2015-16

MHC

O2

Healing with Oxygen™

Annual Competencies

Guidebook

introduction

Our patients deserve the best possible *experience* in the best possible *environment*

Welcome! This booklet will guide you through the MHC education requirements for your position. Whether you are a physician, hyperbaric tech, administration, or practice coordinator, Mobile Hyperbaric Centers requires a level of competence to assure patients receive the best possible experience in the best possible environment.

The Mobile Hyperbaric Centers education program incorporates required education from organizations such as OSHA and The Joint Commission. In addition to maintaining compliance with regulatory education requirements, Mobile Hyperbaric Centers is dedicated in assuring all employees, both clinical and non-clinical, are educated in a manner to perform well in their role with the company.

Please review your position's education requirements, and the expected time of having the items to Corporate. Every MHC employee's education file is subject to regulatory inspection, which is why having all requirements completed and on file is important.

If you need assistance at any point during your education experience, please use the appropriate contact information below:

Intranet Support (Technical)

Corporate Compliance, Education Policies/Procedures, Content
Steve Fischer (216) 443-0430 sfischer@mhcenters.com

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instructions

Please read the instructions below before proceeding!

Mobile Hyperbaric Centers Policies and Procedures:

1. All clinical employees are required to prove competence on an annual basis through the Mobile Hyperbaric Centers Annual Competency Program.
2. All competencies are required a 80% or higher to pass
    a. Any score below 80% will result in retraining
3. Testing forms are kept in employee files at corporate headquarters

Completing your annual competencies:

1. Review the material in this booklet.
2. Pay attention to anything marked as REFERENCE. This will direct you to additional information needed to complete the competency.
3. When you have finished reviewing the material for a certain part, answer the questions on the link provided for your position (see "education" at MHCENTERS.COM/FORUM)

REFERENCE Information is presented in an informational format (minimal pictures, color, etc.) . To view the original presentations, visit the MHC intranet (www.mhcenters.com/forumn), click on "education", then, "competencies". The information presented is identical to the competencies on the intranet.

Clinical Competencies

Required for: Practice Coordinator, Technician, Physician

Part 1: Recognizing Abuse and Neglect

Introduction

Abuse and neglect can occur within the privacy of individuals' homes and even within healthcare organizations. Mobile Hyperbaric Centers team members are responsible for identifying signs of abuse and neglect occurring outside the Center, as well as ensuring abuse and neglect will never occur within the Center.

Types of Abuse

- Physical Abuse
    - Physical abuse can include assault, rough handling, sexual abuse, or the withholding of physical necessities such as food, personal care, hygienic care, or medical care. Indicators of physical abuse include frequent, unexplained injuries, the tendency to seek care at a number of locations, reluctance to seek treatment for injuries or denial of their existence, disorientation or grogginess, and fear in the presence of a caregiver, fellow patient or resident.
- Psychosocial/Mental Abuse
    - Psychosocial/Mental Abuse can include humiliation, harassment, threats of punishment or deprivation, verbal assault, social isolation, lack of affection, or not allowing individuals to participate in decisions about their own lives. Those who perpetrate psychosocial abuse lack normal displays of emotional warmth toward the abused individual, exclude the individual from discussions about major decisions, and verbally assault the individual. A victim of psychosocial abuse may seem socially isolated.
- Neglect
    - An impaired quality of life for an individual resulting from the absence of minimal services or resources to meet basic needs. Neglect includes withholding or inadequately providing for and hydration (without physician, client, or surrogate approval), clothing, medical care, and good hygiene. It also may include placing the individual in unsafe or unsupervised conditions. Neglect can lead to any types of abuse and can be active or passive. In passive neglect, the caregiver unintentionally injures the individual, whereas in active neglect, the caregiver consciously fails to meet the needs of the individual. Signs of neglect include malnutrition in a person who cannot get food without help, decline in personal hygiene, lack of needed medication or other aids, and lack of material needs of life.

Joint Commission Requirements

- "Assessment of Patients" Standard
    - This standard requires that organizations use criteria to identify possible victims of abuse. The criteria should focus on objective evidence, not allegations alone.
    - Additionally, when staff are assessing the needs of the patient, part of that assessment should focus on whether the patient displays signs of being abused or neglected.
- "Management of Human" Resources Standard
    - This standard states the importance of training and continuous education within an organization in regards to identifying victims of abuse and neglect.
- Patient Respect and Privacy
- Suspecting Neglect
    - If you suspect neglect, or a patient expresses to you they are abused or neglected, refer to the proper agencies as needed. Also, after obtaining a consent to asses, remember that any data collected is to be safeguarded, and released only when required.
    - Remember to have respect for the patient, including confidentiality, privacy, and resolution of complaints.

Employee Responsibilities

- **Appropriate employee behavior can avoid complaints and even prosecution. Examples include:**
    - Provide care in a manner that is free of abuse, sexual content, or connotation.
    - Build relationships with patients that are base on trust, respect, compassion and honesty.
    - Respect the dignity and privacy of the patient and his of her spiritual, cultural and sexual diversity.
    - Learn about attitudes and behaviors (i.e. cultural, religious, societal) that are appropriate to the population served and the services provided.
    - Recognize that because the relationship between a care practitioner and a patient is characterized by an imbalance of power, it includes the inherent potential for abuse. This power imbalance occurs because the care practitioner has authority, knowledge, access to information, influence and also physical strength.
    - Understand the responsibility to report potential abuse and neglect and the penalties for failure to report it.

- **Appropriate communication with patients, family and visitors is critical. Remarks that are perceived to be sexual, suggestive, seductive, derogatory, exploitative, intimidating or humiliating may be considered abuse. Some communication guidelines include:**
    - Pay close attention to how you share information, and to the words you select when speaking to patients.
    - Use proper vocabulary for body parts and for procedures to be performed, and particularly sensitive to words that could cause misunderstandings.
    - Use words the patient can understand, and, when needed, call for an interpreter.
    - Speak directly to the patient when working with interpreters or members of his or her support group.
    - Be aware of the patients fear of embarrassment
    - Provide opportunities for questions.
- **Communication guidelines, continued:**
    - Verify that the patient understands the message by rephrasing the information, and if necessary, ask her or him to repeat the information back.
    - Maintain appropriate eye contact
    - Use physical gestures carefully
    - Convey concern and empathy with appropriate facial expression.
    - Respect your patient's personal sense of space.

Age-Specific Competency: Elder Abuse

- Many of Mobile Hyperbaric Centers patients are of the elderly population. Elder abuse is an increasing problem in the United States, and is often overlooked by individuals designated for a person's care. To report suspected abuse, please be aware of the different resources available for the elderly population:
    - **Adult Protective Services**: designated to receive and investigate allegations of elder abuse and neglect.
    - **Long Term Care Ombudsman Program**: Designed to provide assistance in cases of abuse/neglect within a nursing home setting.
    - **Local Area Agency on Aging**: Every area agency on aging operates an information and referral service.
    - **Local Law Enforcement**
    - **National Center on Elder Abuse**

Clinical Competencies

Required for: Technician, Physician

Part 2: Blood Glucose Monitoring

(Clinical Employees only): TECHNICIAN AND PHYSICIAN

REFERENCE

MHC intranet, Safety Manual, Manufacturer Guide, and Hospital Policies

POLICY: General Policy

1. A physician's order is required for blood glucose monitoring to be performed.
    a. The Hyperbaric physician must state on the patient's record (H/P Packet or EHR) the frequency of glucose testing required.
    b. The on-site physician must order a glucose test in any scenario not otherwise previously stated as needed on the patients record
2. No employee shall operate the glucometer (hospital based or MHC equipment) within an MHC location without previously successfully completing competency training which includes the following:
    a. Competency and examination
    b. Review of the manufacturer's guidelines for successful operation
    c. Hospital-based education (if applicable).
3. Physicians, CHT's, EMT-P and EMT-B may perform glucometer testing once directed by the hyperbaric physician.
    a. Positions have other responsibilities as outlined:

SKILL LEVEL: Legend: I = Initiation of Procedure O = Ongoing Care D/C = Discontinue Procedure T = Teach * = Competency Required A/R = Assess/Reassess Need	CHT, EMT (P/B)	Physician
	I, O, T,D/C,A/R, *	I, O, T,D/C,A/R, *

4. Quality control measures will be performed daily
    a. recorded by the Clinical Staff on the daily start up log (or hospital log if using hospital based equipment)

5. Adhere to standard precautions when handling or using the device.

    a. All parts of the glucose monitoring system should be considered potentially infectious and are capable of transmitting blood-borne pathogens between patients and healthcare professionals
    b. Healthcare professionals should change gloves between patients, even if patient dedicated testing devices and single-use, self-disabling lancing devices is used.
    c. Employees are required to adhere to local infection control policies and procedures (please refer to your hospital for more information)
        i. Used lancets and strips are bio-hazardous material and can transmit blood borne diseases. Dispose of used lancets and test strips in bio-hazardous waste containers.
        ii. Identify bio-hazardous waste policies and procedures provided by the host-hospital (i.e. where/how to empty containers)

6. If the Center location is using hospital based equipment, they must follow the host-hospital policies and procedures related to such use.
    a. MHC issued equipment must follow this policy and the manufacturers guidelines
7. Employees shall use universal precautions as well as hospital infection control policies while handling equipment, to include the following personal protective equipment and hand washing:

Minimum recommended barrier protection: Legend: R=Routinely S=If soiling likely A=If aerosolization likely **=If splattering likely	Hand washing/ sanitizing	Gloves	Gown/ Plastic Apron	Mask	Eye protection
Blood Glucose Monitoring	R	R			

POLICY: Equipment Requirements

1. GLUCOSE CONTROL FORMULA

    a. The Glucometer High and Low Glucose Control Solutions will be used to verify the Glucometer performance. The control test will be performed daily. This test is performed to assure proper functioning of the glucometer

    b. When opening control solutions, write the date opened and the expiration date (90 days from the opened date), and cross off the expiration date located beneath the barcode. This provides accurate result

        i. The "opener" shall date the "new" expiration date once opened.
        ii. Always discard any outdated test strips
        iii. Existing stricter hospital polices related to expirations marking shall supersede this requirement

    c. Control solution testing shall be used in accordance with the manufacturer's guidebook.

2. TEST STRIPS

    a. Test strips must be stored at room temperature. Do not freeze.

    b. Keep test strips stored in the original container with the bottle tightly capped at all times.

    c. Test strips are usable until the expiration date on the vial or 90 days from open.
        i. The "opener" shall date the "new" expiration date once opened.
        ii. Always discard any outdated test strips
        iii. Existing stricter hospital polices related to expirations marking shall supersede this requirement

3. Safe T Pro Lancet (or selected finger-prick device)

    a. After use, it retracts permanently into its protective case for reduced risk of accidental finger stick during disposal.

4. Approved Cleaning wipes (DISPATCH or hospital/manufacturer approved) (SEE: cleaning/maintenance of glucometer)

5. Cotton balls and/or 2x2 gauze pads

POLICY: Cleaning/Maintenance of Glucometer

1. Cleaning of the Glucometer will be performed before initial use and between EACH use thereafter.
    a. Single-use medical protective gloves should always be worn during disinfection procedures and also by anyone performing blood glucose testing on another person.

2. Use hospital lab cleaners that are acceptable under the terms of the manufacturer guidelines.
    a. As of 4/29/2015, Centers using "EvenCare G3" shall use (Medline ID: CLH69150H) Dispatch Hospital Cleaner Disinfectant Towels with bleach
        i. Unless hospital labs provide approved cleaners listed in the manufacturer's manual
    b. Maintain at least one (1) minute between wiping equipment and additional uses.
    c. Streaks remaining on the touch screen will eventually damage the screen.
    d. The Glucometer will be handled with care. Sudden shocks caused by dropping or rough handling may affect performance.
        i. If the unit is dropped, perform a quality control test. If problem persists, contact Clinical Engineering or device manufacturer.
    e. Store the meter and strips at room temperature. Excessive heat or cold will alter the results. Avoid direct sunlight and extreme temperatures.
        i. If the meter is exposed longer than 10 seconds, allow the meter to return to room temperature and repeat the test.

POLICY: Glucometer Control Solution Testing

STOP: Please refer to your Glucometer User Manual for complete operating instructions. You are required to operate the device within manufacturer specifications.

1. Perform a control solution test before the start of each operating day, and if:
    a. Using the meter for the first time.
    b. Using a new bottle of EvenCare G3 Blood Glucose Test Strips.
    c. The test strip bottle is left open.
    d. The meter is dropped.
    e. You suspect the meter and test strips are not working properly together.
    f. A patient's test results do not agree with how they feel.
    g. A patient's readings appear to be abnormally high or low. (See **POLICY: Obtaining a Blood Sample**)
    h. Test strips have been exposed to a condition outside the specified storage conditions.
    i. Practicing your testing technique

2. IMPORTANT STEPS

    a. Verify the lot number of the control solution by the test strip lot number and check the expiration date. (Do not use if expired.) If the glucose control solution lot number does not match, contact the Laboratory or device manufacturer for restock.

    b. Perform Glucometer control testing per manufacturer's manual (or hospital policy, if applicable)

    c. Document the results on the Glucometer Glucose Daily Quality Control Log.
        i. MHC Equipment: Daily Start Up Log
        ii. Hospital: Please refer to your local policies and procedures as required by the laboratory department

POLICY: Patient Testing and Hyperbaric Treatment Requirements

STOP: Please refer to your Glucometer User Manual for complete operating instructions. You are required to operate the device within manufacturer specifications.

TEACHING

1. Explain the procedure to the patient and/or significant other. This will reassure the patient.

GLUCOSE TESTING

1. Verify the patient identification

2. Wash hands, dry and apply gloves.

3. Use manufacturer's manual (or hospital policy, if applicable) for operating procedures

POST-TEST RESULTS AND DOCUMENTATION:

1. Results must be recorded on:
    a. The daily assessment form
    b. The patient's electronic medical record
        i. Will be marked as CPT 82962 (Glucose Monitoring)

2. A critical result less than 60mg/dL or greater than 300mg/dL will be reported immediately to the physician for possible transfer to ED
    a. Identify any emergencies in the MHC incident log (see SAFETY MANUAL)

3. If daily assessment hyperbaric protocol assesses the patient for glucose, the result must be cleared by the physician.
    a. Diabetic Patients must have a level of (at least) 100mg/dL and/or hyperbaric physician clearance before beginning hyperbaric treatment.
    b. All other patients need consult outside of the range 75-150mg/dL

POLICY: Obtaining a Blood Sample and Safe-T Pro (if applicable)

1. Clean the site with an alcohol swab and allow to dry. Alcohol on the site must be dry or an error or inaccurate result may occur.

2. Gently massage the hand and finger toward the puncture site to form a drop of blood. Do not "milk" or squeeze around the puncture site.

3. Prick the side of fingertip to avoid soreness. To avoid calluses, choose a different testing site each time.

4. If alcohol wipes are used to cleanse the fingertip, make sure the fingertip is completely dry before the blood sample is obtained.

5. The lot numbers must match or the meter will not continue to do testing. Do not wiggle the strip within the meter. This will cause an error.

6. Twist off the blue protective cap from the Safe-T-Pro lancet device.

7. Apply slight pressure against the patient's finger. It is best to rotate sites and use the lateral side or tip of the finger.

8. Press blue trigger button. The lancet will automatically prick the finger and retract the sharps.

9. Wipe away the first drop of blood with cotton ball or 2x2 gauze. This allows for accurate test results.

10. Gently squeeze up a second drop of blood to form a bead. A sufficient sample size is required to ensure accurate results.

11. Complete glucose testing according to manufacturer manual (or hospital procedure)

NOTE: Used lancets and strips are biohazardous material and can transmit bloodborne diseases. Dispose of used lancets and test strips in biohazardous waste containers.

POLICY: EVENCARE G3 MONITOR GENERAL (if applicable)

(Please refer to hospital policy if your Center is using a hospital-based glucometer)

Test Strips

1. Use only the EvenCare G3 Blood Glucose Test Strips with the EvenCare G3 Meter. Other brands of test strips will not work with the meter.
2. Keep the test strip bottle capped tightly and away from sunlight at all times. Replace the cap immediately after taking a test strip out of the bottle.
3. Check the expiration date printed on the test strip bottle. DO NOT use expired test strips.

QC Lock

1. The QC lock must be on at all times
2. When the QC lock mode is turned on and control tests have not been performed within the past 24 hours, the screen will flash "qC." L1 and L3 control tests must be completed before the meter will perform a blood glucose test.

Control Solution

1. Use only EvenCare G3 Glucose Control Solutions with the EvenCare G3 Blood Glucose Test Strips. Other brands of control solutions will produce inaccurate results.
2. Always check the expiration date of the control solution. DO NOT use expired control solution.
3. Record the date on the bottle when opening a new bottle of control solution.
4. Discard any unused control solution three months (NOTE: MHC policy is 90days) after the opening date.
5. Control solutions are good three months (NOTE: MHC policy is 90days) after opening date or until the last day of the month of expiration, whichever comes first.
6. DO NOT FREEZE. Store the control solutions at room temperature of 59˚F – 86˚F.

Test Strips:

1. Do not use test strips that are expired. Check the expiration date printed on the test strip bottle.
2. Use each test strip immediately after removing it from the bottle.
3. Close the cap of the bottle immediately after removing a test strip.
4. Do not use wet, bent, scratched, or visibly damaged test strips.
5. Keep the test strips away from direct sunlight and heat. Store the test strip bottle in a dry, cool place.

6. Record the date on the bottle when you open a new bottle of test strips. Discard any unused test strips six months after opening.
7. Test strips are good six months after opening or until the last day of the month of expiration, whichever comes first. (NOTE: MHC policy is 90 days)
8. Make sure you are performing the test in an environment that is between 50˚F–104˚F.

POLICY: Education Requirements – PLEASE COMPLETE THESE WITH YOUR TRAINER

The following must be completed as part of competency training with a trainer:

1. States institution policy for frequency of control solution testing

2. Demonstrates proper scanning technique for patient IDs and bar codes

3. Applies control solution to test strip correctly

4. Successfully performs control solution tests

5. States institution policy for corrective action for *Out of Range* control results, and for patient results out of action range

6. States the location of the institution's sample/control procedure

7. Demonstrates finger stick technique

8. Applies sample to test strip correctly

9. Successfully simulates patient test

10. States policy for documenting results

11. Recalls patient results from the Data Review screen

12. Locates troubleshooting information for system error messages

13. States procedure for cleaning glucometer

14. States procedure for changing batteries

Clinical Competencies

Required for: Practice Coordinator, Technician, Physician

Part 3: Blood-Borne Pathogens

REFERENCE
MHC Bloodborne Pathogens Exposure Plan
www.mhcenters.com/forum > Education > Annual Competencies > Blood-borne Pathogens

- Purpose
- **OSHA published the Occupational Exposure to Bloodborne Pathogens Standard on December 6, 1991.**
  - The purpose of this standard is to protect workers by limiting occupational exposure to blood and other potentially infectious materials.
  - Anyone whose job requires exposure to BB pathogens is required to complete training
  -
- Scope
- **The OSHA Bloodborne Pathogens Standard**
  - Covers all employees who could be "reasonably anticipated" as the result of performing their job duties to face contact with blood and other potentially infectious materials.
  -
- Information and Training
- **Bloodborne Pathogen**
  - microorganisms present in human blood which infect and cause disease in people who are exposed
- **Common Bloodborne Pathogen Diseases include:**

- Malaria
- Brucellosis
- Syphilis

- Information and Training
- **Transmission of Bloodborne Pathogens**
  - Your exposure can occur through the following:
    - Industrial accident
    - Administering first aid
    - Post-accident cleanup
    - Handling of returned product
    - Janitorial or maintenance work
    - Handling of any waste products

- **Transmission of Bloodborne Pathogens**

- Occurs when contaminated blood or body fluids enter the body of another person
- In the workplace setting, transmission is most likely to occur through:
  - An accidental puncture by a sharp object, such as a needle, broken glass, or other "sharps", contaminated with the pathogen.
  - Contact between broken or damaged skin and infected body fluids
  - Contact between mucous membranes and infected body fluids.
- Pathogens can also be transmitted through the mucous membranes of the eyes, nose, or mouth.

