**RESEARCH INFORMED CONSENT & HIPAA AUTHORIZATION FORM**

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| **TITLE OF STUDY:** | **Hyperbaric Oxygen Brain Injury Treatment (HOBIT) Trial** |
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| **Granting Agency:**  | **National Institute of Neurological Disorders and Stroke (NINDS)**  |
| **Study Doctor:** | **«PiFullName»** |
| **Telephone:** | **«IcfPhoneNumber»** |
| **Additional Contact(s):** | **«AdditionalStaffMemberContacts»** |
| **Address:** | **«PiLocations»** |

**Key Information**

Your family member (or a person you represent) has been diagnosed with a traumatic brain injury (TBI). He or she may be eligible to participate in a research study being conducted here. The purpose of the research study is to learn whether a new study treatment for subjects with TBI is likely to help them get better. The purpose is also to determine the best dose. The study treatment being studied is giving 100% oxygen at higher than normal pressures inside a chamber, also called [hyperbaric oxygen therapy or HBOT](https://docs.google.com/document/d/1c0yhhlvPQthRH4_616IcxPpK8zJYcecRfxhAdER8_MQ/edit). HBOT is routinely used for other conditions but not in subjects with TBI. It is unknown if adding HBOT to the standard care given to TBI patients is more effective, less effective, or the same as standard care alone. It is also unknown whether blood tests can be useful for monitoring how well patients respond to TBI treatments.

Participants in this study are assigned at random, that is by chance, to standard care alone or standard care plus HBOT. HBOT involves participants being transported from the intensive care unit (ICU) to a pressure chamber twice a day for 5 days. Different participants will get different doses, or pressures, of HBOT.

One teaspoon of blood (15 ml) will be drawn once every eight hours during the first day of enrollment and once on each of the following days: days 2, 3, 5, 7, 14 and at 6-months following injury. The initial blood sample will be obtained as soon as feasible and within 24 hours of injury.

Participants and their families will be contacted by telephone at intervals and will have a follow up visit 6 months after the injury to determine how well participants are recovering. Participants medical records through this period will also be reviewed. About 200 participants will be enrolled at about 20 hospitals in North America.

Participation in the study will help doctors learn the best way to treat future victims of TBI. Participants may or may not directly benefit from being in the study. Some participants may benefit directly from the investigational study treatment if it promotes healing from TBI. Participation may also have risks. Some risks are currently not known. Known risks include injury to the brain or lungs from high pressure oxygen, complications related to transport to and from the pressure chamber, breach of confidentiality or other adverse effects.

Participation in this study is entirely voluntary. If you decide not to have your loved one participate, they will receive the standard medical care for their TBI. There is no penalty for choosing not to participate. A participant can withdraw from the study at any time.

Medical records and data collected in the study will remain as confidential as possible. Participants’ records may be viewed by the study team here or from the study coordinating centers, by the Institutional Review Board, or by those providing Federal Government funding, oversight and regulation of the study.

There is no payment or compensation for participating in the study. There is no cost to participating in the study. Charges for all standard medical care will be billed in the same manner regardless of participation.

Please contact us for any questions about the research, participants’ rights, or other research related concerns.

• Please carefully read this form, additional detail about each item just described is found below
• Please listen to the study team explain the study and this form to you
• Please ask questions about anything that is not clear

If you consent, you will be asked to sign this form.

# What is the purpose of this research study?

The purpose of this research study is to determine whether high doses of oxygen given under pressure in a chamber can help subjects with severe TBI recover with less disability. Prior studies show that oxygen delivered under pressure in a chamber may be beneficial in healing the injuries occurring to the brain in patients suffering a severe TBI. The word hyperbaric means to increase the pressure around the subject. This feels similar to the pressure a person feels when they dive into a body of water. The best pressure and length of oxygen study treatment is not known. This study is designed to answer these questions. [Hyperbaric oxygen therapy or HBOT](https://docs.google.com/document/d/1c0yhhlvPQthRH4_616IcxPpK8zJYcecRfxhAdER8_MQ/edit) is a standard approved therapy for other conditions, but not for subjects with severe TBI. HBOT for TBI is investigational, which means it has not been approved by FDAor Health Canada for use outside of research studies like this one. It is unknown if adding HBOT to standard care is more effective, less effective, or the same as standard care alone.

