

WHY DO CANCER PATIENTS NEED BLOOD TRANSFUSIONS?

Transfusion Fact Sheet Volume 5, Number 7
By Beverleigh Quested

What is cancer?

Cancer is a disease of the cells that are the body's basic building blocks. Cancer cells are abnormal cells that reproduce excessively. This creates several problems; the abnormal cells don't function as they are supposed to, and the increased number of cells crowd out or replace other normal cells.

How is cancer treated?

Cancer may be treated in several different ways, depending on its type, size, location and degree of spread. Treatment may include:

- surgically removing the abnormal cells and surrounding tissue
- radiotherapy, which uses high-energy x-rays to kill cancer cells or stop them growing
- medications including chemotherapy that are used to kill or slow the rate of cancer cell growth.

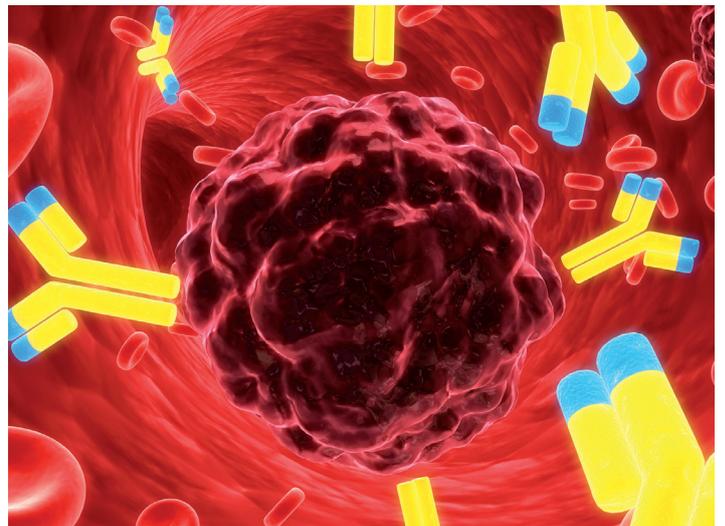
Why do cancer patients need blood transfusions?

Cancer patients may need a transfusion because of blood loss during surgery. Cancer patients also need blood to compensate for one of the side effects of the chemotherapy drugs they receive. Chemotherapy drugs affect fast-dividing normal cells as well as the cancerous cells. The drugs can't differentiate between the good and bad cells.

Bone marrow, which is like a factory for blood cell production, is also affected by chemotherapy due to its fast dividing cells. As a consequence, cancer patients receiving chemotherapy treatment have decreased ability to produce new blood cells and are not able to replace blood cells that have been destroyed. This leads to patients' blood cell counts dropping and so transfusion of red cells and or platelets may be needed. Blood transfusions help manage symptoms patients experience due to low blood cell counts and enable them to continue their cancer treatments.

What about patients with blood cancers?

Patients being treated for blood cancers like leukaemia and lymphoma are significantly affected, as their own blood cells are not functioning properly and treatment affects their ability to produce sufficient healthy blood cells. Their blood counts can



get very low, making them prone to life threatening infections and bleeding. Without blood transfusions, many of these patients cannot receive their other treatments.

What proportion of the Blood Service's blood do cancer patients use?

Cancer patients use around one third of all the red cell products produced by the Blood Service. Patients with blood cancers use more than half the platelets produced by the Blood Service. Cancer patients also receive fractionated blood products, particularly if their immune system is affected. (See our fact sheet *I Need to Know About Plasma Fractionation*, Vol 1, No 11.)

BLOOD FACT

Around 124,910 new cases of cancer will be diagnosed in Australia in 2013, with that number set to rise to 150,000 by 2020.