

Health News



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WVU, Emergency Squads to Study Blood Substitute

Treatment to Begin at Scene of Injury

MORGANTOWN, W.Va. – The Jon Michael Moore Trauma Center at West Virginia University Hospitals is one of a select number of trauma centers in the U.S. chosen to participate in a national clinical trial to evaluate the safety and efficacy of PolyHeme®, a blood substitute, in treating critically injured patients who are massively bleeding.

Ambulance agencies in Monongalia, Marion and Harrison counties are excited to participate in the trial, which could offer seriously injured patients a more effective treatment than is now commonly available.

Under the study protocol, a patient in shock will receive treatment before arrival at the hospital (either at the scene of the injury or in the ambulance,) and treatment will continue for 12 hours. The study will compare the survival rate of patients receiving PolyHeme^R to those of patients who receive plain saline water in the ambulance, which is the current standard of care. In severe blood loss, blood is commonly used once a patient arrives at the hospital, but itself has many risks, some which may be avoided by using a blood substitute like Polyheme®.

"We are excited to be included in this groundbreaking clinical trial," said Lawrence Roberts, M.D., F.A.C.S., director of the Jon Michael Moore Trauma Center.

Trauma-related injuries are the leading cause of death among Americans under 45 years old, according to the CDC's National Center for Injury Prevention and Control. Almost one in five trauma patients die from their injuries and most die from massive bleeding and not enough hemoglobin to carry oxygen to the brain, heart and other vital organs.

"If we can treat these patients earlier with a replacement fluid that carries oxygen like blood, we may see more survivors in this young population." Dr. Roberts said.

Because the patients eligible for this study cannot provide prospective informed consent because they will be in shock due to the extent of their injuries, the study will be conducted under federal regulations that allow for clinical research in emergency settings using an exception from the requirement for informed consent.

Roberts said WVU will conduct a community awareness campaign to let residents in the three counties know about the study, and the possibility that they may be treated with PolyHeme® if critically injured in the area. "We will meet with community groups to explain the study, and provide any interested individuals with whatever information about this research they wish," Roberts said.

PolyHeme®, is a universally compatible, immediately available, oxygen-carrying resuscitative fluid designed for use in urgent blood loss when blood is not immediately available. It has already been extensively studied in trauma trials in the hospital setting but this study extends the opportunity to treat earlier, and thereby perhaps affect mortality. PolyHeme is manufactured by Northfield Laboratories Inc., of Evanston, Illinois.

About Northfield Laboratories

Northfield Laboratories is a leading developer of a temporary oxygen-carrying red blood cell substitute. Its product, PolyHeme®, has been rapidly infused in clinical trials in sufficiently large quantities to be considered well tolerated and may be useful in the treatment of large volume blood loss in trauma and surgical settings. PolyHeme® requires no cross matching, making it compatible with all blood types, and available immediately and has a shelf life of over 12 months.

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