



THE CORPORATION OF THE TOWN OF AMHERSTBURG

OFFICE OF THE CAO

MISSION STATEMENT: Committed to delivering cost-effective and efficient services for the residents of the Town of Amherstburg with a view to improve and enhance their quality of life.

Author's Name: B. Montone	Report Date: May 2, 2022
Author's Phone: 519 736-6500 ext. 2241	Date to Council: May 24, 2022
Author's E-mail: bmontone@Amherstburg.ca	Resolution #:

To: Mayor and Members of Town Council

Subject: Naloxone use by First Responders and available in the Municipal Workplaces

1. **RECOMMENDATION:**

It is recommended that:

1. Council authorization **BE GIVEN** for the execution of a Naloxone Distribution Agreement with Board of Health of the Windsor-Essex County Health Unit; and,
2. The Fire Chief **BE AUTHORIZED** to implement the Naloxone program as outlined in the report of May 2, 2022 entitled Naloxone use by First Responders and available in the Municipal Workplaces.

2. **BACKGROUND:**

Administration has conducted a comprehensive analysis as to the potential impacts of equipping all First Responders in Fire Services with the capacity to administer Naloxone in the field. The analysis engaged a wide array of stakeholders from within our Administration, the Fire Responders as well as the broader community, particularly from our Public Health Authorities, Base Hospital and individuals and organizations with expertise in addictions and mental health. The analysis examined the potential benefits, as well as the risks, costs and training requirements of deploying these tools to workplaces and the response services.

Administration considered the authority of Council in First Responder operational matters and examined the experience of other comparable communities who have adopted the use of Naloxone amongst the full complement of their First Responders.

Additionally, the Ontario government has introduced legislation to protect workers on the job and save lives. If passed, the [Working for Workers Act, 2022 \(Working for Workers Act 2\)](#), will require workplaces that are at risk of a worker opioid overdose to

have Naloxone kits. The legislation would also introduce the highest fines in Canada for companies that fail to follow workplace health and safety laws.

“Everyone in our province knows someone who has been impacted by the opioid epidemic,” said Monte McNaughton, Minister of Labour, Training and Skills Development (MOL). “These are brothers, sisters, mothers and daughters, and we need to do everything in our power to save lives.”

3. **DISCUSSION:**

Drug-related overdoses and deaths continue to be a growing problem in North America. Of particular concern is the use of opioid drugs due to their potency and their highly addictive qualities. Like most communities in North America, Essex County is experiencing a high number of hospital visits and overdose deaths related to drug and substance abuse. Amherstburg is experiencing its share of the challenge.

Prior to the opioid problem becoming widespread in North America, First Responders such as Firefighters and Police Officers were not equipped with or trained in the use of Naloxone. This has been changing over time and now many Fire Departments and Police forces train and equip their staff to administer Naloxone. The first iterations of such programs saw Naloxone use by First Responders as a personal safety measure only. Over time, many departments expanded their internal Naloxone policy to include administering the drug to a patient.

Council, based on the needs and circumstances of the community, determines Fire Department services that are delivered. This report addresses the use of Naloxone by Amherstburg Fire Services while at the same time providing context and a historical account of Naloxone use by EWEMS along with some base statistics. This report does not comment on the use of Naloxone by Windsor Police as police services are regulated through the Police Services Act and oversight is the responsibility of the Police Services Board.

Administration has considered the locations within the community and municipal workplaces where PAD's (Public Access Defibrillators) are located as a means of creating employee accessibility points. This would potentially satisfy most, if not all, MOL requirements for workplaces. Labeling would be necessary for the current PAD cabinets and on-line staff training.

Type (Auto External Defib)	Location	Dept	Build. Name
AED - BOBLO	Boblo Island - Condominium	Fire	Condominium
AED - Town Hall	MAIN LOBBY	HR	Town Hall
AED - Parks	PARKS OFFICE 99 Thomas Rd.	N/A	Parks
AED - Libro	HALL - NORTH END	Facilities	Libro Centre
AED - Libro	HALL - INDOOR SOCCER	Facilities	Libro Centre
AED - Libro	ICE PAD B - WEST WALL	Facilities	Libro Centre
AED - Libro	ICE PAD A - EAST WALL	Facilities	Libro Centre
AED - Libro	2ND LEVEL HALL - ELEVATOR	Facilities	Libro Centre
AED - PWD	LUNCH ROOM	PWD	PWD Building 1

Opioid Drugs

Opioids are a class of drugs that include both opiates derived from the opium poppy, which include drugs like morphine, codeine, heroin and opium and synthetic opioids such as hydrocodone, oxycodone, methadone and fentanyl. Although useful in treating pain, these drugs (legal versions) can cause physical dependency and addiction and contribute to the growing opioid overdose problem. Illegal forms of opioid drugs include heroin and opium.

