Community Consultation Documentation

Executive Summary:

Findings Concerning CCPD (Community Consultation and Public Disclosure)

Required for Protocol #05-0034- "A Phase III, Randomized, Controlled, Open-Label, Multicenter, Parallel Group Study Using Provisions for Exception from Informed Consent Requirements Designed to Evaluate the Safety and Efficacy of Poly SFH-P Injection [Polymerized Human hemoglobin (Pyridoxylated) PolyHeme] When Used to Treat Patients in Hemorrhagic Shock Following Traumatic Injuries Beginning in the Prehospital Setting."

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On February 16, 2005, the above-noted protocol was presented to the Miami Valley Hospital Institutional Review Board. The separate "Waiver of Authorization" for this protocol was presented and reviewed. With regard to this study requiring petitioning the IRB for exception of informed consent related to the grave situation of the trauma patient at the scene and the need for immediate transport, as well as not allowing for adequate time for the responsible party (if available) to ideally review and comprehend the consent contents [as well as the possibility of physical or mental stress or other possible impairment), or the fact that no LAR or primary individual permitted to sign the consent may be at the accident scene], a federally mandated Community Disclosure and Public Notification Plan (MVH's version) had been drafted for IRB's review. The Communications Department had, and continues to, assist with this clinical project's public disclosure process.

Upon IRB approval of the disclosure and notification plan for this protocol, the plan was to be enacted, with the following measures to be undertaken. Media disclosure, with a web-based site to "go live" simultaneously, thus was enabling the public to access the site for various information, including contact information, community meeting notices, and a link to the sponsor Northfield Labs, Inc. A phone line in the Clinical Research Center was to be dedicated to this study for the purposes of fielding phone calls and allowing individuals to leave messages or comments. A log of all calls, public meetings and/or forums, letters, phone calls, e-mails, and other community feedback, was kept and presented to the IRB upon the study teams return to the IRB. Of note, an extensive internet search, including gathering methodologies utilized by other participating sites to enact their disclosure and notification plan, had occurred, as well as our contacting one other Level 1 participating site electing to solely utilize their air ambulances excluding ground squads, which had been enrolling for approximately 1 year. Multiple templates were provided by the sponsor, Northfield Labs, and submitted to the IRB, with the plan being to utilize many of these templates, making them specific to MVH. A power point presentation was formatted for usage by our site. Usage of the congressional template letter, was planned and directed for all state and U.S. government officials in Ohio who represent the communities serviced by CareFlight.

The IRB notified the study investigator in late February of contingent approval of the study and the requirement to initiate the planned CCPD in order to evaluate the opinion of the communities MVH serves. Following completion of the public disclosure, a summary of the community's feedback was incorporated into the study consent. A lengthy CCPD process ensued thereafter. The CCPD is now complete, with our experiences and findings being summarized here for the IRB's review.

Web Site Establishment/MVH Media Release/News Articles/Public Meetings: As planned, MVH's web site went "live" May 23, 2005, the same day the media release occurred (refer to attached copies). At the MVH (www.mvh.org) home page, a complete description of the study is available, with a link to the study sponsor. Those accessing the site were able to view 6 different areas of information of the PolyHeme link. These sections include: study purpose & description, exception from informed consent regulations, community meetings, how to decline participation,

FAQ's (see attached), and contacts for additional information, comments, or questions. Viewers were/are provided with the contact web address of PolyHeme@MVH.org, as well as a dedicated phone line to contact staff personnel with questions or a request for an opt-out bracelet (the bracelet denotes a wish to not be included in the study). From this service the team received five emails and one distant request. No negative feedback came by email, and a bracelet was sent once the distant request was noted.

The eight designated county commission offices were contacted, with dates arranged for our site's public disclosure presentations (see attached list), with these sessions occurring May 24 - June 2, 2005. The PowerPoint presentation (attached) and the handout were well-received at all meetings, with no negative feedback experienced prior to, during, or following each appearance. The blue "opt-out" bracelet was shown, but refused, except for 4 attendees at the Warren County meeting who requested to keep them reportedly to show to others. Placement of a news article in the local paper was encouraged at all eight meetings. Seven news articles resulted in appearing in various newspapers (see copies), with two interviews by local T.V. media (WDTN/WHIO) occurred (see WDTN video). The study's randomization process was explained in layman's terms, as needed. Of note, at the Darke and Preble County meetings, a question was posed concerning if their doctor would be aware of this study, if asked, or if their area hospitals were aware. As a result, the decision was made to compose a letter to all of the 39 referral sites who utilized CareFlight in 2004, addressing letters to the medical staff office (letter sample and mailing list attached). Two calls were received in response to this letter, with both institutions informed this was an FYI only, related to only "scene" patient's $\geq$18 years of age and being transported to MVH via CareFlight eligible for this study. Referral to the web sites, including the sponsor's, was encouraged, and continues to be a prime educational tool.

The Region 2 EMS meeting was attended May 25, with 43 attendees (see email). In addition, the study team met with four Jehovah Witness hospital liaisons and a member of Pectoral Care on June 29th. This was a very medically informed audience, with several questions posed. They revealed that PolyHeme is deemed acceptable by their community. The fact that patients in this proposed trial would be randomized to PolyHeme/Normal Saline or blood/ Normal Saline was known, with blood transfusions deemed to be against their faith as known prior. A great interest in PolyHeme and its possible availability on a compassionate use basis exists in this group. Questions were obtained via the sponsor, with a follow-up email sent to the group's representative, with their questions answered. This hospital liaison group covers a significant number of counties, with approximately 350 "opt-out" bracelets provided to them for distribution. A trauma attending was present at all the meetings previously mentioned, with approximately a total audience of 100 viewers. The Greater Dayton Area Healthcare Ethics Consortium received a public disclosure presentation on July 8th.

Internal Communication and Publications: Emails were sent to multiple departments concerning the proposed study and web site, with encouragement to review the latter. CF, ICU, ETC, OR, trauma team staff, trauma research staff, as well as CompuNet Clinical Lab, pharmacy, and EMS staff, were all encouraged to view the web site, and provided an update on the current CCPD progress. Multiple staff, primarily from CF, ICU, CompuNet , and the trauma staff have asked questions or commented on the study, and expressed strong support to date. The *Insider* (July 29, 2005) featured an article on PolyHeme, as did *Trauma Alert* (July-August, 2005, a bi-monthly newsletter sent out via a mass mailing to EMS squads). *Air Currents* is awaiting final approval of its July issue, with an article on PolyHeme in this issue. A feature article is planned for the next issue of *Chart,* due for publication in September. The plan is to have all the pending articles published and distributed prior to study enrollment, if at all possible.

Letters to Government Officials and Placement of Public Notices: In addition to the letter sent to the multitude of referring facilities noted earlier, an informational letter serving as public disclosure was sent to 27 government officials representing those areas in which CF draws patients from (see letter & mailing list). No feedback was elicited from this mass mailing. To meet the qualifications for a CCPD, with regard to the required placement of public notices in local publications, a decision was made to target six newspapers (list attached) after reviewing the list of 21 counties (15 being "primary counties") served by CareFlight (CF). As we knew, the DDN has many "sister" papers. These public notices were placed on Sunday, July 31, 2005, with placement of three of these verified (see copies), with all publications verifying placement via telephone, with issuance of an affidavit to be remitted to us, along with their invoice. No public feedback has been received to date concerning these notices.

Formal In-House Teaching to Date per CCPD Guidelines: Northfield Laboratories INC. and various CompuNet Clinical Lab staff held a teleconference on Monday, July 18, 2005. The discussion involved related to the known interference of PolyHeme on some lab values, and ensued to determine the lab instruments in use at our site. Northfield was planning a trip to MVH on August 5, 2005, with inclement weather prohibiting their trip. [redacted]

[redacted]Multiple lab staff has a remarkable understanding of this study. Lab tubes will be labeled to alert staff that the patient is receiving or received PolyHeme. A plan is in place for the blood bank staff, namely to know which patients were randomized to the PolyHeme "arm", with this department and the lab overall, except for the microbiology area, potentially affected by this study. [redacted]

Conclusion: The required CCPD for this proposed study has required a major team effort, as will the conduction of this study. Northfield has relayed several visits will be made to MVH once study approval is received from the IRB. Te quality of there visit is to assure adequate training of all appropriate staff and protocol compliance, and to help assure optimal patient care. As noted in this summary, the lack of negative community feedback in response to our CCPD process to date can be construed as positive, and it is our hope that we will be joining the other 22 sites that are already enrolling in what hopefully will prove to be an efficacious trial, with patient safety being our foremost objective.

Mallett, Susan

From: Bradshaw, Lainie
Sent: Monday, May 23, 2005 1:09 PM
To: McCarthy, Mary; Uddin, David; Mallett, Susan
Subject: FW: MVH to Participate in Groundbreaking Blood Substitute
Importance: High

FYI...I just sent this out to all media contacts. We'll see what happens next.

-----Original Message-----
From: Bradshaw, Lainie
Sent: Monday, May 23, 2005 1:08 PM
Subject: MVH to Participate in Groundbreaking Blood Substitute Study

MVH Miami Valley Hospital

FOR IMMEDIATE RELEASE
May 23, 2005
2232

CONTACT: Lainie Bradshaw
Phone: 937-208-2144 or 937-208-

Email: lbbradshaw@mvh.org

MVH to Participate in Groundbreaking Blood Substitute Study

DAYTON, OH – Miami Valley Hospital (MVH) is one of a select number of Level I trauma centers in the U.S. chosen to participate in a groundbreaking national clinical trial to evaluate the safety and efficacy of PolyHeme®, a blood substitute, in treating critically injured and bleeding patients. Under the study protocol, treatment would begin onboard MVH's CareFlight medical helicopter and continue during a 12-hour, post-injury period at the hospital.