Blood and cerebrospinal fluid (CSF) samples collected will be used for monitoring changes that occur in the brain after a severe TBI.

**How long will the participant be in the study? How many people will be in the study?**

Participation in this study can last up to 6 months. We will enroll about 200 participants from about 20 hospitals across North America. This research study is designed so that nobody is excluded from participation on the basis of sex, race, or national origin.

**What is a hyperbaric oxygen treatment (HBOT) and what does it involve?**

Many participants in this study will receive hyperbaric oxygen treatments or HBOT. These hyperbaric treatments involve the participant being transported from the ICU to specialized areas of the hospital with one or more hyperbaric chambers. There are different types of hyperbaric chambers. Some hyperbaric chambers are large tubes sized to contain a single person, others are the size of a room and may include two or more people. In order to receive the treatment, participants are transported from the ICU to the hyperbaric chamber. The participant will be placed in the chamber and the chamber door will be sealed. The pressure of the air inside the chamber surrounding the person is then slowly increased. The participant will be breathing 100% oxygen in the chamber. Each treatment will be approximately 90 minutes long. A critical care nurse(s) and other clinicians continuously tend to the participant inside or just outside the chamber. After each treatment, the participant will be transported back to the ICU. Critical care staff also accompany participants when they are transported between the ICU and the hyperbaric chamber. Complications of transporting participants are rare (may occur in 2 - 10 out of 100 persons) and are usually rapidly corrected. Complications of transport can include interruptions of continuous medications, disconnected IV lines or ventilator tubes, or injuries moving between beds or gurneys. Participants may be out of the ICU for about 3 to 4 hours for each treatment.

**What will happen to the participant in this study?**

* Participants will receive usual treatment for TBI, no matter to which study group they are assigned.
* Participants will be randomly, that is by chance, placed in one of eight study groups. One group will receive the usual amount of oxygen. Another group will receive a high dose of oxygen that is not pressurized. The remaining six groups will receive a high dose of oxygen that is delivered for different amounts of time and with different amounts of pressure inside a hyperbaric chamber.
* Study treatments will be performed twice a day for 5 days. Study treatments could be skipped or stopped sooner if the participant can no longer safely be transported to or treated in the pressure chamber.
* Participants that receive HBOT will have a myringotomy. This is a pinpoint-sized hole made in each eardrum to relieve discomfort caused by pressure changes in the chamber.
* Information from the participants’ medical records will also be collected.
* Contact information for the participant, you, family members, close friends, or caregivers will be collected in order to perform telephone interviews during the study.
* Approximately 30 and 90 days after injury, the participant will receive a phone call from a study team member who will ask questions about how he/she is doing, if they have had any additional medical problems, and if any contact information has changed. These interviews will take about 30 minutes each. caregivers who know how the participant is doing may be interviewed as well.
* At approximately 6 months after injury, the participant will be asked to return to the clinic for an interview. Caregivers who know how the participant is doing may be interviewed as well. If he/she is not well enough to travel, the interview can be conducted by telephone. If the participant is not available a caregiver may be interviewed.
* One tablespoon (15 ml) of blood will be collected every 8 hours during the first 24 hours following injury, and then once a day on days 2, 3, 5, 7 and 14. We will also collect one tablespoon of blood at the 6-month visit. The first blood draw will be performed shortly after they are enrolled in the main study and within 24 hours of injury.
* If an external ventricular drain is placed by the participant’s doctors so they can measure intracranial pressure (ICP) as part of clinical care, we will collect one teaspoon (5 ml) of cerebrospinal fluid (CSF) every 8 hours during the first 24 hours of enrollment and once a day during the first 5 days (if the external ventricular drain is still in place).
* Blood will be processed into blood components (serum and plasma) and genetic material (DNA, mRNA). Analyses may include whole genome sequencing.

LONG TERM STORAGE OF BLOOD and CSF SAMPLES FOR FUTURE RESEARCH

We would like your permission to store samples of blood and CSF taken to study neurological diseases in the future. If you agree, the blood and CSF could be stored for a long time, even after your death.