- Information and Training
- **Transmission of Bloodborne Pathogens**
  - Unbroken skin forms an impervious barrier against bloodborne pathogens. However, infected blood or body fluids can enter your system through:
    - Open sores
    - Cuts
    - Abrasions
    - Acne
    - Any sort of damaged or broken skin such as sunburn or blisters
  - Pathogens are not transmitted by:
    - touching an infected person
    - coughing or sneezing
    - using the same equipment, materials, toilets, water fountains or showers as an infected person.
- Information and Training
- **This training program will focus on the bloodborne pathogens that generally pose the greatest risk to workers and are of the greatest interest.**
  - HIV
  - Hepatitis B
  - Hepatitis C
    - Information and Training
- **Human Immunodeficiency Virus (HIV)**
  - Leads to acquired immunodeficiency syndrome (AIDS)
  - By killing or damaging cells of the body's immune system, HIV progressively destroys the body's ability to fight infections and certain cancers.
  - No threat on contracting HIV through casual contact
  - HIV does not survive well outside the body
- Information and Training
- **Hepatitis B (HBV)**
  - An estimated 1.25 million Americans are chronically infected with the Hepatitis B virus
  - About one-third of persons infected with HBV have no signs or symptoms. However, symptoms can include:
    - Jaundice
    - Fatigue
    - Abdominal pain
    - Loss of appetite
    - Nausea, vomiting
    - Joint pain

- Information and Training
- **Hepatitis B (HBV)**
    - A Hepatitis B vaccine has been available since 1982, and routine Hepatitis B vaccinations have greatly reduced the rate of disease.
    - **After occupational exposure to HBV, an employee is required to receive a HBV vaccination**
        - If the employee refuses the HBV vaccination, they must sign a release indicating such (refer to MHC exposure control plan).
- Information and Training
- **Hepatitis C (HCV)**
    - Hepatitis C is the most common chronic bloodborne infection in the United States
    - Symptoms include:
        - Jaundice
        - Fatigue
        - Dark Urine Abdominal Pain
        - Loss of Appetite
        - Nausea
    - Chronic infections occur in 75-85% of infected persons, and chronic liver disease occurs in 70% of infected persons.
    - There is no vaccine for Hepatitis C.
    - Hazard Communication
- **Regulated Medical Waste**
    - Liquid or semi-liquid blood or other potentially infectious material (OPIM)
    - Contaminated items which release blood or OPIM when compressed
    - Contaminated sharps
- **Warning labels**
    - Biohazard symbol affixed to:
        - containers of regulated waste
        - refrigerators or freezers containing blood or OPIM
        - containers used to store, transport, or ship blood or OPIM
    - Methods of Compliance
- **The Bloodborne Pathogen Standard specifies methods that are to be used to minimize the transmission of bloodborne pathogens in the work place.** These methods include:
    - Universal Precautions
    - Personal Protective Equipment (PPE)
    - Engineering and Work Practice Controls
    - Appropriate Housekeeping Measures
    - Methods of Compliance
- **Universal Precautions:**
    - The concept of Universal Precautions is that **all** blood and potentially infectious materials must be treated as if they are known to contain HIV, HBV, or other bloodborne pathogens.
        - Methods of Compliance
    - **Personal Protective Equipment (PPE)**
    - Personal Protective Equipment MUST be worn
        - Latex or Nitrile gloves, goggles, CPR mouth barriers, aprons, respirators, etc.
    - Always check PPE for defects before using

        - If PPE becomes torn or defective remove and get new
        - Remove PPE before leaving a contaminated area
        - Do not reuse disposable equipment
        - After clean-up, place PPE in bio-hazard container along with everything else used in the cleaning process
- Methods of Compliance
    - **Engineering and Work Practice Controls**
    - Engineering Controls
        - Controls that isolate or remove bloodborne pathogens hazard from the workplace.
            - Example: bio-hazard disposal containers
    - Work Practice Controls
        - Controls reducing likelihood of exposure by altering the manner in which a task is performed.
            - Examples:
                - Wearing gloves while handling all patients
                - Washing hands throughout the day, especially after any exposure
        - Methods of Compliance
- **Engineering and Work Practice Controls**
    - Personal Hygiene
        - Minimize splashing, spraying, spattering and generation of droplets when attending to a patient
        - Refrain from eating, drinking, smoking, applying cosmetics or lip balms, or handling contact lenses where there is a reasonable likelihood of occupational exposure
        - Methods of Compliance
    - **Appropriate Housekeeping Measures**
    - Work surfaces, such as counters or fume hood/biosafety cabinet surfaces, be decontaminated**:**
        - Whenever procedures involving blood or other potentially infectious materials are completed
        - At the end of each work shift, if the surface may have become contaminated since the last cleaning
        - Immediately or as soon as feasible following a spill of blood or other potentially infectious material
    - Check with your center director for specific requirements and procedures for handling and disposing of wastes at your location.
    - Handling an Exposure Incident
- **Key points**
    - Wear appropriate Personal Protective Equipment (PPE).
    - Carefully cover the spill with an absorbent material, such as paper towels, to prevent splashing.
    - Decontamination
        - When cleaning up surfaces use Hepacide Quat®
            - Do an initial wipe up
            - Spray and allow it to stand for ten minutes then wipe up
            - Dispose of all wipes in biohazard containers

        - PPE should be removed and disposed of in biohazard containers
    - Hand Washing
        - The best practice is to thoroughly wash your hands with soap and water after any potential exposure.
        - Wash hands immediately after removing PPE
        - Use a soft antibacterial soap
        - A hand sanitizer can be used but wash with soap and water as soon as possible.
    - Handling an Exposure Incident
    - Report all accidents involving blood or bodily fluids
    - **If you are injured or exposed, tell your supervisor <u>immediately</u>. Your supervisor is responsible for reporting your injury correctly.**
    - An occupational exposure should always be considered an urgent medical concern to ensure timely post-exposure management and administration of hepatitis B immune globulin (HBIG), hepatitis B vaccine, and/or HIV post-exposure prophylaxis (PEP).
    - If there are no infiltrations of mucous membranes or open skin surfaces, it is not considered an occupational exposure
- Post-Exposure Evaluation and Follow Up
- All employees must report all exposure incidents to Vincent Ferrini, MD immediately or within 24 hours.
    - The post-exposure evaluation and follow up includes the following elements:
        - Documentation of the route of exposure
        - Identification and documentation of the source individual
        - The source individual's blood will be tested and documented
        - Results of the source individual's testing will be made available to the exposed employee
        - The exposed employee will be offered the option of having their blood tested for HBV and HIV serological status.
- Record Keeping
- **Medical records must be kept for each employee with occupational exposure**
    - Must remain confidential and include:
        - name and social security number
        - hepatitis B vaccination status (including dates)
        - results of any examinations, medical and follow-up procedures
        - copy of the healthcare professional's written opinion
        - information provided to the healthcare professional
- This bloodborne pathogen training program must be reviewed every 12 months.
    - Training records will include:
        - Training education dates
        - Contents of the training
        - Signature of the Trainer and Trainee (when applicable)

Clinical Competencies

Required for: Practice Coordinator, Technician, Physician

Part 4: Falls Prevention

POLICY:

MHC Falls protocol dictates that all patients identified at risk for falls must be provided a wristband as the primary identification for falls risk. Any hospital required mechanism may be used (in addition to the wristband) unless use of such identifiers present a risk during dives. **Patients on falls risk should be directly supervised/assisted when attempting to walk/stand up**. Additionally, patients on falls risk should be secured in their chair after being seated. Patients must wear falls identification throughout their visit at any MHC Center. Wristbands may be stored in lockers, and only one is issued per patient. Techs or Physicians responsible for the dive must assist the patient in and out of the chamber, as well as during any other mobility-required movements while at the MHC facility.

PROCEDURE:

1. All patients will be assessed using the "Falls Risk Assessment" in the by the HBOT Physician

2. If a patient is found to be at high risk for falls, instruct the patient they must wear the MHC-provided red wristband as an indicator

3. All patients identified as high risk for falls will be assisted either by use of a wheelchair, cart, or ambulatory assistance.

Things to remember for falls assessments and prevention:

1: Complete falls assessment during initial History and Physical
2: Determine whether patient is a fall risk.
3: Fill out falls assessment documentation.
4: Place proper identifier on patient.
5: Determine level of assistance needed by patient.
6: Document daily patients fall risk.
7: Notify HBOT Physician of any changes.
8: Reassess patient after surgeries and prolonged absence.
9: Remind patient and families to ask for assistance if needed.
10: Assist patients with travel to and from treatment.

Clinical Competencies

Required for: Practice Coordinator, Technician, Physician

Part 5: Protected Health Information

REFERENCE

1. Mobile Hyperbaric Centers Policies and Procedures for HIPAA and related Rules
2. Mobile Hyperbaric Centers Company-Wide HIPAA Training and Education Course

www.mhcenters.com/forum > Education > MHC Education Requirements > HIPAA and the HITECH Act

REFERENCE

Mobile Hyperbaric Centers Notice of Privacy Practices & Brochure

www.mhcenters.com/forum > Manuals and Forms > Patients > Notice of Privacy Practices for PHI

Mobile Hyperbaric Centers recognizes the growing need for all employees to be familiar with patient privacy related to HIPAA. With hundreds of patients and thousands of treatments each year, patient information is at our finger-tips, and readily available. The purpose of this training experience is to familiarize you with the aspects and regulations which make up HIPAA, and the techniques and precautions set to avoid mishaps. Together with education and will power, we can assure that our patients receive the highest quality of care, and rest assured that their private information remains confidential with us.

Upon completion of this competency, you will be able to:

- Recognize potential threats regarding patient information and confidentiality.
- Understand general terminology related to HIPAA, the Privacy Rule, the Security Rule and HITECH Act as they apply to everyday interactions.
- Recall company policy if issues with patient information arise.
- Make a difference in your work setting, assuring that patient privacy if or high priority.

The Health Insurance Portability and Accountability Act, or "HIPAA", was enacted by congress in 1996 with the intention of strengthening both patient rights and to increase the awareness of the need for patient privacy. Mobile Hyperbaric Centers, a "covered entity", is required, by this law, to adhere to the standards and regulations set by the HIPAA, which includes the Security Rule, Privacy Rule, and the new HITECH Act; all of which are discussed in this program.

Now more than ever, it is critical that all employees are knowledgeable with HIPAA regulations and MHC policy, as they concern patient privacy and, in certain circumstances, hold employees legally responsible (and liable) for their actions.

HIPAA standards are contained in 45 CFR §160, §162, and §164 (the Code of Federal Regulations). In conjunction with this training, you are encouraged to be familiar with

supplements associated with Mobile Hyperbaric Centers' compliance with HIPAA. Some of these include: the MHC Notice of Privacy Practices, the HIPAA Regulatory Text (including the HITECH Act), and other useful information, the MHC HIPAA Policies and Procedures.

Resources are available to you. Please refer to the Mobile Hyperbaric Centers intranet for more information related to HIPAA.

This course is designed to walk you through important sections of the HIPAA legislation.

The general administrative requirements are broken into four parts:

Subpart A: General Provisions

Subpart B: Preemption of State Law

Subpart C: Compliance and Enforcement

Subpart D: Imposition of Civil Money Penalties

Subpart A: General Provisions

This section of the legislation contains definitions critical to the readability of the document. Below are selected, important definitions to remember:

Business Associate- A business partner that may provide legal, actuarial, accounting, consulting, data aggregation, etc. wherein the services require the disclosure of individually identifiable health information.

Covered Entity- For MHC purposes, this is any healthcare provider who transmits any health information in electronic form. MHC is considered a "covered entity".

Disclosure- release, transfer, provision of, access to, or divulging in any other manner, of information outside the entity holding the information

Protected Health Information (PHI)- any individually identifiable information. Examples include (non-comprehensive): names telephone numbers, address, social security number, DOB, photos.

Willful Neglect- Not knowing and/or not adhering to company policies and procedures which directly relate to compliance with HIPAA, the Privacy Rule, the Security Rule, and the HITECH Act.

Subpart B: Preemption of State Law

This section highlights the importance of State law, which, if more "stringent" than requirements set in HIPAA, have jurisdiction.

In general, company policy which dictates documentation requirements, safeguarding of patient information and other elements directly related to the HIPAA regulation allow for

proper adherence to such regulations and offer jurisdictions a look into MHC's dedication to assuring patient confidentiality.

Subpart C: Compliance and Enforcement

The basic principals for achieving compliance are (1) cooperation, and (2) assistance. Health and Human Services (HHS) has the right to inspect any MHC location. If an inspection occurs, provide records and compliance reports, cooperate with complaint investigations and compliance reviews, and permit access to information.

Also highlighted in this section, patients have the right to file complaints, in writing, to Mobile Hyperbaric Centers, as well as to HHS.

Subpart D: Imposition of Civil Money Penalties

Civil Penalties for non-compliance can vary from $100 - $25,000.

A person would face increased fines and/or jail time if they 'knowingly' disclose patient information (i.e. with 'bad intent').

Affirmative defenses are mentioned as legal arguments that a provider can use regarding process violations that can convince governing parties of "reasonable cause", and not "willful neglect".

The Privacy Rule

The Privacy Rule sets standards for providers regarding patient confidentiality. In general, the Rule applies to Mobile Hyperbaric Centers and our 'usage and disclosure' of all protected health information.

Uses and Disclosures: General Rules

This highlights general information related to disclosure of patient information. Permitted uses and disclosures include:

1. To the individual

2. For treatment, payment or otherwise in compliance with the rules

3. Incident to an otherwise permitted use

In general, other than for treatment, the use and disclosure of PHI must

be limited to the 'minimum necessary' required to achieve the desired purpose. Disclosures to business associates are permitted where there is a

written contract dictating the responsibilities of the business associate

to keep PHI confidential. A personal representative of a patient

must be treated the same as if the patient

HIPAA Privacy Rule Disclosures to a Patient's Family, Friends, or Others Involved in the Patient's Care or Payment for Care

	Family Member or Friend	Other Persons
Patient is present and has the capacity to make health care decisions	Provider may disclose relevant information if the provider does one of the following: (1) obtains the patient's agreement (2) gives the patient an opportunity to object and the patient does not object (3) decides from the circumstances, based on professional judgment, that the patient does not object Disclosure may be made in person, over the phone, or in writing.	Provider may disclose relevant information if the provider does one of the following: (1) obtains the patient's agreement (2) gives the patient the opportunity to object and the patient does not object (3) decides from the circumstances, based on professional judgment, that the patient does not object Disclosure may be made in person, over the phone, or in writing.
Patient is not present or is incapacitated	Provider may disclose relevant information if, based on professional judgment, the disclosure is in the patient's best interest. Disclosure may be made in person, over the phone, or in writing. Provider may use professional judgment and experience to decide if it is in the patient's best interest to allow someone to pick up filled prescriptions, medical supplies, X-rays, or other similar forms of health information for the patient.	Provider may disclose relevant information if the provider is reasonably sure that the patient has involved the person in the patient's care and in his or her professional judgment, the provider believes the disclosure to be in the patient's best interest. Disclosure may be made in person, over the phone, or in writing. Provider may use professional judgment and experience to decide if it is in the patient's best interest to allow someone to pick up filled prescriptions, medical supplies, X-rays, or other similar forms of health information for the patient.

Uses and Disclosures to Carry out Treatment, Payment or Healthcare Operations

Uses and disclosures related to the treatment, payment, and health care operations are permitted. Mobile Hyperbaric Centers may disclose to a family member, other relative, or a close personal friend of the individual, or any other person identified by the individual, the PHI directly relevant to such a person's involvement with the individual's care or payment related to the individual's healthcare.

- *If the individual is present*: Obtain agreement, provide an opportunity to object, or use professional judgment.

- *If the individual is NOT present*: Use of professional judgment to

determine the best interest of the individual, and that only PHI

relevant to the person's involvement with care is disclosed.

Uses and disclosures for which an Authorization is Required

Mobile Hyperbaric Centers MUST obtain authorization for any disclosure outside of the purposes of MHC treatment, payment, or healthcare operations, including (but not limited to):

- Marketing Proposes, unless it is face-to-face communication between MHC and the patient, or a promotional gift.

- Any uses and disclosures of patient information must be used consistent with what is outlined in the authorization, which is to be signed, and dated, with an expiration date.

Uses and disclosures NOT requiring authorization or opportunity to agree or object

Examples of situations not needing authorization/opportunity to object or agree include: (a) when required by law, (b) for public health activities, (c) disclosures about victims of abuse, neglect, or domestic violence, (d) disclosures for health oversight activities, (e) disclosures for judicial and administrative proceedings, (f) for law enforcement purposes, (g) disclosures about decedents, (h) for cadaveric organ, eye or tissue donation purposes, (i) to avert a serious threat to health or safety, (j) for specialized government functions, and (k) for worker's compensation.

For detailed information, please refer to the MHC Notice of Privacy Practices.

Notice of Privacy Practices

An individual has the right to adequate notice of the uses and disclosures of PHI that might be made by Mobile Hyperbaric Centers, and of that individual's rights and MHC's legal duties with respect to PHI. (Exceptions: inmates, group health plans)

This notice must be acknowledged (by receipt) on or by the FIRST DATE of service. It must be readily available upon request, and posted in a conspicuous location at the Center.

Rights to request privacy protection

MHC must allow an individual to request restriction of PHI, but are not required to comply with such a request, unless absolutely necessary, within reason and professional judgment.

Patient Access to PHI

An individual (patient) has the right to inspect, and obtain a copy of PHI within a 'designated record set'. MHC has 30 days to respond, with a maximum of 60 days if documented delays apply.

Right to Amend

An individual (patient) has the right to request an amendment to their PHI in a designated record set, UNLESS the information was not created by MHC, it is not part of the record set, or is complete and accurate.

Administrative Requirements

Documentation proving processes, training and designated officials must be available. MHC must have proper administrative, technical and physical safeguards to protect PHI. MHC must maintain a process for: complaints, employee sanctions, mitigation, and others.

Waiver of Rights

MHC may not require individuals to waive their rights under the rules as a condition of the provision of treatment, payment, enrollment in a health plan, or eligibility for benefits.

The Security Rule

The security rule deals with electronic protected health information, referred to in this section as 'ePHI'.

General Rule

Mobile Hyperbaric Centers MUST:

1. Ensure the confidentiality, integrity, and availability of our PHI

2. Protect against any reasonably anticipated threats or hazards of our PHI

3. Protect against any reasonably anticipated uses or disclosures of ePHI not permitted or required under the Privacy Rule

4. Ensure its workforce complies with the Security Rule

Covered entities may use *any security measures* that allow the covered entity to *reasonably and appropriately* implement the standards and implementation specifications. Further, MHC must take into account the following factors with deciding on security measures:

- The size, complexity and capabilities of MHC

- MHC's technical infrastructure, hardware software security capabilities.

- The costs of the security measures

- The probability and criticality of potential risks to ePHI

Administrative Safeguards

Definition: administrative actions, policies and procedures, to manage the selection, development, implementation, and maintenance of security measures to protect ePHI and to manage the conduct of MHC employees in relation to the protection of that information.