Opioid drugs are highly addictive; there are numerous examples of persons becoming addicted and in some cases dying of an opioid overdose where the introduction to the drug first occurred through a valid prescription for pain relief. Use over an extended period can cause desensitization to the drug resulting in the need to use more of the drug or a different, more potent opioid to acquire the desired effect, thus increasing the risk of accidental overdose. Stopping or decreasing the amount of an opioid drug can result in physical symptoms of withdrawal. As expected the longer the duration of opioid use and the greater the amount used, the greater the effects of withdrawal, making it extremely difficult to overcome an addiction.

Opioids work by binding to opioid receptors in the central nervous system (brain and spinal cord). Opioids affect areas of the brain controlling emotion and reduce the nerve transmission to the brain making this class of drugs effective in pain management. (Source: Opioids, Australian Pain Management Association). This primary effect on the brainstem and nervous system, which controls breathing and heartbeat, can result in the suppression or cessation of breathing leading to overdose deaths. Users may feel a rush of joy or excitement, especially with drugs such as heroin and fentanyl.

Opioids can affect a second region of the nervous system, which controls cognition and thought process, taking control over the natural "reward system" of the brain, flooding it with dopamine to a level almost 1000 times greater than the level normally found. A third region of the nervous system may experience effects, causing the brain to pass signals and overload the "reward receptors" causing sudden happiness or euphoric feelings.

Naloxone, or Narcan®, is an opioid receptor antagonist, which reverses opioid-related respiratory depression; acting as an antidote to opioid overdose. An opioid antagonist, or opioid receptor antagonist, is a receptor antagonist that acts on one or more of the opioid receptors and essentially blocks them from taking up the opioid, but without triggering them to respond. This neutralizes the effect of the opioid on the body.

It is important to note that the effectiveness of Naloxone is limited to combating the effects of opioid drugs; it is ineffective on non-opioid overdoses like cocaine, ecstasy, GHB, crystal meth, or marijuana. Furthermore, the effectiveness of Naloxone diminishes in circumstances involving polydrug use i.e. where an individual has multiple types of drug in their system - a situation occurring with more frequency.

Traditional Basic Life Saving (BLS) first aid measures can be effective in treating an overdose, provided First Responders arrive at the patient's side quickly. In addition to BLS measures, EMS paramedics in Amherstburg, like most communities in Ontario,

combat the effects of an opioid related overdose with Naloxone. In Ontario and elsewhere, public programs have made Naloxone available to anyone in the community through public harm reduction programs in an effort to decrease the number of opioid related overdose deaths.

The introduction of Naloxone to Police and Fire Departments in Ontario is relatively new in comparison to the long-standing practices of EMS. In some cases, Police and Fire Departments have introduced Naloxone solely for use by their personnel in case of an accidental exposure during a call. Research has shown that with the proper use of Personal Protective Equipment (PPE), the dermal, inhalation and ocular-facial exposure risks to First Responders from an opioid, including Fentanyl is low (Moss et al, 2017). Many departments have now introduced Naloxone for patient care.

Naloxone administration in the field to a patient is accomplished via injection or by a single dose nasal spray. EWEMS utilizes the injection method, which requires a greater level of training because it is administered subcutaneously and in specific dosages, whereas most Fire and Police agencies use the nasal spray, as the device is easier to use and the dose is pre-measured. The injection method used by EMS provides the most direct route into the body. Using this method, EMS is able to titrate the dosage and administer the drug to the point where breathing is restored but not full consciousness thus reducing the risk to responders associated with startled, confused or violent patients. Nasal spray is less readily absorbed in comparison; to ensure it is effective a dose of 4mg is used; this is 10x higher than the dose administered via injection (typically 0.4 mg). Nasal spray is effective in reversing an opioid overdose but there is no ability to titrate the dose and manage the response of the patient.

