A lifeline that rural India cannot do without: BLOOD Donations

Could legalizing unbanked blood donations Save lives or do more harm than good?

Authors: Dr. Raman Kataria and Dr. Yogesh Jain [1]

Twenty-year-old Putul, living in a village 70 km from a district headquarters town in Chhattisgarh, was in labor for two days and a night. It was her first pregnancy. To hasten labor, the local quack administered several injections that increased her uterine contractions. Forty hours after the onset of labor, she was brought to a non-profit hospital around 9 p.m. in a jeep hired for a large price.

She made it there after a 150-minute tedious journey accompanied by her mother and brother. The young lady was deathly pale and in obvious shock from the loss of blood due to a ruptured uterus. She needs immediate blood donations.
Immediate resuscitation with intravenous fluids was started, while waiting for her blood grouping report. Unfortunately, a match for her group was unavailable at the hospital’s blood storage centre and her brother was asked to go to the blood bank in the district headquarters town to get three units.

What is an hour away during day takes more than three hours at that late hour. In the town, the blood bank staff insists on a replacement blood donation. Even though her brother offers his own blood, it is rejected as he is anaemic. A helpful bystander (and seller) directs him to a private blood bank where he gets one unit for Rs. 2,400, but without any replacement donation. He rushes back to the hospital, where his sister has already been operated upon to remove her uterus and the dead baby.

She continues to remain severely pale and in shock. A single unit blood donation is not enough to save her and she dies in the early hours of the next morning. Her mother is inconsolable, while her brother is completely drained of all emotions as he squats with his head on his knees. The doctors and the nursing staff are equally heartbroken and angry.

Why did this happen? Obviously, the socio-economic, gender, caste and class causes are apparent and have been there for several centuries, though more pronounced in the last two decades. What is glaring and ironical in this age of revolutionary cures and high-tech medicine is that the young lady died for want of a blood donation at the right time – a “drug” that has been in use to save human lives for well over a century.

Amending the Amendment for Unbanked Directed Blood Transfusion (UDBT)
Impact (UDBT)

There were enough donors at the hospital even among the staff who could have been of help to Putul in this life-threatening situation. Their blood needed to be matched; tested for infections – as would be done in any blood bank – and then a blood donation given to her immediately, without the need for banking, a procedure known as Unbanked Directed Blood Transfusion (UDBT).

Doctors in rural areas, where 69 per cent of India lives, have long used UDBT in life-saving major surgeries, treatment of complicated child births and other critical illnesses. This method of blood donation and transfusion was perfectly legal till 1998. In response to concerns about HIV transmission due to unscrupulous practices by some commercial blood banks, an amendment was made to The Drugs and Cosmetics Rules, 1945 (“Rules”) they mandated that collection of blood could be administrated only by a licensed bank.

In rural areas there are no licensed blood banks or resources to build them. Thus, UDBT became illegal and in a stroke, blood availability in emergencies in rural areas became almost impossible. People die needlessly.

How much Blood Does it Take?

While it is difficult to estimate the actual requirement of blood, government statistics show a huge deficit for the country at 31 per cent (116 lakh units required annually against 80 lakh units available) are still a gross underestimate (Indiastats 2012). For Chhattisgarh, where the young woman and her baby lived and died for want of blood donations the deficit is an appalling 81 per cent. 19% of people who need blood will get it.

Lots of blood, willing donors but people die daily because
inappropriate regulation and human greed are obstacles to the supply. Practical training and application using Unbanked Directed Blood Transfusion (UDBT) could save many lives.

The Price of Blood Money

There is a massive gap between laws to establish blood banks and what is practically feasible and safe for rural areas. Setting up a standard bank requires eight rooms – five must have an air-conditioned environment with round-the-clock power supply – specially designed refrigerators and other expensive, sophisticated equipment to be run by a medical officer and full-time technical staff. Though this is possible in urban areas, rural areas and towns are faced with several problems, besides huge infrastructural costs such as a) non-availability of blood in an emergency b) non-availability of blood banks in rural areas c) excess time taken to obtain blood from banks, d) cost to the recipient for blood at between Rs. 600 and 1,200 per unit, e) poor availability of transportation, long distance and huge costs in carrying blood from remote banks, and f) need for insulated containers to avoid wastage of blood carried from banks.