Mobile Hyperbaric Centers MUST:

Implement policies and procedures to prevent, detect, contain and correct security violations. *For more information, please refer to the MHC company policies and procedures related to HIPAA.*

Physical Safeguards

Definition: physical measures, policies, and procedures to protect MHC's electronic information systems and related building and equipment, from natural and environmental hazards, and from unauthorized intrusion.

Mobile Hyperbaric Centers MUST:

Implement policies and procedures to limit physical access to its electronic information systems and the facility or facilities in which they are housed, while ensuring the properly authorized access is allowed.

Technical Safeguards

Definition: technology and the policies and procedures for its use that protect electronic health information and control access to it

Mobile Hyperbaric Centers MUST have:

- persons identified with specific levels of access to ePHI
- audit controls to examine activity in information systems
- policies/procedures to protect PHI from improper alteration
- policies/procedures to verify persons/entities seeking ePHI
- policies/procedures to secure ePHI sent over a network

Most technical safeguards are implemented in part though our current EHR provider.

The HITECH Act

The Health Information Technology for Economic and Clinical Health Act is part of the American Recovery and Reinvestment Act of 2009. In essence, this Act increases potential legal liability for non-compliance; and it provides for more enforcement.

Under the Act, mandatory penalties will be imposed for "willful neglect". Penalties can extend upwards of $250,000 with repeat offenses and $1.5 million for uncorrected violations.

Business Associates

Business associates are required to directly comply with most provisions of the HIPAA Security Rule. This means, that just as in a physician's office, business associates must implement appropriate safeguards.

A common example of a business associate is a software vendor providing an EHR.

The Act requires business associates to report security breaches to covered entities, who, in turn, must notify the individual of the breach of information.

Breach Notification

Breach: the unauthorized acquisition, access, use or disclosure of Protected Health Information (PHI).

Exceptions:

- Where an unauthorized person who receives the health information cannot reasonably been able to retain it.

- If an unintentional acquisition, access of use occurs within the scope of employment or a professional relationship and the information does not go any further (i.e., it is not further acquired, accessed, used or disclosed)

- If it is an inadvertent disclosure that occurs within a facility, and the information does not go any further.

The HITECH Act requires Mobile Hyperbaric Centers to notify any individual if their personally identifiable information has been breached.

Important Supplement:

Please refer to MHC HIPAA 3.0, "Breach of PHI, Notification Policy and Procedures"

Strengthened Right to Restrict Disclosures

Mobile Hyperbaric Centers (and all business associates) is now required to honor an individual's request to restrict disclosure of PHI to a health plan for purposes of payment or health care operations if the information pertains **solely** to a health care item or service that the individual has paid for in full out-of-pocket.

Accounting for Disclosures

From the original HIPAA, MHC is only required to log any disclosures made with PHI outside the purposes of *treatment, payment or healthcare operations*.

Under the HITECH Act, patients have the right to receive an accounting of **all** disclosures made with their Protected Health Information. Mobile Hyperbaric Centers is required to keep track of all disclosures made outside of the company for at least three years for every patient. Disclosures made by business associates are included, but MHC is not required to log their

activity, but must give the requesting individual contact information of each business associate who must provide a list of disclosures made.

Because MHC adopted an EHR before 1/1/2009, the new provision is not applicable until January 1, 2014, with possible extension to 2016.

Individual Right of Electronic Access

The HITECH Act stipulates that an individual has the right to request electronic records be sent to a 3rd party, electronically. MHC may impose a fee, so long as the fee is no greater than the cost of labor to process such a request.

NOTE: Under the Privacy Rule, individuals have always had the right to access and obtain a copy of their health records in the format requested, if able to be produced in that format, within 30 days of the request. *(slide 19)*

Authorizations

Marketing Communications

If Mobile Hyperbaric Centers is paid by an outside entity to send communication to a patient, the communication is deemed to be marketing and requires prior authorization from the patient.

- **MHC Policy and Procedures**

In conjunction with this course, you are expected to review the Mobile Hyperbaric Centers Policies and Procedures for HIPAA and Related Rules document. Current and available policies and procedures in this document include:

- General Company Policies regarding HIPAA
- Unauthorized Disclosure of Protected Health Information
- Breach of PHI, Notification Policy and Procedures
- Patient Request for Medical Records or Medical Records Transfer
- Policy for Marketing and Sale of PHI
- Patient request for, and Policy on Accounting for Disclosures
- Complaint Procedures
- Notice of Privacy Practices

The Mobile Hyperbaric Centers' HIPPA Golden Rule:

Treat all patient information as if it were your own. Be mindful of the information you discuss, transfer, and store, and think about how you would want your private information handled.

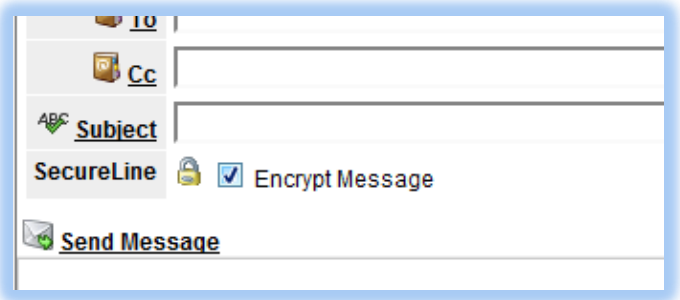
Sending a Secure E-mail

As part of the Protected Health Information Training program, employees are asked to be familiar with secure e-mail. Secure e-mail, or "Encrypted Messages", are to be used when sending patient information to non-Mobile Hyperbaric Center employees. In other words, IF YOUR MESSAGE CONTAINS PHI, YOU MUST SEND AN ENCRYPTED MESSAGE TO ANY E-MAIL ADDRESS OTHER THEN ONE ENDING WITH @MHCENTERS.COM. Sending non-encrypted e-mails to persons within the company (with the "@mhcenters.com" e-mail) is acceptable.

This service is available within your Luxsci e-mail account. Please log in at https://luxsci.com.

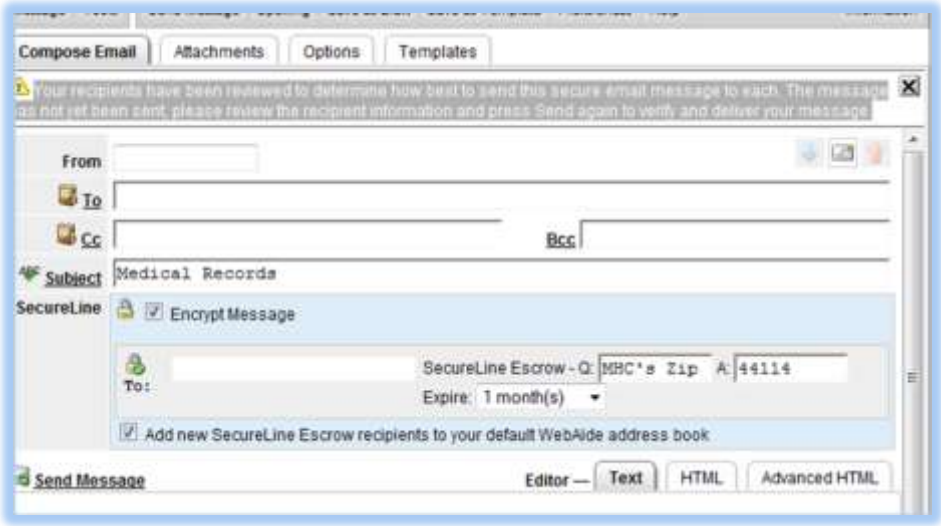
To send an Encrypted E-mail:

Step 1: Log into your LUXSCI e-mail account.
Step 2: Select "Compose" to open a new e-mail box, as you would normally do to start a new e-mail.
Step 3: Select "Encrypt Message". (see below)

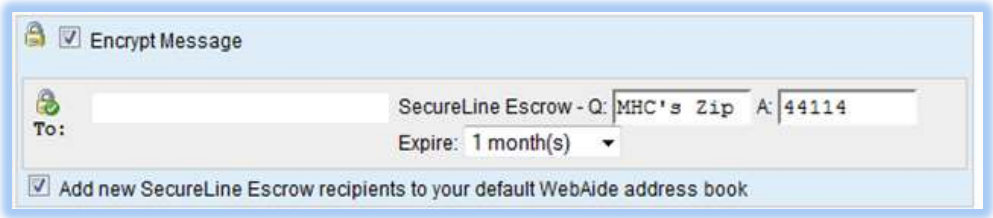


Step 4: Type your message, and press send.

Step 5: After pressing "send" your compose window will look like this:



Step 6: In the "Secure Line Escrow" box, type in a question such as "What is MHC's zip code?", and enter the corresponding answer next to it.
Step 7: Select an expiration time frame. This is how long the message will remain accessible to the recipient in their inbox.



IMPORTANT: Be sure the person you are sending the secure e-mail to has the answer to the security question you type. This will allow them to access the e-mail you send. The contents of the message are securely saved using the LuxSci SecureLine Message Escrow service. The recipient will be able to open the e-mail once they follow a provided link and enter in the security question answer.

Step 8: Press send, and notify the recipient of the secure e-mail.

Company Policy: General Company Policies regarding HIPAA: Security Act, Privacy Act and HITECH Act.
Policy Number: MHC HIPAA 1.0
Created: 3/5/2010
Effective: 3/12/2010
Revised:
Approved by: Charles R. Cowap, MD

MHC HIPAA 1.1: Acknowledgement of the US Department of Health and Human Services

1. Mobile Hyperbaric Centers recognizes the importance, applicability, and responsibilities set forth by the HIPAA Administrative Simplification Regulations and related Rules and Acts.

MHC HIPAA 1.2: Uses and Disclosures of Mobile Hyperbaric Centers Protected Health Information

1. Under no circumstance will any Protected Health Information be disclosed outside of the scope of payment, treatment, or healthcare operations without prior consent of the individual (patient).
a. ANY unauthorized disclosure must be attended to in a timely manner, and according to MHC HIPAA 2.0, Unauthorized Disclosure of Protected Health Information (PHI).

MHC HIPAA 1.3: Training and Development

1. All members of staff MUST obtain Mobile Hyperbaric Centers training in HIPAA and related Company Policy upon employment with Mobile Hyperbaric Centers
a. Including, but not limited to, unpaid volunteers, contract employees, and casual laborers
2. Certain employees will require annual competencies regarding HIPAA
3. Any employees failing to obtain Mobile Hyperbaric Centers' standard training on HIPAA are subject to disciplinary actions as outlined in MHC HIPAA 1.4 Administrative Safeguards.

MHC HIPAA 1.4: Administrative Safeguards

1. Risk analysis: Prevention and Detection
a. Mobile Hyperbaric Centers recognizes the need to be continually aware of any potentially threatening situations where patient privacy can be in jeopardy.
b. Before any security measures are implemented, the following must be assessed:
i. The size, complexity and capabilities of MHC
ii. MHC's technical infrastructure, hardware software security capabilities.
iii. The costs of the security measures
iv. The probability and criticality of potential risks to ePHI
c. Mobile Hyperbaric Centers will have announced and unannounced compliance audits which will focus on areas of patient security and privacy and periodic, technical and non-technical evaluations.
i. Will be performed through the Corporate Compliance Department
ii. All Mobile Hyperbaric Centers property is susceptible to an audit
iii. An official follow-up report will be created, with a copy on file at corporate headquarters. The report shall contain:
1. Areas noted for needed improvement
2. Center Responsibilities (when applicable)
3. Hospital Responsibilities (when applicable)
4. Suggested Items to Improve the location
5. Action Plan
a. Patient

b. Safety
c. Operations
d. Facility
e. Administrative

2. Risk Management: Containment and Correction
a. In the event of a reported security concern, senior management of Mobile Hyperbaric Centers will assess the situation and develop an action plan in accordance with the stipulations of MHC HIPAA 1.4 section (1b).
b. Unless otherwise stipulated in this section, MHC shall establish an action plan on a case-by-case basis.
c. Any plan of action shall illustrate the following:
i. Initial Concern
ii. Investigative Comments
iii. Actions to take, if necessary
iv. Budgetary estimates
d. Action plans will be kept on file for the corresponding Center.

3. Sanction Policy
a. Mobile Hyperbaric Centers reserves the right to discipline any individual who violates the terms within Mobile Hyperbaric Centers Policies and Procedures for HIPAA and related Rules and Regulations
b. Any disciplinary action to follow a violation of these terms will be eligible for grievance procedures as stipulated in the Mobile Hyperbaric Centers Employee Handbook.
c. Disciplinary actions may range from verbal warnings up to, but not limited to, termination of employment with Mobile Hyperbaric Centers and are at the discretion of the individuals supervisor
i. In the event that a supervisor is unavailable, senior management will be contacted.
d. In some cases, criminal prosecution or contacting local authorities may be required.
i. Any criminal prosecution or legal actions must go through corporate headquarters for approval and/or consult.

4. Information System Activity Review
a. Mobile Hyperbaric Centers retains the right to restrict or deny access to any ePHI by employees or other otherwise authorized individuals.
b. Mobile Hyperbaric Centers will assure the appropriate security measures are present with and EHR provider or other electronic information system.
i. Under no condition should anyone use another employee's username and password.

5. Security official
a. The interim security official shall be the Corporate Compliance Manager, whom shall:
i. Develop privacy policies and procedures
ii. Coordinate and implement policy through MHC
iii. Oversee Training
iv. Receives and processes privacy complaints
v. Processes individual rights Requests:
1. Right to access/copy protected health information (PHI)
2. Right to amend PHI
3. Right to restrict use/disclosure
4. Right to confidential communications
5. Right to an accounting of disclosure
6. Right to file a complaint
vi. Ensures retention of HIPAA policies and procedures, complaints, and investigative materials to meet compliance requirements.

6. Contingency Plan
a. Individual Centers shall formulate disaster plans which will enable them to recover misplaced or destroyed PHI or related materials.
b. Mobile Hyperbaric Centers acknowledges the need for back-up systems for health records. Current utilized electronic networks which contain, transmit, use, edit, or have access to Mobile Hyperbaric Centers' PHI shall provide details on how they will restore their systems related to disaster recovery.
c. Any electronic information system in use by Mobile Hyperbaric Centers must have, but not limited to:
i. Secure connections
ii. Data encryption options
iii. Physical Security
iv. User authentication security measures (i.e. password protection)
v. Audit usage policies
vi. Contingency plan

MHC HIPAA 1.5: Technical Safeguards

1. Access control: designated persons
a. Only employees with official Mobile Hyperbaric Centers business related to the treatment, payment, or healthcare operations, unless otherwise authorized by the appropriate individual(s), may have access to PHI.
i. Information used must be the minimum necessary required to complete a task

2. Audit controls: access to ePHI
a. Technology used within Mobile Hyperbaric Centers must be secured at all times to assure patient privacy and to prevent and breaches of information.
i. Security measures include, but are not limited to:
1. At least one (1) locked 'door' between public access and patient information, where employees are not in the immediate area.
a. Such 'doors' should have limited access and have documented the persons with key access.
2. Workstations should use password protected software
3. Fax machines will not be within reach of public access
4. The use of patient information on "white-boards" is prohibited in patient settings
ii. Under no circumstance shall patient information (whether electronic or paper) be left unattended in an area with potential or obvious public access.

3. Preventing improper alteration or destruction
a. Only employees with authorization to do so may edit, remove, or otherwise change Mobile Hyperbaric Centers' ePHI.
b. Under no circumstance may any PHI obtained from offices other than Mobile Hyperbaric Centers be altered without prior consent of the original source.

4. Safeguards for ePHI transmitted over the internet or any electronic communications network
a. When sending PHI through e-mail, an encrypted message must be used, except when sending PHI to a "@mhcenters.com" or "@mhcmurphy.com" address.
b. Any transmission of PHI though an electronic communications network must be though a secure connection, as verified by the provider of such network.

MHC HIPAA 1.6: Physical Safeguards

1. Mobile Hyperbaric Centers employees, business associates, and any other entity authorized to any means of access, must take appropriate and necessary actions to assure that PHI as physically secure as feasible.
a. Security measures must follow guidelines for implementation highlighted under MHC HIPAA 1.4: Administrative Safeguards, section (1b).

2. General Physical Security Provisions
a. Workstation Use (also see: MHC HIPAA 1.7: Data Use and Security Policy)
i. Defined: any electronic computing device, for example, a laptop or desktop computer, or any other device that performs similar functions, and electronic media stored in its immediate environment (CFR 164.310(b).
ii. Only official business use of workstations is permitted, and shall be consistent with Mobile Hyperbaric Centers Policy as outlined in the Employee Handbook.
1. Computers left unattended MUST be password protected
a. If passwords must be written down, they must be located in a confidential, restricted area.
b. A locked computer must revert to a screen that is not viewable by the public or does not contain PHI.
c. Screen-savers must be used, within good taste.
d. When leaving the immediate workstation, the computer must be logged off or locked.

2. Workstations identified as ePHI access points include:
a. Any desktop computer
b. Any laptop that stores, accesses or otherwise uses PHI
c. "Jump Drives", CDs, PDAs containing MHC PHI

3. Disposal of ePHI
a. ePHI on any workstation, before such a workstation is replaced or made inactive with no future use, ePHI must be completely removed from the device.
b. Removal of ePHI from workstations that are unusable, out-of-date, or with no future use shall be done so in a manner such that the ePHI on the device is no longer readable.
i. i.e. degaussing of the hard drive

4. Re-Use of workstation devices
a. ePHI must be removed from workstation devices in the event of the sale, departmental move, or relocation to an area not for use solely by MHC.

MHC HIPAA 1.7: Data Use and Security Policy

1. It is the policy of Mobile Hyperbaric Centers to fully utilize and administer the data security features available on our systems to mandate procedures and guidelines to all to ensure the integrity and confidentiality of the data system, and to apply due diligence concerning data security issues at all times. As employees of the company, we share a common responsibility to safeguard the assets of our patients. Data are an organization's most important asset.

2. USER ACCESS POLICY: All data, information and computer assets are vital to the company and all employees must take measures to protect these assets from unauthorized use, theft, misuse, accidental or unauthorized modification, disclosure, transfer, or destruction. All

employees must take measures to assure the security, reliability and integrity of the data system and information processing activities.

3. Failure to comply with this policy is cause for disciplinary action, up to and including termination of employment, civil action, and/or criminal prosecution.

4. Employees shall report all unauthorized accesses, unauthorized attempts or unauthorized uses of the company data system to Corporate Headquarters.

5. Employees shall develop and change data system passwords in accordance with company approved procedures on the system. The passwords should not be displayed on or around their work station.

6. Employees shall keep their user ID codes and passwords confidential at all times. Employees shall not share their user ID codes with another individual. If a user ID code or password has been compromised, the user must contact Corporate Headquarters immediately. Employees may be held responsible for any action performed using their system ID.

7. Employees shall log off their work stations when unattended. If the work station is not properly protected, employees may be held responsible for any action performed using their system identification in their absence.

8. All company information must be protected from unauthorized view and exposure.

9. Employees shall arrange proper disposal of classified printed material (such as manuals and printouts), classified magnetic media or other classified storage media which is no longer needed.

10. Employees shall access only those systems, applications, networks and/or data that they are authorized to use.

11. Employees shall not attempt to gain access to sensitive information or facilities that are not directly related to the performance of their assigned tasks. This includes improper access to confidential data such as other employee's financial or clinical information for reasons other than to perform a job-related task.

12. Employees waive any right to privacy with respect to any information maintained on generally accessible areas of the electronic data system, including but not limited to electronic mail messages, correspondence, notes, word processing systems and the like, and consent to the access and disclosure of such information by the company. Mobile Hyperbaric Centers' electronic data systems are to be used for company business purposes only.