* After temporary storage at the local hospital, biological samples will be sent to a repository for indefinite long-term storage. Only a unique participant number will be used to identify the participant’s information and biological sample. The biological samples may be provided to researchers at academic institutions, hospitals, national repository and biotechnology/pharmaceutical companies. De-identified (all identifying information has been removed) clinical and genetic data may be provided to the researchers requesting biological samples. These researchers may perform analysis of the biological samples provided by the participant. As this is done for research purposes, no results will be given.
* The biological samples provide genetic material, which could be used for studies designed to identify the genes that affect recovery from TBI. In addition, the data and samples may also be used to study other diseases.

If you decide not to give your permission for long-term storage of your blood or CSF samples you can still participate in this study. We will ask you to indicate whether or not you give your permission at the end of this form.

# What are the possible risks and discomforts?

* Injury to the lung is an uncommon risk (may occur in 2 - 10 out of 100 persons) of HBOT, but dangerous irreversible injury is rare (may occur in less than 2 out of 100 persons).
* Complications from transport of the participant to and from the pressure chamber also pose a risk but are also uncommon (may occur in 2 - 10 out of 100 persons).
* Pneumothorax, temporary collapse of a lung, is a rare (may occur in less than 2 out of 100 persons) complication of HBOT.
* Seizure during treatment is a rare (may occur in less than 2 out of 100 persons) complication of HBOT.
* Risk of pneumonia, infection of the lung, may rarely (may occur in less than 2 out of 100 persons) be increased by HBOT.
* Complications from the myringotomy (hole placed in ear drum) including ear infection, delayed healing or persistently decreased hearing are rare (may occur in less than 2 out of 100 persons).
* Breach of confidentiality is a rare risk of participation in research studies (may occur in less than 2 out of 100 persons).
* Fires related to the oxygen rich environment in a hyperbaric chamber are extremely rare (may occur in less than 1 out of 1000 persons).
* Risks from sample collection: Blood sampling may be obtained by an indwelling tube (catheter) that is standard of care. A rare risk is infection of this catheter from sampling (occurs in < 1% or < 1 out of 100 patients). If a catheter is not available, a venipuncture may be performed. A venipuncture can cause slight discomfort, bruising and infection at the site. Fainting is an infrequent risk from blood drawn by venipuncture. There is a rare risk of infection from collecting the CSF sample. Best clinical practice guidelines will be performed by trained professionals to minimize this risk.
* Risks of Genetic Testing: A possible risk from participation in this study involves loss of privacy as a result of providing biological samples for research. Although genetic information is unique to the participant, some genetic information is shared with children, parents, brothers, sisters, other blood relatives, and members of your ethnic group. Consequently, it may be possible that genetic information from them could be used to help identify the participant. Similarly, it may be possible that genetic information from the participant could be used to help identify them. While information traditionally used for identification will not be released (i.e. name, date of birth, address, telephone number), people may develop ways in the future that would allow someone to link genetic or medical information back to the participant.
* A new Federal law, called the Genetic Information Nondiscrimination Act (GINA), generally prohibits health insurers or health plan administrators from requesting or requiring genetic information of an individual or an individual’s family members. These health insurers or health plan providers also are prohibited from using such information for decisions regarding coverage, rates, or preexisting conditions. GINA also prohibits employers from using genetic information for hiring, firing, or promotion decisions, and for any decisions regarding terms of employment. Furthermore, the researchers have adopted strict privacy and confidentiality procedures for maintaining genetic information as described in this consent form. You should be aware, though, that if the participant’s genetic information were accidentally released to the wrong source, federal law does not protect against genetic discrimination by companies that sell life insurance, disability insurance, long-term care insurance, or by adoption agencies.

The researchers have taken steps to minimize these risks. The study team will monitor closely for these possible risks, discontinue HBOT at the first indications, and treat complications if needed.

To reduce any potential risk to an unborn child, women of childbearing potential, will have a pregnancy test and if pregnant cannot be included in this research study.

As with any research study, there may be additional risks that are unknown or unexpected.

# What is the possible benefit?

The participant may or may not benefit from being in this study. However, if HBOT helps traumatic brain injury patients recover with less disability, it will be an important advancement in the treatment of brain injury.

# What is the alternative to participating in this study?

Participation in this study is voluntary. The alternative to participating in the trial is usual care. The usual care offered may depend on the treating hospital, opinion of the doctors caring for the individual, or upon characteristics of the patient or their injury. There is no penalty for choosing not to participate. The participant may withdraw from the study at any time, either by his/her choice or at the direction of the participant’s legally authorized representative. Choosing not to participate or choosing to withdraw will not alter the usual care available. Nor does it alter or waive any legal rights or benefits.

