E-Newsletter

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From the Desk of Director

Dear Readers,

Greetings from SIHFW, Rajasthan!



Everyday heroes respond to an immediate need for goodwill. Whatever the conditions, even when it may be inconvenient, they put the needs of others above their own. Voluntary blood donors come from all walks of life, all regions, backgrounds, religions and ages. By choosing to donate blood of their own free will, without any payment, these individuals perform a 'heroic' act, a gesture of human solidarity with the power to save lives. Some of them do so many times, over several decades.

The lead article of present issue of our e-newsletter is based on World Blood Donor Day which is on 14th June. The theme for World Blood Donor Day, 2012 - 'Every Blood Donor is a Hero' focuses on the idea that every one of us can become a hero by giving blood, While recognizing the silent and unsung heroes who save lives every day through their blood donations, the theme also strongly encourages more people all over the world to donate blood voluntarily and regularly.

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Director

Health Days in June, 2012

International Children's Day 1st June International Day of Innocent Children Victims of Aggression 4th June World Environment Day 5th June World Ocean Day and World Brain Tumor Day 8th June World Day against Child Labour 12th June World Blood Donor Day 14th June World Sickle Cell Day 19th June UN Public Service Day 23rd June International Day against Drug abuse and Illegal Trafficking 26th June

Blood Donation

Blood donation: "gift of life" that а healthy individual can give to others. Worldwide 92 people million annually donate blood, (45 Percent in low- and middleincome countries) (WHO)



1818: British obstetrician James Blundell did the first successful transfusion of human blood to a patient with postpartum hemorrhage. In 1901, Karl Landsteiner, an Austrian physician, discovers the first three human blood groups. On his birthday, June 14th "World Blood Donors Day" is celebrated, with events to raise awareness of the need for safe blood and blood products. The first World Blood Donor Day was organized in 2005. The goal of the World Health Organization (WHO) for all countries is to obtain their blood supplies entirely from voluntary unpaid donors by 2020.

The objectives of 2012 campaign are:

- Thank and reinforce the self-esteem of those who give blood so they continue to do so regularly
- Inspire those who do not give blood but are in good health to start donating blood
- Encourage blood service staff to recognize blood donors for their "heroic" act each and every time they donate blood

Persuade ministries of health to show their appreciation of blood donors and provide adequate resources to move towards 100% voluntary unpaid blood donation

Key facts

Global Blood Collection: Around 92 million blood donations are collected annually from all types of blood donors (voluntary unpaid, family/replacement and paid). Approximately half of these blood donations are collected in high-income countries, home to 15% of the world's population.

Voluntary Unpaid Blood Donations: In 62 countries, national blood supplies are based on 100% or almost 100% (more than 99.9%) voluntary unpaid blood donations. Forty countries collect less than 25% of their blood supplies from voluntary unpaid blood donors. The World Health Organization's (WHO) goal is for all countries to obtain all blood supplies from voluntary unpaid donors by 2020.

Infrastructure: About 8000 blood centres in 159 countries report on their collections. The average annual collection per blood centre is 30 000 in high-income countries, 7 500 in middle-income countries and 3 700 in low-income countries, demonstrating wide differences in the efficiency of blood collection across countries and income groups

Blood Screening: In 39 countries, blood donations are still not routinely tested for transfusion-transmissible infections (TTIs) including HIV, hepatitis B, hepatitis C and syphilis; 47% donations in low-income countries are tested in laboratories without quality assurance.

Blood Processing: Only 31% of the blood collected in low-income countries is separated into blood components. The capacity to provide patients with the different blood components they require is thus still limited in these countries.

Use of Blood: Globally, 106 countries have national guidelines on the appropriate clinical use of blood. However, only 13% low-income countries - in comparison to 30% middle income countries and 78% high-income countries - have a national haemovigilance system to monitor and improve the safety of the transfusion process.

Approximately **4 Crore units** of blood is required yearly in India, just **40 Lakh units** are available. More than 38,000 blood donations are needed every day. Patients of cancer, Sickle cell, Thalasseamia, Hernophilia, Renal dialysis, Sever Anemic needs frequent blood transfusions throughout their lives.