PolyHeme®, manufactured by Northfield Laboratories Inc. in Evanston, IL, is an oxygen-carrying resuscitative fluid designed for use in urgent blood loss when blood is not available. It has a shelf-life of over 12 months and requires no cross-matching, making it compatible with all blood types as well as quickly available.

Since blood is not presently carried in ambulances or medical helicopters, the use of PolyHeme® in these settings has the potential to address a critical unmet medical need for an oxygen-carrying solution where blood is not available. The study will compare the survival rate of patients receiving PolyHeme® to that of patients receiving the current standard of care, which is saline solution.

"We are excited to be included in this groundbreaking clinical trial," commented Mary McCarthy, MD, Director of Trauma Services and principal investigator of the PolyHeme® study. "Trauma-related injuries are a leading cause of death among Americans under 45 years old. Almost one in five trauma patients die from their injuries. If we begin to treat these patients early with an oxygen-carrying solution and keep their hemoglobin levels up, we may see more survivors," she added.

Because the patients eligible for this study are unlikely to be able to provide prospective informed consent due to the extent and nature 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 (21 CFR 50.24).

Use of this provision in a study protocol is granted by the Institutional Review Board (IRB) responsible for the initial and continuing review and approval of the research study. Such a decision is based on the finding and documentation that, amongst other things, patients are in a life-threatening situation requiring emergency medical intervention, currently available treatments are unproven or unsatisfactory, obtaining informed consent is not feasible, potential risks are reasonable in relation to what is known of the condition, participation in the study could provide a direct benefit to the patients enrolled, and the research could not be practicably conducted without an exception from informed consent requirements.

In order to inform the public about this study, representatives of MVH's trauma program will present information about PolyHeme® at the following scheduled county commissioner meetings:

- Greene Co. Commission meeting, Tuesday, May 24, 2005 at 9:30 a.m., 35 Green St., Xenia.
- Montgomery Co. Commission meeting, Tuesday, May 24, 2005 at 1:30 p.m., Montgomery Co. Admin. Building, 451 W. Third Street, 10th Floor, Rm. 1001, Dayton.
- Darke Co. Commission meeting, Wednesday, May 25, 2005 at 1:30 p.m., 520 S. Broadway, Greenville.
- Preble Co. Commission meeting, Wednesday, May 25, 2005 at 3:30 p.m., Preble Co. Courthouse, 101 E. Main St., 2nd Floor, Eaton.
- Butler Co. Commission meeting, Thursday, May 26, 2005 at 9:30 a.m., Butler Co. Govt. Services Ctr., 315 High St., 2nd Floor, Hamilton.
- Clark Co. Commission meeting, Tuesday, May 31, 2005 at 8:30 a.m., Municipal Courts Building, 50 E. Columbia St., 5th Floor, Springfield.
- Miami Co. Commission meeting, Wednesday, June 1 at 11:00 a.m. Miami County Safety Building, 201 W. Main St., Troy.
- Warren Co. Commission meeting, Thursday, June 2, 2005 at 5:15 p.m., 406 Justice Dr., Lebanon.

Persons wishing to decline participation in this study may contact the study coordinator at MVH by calling 937-208-5069, or by sending an e-mail to polyheme@mvh.org, to obtain a wristband expressing this choice.

Additional information about the study is available on MVH's website, at www.mvh.org.

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PolyHeme® Trauma Trial

Community Consultation

Miami Valley Hospital
polyheme@mvh.org

Clinical Investigator

- Mary McCarthy, MD,

  Director, Trauma Program

  Phone: 937-208-5069

  E-mail: polyheme@mvh.org

Study Sponsor

Northfield Laboratories Inc.

- Developer of the oxygen-carrying resuscitative fluid called PolyHeme®
- Conducted multiple studies with PolyHeme over the past decade
- Most studies have been with injured trauma patients
- Company website: ***www.northfieldlabs.com***

Study Purpose

To evaluate the life-sustaining potential of PolyHeme® when given to severely injured and bleeding patients in "hemorrhagic shock," starting at the scene of injury

What is Hemorrhagic Shock?

Hemorrhagic: massive loss of blood

Shock: life-threatening condition

- Dangerously low blood pressure
- Internal organs don't receive enough oxygen and have difficulty functioning
- Might lead to death

Need for Improved Outcome

- The Center for Disease Control (CDC) lists trauma as the leading cause of death among Americans under age 45
- Thousands of trauma patients die each year
- Many of these patients die because the "standard of care" cannot reverse the damaging effects of hemorrhagic shock

What is the Standard of Care?

Represents the current treatment

In ground or air ambulance

The patient receives salt water (blood is not available)

In the Hospital

The patient receives salt water and donated blood

Standard of Care Limitations

In ground or air ambulance

- Salt water does not carry oxygen, unlike blood
- Without enough oxygen, the body and its internal organs have difficulty functioning and can stop working (organ failure)

Standard of Care Limitations

In the Hospital

- Risks associated with large infusions of donated blood in trauma patients have been identified
- Increase in immune function, which may cause failure of vital organs and death, observed in some patients who have received transfusions[1]

[1] *A. Sauaia et al., Archives of Surgery (1994), Volume 129:39-45*

What is PolyHeme®?

A temporary red blood cell substitute that carries oxygen

In the acute setting, 1 unit (pint) of PolyHeme is given in place of 1 unit (pint) of blood

What is PolyHeme®?

- Made from human blood
- Compatible with all blood types
- Immediately available
- Manufactured with steps to reduce the risk of viral transmission

Why Use PolyHeme®?

- PolyHeme was developed to treat urgent, large volume blood loss
  - Blood is not normally available in the ambulance
  - PolyHeme will be immediately available in the ambulance and carries oxygen
- PolyHeme may reduce the use of donated blood in the first 12 hours after injury, and might avoid potential organ failure

Why Use PolyHeme®?

- There are risks associated with large infusions of donated blood in trauma patients[1]
- In a controlled Phase II trial in hospitalized trauma patients, higher levels of immune markers were seen in patients who received blood transfusions as compared to those who received PolyHeme[2]

[1] *A. Sauaia et al., Archives of Surgery (1994), Volume 129:39-45*

[2] *E. E. Moore, Journal of American College of Surgeons (2003), Volume 196 (1)*

Why Use PolyHeme®?

To evaluate a potential improvement in survival of severely injured and bleeding patients

PolyHeme® Experience: Past

- Administered to patients with acute blood loss in the hospital setting
- Patients have received up to 20 units (pints) or 1,000 gm of PolyHeme®
  - Normal volume of blood in a human is 10 units (pints) or 500 gm of hemoglobin
- Some of these patients kept alive while losing virtually all of their own blood during ongoing bleeding and receiving only PolyHeme® as replacement.

PolyHeme® Experience: Past

- Observations in these patients have suggested the life-sustaining potential of PolyHeme ® in the treatment of urgent life-threatening blood loss and life-threatening hemoglobin levels

[Gould et al, Journal of American College of Surgeons (2002), Volume 195 (4)]

PolyHeme® Experience: Past

- During the course of evaluation of any investigational product, both adverse experiences and serious adverse experiences can occur. These may be due to either:
  - the underlying condition of the patient
  - the treatment setting or
  - the investigational product itself
- Both adverse experiences and serious adverse experiences have occurred in prior studies.

PolyHeme® Experience: Past

- One trial conducted in older patients undergoing elective surgery for abdominal aortic aneurysm that involved a non-routine procedure where up to 60% of their own blood was removed and later replaced.
  - Serious adverse events, including cardiovascular, were observed.
  - It cannot be determined whether due to experimental procedure or PolyHeme itself.
- Patients in this study were older with more cardiovascular risk factors than those in the trials in trauma patients.

PolyHeme® Experience: Past

- In trauma patients, PolyHeme® has been rapidly infused during urgent life-threatening blood loss in sufficiently large quantities, up to 20 units (pints), to be considered well-tolerated in this patient population.

[Gould et al, Journal of American College of Surgeons (2002), Volume 195 (4)]

PolyHeme® Experience: Current Trial

- 720 patients will be enrolled:
  - 360 patients in the control group
  - 360 patients in the PolyHeme® group
- Currently, enrollment underway at a 17 Level I trauma centers across the United States
  - A list of centers is available at www.clinicaltrials.gov
- The FDA has approved the study
- 22 Institutional Review Boards have approved the study. 1 IRB has not approved the study

PolyHeme® Experience: Current Trial

- An Independent Data Monitoring Committee set up to review mortality and serious adverse experiences after 60, 120, 250 and 500 patients have been enrolled and followed for 30 days
- Committee has reviewed the safety data on the first 60, 120 and 250 patients
- Committee has recommended that the study continue without any change

PolyHeme® Experience: Current Trial

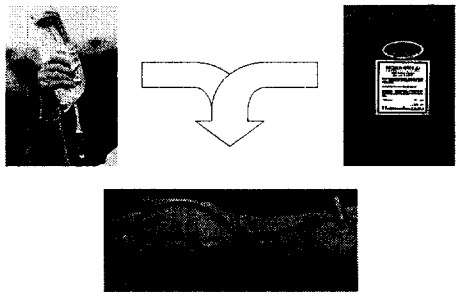
- At the 250 patient look, Committee conducted an adaptive sample size determination.
- Assessment was based on a comparison between the mortality rate predicted in the protocol and the observed mortality rate in the trial to date.
- Committee has concluded that no adjustment in the number of patients to be enrolled in the study is required.