Obstacles In 2001; A Blood Bank Compromise Looks Good on Paper

After realizing that the new rules were clearly inadequate, the government came up with a partial solution, offering a possibility of storage centres in such places where emergency childbirth care is undertaken, whose needs would ideally be nourished by authorised blood banks but which could store blood and use it in emergencies. They were still not allowed to draw blood from potential donors.

Twelve years later, only a handful of storage centres are approved in any State. Even these function far below the
desired level. “Parent” banks often cite a shortage of blood in their own stocks as a reason for refusal to issue blood donations to these centres, and insist on replacement donations each time. Consequently, people like Putul continue to die for want of blood. Many more people would have died had several good doctors in rural hospitals, both government and non-government not been practising UDBT illegally but ethically till now.

In mid-2013, even this possibility disappeared since the National AIDS Control Organisation (NACO) smothered the sale of blood bags in the open market, making it impossible to draw blood from any potential voluntary donor outside authorised banks. A doctor was arrested for practicing UDBT and another hospital had its blood bags seized. The deaths will increase now.

Solutions: What is the way out?

We’re in this together!

Together we can do more!

There is no way other than legalizing UDBT for use in emergency situations after proper testing in certified institutions for physicians who have had some initial training. Ways to prevent unscrupulous elements misusing this are eminently possible. Second, replacement of blood by a relative of the patient should not be made mandatory to get
blood donations issued from a bank or storage centre, especially in a life-threatening emergency.

The risk of AIDS and other blood borne disease must still be dealt with so that there is not more harm than good. Without adequate resources, training and support in rural areas what can be done?

Even NACO guidelines insist that one should aim for only voluntary, non-remunerated safe blood donors and gradually phase out replacement donors. As of now, licensed banks have no responsibility for maintaining a minimum stock of units of each group and to ensure adequate replenishment of stocks. There should be a minimum number of camps, and a minimum number of blood units should be ensured. Keeping a good stock and having regular camps will ensure that blood is available.

There is the need to ease infrastructure norms for establishing new banks in smaller towns, especially in the public sector. We need to have several more storage units. All community health centres must have these. Finally, there is a great need to license several institutions in remote areas for UDBT after proper training of staff. Being an essential drug, blood must be brought under the price control order with a reasonable fixed price, but which could be waived in emergency situations. Until we take these steps, many more Putuls will die in our villages. We request the government must immediately address this concern.

**Important Areas to consider**

We all want to save lives and stop corruption but at what cost to overall safety?

The issues below needs answers that work:

- Blood is time sensitive and not sterile due to skin plugs introducing flora. It must be used within only a
very short time period without proper storage and even this is dependent on environmental conditions [2]
- Host v graft disease
- Sepsis complications
- ABO typing mismatch
- Hemolysed transfusion

Questions I have:

1. Could this training be part of medical school curriculum and CME training with certification to be offered in local hospitals with pre-vetted standardized curriculum
2. Who will be in charge of the blood bags, cost of blood and services, how will this be attainable for all people?
3. How will blood borne disease be handled
4. No one has made money available since 1998 what could change this?
5. Could the standards for this form of intervention be eliminated by having blood taken and administered only by register medical professionals with misuse resulting in revocation of license to practice.
6. Are there minimum standards of hygiene that must be met to do 1-1 version and how would this be implemented?
7. Are their safeguards in place to stop social isolation where the privileged get blood and low caste just die?
8. What is done for other medical interventions like organ donation or in other highly populated countries that could be emulated?

A quick look at the WHO website shows some guidance but the latest voice on this seems to be 2005, http://www.who.int/surgery/en/ [3] Is it time to revisit the issue? India is home to 1.24 billion people. It seems incomprehensible that people will die of blood shortage is this densely packed, innovative and prolific society.
(Raman Kataria and Yogesh Jain are doctors working at Jan Swasthya Sahyog in rural Bilaspur, Chhattisgarh, India) This article was previously published in The Hindu [1]. It was adapted for discussion here:

[1] (The Hindu September 25, 2013
http://www.thehindu.com/todays-paper/tp-opinion/a-lifeline-that-rural-india-cannot-do-without/article5165638.ece) It is valuable to read both versions and any comments for a wider perspective.


http://books.google.com/books?hl=en&lr=&id=DMmZqEXeAHcC&oi=fnd&pg=PP11&dq=Surgical+Care+at+the+District+Hospital&ots=H0ymvds1NJ&sig=TnQrms1_GlVISs4DCS5l_5pW91c (accessed 29 Sep 2013).