Out of total blood donors in India, 52.83 percent belong to age group of 18 to 24 year, 28.38 percent from age group of 25 to 44 and 18.78 percent donors were 45 to 64 years old. (WHO)

Blood transfusion services occupy a vital space in National Health Service delivery system. Two categories of persons need blood transfusion -1. Emergent requirements - victims of road accident, civilian and military debacle. 2. Frequent and regular requirement - patients with Thalasseamia, Hemophilia, Renal dialysis, Sever Anemic and Cancer patients.

Blood Groups

The four types of blood groups determined by the presence or absence of two antigens A and B on the surface of red blood cells:

Group A – has only the A antigen on red cells (and B antibody in the plasma)

Group B – has only the B antigen on red cells (and A antibody in the plasma)

Group AB – has both A and B antigens on red cells (but neither A nor B antibody in the plasma) **Group O** – has neither A nor B antigens on red cells (but both A and B antibody are in the plasma)

The **ABO system** is the most important bloodgroup system in human-blood transfusion. The associated anti-A and anti-B antibodies are usually IgM, antibodies.

Rh blood group system

The Rh system is the second most significant blood-group system in human body transfusion. An individual either has, or does not have, the "Rhesus factor" on the surface of their red blood cells. The most significant Rh antigen is the D antigen. The status is usually indicated by Rh positive (Rh + does have the D antigen) or Rh negative (Rh - does not have the D antigen) suffix to the ABO blood type. Rh negative blood types are much less in proportion of Asian populations (0.3%). Immunization against Rh can generally only occur through blood transfusion or placental exposure during pregnancy.

Universal Donors and Universal Recipients

Type O-negative blood does note have any antigens. It is called the "universal donor" because it is compatible with any blood type.

Only 7% of people in India have O-negative blood type. Type ABpositive blood is called the "universal recipient" because a person who has it can received blood of any type. 0.4 percent of



people have AB blood type in India. AB-type blood donor are universal donors of plasma.

Blood Products & Components

Blood consists by 55% of Plasma, 45% of blood cells (99% are Red Blood Cells -erythrocytes) and 1% are White blood Cells (leucocytes) and Platelets (thrombocytes) The main four types of transfusable products can be derived from blood -**Red blood cells**- use in medical, obstetrical, trauma or surgical patients, **Plasma** -the liquid part of blood, are administered to patients with clotting problems and **Platelets** & **Cryoprecipitate** - clot the blood and are often used in cancer and transplant patients.

Types of Blood Donors:

Altruistic donor: real voluntary donor who donate with altruism in mind.

Aphaeresis donor: This procedure takes longer time and many times it need donation. They are committed donor to the blood banks.

Directed donors: a blood donor donates a unit of blood to transfusion for a particular patient. **Autologous donor:** If a donor donates for self for intended clinical future need

Family replacement donors: Donor who donate blood only when family members need blood, especially in a hospital setting.

Fringe motivated donors: These donors are voluntary donors however, they are often motivated by fringe benefits. Who Can Donate?

The universally accepted criteria for donor selection are:

Age	Between 18 to 60 years
Body wt.	45 kg & above
Pulse rate	60 to 100 per minute
BP	Systolic 100 to 180mm of Hg
	Diastolic 50 to 100mm of Hg
Hb	Minimum 12.5 Grm per 100 ml of blood
Oral Temp	Not exceeding 37.50C

Source-State AIDS Control Society, Rajasthan

Procedure of blood donation

Blood donation is carried out under the supervision of trained, skilled technicians. The entire procedure, takes less than 45 minutes. The blood is usually drawn from the median cubital vein, from the inside of the elbow. A tourniquet may be used to make veins of the arm prominent. This helps to ease and speed up the process.

Types of Blood Donation

Blood Bank collects four main types of blood product donations.

Whole Blood Donation - the most common way of blood donation each whole blood unit can generate up to four components: red cells, platelets, plasma and white cells.

Autologous Donation – It's drawn from an individual prior to surgery and given back to the same individual when and if a need for transfusion arises.

Directed Donation – a donation that has been collected for a specific person e.g. family member, friend in need, etc.

