

Primary Sources with Discussion Questions



Private Roy Humphrey of Toledo, Ohio, is being given blood plasma by Private First Class Harvey White of Minneapolis, Minnesota, after he was wounded by shrapnel on 9 August 1943 in Sicily. Image courtesy of National Archives and Records Administration.

Leading Discussion Questions:

- Take a look at the photograph. What is happening in the picture? (Hints for students: notice the helmeted soldier, the patient's shirt is open, the men's positions, the worried expressions of the women in the background, and the discarded helmet on the left of the image.)
- Who are these men? (Look at the clothing and equipment, the medic's arm band and dog tags.)
- When and where do you think it was taken? (In a village, notice the children and women's clothing, lack of shoes, the dirt pathway.)
- What do you think is in the bottle held up by the soldier second from the left? (The liquid is clear and a large volume connected to the injured soldier through a tube. Students may think that this is medicine which would likely be dosed by syringe, not a drip line.)
- Describe what you see in the background of the photograph. (Notice the discarded helmet at the far left, explore the presence of civilians including women and children during war.)



FOR THE FIRST TIME in military history, lives can be saved with blood plasma transfusions right on the field of battle. This triumph of modern medicine was worked out by doctors and scientists in the Army, Navy, private hospitals, and universities. The portable blood plasma transfusion kit is one of medicine's newest resources.

A new war weapon to save lives

IN PAST WARS, hundreds of thousands of lives have been lost because of inability to give the wounded quick and effective treatment.

Today, to our boys on land, at sea, and in the air, modern medicine says:

"Because of the many advances made in medical science, your chances in battle will be immeasurably greater."

Among these important advances is the modern blood plasma transfusion—a new weapon that helps overcome the wounded fighter's grimmest adversary . . . shock due to hemorrhage or injury.

The new plasma transfusion kit can be moved right into the field of battle. It is the one transfusion that needs no "typing" or "matching" with the patient's blood. It can be administered to *any* wounded man at once. The time saved often prevents shock and hemorrhage from getting in their deadly work.

Remarkable as it was, the new plasma transfusion needed development. The need for refinement was in the apparatus. It concerned one of the simplest things . . . a tiny filter in the tubing

leading from the plasma bottle to the wounded man's vein.

Originally, sterile gauze filters were used. These swelled when wet and slowed up the plasma flow so much that emergency use in battle was almost out of the question. Then, fine-mesh, stainless-steel filters were tried. But they were so bulky that they interfered with the compactness of the transfusion apparatus.

The medical and laboratory men set out to overcome these shortcomings. Eventually, they discovered in *glass fibers* the filter material that gave them what they wanted.

Now, the vital filters are made of tightly woven Fiberglas® cloth. Because these filters are *pure glass*, they do not swell when wet. They are not weakened by moisture—the individual fibers are non-absorbent. The filters are not bulky, but small and compact.

Fiberglas is proud to have helped science perfect this new life-saving technique.

And now, this plasma transfusion is being used not only on the battle fronts but also for civilians

and among workers in "Arsenals of Democracy."

Thus it is that modern medicine, in perfecting a new weapon of war, has given new hope to all mankind in time of injury.

. . .

The role of Fiberglas in portable transfusion kits is an unusual and dramatic use of this modern basic material. It spotlights the versatility of glass available in many new and useful ways. *Owens-Corning Fiberglas Corporation, Toledo, Ohio. In Canada, Fiberglas Canada, Ltd., Oshawa, Ontario.*

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