

# USE OF DEFIBRILLATORS

Within a community emergency service delivery system where lifeguards and lifesavers are intended to operate automated external defibrillators, they must receive training in the use of the machine.

### **BACKGROUND:**

Since the mid 1980s many lifesaving standard-setting agencies have endorsed and promoted the consensus that a strong community wide "system" for emergency cardiac care improves outcomes. The system has been referred to as the "chain of survival" and involves four mutually dependent components:

- Early access to emergency care
- Early CPR
- Early defibrillation
- Early advanced cardiac care

The American Heart Association (AHA) and the Heart and Stroke Foundation of Canada (HSFC) have found that AED's are most effective when used by trained individuals. All emergency personnel should be permitted to operate an appropriately maintained defibrillator if their professional activities require that they respond to persons experiencing cardiac arrest. "The Public Access (PAD) trial demonstrated a doubling of survival rates in plublic places where defibrillators are placed and lay volunteers are trained to use the defibrillators."

Demographic shifts in our society would allow us to predict that out-of-hospital cardiac arrest will become a more common issue. Recreation facilities are likely to continue to encourage the use of the facility by high-risk individuals. Facilities and organizations need to be prepared for how they will respond to this issue.

The Lifesaving Society encourages the establishment of research tools to gather data on incidences, outcomes and unique concerns in the application of defibrillation in the aquatic environment.

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# **BACKGROUND (CONT):**

The availability, placement and use of defibrillators within a community should be a community decision based on the principles of "chain of survival," proximity and time to advanced life support, community priorities and training available to personnel. Decisions about the availability, placement and use of defibrillators should always be made in conjunction with, and with the awareness and endorsement of, the community emergency service delivery system.

## **RATIONALE:**

The implementation of an effective "chain of survival" is a community-wide responsibility. Lifeguards and lifesavers should be part of this chain. Early access to the Emergency Medical System (EMS), an AED, and CPR should be facilitated, ensured and planned. The single most important factor in survival from sudden cardiac arrest may be early defibrillation therapy.

All lifeguards and lifesavers should be trained and encouraged to provide these skills when needed. Training programs of as few as eight hours have been evaluated in the medical environment with medical and paramedical practitioners. These studies are supportive of short-course certification.

### **DEFINITIONS:**

Lifeguard: A person holding a current Lifesaving Society National Lifeguard certification appointed by the owner or owner's agent to maintain bather surveillance.

### **REFERENCES:**

- 1. Lifesaving Society Canada, Canadian First Aid Manual (Up-dated with the 2015 CPR guidelines).
- 2. International Lifesaving Federation, Drowning Chain of Survival, 2014. Source: <a href="https://www.ilsf.org/wp-content/uploads/2018/11/MPS-19-Drowning-Chain-of-Survival.pdf">https://www.ilsf.org/wp-content/uploads/2018/11/MPS-19-Drowning-Chain-of-Survival.pdf</a>
- 3. American Heart Association, Out-of-hospital Chain of Survival. Source: <a href="https://cpr.heart.org/en/resources/cpr-facts-and-stats/">https://cpr.heart.org/en/resources/cpr-facts-and-stats/</a> out-of-hospital-chain-of-survival
- 4. Heart and Stroke Foundation, Public Access to Automated External Defibrillators, 2012. Source: <a href="https://www.heartandstroke.ca/-/media/pdf-files/canada/other/pad-eng-final.ashx">https://www.heartandstroke.ca/-/media/pdf-files/canada/other/pad-eng-final.ashx</a>

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