

**BLOOD CENTER  
DRIVE**

MAKERS AND RECRUITMENT SECTION WORKERS OF THE  
CROSS BLOOD DONOR CENTER PROCUREMENT DIVISION

EXCEL FROM A TALK MAJOR HENRY SWAN GAVE ON HIS RETURN  
FROM DUTY WITH THE 5th AUXILIARY SURGICAL GROUP IN EUROPE

Major Swan came to the Blood Donor Center to meet with Blood Donor Chairman of cooperating groups. His purpose was to give them an understanding of the extreme gravity of battle wounds, of the tremendous part plasma and whole blood transfusions had in saving the wounded, and of the necessity of whole blood throughout the long period of treatment of the wounded, the sick, and the prisoners of war now in Fitzsimons General and other nearby military hospitals.

Major Swan: - I was a surgeon and I had a team. We comprised what was called a general surgical team. We moved around from hospital to hospital - we were not attached to any one unit. Where a hospital was set up and casualties were coming in they would need additional surgical personnel to get there and take care of those men. We would be called upon. Then the front would move ahead, or, if the fighting slackened at that point and some other point became the pressure point, we would leave and go on.

The Field Hospitals were designed to take care of the non-transportable patients. Thus any soldier who was so seriously hurt that delay in treatment or having to move him very far would jeopardize his recovery, would be treated at a Field Hospital and that would be located very close to the spot where he was hurt. My experience was one in which I saw a very large number of severely wounded boys. I was trying to think of any patient in a Field Hospital who had not received any plasma or whole blood or both, and I couldn't call to mind, at the moment, anyone. In other words, about 100% of these boys received plasma and blood. How much plasma and blood did they get? That varied with the severity of the injury and how long since the soldier had been hurt. For instance, if you can get a soldier immediately you can prevent a lot of shock, and a lot of blood loss, but it is different if he has to lie out in the field for a day (and that is true particularly of our paratroopers who advanced so rapidly) or if, due to the technical situation, they cannot be evacuated, - that is, if they were in such a position that nobody could get to them without being killed. Those boys had time to suffer shock, and they would need a tremendous amount of both blood and plasma. If we averaged up these patients in a Field Hospital, I think it would be conservative to say that each had to have at least four whole blood transfusions, and four units of plasma. Some of them had much more than that, and some few, somewhat less.

People do not realize the tremendous size or terrible nature of some war wounds. When a high-explosive shell goes off it is splintered into fragments that whirl through the air and cover a large area. When it goes in it is red hot and it sears and burns. Because it is big and heavy it has a lot of momentum and the body has to take the shock. As such a shell fragment goes in, it takes with it clothing, skin, etc., and carries it into the depths of the body. I had one soldier who was hit where his pants pocket was, and, scattered throughout the depths of a very deep wound, were parts of his K ration, the key to open the can, and a considerable portion of the "Stars and Stripes" of that morning. When a person suffers that type of injury, if it goes into the chest you have a hole in the chest that you can stick your fist in. That is a shocking, terrible injury. These are wounds of which the boys in the last war died.

It is interesting to note a comparison between this war and the last one. For instance, a penetrative wound in the abdomen had a 50% or 60% fatality count; a wound in the chest about 35%. A combined wound of both chest and abdomen was 95% to 100% fatal.

Such wounds were what we saw all the time in the Field Hospitals. The comparative fatalities in this war, were from abdominal wounds, 15% to 20%, from chest wounds 10% to 15%. You can see a tremendous difference there. I believe that if one averaged these figures and thought in terms of the last war, the fatalities in Field Hospitals then would have been in the neighborhood of 50% or 60%, whereas actually it ran around 15% in this war. So, actually, these boys had about four times as good a chance to live in this war as did those in the last. Why? The fact that they were treated early; that they did not die of infection - we had sulfanilamide and penicillin. But the chief reason was that in this war we had plasma, and we had blood. Those boys who had terrible injuries could never have been gotten into shape for operations if they had not had plasma and blood. So I think it is conservative to say that between a quarter and one-half of these wounded boys who are walking around the streets today would have been dead if we had not had plasma and whole blood for transfusions.

