Frequently asked questions in donor recruitment

1. Why is one not allowed to donate blood before attaining the age of 17 years?

Physiologically, there would be no harm if a young blood donor satisfies other conditions for blood donation. However, full functionality of the blood manufacturing system of the body, is attained at 16 to 17 years. Some countries therefore set the age limit for blood donation at 16 or 17 years while others consider the minimum age for legal consent and set it at 18 years. Whatever the case, the young blood donor must meet the minimum weight requirement as this is the only way of being sure that the total amount of blood they have in their body is sufficient for safe donation of the volume of blood that will be taken off.

2. Can one donate blood if their body weight is less than 45 kg?

No as this is not recommended. However, in extreme emergency, a marginal difference in weight to the tune of 1 to 2 kg will not be harmful and could be ignored. The smaller one is, the less is their blood volume. A 45 Kg individual will have the minimum blood volume to permit safe donation of 320 to 370ml of whole blood, the amount taken off in Uganda. Some countries where people are generally small use smaller blood bags (250ml) and will safely take off blood from individuals that are less than 45kg of weight.

3. Can one donate blood after 65 years of age if he/she is physically fit?

Yes, if there is no medical reason to stop them. The donors' health is considered paramount and they must be healthy so that blood donation does not expose them to unnecessary risk.

4. Why then are people above 65 years of age not allowed to donate blood?

With ageing, blood vessels start constricting. Bloodletting from constricted veins may be more problematic. There is no known single age at which blood vessels start constricting. It varies from individual to individual and country to country. Therefore Some countries retire blood donors at 60 while others push it to 65 and 70years. There is also fear that after 60 years, certain types of blood cancer become more common.

5. Why is blood NOT collected from a person having a hemoglobin content of less than 12.5 gm/l00ml?

The stipulated hemoglobin content of 12.5 gm/100 ml for a donor is the minimum standard for a healthy person. Persons having less hemoglobin content than the prescribed one will experience symptoms of low hemoglobin if they donate blood. More so, the blood they give will not benefit patients to the extent Doctors require.

6. Why does one wait for three (3) months interval before donating again and yet it is known that donated blood is recuperated/recovered by the body within 21 days?

This is an additional precautionary measure for safety of the donor. When people donate more frequently than the stipulated time i.e. three months, their body slowly loses the ability to recover fully from the lost blood before the next blood donation.

7. What physical tests are performed before blood donation?

Weighing, Hemoglobin estimation (a drop of blood in copper sulphate solution), Measurement of blood pressure, Checking heart beats and a quick physical check to asses general health state of the individual wishing to donate.

8. What laboratory tests are performed at the blood bank for each bag of collected blood?

There are two types of tests ALL of which MUST be performed before the donated blood can be given to a patient:-

1. Tests for diseases that are commonly transmitted through blood transfusion (Hepatitis B and C – *Cause fever and severe jaundice*, and HIV and syphilis *which are both sexually transmitted diseases)*
2. Laboratory tests to determine the donor's blood group

9. Why are laboratory tests not performed before donation?

They are time consuming tests which if performed before donation will cause excessive delay in the queue leading to blood donors abandoning or even refraining from donating blood forever. Besides, post-donation testing of all blood for the same diseases and for blood groups is a mandatory requirement.

10. Blood is collected from a vein. Naturally, it is rich in carbon dioxide content. What purpose does it serve? Why is blood not collected from an artery to get blood rich in oxygen content?

Though the blood collected from a vein is rich in carbon dioxide, it is also transfused in the vein of the recipient and is automatically oxygenated in course of normal circulation and therefore serves the required purpose. Blood is not collected from arteries mainly for the following reasons:

1. Veins are found near the surface of the body on top of muscles and can be easily identified while arteries remain deeper into the body and therefore cannot be easily reached. Veins are therefore easier to enter with a needle.
2. Blood pressure in veins is low compared to that in arteries. Puncturing an artery therefore causes bleeding at higher pressure and speed, leading to collapse of the donor and trouble in stopping the bleeding after donation.