Trial Design: Before the Hospital

Severely injured trauma patients will be assigned to either one of two groups by chance

Control	*Test*
Receive salt water	Receive PolyHeme®
(360 patients)	(360 patients)

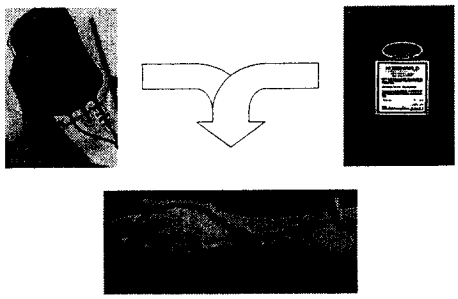
Ambulance Infusion



Trial Design: At the Hospital

Control	*Test*
• Salt water for hydration	• Salt water for hydration
• Donated blood to boost oxygen levels	• PolyHeme® to boost oxygen levels
	• Maximum dose of 6 units during first 12 hours
	• Donated blood will be used thereafter

Hospital Infusion



Who Would Be Included?

Patients at risk of dying

- Who have sustained severe injuries
- Who have lost a large amount of blood and are in shock
- Who are at least 18 years old
- Who are of either gender (male or female)

Who Would Be Excluded?

- Patients who are obviously pregnant
- Patients who have severe head or brain injuries
- Patients who have "unsurvivable" injuries
- Patients who require CPR
- Patients with known objections to blood transfusions
- Patients with known orders not to resuscitate
- Patient with visible or identifiable method of objection (e.g.wearing exclusion bracelet)

FDA Review

- Northfield Laboratories received clearance to proceed with this study from the Food and Drug Administration (FDA)
- The FDA authorized the use of an exception from informed consent requirements for this study

What is Informed Consent?

A process by which patients make informed decisions about participating in research studies

- Traditionally required for all research studies
- Research studies compare 2 treatments (standard vs. investigational)
- Doctors describe each of these potential treatments

What is Informed Consent?

A process by which patients make informed decisions about participating in research studies

- Patients are informed of the potential risks and potential benefits associated with each of these treatments
- Patients choose whether to participate in the study

What is Exception from Informed Consent?

Patients are enrolled in a research study without giving their informed consent

How Can That Be?

A federal regulation (21 CFR 50.24), created in 1996, allows certain studies that meet the following criteria to use this exception

- Patients' lives must be at risk
- Available treatments are not satisfactory
- Patients are unable to give consent
- Potential risks are reasonable

How Can That Be?

A federal regulation (21 CFR 50.24), created in 1996, allows certain studies that meet the following criteria to use this exception

- Participation in the research could provide a direct benefit (increased survival) to the patient
- The research could not be practicably carried out without an exemption

Consent Safeguards

- If possible, the patient or a legally authorized representative (LAR) can give consent before the patient is enrolled in the study

Consent Safeguards

•If consent cannot be obtained before enrollment, frequent attempts will be made to contact the patient's LAR and family to describe the study

•The patient, family members, or a legally authorized representative may decide to withdraw the patient at any time

Potential Benefits of PolyHeme®

- Can enhance the amount of vital oxygen in the patient's blood (prehospital setting)
- May avoid failure of vital organs (prehospital and hospital settings)
- Might increase the likelihood of survival
- Is compatible with all blood types
- Is immediately available
- Manufactured with steps to reduce the risk of viral transmission

Potential Risks of PolyHeme®

- Rash
- Increased blood pressure
- Kidney or liver damage
- Viral infection (HIV, hepatitis, etc.)
- Unforeseen happenings

Patient Protection

The Institutional Review Board (IRB) is a group of medical, scientific, and nonscientific members of the community

- Reviews all proposals for research on humans
- Assures patient safety
- Monitors community feedback

Patient Protection

- The IRB will decide whether or not to allow this hospital to participate in the PolyHeme® trial
- An Independent Data Monitoring Committee is overseeing the trial to monitor the safety of the product
- The FDA is being informed of the trial's progress

If We Participate...

- The results of the study will be revealed to the community after the trial has been completed
- Those who do not want to participate in the study can wear a special bracelet to exclude themselves

Questions or Comments?

Dayton Daily News
www.daytondailynews.com

Patients to get blood substitute

Dayton Daily News

SPRINGFIELD | Miami Valley Hospital – and some of the Clark County patients sent there by CareFlight – will participate in a study that could increase the odds of survival by using a blood substitute that can be carried in the helicopter.

Representatives from the hospital's trauma program explained the study to the Clark County Commission on Tuesday.

PolyHeme, made from human blood, has a longer shelf-life and is compatible with all blood types, said Dr. Peter Ekeh, a trauma surgeon at the hospital. Like real blood, the substitute carries oxygen.

PolyHeme, developed by Northfield Laboratories in Evanston, Ill., could reduce the use of donated blood and possibly prevent organ failure.

Besides Miami Valley, 24 other hospitals are participating in the study, said Susan Mallett, trauma research manager.

The hospital will enroll 40 patients beginning sometime in August.

Only patients at risk of dying will receive the substitute.

They include those who have suffered severe injuries, lost a large quantity of blood and are at least 18.

Some patients will be excluded from the study, such as those with nonsurvivable injuries, severe head or brain injuries and women who are obviously pregnant.

The patient, a legally authorized representative or family members can withdraw the person from the study.

If they cannot be reached, the patient will be enrolled even without consent.

That's allowed through a federal rule because lives are at risk.

Questions can be directed to (937) 208-5069 or polyheme@mvh.org on the Web.

Mallett, Susan

From: Mallett, Susan
Sent: Wednesday, June 29, 2005 9:13 AM
To: 'abliss@woh.rr.com'
Cc: Mallett, Susan
Subject: FW: Greenville Advocate coverage
Importance: High

Thanks Al. I appreciate the article and your communication with me today. I was at the Darke County commissioner's meeting, with Jean Sands, one of our trauma research associate nurses, also present as you noted in your article, along with Dr. Ekeh, and Dr. Uddin. It was very important that the presentation of the disclosed information be reported to members of your community, and the media coverage assists with accomplishing the public disclosure process required by the sponsor and the FDA, as well as Miami Valley's Institutional Review Board. I appreciate your perseverance in getting this article emailed to me. Thanks again. If you have any questions, do not hesitate to email or call me. Thank you.

-----Original Message-----
From: Al Bliss [mailto:abliss@woh.rr.com]
Sent: Wednesday, June 29, 2005 8:48 AM
To: Susan Mallett
Cc: Bob Robinson
Subject: Greenville Advocate coverage

To Susan Mallett,

The following information was included as the second item in the coverage of the Darke Count Commissioners Meeting at which the Miami Valley Team made its presentation.

I would welcome comments and input.

Al Bliss

II.. On Wednesday May 25, 2005, a team of medical specialists from the Miami Valley Medica Center Trauma Unit made an important presentation to the County Commissions. Dr. Peter Ek Trauma Associate, made the presentation with input from Dr. David Uddin, director Clinical Research Center and Jean Sams, RN, trauma nurse. The reason that this presentation was of sp value to Darke County citizens is that starting in August, 2005, the unfortunate accident victim may require a Care Flight to Miami Valley Hospital may be a part of a test of a new life saving product called PolyHeme.

Normally, an accident victim receives a saline solution during a Care Flight so that blood press maintained and to lessen the effect of loss of blood. PolyHeme which is made from human blo will be used on a random computer generated basis instead of the saline solution because it can achieve the same results plus the additional benefit of furnishing oxygen in hemoglobin. This c help avoid "hemorrhagic shock" which can occur in a severely injured bleeding patient.

Procedures are in place so that an individual can elect not to participate in this program, should

situation ever come to pass, such as an accident. To obtain more information about PolyHeme, contact Miami Valley Hospital @ 937-208-5069 or Northfield Laboratories Inc. @www.northfildlabs.com.

Mallett, Susan

From: Brown, Jessica

Sent: Tuesday, June 28, 2005 12:39 PM

To: smmallett@mvh.org

Subject: Stories you requested

Susan,
Three stories ran in the JournalNews. The first ran May 26. The second ran May 27. The third is a sidebar to the May 27 story and also ran that date. Let me know if you need anything else.

Jessica Brown
Butler County Bureau reporter
(513) 820-2189
The JournalNews
Your #1 Local News Source
www.journal-news.com
(513) 863-8200
Fax: (513) 896-9489

Publication: JournalNews; Date: May 26, 2005; Section: Local; Page: 19

County to be briefed on trauma study

Dayton hospital to test human blood substitute

By Mary Lolli Butler County Bureau

HAMILTON — Local residents could become the subjects of a clinical study on the use of a new product to treat severe trauma patients.

Butler County Commissioners today will hear a presentation from Miami Valley Hospital in Dayton concerning a clinical study the hospital will be conducting on the use of PolyHeme to treat severely injured and bleeding patients.

Butler County is the third of eight county commissions receiving a direct presentation of MVH's study.

Developed by Northfield Laboratories, PolyHeme is an oxygencarrying blood substitute made from human blood.

According to MVH officials, because PolyHeme is compatible with all blood types, it could provide immediate therapy when blood is not available.

In the MVH study, patients in "hemorrhagic shock" will begin to receive either standard treatment with saline or Poly-Heme.

Treatment would begin before arrival at the hospital — either at the scene of the injury or in the ambulance — and continue during a 12-hour, post-injury period in the hospital.

MVH's Susan Mallett is slated to begin her presentation at 9:40 a.m. in the commission chambers, second floor, Butler County Government Services Center, 315 High St.

Similar presentations have been made before Montgomery and Greene county commissions.

Other counties slated for notification of the study are Darke, Preble, Clark, Miami and Warren.

Also on Butler County commission's agenda is an annual update on activities at the county's Children Services Board.

Commissioners also are expected to approve the issuance of the following bond anticipation notes:

- $510,000 for the Liberty Interchange project.
- Renewal of $2.1 million for improvements at Butler Count Regional Airport/Hogan Field.
- $335,000 for University Pointe landscaping.
- $2.8 million for MetroParks improvements.
- $340,000 for sheriff's building renovations.

Contact Mary Lolli at (513) 820-2192, or e-mail her at mlolli@coxohio.com.

