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BY GERRY DWORKIN

DROWNING is a significant health concern within the U.S., and is one of the leading causes of unintentional-injury deaths for people of all ages. Drowning is the third-leading cause of unintentional-injury death for children ages 14 and under, and the second-leading cause of death from all causes for children under 4 years old. According to the National Swimming Pool Foundation, "Water is a foreign environment, and immersion into this environment is potentially dangerous for humans." Therefore, it is critical that anyone responsible for any type of aquatic venue must establish, implement, and maintain appropriate drowning- and aquatic injury-prevention strategies as part of a risk-management program.

According to the National Drowning Prevention Alliance, managers and operators must:

• Recognize the risks associated with water-related activities and/or venues

- Implement strategies to reduce and manage the risks
- Responsibly maintain those strategies.

To provide a safe environment for swimming and other aquatic activities, a person must know the safety practices and standards. All too often, a manager or operator relies solely on state health codes to determine the operational protocols necessary to safeguard the swimming public. However, health codes are only minimum standards. When it comes to safety, the minimum is only one small step above inadequate.

CONDUCT A THREAT ASSESSMENT

Operating under the law of averages, the more people who use an aquatic venue increases the probability of a significant incident. And, each day a facility operates without a significant incident brings it one day closer to when an incident will occur.

Therefore, a facility manager or operator must be proactive in identifying the potential for any type of emergency incident. And, lifeguards, attendants, and other staff members must be vigilant in their surveillance duties at all times in order to prevent an incident or recognize an incident at its onset.

As part of a facility's risk-management program, a comprehensive threat assessment must be conducted to evaluate the physical hazards that exist and to determine the types of



activities that may place patrons at heightened risk. Hazards must then be removed, or adequate warnings must be posted to warn the public. And, those activities that place persons at heightened risk must either be safeguarded or prohibited.

Another purpose of the threat assessment is to determine the Level of Operational Capability required of facility personnel. As an example, the location of an aquatic venue must be considered, as well as the capability of local fire, rescue, EMS, and law-enforcement agencies. If the average response time of Advanced Life Support providers is 6 minutes or more, serious consideration should be given to mandating training of facility personnel in airway management and oxygen administration. All related equipment should be readily available as part of a facility's Emergency Response Plans (ERPs) for the proper and immediate response to respiratory and/or cardiac emergencies, including all submersion cases. This would be in addition to having personnel trained and equipped in the use of an Automated External Defibrillator (AED), which should be required at all aquatic venues.

PROPERLY EQUIPPED

Drowning is a hypoxic (lack of oxygen reaching the brain and other vital organs) event. Drowning victims deteriorate into cardiac arrest because of the initial onset of respiratory arrest. The best way to manage hypoxia is to administer oxygen using positive-pressure-ventilation (PPV) and chest compressions. All lifeguards are trained to provide PPV using a Personal Resuscitation Mask (PRM), as well as a Bag-Valve-Mask (BVM) resuscitator. They are also trained to administer Basic Life Support (BLS) CPR, which includes:

A = Airway

- **B** = **Breathing**
- **C** = **Circulation**
- D = Defibrillation

Therefore, lifeguards should be equipped with BVMs, PRMs, and AEDs. Oxygen-administration equipment (oxygen tank and regulator) and airway-management equipment—including a hand-held suction device and oropharyngeal and/or nasopharyngeal airways—also should be on hand.

A threat assessment should be used to establish the operational criteria required for a facility. This includes rules and regulations for the public, as well as Standard Operating Procedures (SOPs) or Standard Operating Guidelines (SOGs) for staff personnel.

Finally, once the operational criteria have been established and the operational capability of personnel determined, a facility manager or operator must plan for any incident; train for any incident; and, acquire the resources required to safely and effectively respond to and manage any emergency incident.

Every aquatic venue needs to develop an Emergency Action Plan (EAP), as well as individual ERPs, for every conceivable emergency. As part of an in-service training program, lifeguards and staff members must be continually drilled and evaluated on their ability to recognize an incident and respond rapidly and effectively.

QUALIFYING LIFEGUARDS

The Model Aquatic Health Code, developed by the Centers for Disease Control, advocates that "qualified" lifeguards are required for any of the following conditions:

• For new construction, any aquatic venue deeper than 5 feet at any point

• Any venue that allows for unsupervised children under the age of 14

• Any venue that is being used for the recreation of a youth group, such as childcare usage or school groups





• Any venue, while being used for group training, must have dedicated lifeguards on deck for class surveillance, of competitive swimming and/or sports, lifeguard training, exercise programs, and swimming lessons

• Any venue with a configuration that at any point the surface exceeds 30 feet from the nearest deck

• Any venue with an induced current or wave action, such as wave pools and lazy rivers

• Any venue where bathers enter the water from a height above the deck, such as diving boards, drop slides, starting platforms, climbing walls, and/or waterslide landing pools

• Any venue at which alcohol is sold or served.

So, what is a "qualified" versus a "certified" lifeguard? Upon successful completion of a training program, a graduate is "certified" as having successfully completed that specific course of training. However, that individual should not be considered qualified to work as a lifeguard at any specific facility until the following requirements have been met:

• A candidate's knowledge and skills are evaluated by a perspective employer prior to hiring

• A candidate participates in a comprehensive, sitespecific, pre-service training program

• A candidate is given a comprehensive, site-specific SOP or SOG manual that includes surveillance protocols, uniform requirements, rotations, hazard identification and mitigation strategies, risk assessment, and protocols to safeguard risk, location, and use of safety, rescue, and resuscitation equipment, emergency communications, etc. • A review of all safety, rescue, and resuscitation equipment

- A compete review of a facility's EAP
- A review of a facility's ERPs.

The aquatic-facility manager or operator must then schedule and require that all lifeguards participate in regular, on-going in-service training that includes victim-recognition drills and the conduct of ERPs. Training should be constant and comprehensive. Don't just train until lifeguards get it right—train until they can't get it wrong! **PRB**

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