

Lecture 2: The Role of the Safety Director in HBO

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building the nation's leading wound care team.

The role of "hyperbaric safety director" was created by NFPA code in 1968

- Nature of the hyperbaric safety director role
 - A. Role created by NFPA code
 - B. One person takes responsibility
 - C. Designated individual

Job Description

General: In accordance with the requirements of the National Fire Protection Association (NFPA 99 Chapter 20):

- Must be in charge of all hyperbaric equipment.
- Assumes responsibility for the safe and effective operations and maintenance of the hyperbaric chambers and related systems and ancillary components.
- Works closely with facility management personal and departmental medical personal.
- Makes the necessary recommendation for departmental safety policies and incorporates new safety procedures as appropriate.
- Should serve on the institution's safety committee.
- Has authority to restrict or remove any potentially hazardous supply or equipment items from in the chamber.
- Provides leadership and safety training to other hyperbaric personnel.
- Responsible for maintaining all facility safety related standards as required by various licensing and regulatory agencies.

Job Responsibility

- Ensures unit compliance with NAPA 99, chapter 20 and with facility and hyperbaric policies and procedures.
- Reviews all department safety incidents, collects information regarding equipment/patient/staff safety, reports relevant incidents to staff, and provides in service safety training as needed.
- Fosters a positive relationship with all licensing and regulatory agencies that he/she has contact with.
- Works closely with National Safety Director to coordinate and approve all modifications and repairs to hyperbaric chambers.
- Evaluates hyperbaric equipment and supplies used in chamber and ensures that they meet all safety standards before they are permitted in the chamber.
- Maintains a safe environment in chamber room.

Job Description and NAFP

- Not addressed in code
- May be your primary job description
- May be your secondary job description
- May be an additional set of responsibilities

Qualifications and NFPA

- Not addressed in the code
- No Minimum experience required
- No previous certification required
- No previous training required
- Could be a physician, nurse, technician, administrator
- Recommended that they be “Directly involved in Hyperbaric operations”
- Recommended that it “Not be the Medical Director”

NFPA 99 / Chapter 14 / Safety Director

“Each hyperbaric facility shall designate an onsite hyperbaric safety director to be in charge of all hyperbaric equipment and operational safety requirements of this chapter” NFPA 99 14.3.1.3.2

- Safety, operational, and maintenance criteria of other organizations are published, for example, in the Undersea & Hyperbaric Medical Society Safety Committee documents and the Compressed Gas Association pamphlets and should be reviewed by the safety director. The safety director should serve on the health care facility safety committee.
14.3.1.3.2
- The safety director shall participate with facility management personnel and the hyperbaric physician(s) in developing procedures for operation and maintenance of the hyperbaric facility. 14.3.1.3.2.2
- The safety director shall make recommendations for departmental safety policies and procedures. 14.3.1.3.2.3

- The safety director shall have the authority (and responsibility) to restrict or remove any potentially hazardous supply or equipment items from the chamber.

Safety = PREVENTION

Definition of Responsibilities

- Directly defined responsibilities
 - A. Recognition of hazards
 - B. Policies
 - C. Oversight
 - D. Maintenance
 - E. Documentation

Implied responsibilities

Most all of NFPA 99 chapter 14.

Many of the specific NFPA code items become the responsibility of the safety director because of his/her other defined responsibilities

Defined interrelationships

- Hyperbaric physician
- Medical director
- Facility management

Safety Director Job Description

- 10 of the duties are related to educating others
 - A. In chamber safety for new patients and new staff
 - B. Safety continuing education for staff
 - C. Accident prevention for staff
 - D. Special work hazards for staff
 - E. Equipment and patient safety incidents for staff
 - F. Conducts practice emergency procedures for staff
 - G. Technical aspects of hyperbarics for Q.I process
 - H. Chamber ops and safety for ancillary and support personnel
 - I. Relationship with local fire dept, EMS, pressure vessel inspector
 - J. Lessons learned for other hyperbaric facilities

Safety Director Job Description

- 5 of the duties are related to policing activities
 - A. Assesses compliance with unit policies, national codes, and industry standards
 - B. Signs off on new equipment and textiles
 - C. Approves modifications to chamber and support equipment
 - D. Oversees decompression schedules
 - E. Evaluates compliance with safety directives

Safety Director Job Description

- 4 of the duties are related to developing a global focus
 - A. Serves on hospital safety committee
 - B. Compliance with unit policies, national codes, and industry standards
 - C. Assists with the Q.A. process
 - D. Relationship with local fire department, EMS, and pressure vessel inspector

Safety Director Job Description

- 2 of the duties are related to documentation
 1. Documents compliance with maintenance program
 2. Documents modifications to chamber or support equipment

Safety Director Job Description

- 3 of the duties are related to analysis
 - A. Reviews safety incidents
 - B. Updates safety policies and procedures
 - C. Problem solving regarding safety issues and implementation of policy