11. Is there any chance of contracting blood communicable disease by donating blood?

Not at all. Only sterilized, disposable or "single use" sets are employed in collecting blood. The donation pack is given to the donor during registration and the puncture needle will only be opened at actual donation. In the event of failure to gain entry into the donor's vein, the blood bag is packed for disposal at the blood bank and NEVER given to another blood donor.

12. What is AIDS? Is there any chance of contracting AIDS by donating blood?

AIDS is an abbreviation for a disease condition known as "Acquired Immunodeficiency Syndrome". AIDS is the terminal disease condition that an individual gets when one is infected with the virus known as HIV or Human Immunodeficiency Virus. The disease reduces the inherent power of the defense mechanism of human body to protect against many other diseases. As a result, the affected person suffers from many different ailments which may be fatal.

There is no chance of contracting AIDS by donating blood, since only "single use", disposable bleeding sets are what is employed by the blood service.

13. Will my blood group be the same as that of either of my parents?

May or may not be exactly. But there should be a sort of relationship. We inherit our blood group from our parents by random combination of one gene from each of the parents. Dominant genes (A, B) prevail over recessive gene (O). If one inherits a dominant gene from either of the parents, that gene will show in their red blood cells contributing to their blood group. Such people will therefore be Blood Group A, B or AB. If one does not inherit any of the dominant genes, their blood will be Group O.

14. Does the blood group of a particular person change with time?

No. This never happens. Occasionally however, mix-ups during testing of many blood samples can lead to a wrong blood group being communicated to the blood donor but this will easily be sorted out by repeating the tests using a small amount of freshly collected blood from the same donor.

15. What is Rh factor?

Rh refers to the presence or absence of an inherited substance or factor, the RHESUS FACTOR, on the surface of one's red blood cells. It was named so because a similar factor had also been identified on the surface of a type of monkey known as Rhesus Monkey. Those having the compound are denoted as Rh positive OR Rh D and those without as Rh negative or Rh d.

16. How long can blood be preserved in a blood bank?

In Uganda blood is normally preserved in the Blood Bank for 35 days, kept in a refrigerator at a temperature of 4^{o}C.The maximum life span of a single red blood cell in the body is however, 120 days.

17. Why then is blood preserved in the blood bank for only 35 days?

35 days represents a “compromise average” considering the different ages of all red blood cells in the blood as collected from a donor, useful function of those same red blood cells and toxic effects of stored blood in the body of the patient into which the blood will be transfused after storage outside a human body.

18. Will there be any good if blood is transfused to a patient on the 34th day after collection from the donor?

Blood transfusion always serves the useful function of increasing the blood volume which is very important for patients who have lost blood. In addition, there will still be sufficient number of living red blood cells present in the bag which will be able to carry oxygen to the cells and bring back carbon dioxide. After 35 days of storage, the blood becomes less and less useful.

19. Blood collected from the vein may contain dead cells. Will there be any good by transfusing this blood?

Red blood cells that age are removed from circulating blood in the spleen. Blood collected from a vein will contain cells of various life spans a considerable portion of which will still be young cells.

20. At times on tendering the blood donor’s card, it is not honored and blood will not be provided by the hospital for my patient. What then is the use of donating blood?

Voluntary Blood Donation in the real sense of the term is unconditional and without any strings attached. The blood donated is meant to be given to an anonymous patient and there is no requirement that the donor should be known to the patient. One should remember that blood donors are not depositors. What is important is that there should be enough blood donors so that all patients that require blood get it in the time of need.

21. Recently we have had of a private blood bank opening in Kampala. How will it function?

Uganda Blood Transfusion Service (UBTS) functions following a stipulated policy of the Ministry of Health that mandates it as the only organization that will supply blood to all health institutions for transfusion of patients in the country. To achieve this, UBTS recruits and retains voluntary, non-remunerated blood donors (VNBD) throughout the country. Even privately built blood banks have to operate under the same policy of the Ministry of Health in context of an arrangement known as PPP (Private Public Partnership). The gap between demand and supply of blood in Uganda will only be closed by having enough VNBDs and moving blood supply nearer to the health facilities which carry out blood transfusion.

22. Is it true that donated blood is wasted unused at the blood bank?

Only blood that is found to be infected with transfusion transmissible infection and a very small amount that expires before issue is disposed of at the blood bank. Expiry of small amounts of blood occurs mainly because some blood groups are rare and the demand for them by hospitals is very low. But it is also healthy that a very small amount of blood should expire especially at the hospitals as this would be

an indication that supply is meeting demand.

