



**Vermont Legislative Research Shop**

**Addressing Opiate Overdose Problems**

Opiate use and Opiate overdoses are a grow

## **Naloxone**

The prescription drug Naloxone is the standard treatment for opiate overdose, and is administered in hospital emergency rooms and by first responders. Naloxone is not a controlled substance but a prescription drug subject to general laws and regulations. There is no Vermont case-law discussing physicians' general authority to prescribe this drug, nor is there case-law challenging the legality of Naloxone as a prescription (Burris 2007).

Naloxone Hydrochloride (Naloxone) is an opioid receptor antagonist that can be administered via intramuscular, intranasal, intravenous, or subcutaneous routes, and is used to reverse opiate overdoses from drugs such as heroin. It works by competing for the same receptors in the brain, displacing the opiate. Immediate administration is critical in situations of overdose.

Naloxone carries no agonist properties or potential for abuse (due to its markedly unpleasant withdrawal syndrome in opiate users), it is inexpensive and nonscheduled, and it is effective at reversing the effects of opiate—thus it is common practice for paramedics to use Naloxone in emergency medical systems. Naloxone is dispensed in labeled kits contained in needle-proof hardened plastic containers.

Currently, in Vermont, it is illegal for Naloxone to be administered to an overdose patient to whom it was not prescribed.

### **First Responders and Naloxone**

As police are often the first to arrive at the scene of an overdose, some states have implemented programs that allow police and other first responders to administer Naloxone to an overdose victim (similar to how police are trained to use a defibrillator for victims of heart attacks). In some municipalities only paramedics are qualified to administer Naloxone while EMTs (emergency medical technicians) are not trained to do so. In situations where EMTs cover neighborhoods not covered by paramedics, users who overdose might go without Naloxone, which would add to the number of preventable overdose deaths. First responders have commented that a program that trains police, EMTs, as well as /P /MCID 8 Bso gramice,e overdose4pmetatDran

bystanders may try a variety of methods in order to aid the victim—some of these responses can be helpful, others provide uncertain benefit, and some are definitely harmful. In other cases, an overdose victim might be taken to a public area and dropped off to be discovered by others who will then contact emergency services. Because of these problems, recent initiatives have looked to change policy involving the arrest of overdose victims and witnesses by adding or establishing Good Samaritan laws sensitive to overdose situations.

Laws that make it possible for opiate users who have been trained to administer Naloxone to administer the drug to others without punishment—even though such people would not have a prescription for Naloxone—have been adopted by some states and local governments (see below). There also exist a number of nongovernmental organizations that train individuals on how to report an overdose without incriminating themselves, reducing the possibility of problems with police.

### Concerns

The primary concern about prescribing Naloxone and passing Good Samaritan laws is that such laws might encourage an increase in opiate use because users feel they have a safety net in case of an overdose. To date, the only published evaluation of the impact of these laws found no increase in the frequency of reported opiate injections or rate of personal overdoses associated with such laws (Sporer *et al* 2005). Some consider the distribution of Naloxone as condoning the use of opiates, or that it might encourage people to start using opiates. There is currently no research evidence to justify these concerns either.

Another concern is that the 911 system will not be used after successful resuscitation using Naloxone. This could be alarming since complications following resuscitation may require in-hospital treatment. Two studies have shown that the incidences of EMS being called in the case of an opiate overdose have declined (from 30-50% to 10-31% of cases) when situations involved the use of prescription Naloxone (Sporer *et al* 2005, Dettmer K. *et al* 2001). A study of a pilot program in San Francisco, however, did not find that the availability of Naloxone would change the rate of calling emergency services (Baca 2005).

There are also medical concerns involved with widespread prescription of Naloxone. The drug has been associated with a small but consistent rate of complications such as seizures, pulmonary edema, and arrhythmias. Transient moderate to severe withdrawal (in 17% to 33% of cases) is associated with Naloxone treatment of opiate overdose. The half-life of Naloxone is shorter than that of opiates, and sedation and respiratory depression may recur in 15% of suspected opiate overdose patients treated with Naloxone. Using unsterile needles to administer may transmit blood-borne infections (Sporer, 2006). Any such adverse health side effects could bring legal implications in the event Naloxone is administered to whom it is not prescribed.

Finally, Naloxone alone may be insufficient in some overdose situations and CPR, especially rescue breathing, may be necessary. A second dose of Naloxone may also sometimes be necessary.



choking in the patient, rescue breathing and CPR, routes of administration and dosing guidelines for Naloxone, as well as protocols for follow up care. Upon completion of the program, the trainee is given a vial of Naloxone, sterile syringes for administration use, an instruction card on overdose recognition and response, and a prescription to carry Naloxone. Since 2001, 6,200 ten-dose vials of Naloxone have been prescribed by the CRA and 465 reports of successful peer overdose reversals, with one report of an unsuccessful reversal in a multi-drug overdose. In Chicago in 2001, opiate overdose deaths decr

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