|  |  |  |  |
| --- | --- | --- | --- |
| ED | INITIAL IDENTIFICATION AND NOTIFICATION OF HOBIT TRIAL PATIENTS | Time Done |  |
|  | HOBIT eligibility met pending head CT results |  |  |
|  | If patient has pacemaker/AICD/insulin pump/other implantable device, verify that the device is cleared for HBO treatment at **2.5 ATA** pressure PRIOR TO ENROLLMENT (if unsure, check with manufacturer) |  |  |
|  | LAR identified |  |  |
|  | Head CT inclusion criteria met. Patient eligible for enrollment |  |  |
|  | HBO team is notified |  |  |
|  | ICU is notified |  |  |
|  | LAR is located and Informed consent is obtained |  |  |
|  | Patient is randomized in WebDCU |  |  |
|  |  |  |  |
| ICU | INITIAL PREP FOR HYPERBARIC TREATMENT | Time Done | HBO RN |
|  | Remove all clothing, jewelry, medication/other patches leaving patient gown (notify HBO team if exceptions are made) |  |  |
|  | Bilateral myringotomies |  |  |
|  | IV Tubing is changed to HBO compatible tubing. |  |  |
|  | Label all IV tubing/pump as “Hyperbaric Tubing” |  |  |
|  | Obtain CXR if significant changes occur in ventilatory/oxygenation status or invasive procedure performed |  |  |
|  | ETT tube is secure and marking at lips is noted at: |  |  |
|  | Correct any abnormalities in vital signs and ICP |  |  |
|  | Check blood glucose within 1 hour of transport to chamber (Hold HBO treatment if glucose <100) |  |  |
|  | Cover / protect any sharp objects that cannot be removed, such as fixators. |  |  |
|  | Cover open wound with dry dressings. Make sure wound/chest tube dressings are not saturated with petroleum/glycerin. Remove dressings containing alcohol. |  |  |
|  | Bring all IV medications and solutions (scheduled and PRN) for next 4-6 hours. |  |  |
|  | Hep-lock non-essential IV ports. Note: monoplace chamber only has 6 ports and cannot piggyback. |  |  |
|  |  |  |  |
|  |  |  |  |
| ICU | EQUIPMENT PREPARATION | Time Done | HBO RN |
|  | If monoplace or appropriate: Remove chest tube suction and apply Heimlich valve to chest tube. |  |  |
|  | If using Heimlich valves drain to Foley bag or other methods |  |  |
|  | Place NG tubes to sputum trap or other methods for drainage |  |  |
|  | If appropriate: Turn off feeding tube, flush and clamp for HBO treatment. |  |  |
|  | Empty Foley and ostomy bags. |  |  |
|  | ETT tube cuff has been changed from air to NS by RT. Note: Follow VAP protocol for deflating cuff. |  |  |
|  | HBO gurney is brought to the ICU unit. |  |  |
|  | Empty external ventricular buretrol drain system |  |  |
|  | Subdural drains are clamped off |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| ICU | 30 MINUTES PRIOR TO TRANSPORT TO HBO | Time Done | HBO RN |
|  | Confirm that lung sounds with ventilation equal and bilateral. Suction as needed. |  |  |
|  | Notify HBO team of estimated time of transport to hyperbaric medicine department. |  |  |
|  | Sedate & paralyze patient for transport to HBO department. (Bring extra meds) |  |  |
|  | Confirm that Monitors, IV pumps, pressure lines, Resuscitation bag, and transport ventilator are all ready for transport. |  |  |
|  | Move patient onto HBO2 gurney when transport team arrives |  |  |
|  | Elevate head of the bed to 30 degrees for HBO2 treatment. |  |  |
|  |  |  |  |
|  |  |  |  |
| ICU | DURING TRANSPORT TO HBO | Time Done | HBO RN |
|  | Closely monitor ICP, blood pressure, and ventilator parameters |  |  |