# What if new information becomes available?

We will provide you/the participant in a timely manner, with new information that may affect his/her willingness to continue participation. You may be contacted about future studies available. We may also contact you and the participant with periodic updates about the study, and when the study is completed to share the results from this study.

# How will personal information be protected?

The study doctor and his/her collaborators will consider the participants’ personal information confidential to the extent permitted by law. “Personal Information” means any information that can be used to identify the participant, including name or initials, date of birth, gender, ethnic origin and medical and health-related information such as blood tests, diagnostic images and imaging results, the results of physical examinations, medical history and hospital records. We will keep the participants’ study information in a secure location during and after the study. Only the members of the study team and the persons and entities listed below will have access to the participants’ medical information for this study.

The government agencies responsible for making sure that studies are conducted and handled correctly, and other organizations involved in this research study may look at your study records in order to perform their duties. These include: the US Food and Drug Administration (FDA), Health Canada, the US Office for Human Research Protections, the US National Institute of Neurological Disorders and Stroke, researchers from Hennepin County Medical Center, representatives from the Strategies to Innovate Emergency Care Clinical Trials Network (SIREN) Clinical Coordinating Center at the University of Michigan, representatives from the Data Coordination Unit at the Medical University of South Carolina, the research ethics review board - Advarra IRB (an independent ethics committee that reviewed the ethical aspects of this study to help protect the rights and welfare of study participants), and/or other agents of the study who will be bound by the same provisions of confidentiality.

Information from this study may be submitted to the US Food and Drug Administration and Health Canada where the study intervention might be considered for approval for treatment of TBI.

To help us protect your privacy, this research is covered by a Certificate of Confidentiality from the United States National Institutes of Health. With this Certificate, the study doctors may not disclose research information that may identify you in any United States Federal, State, or local civil, criminal, administrative, legislative, or other proceedings, unless you have consented for this use. Research information protected by this Certificate cannot be disclosed to anyone else who is not connected with the research unless there is a law that requires disclosure, you have consented to the disclosure, the research information is used as allowed by federal regulations. Disclosure is required, however, for audit or program evaluation requested by the agency that is funding this project or for information that is required by the United States Food and Drug Administration (FDA) or Health Canada. A Certificate of Confidentiality does not prevent the participant from voluntarily releasing information about themselves or their involvement in this research. If the participant wants research information released to someone, the participant must provide consent to allow the researchers to release it.  The certificate covers disclosures involving participants enrolled in Canada in US legal proceedings, but does not cover disclosures in proceedings outside the US.

The Certificate of Confidentiality will not be used to prevent disclosure as required by federal, state, or local law of, for instance, child abuse or neglect, harm to self or others, and communicable diseases.

The Certificate of Confidentiality will not be used to prevent disclosure for any purpose you have consented to in this informed consent document.

The study doctor is required by law to protect the study participants’ health information. By signing this document, you authorize the study doctor to use and disclose the participant’s health information, as described in this section, in order to conduct this research study. State law or the enrolling institution may require an additional separate form on which you can authorize sharing of the participant’s health information.  If so, you will have to sign both forms for your authorization to be valid.

You have the right to revoke this authorization, at any time, and can do so by writing to the study doctor at the address on the first page. Even if you revoke the authorization, the study doctor and/or sponsor may still use health information they have collected about the study participant, if necessary for the conduct of the study. However, no new information will be collected.

Your authorization does not have an expiration date.

You do not have to sign this information and consent form, but if you do not, your loved one will not be able to take part in this research study.

Those persons who receive the participant’s health information may not be required by Federal privacy laws (such as the Privacy Rule) to protect it and may share the information with others without your permission, if permitted by laws governing them.

Although every effort will be made to maintain confidentiality of the participant’s medical and health records, absolute confidentiality cannot be guaranteed. We will use a study number rather than the participants’ name on study records where we can. The participants’ name and other facts that might point to the participant will not appear when we present this study or publish its results. Viewing or storing this electronic informed consent form on a personal electronic device may allow information you provide on this form (such as your name and email address) to be inadvertently shared with others if the device is lost, hacked, or otherwise compromised.

