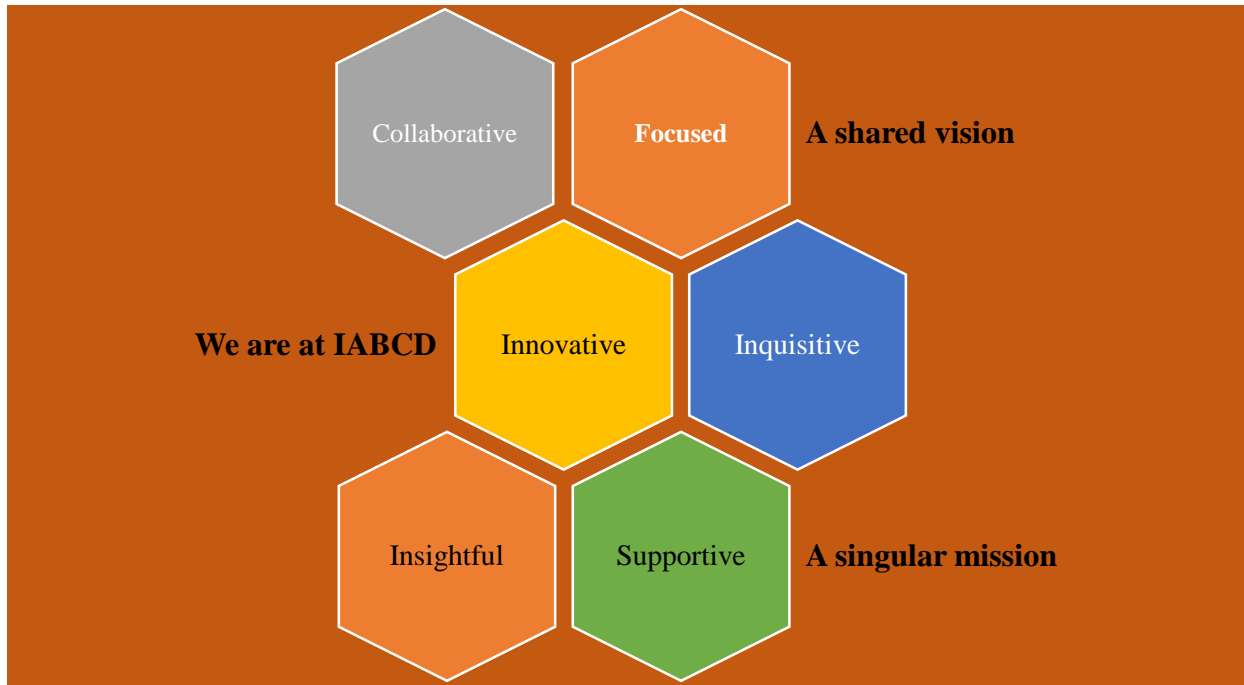
### Board of Directors:

Dr. Manju Datta Chaudhuri, Medical Advisor-Haematologist, Kolkata  
Sri Amalendu Pal, Social Work, Member & Honorary President, Kolkata  
Sri Naresh Kumar Jain, Chartered Accountant, Member, Kolkata  
Sri Alope S. Gupta, Economist, Member & Honorary Director, Kolkata  
Sri Anjan Sarkar, Service, Member, Kolkata  
Sri Yogesh Wardhani, Bio-Medical Engineer, Member, New Delhi  
Sri Atma Prakash, Financial Consultant, Member, New Delhi  
Sri Madhab Banerjee, Honorary Member, Kolkata  
Sri Prasanta Das-Retired Banker, Member, Bhubaneswar

**The Team:** Dr. Sourav Ghosh- Medical Director, Dr. ( Mrs.) Reshmi Kundu, Dr. Kakali Bhowmik , Bijoy Mondal ,Pankaj Roy ,Ms. Deboshree Nath, Prabhas Roy, Subham Tiwari, Ashim Kumar Chakraborty , Mrs. Putul Nag , Kapil Kanta Das , Mrs. Mitali Samanta , Monali Ghosh, Pitambar Khamaru , Alope Dhara, Raghunath Yadav and Bhola Jha. **Volunteer-** Mouli Pal- (Honorary Project Development Associate)

**Auditor:** Sri Ritesh Agarwala, FCA, Chartered Accountant, Kolkata

**Banker:** Bank of Baroda, Beliaghata Branch, Kolkata, State Bank of India, Phoolbagan Branch, Kolkata, State Bank of Mysore, Salt Lake Branch, Kolkata



Indian Association of Blood Cancer & Allied Diseases  
81C, Narkeldanga Main Road, Kolkata-700054  
Telephone:+91-33-23730138, 03364610972  
Mobile:+91- 9038190765 , 9331062545  
Email:iabcd.81c@gmail.com  
[www.cancerlifeblood.org](http://www.cancerlifeblood.org)