WEEKLY EPIDEMIOLOGICAL REPORT

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WER SRI LANKA 2008

Blood transfusion safety—Part I

Global celebration of the World Blood Donor Day (WBDD) will take place on 14 June 2008. This annual event highlights the role blood donors play in saving the lives and improving the health of millions and creates awareness about the availability, safety and appropriate use of blood and blood products. The resolution passed by the World Health Assembly in 2005 recognised that voluntary, non-remunerated blood donors who donate blood regularly are integral to safe, adequate and sustainable blood supply

This year's theme is "Giving Blood Regularly" - an effort to commit volunteer blood donors to donate regularly and over long-term. This sense of social engagement and belonging displayed can be the foundation of a stable voluntary donor pool. It is an opportunity for every country to felicitate these givers of 'life' and for national transfusion services to reaffirm their efforts in providing them quality care.

Millions of lives are saved each year through blood transfusions. In many countries, however, people still die due to an inadequate supply of blood and blood products. This has a particular impact on women (as a consequence of pregnancy-related complications), children (malnutrition, malaria and severe life-threatening anaemia), trauma victims and, especially, the poor and disadvantaged.

The emergence of HIV in the 1980s highlighted the importance of ensuring the safety, as well as the adequacy, of national blood supplies. More than 81 million units of blood are collected globally every year. Only 45% of these are donated in developing and transitional countries where more than 80% of the world's population lives.

Family or replacement donors and paid donors still remain a significant source of blood for transfusion in many countries. Adequate stocks of safe blood can only be assured by regular donation by voluntary unpaid blood donors, because the prevalence of bloodborne infections is lowest among these donors.

In many countries, even where blood is available, many recipients remain at risk of transfusion-transmissible infections (TTIs) as a result of poor blood donor recruitment and selection practices and the use of untested units of blood.

Every country has a common need to ensure:

- Availability of adequate supplies of blood and blood products and their accessibility to all patients requiring transfusion;
- Safety of blood and blood products;
- Safe and appropriate clinical use of blood and blood products.

The WHO Blood Transfusion Safety (BTS) team supports the establishment of sustainable national blood programmes that can ensure the provision of safe, high quality blood and blood products that are accessible to all patients requiring transfusion and their safe and appropriate use. In support of this mission, the WHO BTS team recommends the following integrated strategy to national health authorities:

1.Establishment of a well-organized, nationally coordinated blood transfusion service

The provision of safe and adequate blood is the responsibility of government. The formation of a nationally organized and managed blood programme should be an integral part of each country's national health care policy and health care infrastructure.

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The blood transfusion service (BTS) should be established in accordance with an agreed National blood Policy and plan within a legislative framework. It should be responsible for establishing and maintaining a national quality system, including the development of guidelines and standards, staff training , a data/ information management system and a system for monitoring and evaluation of all blood transfusion activities.

National Blood Policy

To ensure a cost-effective system that is sustainable within the national health care budget with minimum of wastage, evidence has shown that a well-organized, nationally coordinated blood transfusion service is a prerequisite for a safer and more cost-effective than a hospital-based system or other fragmented system. This will allow blood and blood products to be equitable, safe, accessible, adequate to meet to meet the transfusion requirements of patient population . The centralization of the BTS depending on the country requirement, could lead to improved safety of the blood supply, reduced cost through economies of scale, increased efficiency, enhanced quality and improved human resource management.

The BTS requires formal government commitment, support and recognition of the national health authority as a specific, identifiable programme with a budgeting and finance system that can ensure the BTS to fully achieve a stable and adequate blood supply. Safe, accessible supplies of blood and blood products cannot be achieved without cost. However, an unsafe or inadequate blood supply is ultimately even more costly - in both human and economic terms.

2. Collection of blood only from voluntary unpaid blood donors

Safe blood donors are the cornerstone of a safe and adequate supply of blood and blood products. The safest blood donors are voluntary, non-remunerated blood donors from low-risk populations. Despite this, family/replacement and paid donors, which are associated with a significantly higher prevalence of transfusion-transmissible infections (TTIs) including HIV, hepatitis B, hepatitis C, syphilis and Chagas disease, still provide more than 50% of the blood collected in some developing countries. WHO advocates and recommends to its Member States to develop national blood transfusion services based on voluntary non-remunerated regular blood donation in accordance with World Health Assembly resolution 28.72, which was adopted in 1975.

The key to recruiting and retaining safe blood donors is good epidemiological data on the prevalence (and incidence, where possible) of infectious markers in the general population to identify low-risk donor populations coupled with an effective donor education, motivation and recruitment strategy to recruit new voluntary non-remunerated blood donors from these populations. A pleasant experience during blood donation, good donor care and effective communication between blood centre staff and blood donors are all important factors for the retention of safe blood donors.