Company Policy: Unauthorized Disclosure of Protected Health Information (PHI)
Policy Number: MHC HIPAA 2.0
Created: 7/20/09
Effective: 7/31/09
Revised: 3/12/2010
Approved by: Charles Cowap, MD

MHC HIPAA 2.1: Policy

1. If it has been suspected that an error has been made in which an unauthorized disclosure of PHI occurs, whether it be verbal or written, this event must be reported within according to procedure, documented, investigated, and tracked according to the Health Insurance Portability and Accountability Act (HIPAA) guidelines.

2. The proper individual whose information was exposed must be notified.

3. Failure to report the unauthorized disclosure of PHI is a serious violation of Mobile Hyperbaric Centers' policy.

4. Every effort will be made to correct the situation and re-educate staff.

5. Repeated errors and/or a single serious violation may result in disciplinary action as determined to be appropriate by Mobile Hyperbaric Centers.

6. In the event of gross negligence, significant unauthorized disclosure of PHI, willful breach of confidentiality, or serious violation of medical records release procedures Mobile Hyperbaric Centers will impose disciplinary action up to and including discharge as determined to be appropriate. In addition, criminal penalties may also apply.

MHC HIPAA 2.2: Procedure

1. Mobile Hyperbaric Centers must be informed of an incident of an unauthorized disclosure of PHI by the following:
a. Corporate employees notify their supervisor immediately upon knowledge of incident.
b. Patient or other requestor – may notify the corporate compliance department or file a complaint with the facility's administration.
c. The corporate compliance department may notify an operations manager or a member of the senior management team directly.
d. A business associate must inform Mobile Hyperbaric Centers in the event of any breach of protected health information.

2. Center Employee Notification
a. Employee must notify the Center Director. Failure to notify manager immediately is a serious violation of Mobile Hyperbaric Centers' policy.
b. Supervisor:
(i) Completes the Unauthorized Disclosure of Protected Health Information Investigation Form to the extent possible.
(ii) Faxes form to corporate for signature and further action
(iii) Begins the established investigation process as further outlined below.
(iv) The patient(s)/individual(s) who were affected by the unauthorized disclosure are notified via writing according or other required means according to the MHC Policy and Procedure for Notification of Breach
c. Corporate compliance Manager completes and signs the form and forwards it to:
(i) President/CEO who assists the Center Director with the creation of an action plan to include:
a. Remedial training to include re-training certificate;
b. Verbal and/or written counseling and performance improvement plan;
c. Close supervision as needed.
(ii) Corporate Compliance Office to proceed with required HIPAA reporting procedure.
(iii) President/CEO who notifies Legal and Corporate Counsel as appropriate.

3. Investigation of any unauthorized disclosure of PHI event will be conducted in a professional, discreet, and timely manner. Actions will be taken to remedy the situation as identified below:

a. Every effort will be made to retrieve the PHI sent in error for review and destruction.
b. The correct patient information originally requested will be retrieved and expedited to the requesting party, if appropriate.
c. Personal visits and/or phone calls will be made to interview the employee(s) and others relevant to the event.
d. The patient records may be requested for examination.
e. The patient authorization will be requested and reviewed.
f. The Company computer database utilized at the facility will be examined.
g. Copies of any and all of the above will be obtained as necessary for investigation of the event.
h. Written statements may be requested of employees, hospital staff, etc., involved in or having knowledge of the event.
i. All data gathered will be examined and discussed with the corporate compliance department and CEO-president prior to any disciplinary actions being taken.
j. If the supervisor requests the employee(s) be removed, this will be discussed with the Presidents/CEOs before any decision is made or action taken.

4. Investigation Report and Follow Up

a. The completed investigation report will be forwarded to:
(i) Center Director/ Supervisor;
(ii) Corporate Compliance Manager;
(iii) President/CEOs;
(iv) The investigation report will be reviewed by the above, as appropriate, to take corrective actions and recommend any disciplinary actions needed. The supervisor will work closely with the president/CEO to determine if disciplinary action is necessary and if so to what degree.

b. Re-training of the involved associate(s) will take place immediately and the re-training certificate will be completed and sent to the corporate compliance manager upon completion of training.
c. A log of all investigation reports will be maintained by the Corporate Compliance Office.
d. If a verbal or written counseling is presented to the employee(s), a signed copy of the counseling will be immediately forward by the appropriate manager to the corporate office.
e. If after investigation, the incident is determined to be one of gross negligence, significant unauthorized disclosure of PHI, willful breach of confidentiality, and/or serious violation of medical records release procedures, the actions taken may include the employee(s) discharge as determined to be appropriate by Company and/or further legal action, if warranted.
f. If it is determined, after full investigation, that no unauthorized disclosure of PHI and/or breach of confidentiality occurred, this finding will be clearly stated on the investigation report and communicated to all parties listed in 6.a.
g. Applicable forms including the re-training certificate and counseling form will be sent to the Corporate Office and will be placed in the employee(s)' personnel file.

Company Policy: Breach of PHI, Notification Policy and Procedures
Policy Number: MHC HIPAA 3.0
Created: 3/4/2010
Effective: 3/12/2010
Revised:
Approved by: Charles R. Cowap, MD

MHC HIPAA 3.1: INTRODUCTION

1. With the Introduction of the HITECH Act, an extension of HIPAA Privacy and Security Rules, Mobile Hyperbaric Centers acknowledges the need for a plan of action in the event of a beach of protected health information.

MHC HIPAA 3.2: DEFINITIONS

2. Breach: the unauthorized acquisition, access, use or disclosure of protected health information which compromise the security or privacy of such information, except where an unauthorized person to whom such information is disclosed would reasonably been able to retain such information.
a. Exceptions:
i) Any unintentional acquisition, access, or use of protected health information by an employee or individual acting under the authority of a covered entity or business associate IF:
ii) such acquisition, access, or use was made in good faith and within the course and scope of the employment or other professional relationship of such employee or individual, respectively, with the covered entity or business associate.
iii) such information is not further acquired, accessed, used or disclosed by any person; or
iv) Any inadvertent disclosure from an individual who is otherwise authorized to access PHI at a facility operated by a covered entity or business associate to another similarly situated individual at the same facility; and
v) any such information received as a result of such disclosure is not further acquired, used, or disclosed without authorization by any person.

MHC HIPAA 3.3: GENERAL PROVISIONS

1. Applicability to Mobile Hyperbaric Centers [HITECH Sec. 13402 (a)]
a. Mobile Hyperbaric Centers is a "covered entity" that accesses, maintains, retains, modifies, records, stores, destroys or otherwise holds, uses or discloses unsecured PHI and is therefore required by the HITECH Act to notify each individual whose information was "breached"

2. Requirements of Business associates: extracted from 42 USC 17932
a. As quoted, "A business associate of a covered entity that accesses, maintains, retains, modifies, records, stores, destroys, or otherwise holds, uses, or discloses unsecured protected health information shall, following the discovery of a breach of such information, notify the covered entity of such breach. Such notice shall include the identification of each individual whose unsecured protected health information has been, or is reasonably believed by the business associate to have been, accessed, acquired, or disclosed during such breach."

MHC HIPAA 3.4: PROCEDURE FOR NOTIFICATION OF BREACH

1. Concurrently with the MHC Policy and Procedure for Unauthorized Disclosure of Protected Health Information, the following shall be applicable according to the HITECH Act:

2. Policy: Any breach of information discovered by Mobile Hyperbaric Centers or a Business Associate MUST be reported to Mobile Hyperbaric Centers, and follow within the scope of all applicable policies, procedures, and regulatory standards.

3. Notification of Mobile Hyperbaric Centers by Business Associate
a. Policy: A business associate of Mobile Hyperbaric Centers that accesses, maintains, retains, modifies, records, stores, destroys, or otherwise holds, uses, or discloses unsecured

protected health information shall, following the discovery of a breach of such information, notify Mobile Hyperbaric Centers of such breach.
i) Such notice shall include the identification of each individual whose unsecured protected health information has been, or is reasonably believed by the business associate to have been, accessed, acquired, or disclosed during such breach.

4. Breaches Treated As Discovered
a. Policy: a breach shall be treated as discovered by Mobile Hyperbaric Centers or by a business associate as of the first day on which such breach is known to such entity or associate, respectively, (including any person, other than the individual committing the breach, that is an employee, officer, or other agent of such entity or associate, respectively) or should reasonably have been known to such entity or associate (or person) to have occurred.

5. Timeliness of Notification
a. Policy: notifications are required shall be made without unreasonable delay and in no case later than 60 calendar days after the discovery of a breach by the covered entity involved
i. A concise record of every notification must be kept, including, but not limited to:
1. Any necessary delay in notification

6. Methods of Notice

a. Individual Notice
i. Written notification by first-class mail to the individual (or the next of kin of the individual if the individual is deceased) at the last known address of the individual or the next of kin, respectively, or, if specified as a preference by the individual, by electronic mail. The notification may be provided in one or more mailings as information is available.
ii. In the case in which there is insufficient, or out-of- date contact information (including a phone number, email address, or any other form of appropriate communication) that precludes direct written notification to the individual, a substitute form of notice shall be provided, including, in the case that there are 10 or more individuals for which there is insufficient or out-of-date contact information, a conspicuous posting for a period determined by the Secretary (of HHS) on the home page of Mobile Hyperbaric Centers' website or notice in major print or broadcast media, including major media in geographic areas where the individuals affected by the breach likely reside. Such a notice in media or web posting will include Mobile Hyperbaric Centers' toll-free number, where an individual can learn whether or not the individual's unsecured protected health information is possibly included in the breach.
iii. In any case deemed by Mobile Hyperbaric Centers involved to require urgency because of possible imminent misuse of unsecured protected health information, Mobile Hyperbaric Centers, in addition to notice provided under subsection (a), may provide information to individuals by telephone or other means, as appropriate.

b. Media Notice
a. Notice shall be provided to prominent media outlets serving a State or jurisdiction, following the discovery of a breach if the unsecured protected health information of more than 500 residents of such State or jurisdiction is, or is reasonably believed to have been, accessed, acquired, or disclosed during such breach.

c. Notification to Health and Human Services
a. Notice shall be provided to the Secretary by covered entities of unsecured protected health information that has been acquired or disclosed in a breach.
i. If the breach was with respect to 500 or more individuals than such notice must be provided immediately.

ii. If the breach was with respect to less than 500 individuals, the Mobile Hyperbaric Centers may maintain a log of any such breach occurring and annually submit such a log to the Secretary documenting such breaches occurring during the year involved.

7. Content of Notification

a. Regardless of the method of transmission, a notice of breach to an individual MUST include the following:
i. A brief description of what happened, including the date of the breach and the date of the discovery of the breach, if known.
ii. A description of the types of unsecured protected health information that were involved in the breach (such as full name, Social Security number, date of birth, home address, account number, or disability code)
iii. The steps individuals should take to protect themselves from potential harm resulting from the breach.
iv. A brief description of what Mobile Hyperbaric Centers is doing to investigate the breach, to mitigate losses, and to protect against any further breaches.
v. Contact procedures for individuals to ask questions or learn additional information, which shall include Mobile Hyperbaric Center's toll-free telephone number, an e-mail address, Web site, or postal address.

8. Delay of Notification Authorized for Law Enforcement Purposes
a. If a law enforcement official determines that a notification, notice, or posting would impede a criminal investigation or cause damage to national security, such notification, notice, or posting shall be delayed.

Company Policy: Patient Request for Medical Records or Medical Records Transfer
Policy Number: MHC HIPAA 4.0
Created: 3/5/2010
Effective: 3/12/2010
Revised:
Approved by: Charles R. Cowap, MD

MHC HIPAA 4.1: General Policy on Requests for Medical Records from an Individual

1. Mobile Hyperbaric Centers, in compliance with the HIPAA Administrative Simplification and related Rules, recognizes the patient right of inspection and copy of medical records.
2. A patient must submit a request for medical records copies in writing to Mobile Hyperbaric Centers Corporate Headquarters for approval.
a. The written request must contain the following information:
i) The Patient's Name
ii) The Patient's Date of Birth
iii) The Patient's Social Security Number
iv) The Name and Complete Address of Where Information is to be Sent
v) The Dates of Service and Type of Information to be Sent
vi) The Patient or Guardian Signature and Date
vii) The requestor's Name and Telephone Number Where You Can Be Reached
b. Denial of access to medical records may only be sought under the terms and conditions illustrated in 45 CFR 164.542 section (a)(2)and (a)(3).
c. Review of denials are allowable in circumstances highlighted in 45 CFR 164.542 section (a)(3).
3. Upon approval of the request for disclosures, the designated party will provide the requestor with PHI in the form requested within 30 days of the request.

a. Information provided to the requestor must be within a Mobile Hyperbaric Centers designated record set
b. Designated Record sets examples:
i) Medical record of covered providers (MHC current EHR)
ii) The content of the chart in a paper-based provider office
iii) The information defined as the legal health record in a computer-based record environment Billing record of covered providers
iv) The content of the patient account file in a paper-based provider office
v) The information defined as patient account data in a computer-based record environment
vi) The enrollment, payment, claims adjudication, and case or medical management record systems maintained by or for a health plan
vii) The information defined as enrollment, payment, claims adjudication, and case or medical management information in a health plan information system
viii) Other records used to make decisions about the individual
ix) EXCEPTIONS: Health information generated, collected, or maintained for purposes that do not include decision making about the individual

Company Policy: Policy for Marketing and Sale of PHI
Policy Number: MHC HIPAA 5.0
Created: 3/5/2010
Effective: 3/10/2010
Revised:
Approved by: Charles R. Cowap, MD

MHC HIPAA 5.1: Marketing Communications Policy
1. Under no circumstance may patient information be sold to a third party for remuneration.
a. Unless clear authorization is documented by the subject of that patient information
2. In a circumstance where Mobile Hyperbaric Centers receives remuneration for distributing communications to a patient on behalf of a third party, Mobile Hyperbaric Centers must first obtain an authorization from the patient allowing MHC to distribute such communication to that individual.
a. Except for communications regarding a drug or biotic that is currently being used or administered to the individual.

Company Policy: Patient request for, and Policy on Accounting for Disclosures
Policy Number: MHC HIPAA 6.0
Created: 3/5/2010
Effective: 3/12/2010
Revised:
Approved by: Charles R. Cowap, MD

MHC HIPAA 6.1: Accounting for disclosures of Patient Information
1. Disclosures of patient information that is outside any of the following examples must be documented in a standard location for each patient, and made available to such and individual upon request:
a. To carry out treatment, payment, and healthcare operations
b. For required disclosures, as outlined in the Notice of Privacy Practices
c. This paragraph (1) expires 12/31/2013
2. AS OF 1/1/2014 ALL DISCLOSURES MUST BE RECORDED in a standard location (i.e. on a notes page in the employee file), and made available for patient requests.
3. Record must be kept for a minimum of 6 years. Record must be kept for a minimum of 3 years as of 1/1/2014: HITECH Act as indicated in paragraph (2).

4. All requests for an accounting of disclosures must be approved through corporate headquarters.
5. Information to be documented in the event of an allowable disclosure of information includes:
a. Date and Time of the disclosure
b. Name, and if possible, address of the entity that received the information
c. A brief description of the information disclosed

MHC HIPAA 6.2: Business Associate Responsibilities

1. In accordance with the HITECH Act, business associates are required to keep an accounting of all disclosures made. Mobile Hyperbaric Centers is not required to track the disclosures made by business associates.
2. If a patient requests an accounting of disclosures, we must provide them:
a. A list of disclosures made by Mobile Hyperbaric Centers
b. A list of Business Associates to contact to retrieve other disclosures possibly made

Company Policy: Complaint Procedures
Policy Number: MHC HIPAA 7.0
Created: 3/5/2010
Effective: 3/12/2010
Revised:
Approved by: Charles R. Cowap, MD

MHC HIPAA 7.1: Individual (Patient) Complaint Procedure
1. All patient complaints must be made in writing.
2. Complaints shall be forwarded to Mobile Hyperbaric Centers corporate headquarters
3. Complaints will be dealt with on a case-by-case basis
a. If a complaint highlights the fact that PHI was disclosed, an investigation and notice of disclosure must be performed in accordance with MHC HIPAA 2.0 and 3.0.

Company Policy: Notice of Privacy Practices
Policy Number: MHC HIPAA 8.0
Created: 3/5/2010
Effective: 3/12/2010
Revised:
Approved by: Charles R. Cowap, MD

MHC HIPAA 8.1:
1. Before a patient begins treatment or services with Mobile Hyperbaric Centers, that patient must receive, and acknowledge receiving, the Mobile Hyperbaric Centers Notice of Privacy Practices.
a. Receipt is noted on the Mobile Hyperbaric Centers Consent to Treat Form, and MUST be initialed by the patient before they may begin treatment.
2. Each Center must have this noticed posted, when feasible, or, at minimum (but including) having the notice available in paper form.
3. The Notice of Privacy Practices shall contain the required elements as highlighted in HIPAA Administrative Simplification Regulations and related Rules.

4. Whenever modified, the Notice shall be changed on the Company intranet, as well as notification sent to all Centers.

Clinical Competencies

Required for: Practice Coordinator, Technician, Physician

Part 6: Supplied Medications

POLICY:

Only those medications that have been dispensed by the Mobile Hyperbaric Centers Host Hospital Pharmacy Department may be administered to the patient. Patient's personal medication(s) should not be administered except in those instances when pharmacy is unable to obtain the medication, the patient's physician authorizes use of patient's own medication(s) as written order, and the need for a medication is unavoidable during the outpatient procedure/visit.

PROCEDURE:

A. Outpatient Supplied Medications

1. The patient will be encouraged to take all medications before or after his or her scheduled procedure/visit.

If the need for self-medication by the patient is unavoidable during the outpatient procedure/visit, the following will occur:

a. All medications provided by patients for treatment in an outpatient procedure/visit must be inspected by the department/unit personnel prior to use.
b. The medication will be checked to ensure that it is properly labeled and can be identified by referencing http://online.lexi.com. If the product was dispensed from a retail pharmacy, the medication needs to be in the original container as dispensed by the pharmacy. The medication vial must contain an intact label that includes the following:
    i. Product name,
    ii. Strength, and
    iii. Instructions for use.
c. The integrity of the product should be verified for signs of contamination or deterioration, and discarded if there are questions of usability.
d. If patient specific medications are to be stored in the department/unit, they will be clearly labeled for that patient and segregated from normal floor stock medications. They are to be used for that patient only.
e. Unidentifiable personal medications by staff will not be used.

Personal medications with a labeled dispensing date older than one year will be considered expired and unusable.

3. The individual who verifies the medication will document the following:

a. Drug,
b. Strength,

c. Dose
d. and time of self-administration.

C. Physician Supplied Medications

1. Medications supplied by the physician are not permitted within the organization.

   This includes but is not limited to: samples of new drugs not yet on the market, investigational drugs other than those approved by the Pharmacy and Therapeutics Committee, homeopathic or herbal products, certain compounded medications, and drugs that do not have FDA-approved labeling obtained outside the United States

Clinical Competencies

Required for: Technician, Physician

Part 7: Vital Signs and Daily Assessment

(Clinical Employees only): TECH AND PHYSICIAN

MHC PROTOCOL FOR VITAL SIGNS

Temperature

Step 1 – Have patient sit in an upright position. (patient should not move and be relaxed as possible)

Step 2 – Insert probe bulb into the plastic cap.

Step 3 – Tell the patient to open his or her mouth wide with his/her tongue upward, and gently place thermometer underneath the tongue.

Step 4 – Once the thermometer is underneath the tongue ask them to close his/her mouth and then begin taking their body temperature.