Publication: JournalNews; Date: May 27, 2005; Section: News; Page: 1

Hospital to test blood proxy

Substitute to be used for some trauma cases

By Mary Lolli Butler County Bureau

HAMILTON — Clinical testing conducted by a Dayton-area hospital could mean local residents may be among the first to benefit from the use of a new product to treat severe trauma patients.

Butler County is one of eight

in a national clinical study Miami Valley Hospital is participating in to determine the effectiveness of the use of PolyHeme as an oxygen carrying blood substitute for severely injured people while en route to the hospital.

Developed by Northfield Laboratories, PolyHeme has been under study for 10 years and has been found to be successful in treating trauma victims who are already in the hospital, said Dr. Jonathan M. Saxe, a trauma surgeon at MVH and medical professor at Wright State University.

The new study, however, is designed to gather data on its effectiveness in sustaining life, or preventing organ damage in severely bleeding people until they arrive at a hospital and can receive whole blood.

According to Saxe, because Poly-Heme is compatible with all blood types, it could provide immediate therapy when blood is not available.

For the purposes of the study PolyHeme will be administered only to eligible patients who are transported to Miami Valley Hospital via CareFlight.

In the MVH study, patients in "hemorrhagic shock" will begin to receive either standard treatment with saline or PolyHeme.

"A cooler will be placed on the helicopter and the crew won't know beforehand whether it contains the PolyHeme or only saline," Saxe said.

Treatment would begin before ar-

Treatment would begin before arrival at the hospital — either at the scene of the injury or in helicopter — and continue during a 12-hour, post-injury period in the hospital.

MVH is one of 25 medical facilities nationwide participating in the study, which has been underway in other areas for several months.

"So far, in 300 patients tested in the new round studies, it appears PolyHeme has been very effective," Saxe said.

"But we need 700 more patients nationwide before the study can be completed," he said.

MVH plans to begin using the product in August and hopes to have data on 40 or more people within the next year.

Other counties subject to inclusion in the study are Montgomery, Greene, Darke, Preble, Clark, Miami and Warren.

For more information about the study, visit MVH's Web site at: www.miamivalleyhospital.com.

Contact Mary Lolli at (513) 820-2192, or e-mail her at mlolli@coxohio.com.

Publication: JournalNews; Date: May 27, 2005; Section: Local; Page: 23

Some patients exempt from PolyHeme study

USDA permitting study without patients' consent

By Mary Lolli Butler County Bureau

HAMILTON — The U.S. Food and Drug Administration granted permission for the medical community to conduct a study on the effectiveness of PolyHeme without the patient's consent.

That's because the product would be used in situations where it is expected that patients will be unable to give informed consent because the extent of their injuries and the fact that they are in shock.

However, not all people fitting that description will necessarily be included in the study.

The following guidelines will be applied to critically injured people who are transported to Miami Valley Hospital via Care-Flight.

Those who would be eligible for the study are:

- Patients who have lost a large amount of blood and are in shock;
- Patients who are at least 18 years old;
- Patients who have sustained severe injuries.

Those who would be excluded from the study are:

- Women who are obviously pregnant;
- Patients with severe brain injuries;
- Patients who require CPR to maintain their heartbeat.
- Patients with "unsurvivable" injuries;
- Patients who are known to object to blood transfusions;
- Patients who are known to refuse resuscitation.

In addition, residents wishing to decline participation in the study may contact the study coordinator at MVH by sending an e-mail to polyheme@mvh.org to obtain a free wristband expressing that choice. Those who e-mail are asked to include your name, phone number and mailing address in your message.

Contact Mary Lolli at (513) 820-2192, or e-mail her at mlolli@coxohio.com.

Preble Co.

Mallett, Susan

From: Leslie Collins [lcollins@registerherald.com]
Sent: Wednesday, June 29, 2005 3:58 PM
To: smmallett@mvh.org
Subject: FW: Polyheme study coverage

The following story was published in our Wednesday, June 1, edition.

By Leslie Collins
R-H News Editor

Accident victims in Preble County who are transported via CareFlight and are in need of blood may find themselves participating in a ground-breaking blood substitute study. Preble is one of eight counties representatives from Miami Valley Hospital in Dayton ‹ which serves approximately 14 counties in the area ‹ visited recently, in an effort to spread the word about the clinical trial. According to officials, Preble ranks fourth in the number of people who could have potentially received the blood substitute when being transported by CareFlight with serious injuries. MVH reps met with county commissioners on Wednesday, May 25, to present information regarding "Polyheme." According to MVH officials, the hospital is one of a select number of Level I trauma centers in the U.S. chosen to participate in the national clinical trial to evaluate the safety and efficacy of PolyHeme in treating critically injured and bleeding patients. Under the study protocol, treatment would begin on board MVH's CareFlight medical helicopter and continue during a 12-hour, post-injury period at the hospital. "PolyHeme, manufactured by Northfield Laboratories Inc. in Evanston, Ill., is an oxygen-carrying resuscitative fluid designed for use in urgent blood loss when blood is not available. It has a shelf-life of over 12 months and requires no cross-matching, making it compatible with all blood types as well as quickly available," a statement from MVH notes. According to a press release, since blood is not presently carried in ambulances or medical helicopters, the use of PolyHeme in these settings has the potential to address a critical unmet medical need for an oxygen-carrying solution where blood is not available. The study will compare the survival rate of patients receiving PolyHeme to that of patients receiving the current standard of care, which is saline solution. "We are excited to be included in this groundbreaking clinical trial," commented Mary McCarthy, M.D., director of Trauma Services and principal investigator of the PolyHeme study. "Trauma-related injuries are a leading cause of death among Americans under 45 years old. Almost one in five trauma patients die from their injuries. If we begin to treat these patients early with an oxygen-carrying solution and keep their hemoglobin levels up, we may see more survivors," she added. Because the patients eligible for this study are unlikely to be able to provide prospective informed consent due to the extent and nature 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, MVH officials said. "Use of this provision in a study protocol is granted by the Institutional Review Board (IRB) responsible for the initial and continuing review and approval of the research study," the press release noted. It continued: "Such a decision is based on the finding and documentation that, amongst other things, patients are in a life-threatening situation requiring emergency medical intervention, currently available treatments are unproven or unsatisfactory, obtaining informed consent is not feasible, potential risks are reasonable in relation to what is known of the condition, participation in the study could provide a direct benefit to the patients enrolled, and the research could not be practicably conducted without an exception from informed consent requirements." Anyone who wishes to decline participation in the study should contact the coordinator by calling (937) 208-5069, or by e-mail at polyheme@mvh.org, to obtain a wristband expressing the choice to not participate.

Leslie Collins
News Editor
The Register-Herald

CareFlight patients to get blood substitute

By Joanne Huist Smith
josmith@DaytonDailyNews.com

DAYTON — Severely injured patients en route to Miami Valley Hospital aboard CareFlight could be among the first in the region to be given a new blood substitute.

Dr. Mary McCarthy, director of the hospital's trauma program, said Miami Valley plans to take part in trial use of PolyHeme, beginning in August, to evaluate its life-saving potential for patients who have suffered massive blood loss.

"The blood substitute will allow us to give life-giving hemoglobin in the field," she said.

On Tuesday, she gave presentations to the Montgomery and Greene County commissions on the blood substitute developed by Evanston, Ill.-based Northfield Laboratories Inc.

Trauma patients are now given salt water at the scene of injury or while being taken to the hospital because blood is not available, McCarthy said.

The salt water does not carry oxygen, like blood, so the body and its internal organs have difficulty functioning and can stop working.

PolyHeme has a shelf life of 12 months, is made from human blood, carries oxygen and is compatible with all blood types.

"PolyHeme has kept trauma patients alive when they have lost all of their own blood," McCarthy said.

The blood substitute has been studied in more than 300 patients and five clinical trials.

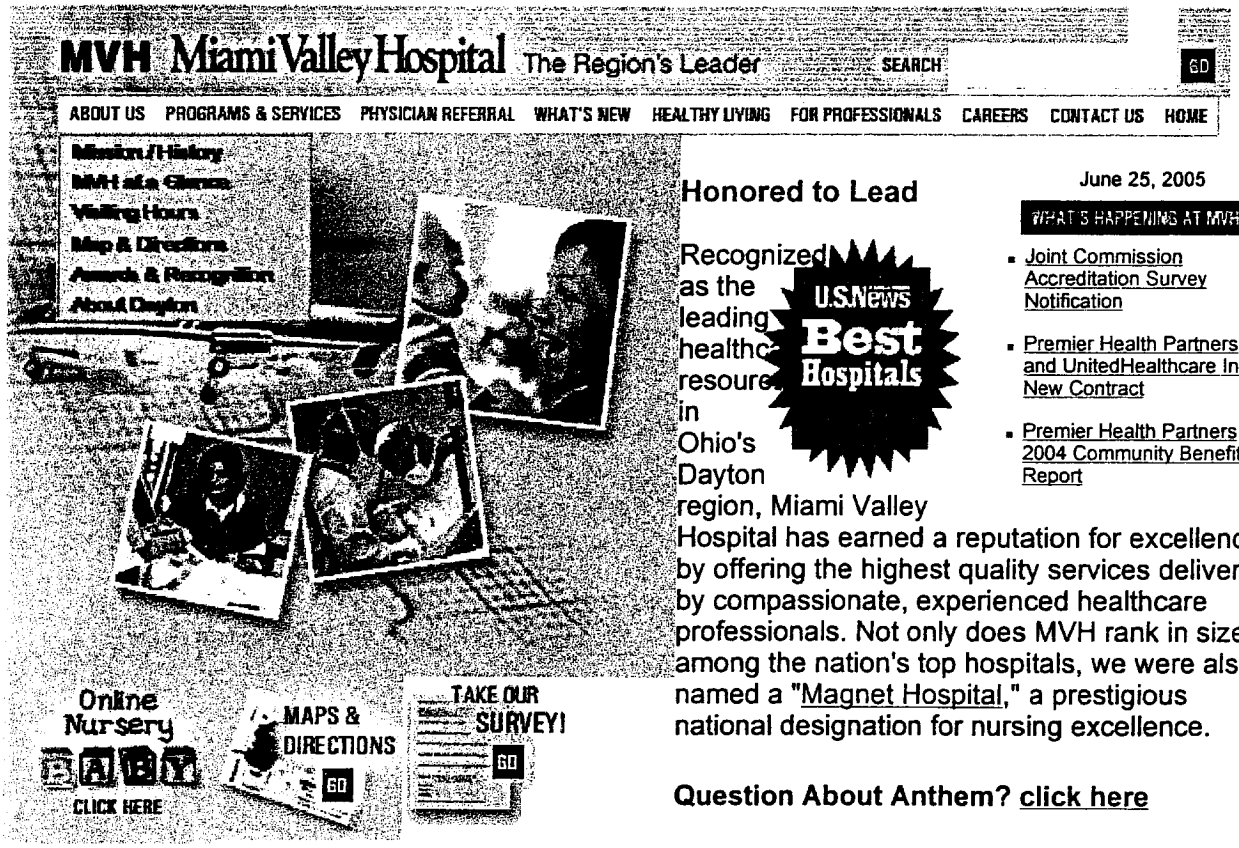
The hospital expects to start trial use of PolyHeme in about 60 days, unless there is major community objection.