WHO has developed a set of simple guidelines designed to assist those responsible for blood donor recruitment in resource poor settings to develop and implement a programme to improve communication with blood donors. These guidelines provide approaches for setting up a communication programme – organizing, collecting information, and developing plans; as well as providing ideas that individual centres might consider for recruiting, educating and retaining safe donors.

3. Appropriate clinical use of blood

Blood transfusion is an essential part of modern health care. Used correctly, it can save life and improve health. However, as with any therapeutic intervention, it may result in acute or delayed complications and carry the risk of transmission of infectious agents, such as HIV, hepatitis viruses, syphilis and Chagas disease.

Inappropriate use of blood and blood products, coupled with transfusion of unscreened or improperly screened units, particularly in countries with poor blood programmes, increases the risk of TTIs to recipients. It also widen the gaps between supply and demands and contributes to shortages of blood and blood products for patient requiring transfusion. Thus, it is necessary to reduce unnecessary transfusions. This can be achieved through the appropriate clinical use of blood, avoiding the needs for transfusion and use of alternatives to transfusion. The transfusion is deemed appropriate when it is used to treat condition leading to significant morbidity and mortality that cannot be prevented or managed effectively by other means. The commitment of the health authorities, health care providers and clinicians are important in prevention, early diagnosis and treatment of diseases/ conditions that could lead to the need for blood transfusion.

Source

1. Blood transfusion safety - WHO Fact sheet [http:// www.who.int\WHO Blood Transfusion Safety.htm]

2. Voluntary Blood Donation - WHO Fact sheet [http:// www.who.int/bloodsafety/voluntary_donation/en/]

3. Safe and appropriate use of blood - Who fact sheet [http://www.who.int/bloodsafety/clinical_use/en/]

Part II of this article will be continued in the next issue

Table 1: Vaccine-preventable Diseases & AFP

31st May - 6th June 2008 (23rdWeek)

Disease	No. of Cases by Province									Number of cases during current week in 2008	Number of cases during same week in 2007	Total number of cases to date in 2008	Total number of cases to date in 2007	Difference between the number of cases to date between 2008 & 2007
	W	C	S	N	E	NW	NC	U	Sab					
Acute Flaccid Paralysis	00	00	01 GL=1	00	00	00	00	00	01 RP=1	02	01	43	40	+7.5%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	00.0%
Measles	00	00	00	00	00	00	00	00	00	00	02	58	34	+70.6%
Tetanus	00	02 ML=1 NE=1	00	00	00	00	00	00	00	02	01	17	16	+6.3%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	18	18	00.0%
Tuberculosis	78	04	04	07	14	00	32	06	89	234	238	3911	4544	-13.9`%

Table 2: Newly Introduced Notifiable Diseases

31st May - 6th June 2008 (23rdWeek)

Disease	No. of Cases by Province									Number of cases during current week in 2008	Number of cases during same week in 2007	Total number of cases to date in 2008	Total number of cases to date in 2007	Difference between the number of cases to date between 2008 & 2007
	W	C	S	N	E	NW	NC	U	Sab					
Chicken-pox	13	08	10	05	05	05	08	05	11	70	50	2661	1671	+59.2%
Meningitis	04 CB=1 KL=1 GM=2	02 KD=1 NE=1	03 HB=2 GL=1	01 VA=1	01 BT=1	03 KR=2 PU=1	03 PO=1 AP=2	04 BD=4	03 RP=1 KG=2	24	11	711	62	+1046.8%
Mumps	02	00	06	02	14	07	05	00	07	43	45	1140	640	+78.1%

Key to Table 1 & 2

Provinces: W=Western, C=Central, S=Southern, N=North, E= East, NC=North Central, NW=North Western, U=Uva, Sab=Sabaragamuwa.

DPDHS Divisions: CB=Colombo, GM=Gampaha, KL=Kalutara, KD=Kandy, ML=Matale, NE=Nuwara Eliya, GL=Galle, HB=Hambantota, MT=Matara, JF=Jaffna, KN=Killinochchi, MN=Mannar, VA=Vavuniya, MU=Mullaitivu, BT=Batticaloa, AM=Ampara, TR=Trincomalee, KM=Kalmunai, KR=Kurunegala, PU=Puttalam, AP=Anuradhapura, PO=Polonnaruwa, BD=Badulla, MO=Moneragala, RP=Ratnapura, KG=Kegalle.