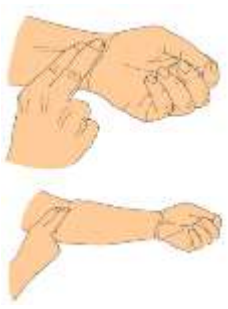
Step 5 – Push the button on the machine, the thermometer will beep and register a number indicating degrees Fahrenheit or Celsius the temperature of the patient's body. When done with procedure, dispose of the plastic cap in a sanitary manner.

Normal Temperature Range: 97.8F (36.5C) to 99F (37.2C)

Manual Pulse

Step 1 – Relax the patient's arm with the palm facing the ceiling.

Step 2 – Use the 2nd and 3rd fingertips and place it on the patient's wrist or where the forearm meets the upper arm press firmly but gently on the arteries (radial or brachial) until one can feel a pulse. (See Below)



Pulse	
Descriptors: regular, irregular, strong or weak	
Adult	60 to 100 beats per minute
Children - age 1 to 8 years	80 to 100
Infants - age 1 to 12 months	100 to 120
Neonates - age 1 to 28 days	120 to 160

Step 3 – Keep hand on the pulse and begin counting, use a clock or watch to keep track of time. Count pulse for 60 seconds (Or 30 seconds and multiply by two to calculate pulse).

Step 4 – Chart results on the Triage Form.

Respirations

Step 1 - Have patient sit up straight and relax while breathing.

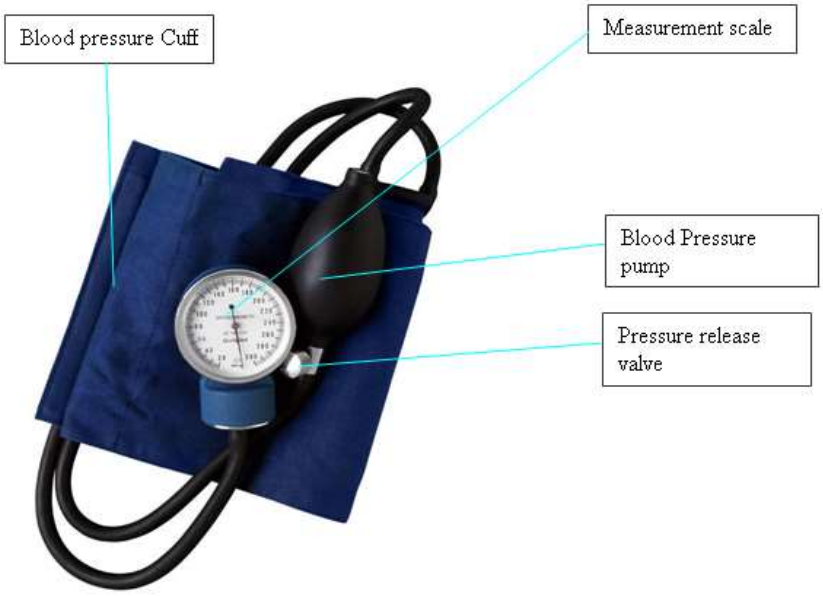
Step 2 – As the patient is breathing look at the chest as it rises

Step 3 – When the chest rises then begin to count for a full minute, then record the results on Triage Form

Respirations	
Descriptors: normal, shallow, labored, noisy, Kussmaul	
Adult (normal)	12 to 20 breaths per minute
Children - age 1 to 8 years	15 to 30
Infants - age 1 to 12 months	25 to 50
Neonates - age 1 to 28 days	40 to 60

Manual Blood Pressure

When taking blood pressures, make sure patient is given 3-5 minutes to rest before taking BP



Step 1 – Sit patient in a comfortable chair, with his/her back supported with legs uncrossed.

Step 2 – Patient should attempt not to move and relax arm

Step 3 – Wrap the cuff carefully around the patient's upper or lower arm depending on the size of patient

Step 4 – The cuff should be sized easily for the patient, so that it would have enough room for one fingertip to slip underneath

Step 5 – Place the stethoscope in medical staff's ears and place the diaphragm on the artery underneath the cuff

Step 6 – The care giver should begin pumping the cuff until at least 180-200 mmgh or loss of pulse.

Step 7 – Slowly release the pressure valve and listen to the heart sounds.

Step 8 – The first sound (heart beat) is the systolic pressure and the last sound heard is the diastolic pressure

Blood pressure		
	Systolic	**Diastolic**
Adult	90 to 140 mmHg	60 to 90 mmHg
Children - age 1 to 8 years	80 to 110 mmHg	

Infants - age 1 to 12 months	70 to 95 mmHg	
Neonates - age 1 to 28 days	>60 mmHg	

Blood Pressure/Pulse using Electronic Sphygmomanometer

Step 1 – Sit patient in a comfortable chair with forearm relaxed and supported in a palm up position

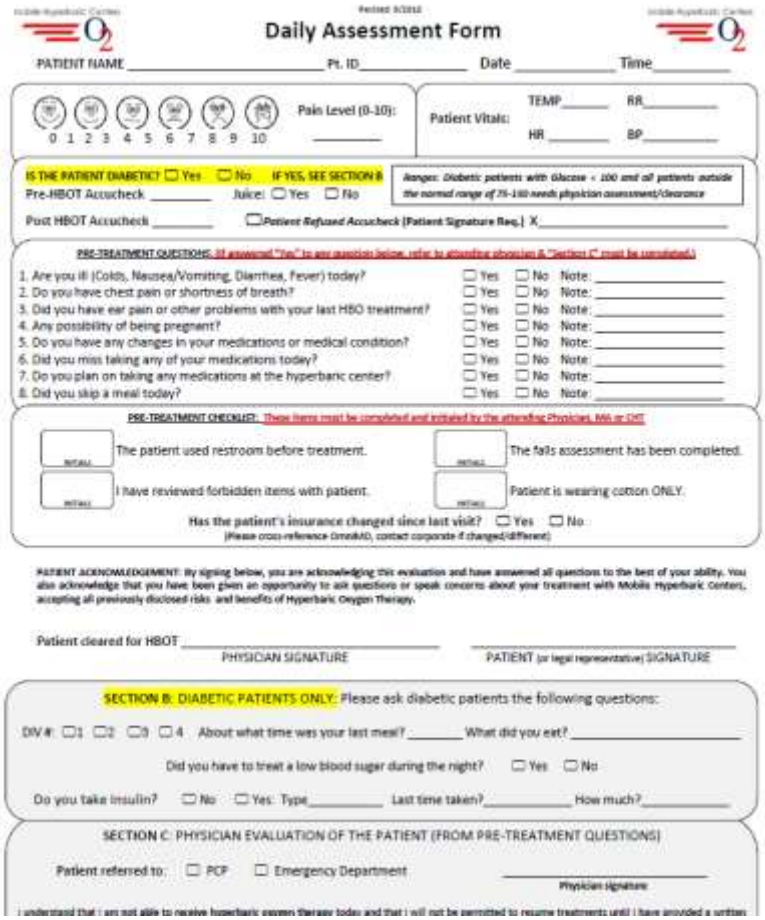
Step 2 – Roll patient's sleeves up about 5 inches above the elbow and apply cuff around the upper or lower arm depending on the size of the patient.

Step 3 – Locate the Brachial artery and place the metal probe or arrow over the arterial pulse

Step 4 – Have patient place arm in relaxed position below the level of the heart and push the start button

Step 5 – Record the blood pressure and pulse on the Triage Form

Many of the electronic sphygmomanometers come with a temperature probe.



Daily Assessment Form

PATIENT NAME _____ Pt. ID _____ Date _____ Time _____

Pain Level (0-10): 0 1 2 3 4 5 6 7 8 9 10

Patient Vitals: TEMP _____ RR _____ HR _____ BP _____

IS THE PATIENT DIABETIC? ☐ Yes ☐ No IF YES, SEE SECTION B

Ranges: Diabetic patients with Glucose < 100 and all patients outside the normal range of 70-140 needs physician assessment/clearance

Pre-HBOT Accucheck _____ Juice: ☐ Yes ☐ No

Post HBOT Accucheck _____ ☐ Patient Refused Accucheck (Patient Signature Req.) X _____

PRE-TREATMENT QUESTIONS: (If answered "Yes" to any question below, refer to attending physician & "Section C" must be completed.)

1. Are you ill (Colds, Nausea/Vomiting, Diarrhea, Fever) today? ☐ Yes ☐ No Note: _____
2. Do you have chest pain or shortness of breath? ☐ Yes ☐ No Note: _____
3. Did you have ear pain or other problems with your last HBO treatment? ☐ Yes ☐ No Note: _____
4. Any possibility of being pregnant? ☐ Yes ☐ No Note: _____
5. Do you have any changes in your medications or medical condition? ☐ Yes ☐ No Note: _____
6. Did you miss taking any of your medications today? ☐ Yes ☐ No Note: _____
7. Do you plan on taking any medications at the hyperbaric center? ☐ Yes ☐ No Note: _____
8. Did you skip a meal today? ☐ Yes ☐ No Note: _____

PRE-TREATMENT CHECKLIST: (These items must be completed and initialed by the attending Physician, MA or CHT)

_____ The patient used restroom before treatment.

_____ The falls assessment has been completed.

_____ I have reviewed forbidden items with patient.

_____ Patient is wearing cotton ONLY.

Has the patient's insurance changed since last visit? ☐ Yes ☐ No

(Please cross-reference OmniMD, contact corporate if changed/different)

PATIENT ACKNOWLEDGEMENT: By signing below, you are acknowledging this evaluation and have answered all questions to the best of your ability. You also acknowledge that you have been given an opportunity to ask questions or speak concerns about your treatment with Mobile Hyperbaric Centers, accepting all previously disclosed risks and benefits of Hyperbaric Oxygen Therapy.

Patient cleared for HBOT _____ PHYSICIAN SIGNATURE

_____ PATIENT (or legal representative) SIGNATURE

SECTION B: DIABETIC PATIENTS ONLY: Please ask diabetic patients the following questions:

DIV #: ☐1 ☐2 ☐3 ☐4 About what time was your last meal? _____ What did you eat? _____

Did you have to treat a low blood sugar during the night? ☐ Yes ☐ No

Do you take insulin? ☐ No ☐ Yes: Type _____ Last time taken? _____ How much? _____

SECTION C: PHYSICIAN EVALUATION OF THE PATIENT (FROM PRE-TREATMENT QUESTIONS)

Patient referred to: ☐ PCP ☐ Emergency Department

_____ Physician signature

I understand that I am not able to receive hyperbaric oxygen therapy today and that I will not be permitted to resume treatments until I have provided a written

General Rules for Obtaining Vital Signs

1. Identify yourself and patient, then explain what you are going to do
2. Wash hands and use standard precautions as necessary
3. Provide privacy for the patient by keeping the vital signs unknown to other patients as well as answers to any triage questions.

Assessment of Patient Vital Signs

1. Patients will have a complete set of vital signs before the start of any hyperbaric treatment without exception.
2. Each patient may have a set of vital signs after the treatment at the discretion of the supervising physician.
3. Any vital signs not in the normal range as stated above needs to be assessed by the physician before any hyperbaric treatment and prior to discharge.
4. The physician must sign off on the Triage Form prior to patient starting therapy.

If medical assistant or technician is unsure of the vital signs recorded, they must be reviewed by the supervising physici

PLEASE COMPLETE THE FOLLOWING WITH YOUR TRAINER

Temperature
Communication: Identify Yourself, Identify Your Patient, Explain What You Are Going To Do
Asepsis: Wash Hands And Use Standard Precautions As Necessary
Inserts The Cone-Shaped End Of The Tympanic Thermometer Into A Probe Cover.
Grasps Pinna And Pulls Up And Back. Places The Probe Into The Ear Canal.
Removes The Probe From Patient's Ear When Measurement Completed.
Correctly Reads Results (Examiner: Read Thermometer After Student Does And Records Reading)
Ejects The Probe Cover Into The Waste Container And Correctly Records Results.
Student's Recorded Temperature Varies No More Than 0.2 Degree From Examiner's Temperature.
Pulse
Locates The Radial Pulse By Placing Tips Of Fingers On Thumb Side Of The Patient's Wrist.
Counts Pulse For 30 Seconds Times 2 Or For 60 Seconds, Using A Timepiece.
Records Pulse Rate. (Examiner: Check Patient's Pulse Rate While Student Does And Records Rate)
Student's Recorded Pulse Rate Is Within 4 Beats Of Examiner's Recorded Rate.
Respiration
Counts Patient's Respirations For 30 Seconds Times 2 Or For 60 Seconds, Using A Timepiece.
Records Respiration Rate. (Examiner Should Check Patient's Respirations While Student Does, Recording Rate.)
Student's Recorded Respiration Rate Is Within 2 Respirations Of Examiner's Recorded Rate.
Blood Pressure (anaeroid sphygmomanometer)
Assists Patient Into A Comfortable Sitting Or Recumbent Position With Forearm Relaxed And Supported In A Palm-Up Position
Rolls Patient's Sleeve Up About 5 Inches Above The Elbow And Applies The Cuff Around The Upper Arm Just Above The Elbow, Keeping Lower Column Of Mercury Or Dial Approximately At The Level Of The Heart.
Cleans Earpieces Of Stethoscope With Alcohol Swabs And Places In Ears.
Locates Brachial Artery, Places Diaphragm Of Stethoscope Over Brachial Artery And Holds Snugly In Place
Tightens Valve Attached To Air Bulb, Pumps Up Cuff Appropriately.
Opens Valve On Air Bulb, Letting Air Escape Slowly And Evenly, While Watching Gauge And Listening For Pulse Sounds.
Records Blood Pressure Correctly.
Student's Recorded Blood Pressure Reading Is Within 4Mm Of Examiner's Recorded Rate.
Blood Pressure (electronic sphygmomanometer)
Communication: Identify Yourself, Identify Your Patient, Explain What You Are Going To Do
Asepsis: Wash Hands And Use Standard Precautions As Necessary
Privacy: Provide For Privacy By Pulling Curtains
Equipment: Assemble The Equipment Needed For The Skill (Electronic Sphygmomanometer)
Provides Adequate Lighting.
Assists Patient Into A Comfortable Sitting Or Recumbent Position With Forearm Relaxed And Supported In A Palm-Up Position
Rolls Patient's Sleeve Up About 5 Inches Above The Elbow And Applies The Cuff Around The Upper Arm Just Above The Elbow.
Locates Brachial Artery
Places Metal Probe Over Brachial Artery.
Has Patient Place Arm In Relaxed Position Below The Level Of The Heart
Pushes The Start Button, Having Patient Keep Still For Entire Time.
Records Blood Pressure Correctly.
Student's Recorded Blood Pressure Reading Is Within 4 Mm Of Examiner's Recorded Rate.

Clinical Competencies

Required for: Practice Coordinator, Technician, Physician

Part 8: Quality Assurance and Performance Improvement

REFERENCE

1. Mobile Hyperbaric Centers Quality Improvement Plan
www.mhcenters.com/forum > Manuals and Forms > Operations/Technical Manuals > MHC Compliance Binder

Quality. Quality services are services that are provided in a safe, effective, recipient-centered, timely, equitable, and recovery-oriented fashion.

Mobile Hyperbaric Centers is committed to the ongoing improvement of the quality of care its patients receive, as evidenced by the outcomes of that care. The Company continuously strives to ensure that:

• The treatment provided incorporates evidence based, effective practices;

• Risk to patients and others is minimized through the effective training of all personnel

• Patient's individual needs and expectations are respected; patients – or those whom they designate – have the opportunity to participate in decisions regarding their treatment; and services are provided with sensitivity and caring;

• Treatments and services are provided in a timely and efficient manner, offered in flexible scheduling, with appropriate coordination and continuity across all phases of care and all providers of care.

• All employees receive proper training in areas of safety, quality of care, accuracy of records and other critical areas effecting patient care.

Quality Improvement Principles. Quality improvement is a systematic approach to assessing services and improving them on a priority basis. Mobile Hyperbaric Centers' approach to quality improvement is based on the following principles:

• Patient Focus. High quality organizations focus on their patients and on meeting or exceeding needs and expectations.

• Recovery-oriented. Treatments are characterized by a commitment to promoting and preserving wellness.

• Employee Empowerment. Effective programs involve people at all levels of the organization in improving quality.

• Leadership Involvement. Strong leadership, direction and support of quality improvement activities by the governing body and CEO are key to performance improvement. This involvement of organizational leadership assures quality improvement initiatives are consistent with provider mission and/or strategic plan.

• Data Informed Practice. Successful quality improvement processes create feedback loops, using data to inform practice and measure results. Fact-based decisions are likely to be correct decisions. Therefore, accurate and complete recording of data is critical.

• Statistical Tools. For continuous improvement of care, tools and methods are needed that foster knowledge and understanding.

• Prevention Over Correction. Continuous Quality Improvement entities seek to design good processes to achieve excellent outcomes rather than fix processes after the fact.

• Continuous Improvement. Processes must be continually reviewed and improved. Small incremental changes do make an impact, and providers can almost always find an opportunity to make things better.

Continuous Quality Improvement Activities. Quality improvement activities emerge from a systematic and organized framework for improvement. This framework, adopted by the leadership, is understood, accepted and utilized throughout the organization, as a result of continuous education and involvement of staff at all levels in performance improvement. Quality Improvement involves two primary activities:

• Measuring and assessing the performance of Mobile Hyperbaric Centers' services through the collection and analysis of data.
• The collection of this data is exemplified through:
    - Patient Satisfaction Surveys
    - Referring Physician Satisfaction Surveys
    - The Corporate Compliance Program, with focus on:
        - Safety
        - Patient Compliance
        - Program Development
        - Center Compliance
        - Technical Error Reporting
    - EClinicalWorks records
        - Accurate and complete records of visits and healing progress
        - Insisting and proving compliance with regulatory standards of care

• Conducting quality improvement initiatives and taking action where indicated, including the design of new services, and/or improvement of existing services

Leadership and Organization

Leadership. The key to the success of the Continuous Quality Improvement process is leadership. The following describes how the leaders of the Mobile Hyperbaric Centers provide support to quality improvement activities.

Center Directors. With focus on each individual Center, employees can grasp goals within their own setting. The Center Directors discuss, weekly, objectives, ideas, and recommended compliance factors within their Center, as procedurally outlined in section 5.

Presidents/CEOs. With focus on the mission of the company, the Presidents/CEOs also provide leadership for the Quality Improvement process as follows:

• Supporting and guiding implementation of quality improvement activities at Mobile Hyperbaric Centers locations.
• Reviewing, evaluating and approving the Quality Improvement Plan annually.
• Announce company-wide initiatives or initiative results/progress.

Mobile Hyperbaric Centers promotes Quality Improvement activities through the planned coordination and communication of the results of measurement activities related to Quality Improvement initiatives and overall efforts to continually improve the quality of care provided. This sharing of Quality Improvement data and information is an important leadership function. Leaders, through a planned and shared communication approach, ensure that all employees have knowledge of and input into ongoing Quality Improvement initiatives as a means of continually improving performance.

Planned communications of quality improvement activities include, but are not limited to:
• Conference calls, illustrating the results/progress of initiatives
• Employee meetings at each center to gather ideas and cover progress
• Mass or individual e-mail updates relating to Quality Improvement Initiatives
• Newsletters with individual Center ideas and progress

Goals and Objectives

Mobile Hyperbaric Centers identifies and defines goals and specific objectives to be accomplished each year. These goals include training of clinical and administrative staff regarding both continuous quality improvement principles and specific quality improvement initiative(s). Progress in meeting these goals and objectives is an important part of the annual evaluation of quality improvement activities.

The following are the ongoing long term goals for the Mobile Hyperbaric Centers Quality Improvement Plan:

• To maintain quantitative measurement to assess key processes or outcomes; The Corporate Compliance Program. This system will measure essential aspects of the company, such as patient safety, and identify potential risks at individual Centers.

