

is not a single factor but actually a series of eight possible Rh types, of which seven have now been found. A person with one of these Rh types may become sensitive to another Rh type, Dr. Wiener's studies indicate.

Use of tests for these seven known Rh types would increase the accuracy of investigations of disputed parentage or

the identification of blood in criminal cases. With all these Rh types plus the more familiar blood types, there are altogether 126 different possible blood types. With this improvement in blood tests, a falsely accused man in a disputed parentage case now has a 40% chance of proving his innocence, Dr. Wiener says.

Science News Letter, April 1, 1944

MEDICINE

Hospital Train Trip

Wounded soldiers from overseas are speeded to hospitals near own home towns on "ward on wheels," where rank does not count and Army doctor is boss.

By WATSON DAVIS and
JANE STAFFORD

➤ WHEN Johnny comes rolling home, sick or wounded, from the fighting fronts, he travels in pretty grand style in a hospital on wheels, with nurses, ward attendants, gray ladies of the Red Cross, surgeons and all the trimmings.

The press by Army invitation joined one of the regular exoduses from Halloran General Hospital, Staten Island, now a routine and efficient railroad operation, that puts the boys from overseas into hospitals nearer their own home towns and their families.

Most of the 185 men and 12 officers who were patients on the hospital train had arrived within a fortnight from the overseas theaters of war, England, Italy and North Africa—and at least one from New Guinea. He was a colored boy from Georgia, glad to get going south again, because someone had routed him to Halloran near New York City presumably with the idea that New York was close to Georgia! This lad from Georgia has a busted arm, and its cast was covered with more signatures than on a world series' baseball and decorated with several large red hearts of the Valentine pattern.

There was no need of distributing

to the boys on this train that pamphlet on race that there is such a stew about, because the mere matter of skin color is ignored on a hospital train in a good G. I. way. But to get back to the train—

There are special hospital cars in which the patients sit and sleep, much as they would in a hospital ward. A few ambulatory patients that were not traveling overnight sat up in regular Pullmans, but most of the patients were in these special cars with regular Army beds, an upper and a lower, especially built in. There is no more privacy than there is in the Army generally, and there are card games going all over the place, a phonograph "shoo-shooing" or "Oh, Johnnying" and plenty of smokes and candy presented by the Chaplains' Corps at the hospital the men had just left.

Smoking is permitted except at night after lights out, and cigarettes and occasionally cigars seem to be good ammunition in the fight to get our wounded and sick back to health for further service at home or possibly in the war.

Most of the patients in this train were probably through with the war for one reason or another. Some of them were NP's (neuropsychiatric cases), those whose nerves had given way under the unusual stress of Army service. This happens far behind the fighting fronts in many cases, and being an NP in the Army does not necessarily mean that the soldier when discharged to civilian life will not make good in his old job or a new one.

The patients, many of them, did not look very sick. There were no gruesome cases. A gunner of a Flying Fortress who had a bad dose of flak in his right leg, a few bad backs, a few flushed faces, that was about all. Some more seriously wounded are returning, but they were not on this train.

Many of the youngsters we talked to had been across for nearly two years. They were all glad to be getting nearer home, but one or two were beginning to wish they could go on with the fight with the outfits they had left.

The rolling hospital is equipped for anything but usually little happens that is medically serious. There is a little emergency operating room at the end of every other car or so, but the most that happens there is an abscess opened or a dressing changed. If there should be need of a major operation, the train would simply stop and the patient would be shifted swiftly to a private or Army hospital somewhere en route.



FROM OVERSEAS—Army Medical Corpsmen and medical officers stand by as a wounded soldier is lifted onto one of the hospital ward cars at Staten Island, N. Y. This particular train proceeded from Halloran General Hospital to other hospitals in the East and South, leaving soldiers as near their home towns as possible. U. S. Signal Corps photograph.

The men eat well. Food is good medicine. This train uses regular railroad diners, although there are a few special hospital kitchen cars manned by Army cooks on some of the other hospital trains. Any civilian on a Pullman would have felt at home, except he would have eaten what was put before him, as is the Army way.