Table 3: Laboratory Surveillance of Dengue Fever 31st May - 6th June 2008 (23rdWeek)

Samples	Number tested		Number positive *		Serotypes									
					D_1		D_2		D_3		D_4		Negative	
	GT	AH	GT	AH	GT	AH	GT	AH	GT	AH	GT	AH	GT	AH
Number for current week	04	14	00	00	00	00	00	00	00	00	00	00	00	00
Total number to date in 2008	91	76	07	14	00	00	04	05	01	05	00	00	02	00

Sources: Genetech Molecular Diagnostics & School of Gene Technology, Colombo [GT] and Genetic Laboratory Asiri Surgical Hospital [AH]

* Not all positives are subjected to serotyping.

NA= Not Available.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Whooping Cough, Human Rabies, Dengue Haemorrhagic Fever, Japanese Encephalitis, Chickenpox, Meningitis, Mumps.

Special Surveillance: Acute Flaccid Paralysis.

National Control Program for Tuberculosis and Chest Diseases: Tuberculosis.

Table 4: Selected notifiable diseases reported by Medical Officers of Health

31st May - 6th June 2008 (23rd Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephal-itis		Enteric Fever		Food Poisoning		Leptos-pirosis		Typhus Fever		Viral Hepatitis		Human-Rabies		Re-turns Re-ceive
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	%
Colombo	18	828	03	79	00	06	02	54	00	60	06	197	00	02	01	62	00	00	**85**
Gampaha	21	535	04	84	01	08	00	29	00	66	07	204	00	04	01	73	02	03	**93**
Kalutara	09	275	06	169	00	08	00	40	00	16	16	221	00	02	00	23	00	00	**92**
Kandy	03	117	05	122	00	05	02	29	00	30	21	217	00	50	00	82	00	00	**84**
Matale	01	61	03	123	01	02	00	24	00	02	26	468	00	01	00	19	00	00	**75**
Nuwara Eliya	00	14	04	116	00	01	00	143	00	107	02	27	00	33	05	75	00	01	**77**
Galle	00	59	02	92	01	10	00	10	00	42	04	187	00	09	00	04	00	03	**88**
Hambantota	01	52	02	44	00	03	00	06	00	06	04	58	00	52	00	04	00	00	**91**
Matara	07	123	05	95	00	04	00	21	00	02	00	185	03	105	00	06	00	01	**82**
Jaffna	01	52	02	77	00	01	05	197	00	06	00	00	01	138	01	23	00	00	**75**
Kilinochchi	00	00	02	12	00	00	00	00	00	00	00	02	00	00	00	01	00	00	**25**
Mannar	00	24	00	10	00	06	03	106	00	00	00	00	00	00	00	11	00	00	**50**
Vavuniya	00	10	00	30	00	02	00	02	00	11	00	04	00	00	00	04	00	00	**100**
Mullaitivu	00	00	00	02	00	00	00	08	00	12	00	00	00	01	00	06	00	00	**60**
Batticaloa	02	82	00	46	00	03	01	16	00	19	00	02	00	01	00	72	00	05	**64**
Ampara	02	19	01	106	00	00	00	04	00	00	00	16	00	00	00	05	00	00	**57**
Trincomalee	04	169	00	49	00	00	01	09	00	12	05	20	00	13	01	12	00	00	**70**
Kurunegala	05	216	03	139	00	10	01	29	01	11	16	135	00	15	03	26	00	04	**94**
Puttalam	05	246	02	44	02	05	03	102	00	19	03	10	02	31	00	21	00	02	**100**
Anuradhapur	00	107	01	44	00	05	00	08	00	05	14	191	00	10	00	10	00	02	**95**
Polonnaruwa	04	50	08	67	00	01	00	21	00	06	07	44	00	00	01	16	00	00	**100**
Badulla	00	44	14	228	00	05	04	65	00	13	05	27	03	68	02	61	00	01	**93**
Monaragala	02	39	08	140	00	02	00	26	00	39	02	75	03	64	00	15	00	00	**91**
Ratnapura	05	133	05	133	00	21	00	41	00	42	12	107	00	68	02	38	00	00	**69**
Kegalle	10	217	03	196	01	21	00	35	01	01	18	158	02	41	14	356	00	00	**91**
Kalmunai	00	21	13	134	00	03	00	09	00	10	00	00	00	02	02	17	00	00	**77**
SRI LANKA	**100**	**3493**	**96**	**2381**	**06**	**132**	**22**	**1034**	**02**	**537**	**168**	**2555**	**14**	**710**	**33**	**1038**	**02**	**24**	**83**

Source: Weekly Returns of Communicable Diseases (WRCD).

***Dengue Fever / DHF** refers to Dengue Fever / Dengue Haemorrhagic Fever.

****Timely** refers to returns received on or before 14 June, 2008 Total number of reporting units =238. Number of reporting units data provided for the current week: 254

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Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk.

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