People wishing to object to the study or decline participation may contact the study coordinator at MVH by calling 208-5069, or by sending an e-mail to polyheme@mvh.org, to obtain a wristband expressing this choice.

Additional information about the study is available on MVH's Web site, at www.mvh.org.

Contact Joanne Smith at 225-2362.

Miami to continue



Honored to Lead

June 25, 2005

WHAT'S HAPPENING AT MVH?

- Joint Commission Accreditation Survey Notification
- Premier Health Partners and UnitedHealthcare Ink New Contract
- Premier Health Partners 2004 Community Benefits Report

Recognized as the leading healthcare resource in Ohio's Dayton region, Miami Valley Hospital has earned a reputation for excellence by offering the highest quality services delivered by compassionate, experienced healthcare professionals. Not only does MVH rank in size among the nation's top hospitals, we were also named a "Magnet Hospital," a prestigious national designation for nursing excellence.

Question About Anthem? click here

PolyHeme® Clinical Study at MVH

Insurance Plans Accepted at MVH

New Healthcare Facility planned for Centerville, Ohio

Phone: 937-208-8000 One Wyoming Street, Dayton, OH 45409-2793

PolyHeme® Clinical Study at MVH

Study Purpose & Description

Purpose

To evaluate the life-saving potential of PolyHeme® when given to severely injured and bl starting at the scene of injury. The study will compare the survival rate of patients receivir that of patients who receive the current standard of care, which is saline (salt water) solut the hospital, by donated blood, when needed.

Trial Description

A Phase III, Randomized, Controlled, Open-Label Multicenter, Parallel Group Study Usin Exception from Informed Consent Requirements Designed to Evaluate the Safety and Eff SFH-P Injection [Polymerized Human Hemoglobin (Pyridoxylated) PolyHeme®] When Us Patients in Hemorrhagic Shock Following Traumatic Injuries Beginning in the Prehospital

Sponsor

Northfield Laboratories Inc.
Website: www.northfieldlabs.com

Phone: 937-208-8000 One Wyoming Street, Dayton, OH 45409-2793

PolyHeme® Clinical Study at MVH

Exception From Informed Consent Regulations

This provision is made when patients are in a life threatening situation requiring emergen intervention, currently available treatments are unsatisfactory, participation in the study cc direct benefit to the patients enrolled in the form of survival, the risks are reasonable, and could not be conducted without an exception from informed consent regulations. Typically are severely injured and bleeding are unable to grant consent for treatment because of th extent of their injuries.
(To read the federal regulations, go to http://www.fda.gov/oc/ohrt/irbs/except.html.)

Phone: 937-208-8000 One Wyoming Street, Dayton, OH 45409-2793

PolyHeme® Clinical Study at MVH

Community Meetings

In order to inform local communities about the study, representatives of MVH's trauma pr present information about PolyHeme® at the following meetings:

- Greene Co. Commission meeting, Tuesday, May 24, 2005 at 9:30 a.m., 35 Green
- Montgomery Co. Commission meeting, Tuesday, May 24, 2005 at 1:30 p.m., Mont Admin. Building, 451 W. Third Street, 10th Floor, Rm. 1001, Dayton.
- Darke Co. Commission meeting, Wednesday, May 25, 2005 at 1:30 p.m., 520 S. E Greenville.
- Preble Co. Commission meeting, Wednesday, May 25, 2005 at 3:30 p.m., Preble (101 E. Main St., 2nd Floor, Eaton.
- Butler Co. Commission meeting, Thursday, May 26, 2005 at 9:30 a.m., Butler Co. Ctr., 315 High St., 2nd Floor, Hamilton.
- Clark Co. Commission meeting, Tuesday, May 31, 2005 at 8:30 a.m., Municipal C 50 E. Columbia St., 5th Floor, Springfield.
- Miami Co. Commission meeting, Wednesday, June 1 at 11:00 a.m. Miami County 201 W. Main St., Troy.
- Warren Co. Commission meeting, Thursday, June 2, 2005 at 5:15 p.m., 406 Justic

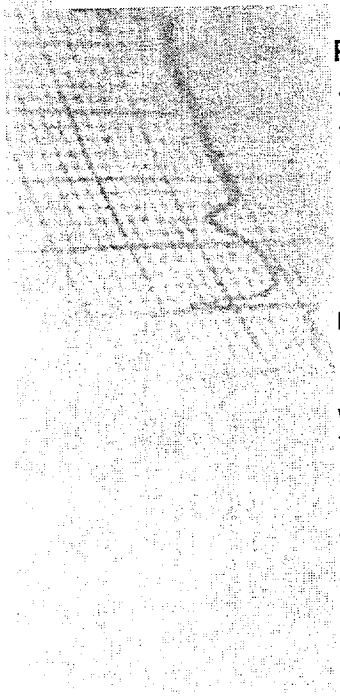
Phone: 937-208-8000 One Wyoming Street, Dayton, OH 45409-2793

PolyHeme® Clinical Study at MVH

How to Decline Participation

Persons wishing to decline participation in this study may contact the study coordinator at 937-208-5069, or by sending an e-mail to polyheme@mvh.org, to obtain a free wristband choice. (Please be sure to include your name, phone number and mailing address in your message.)

Phone: 937-208-8000 One Wyoming Street, Dayton, OH 45409-2793



PolyHeme® Clinical Study at MVH

Frequently Asked Questions

Why is this study being conducted?
To evaluate the safety and efficacy of PolyHeme® in treating severely injured and bleedir starting at the scene of injury, and to assess a potential survival benefit.

What is the title of this study?
A Phase III, Randomized, Controlled, Open-Label, Multicenter, Parallel Group Study Usin Exception from Informed Consent Requirements Designed to Evaluate the Safety and Eff SFH-P Injection [Polymerized Human Hemoglobin (Pyridoxylated) PolyHeme®] When Us Patients in Hemorrhagic Shock Following Traumatic Injuries Beginning in the Prehospital

What is PolyHeme®?
PolyHeme® is a temporary oxygen-carrying red blood cell substitute made from human b PolyHeme® requires no cross-matching, and therefore is compatible with all blood types. manufactured using steps to reduce the risk of viral transmission. It has a shelf-life of ove

What is the design of this study?
Patients in "hemorrhagic shock" will begin to receive either saline (salt water), which is th care (control), or PolyHeme (investigational treatment). Treatment will begin before arriva either at the scene of the injury or in the ambulance, and continue during a 12 hour12-hou period in the hospital.

In the hospital, patients in the control group will receive saline for hydration and blood if n boost oxygen levels. Unlimited doses of each are allowed.

Patients in the treatment group will receive saline (salt water) for hydration and PolyHeme oxygen levels if necessary. The maximum dose of PolyHeme® will be six (6) units during hours. Blood will be used thereafter, if necessary.

What is hemorrhagic shock?
A condition in which a patient has experienced massive blood loss.
Shock is a life-threatening condition that might include:

- Dangerously low blood pressure
- Internal organs not receiving enough oxygen and have difficulty functioning, which death

Why is there a need for improvement in the way trauma patients are treated now?
Trauma is the leading cause of death among Americans under the age of 45. Currently th treatment for hemorrhagic shock, when blood is not available, is the infusion of a solution carry oxygen such as saline (salt water). Therefore, when blood is not immediately availa oxygen carrier such as PolyHeme® may restore sufficient circulating levels of hemoglobir

improve patient survival.

There are also risks associated with large infusions of donated blood in trauma patients, i increase in immune function which may cause failure of vital organs and death in some p: receive transfusions [A. Sauaia et al., Archives of Surgery (1994), Volume 129:39-45]. In Phase II trial in hospitalized trauma patients, higher levels of immune markers were seen receiving blood transfusions as opposed to those who received PolyHeme® [E. E. Moore American College of Surgeons (2003), Volume 196 (1)].

What is the current standard of care? How are trauma patients usually treated?
Bleeding patients are given a solution, such as saline, at the scene or in the ambulance t pressure. When patients arrive at the hospital, they are given Type O blood, if needed im later receive cross-matched blood, when available, if they continue to need blood transfu:

Who is eligible for the study?
Patients who have lost a large amount of blood and are in shock
Patients who are at least 18 years old
Patients who have sustained severe injuries

Who will be excluded from the study?
Women who are obviously pregnant
Patients with severe brain injuries
Patients who require CPR to maintain their heartbeat
Patients with "unsurvivable" injuries
Patients who are known to object to blood transfusions
Patients who are known to refuse resuscitation

How many patients will be enrolled in the study?
A total of 720 patients will be enrolled in the study; 360 patients in the control group and 3 the PolyHeme® group.