Apheresis Donation - a donation in which whole blood is withdrawn, a desired component (red blood cell, platelets and plasma) separated and retained, and the remainder of the blood returned to the donor.

Frequency of blood donation

A healthy adult has about 10 units (5.5 Lt.) of blood and can donate 1 unit during a donation. A healthy donor may donate red blood cells every 56 days, or double red cells every 112 days, platelets as few as 7 days apart, but a maximum of 24 times a year. The interval between two blood donations should be at least 12 weeks. Men once in every three months and women in every four months can donate blood.

One cannot donate blood, if-

Temporary Reasons

If person is having difficulty in breathing, is on antibiotics, received blood transfusion. full-term pregnancy, six weeks after delivery, abortion or miscarriage, have undergone surgery, dental work, have sexually transmitted disease, have mumps, chicken pox, Tuberculosis, malaria etc.

Permanent Reasons

If person used narcotic drugs by intravenous route, suffering from hemophilia, Thallasemia, HIV/AIDS, hepatitis, cancer, multiple sclerosis or any other blood disorder, any commercial sex worker.

Testing on donated blood

Laboratory testing of donated blood prior to transfusion should be ensuring so that recipients receive the safest blood products. Investigate previous records ABO & Rh (D), tested unexpected antibodies in serum, and Screening of donated blood for infectious diseases. Hepatitis B Surface Antigen, HBsAg, anti-HBc, Hepatitis C Virus Antibody (anti-HCV), Nucleic Acid Test (NAT), (HIV-1/2), Malaria and Syphilis also examined. The final container is labeled only after all mandatory testing is completed.

Setting-up of blood bank

For setting up a Blood Bank, all hospitals are required to obtain approval from the State/Union Territory licensing authority . The blood bank shall be located away from open sewage, drain, unhygienic lavatory or similar public surroundings. The building, used shall be under hygienic conditions, well lighted, ventilated and screened, wherever necessary. The walls and floors of the rooms shall be smooth, washable and capable of being kept clean. The employees shall be free from contagious or infectious diseases.

A blood bank shall have an area of 100 square meters for its operations and an additional area of 50 square meters for preparation of blood components, technical staff. Equipment used shall be maintained in a clean and proper manner. All supplies and reagents used shall be stored at proper temperature in a safe and hygienic place; Written Standard Operating Procedures shall be maintained and shall include all steps to be followed.

Source- Regulatory requirements of blood and/or its components including blood products

Process to get blood from blood bank

A requisition Performa with the blood samples of the patient should be sent to blood bank .Blood should be issued from the blood bank along with the blood cross matching report. The report should have patient's full name, age, sex, ID no., ward, bed number, ABO and Rh(D) type. Interpretation of cross matching report and the name of the person performing the test and issuing the blood should be recorded. All above information with expiry date of the blood should be attached with blood bag container before it is released from the blood bank.

Source:-Standard for blood banks& blood transfusion services

Risk of blood transfusion

The patients who required repeated transfusions are at great risk of acquiring transfusion transmitted infections such as hepatitis B, hepatitis C, HIV/AIDS, Syphilis & Malaria. The only way to protect recipients of blood is ensure access to safe and sufficient blood supply. All donated blood is tested for HIV, hepatitis B and C, syphilis and other infectious diseases before transfused to patients.

Blood transfusion policy

For quality, safety and efficacy of blood transfusion, the National Blood Policy, 2002 was formulated by the government. An integrated strategy for blood safety is required for elimination of transfusion transmitted infections and for provision of safe and adequate blood transfusion services to the people. The policy aims to ensure easily accessible and adequate supply of safe and quality blood and blood collected/procured components from а voluntary, non- remunerated blood donors, screening for all transfusion transmitted infections and reduction of unnecessary transfusion. Transfusion under supervision of trained personal for all who need it, efficient and a total quality management approach will be ensured under the policy.

