



## Staff Report

### Origin

The following information responds to a Community Safety Committee referral on the purchase of automated external defibrillators (AEDs). Richmond Fire-Rescue was asked to address the following items:

- 1) The feasibility and ramifications, of placing defibrillators in public facilities, including schools.
- 2) The locations where Richmond Fire-Rescue saw a need for AEDs.
- 3) How Richmond Fire-Rescue could become involved in the training of individuals who would be at the recommended locations.

Although there are some concerns, Richmond Fire-Rescue supports the use of public AEDs as their use increases the chances of survival in cases of cardiac arrest.

Public AED programs should be encouraged because they demonstrate a willingness on behalf of the community to share in the responsibility for the safety of themselves and others.

### Analysis

#### AED Locations

Richmond Fire-Rescue and BC Ambulance Service both respond to calls that require the use of AEDs and are able to reach individuals in an average of 3-4 minutes. The locations of the majority of Fire-Rescue 911 incidents that involve the use of AEDs in Richmond are at private residences.

Although the emergency use of AEDs is primarily residential, Richmond Fire-Rescue believes there is value in placing AEDs in community and commercial locations where public assembly occurs; particularly in locations where the clientele attending are at risk of cardiac failure. If used safely by trained individuals, AEDs can increase the survival rate of patients in cardiac arrest.

The City of Richmond has at least 30 City-owned locations that could be considered for the placement of AEDs. Each of these locations would require analysis to ascertain how many machines would be suitable, and the number of people that would require training in order to have proper coverage in the case of an emergency.

The Richmond School Board is not currently planning on obtaining any AEDs for Richmond schools. The incidents that require the use of AEDs at schools are virtually non-existent so the implementation of a program is not currently under review.

For private organizations there is already a natural progression occurring as these organizations take it upon themselves to purchase AEDs and train their personnel in its use. One prominent location is Richmond Centre Mall. Richmond Centre Mall is currently making arrangements to purchase 1 AED and train 14 security personnel. Because of the rapid response time from Richmond Fire-Rescue the mall ascertained that 1 machine would be sufficient at this time.

Vancouver International Airport has an AED program and currently has 17 machines in place, with 50 individuals trained. This number will increase as the new areas of the airport are completed.

### **AED Regulations**

There are currently no regulations requiring AEDs in public facilities. Worksafe BC does not require AEDs but has recognized three main elements that must be present if there is a defibrillation program in the workplace. They are:

- 1) an AED that meets acceptable technical standards
- 2) oversight by a Medical Director
- 3) training of first aid attendants and other authorized persons in the use of the AED

These three main elements must be supplemented by written procedures. Worksafe BC also states that because the introduction of an early defibrillation program has potential consequences for the health and safety of workers, it is expected that the employer will consult with the joint occupational health and safety committee or worker health and safety representative, as applicable, on proposals to introduce the use of AED equipment.

When a defibrillation program exists in the workplace, the program must be under the direction of an AED Medical Director. The Medical Director will:

- 1) be a physician licensed to practice medicine in British Columbia by the College of Physicians and Surgeons of British Columbia
- 2) be familiar with early defibrillation clinical and technical issues
- 3) be responsible for the security and management of patient clinical information, including any electronic data from an AED unit
- 4) provide a letter of confirmation to the employer, confirming he or she is the AED Medical Director for that site's early defibrillation program.

At the International Standards Conference of CPR and Emergency Cardiovascular Care in 2005, recommendations on the use of AEDs were reviewed. It was noted that changes to both the United States and Canada's national CPR standards needed to take place in order to facilitate the use of these devices. The implementation of the recommended changes is not expected to be complete until sometime in 2007.

### **Training**

The Heart and Stroke Foundation of Canada (HSFC) establishes the Canadian standards for the performance of emergency cardiac care, i.e., CPR. In BC, the training and certification of CPR is not offered by a single agency; instead it is provided through a variety of agencies such as: colleges, fire departments, and other not-for-profit organizations. Not all BC training agencies are opting to implement the new CPR course content in a standardized form, nor are they following a standardized time frame. The HSFC does not recommend or endorse specific products of any single manufacturer or distributor. The HSFC encourages interested parties to contact each company to describe needs, obtain product information and find out how that company can assist in establishing an AED program.

AED regulations, standards training programs, and training agencies are in a state of transition. At this time Richmond Fire-Rescue suggests that organizations continue to independently evaluate their AED needs and obtain equipment and training on a voluntary basis. Richmond Fire-Rescue's future direction will be influenced by the outcome of a national and provincial AED direction, including that of BC Ambulance Service.

### ***Financial Recap***

To put 1 machine into each of Richmond's 30 facilities, train approximately 300 front line staff, and cover the service agreement would be:

Initial Cost of Machines 30 @ \$5,000	\$150,000
Initial training 300 people @ \$90	\$ 27,000
Maintenance Cost per Year 30 @ \$500	<u>\$ 15,000</u>
Initial Cost	\$192,000

Ongoing costs would be:

Annual recertification 300 @ \$45	\$ 13,500
Maintenance Cost per Year 30 @ \$500	<u>\$ 15,000</u>

### **Financial Impact**

There is no financial impact at this time.

### **Conclusion**

Richmond Fire-Rescue believes that Richmond's Public Facilities are not currently suitable locations for AED use, until there is industry standardization related to AED regulations, equipment, certifications and training, and recommends that no further action be taken at this time.

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