• To bring Center Directors, administration, and staff together to review quantitative data and major clinical adverse occurrences to identify problems;

• To carefully prioritize identified problems and set goals for their resolution;

• To achieve measurable improvement in the highest priority areas;

• To meet internal and external reporting requirements;

• To provide education and training to Center Directors, administration, and staff regarding quality improvement initiatives.

• To develop or improve necessary tools and quality indicators such as patient and physician feedback surveys.

Performance Measurement

Performance Measurement is the process of regularly assessing the results produced by the program. It involves identifying processes, systems and outcomes that are integral to the performance Mobile Hyperbaric Centers, selecting indicators of these processes, systems and outcomes, and analyzing information related to these indicators on a regular basis. Continuous Quality Improvement involves taking action as needed based on the results of the data analysis and the opportunities for performance they identify.

The purpose of measurement and assessment is to:

• Assess the stability of processes or outcomes to determine whether there is an undesirable degree of variation or a failure to perform at an expected level, leading to learning experiences or other forms of procedural training.

• Identify problems and opportunities to improve the performance of processes.

• Assess the outcome of the care provided.

• Assess whether a new or improved process meets performance expectations.

Measurement and assessment involves:

• Selection of a process or outcome to be measured, on a priority basis.

• Identification and/or development of performance indicators for the selected process or outcome to be measured.

• Aggregating data so that it is summarized and quantified to measure a process or outcome.

• Assessment of performance with regard to these indicators at planned and regular intervals.

• Taking action to address performance discrepancies when indicators indicate that a process is not stable, is not performing at an expected level or represents an opportunity for quality improvement.

• Reporting within Mobile Hyperbaric Centers on findings, conclusions and actions taken as a result of performance assessment.

Selection of a Performance Indicator. A performance indicator is a quantitative tool that provides information about the performance of a Center's processes, services, functions or outcomes. Selection of a Performance Indicator is based on the following considerations:
• Relevance to mission - whether the indicator addresses the population served
• Clinical importance - whether it addresses a clinically important process that is:
    O high volume
    O high risk or
    O problem prone

Characteristics of a Performance Indicator. Factors to consider in determining which indicator to use include:
• Scientific Foundation: the relationship between the indicator and the process, system or clinical outcome being measured
• Validity: whether the indicator assesses what it claims to assess
•Resource Availability: the relationship of the results of the indicator to the cost involved and the staffing resources that are available
•Patient Preferences: the extent to which the indicator takes into account individual or group (e.g., racial, ethnic, or cultural) preferences
• Meaningfulness: whether the results of the indicator can be easily understood, the indicator measures a variable over which the program has some control, and the variable is likely to be changed by reasonable quality improvement efforts.

The Performance Indicator Selected for the Mobile Hyperbaric Centers Quality Improvement Plan. For purposes of this plan, an indicator(s) comprises five key elements: name, definition, data to be collected, the frequency of analysis or assessment, and preliminary ideas for improvement. The following presents performance indicators currently in use by Mobile Hyperbaric Centers:

Name: *The Corporate Compliance Program*

Description:

Corporate compliance is composed of several, integral factors that ultimately lead to the successful operation of a Mobile Hyperbaric Centers' facility. These factors include human resource management, facility maintenance, safety protocol, and feedback initiatives. Understanding all policies and procedures is critical for our facilities to maintain a safe and productive atmosphere.

We have developed a system which evaluates the proper functioning of all Centers. This, "Corporate Compliance Program", has a function of reporting areas of needed improvement and areas of excellent efforts within the Centers. The Corporate Compliance Program contains a two-fold audit process based on perspectives both internal and external. Internally, every aspect of facility function is evaluated for consistency (i.e. Personnel records, patient records, proper form utilization, etc.). Externally, the concepts and requirements in regards to safety and maintenance are challenged as employees are asked to show they understand the protocols set by the company.

Further, the utilization of patient surveys convey a first-hand, patient experience with all aspects of the center. In the same scope, the patient compliance rating will also be a part of the compliance rating for each center.

In total, six areas are measured:
- Patient compliance
- Program development
- Safety Compliance
- Center compliance
- Patient satisfaction
- Data reporting

Together, these scores give everyone a general understanding of each Center's areas of excellence and areas needing improvement. For any report category scoring less than 90%, the Center should work to improve their score, as well as become compliant with all company policies and governmental institutions.

Purpose:

This Program was constructed to:

1. Improve the quality of services rendered at each Center by having a continuous, proactive approach to Quality Improvement Initiatives.
2. Ensure that all Mobile Hyperbaric Centers employees posses the knowledge and skills for effective day-to-day decision-making and actions regarding federal and state laws and regulations.
3. Ensure that all requirements of Mobile Hyperbaric Centers are uniformly applied
4. Prevent situations where the Company could be at risk financially and legally
5. Allow the Centers to understand where they rank in regards to compliance among the other centers

Assessment.
Assessment is accomplished by comparing actual performance on an indicator with:
- Self over time.
- Pre-established standards, goals or expected levels of performance.
- Information concerning evidence based practices.

Examples of assessment tools include:
- Tabulated results from the Patient Satisfaction survey

- Tabulated results from individual Compliance tracking systems
- Graphical data from trends in tracked areas such as:
    - O EClinicalWorks (or the current Electronic Health Record)
    - O Patient Files and attendance spreadsheets

Quality Improvement Initiative

Once the performance of a selected process has been measured, assessed and analyzed, the information gathered by the above performance indicator(s) is used to identify a continuous quality improvement initiative to be undertaken. The decision to undertake the initiative is based upon Mobile Hyperbaric Centers priorities and the individual Center's objectives. The purpose of an initiative is to improve the performance of existing services or to design new ones. The model utilized at Mobile Hyperbaric Centers is the "4P's

1. Plan - The first step involves identifying preliminary opportunities for improvement. At this point the focus is to analyze data to identify concerns and to determine anticipated outcomes. Ideas for improving processes are identified. This step requires the most time and effort. Affected staff or people served are identified, data compiled, and solutions proposed.
    O Meetings or other forms of communications among staff should meet on a regular basis to discuss current issues at each individual center, and record all ideas.

2. Perform - This step involves using the proposed solution, and if it proves successful, as determined through measuring and assessing, implementing the solution usually on a trial basis as a new part of the process. Both positive and negative aspects of the initiative are to be recorded.

3. Progress - At this stage, data is again collected to compare the results of the new process with those of the previous one. Progress or results should be recorded by the Center if the process is not directly related to affect any score currently tabulated by programs such as the Corporate Compliance Program.

4. Practice - This stage involves putting the changes into practice and a routine part of the targeted activity. It also means to involve others (other staff, program components or patients) - those who will be affected by the changes, those whose cooperation is needed to implement the changes on a larger scale, and those who may benefit from what has been learned. Finally, it means documenting and reporting findings and follow up. Ongoing recordkeeping as to the progress of the program is critical in assuring effectiveness.

Clinical Competencies

Required for: Practice Coordinator, Technician, Physician

Part 9: Adverse Events

REFERENCE
Mobile Hyperbaric Centers Operations Manual
www.mhcenters.com/forum > Manuals and Forms > Operations/Technical Manuals > Operations and Maintenance Manual

REFERENCE
Mobile Hyperbaric Centers Safety Manual
Available in print at each Center loation

Adverse events: Definitions

"An adverse event is any undesirable experience associated with the use of a medical product..." - *U.S. Food and Drug Administration (FDA)*

"A sentinel event is an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof. Such events are called 'sentinel' because they signal the need for immediate investigation and response. " – *Joint Commission on the Accreditation of Healthcare Organizations (JCAHO)*

General definitions of adverse events are related to, but not limited to:

- Death
- Life Threatening
- Hospitalization (initial of prolonged)
- Disability

Recognizing an adverse event

At Mobile Hyperbaric Centers, adverse/sentinel events can occur anywhere within the Center. Whether inside the chamber during treatment, or in the facility, patient care is the responsibility of Mobile Hyperbaric Centers throughout a patient's entire visit. While adverse events are not common, certain adverse events are unexpected, and must be documented per MHC policy.

Adverse Events Associated with HBOT During Treatment

Barotrauma
- Ear blockage/pain
- Sinus blockage/pain

Decompression Illness

Pneumothorax

Severe Claustrophobia

Hypoglycemia

Hypoglycemic Reaction

Anxiety

Nausea

Vomiting

Oxygen Toxicity

Seizures

Syncope (Passing out)

Mobile Hyperbaric Centers Policies and Procedures for Properly Documenting Adverse Events

Why is it important to document adverse or sentinel events as why happen throughout the patients visit at Mobile Hyperbaric Centers?

- Anything that happens to a patient during the course of their treatment or general visit to our facilities is the responsibility of Mobile Hyperbaric Centers.

- Adverse and sentinel events can affect the patient's general care, as well as their treatments with us.

- Documenting and tracking adverse events also allows Mobile Hyperbaric Centers to acknowledge any trends in occurrences as well as verify no events are outside of Hyperbaric Medicine adverse events statistics.

Tracking Adverse and Sentinel events

1. In the event of a patient injury or adverse event, tend to the needs of the patient FIRST, then document what happened.

2. If any of the events in this presentation occur, such events MUST be documented as follows:

a. Following the incident, an accurate account of the event must be entered within the electronic Medical Record for that patient.

b. An event NOT affecting the patient's body or current condition does not need to be entered in their electronic medical record. However, this information must be recorded on the MHC intranet.

3. Communicate with the appropriate individual should you be unsure whether an incident be considered an adverse event requiring documentation.

A. Required process for tracking adverse events
    1. After an adverse event is resolved to the extent where the physician (or other attending personnel) is no longer needed to tend to the patient, an accurate report of the occurrence is to be documented within that patient's electronic medical record.
    2. Notes concerning the event and the actions taken must be documented under "physician's notes" in the Hyperbaric Treatment Record
        i. Note: Events not affecting the patient's body are not required to be documented within that patient's EMR, including (but not limited to):
            - Fire. Unless the patient is harmed within the process of removal or fire.
            - Equipment Failure. Unless the patient is directly harmed within the scope of the event

B. Systems Review

1. Following an event that JCAHO would consider an adverse event, proper reporting to the host-hospital may be required. This should be completed within the scope of such polices set by the host-hospital.
2. Sentinel events occurring within the Center must evaluate systems in place to assure quality and consistency in accordance to the JCAHO "Root Cause Analysis" (below).

C. Follow-Up

1. In the event of an adverse reaction or sentinel event, that patient's information must be sent for internal review to the Chief Medical Officer to determine if the patient is still eligible for Hyperbaric Oxygen Therapy.
2. Reports to the hospital must be made per individual hospital reporting requirements.

Information is not to be released until the record has been completed and reviewed by Mobile Hyperbaric Centers.

Root Cause Analysis Matrix
Minimum Scope of Root Cause Analysis for Specific Types of Sentinel Events – October 2005

Note: Updates are highlighted in RED
Detailed inquiry into these areas is expected when conducting a root cause analysis for the specified type of sentinel event. Inquiry into areas not checked (or listed) should be conducted as appropriate to the specific event under review.

	Suicide (24 hr care)	Med. Error	Procedural Complication	Wrong site surgery	Treatment delay	Restraint death	Elopement death	Assault/ rape/ homicide	Transfusion death	Patient Abduction	Unanticipated death of full term infant	Unintended Retention of foreign body	Fall related
Behavioral assessment process (1)	X					X	X	X					
Physical assessment process (2)	X	X	X	X	X	X	X				X		X
Patient identification process		X		X					X				
Patient observation procedures	X				X	X	X	X	X		X		X
Care planning process	X		X			X	X				X		X
Continuum of care	X	X			X	X							X
Staffing levels	X	X	X	X	X	X	X	X	X	X		X	X
Orientation & training of staff	X	X	X	X	X	X	X	X	X	X	X	X	X
Competency assessment/ credentialing	X	X	X	X	X	X	X	X	X	X	X	X	X
Supervision of staff (3)	X	X	X		X	X			X			X	
Communication with patient/ family	X	X		X	X	X	X			X			X
Communication among staff members	X	X	X	X	X	X	X	X	X	X	X	X	X
Availability of information	X	X	X	X	X	X			X		X		X
Adequacy of technological support		X	X										
Equipment maintenance/ management		X	X		X	X					X		X
Physical environment (4)	X	X	X	X		X	X	X	X	X			X
Security systems and processes	X						X	X		X			
Medication Management (5)		X	X		X				X		X		X

(1) Includes the process for assessing patient's risk to self (and to others, in cases of assault, rape, or homicide where a patient is the assailant).
(2) Includes search for contraband.
(3) Includes supervision of physicians-in-training.
(4) Includes furnishings; hardware (e.g., bars, hooks, rods); lighting; distractions.
(5) Includes selection & procurement, storage, ordering & transcribing, preparing & dispensing, administration, and monitoring.

Clinical Competencies

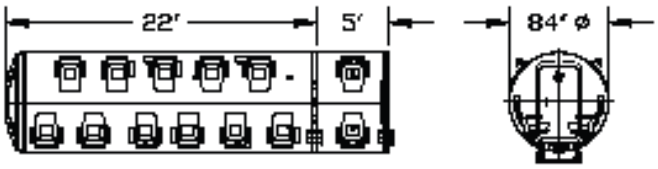
Required for: Technician, Physician

Part 10: Maintenance Education & Certification

NOTE: This section is only required for Technicians.

Equipment Overview

I Model 8400 HBOT Chamber:



The hyperbaric oxygen chamber is fabricated per ASME-PVHO regulations and standards. It is designed to treat as many as ten (10) patients at one time with a medical technician present. The maximum pressure rating is 3 ATA or 44.1 PSI. The unit is configured with two compartments. The Main Chamber as shown in diagram above is 84" in diameter x 22' in length. The second chamber is referred to as the Entry Lock Chamber which is 84" x 5' in length; it is utilized periodically as needed to transfer patients or medical personnel in or out of the main chamber in order to avoid interruption of the dive cycle. The chamber is also equipped with what is referred as a Medical Lock which is an 8" diameter passage into the chamber for small items.

II Wheelchair Lift
Description:
Each unit is provided with a wheelchair lift which is utilized to raise patients from ground level to finish floor level of chamber control room. Each location has slight variations with facility connector and therefore loading and operations should be reviewed per location.

a) Braun UVL Series
The UVL or Under Vehicle Lift is cassette type mount in the side of trailer which is deployed as needed for patient loading. The unit is operated hydraulically and has a maximum capacity of 600 pounds. The usable platform size is 30" wide x 43" in length. Many safety locks and barrier features are integrated into the unit and should be thoroughly understood by operator, please review manufacturers operation manual for complete instructions.

a) Ultron MDC 4048
The Ultron MDC 4048 is a rail style platform lift which is lowered from the exterior side of the trailer. The unit is powered by a combination of hydraulic cylinders which activates a chain and sprocket system. The usable platform size is 40" wide x 48" in length and load capacity of 2,000 pounds. Many safety locks and barrier features are integrated into the unit and should be thoroughly understood by operator please review manufacturers operation manual for complete instructions.

III Air Compressor Package:
Description:
The compressor system is the primary piece of equipment for the mobile hyperbaric operation. The system is designed to meet federal standards for oil free medical grade air. Equipment package is located in the very rear compartment of the trailer with initial control panel mounted in the right rear lower bay compartment. Final operating controller with notification display is located at the HBOT operating panel. The compressor package is powered by 480 volts, three phase shore power supplied by host facility. If main power is lost from host facility the system is rendered inoperable other than air stored in receivers. As with typical medical grade air systems the package is designed to deliver twice the required operational air with redundancy processing equipment in order to facilitate service and repairs if necessary.

a) Champion Reciprocation Compressors
This system operates four 10 HP Champion two stage reciprocating compressors delivering 35.4 CFM of Free Air each @ 175 PSIG for a total volume of 141.6 scfm. The compressed air is processed through several stages beginning with an air cooled heat exchanger, next a tube and shell water cooled heat exchanger and a final process of appropriate particulate and carbon filters. The control operation I through an Allen Bradley PLC which monitors all equipment operation and air quality. The compressed air is stored in two 33 gallon stainless steel air receivers for delivery at time of chamber pressurization and treatment cycle. Equipment package is located in the very rear compartment of the trailer with initial control panel mounted in the right rear lower bay compartment. Final operating controller with notification display is located at the HBOT operating panel.

a) Powerex Scroll Compressors
This system operates eight 5 HP Powerex Scroll compressors delivering 12.1 scfm of Free Air each @ 145 PSIG for a total volume of 96.8 scfm. The compressed air is processed through refrigerated air dryers and appropriate particulate and carbon filters. The control operation is through an Allen Bradley PLC which monitors all equipment operation and air quality. The compressed air is stored in two 33 gallon stainless steel air receivers for delivery at time of chamber pressurization and treatment cycle. Equipment package is located in the very rear compartment of the trailer with manufacturer's initial control. Final

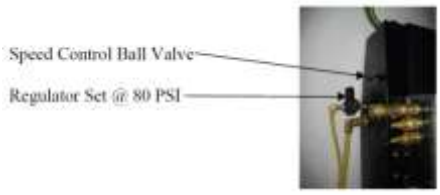
operating controller with notification display is located at the HBOT operating panel.

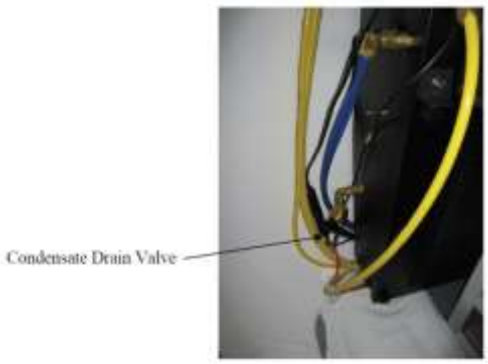
Daily Visual Inspection:
On a daily basis operator should visually monitor equipment operation for following.
1. Look for rubbing stainless steel hoses, copper tubing etc.
2. Check air cooled after-cooler "radiator" surface for blockage (2)
3. Check V-belt belts for glazing/wear
4. Check condition of compressor base vibration mounts
5. Listen and look for air leaks
6. Listen for unusual knocks, squeals, or chirping noises

Should any of the above conditions develop or suspicious concerns arise check with corporate maintenance department.

IV Environmental Control Unit - ECU:
Description:
The Environmental Control Unit – ECU is utilized to provide cooling air to patients inside the chamber during the treatment cycle. The unit is a black cabinet located at the rear of the chamber with the television enclosure mounted to the front side. The process is to draw internal chamber air through a charcoal filter in the bottom section, circulate across a set of chilled radiator coils by means of two air motors, with processed air exiting on the top side of the unit above the television.

Operation:
The air is circulated by two air motors which should be set at 80 PSI by the regulator on the upper left side of the cabinet. The speed is adjusted to the desired speed merely by opening the Flow Control Ball Valve located also on the left side above the regulator. As with any air conditioning process there is condensate which develops and is collected. Internally below the chilled radiator coils there is a collection trough which needs to be drained manually. Depending on usage and temperature variations the amount of condensate will vary dictating frequency of draining, possible recommendation would be at the end of each dive. The process of opening the drain valve will vent the accumulated condensate to the chamber exterior and will continue to vent as long as the valve remains open. After condensate has been drained the valve should be closed in order to avoid chamber pressure loss through open line. One possible recommendation to help with proper draining is to place a dry colored cloth on the floor below the left hand corner. If the drain trough happens to overflow one could easily observe color change with cloth.