Source:-National Blood Policy India

Resources of Blood Banks

Blood Banks	Rajasthan	India (Dec.2011)
Government	48	996
Private	33	1549
Central Govt.	4	
Blood Storage Centers	139	

Source-State AIDS Control Society, Rajasthan & Central Drugs Standard Control Organization

Myths

There are too many myths associated with the blood donation such as: Blood donation leads to weakness, Women and girls cannot donate blood, only heavier people should donate blood because they have more blood, body had limited blood, HIV and other infections may occur by donating blood, sports or other physical activities will not be possible again after donating blood & blood bank is a commercial and profit making activity etc.

Ten facts related to Blood transfusion (WHO):

- 1. Blood transfusion saves lives and improves health.
- 2. Transfusions are used to support various treatments.
- 3. Voluntary unpaid donors account for 100% of blood supplies in 62 countries.
- 4. An adequate supply of safe blood can only be assured through regular donation by voluntary unpaid blood donors.
- 5. Around 92 million blood donations are collected globally every year.
- 6. Collections at blood centres vary according to income group.
- People in high-income countries donate blood more frequently than in low- or middle-income countries.
- 8. Donated blood should always be screened.
- 9. A single unit of blood can benefit several patients.
- 10. Unnecessary transfusions expose patients to needless risk

SIHFW in Action

(1.) **Trainings/Workshops**:

S. No.	Date	Title JAIPUR	Total Participants	Sponsoring Agency
1.	15-17 and 21-23 May 2012 (2 batches)	Hands on training on tally Software	62	Watershed and Soil Conservation
2.	7-14 and 19-23 May 2012 (2 batches)	Training of KGBV teachers – Science and Mathematics	244	UNICEF
3.	16-19 and 21 -24 May 2012 (2 batches)	New Born Care Equipment Maintenance training for Refrigerator Technicians	34	UNICEF
4.	1-3, 15-17 and 29-31 May 2012 (3 batche s)	Routine Immunization	47	RCH
5.	25 May 2012	State Level Consultation Workshop for NGOs	60	HLFPPT
6.	28-31 May 2012	TOT on prevention and rescue of Child Labor	33	UNICEF
7.	29 May 2012	Zonal Sensitization Workshop On Declining Child Sex Ratio	117	PCPNDT cell
8.	30-31 May 2012	Appreciative Inquiry Review	18	UNICEF

But for one at SI. No. 7 which also was a workshop, No departmental training was held in May 2012 at SIHFW

(2.) Monitoring / Field Visits / Studies:

Appreciative Enquiry:

Five members of SIHFW are involved in this UNICEF supported endeavor.

- CHC Bahrod was visited by Dr. Mamta Chauhan on 17 to 19 May 2012.
- CHC Bassi was visited by Ms. Poonam during 21 and 22 May 2012.
- AI visit to CHC Kaithun was made by Ms Nishanka Chauhan on 22 and 23 May 2012.

Visitors

PDC NIHFW team: A team of 17 PDC trainees and 2 resource persons of 16th Batch of Professional Development Course of NIHFW visited SIHFW on 19th May 2012. The team visited 108 Emergency services and were benefitted by a descriptive session on Rajasthan health scenario by Director SIHFW.



Planned Training/Workshop/Meeting/ Visits

- RI training 5-7 June 2012
- PDC IV Batch 20 June 2012
- ToT for Capacity Building on strengthening of RI by UNICEF June 2-3, 2012
- Workshop on district Drug Ware House DEO (RMSC), 4-5 June, 2012
- XXVIII Executive Council Meeting of SIHFW, 6 June 2012
- XIV Governing Board Meeting of SIHFW 13 June 2012
- Integrated training for freshly recruited Medical Officers

Other Highlights

Celebrations-

Birthdays' celebrated in May- Ms. Richa Chhabra on 2nd May, Ms. Megha Dusad on 12th May, Mr. Ankur Asudani on 20th May.





The Guest reactions

- Liked the cleanliness, management and discipline –almost all of the trainees of RI (15-17 May 2012)
- We liked the behaviour of staff, the most-by Mr. Rakesh Srivastava, New Born Care Equipment training (21-24 May 2012).
- The facilities are very nice, by- Mr. Deshmukh Durgesh, New Born Care Equipment training (15-21 May 2012).

Health in news

Global

15 million premature babies born every year

Fifteen million babies are born too soon every year and 1.1 million die shortly after birth, making premature birth the second leading cause of death in children under age 5, according to the first ever national, regional and global estimates of preterm birth.