I might tell you a story. When we were in Normandy we were in a Field Hospital and under blackout conditions. We had a boy who had a particularly bad injury. It tore his spleen and his stomach and other things. Such an injury causes tremendous hemorrhaging. He was bleeding very fast. According to our records he received four whole blood transfusions and four units of plasma before operation. When he was first brought in he was very cold and pale, had a very low blood pressure and a rapid pulse; but by the time he had this blood to replace the blood lost, his blood pressure came up so we thought it all right to operate. About everything happened. A blood vessel inside got loose; in other words he started to bleed again. At that moment we had an air-raid and one of the bombs hit the generator and the lights went out. I had my finger on the blood vessel. We couldn't get a pulse, as the boy was dying, so we tried to pump blood in. We got a flashlight and by the aid of the flashlight we got a clamp on the blood vessel. Finally, the air-raid was over, the lights went on and we finished up. The anaesthetist saw that blood was not going in fast enough so he pumped it in faster. Then we pumped it into three places, one in each arm, and one in the ankle. Finally he came back to life and we got a pulse and blood pressure. We took him back to the ward and next day he had some more blood. In all he had twelve transfusions of blood and eight of plasma. A few days later he went back on a plane to England.

We had another soldier who was a great big strapping man, a very courageous fellow. A piece of shrapnel had hit a major blood vessel in his leg. This vessel is about the size of your finger and you can imagine what that meant. He, too, had a severe hemorrhage inside his abdomen, and he received ten blood transfusions in a period of two hours in an attempt to get him strong enough to get him on the operating table. Throughout the operation he continued to have blood and plasma. It was a difficult business, trying to find that blood vessel. He seemed to have died on the table, but he kept on breathing and as long as he kept breathing, we kept on working. As soon as we got the blood vessel fixed we saw that he was still breathing. Then we let the plasma run in for about half an hour. So gradually, the blood pressure started to come back; we managed to get through the procedure all right. He was a very strong, courageous fellow! Two or three days later, I was talking to him, and he said "Doc, we had a pretty tough time of it, didn't we?"

I said, "Yes, soldier." He said, "You know, for a time there I didn't think we were going to make it." The spirit of those boys was wonderful. I guess he is around and about, at least he was O.K. when he left.

Most people do not realize, - now that V J Day has come and gone - what our severely wounded men still have to endure. Word goes around that we don't need any more blood donor centers. But the actual fact is that if a fellow was severely wounded it may be months or years before he is out of hospitals. If you get a shattered leg bone you can look forward to two years at least. At the end of that time you may find it can't be mended, and it will have to be cut off and the man has to have an artificial leg. Sometimes a man has his face blown off. It is a terrible psychic injury to have your face destroyed. Think what it must feel like to realize that you are a horrible sight; that you can't let people see you. Those boys, with modern plastic surgery can look forward -- their faces can be restored so well that you won't turn around to look at them. Unless you look very closely you won't realize that one had his jaw shot off. Those things take time, and it may take ten, fifteen or twenty operations over a period of time. If you have a badly injured leg, you may have to have many bone grafts; infection may set in, and you have to combat that. Maybe after all that, the leg is six inches too short and you may have to transfer a bone from the other leg.

What I am trying to tell you now is that months after V J Day there are thousands of American soldiers who are still undergoing major surgical operations, and they will continue a long time and these fellows need blood because they lie around in bed with no exercise, they don't have the strong vitality which an active life gives. On top of that they may be fighting infection or disease. The boys coming back from the Pacific, over and above all their other difficulties, are fighting serious malaria and fever on top of everything else they have to contend with. They have to be built up. It is necessary to treat the total patient, to build up his reserve, to build up his blood, and make him strong. Then when he seems strong enough, he is taken in and operated. If it is a bad operation and it knocks him down again, it may take six months for him to gather strength for a repetition, and that knocks him down again. There's a lot of them, literally thousands, and I suspect tens of thousands, who are still in Army General Hospitals, still undergoing intermittent surgical treatment. At Fitzsimons Hospital, for instance, they are using ten pints of blood every morning in the operating room. That does not include blood given on the wards afterwards or given to the fellows who have TB or other diseases. This is just one hospital.

The Denver Red Cross Blood Donor Center has done a swell job. Because of the steadfast loyalty and extra generosity of the Denver donors, and the splendid record of service which this community has built up, you are being asked to continue the work in the knowledge of the great value of what you have already done and in the knowledge of the continuing need. That need will continue for many months to come. These boys need this blood, and I am sure you will see that they get it.

(Blood Donor Center Procurement Division Speakers and Recruitment workers may obtain to take with them, a "Blow-up" photograph of blood transfusions for a wounded man in Fitzsimons.)

(Medical Officers may also take the picture and obtain from Lt. Col. John P. Harney at Fitzsimons, shell fragments to show to audiences if they have no such "souvenirs" of their own.)