Regardless of the delivery method used, administration of Naloxone by First Responders requires training and medical oversight by a qualified physician or organization. In the course of employment, a Firefighter administering Naloxone is performing a delegated medical act; training in patient assessment, recognition of an opioid overdose and proper administering of the drug is essential. Despite Naloxone being readily available to the public for use with no formal training, it is important to note that there is a distinction between public uses and administering by a First Responder. In the case of providing care as a First Responder, the employer assumes the risk associated with the administering Naloxone by its employee whereas the Good Samaritan Act protects a member of the public administering Naloxone in good faith; this difference precipitates the need for appropriate training, oversight and records management.

Administering Naloxone to patients by Firefighters does not occur with great frequency. A poll of major Fire Departments in Ontario show that 2018 usage across all major departments averages less than 10 doses annually per department. A variety of circumstances can contribute to this. Follow up polling for the year 2019 indicated an increase among the largest departments and those responding to combined rural and urban areas. Other departments reported low levels of usage. Actual usage of Naloxone by Fire Services is dependent on arrival time in general and in relation to EMS. Many other factors such as the type of drug used and condition of the patient upon arrival determine among other things whether Naloxone is appropriate.

It is important to understand that not all drug overdose patients are candidates for Naloxone. In order it to be effective, the overdose must be the result of an opioid drug.

Time also plays a critical factor in determining whether Naloxone is appropriate. Since opioids suppress the stimulus to breathe, once breathing stops, cardiac arrest will follow within minutes. Upon arrival at a suspected drug overdose, First Responders must assess the patient. If the patient assessment reveals that the patient is in cardiac arrest, Naloxone is likely to have no effect. In this situation, the correct initial course of action is to begin CPR and Defibrillation.

If breathing has stopped and a heartbeat remains, artificial respiration using a Bag-Valve-Mask (BVM) device @ 100% oxygen is an effective course of treatment. Both the AFD Medical Director and the Chief of EWEMS promote artificial respiration and airway management as the initial course of action to be employed in the field by First Responders, prior to the administering of Naloxone.

Another factor, which influences the frequency of Naloxone use by Firefighters, is time of arrival by EMS and Fire Departments. Where the arrival time of EMS is shortly after the Fire Department, the determination of whether Naloxone is appropriate is not completed before EMS arrives at the patient's side. In this situation, it is appropriate for Firefighters to begin the assessment, provide Basic Life Support (BLS) measures and transfer care of the patient to EMS prior to administering Naloxone. It is preferable for EMS to determine the need for Naloxone and if indicated, administer it due to the higher level of medical training and the method of Naloxone delivery that EMS employs.

Additional information about the Opioid problem and some local statistics is included in Attachment 2.

4. RISK ANALYSIS:

Those who receive Naloxone may experience side effects including, convulsions, body aches, diarrhea, increased heart rate, and other symptoms. Withdrawal symptoms can also include nausea, vomiting, convulsions, tremors, increased blood pressure, heart issues, and pulmonary edema (fluid accumulation in the lungs). (Source: Canadian Centre for Occupational Health and Safety).

Despite the conditions noted above, Naloxone is considered relatively safe for the patient. The greatest risk associated with the use to Naloxone in a pre-hospital setting is to the person assisting the patient after it has been administered. A person given Naloxone may experience acute opioid withdrawal, leading to pain, distress, agitation and aggressive behaviour. There is also risk of injury to people who nearby as a patient can act aggressively toward First Responders, or anyone within close vicinity.

In cases where a patient has been revived, they may be reluctant to be transported to hospital and refuse further treatment. In this scenario, it is possible that the effectiveness of Naloxone may wear off while there is still enough of the original opioid in the body. This may result in the patient reverting to the overdose state after First

Responders have left the scene. While the frequency of such occurrences is difficult to confirm, it is accepted by the First Responder community that the above risks are real.

The use of Naloxone is considered a harm reduction measure, not a drug abuse prevention measure. Naloxone can prevent an overdose death but it is not effective in reducing the level of drug use within a community. This statement is not meant to diminish the life-saving potential of Naloxone in individual cases but rather serves as a reminder that decreasing drug use in the community requires the implementation of robust drug prevention programs.