An Army doctor is the boss of the train. Because the train we were on was to be split up into several sections, each going its way, there were surgeons in charge of each section, each a captain. Rank does not give an officer patient any right to act any differently from a private who is a patient. The medical corps officer issues the orders, for conduct of his hospital as well as medicines and treatments. It is an old Army custom, of course.

Bedtime comes early on a rolling hospital, about 9 p.m., and most of the patients are quite willing to snuggle down in their beds of fresh white linen

and sturdy OD blankets. As a "good-night" routine, the train commander takes his stethoscope and makes his rounds, just as he would in a regular hospital.

To the nurse at his side writing orders, he says "sodium amytal" for this soldier to insure a good night's sleep, a bit of codeine here for pain, keep your eye on this fellow as the thermometer shows he has a little temperature, and so it goes.

The hospital on wheels settles down for the night and the railroad's crack engineers keep the train moving not too fast, a mere 35 and 40 miles an hour, with special attention to stops and starts that might jar that battle wound. No fears now, and home and home folks to look forward to. Not a bad war after all.

The reporters who had intruded drop off unobtrusively and let the docs help the G.I.'s get on with their important business of getting well.

Science News Letter, April 1, 1944



HOSPITAL ON WHEELS—This picture shows soldier patients relaxing in their bunks on board one of the Army's "ward cars." U. S. Signal Corps photograph.

PSYCHOLOGY

Pilots Need Enemy

► BEING READY to fight and then not having a chance at the enemy in the air presents one of the greatest psychological hazards in the air was for our flying fighters, Dr. Walter R. Miles, Yale psychologist, told the Esso Research Club, a branch of the Society of Sigma Xi, in Elizabeth, N. J., in the first of a series of 25 Sigma Xi lectures he will deliver in coming weeks in all parts of the United States.

During long-range photographic reconnaissance, with no active fighting the "Gremlins" first made their appearance, Dr. Miles recalled. Long stretches of readiness, without combat service, are characteristic of military aviation and may present severe psychological stresses, he explained.

"Change of schedule in active flying service is also psychologically hazardous," Dr. Miles said. "Thus the cancellation of a bombing mission exacts an emotional cost which needs to be appraised and appropriately dealt with before the same crew is scheduled for its next operational duty.

"The practical psychological skill of the flight surgeon in appraising stress developed either from readiness or combat or from both, makes an important contribution to the efficiency of the air force in all such problems as these. If the psychological elements in the case

of a given military flyer can be properly appraised and skillfully directed by a flight surgeon, crew captain or other insightful guide, the chances are multiplied against 'his number coming up'."

Dr. Miles told how psychologists and many other specialists are conducting research on many phases of military aviation to help the men in our fighting planes to achieve greatest effectiveness. Much of what is being learned and applied with success will be useful in developing air transportation of the post-war era, he predicted.

"In aviation the number of hours of training or flying have in the past served as a measure of learning progress or flight competence," Dr. Miles said in explaining one advance. "But clearly instruction, in terms of basic maneuvers and repetitions of these in practice, is obviously much more fundamental for learning than hours in the air as such, and other contributions to effective progress can come through the reinforcement to the practical experience in the air from prior mental rehearsal in which the whole routine is repeated again and again. Sport has long recognized this principle in the coaching of individuals and teams."

High altitude flying is one of the great problems of the present war and the adjustment of the human body and

mind to the reduced pressure of the atmosphere and low temperatures encountered can be studied, Dr. Miles explained, in a decompression chamber.

Vision presents many important psychological problems, Dr. Miles declared. One of these is peripheral vision or looking out the side of the eye which is necessary in landing of planes. The dark adaptation of the eyes must be protected from the lighting within the plane in night flying and the study of this problem has influenced selection of pilots and the development of new equipment and training methods.

Science News Letter, April 1, 1944

METEOROLOGY

Sunset Clouds Double As Rushing Flood Waters

See Front Cover

► APRIL FOOL! The picture on the cover of this SCIENCE NEWS LETTER is not of tumultuous flood waters at all! Turn the magazine upside down and you will see that it is actually a photograph of a lovely sunset. What appear to be reflections in the water are in reality the silhouettes of trees on the horizon.

This deluding photograph was taken near the Soldiers' Home in Washington, D. C., by Rev. John W. Baechle, of St. Joseph's College, Collegeville, Ind.

Science News Letter, April 1, 1944