Critical thinking

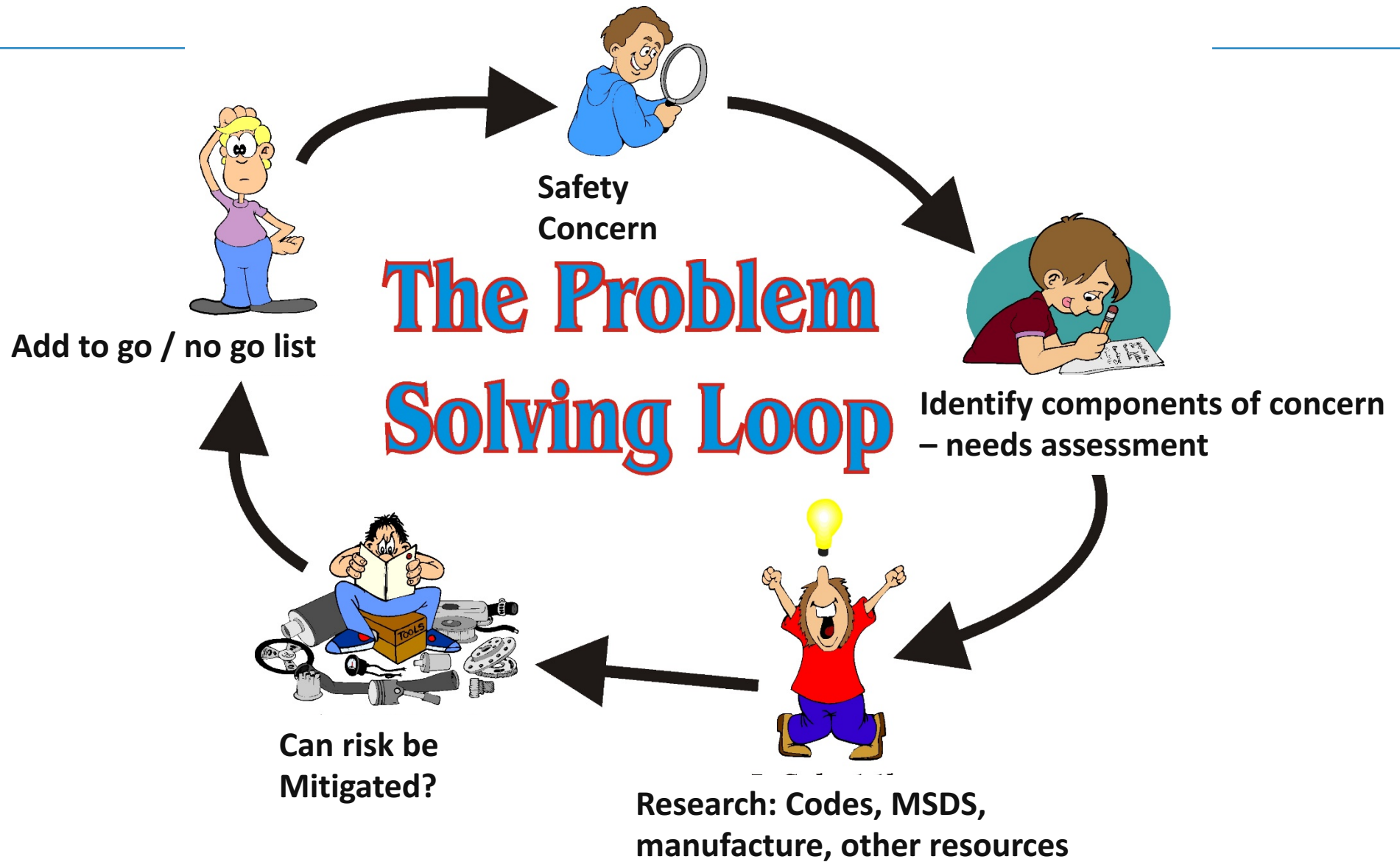
is the study of clear, reasoned thinking. According to Beyer (1995) Critical thinking means making clear, reasoned judgements. While in the process of critical thinking, your thoughts should be reasoned and well thought out.

The National Council for Excellence in Critical Thinking defines critical thinking as the *intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action*

Critical thinking

Bloom's Taxonomy for Thinking





Resources – Recommended Practices

- NFPA 53: Recommended Practice on Materials, Equipment, and Systems Used in Oxygen-Enriched Atmospheres
- NFPA 77: Recommended Practice on Static Electricity
- American Society for Testing and Materials (ASTM) Guidelines
 - A. Material compatibility with oxygen
 - B. Device/system design criteria for oxygen service

Resources – Recommended Practices

- UHMS Guidelines for Clinical Multiplace Hyperbaric Facilities (1994)
- UHMS Monoplace Hyperbaric Chamber Safety Guidelines (1991)
- UHMS Guidelines for Hyperbaric Facility Operation (2004)
 - A. Staffing: Number, specialties and responsibilities
 - B. Training: Initial and CME
 - C. Credentialing criteria
 - D. Safety program criteria

Resources – Codes and Standards

- ANSI/ASME/PVHO-1:

Safety Code for Pressure Vessels for Human Occupancy

- ANSI/ASME/PVHO-2:

- Safety Code for Pressure Vessels for Human Occupancy In-Service Guidelines for Acrylic Windows

Resources – Codes and Standards

- NFPA 99: Healthcare Facilities
 - A. Chapter 14: Hyperbaric Facilities
 - B. Chapter 5: Gas and Vacuum Systems
 - C. Chapter 10: Electrical Equipment
 - D. Explanatory notes in Annex A, B, C

Resources – Codes and Standards

- Healthcare Facilities Handbook
- ANSI/CGA G-7.1 (Commodity Specifications for Air)
 - A. Air purity standards
- ANSI/CGA P-2 (Characteristics and Safe Handling of Medical Gases)
 - A. Gas handling safety
 - B. Color marking and labeling
- ANSI/CGA G-4.1: Cleaning of Equipment for Oxygen Service

Other Resources

- Textbooks

Hyperbaric Facility Safety: A Practical Guide

- Articles

A. Hyperbaric and hypobaric chamber fires: a 73-year analysis

B. Other articles about hyperbaric equipment and safety

- UHMS website, Safety page

- UHMS meetings & safety seminars

A. Presentations

B. Interaction with colleagues

WWW.SERENAGROUPS.COM

Thank You



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