

The Hyperbaric Oxygen Brain Injury Treatment (HOBIT) Trial at The University of Maryland Shock Trauma Center

By Arin Jayes

On July 29th at 6 PM via Facebook Live, I will have the pleasure of interviewing Dr. Kinjal Sethuraman, Principal Investigator of the HOBIT Trial at The University of Maryland's Shock Trauma Center. I will be asking Dr. Sethuraman questions about this innovative form of brain injury therapy as well as soliciting questions from BIAMD members. Here is a sneak peak into this fascinating trial and it's impact on individuals with brain injury in Maryland:

HOBIT stands for Hyperbaric Oxygen Brain Injury Treatment. Patients inhale 100% oxygen at higher than atmospheric pressure (in a pressurized chamber). For brain injury patients, this therapy reverses the lack of oxygen that precipitates cellular energy failure and brain cell death by increasing oxygen delivery to the traumatized brain. Hyperbaric oxygen therapy (commonly abbreviated HBO2) dates back to the 1930s, when it was first used for treatment of decompression illness in divers. There are currently 13 FDA-approved uses for HBO2, including decompression illness, gas gangrene, air embolism, osteomyelitis, radiation necrosis, and the most recent addition-diabetic ulcers.

Past studies have indicated that HBO2 has a positive impact on reducing brain injury and improving outcomes in severe TBI. The HOBIT Study is in phase II, and prior to beginning phase III, important information is required regarding the pressure, frequency, and other parameters of the HBO2 treatment schedule. The lungs in severe TBI patients have frequently been compromised by direct lung injury and/or acquired ventilator pneumonia and are susceptible to O2 toxicity. This is why it is essential to determine the most effective HBO2 dose schedule without producing O2 toxicity and clinical complications. Subsequently, the primary aims of this phase II HOBIT trial are to select patients with severe TBI and identify the combination of HBO2 treatment parameters that is most likely to demonstrate improvement in the outcome of severe TBI patients in a subsequent phase III trial.

This trial is supported and sponsored by the SIREN-NETT Network which is funded by the National Institutes of Neurologic Disease and Stroke. The Center for Hyperbaric Medicine at UM Shock Trauma has the only multi-place hyperbaric chamber in the State of Maryland, and the center can accommodate up to 23 patients and care providers per dive. To learn more about Hyperbaric Medicine at The University of Maryland Shock Trauma Center, watch [this video](#) or call 410-328-6152.

To learn more about the HOBIT trial's outcome measures, eligibility criteria, and other participating institutions across the country, visit the [U.S. National Library of Medicine's website](#). This treatment is a potential large step toward changing outcomes for severe TBI patients. I look forward to learning more about this study on July 29th at 6 PM, and I invite members to join us on Facebook Live!

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