Has enrollment begun anywhere?
Currently, enrollment is underway at a 17 Level I trauma centers across the United State centers is available at www.clinicaltrials.gov. The FDA has approved this study as well as Institutional Review Boards. One IRB did not approve the study.

How will patient safety be assured in this trial?
An Independent Data Monitoring Committee, consisting of independent medical and stati responsible for periodically evaluating the safety data from the trial and making recomme to the continuation or modification of the trial protocol to minimize any risks to patients. Th includes four planned evaluations that occur after the first 60, 120, 250 and 500 patients h enrolled and monitored for a 30-day follow-up period.

What has been the experience with the study since it has begun?
The Independent Data Monitoring Committee (IDMC) has reviewed the safety data on mc serious adverse events from the ongoing trauma study after the first 60, 120 and 250 pati enrolled and followed for 30 days. After these three safety looks, the Committee recomme study continue without any change. In addition, at the 250 patient look, the IDMC conduct sample size determination as specified in the protocol. A blinded power analysis was perf determine if any increase in the sample size of the study was necessary. The assessmen a comparison between the mortality rate predicted in the protocol and the observed morta trial to date. The IDMC has concluded that no adjustment in the number of patients to be study is required.

How many units of PolyHeme® have been given to patients previously?
Northfield has experience with PolyHeme® in patients with acute blood loss in trauma an surgery in the hospital setting, including those who have received up to 20 units (pints) cc gm of PolyHeme®. The normal volume of blood in a human is 10 units (pints) containing hemoglobin. This means that up to two times the normal volume of blood in a human has by PolyHeme®. Some of these patients were kept alive while losing virtually all of their ov

ongoing bleeding and receiving only PolyHeme® as replacement. Observations in these p suggested the life-sustaining potential of PolyHeme® in the treatment of urgent life-threat and life-threatening hemoglobin levels [Gould et al, Journal of American College of Surge Volume 195 (4)].

What has been the safety experience with PolyHeme® in prior studies?
During the course of evaluation of any investigational product, both adverse experiences adverse experiences can occur. These may be due to either the underlying condition of th treatment setting, or the investigational product itself. Both adverse experiences and seric experiences have occurred in prior studies.

PolyHeme® was studied in one trial in patients experiencing planned acute blood loss wh elective surgery for abdominal aortic aneurysm. The trial included a non-routine procedur normovolemic hemodilution (ANH) in which a large quantity of the patient's own blood, up removed prior to the surgery, and is later replaced. The procedure in this study resulted ir large volumes of blood in addition to up to 6 units of PolyHeme® in the experimental grou overall volumes of blood alone were administered in the control group. Serious cardiovas experiences occurred more frequently in the PolyHeme® group. The patients in this study more cardiovascular risk factors than those in the trials in trauma patients. It cannot be de whether these findings are due to the more extensive ANH in the PolyHeme® group, to th more blood following surgery in the PolyHeme® group or to PolyHeme® itself.

In trauma patients, PolyHeme® has been rapidly infused during urgent life-threatening blo sufficiently large quantities, up to 20 units (pints), to be considered well-tolerated in this p [Gould et al, Journal of American College of Surgeons (2002), Volume 195 (4)].

What is an exception from informed consent?
Patients are enrolled in a clinical study without giving informed consent before being enro

Why was such an exception granted in connection with this study?
Patients are in a life-threatening situation, available treatments are unproven or unsatisfa collection of valid scientific evidence is necessary to determine the safety and effectivene interventions.

Participating in the study has the potential for of direct benefit to the enrolled patients, def increase in survival, because:

- Patients are in a life-threatening situation that necessitates intervention
- Previous studies support the potential to provide a direct benefit to enrolled patient
- Risks associated with the use of the PolyHeme® are reasonable in relation to wha the patients' medical condition, the risks and benefits of standard therapy, and the benefits of the proposed intervention

It is expected that patients will be unable to give informed consent because the extent of t the fact that they are in shock.

It is unlikely that there will be time to find and ask for consent from the patient's legally au representative (LAR) or to provide an opportunity for a family member to object to the pat before beginning treatment.

Who grants such exceptions?
The U.S. Food and Drug Administration (FDA) under regulations called 21 Code of Feder 50.24 specifies the conditions under which an exception from informed consent may be o Institutional Review Board (IRB) associated with each hospital approves its use locally.

What if I don't want to participate in this study?
Members of the public can object to participating in the study by wearing or displaying an bracelet (offered by the clinical site or from the manufacturer). Patients enrolled in the stu

from the study, without prejudice, at any time by notifying the investigator.

Will patients still receive treatment if they don't want to participate in the study?
Patients will still receive the standard of care if they decline to participate in this study.

What are the potential benefits of PolyHeme®?
PolyHeme® may increase the likelihood of survival after traumatic injury
The need for blood transfusion might be reduced
Patients might avoid a reduction in the function of internal organs that sometimes follows transfusion

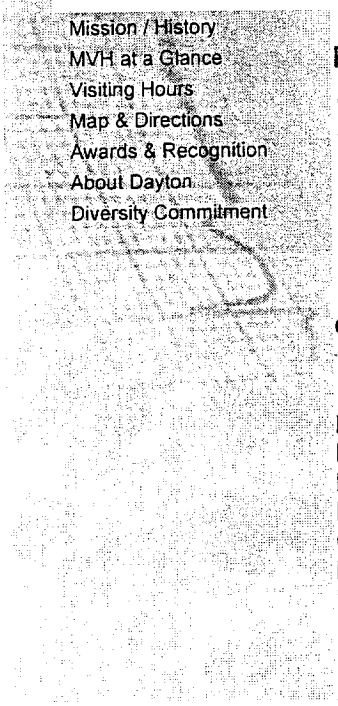
What are the potential risks of PolyHeme®?
Rash
Increased blood pressure
Kidney or liver damage
Transmission of hepatitis and HIV viruses
Unforeseen happenings

How much will it cost patients to participate?
There is no charge to the patient to participate in this study. The costs of certain laborator required will be paid by the study sponsor.

Will patients get paid to participate?
No, patients will not be paid to participate in this study.

Who is the manufacturer of PolyHeme®?
Northfield Laboratories Inc., Evanston, IL. For more information, visit www.northfieldlabs.(

Phone: 937-208-8000 One Wyoming Street, Dayton, OH 45409-2793



PolyHeme® Clinical Study at MVH

Contacts for Additional Information, Comments or Questions

Mary McCarthy, MD
Director of Trauma Services
Principal Investigator
Miami Valley Hospital
One Wyoming Street
Dayton, Ohio 45409
Phone: 937-208-5069
E-mail: polyheme@mvh.org

Susan Mallett, MS, APN
Trauma Research Manager, CNS
Study Coordinator
Miami Valley Hospital
One Wyoming Street
Dayton, Ohio 45409
Phone: 937-208-5069
E-mail: polyheme@mvh.org

Mallett, Susan

From: Rita Arnold Internet Email

Sent: Thursday, May 26, 2005 8:23 AM

To: PolyHeme

Susan,

Wayne Hospital was unable to attend the May 25th meeting concerning the PolyHeme Clinical Study. Is it ok if we attend the Miami County meeting at Troy on June 1st.

Thank you

Rita Arnold, R.N.

P.I. Coordinator

Wayne Hospital

835 Sweitzer St., Greenville, Ohio 45331

Ph: 937-547-5748; Fax: 937-547-5784

rita.arnold@waynehospital.com

Mallett, Susan

From: PolyHeme
Sent: Monday, May 30, 2005 3:51 PM
To: 'rita.arnold@waynehospital.com'
Cc: Mallett, Susan
Subject: Miami Co. Mtg. for MVH Public Disclosure of Study

Thanks for your interest. These are public meetings of coures, so I see no reason that you cannot attend the May 1, 2005, meeting at 11:00 AM. The meeting is in the Safety Bldg. in downtown Troy at 201 W. Main Street. The purpose of our presentation is for community disclosure and we are in the very early stages of this process, with the commissioner meetings serving as the initial public FYI. Notices were not sent out to hospitals, with some commissioner clerks asking who they should invite, or naming particular people, and I told them anyone was welcome to be present. You can access our web site for study information via our intranet site at www.mvh.org and click on PolyHeme for futher info. I look forward to seeing you at the meeting. Thanks for your interest in this study. Susan Mallett, MS, Trauma Research Manager.

Mallett, Susan

From: Mallett, Susan

Sent: Monday, June 06, 2005 4:36 PM

To: 'rita.arnold@waynehospital.com'

Cc: Mallett, Susan

Subject: FW: Patients to get blood

FYI. Thanks for your interest. As stated, this study will not start enrollment until August. We are not enrolling at this time, but in the midst of our public disclosure, which is required prior to final IRB approval.. Susan

Susan Mallett, MS, APN
Trauma Research Manager, CNS
937-208-2913, Fax: 937-341-8165
Clinical Research Ctr., 6th Fl. Weber Bldg., Miami Valley Hospital
smmallett@mvh.org

-----Original Message-----
From: Mallett, Susan
Sent: Monday, June 06, 2005 8:04 AM
To: Mallett, Susan
Subject: Patients to get blood substitute.doc

Send to Rita Arnold at Wayne.

Mallett, Susan

From: Rita Arnold Internet Email
Sent: Tuesday, June 07, 2005 7:31 AM
To: Mallett, Susan
Subject: RE: Patients to get blood substitute.doc

Susan,

Thanks for the info. Our county commissioner's secretary stated she forgot to notify our hospital about the meeting here in Darke County.

We have read the information on the MVH website.