23. Is there any corruption at the blood bank? Is blood sold there?

At the blood bank, there is no corruption related to sell of blood. All health facilities that collect blood get it free. There is, however, some reported illegal sell of blood to patients by a few unscrupulous hospital personnel. Individuals that do this should be reported to hospital authorities immediately for disciplinary action. Whenever such cases are received at the blood bank action is demanded of the relevant hospital management .Paying hospitals too are not allowed to charge for blood as a commodity. The only charges permitted are those related to collateral services offered to the patient at the facility in the process of effecting a transfusion. The community is free to use its liaison with the hospital to negotiate such charges so that people are not unnecessarily denied access to blood.

24. In which Parts of the country is blood donation very successful?

Generally, voluntary blood donation has improved tremendously all over the country but still falls short of the national requirement to adequately meet all patient needs. There is slightly more voluntary blood donation in Western and Central parts of the country.

25. What is the blood need of Uganda and how is it met?

We need 340,000 units per year. Current total collection is about 220,000 units. All blood collected is donated by voluntary, non-remunerated blood donors.

26. What harm is it if blood donation is made compulsory?

It has been observed that humanity is apathetic to compulsion. People should be motivated and inspired to donate blood voluntarily. Compulsion may lead to hatred towards the cause, which does more harm than good to blood donation. Moreover, blood collected from people donating under compulsion may not be safe. Only a sustained motivational efforts based on honest sensitization towards informed blood donation can help the country to achieve total voluntary non-remunerated blood donation.

27. We have read in the science journals about artificial blood. What is it? Can it be used for transfusion as a substitute to human blood?

Research in this area is still in its infancy. The term ‘artificial blood’ is a misnomer as blood has various functions. The so called “artificial blood” can only carry oxygen to the cells and bring back carbon dioxide in a limited way but cannot perform any of the other natural functions of blood. Further, these so called substitutes are quite costly and their harmful side effects have not yet been fully evaluated. What is very well established is the use of different types of intravenous fluids to achieve short term and medium term beneficial effect in the expansion of blood volume to sustain blood pressure.

28. Why does blood coagulates when it comes outside the body but does not coagulate inside the body?

Blood is expected to remain in a liquid state for it to circulate in the body and carry out its natural functions. However, when a blood vessel is damaged one of the functions of blood is to begin forming a plug to close off the damaged part of the blood vessel. This natural process begins with coagulation or clotting of a small amount of blood. Clotting which takes place inside the body is itself controlled by another process that stops and may even reverse it and this checks the size of clot formed limiting it to only the damaged part of the vessel. When blood leaves the body, it escapes from the natural process that controls clotting. As such, clotting which itself is triggered by contact with surfaces other than that of a blood vessel, sets off and continues uncontrolled. If blood is to be successfully collected and kept in a blood bag, the bag must contain a substance that will stop coagulation, in addition to other substances that help to feed and keep the blood cells alive. The substance which stops coagulation is called an "Anticoagulant".

29. Who can give blood?

Anyone can donate blood if they are: aged between 17 and 65 years of age (inclusive); in normal health; weigh at least 45 kg or more; have not donated blood in the last three months (men) or four months (women); have a hemoglobin content in their blood of not less than 12.5 gm/ 100mls of blood; And meets all of the other criteria set out in the confidential questionnaire.

30. Does it take a long time to donate blood?

In normal circumstances, it should take not more than 20 minutes for one to go through the entire process of donating blood including time for rest and taking refreshment. It usually takes a donor only 8 to 10 minutes to fill a blood bag.

31. How much blood do you take off?

Blood banks take off an average of only 350 ml of blood as your gift of life. This is equivalent to one small glass-bottle of soda. Together with the anticoagulant already in the blood bag, a total volume of 450 to 500ml is realized, equivalent to what is commonly known as one "Tumpeco" or "Nice" cup.