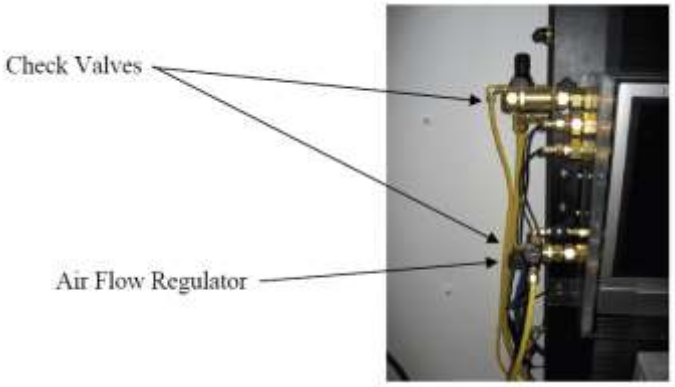




V Television Enclosure:

Description:
Again, the television is mounted to the front side of the ECU and is provided for the patient's entertainment during the treatment cycle. The actual tuning controls for the programs and movies are accomplished by the Operating technician external from the chamber.

Equalization & Venting Operation:
The television is encased in a sealed Plexiglas enclosure which is designed to segregate the electrical circuitry for the pressurized atmosphere of the chamber. This creates the need to circulate air through the enclosure in order to dissipate heat generated by the television and to equalize the pressure on the Plexiglas case. The pressure equalization and heat dissipation is accomplished by means of two mechanical check valves. One allows external pressure to enter the enclosure and balance internal with external and the other is to balance pressure during dive ascent and heat dissipation resulting from the operation of the television. Another requirement for heat rejection is to create an air flow. This is accomplished by inducing regulated air into the enclosure at 5 PSI above chamber operating pressure which would be approximately 40 PSI.



VI Air Cooled Refrigeration Chiller:

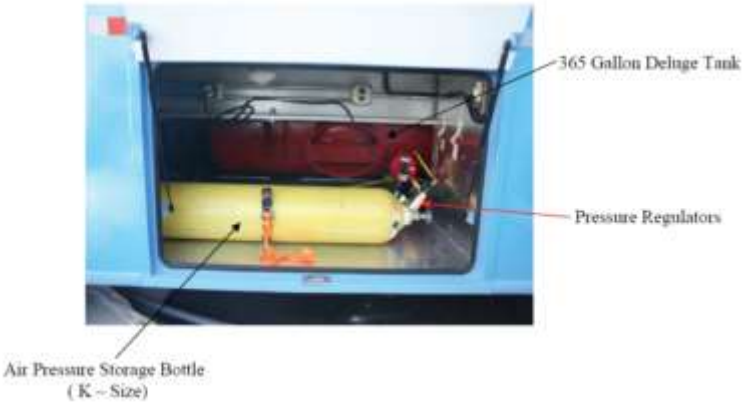
Description:
The refrigeration chiller is used for two functions. The primary function is to provide a cooling process for the compressed air system. The process of compressing air result with heating of the air. One after cooling process is to flow the air through what is referred to as a tube and shell heat exchanger. Chilled fluid circulates in the outer shell of the heat exchanger shell cooling the air flow in the inner tube. The second function is to provide the chiller fluid used in the ECU during the dive cycle.

Operation:
The unit is a continuous operation per manufacturer's recommendations. Through a single switch on the control panel the unit functions and its functions are monitored through the compressor Pico process controller. In the event set parameters deviate, warnings are displayed from the Pico display on the operators control panel. Daily visual inspection should be performed to monitor fluid level, intake filter blockage, or other obvious malfunctions such as loose components, excess noise, or fluid leakage. Primary service has been to refill chiller fluid reservoir. Visual inspection of site glass is made to insure adequate level. Should fluid level be below half way level of site glass, system should be replenished. A mixture of 50% water and polypropylene

glycol should be maintained on site for this purpose.

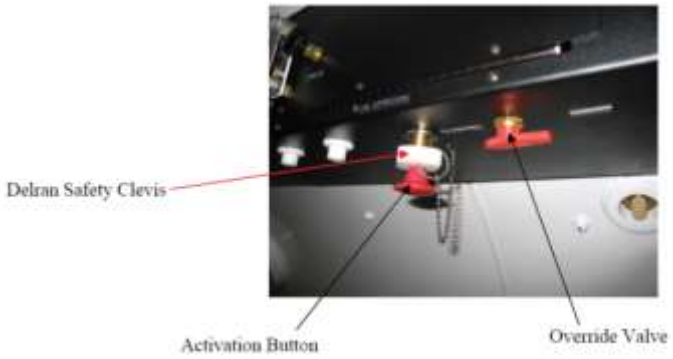
VI HBOT Chamber Fire Suppression Systems:

Description:
Per National Fire Protection Association (NFPA-99) the hyperbaric chamber is required to operate with two separate fire suppression systems. The first is referred to as a deluge system where upon activation the chamber receives 2 gallons of water per internal floor space square foot within one minute. The second is the ability to operate at least two hand held water nozzles with a flow rate of five gallons of water for four minutes. Both systems have been engineered and exact specifications are identified in System Evaluation prepared by Coker Engineering, LLC. Technician should read and be familiar with requirements.

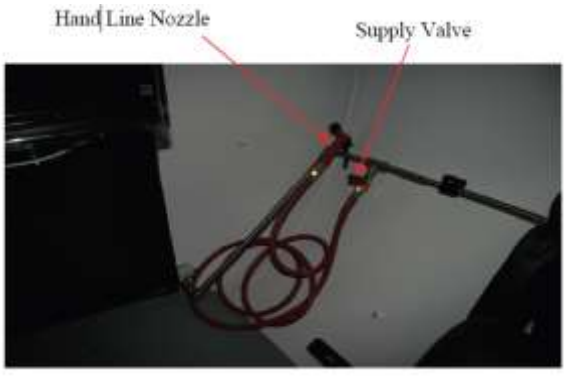


Operation:
Two on board water storage tanks hold required volume of water. The deluge system tank holds 365 gallons and is located in the lower bay directly under the area of the control room. The 40 gallon hand line tank is stored in the rear section of the chamber compartment, not easily visible. Each system tank includes water level probes and pressure gauges which are monitored on the operators control panel.

Deluge Activation:
In order to activate the Deluge system remove the white Delran Safety Clevis and push red Activation Button. There are multiple internal locations for system activation as well as on the operators control panel. Also, system override is possible by turning Override Valve adjacent to activation button.



Hand Line Activation:
Activation of Hand Line system is accomplished by opening supply valve and operating the pressure nozzle.



Special Note:
Activation of Fire Suppression System will terminate main power supply to HBOT chamber with lights and communication switched to battery backup system.

Fire Suppression System Test (Semi-Annual):

1. Notify all persons in the Treatment Center, adjacent facilities, and remote monitoring personnel, if any that a fire suppression test is being conducted.

2. Check Deluge Tank for proper water level.

3. Bleed off pressure of the Deluge Tank from 190psi to 90 psi..

4. Remove two ¾" FSS nozzles in entry lock and plug with ¾" NPT brass plug, Teflon tape should be used for best fit seal.

5. Disconnect FSS headers from inside main lock bulkhead. Loosen black mounting blocks along header inside main lock in order to shift headers away from bulkhead by approximately 12". A few mounting blocks may need to be disconnect completely in order to accommodate necessary clearance. Install two SwageLok Garden Hose Adapter Assembly at bulkhead.

6. Connect two Garden hoses to adapter assembly and route to exterior of building which has adequate drainage capabilities. Take caution with placement of hose ends so as to prevent harm to personnel in area as whipping may result as water is discharged.

7. Remove safety clevis and depress the RED FIRE SUPPRESSION PALM BUTTON on **CONTROL CONSOLE.**

8. Verify system actuates within 1 second.

9. Verify alarm is activated both audibly and visually.

10. Once system has been initiated, verify electrical equipment has been de-energized with the exception of the alarm, communication system, and emergency backup lighting.

11. Allow to continue for approximately 3 seconds.

12. Turn FIRE SUPPRESSION OVERRIDE valve to the override position, and verify the system stops (no flow). Check to make sure the air actuated valve has closed and there is still water in the tank.

13. Once "No Flow" has been verified, return FIRE SUPPRESSION OVERRIDE valve to normal operating position.

14. Pull the RED FIRE SUPPRESSION PALM BUTTON to the OUT position, replace safety clevis, and reset electrical control.

15. Repeat steps 7-14 for the following
MAIN LOCK #1 RED FIRE SUPPRESSION PALM BUTTON.
MAIN LOCK #2 RED FIRE SUPPRESSION PALM BUTTON.
ENTRY LOCK RED FIRE SUPPRESION PALM BUTTON.

16. Drain residual water from all lines.

17. Remove test couplings and hoses.

18. Reconnect FSS headers inside of main lock at bulkhead. Take caution for proper alignment of connecting nut as there is a slight offset between bulkhead penetrators and header mounting blocks. Disconnecting first inline mounting block completely will assist

with reconnecting header.

19. Check orientation of main lock nozzles and secure all mounting blocks.

20. Remove brass plugs from entry lock headers and replace FSS nozzles. Remove old Teflon tape and install new tape.

21. Return all valves to operating position

22. Fill Deluge Tank to proper level.

23. Pressurize Deluge Tank to operating pressure. Check for leaks.

24. Connect test gauge to each hand-line at nozzle/hose connection and verify line pressure is at a minimum of 50 psig above maximum treatment pressure._____ PSI

25. Remove test gauge from hand-line and replace nozzle.

26. Make available a container of adequate size to receive 5 gallons of water with activation of Hand-Line.

27. Activate Hand-Line, verify flow, and alarm activation. Continue flow to verify at least 5 gallon per minute flow rate.

28. Fill Hand-Line Tank to proper level.

29. Pressurize Hand-Line Tank to operating pressure. Check for leaks.

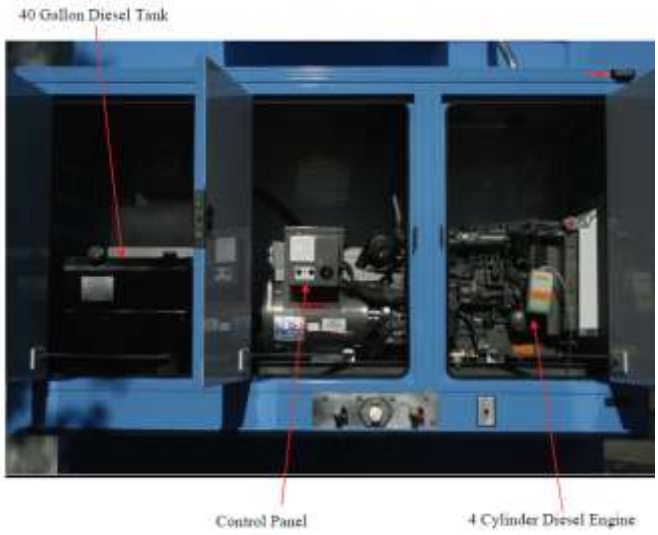
30. Verify K-Bottle has adequate volume to return center to normal operating condition.

31. Return FSS to normal operating condition. Notify all personnel test is complete.

VIII On-Board Generator

Description:

On the front of the trailer is located a 24 KW diesel generator. This unit is not capable of supporting patient treatment cycles due to power requirements of the compressor package. The primary focus of this unit is to support necessary equipment to assist in aborting dives and evacuate patients should we lose primary shore power provided by host facility. The unit also provides adequate climate control required for equipment and fire suppression storage tanks at time of power loss with inclement weather.



IX Automatic Transfer Switch

Description:
The generator is supplied with an automatic transfer switch which will detect the loss of primary power from host facility and switch to generator backup power after a few seconds delay. This system should be tested and operated for a minimum of 30 minutes each month with primary power turned off.

Minor Repairs

There are a few issues which can be easily resolved if onsite technicians have a little basic knowledge in a few areas.

Even though minor issues may be resolved with these instructions if your Center has maintenance concerns please contact Mike Owen @ (940) 704-5859 or mowen@mhcmurphy.com. After the initial notification follow-up with Mike Owen and document the status on the MHC's Intranet Maintenance Log.

Power issues:

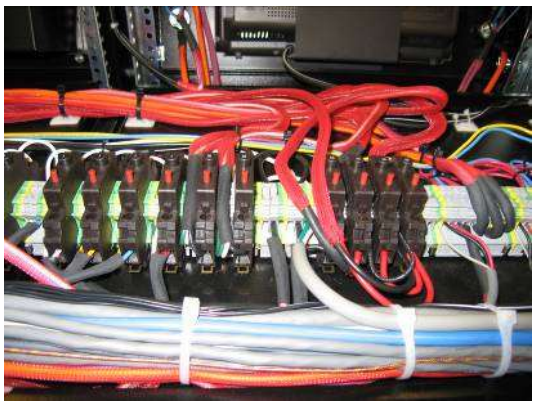
On occasions there are times when something may cause a breaker to trip, as may happen at one's home. First one should identify if power loss is related to chamber operations or trailer support equipment.

Trailer Support Equipment:

As with any power distribution there is a breaker panel where power can be switched off on as mentioned a breaker may trip off and power is terminated. In most cases one can simply open panel, identify tripped breaker and switch it back to the on position. Should the breaker trip again there is possible an electrical problem which should be investigated and appropriate personnel should be notified.

Also there are times when a breaker does not completely trip to the off position and is not easily identified. With such occurrence check the labeling in the panel to identify appropriate breaker or one could manual trip breakers one at a time to verify all breakers are completely "On" position.

Chamber Equipment:



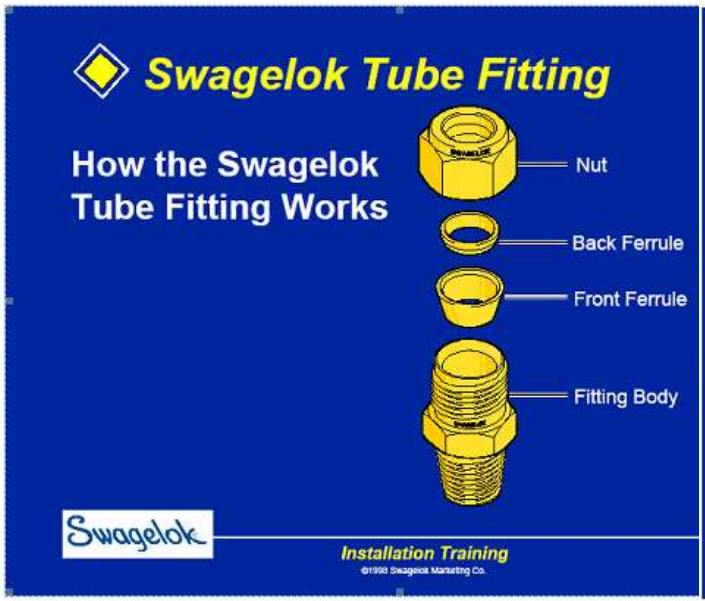
Equipment directly related to chamber operation is controlled within the technician's operation station. If power is lost with equipment related to chamber operation one should first remove upper panels on rear of control panel to view distribution breakers. Control breakers are different from what is found in standard distribution panels. Control breakers are small in comparison and function differently. Each

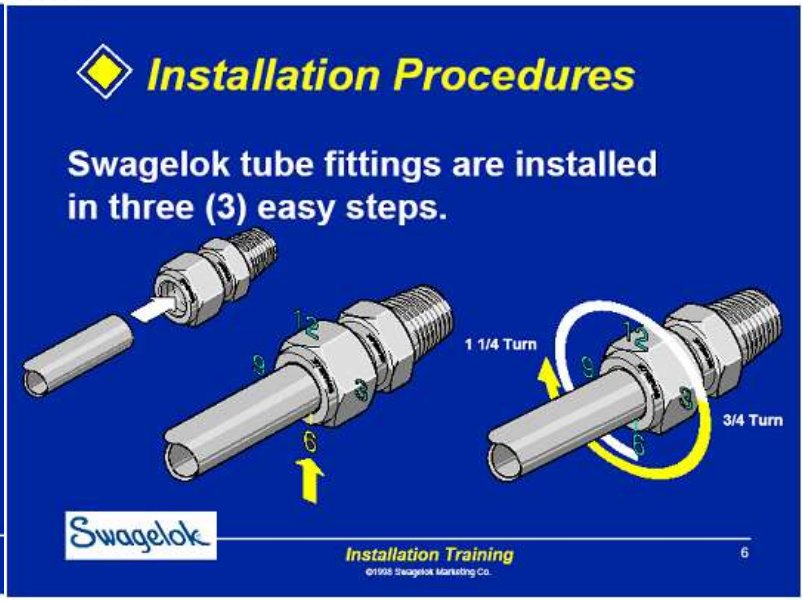
breaker is identified by the amperage size noted on the top of the black button. A control breaker are more easily identified as tripped with the black button elevated and at the base of the button is white to indicate power is off.

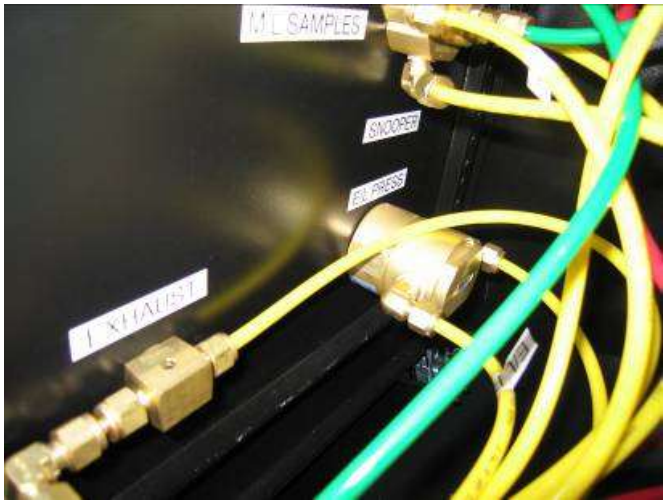
Again, there may be times when breaker does not trip completely to the off position and one should check each breaker individually by depressing red button and resetting by depressing black button. Again, appropriate personnel should be notified of possible issues.

Pneumatic Connections:

On occasions control valves need to be changed out or possibly pneumatic tubing needs to be replaced or reconnected. The majority of all pneumatic connections are with Swagelok compression fittings which require a standard method for installation. See illustrations below:







Note: In the event you are reconnecting a Swagelok fitting install the tubing with a hand tight, snug connection and follow up ¼ turn with appropriate wrench. Verify connection is sealed, if not apply additional torque until connection is sealed

Clinical Competencies

Required for: Technician, Physician

Part 11: Unit Specific: Basic Chamber Operation

NOTE: This section is only required for Technicians.