Please do not hesitate to use my email to notify us of any upcoming meetings or to forward any information.

Thank you,

Rita Arnold, R.N.
P.I. Coordinator
Wayne Hospital
835 Sweitzer St., Greenville, Ohio 45331
Ph: 937-547-5748; Fax: 937-547-5784
rita.arnold@waynehospital.com

From: Mallett, Susan [mailto:SMMallett@mvh.org]
Sent: Monday, June 06, 2005 4:36 PM
To: 'rita.arnold@waynehospital.com'
Cc: Mallett, Susan
Subject: FW: Patients to get blood substitute.doc

FYI. Thanks for your interest. As stated, this study will not start enrollment until August. We are not enrolling at this time, but in the midst of our public disclosure, which is required prior to final IRB approval.. Susan

Susan Mallett, MS, APN
Trauma Research Manager, CNS
937-208-2913, Fax: 937-341-8165
Clinical Research Ctr., 6th Fl. Weber Bldg., Miami Valley Hospital
smmallett@mvh.org

-----Original Message-----
From: Mallett, Susan
Sent: Monday, June 06, 2005 8:04 AM

To: Mallett, Susan
Subject: Patients to get blood substitute.doc

Send to Rita Arnold at Wayne.

Mallett, Susan

From: Joseph Houdek [houdejj@dhfs.state.wi.us]
Sent: Wednesday, June 01, 2005 8:13 AM
To: PolyHeme
Subject: wristband

Sir:
I would like to request a wristband to exclude me from the Polyheme study. Thank you

J. Houdek
2008 S 30th St
Milwaukee, WI 53215

Mallett, Susan

From: sbritton@stratasys.com
Sent: Wednesday, June 01, 2005 9:28 AM
To: PolyHeme

Mallett, Susan

From: Mallett, Susan
Sent: Monday, June 06, 2005 3:21 PM
To: 'brucebarb@netzero.net'
Subject: RE: Blood substitute

The common process in the research industry is that study sponsors approach the individual sites to assess interest in participating in a clinical trial they are proposing, or in the process of conducting. This is what Northfield did with Miami Valley Hospital. I would encourage you to access Northfiel's web site: www.Northfieldlabs.com for information about their product and their research results to date with this product. Thanks you for your time and interest in this study.

Susan Mallett, MS, APN
Trauma Research Manager, CNS
Miami Valley Hospital

-----Original Message-----
From: brucebarb@netzero.net [mailto:brucebarb@netzero.net]
Sent: Saturday, June 04, 2005 12:18 PM
To: polyheme@mvh.org
Subject: Blood substitute

Was there a reason why you choose Northfield for the blood trials? If I remember correctly, Synthetic Blood is an Ohio born company.

Thank you,
Barbara Jones
Kettering

MVH and CareFlight to Participate in Groundbreaking National Research Study

Miami Valley Hospital is one of 25 Level I trauma centers in the U.S. chosen to participate in a clinical trial to evaluate the safety and efficacy of the PolyHeme blood substitute in treating critically injured and bleeding patients. The study will primarily target the 21 area counties where CareFlight responds to calls for trauma transport.

What is PolyHeme?

PolyHeme, manufactured by Northfield Laboratories Inc. in Evanston, IL, is an oxygen-carrying resuscitative fluid designed for use in urgent blood loss when blood is not available. It has a shelf-life of over 12 months and requires no cross-matching, making it compatible with all blood types, as well as quickly available. Since blood is not presently carried in ambulances or on CareFlight, the use of PolyHeme in these settings has the potential to address a critical unmet medical need. The study will compare the survival rate of patients receiving PolyHeme to that of patients who receive the current standard of care, which is saline (salt water) solution. Saline does not carry oxygen, so the body and its internal organs cannot function effectively and will eventually stop working.

Counties Where CareFlight May Administer PolyHeme to Trauma Patients:

Ohio
- Auglaize
- Brown
- Butler
- Champaign
- Clark
- Clinton
- Darke
- Greene
- Highland
- Logan
- Mercer
- Miami
- Montgomery
- Preble
- Shelby
- Warren

Indiana
- Fayette
- Franklin
- Randolph
- Union
- Wayne

Study Protocol

According to study protocol, treatment would begin at the scene, or on board CareFlight medical helicopters, for treatment of hemorrhagic shock and continue through the 12-hour, post-injury period at MVH, where a maximum of six units of PolyHeme could be received by patients randomized to the "treatment group."

Patients in the study's "control" group will be comprised of patients initially receiving normal saline, with blood transfusion post-hospital admission should blood be required for resuscitation. The computerized randomization schedule predetermined by Northfield Laboratories avoids potential bias in the study. Each of the helicopters has the capacity to carry one cooler containing PolyHeme and the CareFlight staff will receive intensive training prior to study start-up.

Patients eligible for the trial include those 18 years old and older who have experienced a large loss of blood, are in shock, and have sustained severe injuries. Patients excluded from the study include women who are obviously pregnant, those with severe brain injuries, those requiring CPR to maintain their heartbeat, those with "unsurvivable" injuries, and patients who are known to object blood transfusions, or who are known to refuse resuscitation. Nationally, PolyHeme has been studied in over 300 patients in five clinical trials.

McCarthy

Mary McCarthy, MD, director of the MVH trauma program and the principal investigator of the study said, "PolyHeme will allow us to give lifesaving hemoglobin in the field. It has kept trauma patients alive when they have lost all of their own blood."

Communication to the Public

Public disclosure about the study is required prior to implementation since patients will be enrolled under exception from informed consent because of hemorrhagic shock status. The FDA allows such an exception when patients are in a life threatening situation, available treatments are unproven or unsatisfactory, and the collection of valid scientific evidence is necessary to determine the safety and effectiveness of particular interventions. Consent for participation is then sought from the patient's designated medical power of attorney, eligible family member, or the patient if, or when, he/she would become sufficiently alert to sign the consent. The patient has the right to withdraw from the study at any time without penalty.

To communicate study details to the public, presentations were conducted at eight local county commissioner meetings, as well as the Region 2 EMS meeting in June. Letters about the study were sent to the chief of staffs at all referral centers that utilized CareFlight in 2004, and public notice ads appeared in local newspapers prior to the study's implementation.

For More Information

People who would like to learn more about this study, or those wishing to decline participation by requesting a free wristband with regard to the study, may contact the study coordinator at MVH by calling 937/208-5069, or by sending an e-mail to polyheme@mvh.org. **For more information about the study, go to the MVH web site at www.mvh.org.**

Miami Valley Hospital
July 29, 2005 NUMBER 180

Dispatch

MVH Selected for Groundbreaking National Research Study

Miami Valley Hospital has been selected as one of 25 Level I trauma centers in the U.S. to participate in a clinical trial evaluating the safety and efficacy of PolyHeme, a blood substitute.

The study will compare the survival rate of patients receiving PolyHeme versus patients receiving saline.

PolyHeme is an oxygen-carrying, resuscitative fluid designed to be used when a when blood is not available at a trauma scene. Saline solution (the current standard of care) does not carry oxygen, so the body and its internal organs cannot function effectively and will eventually stop working.

PolyHeme requires no cross matching, making it compatible with all blood types, and has a 12 month shelf life. Since blood is not currently carried in ambulances or on CareFlight, the use of PolyHeme in these settings has the potential to address a critical unmet medical need.

"PolyHeme will allow us to give lifesaving hemoglobin in the field. It has kept trauma patients alive when they have lost all of their own blood," says Mary McCarthy, MD, director of the MVH trauma program and principal investigator of the study.

To learn more about this study or to decline participation, contact the study coordinator at ext. 5069 or by e-mail at polyheme@mvh.org. Information is also posted on the homepage of the MVH web site: www.miamivalleyhospital.com.

The PolyHeme research study primarily targets the 21 area counties in Ohio and Indiana where CareFlight responds to calls for trauma transport.

Ohio		Indiana
Auglaize	Highland	Fayette
Brown	Logan	Franklin
Butler	Mercer	Randolph
Champaign	Miami	Union
Clark	Montgomery	Wayne
Clinton	Preble	
Darke	Shelby	
Greene	Warren	

MVH
Miami Valley Hospital
Level I Trauma Center
One Wyoming Street
Dayton, Ohio 45409
Phone: 937-208-2312

Good Samaritan Hospital
Level II Trauma Center
2222 Phiadelphia Drive
Dayton, Ohio 45406
Phone: 937-276-8121

Trauma Alert

A bi-monthly newsletter from your partners in trauma care

July – August 2005

MVH to Participate in Groundbreaking Blood Substitute Study

Miami Valley Hospital is one of a select number of Level 1 trauma centers in the U.S. chosen to participate in a groundbreaking national clinical trial to evaluate the safety and efficacy of PolyHeme, a blood substitute in treating critically injured and bleeding patients. PolyHeme is manufactured by Northfield Laboratories Inc. in Evanston, Illnois,
is an oxygen-carrying resuscitative fluid designed for use in urgent blood loss when blood is not available. It has a shelf life of over 12 months and requires no cross-matching, making it compatible with all blood types as well as quickly available.

Since blood is not presently carried in ambulances or medical helicopters, the use of PolyHeme in these settings has the potential to address a critical unmet medical need for an oxygen-carrying solution where blood is not available. MVH's CareFlight medical helicopter will begin the study protocol and treatment and continue during a 12-hour, post-injury period at the hospital. The study will compare the survival rate of patients receiving PolyHeme to that of patients receiving the current standard of care, which is saline solution.

Mary McCarthy, MD, Director of Trauma Services and principal investigator is very excited to be a part of this groundbreaking study and stated that "trauma-related injuries are a leading cause of death among Americans under 45 years old. Almost one in five trauma patients die from their injuries. If we begin to treat these patients early with an oxygen-carrying solution and keep their hemoglobin levels up, we may see more survivors."