5. FINANCIAL MATTERS:

Discussions with the WECHU have occurred regarding this use of Naloxone, and they support its use as part of the harm reduction strategy. WECHU does not provide oversight, or medical delegation, to First Responder agencies administering Naloxone; it is up to the local department to develop a program that includes these requirements. WECHU provides an authorized Naloxone Distribution Agreement (see Attachment 1), and the supply of Naloxone is free of charge.

At the time of this writing the oversight methodology has been identified in principle, but some uncertainty remains regarding insurance as do the full costs of implementation although the latter is expected to be absorbed in the AFD operating budget.

Equipping Firefighters with Naloxone should be handled in the same manner as a delegated medical act, requiring oversight, training and quality control measures. Therefore, in consultation with legal counsel, the Town of Amherstburg would execute a contract with the AFD Medical Director otherwise authorizing trained AFD personnel to administer Naloxone. Current AFD medical trainers would be trained as instructors and deliver the training to other AFD staff. The development of training would be coordinated with the medical director at an estimated cost of \$2,000. AFD would be responsible to pay for the cost of the 'Train-the-Trainer' course also estimated to be an additional \$2,000. It is uncertain at this time if the cost of Medical Liability Insurance for the Medical Director will be passed to the Town or what the amount will be.

It generally takes up to 4 weeks to train the entire department, which requires shifting other training priorities and significant scheduling adjustments to accomplish. The training includes basic physiological responses to opioid use, recognizing opioid overdoses in patients, scene safety, and Naloxone administration protocol, review of physicians' standing orders, report writing and follow-up.

The Medical Director (or designate) will review all calls where the Fire Department administered Naloxone to a patient. Based on the number of calls reported by other municipal Fire Services the number of calls utilizing Naloxone is expected to be low. In the event that a review of complex calls, inquests, proceedings or hearings are required, the Medical Director operates under cost recovery which may lead to unexpected expenses; however, the likelihood of this occurrence is low.

Currently there are sufficient funds identified in the department's operating budget to absorb the cost of a Naloxone program therefore implementation would not require funding approval from Council.

6. CONSULTATIONS:

Dr. Paul Bradford, AFD Medical Director
Bruce Krauter, Essex Windsor EMS
Windsor Essex County Health Unit

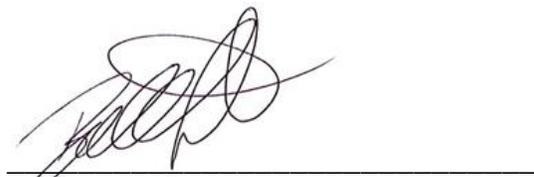
7. CONCLUSION:

Opioid abuse continues to be a growing problem with overdose deaths occurring with greater frequency. Naloxone is an effective tool in reversing the effects of opioids and preventing an overdose death provided it is given shortly after an overdose of an opioid occurs.

In Amherstburg, Naloxone has been available to patients via EWEMS. Where these calls included AFD, the Fire Department has provided effective BLS care in the form of airway management, and artificial respiration using a BVM @100% oxygen. BLS treatment of overdoses is an effective course of action, particularly in communities such as Amherstburg where EMS arrives within quick succession of the Fire Department.

Survivability is reliant on many factors such as time elapsed between the overdose occurring, the time 911 is called, and the type and amount of drug used. The WECHU Opioid Strategy as a harm reduction measure that supports the use of Naloxone by Firefighters. As with any delegated medical act, appropriate training and oversight is required to ensure the quality of a Naloxone program for Firefighters.

It is important to remember that Naloxone has an immediate effect on persons suffering an opioid overdose, but is not likely to have an impact on the levels of drug abuse in the community. Robust drug prevention programs are essential in combating the problem on a broader scale.



B. Montone
Fire Chief

Report Approval Details

Document Title:	Naloxone use by First Responders and available in the Municipal Workplaces .docx
Attachments:	- Naloxone Distribution Agreement -attachment 1.docx - The opioid problem and statistics-attachment 2.docx
Final Approval Date:	May 17, 2022

This report and all of its attachments were approved and signed as outlined below:



Tracy Prince



Peter Simmons



Valerie Critchley