32. Why is my finger pricked before donation?

This is done to obtain a drop of blood used to estimate "hemoglobin" content in blood. Hemoglobin is the component of the red cells which transports oxygen in the body to all the organs and tissues and gives blood its red color. If the level is low, it is not wise to give blood. Estimation is achieved by dropping the blood in a solution of copper sulphate with a density calculated to allow floating if the hemoglobin content of the blood is less than 12.5gm per 100mls of blood.

33. What is the liquid in the bag into which the blood is taken?

It is called anti-coagulant and prevents the donated blood from clotting. It also helps to preserve the blood cells. It is known as CPDA solution (**Citrate** -*anticoagulant*, **Phosphate** – *buffer that controls PH*, **Dextrose & Adenine** – *feed red blood cells*).

34. How often can one give blood?

Not more than once in 90 days. Generally, men have better blood forming nutrient stores in the body than women and are allowed to donate once in 90 days while women are allowed blood donation once in 120 days in Uganda.

35. Is blood donation very painful?

No; not more than a prick of an injection needle.

36. Will I feel all right after donation?

Yes, you can go back to your normal work after 30 minutes. One is however restricted from certain activities after donating blood including drinking alcohol in less than 12hrs, driving long distances, operating dangerous machinery.

37. I have heard of people fainting. Is that common?

Very occasionally a donor may faint. The most common reason is psychological usually fear. Often fainting also results from rushing to get up too soon after donating. One should relax, rest a little, take all the refreshments provided and they will be expected to be fine.

38. Would you want my blood as much if I am of a common blood group?

Hospitals constantly need blood of all blood groups. Actually most patients also belong to the commonest blood groups. On the contrary, it is blood of the rare blood groups whose demand is less but remember that if it is not there when required, the patient might die. Blood is like a parachute; "you must have it when you need it or else, you will never need it"

39. Nobody has ever asked me to donate blood.

Consider yourself invited today! Messages about blood donation abound but it is still unfortunate that they never reach everyone.

40. I am too old!

If you are between 17 and 65 years (those years inclusive) and in good health, you can donate blood.

41. But l am underweight!

Not, if you are 45 Kg or more, and in good health. You can always donate blood.

42. Oh! But I am anaemic! My diet is not good!

We test for anaemia before every donation by dropping one's blood in a solution of copper sulphate. If it sinks you qualify and if it floats you don't and will be advised appropriately. All of our common foods support blood formation. These include serials, matooke, potatoes, green vegetables, beans, peas, meat

and fruits. One must, however, protect against malaria by sleeping in a mosquito net.

43. But donating blood will make me weak.

Blood donation is largely uneventful. You can resume your routine duties immediately after blood donation. The amount of blood donated is a small part of your surplus blood and is replaced from body reserves within 24 hrs. After that, red blood cell production is stimulated to recoup the blood lost by the body within 21 days and one can again safely donate blood after 3 months.

44. I am too busy and it is too inconvenient!

The entire procedure of blood donation takes about 20 minutes whereas the actual Blood Donation is just 8 to 10 minutes job! One can never be too busy to save a life.

45. How long does it take to transfuse a unit of blood?

This depends on the condition for which transfusion is being given. If the patient is being transfused to replace blood for sudden massive blood loss, one unit of blood may be given rapidly in about 10-15 minutes. However, if the blood transfusion is being given for longstanding anaemia, transfusion should be slow and it may take over 3-4 hours. Normal rate of transfusion is 28 drops per minute.

46. Can I develop a serious reaction to blood transfusion with blood from another person?

Not usually but it will occur if a wrong blood group is transfused. People differ from each other with respect to their blood groups and only blood of compatible group is transfused. Before blood transfusion, a sample of the patient's blood is tested, and cross-matched with samples from different prospective units of donor blood from which a suitable blood unit will be selected for use. This procedure reduces the risk of any serious reactions. Minor reactions which cannot be detected employing routine pre-transfusion testing could still occur. No medical procedure is fool proof or one hundred percent safe. Fortunately, most blood transfusion reactions, if they occur, are mild and will not lead to loss of life.

47. What happens to blood that is found to be infected? Is it transfused t other infected people?

All blood that is found to be infected after testing at the blood bank is disposed of by incineration or burning. Patients, whether infected or not, must be transfused with only safe or uninfected blood. If an already infected person is given more infected blood, their disease condition may become worse because they could acquire fresh variants of the organism that is causing the disease.