Additional information about the study is available on MVH's website at www.mvh.org or www.northfieldlabs.com

REMINDER: EMS SYMPOSIUM

The EMS Symposium is scheduled for Saturday, September 24, 2005 at the David H. Ponitz Center at Sinclair Community College. The symposium is sponsored by Miami Valley Hospital's Careflight-Air and Mobile and the Trauma Programs of Miami Valley and Good Samaritan Hospitals. If anyone has not received information regarding the symposium please contact Charlene Williams at 208-3565.

Careflight Scene Flights

Please fax a copy of your completed EMS Run Sheet to the trauma registry numbers listed below for all patients coming by air.
The Children's Medical Center-fax 937-641-6176
Good Samaritan Hospital-fax 937-567-4116
Miami Valley Hospital-fax 937-208-2521

Reminder

EMS providers are **not** to identify GSW's as entry or exit, but simply as a wound. This will keep from having conflicting information with the Trauma Surgeons or Police interpretation/documentation.

EMS Coordinator's Corner

Tom Long, BS, RN, EMT-P
MVH EMS 937-208-2803
Bill Mangas, EMT-P
GSH EMS 937-278-2612 ext. 1428

Trauma Notes

Items to add to your run report:

- Trauma triage criteria used to bring your patient to the trauma center.
- Initial GCS.
- Remember report format of MIVT or Mechanism of injury, Injuries found or suspected, Vital signs, and Treatments.
- Amount of fluid infused once arrived at the trauma center.
- Use of secondary devices for ET tube and secure it!
- During radio reports use MIVT and remember to include ETA. If your patient has a drastic change enroute update the hospital.

Education Dates

ACLS Provider course (3 day) at MVH
October 13, 20, & 27, 2005
8:00am-4:00pm first two days
8:00am-4:00pm third day
ACLS Recertification at MVH
Sept. 15, Nov. 17, 2005 ~8:00am-12:00pm
Oct. 27, 2005 ~12:30pm-4:30pm
BTLS at MVH
Oct. 1-2 & Dec. 3-4, 2005
7:30am-6:00pm

CareFlight

AIR CURRENTS

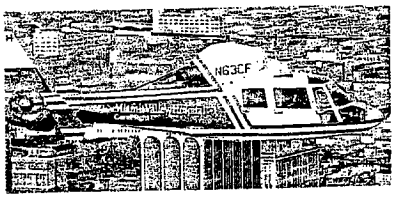
Issue 2 2005

MVH

Miami Valley Hospital

The Region's Leader

CareFlight to Participate in National Study



MVH and CareFlight to Participate in Groundbreaking National Research Study

Counties Where CareFlight May Administer PolyHeme to Trauma Patients:

Ohio
- Auglaize
- Brown
- Butler
- Champaign
- Clark
- Clinton
- Darke
- Greene
- Highland
- Logan
- Mercer
- Miami
- Montgomery
- Preble
- Shelby
- Warren

Indiana
- Fayette
- Franklin
- Randolph
- Union
- Wayne

Miami Valley Hospital is one of 25 Level I trauma centers in the U.S. chosen to participate in a clinical trial to evaluate the safety and efficacy of the PolyHeme blood substitute in treating critically injured and bleeding patients. The study will primarily target the 21 counties where CareFlight responds to calls for trauma transport.

What is PolyHeme?

PolyHeme, manufactured by Northfield Laboratories Inc. in Evanston, IL, is an oxygen-carrying resuscitative fluid designed for use in urgent blood loss when blood is not available. It has a shelf-life of over 12 months and requires no cross-matching, making it compatible with all blood types, as well as quickly available. Since blood is not presently carried in ambulances or on CareFlight, the use of PolyHeme in these settings has the potential to address a critical unmet medical need. The study will compare the survival rate of patients receiving PolyHeme to that of patients who receive the current standard of care, which is saline (salt water) solution. Saline does not carry oxygen, so the body and its internal organs cannot function effectively and will eventually stop working.

Study Protocol

According to study protocol, treatment would begin at the scene, or onboard CareFlight medical helicopters, for hemorrhagic shock. Treatment would continue through the 12-hour, post-injury period at MVH, where a maximum of six units of PolyHeme could be received by patients randomized to the "treatment group."

Patients in the study's "control" group will be comprised of patients initially receiving normal saline, with blood transfusion post-hospital admission should blood be required for resuscitation. The computerized randomization schedule predetermined by Northfield Laboratories avoids potential bias in the study. Each of the helicopters has the capacity to carry one cooler containing PolyHeme and the CareFlight staff will receive intensive training prior to study start-up.

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Mary McCarthy, MD, director of the MVH trauma program and the principal investigator of the study said, "PolyHeme will allow us to give lifesaving hemoglobin in the field. It has kept trauma patients alive when they have lost all of their own blood."

Mary McCarthy, MD

Communication to the Public

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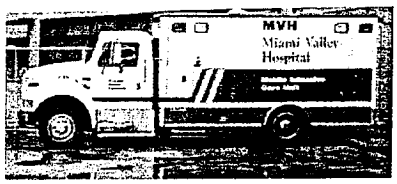

To communicate study details to the public, presentations were conducted at eight local county commissioner meetings, as well as the Region 2 EMS meeting in June. Letters about the study were sent to the chief of staffs at all referral centers that utilized CareFlight in 2004, and public notice ads are scheduled to appear in local newspapers prior to the study's implementation later this summer.

For More Information

People wishing to learn more about this study, or those wishing to decline participation by requesting a free wristband with regard to the study, may contact the study coordinator at MVH by calling 937/208-5069, or by sending an e-mail to polyheme@mvh.org. For more information about the study, go to the MVH web site at www.mvh.org.

Ten Commandments of Airway Control

1. Remain calm!
2. First priority: **ALWAYS** provide bag valve mask (BVM) ventilation.
3. Call for help early and use an assistant.
4. Be organized and have a game plan.
5. Ventilate/oxygenate, then intubate.
6. Keep track of time.
7. If your first intubation attempt fails...think what to do differently the second time to **SUCCEED**!
8. If you cannot intubate, **VENTILATE**!
9. If you cannot intubate and cannot ventilate...use a rescue airway!
10. Practice, practice and more practice...these are perishable skills.

Preparation for intubation...

S - Suction
O - Oxygen
A - Airway equipment
P - Pharmacological agents
ME - Monitoring equipment

LOOK externally...to ID the patient that may be difficult to BVM ventilate...

B - Beards
O - Obesity
N - No teeth
E - Elderly
S - Snorer

Better visualization of the vocal cords...

B - Backward
U - Upward
R - Rightward
P - Pressure on the tracheal cartilage ("Adams apple") with the intubator's right hand.

Post-intubation security...

Q - Quick hold the tube!
R - Restrain the patient.
S - Sedate the patient.
T - "Tie" (secure) the tube.

A Moment with the Medical Director

By Andrew Hawk, MD

ALWAYS remember to confirm ET tube placement...

1. ETCO2 detection device (i.e. Easy Cap)
2. Bilateral lung sounds
3. Pulse oximetry

Other helpful indicators include fogging in the tube, absence of air movement in the abdomen, and the patient's inability to phonate.

WHEN IN DOUBT consider a "second look" with the laryngoscope.

WDTN-TV News Story
May 24, 2005
Miami Valley Hospital

Kelly: ...details of research that is so promising. Marcia...

Marcia: Well, Miami Valley Hospital is one of only twenty in this country to be selected as a location to test PolyHeme. It's a fluid that carries a few of the necessary ingredients that can help save you if you've had major blood loss. Trauma patients in any kind of accident can lose horrific amounts of blood, and since blood is not carried in ambulances or medical helicopters, a blood substitute has been developed specifically for those emergencies...

McCarthy: This substitute will allow us to give patients blood in the field without requiring type and cross match...

Marcia: It's class PolyHeme, an oxygen carrying solution made from blood cells...

McCarthy: And those red blood cells are taken and then lysed with a product and that releases the hemoglobin...

Marcia: PolyHeme will help stabilize patients who have lost massive amounts of blood in emergency situations, but there is still a critical need for blood donations...

Woman: It's only a short-term substitute. It only circulates for less than two days. So, it may be to get people over humps, if you will, over a critical period. But it's not a long-term substitute for red cells...

Marcia: Dr. Mary McCarthy is a trauma specialist at Miami Valley Hospital. She presented information about PolyHeme to Montgomery County Commissioners. She let them know unless there is a major public objection, PolyHeme will be tested through clinical trials beginning in August...

Dr. McCarthy: We are hoping to enroll as many people in our area as are candidates for the study...

Marcia: Now, PolyHeme will be presented to seven other county commissions over the next ten days. In the mean time, if you want to decline participation in the PolyHeme Study there is the number for you to call (208-5069). That is if you want to decline participation in the study. In the mean time, the blood center, the community blood center in downtown Dayton is having a donation party Friday at its 349 South Main Street headquarters from 7:30 in the morning until 5. Free parrothead t-shirts and free tickets to Kings Island to those donate. Mark and Kelly...

FEEBACK FORM FOR PARTICIPANTS

Community Consultation

Please circle your answers

1. Would you support a study such as the one described at this meeting being conducted in this community, specifically, a study in which severely injured and bleeding patients would be enrolled without giving their informed consent?

Yes No

2. If you were severely injured and bleeding and were being treated by the paramedics in your community, would you want to be enrolled in this type of study?

Yes No

3. If a family member of yours were severely injured and bleeding and were to be treated by the paramedics, would you want him or her to be enrolled in this type of study?

Yes No

4. Do you have any comments or concerns you wish to share with the investigators?

_____

_____

_____

_____

_____

_____

_____

Age: _____ Ethnic background: _____

Gender: Male _____ Female _____

Thank you for your participation today.
Please call Susan Mallett at 208-5069 if you have any other questions.