|  |  |  |  |
|  |  |  |  |
| ICU | AT HYPERBARIC UNIT - NURSING CARE | Time Done | HBO RN |
|  | HBO2 team is briefed by ICU nurse on patient’s condition, meds, labs (including glucose) and any concerns. |  |  |
|  | Ensure no equipment is hidden under patient or under patient bedding, pillow, etc.. |  |  |
|  | Place wrist restraints on both arms. |  |  |
|  | If Monoplace chamber: Apply ground strap to patient |  |  |
|  | Move monitor leads (ECG, etc.) to the hyperbaric monitors and ensure they are reading properly. |  |  |
|  | Replace all wet or moist bedding with dry bedding before starting HBO2 treatment. |  |  |
|  | Ensure pressure lines are set up for hyperbaric treatment and calibrated properly. |  |  |
|  | Ensure pressure bags have been changed to hyperbaric compatible devices (e.g. Ethox) for pressure lines. |  |  |
|  | Ventriculostomy/intra-parenchymal device is setup for hyperbaric TX and calibrated properly. Pressures are reading correctly. |  |  |
|  | If monoplace, ventric controller device (to be supplied) is properly installed and working properly |  |  |
|  | NIBP monitor (if used) is setup and correlating properly with art-line pressures. |  |  |
|  | If monoplace, clamp JP drains. |  |  |
|  | Verify chest tubes set up properly. |  |  |
|  | Verify that approved hyperbaric IV tubing has been changed to hyperbaric IV Pumps. |  |  |
|  | IV Pumps are set to proper flow rates and alarms are properly set. |  |  |
|  | Verify that the IV Pumps and tubing are working properly after set up for hyperbaric treatment. |  |  |
|  | NG tube ready |  |  |
|  | Foley bag set properly for draining |  |  |
|  | Dressing approved or mitigations carried out |  |  |
|  | Mitigation orders completed for variances |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| RT | AT HYPERBARIC UNIT - RESPIRATORY CARE | Time Done | HBO RN |
|  | HBO2 team is briefed by RT on patient’s ventilator parameters and respiratory condition, with any concerns. |  |  |
|  | Verify hyperbaric ventilator is set for correct parameters. |  |  |
|  | Verify ETT is secure and at the proper location (tube markings to lips). |  |  |
|  | Verify breath sounds for proper ventilation, bilateral and equal. |  |  |
|  | RT to suction ETT and secretions above cuff as needed prior to starting HBO2. |  |  |
|  | Verify cuff has NS (not air) and cuff pressure is set properly. (may use minimal leak technique) |  |  |
|  | RT to communicate / report to HBO RN on patient’s readiness for HBO2 treatment. |  |  |
|  | Patient on Hyperbaric ventilator at (Time): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |
|  | Hyperbaric Ventilator settings: Vt \_\_\_\_\_\_\_\_\_\_\_\_\_ RR \_\_\_\_\_\_\_\_\_\_\_ Min. Ventilation (MV) \_\_\_\_\_\_\_\_\_\_\_\_\_  PIP (proximal /distal) \_\_\_\_\_\_\_\_\_\_\_ /\_\_\_\_\_\_\_\_\_\_\_ PEEP \_\_\_\_\_\_\_\_\_\_\_ End Tidal (ETCO2) \_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |
|  | Ohmeda Vol. Monitor working properly and alarms set |  |  |
|  | Mechanical Spirometer is placed on exhaust side, visible and working properly.  **Note:** Spirometer needle should not move during inspiration, only during exhalation. |  |  |
|  | ETT suctioned prior to HBO2: YES / NO Description \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |
|  | RT to log a thorough respiratory and ventilator check after patient is transferred to hyperbaric ventilator. |  |  |