48. Why do you ask for a donor mother's name and not that of their father? What is the relationship between mother's name and blood donation?

For a number of reasons, accurate identification of a donor is very important in blood banking e.g. test results must be delivered to the right person. In addition, it is also very important that the blood bank maintains maximum confidentiality of the information given by a donor. Use of one's mother's name

provides an opportunity for both accurate identification of the donor and maintenance of confidentiality. If by bad lack blood bank records are accessed by unauthorized persons, they will not be able to relate the recorded information with a particular person. Many people have already added their father's name to their own or worse still, it is pretty easy to associate their father' name with the individual. This leaves the mother's name as the only option for an additional name that is little known but easy for one to remember. It is about disguising the donor's identity for purposes of ensuring confidentiality.

49. Why are girls/women not allowed to donate during their menstrual period?

Menstruation involves loss of blood by a girl or woman. Sometimes the blood lost is much and at times very little. This is a fact known to all girls and women that have undergone menstruation for a while. For this reason, it is not advisable to take off blood from a girl or woman who is already losing some.

50. Why is an expectant/pregnant or breastfeeding mother not allowed to donate?

During pregnancy and breastfeeding, additional strain is put on the mother's body to provide for the fetus and/or for milk for the baby. Blood-making nutrients are required to manufacture blood for the fetus and also the same nutrients are used to manufacture milk. It is therefore not advisable to take off blood from a woman in these two situations.

51. Why are gay people and people with tattoos not allowed to donate?

AIDS was first observed as a disease occurring among the gay community in the USA. This was merely accidental because the type of sex indulged in by male gay people is very effective at transmitting the HIV virus. Male gay people who have multiple partners are therefore at very high risk of acquiring HIV and should not be allowed to donate blood. However, in many countries there are now gay people that are properly married and relate with only a single partner. Some of those countries have begun allowing such gays to donate blood.

Tattooing involves piercing the skin several times with a sharp object. In many places of the world, this is done by untrained people and the objects used are not sterilized before being applied on another client. In these circumstances, tattooing is associated with spread of many viral diseases including HIV and hepatitis B and C. People with tattoos are therefore considered at high risk for these infections and will not be allowed to donate unless they show that they have already been tested and found not to be infected.

52. Can I donate when I am fasting or during the exam or sports periods?

It is advised that one should have a meal at least once in the six hours before donating blood. If one has not done so, a cup of tea with a bite before donating and sufficient refreshment after blood donation is important. Fainting is quite frequent when people donate blood during the fast. In some Moslem

countries during Ramadhan, blood donation takes place in the night after breaking the fast.

- Blood donation during the examination period is not harmful. If however one has ever fainted during or after donating blood, it advisable that they wait until after the examinations.
- Persons that are likely to take part in strenuous sports activity within 12hrs should not donate blood before the activity. Full rest from such activity for 12hrs after donating blood is also recommended.

53. Can I donate blood if I am an Albino?

A healthy albino who meets all criteria for safe blood donation should be allowed to do so particularly if they do not have any affected skin close to the place of vein puncture. Extra care might, however, be required in protecting the site of vein puncture after blood donation.

54. Will I not get high blood pressure if I donate many times in a lifetime?

No this is not true. On the contrary, people that donate blood regularly are slightly protected from getting high blood pressure.

55. Which blood group is the strongest?

If you are using the word “strong” referring to bodily immunity, all blood groups are the same. Indeed there are very few known functional differences amongst people that can be attributed to blood group. There is for example only one blood group factor commonly found in West Africa that protects individuals against one type of malaria (Duffy blood group and P. Vivax malaria).

56. Why do some people faint after donating blood and others don’t?

Fainting due to blood donation is a rare happening most often attributed to fear. If one faints due to blood donation on three occasions, they are permanently stopped from donating blood. It is very important that all advice and instructions related to blood donation are followed. Adequate drinking before and after donating, adequate rest immediately after donating, light muscle exercises after donation are all very important. In addition, one should answer all questions honestly. When people donate blood during or even in the two weeks period after an attack of malaria, they might get a serious faint requiring admission in hospital.