If the participant is transferred to another facility prior to the end of their participation in this study, your signature on this document authorizes the study doctor (principal investigator (PI)), sub-investigator(s), or members of the Executive Committee of this study to access the participants’ medical records at the new facility, if necessary.

We will keep any records that we produce private to the extent we are permitted or required to do so by law.

By signing this information and consent form, you consent to the collection, access, use and disclosure of the participant’s information as described above.

**How may the participants’ data and samples be shared?**

US Federal rules require that data be securely stored in the Federal Interagency Traumatic Brain Injury Research (FITBIR) informatics system where it can also be accessed by researchers in a de-identified manner. For more information see the website <http://fitbir.nih.gov>

If you agree to long-term storage of blood and cerebrospinal fluid samples, they may be provided to researchers at academic institutions, hospitals, and biotechnology/pharmaceutical companies.

# Will the participant have to pay anything?

There is no cost to participating in the study. Charges for all standard medical care will be billed in the same manner regardless of participation. The HBOT and the myringotomy, are performed only because of participation in the study and will not be charged to the participant, a public health plan or the participant’s private medical insurer (if any). Funds are not available to cover the costs of any ongoing medical care and the participant remains responsible for the cost of non-research related care. For questions about the participants’ medical bill relative to research participation, contact the site researcher listed on this form.

**Will the participant be paid for being in the study?**
No. There will not be any payment to the participant for being in this study.

**What if the participant is injured as a result of being in this study?**
If a participant is injured or becomes ill from participating in the study, medical treatment will be available at this institution or elsewhere consistent with the care provided for any medical problem. Payment for this care will be billed the same as any other care for any medical problem. If the hospital at which the participant was enrolled has any additional answers to this question, this information is found at the bottom of this form.

In the event that the participant suffers injury as a result of their participation in this research study, no compensation will be provided to the participant by the granting agency (National Institute of Neurological Disorders and Stroke), the treating institution, or the researchers. The participant still has all of their legal rights. Nothing said here about treatment or compensation in any way alters the participants’ right to recover damages.

# Is there anything else I need to know?

Participation in this study is entirely voluntary. The participant may withdraw from the study at any time and for any reason without penalty or loss of any benefits to which they are otherwise entitled. Information and samples collected prior to withdraw of participation will remain in the study. The researcher may discontinue your participation if the study is discontinued or suspended or for other reasons.

Doctors caring for the participant during this hospitalization may also be researchers in this study. If so, the doctors are interested both in your medical care and in the conduct of this research. There is no obligation to participate in any research study just because it is offered by your loved one’s doctors.

During the study, if the participant experiences any medical problems, suffers a research-related injury, or if you or the participant have questions, concerns or complaints about the study, please contact the Investigator at the telephone number listed on the first page of this consent document.  If the participant seeks emergency care, or hospitalization is required, alert the treating physician that they are participating in this research study.

An institutional review board (IRB) is an independent committee established to help protect the rights of research subjects.  If you have any questions about the participant’s rights as a research subject, and/or concerns or complaints regarding this research study, contact**:**

* By mail:

Study Subject Adviser

Advarra IRB

6940 Columbia Gateway Drive, Suite 110

Columbia, MD 21046

* or call **toll free**:        877-992-4724
* or by **email**:              adviser@advarra.com

Please reference the following number when contacting the Study Subject Adviser: Pro00024234.

A description of this clinical trial will be available on www.ClinicalTrials.gov, as required by U.S. Law. This Web site will not include information that can identify the participant. At most, the Web site will include a summary of the results. You can search this Web site at any time.

Your signature on this form indicates that you understand to your satisfaction the information about participation in the HOBIT research study and agree to allow the participant to be in the study. In no way does this waive you/the participants’ legal rights nor release the study doctors, sponsors, or involved institutions from their legal and professional responsibilities.

May we store your blood samples for use in a future research study to learn more about neurologic diseases?

\_\_\_\_\_Yes

\_\_\_\_\_ No

May we store your cerebrospinal fluid samples for use in a future research study to learn more about neurologic diseases?

\_\_\_\_\_Yes

\_\_\_\_\_ No

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Participant’s Name

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Your Name (Legally Authorized Representative, LAR)

Your relationship to participant

* Spouse
* Child
* Parent
* Sibling
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Your Signature (LAR) Date Time

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Principal Investigator/Designee Name Title

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