|  | RT to ensure oxygen equipment is ready for return transport to ICU after HBO2 treatment. |  |  |
|  | Arterial blood gas (ABG) completed after placed on hyperbaric ventilator |  |  |
|  | ABG values: |  |  |
|  |  |  |  |
|  |  |  |  |
| HBO team | HYPERBARIC FINAL CHECKS | Time Done | HBO RN |
|  | Pressure lines are calibrated and reading properly. |  |  |
|  | IV lines all working properly and alarms set. |  |  |
|  | Ventilator is working properly, alarms set, patient suctioned and tubing drained. |  |  |
|  | NIBP monitoring is working properly, (if used). |  |  |
|  | No extraneous equipment left on gurney, under bedding or around patient. Ex: finger oximeter. |  |  |
|  |  |  |  |
| HBO Team | SAFETY PAUSE / TIMEOUT | Time Done | HBO Tech |
|  | Chamber operator to conduct “SAFETY PAUSE” for Team |  |  |
|  | Chamber comm system working properly |  |  |
|  | Final clearance to treat by HBO Supervising MD |  |  |
|  |  |  |  |
|  |  |  |  |
| HBO Team | DURING HYPERBARIC TREATMENT | Time Done | HBO RN |
|  | HBO team to monitor patient continuously |  |  |
|  | RT to operate Hyperbaric ventilator and record on ventilator flow sheet. (Q15 minutes) |  |  |
|  | Nursing documentation completed. |  |  |
|  | Coordinate with transport team when to transport patient back to the ICU. |  |  |
|  | Ensure ICU monitors and all transport equipment is plugged in and charging during HBO2 treatment. |  |  |
|  |  |  |  |
|  |  |  |  |
| HOBIT Team | POST HYPERBARIC TREATMENT | Time Done | HBO RN |
|  | If Monoplace chamber: Disconnect Pt ground and slide patient litter onto gurney. |  |  |
|  | If Monoplace chamber: RN remove IV lines from chamber and replace lines into ICU IV pumps. |  |  |
|  | Transfer patient ECG leads to transport monitors. |  |  |
|  | Transfer pressure lines to transport monitor and re-calibrate for transport. |  |  |
|  | Replace pressure infuser devices with ICU pressure bags and inflate properly. |  |  |
|  | Reconnect JP drains, chest tubes, etc. for transport. |  |  |
|  |  |  |  |
| RT | POST HYPERBARIC TREATMENT - RESPIRATORY CARE | Time Done | HBO RN |
|  | Get oxygen equipment and respiratory equipment ready for transport back to ICU. |  |  |
|  | Place patient on transport ventilator. |  |  |
|  | RT to check ETT cuff pressure using minimal leak technique. |  |  |
|  | RT to assess breath sounds and suction as required. |  |  |
|  | RT to do final ventilator check and record on hyperbaric ventilator flow sheet prior to transporting patient. |  |  |
|  |  |  |  |
| ICU | DURING TRANSPORT TO ICU | Time Done | HBO RN |
|  | Closely monitor ICP, blood pressure, and ventilator parameters |  |  |
|  |  |  |  |
| ICU | PATIENT ARRIVAL AT ICU | Time Done | HBO RN |
|  | ICU Ventilator checked for proper parameters and function. |  |  |
|  | All IV and Pressure lines connected to ICU monitors. |  |  |
|  | Breath sounds assessed and patient suctioned as required. |  |  |
|  | ETT tube cuff checked for proper pressure using minimal leak technique. |  |  |
|  | RT to complete vent flow sheet and documentation. |  |  |
|  |  |  |  |
|  |  |  |  |
| Title | HOBIT TEAM SIGNATURES & INITIALS | **Initials** |  |
| **ED RN** |  |  |  |
| **ED RN** |  |  |  |
| **HBO RN** |  |  |  |
| **HBO RN** |  |  |  |
| **ICU RN** |  |  |  |
| **ICU RN** |  |  |  |
| **RT** |  |  |  |
| **RT** |  |  |  |
| **Study RN** |  |  |  |
| **HBO MD** |  |  |  |