

Transfusion medicine in philately

J.N. Shanberge

**A**mong the myriad postage stamps issued throughout the world, many have depicted persons and events in medical history. Presented here are a number of examples from my collection of medical philately that illustrate individuals who have made contributions in the field of transfusion medicine. Also included are representations of various subjects relating to the specialty.

For thousands of years, bloodletting has been carried out as a therapeutic procedure, although the transfusion of blood is a more recent method of treatment. In ancient Greece, Hippocrates promoted bloodletting, postulating that it rid the body of various "bad humors." A stamp issued by Greece in 1977 with a picture from an Athenian vase from the fifth century BC (Fig. 1) depicts a physician about to incise the antecubital vein of a patient who is standing over a bleeding bowl. Shown on a stamp issued by Botswana in 1987 (Fig. 2) is bloodletting as a form of traditional medicine. Of course, bloodletting is carried out every day in medical institutions for diagnostic purposes. An example of this is seen on a stamp issued by Rwanda in 1963 (Fig. 3) for the centenary of the founding of the Red Cross. On a stamp from the Maldives (Fig. 4), a doctor is drawing blood from a young boy, while a nurse exerts pressure on the boy's upper arm. Apparently, the doctor missed on his first try, as he is now attempting a venepuncture on the lateral aspect of the arm while the patient holds a cotton pledget with his forefinger over the antecubital fossa.

The safe performance of blood transfusions was made possible by the discovery, of the ABO blood groups in 1900 by Karl Landsteiner. For this, he received the Nobel Prize in 1930. Landsteiner is shown on a stamp issued by the German Demo-

cratic Republic (East Germany) in 1968 (Fig. 5). Blood typing is seen on a stamp issued by Finland in 1972 (Fig. 6), and the blood groups are featured on a stamp issued in 1974 by Japan for International Red Cross Donation Year (Fig. 7).

Another significant contribution to blood transfusion was the report, by Albert Hustin in 1914 of the use of sodium citrate and glucose as an anticoagulant. In 1915, Luiz Agote also described the use of sodium citrate to prevent the clotting of blood, which enabled the collection of blood and subsequent transfusion. Hustin was honored on a stamp issued by Belgium in 1977 (Fig. 8) and Agote on a stamp issued by Argentina in 1966 (Fig. 9).



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.



Fig. 7.



Fig. 8.

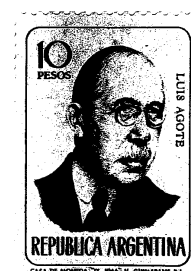


Fig. 9.

From the Department of Pathology, University of Michigan, Ann Arbor, Michigan.

Address correspondence to: J.N. Shanberge, MD, 341 Riverview Drive, Ann Arbor, MI 48104; e-mail: janus14@pol.net. No reprints available.

Received for publication June 19, 1998; revision received October 21, 1998, and accepted November 16, 1998.

TRANSFUSION 1999;39:534-536.



Fig. 10.



Fig. 11.



Fig. 12.



Fig. 13.



Fig. 14.



Fig. 15.



Fig. 16.



Fig. 17.



Fig. 18.



Fig. 19.



Fig. 20.

Originally, blood transfusions were performed by the direct connection of a vessel of the donor to a vessel of the recipient. Techniques for such anastomoses were described in 1902 by Alexis Carrel, who is seen on a stamp issued by Sweden in 1972 to honor his winning the Nobel Prize in 1912 (Fig. 10).

Various methods for the collection of blood for transfusion are shown on stamps from Hungary: direct collection by venesection (Fig. 11); Nicaragua: collection in a bottle (Fig. 12); and Taiwan: collection in a plastic bag (Fig. 13).

Norman Bethune, a Canadian surgeon, established a blood transfusion center in Madrid during the Spanish Civil War (1936-1939). He also organized a mobile system for delivering blood to the front. Bethune is shown on a stamp issued by Canada in 1990 (Fig. 14).

Charles R. Drew was the first director of the Blood Transfusion Association, which sent plasma to the British in 1941. He was also the first director of the American Red Cross Blood Bank, which supplied both blood and plasma to the US Armed Forces. Drew was honored on a stamp issued by the United States in 1981 (Fig. 15). Fractionation of blood is illustrated on a stamp issued by Burundi in 1969 (Fig. 16).

Aleksandr Bogomolets, director of the Institute of Haematology and Blood Transfusion at Moscow University, initiated research into the storage of blood. He also developed a theory to explain the colloidoclastic crisis, a reaction due to protein incompatibility, following blood transfusion (Fig. 17).

Best known for his nonstop flight from New York to Paris in 1927, Charles A. Lindbergh was a competent engineer. His contributions to transfusion medicine included the design of a cell separator and washer, which he reported in 1932. In addition, he collaborated with Alexis Carrel to develop the first pulsatile organ perfusion pump, which they reported in 1935. This was the forerunner of the extracorporeal pump used today in cardiac surgery. The use of such a pump is shown on a stamp issued by the People's Republic of China in 1976 (Fig. 18). Lindbergh can be seen on a stamp issued by the Maldives in 1977 (Fig. 19) to commemorate the 50th anniversary of his flight across the Atlantic.

Various uses of blood transfusion are depicted on stamps from Yugoslavia: in a pediatric patient (Fig. 20); Togo: in an adult patient (Fig. 21); Algeria: in an emergency-room (trauma) patient (Fig. 22); and Mongolia: in a patient in surgery (Fig. 23).



Fig. 21.



Fig. 22.



Fig. 23.



Fig. 24.



Fig. 25.



Fig. 26.



Fig. 27.



Fig. 28.



Fig. 29.



Fig. 30.



Fig. 31.

The ancient legend that the mother pelican feeds her young with blood pecked from her own breast (Fig. 24) is depicted on a stamp issued by Belgium in 1956. This stamp was used to publicize the Blood Donor Service of the Belgian Red Cross.

Blood banks are shown on stamps from Benin (Fig. 25) and Honduras (Fig. 26). Donor medals are seen on stamps from Costa Rica (Fig. 27) and Finland (Fig. 28). A transfusion congress emblem appears on a stamp issued by Costa Rica in 1982 (Fig. 29).

Finally, many countries, including Egypt (Fig. 30) and the United States (Fig. 31), have used postage stamps to promote blood donation. The latter stamp, sponsored by the Ameri-

can Association of Blood Banks, was issued in 1971 in conjunction with National Volunteer Blood Donor Month, declared by President Nixon. An extensive collection of color illustrations of these donation-promotion stamps can be found in a booklet published in 1985 (AVIS, Turin, Italy).

**ACKNOWLEDGMENT**

The author acknowledges with thanks the excellent reproductions of the stamps in this article done by Tanya Leonello of BMC Media Services, University of Michigan.