Survivors of premature birth often face a lifetime of disability, including serious infections, cerebral palsy, brain injury and respiratory, vision, hearing, learning and developmental problems.

"Born Too Soon: The Global Action Report on Preterm Birth" highlight the need for more research into the causes of preterm birth and how to prevent it. It says more than one in every 10 babies is born prematurely and preterm birth rates are increasing in almost all countries with reliable data. The report is a joint effort of almost 50 organisations, including the Global Alliance to Prevent Prematurity and Stillbirth (GAPPS), an initiative of Seattle Children's.

"Even if every known intervention was implemented around the world, we would still see 13.8 million preterm births each year; we could only prevent eight per cent," said Craig Rubens, executive director of GAPPS and contributor to the report. He added," This report sounds the alarm that prematurity is an enormous global health problem that urgently demands more research and resources".

Of the 11 countries with preterm birth rates over 15 percent, all but two are in sub-Saharan Africa. Preterm births account for 11.1 percent of the world's live births, 60 percent of them in South Asia and sub-Saharan Africa. In the poorest countries, on average, 12 percent of babies are born too soon, compared to nine percent in higher income countries.

However, the problem of preterm births is not confined to low income countries. The US and Brazil both rank among the top 10 countries with the highest number of preterm births. In the US, about 12 percent, or more than one in nine births, are preterm.

"Treating premature infants is like trying to stop a snowball once it's 99 percent of the way down the mountain and has become an avalanche," Rubens said. "The emphasis needs to be on prevention strategies that work everywhere, especially in low resource, high burden settings".

Source: TOI, 3 May 2012

Long Lasting Birth Control-Cuts Pregnancy rate

A new study confirms that long-acting forms of contraception such as intrauterine devices and implants are better than birth control pills and patches at preventing pregnancies, giving doctors new ammunition to recommend these methods.

The study, published in the New England Journal of Medicine, involved about 7,500 women in a project promoting long-acting birth control to reduce unintended pregnancies. There are an estimated three million unplanned pregnancies a year in the U.S., often because of incorrect or inconsistent use of contraception, and about 1.2 million abortions, according to research cited with the study.

The Contraceptive Choice project is being run by researchers at Washington University School of Medicine in St. Louis. The study was funded by the Susan Thompson Buffett Foundation, a charity of Warren Buffett, chief executive of Berkshire Hathaway Inc

The study found that long-acting contraception is about 20 times more effective at preventing pregnancy than pills, patches or vaginal rings because those methods "wipe out the human error factor," said Dr. Jeffrey Peipert, a professor of obstetrics and gynecology at Washington University. "IUDs and implants are more effective because women can forget about them after clinicians put the devices in place."

Failure rates for such methods are less than 1% but they require an office procedure and can cost patients several hundred dollars if not paid for by insurance, doctors said.

Hormonal implants are inserted under the skin of the upper arm and are effective for three years. IUDs are inserted into the uterus and last five or 10 years, depending on the type. IUDs and implants can be removed if women want to become pregnant. Dr. Peipert said fertility returns immediately in most women.

Dr. Peipert said he hopes the results prompt more women and doctors who counsel women on birth control to consider IUDs and implants because it could greatly reduce unintended pregnancies. "If there were a drug for cancer, heart disease or diabetes that was 20 times more effective we would recommend it first," he said.

Dr. Erika Banks, director of gynecology at Montefiore Medical Center in the Bronx, N.Y., said, "For a woman who wants to get pregnant in a short period of time, it may not be worth the cost of having a long-acting method placed." Dr. Banks, who wasn't involved in the study, added that some insurance plans will only cover pills, patches or vaginal rings.

Still, she said, the long-acting methods can be an "excellent" option for young women who don't want to become pregnant for several years.

Dr. Peipert trains doctors on how to implant a contraceptive device made by Merck & Co. and Washington University receives fees from the company, according to the New England Journal of Medicine article.

The Contraceptive Choice study involves women who were between ages 14 and 45 who initially weren't using contraception or wanted to switch birth-control methods, from August 2007 through last September. The women also said they didn't want to become pregnant for the next 12 months.

