



FOR PROFESSIONALS
SINCE 1941

GREATER NEED FOR BONE MARROW DONORS IN SA

11 September 2014: The South African Bone Marrow Registry (SABMR) indicates that over 75% of the bone marrow donors found to help terminally ill South Africans are based in Europe and the United States of America.

According to Dr Dominique Stott, Executive: Medical Standards and Services at PPS, there is a growing need for more South Africans to become bone marrow donors. “National Bone Marrow Awareness Week, which took place last week, helps to raise awareness on how bone marrow donors can play their part in saving the lives of terminally ill patients. However, donors from all ethnic groups are needed to increase the chances that a suitable match is found for all patients.”

Dr Stott also points out that the costs of sourcing a donor from overseas are considerably more when compared to using local donors, which often requires extensive international travel and logistical arrangements.

“Bone marrow is the fatty tissue in the long bones which contains the cells which produce the essential blood-forming components for red and white blood cells as well as platelets,” explains Dr Stott. “Red blood cells carry oxygen from the lungs around the body, the white blood cells form part of the immune system (of which there are various types of white cells) while platelets play a critical part in the clotting ability of blood.”

Bone marrow transplants are recommended for treating patients with conditions such as leukaemia, lymphoma or multiple myeloma – all of which are malignancies of the cells in the bone marrow, explains Stott. “When a patient needs a transplant to live, but does not have a match in their family, the South African Bone Marrow Registry tries to find matching un-related donors for the patient.”

Becoming a bone marrow donor

Romy Saitowitz, Public Liaison at the South African Bone Marrow Registry, says that any person in good health, between the ages of 18 – 45 is eligible to join the Registry as a donor.

Saitowitz adds that joining the Registry is simply a matter of giving a blood specimen at the laboratory designated in your area to determine your tissue type. “Tissue typing is a little like the red cell typing for donating blood. However whereas there are 4 blood groups (A, B, AB and O), there are considerably more tissue types. To put it into perspective, a patient needing a bone marrow transplant has a 1 in 100 000 chance of finding a matching bone marrow donor – which is obviously much less likely than finding a matching blood donor.”

Donating bone marrow

Dr Stott explains that there are three different kinds of bone marrow transplants. “An autologous transplant uses the patient’s own stem cells which are removed and frozen before the patient undergoes chemotherapy or radiation. These stem cells will then be reintroduced into the patient after the chemotherapy is done.

An allogeneic transplant uses stem cells from a matching donor who is either a family member (this is only the case for 30% of patients) or an un-related donor (this is the case for over 70% of patients).”

“Matched umbilical cord stem cells (from the umbilical cord of a new-born baby stored immediately after birth) can also be used to perform an un-related transplant,” she adds.

Since the vast majority of patients need an un-related donor, Registries of volunteer donors have been established around the world. In South Africa, there are just over 65,000 registered donors.

In South Africa, most donors have their stem cells collected through a leukapheresis process whereby extra doses of a protein stimulant factor are given to a potential donor over a period of five days to stimulate the stem cells to move into the blood stream. The cells are then collected from the donor’s blood stream and infused into the recipient’s blood stream where they ‘home’ into the new bone marrow and regenerate. Donating bone marrow can also be performed by collecting cells from the hip bones under general anaesthetic, this is far less common.

“There is only a 36-hour period between collecting the stem cells and the recipient receiving them in the transplant unit. The recipient’s own bone marrow must be destroyed first before the new stem cells are infused into the blood stream,” says Dr Stott

The SABMR is responsible for finding each patient a matching donor and also for making all the logistical arrangements to ensure that the stem cells reach the transplant unit within the window period. The SABMR is nonprofit organisation and while medical aids will pay for the treatment costs for the recipient of the bone marrow, there are no costs to the donor.

For more information on how to become a donor or to support the SABMR, visit their website at <http://www.sabmr.co.za/>