REFERENCE
Mobile Hyperbaric Centers Operations Manual
www.mhcenters.com/forum > Manuals and Forms > Operations/Technical Manuals > Operations and Maintenance Manual

A. Closing the Chamber Door

1. Standing directly in front of the opening, grasp handle located on front of the door with both hands. Pull the door shut slowly, do not slam the door as sealing surfaces can be damaged and the system rendered inoperable
2. Once the door has made contact on all sides, open the *Pressurization Control Regulator* slowly to allow the system to start pressurizing. If necessary (the door doesn't seal on its own) return to the door and pull the handle. Pull the door until it seals against the door jam. Return to the control console
3. In the event that difficulties arise while sealing the door, stop pressurization and inspect the sealing surface
4. If the surface is free of all debris and the door will not seal, place the door dogging assembly on the door, and tighten until a seal is achieved
5. Once chamber door has achieved a complete seal, remove the dogging assembly and continue on with the treatment

The chamber door should never be closed until ready to begin treatment. The chamber seals "air tight" except for the exhaust port. Consider breathing requirements of the patients. If treatment is delayed, leave the door open for the patients' safety and comfort

B. Opening the Chamber Door

As soon as the pressure in the chamber is 0 psi, the door will open freely

A. Pressurization

1. Verify that all *BIBS Valves* are in the OFF position
2. Verify that the *Pressurization Control Regulator* is turned counterclockwise until it stops (fully closed) position for both the main and entry lock control panels
   NOTE: Do not force-turn knob past simple stop point. Doing so might cause damage to the valve.
3. Verify that the *Primary Exhaust Valve* is turned clockwise until it stops (fully closed) position for both the main and entry lock control panels

4. Verify that the Secondary *Exhaust Valve* is turned clockwise until it stops (fully closed) position for the main lock control panel
5. Open the system *Main Oxygen Supply Valve* located inside the docking station
6. Verify that the *Air Pressure* (*Compressor*), *Air Pressure* and BIBS *Air Pressure Gauges* on the control panel indicate between 40 and 60 psi. Determine that there is a sufficient quantity of air for the proposed treatment
7. Verify that the on the control panel indicates between 70 and 90 psi. Depending upon supply source, determine that there is a sufficient quantity of oxygen for the proposed treatment
8. Brief patients regarding treatment
9. Explain how to clear ears
10. Warn against holding breath at any time during treatment
11. Demonstrate operation of intercom
12. Explain what to expect during treatment and what the duration of the treatment will be
13. Examine patients for prohibited items
14. Escort patients into chamber
15. Close main lock door
16. Confirm voice communication with patients
17. Announce to the patients when pressurization is beginning
18. Slowly turn the *Pressurization Control Regulator* clockwise to begin flow to the chamber. Allow chamber to pressurize to the desired treatment pressure

1. *Oxygen Inlet Pressure Gauge*

Some persons will experience pain and discomfort when exposed to elevated pressure. Maintain constant visual contact with the patients throughout compression and immediately stop compression at the first sign of pain or discomfort. It may be necessary to ascend (depressurize) a few psi to relieve the pressure and allow the patients to equalize their ears

19. If it is necessary to stop pressurization for any reason, simply turn the *Pressurization Control Regulator* counterclockwise and *Primary Exhaust Valve* clockwise until they stop (fully closed). If it is necessary to drop the pressure, simply open the *Primary Exhaust Control Regulator* slowly until the desired pressure is reached
20. If, during pressurization, the patients experience discomfort as the result of chamber heating, (a natural consequence of pressurization), the chamber ventilation rate can be increased by turning the *Primary Exhaust Valve* counterclockwise (opening the valve more), thus cooling the chamber. Be aware that this may also slow the pressurization slightly

B. Addition of Personnel or Patients to Chamber Utilizing Entry lock

1. Brief personnel and patients regarding transfer process
2. Explain how to clear ears
3. Warn against holding breath at any time during treatment
4. Demonstrate operation of intercom
5. Explain what to expect during transfer process and what the duration of the treatment will be
6. Examine patients for prohibited items (See General Safety Rules, Section 7.1)
7. Place personnel or patient(s) into entry lock
8. Close entry lock door
9. Confirm voice communication with personnel or patients
10. Announce to the personnel or patients when pressurization is beginning
11. Standing directly in front of the opening, pull the door shut. Do not slam door, sealing surfaces can be damaged and system rendered inoperable
12. Slowly turn the *Pressurization Control Regulator* clockwise to begin flow to the entry lock. Allow entry lock to pressurize until it equalizes with the main lock pressure

13. Transfer personnel or patient(s) into the main lock
14. Close the main lock door

NOTE: **The Chamber Operator should be aware of the main chamber pressure and be prepared to compensate in the event of partial pressure loss during the door closing procedure**

15. Once chamber door has achieved a complete seal, slowly turn the *Primary Exhaust Control Regulator* clockwise until the desired depress rate is achieved. The depress rate will decrease as the chamber reaches surface
16. Once the chamber has stopped decompressing and the *Entry Lock Pressure Gauge* reads 0 psi, open the entry lock door and turn the *Primary Exhaust Control Valve* clockwise until it stops (fully closed)

    Some persons will experience pain and discomfort when exposed to elevated pressure. Maintain constant visual contact of the patients throughout compression and immediately stop compression at the first sign of pain or discomfort. It may be necessary to ascend/depressurize a few psi to relieve the pressure and allow the patients to equalize their ear

17. If it is necessary to stop pressurization for any reason, simply turn the *Pressurization Control Valve Regulator* counter-clockwise until it stops (fully closed). If it is necessary to drop the pressure, simply open the *Primary Exhaust Control Valve* slowly until the desired pressure is reached

18. If, during pressurization, the patients experience discomfort as the result of chamber heating, (a natural consequence of pressurization), the chamber ventilation rate can be increased by turning the *Primary Exhaust Control Valve* counter-clockwise (opening the valve more), thus cooling the chamber. Be aware that this may also slow the pressurization slightly

C. Removal of Personnel or Patients from Chamber Utilizing Entry Lock

1. Brief patients regarding transfer procedure
2. Close entry lock door
3. Pressurize entry lock to the same depth as main chamber
4. Open main lock door
5. Transfer Personnel or Patients into entry lock
6. Close main lock door
7. Confirm voice communication with patients
8. Announce to the patients when depressurization is beginning
9. Slowly turn the *Primary Exhaust Control Valve* clockwise until the desired depress rate is achieved. The depress rate will decrease as the chamber reaches surface
10. Once the chamber has stopped decompressing and the Chamber *Pressure Gauge* reads 0 psi, open the entry lock door and turn the *Primary Exhaust Control Valve Regulator* counter-clockwise until it stops (fully closed)
11. Assist patients

D. Medical Lock Transfer into Chamber

1. Verify that the internal and external doors are in the closed and latched position
2. Turn the *Med-Lock Valve* clockwise until it stops (Evacuate position) and allow the lock to depressurize until the med-lock pressure gauge reads 0 psi
3. When the pressure has reached 0 psi, the external door will open freely
4. Place the objects desired for transfer into the medical lock and close the external door
5. Turn the *Med-Lock Valve* counter-clockwise until it stops (Pressurize position) and allow the lock to pressurize until it equalizes with the internal pressure of the chamber
6. When the pressure has equalized, the internal door will open freely
7. Open internal door and remove objects
8. Close and latch internal door

NOTE: Internal and external medical lock doors are to be in closed and latched position at all times unless instructed otherwise in the procedures below. Failure to do so can result in injury to personnel and patients.

E. Medical Lock Transfer from Chamber

1. Verify that the internal and external doors are in the closed and latched position
2. Turn the *Med-Lock Valve* counter-clockwise until it stops (Pressurize position) and allow the lock to pressurize until it equalizes with the internal pressure of the chamber
3. When the pressure has equalized, the internal door will open freely
4. Place the objects desired for transfer into the medical lock and close the internal door
5. Turn the *Med-Lock Valve* clockwise until it stops (Evacuate position) and allow the lock to depressurize until the med-lock pressure gauge reads 0 psi
6. When the pressure has reached 0 psi, the external door will open freely
7. Open the external door and remove objects
8. Close and latch external door

F. Depressurization

1. Announce to the patients when depressurization is beginning
2. Turn the *Pressurization Control Valve* counter-clockwise until it stops (fully closed)
3. Slowly turn the *Primary Exhaust Control Valve* counter-clockwise until the desired depress rate is achieved. The depress rate will decrease as the chamber reaches surface
4. Once the *Chamber Pressure Gauge* reads approximately 1.4 ATA, slowly turn the *Secondary Exhaust Control Valve* counter-clockwise until the desire depress rate is regained. The depress rate will decrease as the chamber reaches surface
5. Once the chamber has reached approximately 1.3 ATA, turn the *Patient Transfer Valves* to the Operational position and allow the chamber to decompress to 0 psi
6. Once the chamber has stopped decompressing and the *Chamber Pressure Gauge* reads 0 psi, open the door and turn the *Primary* and *Secondary Exhaust Control Valve* clockwise until they stop (fully closed)
7. Assist patients leaving the chamber

Operation of BIBS (Built-in Breathing System)

A. Proper Operation of *BIBS Exhaust Regulator:*

1. Open *BIBS Exhaust Needle Valve*. (fully Open)
2. Apply on end of the test tubing to the exhaust end of the regulator
3. Place the other end of the tubing in your mouth and gently inhale and exhale into tubing
4. Check and listen for proper opening and closing of exhaust regulator diaphragm. (The diaphragm should "click" during operation). During inhalation there should be no flow

B. Upon Reaching Treatment Depth:

1. Turn the corresponding *BIBS Valve* to AIR
2. Turn the *Headgear Flow Control Valve* counter-clockwise until the flow indicates the desired flow (0-40 L/min)
3. Attach the supply hose to both the supply outlet and the neck seal. Patients should feel air blowing from the neck seal connection
4. Attach the exhaust hose to the exhaust outlet
5. The Chamber Attendant or the patient will engage the headgear into the neck seal
6. If the exhaust regulator is functioning properly, the headgear will inflate and maintain a proper inflation. If the regulator is not functioning properly, notify the operator
7. Turn the corresponding *BIBS Valve* to OXYGEN
8. When turned on adjust the flow accordingly

C. Upon Completion of Treatment:

1. Detach the headgear from the neck seal
2. Once the headgear has been removed the hoses can be removed from the neck seal and from air/oxygen supply and the exhaust regulator
3. Turn the individual BIBS valve to the off position (fully closed)

Clinical Competencies

Required for: Technician

Part 12: Safety Director Course Information

NOTE: This section is only required for Technicians.

EXAM INFORMATION:

As a full time technician, you are required to participate in the Mobile Hyperbaric Centers Rotating Safety Director Program. The program is designed to allow every technician the role of "safety director". Just as the title of the program, the technicians will switch as the safety dirctor throughout the month.

After completion of this course, you will be able to:

1. Participate in the Safety Director Monthly Rotation Program

2. Understand how to apply safety to everyday operations of the hyperbaric chamber, with patients, and in personal accountability

3. Be familiar with Mobile Hyperbaric Centers policies, procedures, and goals regarding safety in the workplace

4. Ensure compliance with safety requirements and regulations, as they apply to the hyperbaric chamber and the surrounding Center environment

Safety is the top priority at Mobile Hyperbaric Centers. With thousands of visits each year, patients walk through our doors anticipating the Centers are safe for treatment. This program is intended to provide information related to safety in the workplace environment to allow for a safe, secure and comfortable environment for both patients and employees. During this training section, you will be required to reference several items. Please make sure you have access to the Mobile Hyperbaric Centers Safety Manual, as well as the company intranet in order to access reference documents for this course. You are not required to memorize any code number, but you should be familiar with how to reference them.

Each day you operate the chamber, you are enhancing the life of individuals seeking alternatives to healing. These patients deserve the safest, most secure environment when receiving treatment. Therefore, this course is an obvious step forward in assuring employees are on the same page with standard protocol and safety awareness at Mobile Hyperbaric Centers.

IMPORTANT NOTE:

Because this course incorporates technician training and knowledge, this course is only to be completed AFTER all training and competencies are completed.

Please review the following material before completing this course:

1. Mobile Hyperbaric Centers Safety and Operations Manual.

2. NFPA 99, Ch. 14 - notes included within this coursework

To begin, let's go over the requirements, guidelines and topics stated within the National Fire Protection Association (NFPA) 99, Chapter 14: Hyperbaric Facilities.

The NFPA code for hyperbaric facilities highlights specific responsibilities for the safety director. Please take important note of these responsibilities as they directly apply to your participation as a safety director with Mobile Hyperbaric Centers:

Safety Director Responsibilities at MHC

NFPA 99 (14.3.1.3.2) highlights the need for a safety director at the hyperbaric facility. Additional standards indicate the need for the support of the governing body (14.3.1.3.1, 14.3.1.4.4.1) and the need for additional training in hyperbaric oxygen therapy.

1. The Safety Director has the authority to restrict or remove any potentially hazardous supply or equipment from the hyperbaric chamber. (14.3.1.3.2.3). This information is logged on the daily shut down log.

2. The safety director ensures that all valves, regulators, meters, and similar equipment are proper, safe, and compensated for use in the hyperbaric environment and are tested in accordance with the routine maintenance program of the facility. (14.3.4.1.1). Be familiar with your surroundings. Contact the maintenance representative with any questions or concerns.

3. The safety director ensures that all gas outlets inside and outside the hyperbaric chamber are properly labeled in accordance with CGA C-7, Standard Method of Marking Portable Compressed Gas Containers to Identify the Material Contained. (14.3.4.1.2). Ensure that the O2 lines are marked with "Oxygen Signage" Coordinate with your hospital to ensure piping is marked with the appropriate gas and direction (including "air")

4. The safety director maintains a log of all maintenance performed and tests conducted on all hyperbaric chamber equipment and systems. (14.3.4.2.1.1). Update the MHC maintenance log on the company intranet as often as possible.

5. Operating equipment logs are maintained and signed by the safety director prior to placing the hyperbaric chamber back into service. (14.3.4.2.2). Ensure the issue is marked as "resolved" in the maintenance log before use (if critical to hyperbaric operation).

6. The safety director ensures that all electrical, monitoring, life support, protection and ventilating arrangements in the hyperbaric chamber are inspected and tested as part of the routine maintenance program of the hyperbaric facility. (14.3.1.3.5(. Be familiar with your surroundings. Check for anything out of place, listen for unusual noises. Complete the start up and shut down logs.

7. Flammable agents, liquids or vapors are not allowed inside Class A multiplace hyperbaric chambers unless they are approved by the safety director. (14.3.1.5.2.2). These should never be allowed in the chamber. If there is a mistake, be sure to document this on the shut down log!

8. Antistatic procedures as stipulated by the safety director are used whenever the chamber atmosphere contains more than 23.5% oxygen by volume. (14.3.1.5.3.1). Hold responsibility to your team in maintaining the chamber below 23%. If it goes above, ensure the staff is familiar with venting protocol (MHC safety manual)

9. When prohibited materials such as suture material, alloplastic devices, bacterial barriers, surgical dressings and biologic interfaces must be used inside a Class A or Class B hyperbaric chamber, written authorization, signed by the safety director, is available. (14.3.1.5.4.3). This MUST be documented on the MHC intranet.

10. Hyperbaric patients are re-clothed with garments approved by the safety director for wear inside Class A multiplace hyperbaric chambers. (14.3.1.5.7(1)) Be certain the patients are clothed in hospital-provided scrubs.

11. Safety directors are responsible for completing the monthly safety log, which includes a fire drill, mock emergency, checking the generator and fire extinguisher according to the safety manual.

General safety guidelines are available in the Mobile Hyperbaric Centers Safety Manual. Please refer to the Mobile Hyperbaric Centers Safety Manual. This document, along with your emergency action plan (red binders) available at the centers, contains critical material related to the responsibilities of Safety Director.

As a requirement of this course, you are responsible for fully reading and having a working knowledge of the material related to the Mobile Hyperbaric Centers Safety and Operations Manual.

Clinical Competencies

Required for: Technician, Physician

Part 13: Lifting patients safely in the hyperbaric environment

Please reference the following issued guides on the employee intranet as part of this competency requirement:

1. "A Back Injury Prevention Guide for Healthcare Workers"
2. "Lift Program Policy and Guide" Department of Labor Occupation and Safety Health Administration.
3. "Lifting and Back Injury Prevention", MHC Safety Manual

Part 1: Lifting Safety, and associated information

In the multiplace hyperbaric setting, assisting patients into their treatment seat is essential in order for our patients to receive care. As a result, employees performing such movements must receive training on the appropriate lifting techniques (as stated in the MHC Safety Manual). The attempt of this competency is to communicate MHC's safe patient handling policy in an attempt to eliminate manual lifting to the extent feasible.

Guidelines for Lifting and Moving Patients or Residents (OSHA)

1. Assess the patient or resident before lifting or moving them
2. Eliminate or reduce manual lifting and moving of patients or residents whenever possible. Use assist devices or equipment when available and appropriate for the activity
3. Get patients or residents to help as much as possible by giving them clear, simple instructions with adequate time for response
4. Know your own limits and do not exceed them
5. Get help whenever possible
6. Use teamwork. Try to choose team members who are adequately trained, and; have a similar understanding of proper techniques and timing
7. Mentally plan and prepare (e.g., consider routes of travel and obstructions; clear out paths)
8. Use (or modify) chairs, or other surfaces to keep work tasks, equipment and supplies close and at the correct height (i.e., between the waist and shoulders)
9. Make sure brakes hold properly and apply them firmly on chairs, etc.
10. Use upright, neutral working postures and proper body mechanics
    a. - Bend your legs, not your back. Use your legs to do the work
    b. - When lifting or moving the patient or resident always face them

c. - Do not twist when turning. Pick up your feet and pivot your whole body in the direction of the move

Standing up

1. If the person needs assistance getting into the chair, face the patient, place your feet shoulder-width apart, and bend your knees.
2. Position the person's feet on the floor and slightly apart.
3. The person's hands should be on the chair or on your shoulders. Place your arms around the person's back and clasp your hands together.
4. The caregiver grasps the belt when lifting the patient. Hold the person close to you, lean back and shift your weight.

Sitting Down

1. Pivot toward the chair, bend your knees, and lower the person into the chair. The person should have both hands on the arms of the chair before lowering him or her down.

Good work practice includes continually identifying the most hazardous tasks and implementing engineering and work practice controls to help reduce or prevent injuries in those tasks. OSHA recommends minimizing manual lifting of patients in all cases and eliminating lifting when possible. Center Directors or other designated personnel can answer questions about situations that require correct form.

Part 2: MHC Policies and Procedures

1. Without careful adherence to lifting protocol and OSHA guidelines listed in Part 1, employee exposure to injury from lifting stressors during handling, transferring and repositioning patients include:
    a. Repetitive motions
    b. Awkward postures (e.g., reaching across to lift patients/residents)
    c. Using a great deal of force (e.g., pushing chairs across elevation changes or up ramps),
    d. Lifting heavy objects (e.g., manually lifting immobile patient alone)

    e. Overexertion; trying to stop a patient from falling or picking patient up from floor
    f. Multiple lifts per shift (more than 20)
    g. Lifting alone, no available staff to help
    h. Lifting un-cooperative, confused patients
    i. Lifting patients that cannot support their own weight
    j. Expecting employees to perform work beyond their physical capabilities
    k. Distance to be moved, and the distance the patient is from the employee, (it is more stressful to reach away from the body to lift or pull a patient)
2. Patients are made aware of the safe patient handling policy
    a. Making patients aware of the safe patient handling policy will help patients understand how using patient handling equipment will benefit both them and their caregivers. This should be discussed during the initial history and physical with the physician and patient (during the falls risk assessment process)
3. Management reinforces the safe patient handling policy
    a. MHC will adhere to the policies and procedures highlighted within this competency as posted on the employee intranet. Employees are accountable for safe patient handling techniques.
4. Management fosters safe patient handling and a culture of safety
    a. MHC issues wristbands to any patients listed as a falls risk (which are also patients in need of lifting assistance (from a wheelchair).
5. Staff is involved during every step
    a. Reference to "falls risk"
6. Equipment Utilization
    a. Assessment of Wheelchairs (daily):
        i. Stable (i.e., do not tip backwards)
        ii. Footpads and armrests are removable
        iii. and easily adjustable
7. Education and Training
    a. All relevant staff is trained on using equipment
    b. All staff is educated on the importance of safe patient handling
    c. Staff is trained on equipment annually
    d. Patients/families are educated on policy/equipment

Citation:

"A Back Injury Prevention Guide" - SCal/OSHA Consultation Service, Education and Training Unit, Sacramento, CA

"LIFT PROGRAM POLICY AND GUIDE" Department of Labor Occupation and Safety Health Administration.