Introduction

Operators of swimming pools, spas, and hot tubs should be alerted to the potential hazards of infectious waterborne diseases. With summer approaching, this hazard will increase as swimming pools and water facilities once again become popular pastimes. Establishing a healthy environment will help protect your patrons from the spread of recreational water illness (RWI).

According to the Centers for Disease Control and Prevention (CDC), one of the most common and dangerous waterborne diseases today is shigellosis, which is caused by a group of bacteria called Shigella.

Background

A dose of Shigella causes diarrhea, fever, and stomach cramps that usually begin a day or two after exposure to the bacterium. The diarrhea is often bloody. Shigellosis usually resolves itself in five to seven days, but in some cases, especially young children and the elderly, diarrhea can be so severe that those afflicted may require hospitalization. The infection can produce a high fever and may be accompanied by seizures in children under two years of age. While some people who become infected may show no symptoms, they can still pass the Shigella bacteria to others.

The CDC reports that as of November 19, 2019, approximately 450,000 cases of shigellosis are reported each year in the U.S. But because many milder cases are not diagnosed or reported, the actual number could be as much as twenty times higher. Shigellosis flourishes in settings where hygiene is poor, sometimes sweeping through entire communities. Children, especially toddlers aged two to four are quite susceptible to shigellosis.
Protect your guests and employees

The spread of the shigellosis bacteria can be minimized through a combination of engineering controls, pool policies, and education. The CDC, in conjunction with the American National Standards Institute (ANSI) and the National Spa and Pool Institute (NSPI), have published recommendations to help prevent the spread of bacteria in pools, spas, and other recreational water settings. What follows are a number of important steps you can take to help reduce the chances of patrons contracting waterborne diseases such as shigellosis.

Maintain circulation and filtration equipment to provide maximum filtration rates, especially during peak usage periods. Increase filtration and water turnover rates when necessary.

Your circulation system should be able to turn over the entire pool water capacity during a normal eight-hour period.

Maintain proper chemical flow and keep all pool chemicals at optimal levels.

Check your local health codes for specific chemical and filtration standards.

Educate your staff of the hazards of RWIs. Include a fecal accident response policy and procedure, with proper training for all workers responsible for the maintenance and operation of the swimming pool or spa.

Inform your patrons of the potential dangers of RWIs by posting eye-catching and colorful warning signs that explain your policies and provide suggestions to help reduce the spread of waterborne bacteria illnesses.

Insist that patrons shower before pool use and adhere to good personal hygiene practices.

The pool should not be used if a patron has, or has had, diarrhea or abdominal cramps within the previous two weeks.

Special safety precautions for young children

Consider a separate filtration and plumbing system for high-risk wading pools used by diapered children.

Make restrooms and diaper-changing facilities accessible and user-friendly. Remind patrons that poolside and deck areas are not acceptable locations for diaper changing.

Make it easy for parents to get their children to the restroom. If kids say they have to “go” it’s probably too late.

Set guidelines for groups of young kids; and make sure they are adequately supervised. Let the group leaders know that your pool, like any childcare facility, does not allow children to swim when they are ill or have diarrhea.

Restrict children to a separate wading pool; require diapered children to wear leak proof rubber pants or special swimming diapers. You may want to prohibit the use of the pool by diapered children altogether.

For Further Information

Click on these Centers for Disease Control (CDC) links:

- http://www.cdc.gov/healthyswimming/
- https://www.cdc.gov/shigella/