Source: The Wall Street Journal, 23 May 2012

India

Sahaja Yoga helps in attaining better health

According to a new study, performing Sahaja Yoga induces 'mental silence,' which calms the mind, fosters better health and wellbeing.

Fifty-two percent of study respondents said that they experienced mental silence 'several times per day or more' while 32 percent were experiencing it 'once or twice per day.'

"We focused on meditation as mental silence and surveyed practitioners of Sahaja Yoga who practice a form of meditation aimed at achieving this state rather than relaxation or mindfulness methods that are usually the focus of other forms," said Ramesh Manocha, senior lecturer of psychiatry, University of Sydney Medical School, Australia, who led the research.

"We found that the health and wellbeing profile of people who had meditated for at least two years was significantly higher in the majority of health and wellbeing when compared to the (general) population," said Manocha, the journal Evidence-Based Complementary and Alternative Medicine reports.

The area of greatest difference was in mental health, where long-term meditators, with a minimum of two years of regular practice, were more than 10 percent better off than the general population, said Manocha, according to a Sydney Medical School statement.

"Most markedly there was a robust relationship between the frequency of experiencing mental silence and better mental health. This definition is based on it being the form of meditation practiced for centuries," said Manocha, who worked with professor Deborah Black and Leigh Wilson from the faculty of health sciences of the Sydney Medical School.

The national study is the first ever health quality-of-life survey of long-term meditators. More than 350 people who have meditated for at least two years were assessed for the study.

"While we did expect that there would be some differences between the meditators and the general population, we didn't expect the findings to be so pronounced. We repeated large components of the survey several times to confirm our results and got the same outcomes," concluded Manocha.

The meditators were primarily non-smokers and non-drinkers, so to adjust for that potential bias the researchers also compared the meditators to those parts of the general population who did not drink or smoke, and achieved the same results

Source: The Sunday Indian, 26 May 2012 (www.thesundayindian.com)

School to have diabetes screening: Azad

With the increase in diabetes among children and adolescents, the union health ministry has initiated a school-based screening programme for diabetes on pilot basis in six districts in the country. The announcement was made by Health Minister Ghulam Nabi Azad.

In a written reply in the Rajya Sabha, Azad said that several studies have contributed to overwhelming evidence that indicates the increase in diabetes among children and adolescents.

The health ministry has initiated a school-based screening programme for diabetes on pilot basis in six districts - Nainital (Uttarakhand), Theni (Tamil Nadu), Nellore (Andhra Pradesh), Dibrugarh (Assam), Bhilwara (Rajasthan) and Ratlam (Madhya Pradesh).

"Funds to each district have been released for the purpose. The screening is primarily focused on school children of 1st to 10th standards in the age group of 5 to 15 years. The screening programme is in progress in the above cited six districts," said Azad.

Besides, the health ministry is running a School Health Programme (SHP) under the National Rural Health Mission (NRHM) specifically focused on school-going children and adolescents in the 6-18 years age group enrolled in government and government-aided schools.

With an estimated 50.8 million people, India has the world's largest diabetes population.

Source: The Sunday Indian, 26 May 2012 (www.thesundayindian.com)

Rajasthan

Policy to save girl child

The Rajasthan government announced it will frame a 'girl policy' to check increasing number of female foeticide and infanticide cases. The decision is seen as another impact of Bollywood actor Aamir Khan's debut TV show "Satyamev Jayate" and came two days after the Actor met Hn'ble Chief Minister, Mr. Ashok Gehlot. The decision to come up with the 'girl policy' was made at a meeting at Jaipur.

The meeting was presided over by Mr. Gehlot. Several NGOs, social activists and government officials discussed steps to prevent female foeticide and infanticide. "The chief minister decided to form a specific policy to protect the girl child," said a senior officer. He said: "The policy will have several provisions. These will be drafted in consultation with NGOs and social activists."

Mr. Gehlot had assured Aamir Khan, whose episode on female foeticide has created a storm that he will take up the issue of setting up a fast track court with the state chief justice.

Source: Indo-Asian News Service (IANS), 11 May 2012

We solicit your feedback:

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