

Opiate OD Prevention/Intervention Work in Chicago

Chicago Recovery Alliance has been practicing harm reduction outreach with syringe exchange for over a decade. While exchanging 13 million syringes usually wows the average observer there is a more awe-inspiring accomplishment among CRA: we have learned to think more flexibly and creatively guided by the principles of harm reduction. This ability occurs in union with the development of meaningful relationships with participants in our outreach. The power of this respectful collaboration seems to have unlimited potential. One example of harm reduction “thinking in action” is our efforts to reduce opiate OD fatalities.

Motivated more by loss than brilliance, CRA began to express the need and discuss the carnage from opiate OD among ourselves and CRA participants. While all lethal overdoses are tragic, opiate overdose is even more so given that there is a decades old antidote to opiate intoxication called naloxone (Narcan), which acts to temporarily reverse opiate OD and restore breathing. This antidote is injected and quickly kicks out the heroin from the brain’s opiate receptors; however, naloxone has no effect of its own, so opiate effects dissipate for around an hour. Thus naloxone quickly restores breathing in a person who has ingested too much opiate. Why has this antidote remained away from the people who most need it in the US? Fortunately, there are at least two examples where medicine has shown the appropriateness of take-home injectables.

Severely allergic people are often prescribed injectable epinephrine in case of sudden, life-threatening allergic reactions and diabetic people may be prescribed glucagon, an injectable hormone which reverses the effects of too much insulin which can also threaten life. Both these interventions are standard, accepted policies and while both make medical sense, this writer is familiar with no studies to see if their prescription was studied in a rigorous way.

Standards of medical care for patients with diabetes mellitus.

Diabetes Care 2001 Jan;24(Suppl 1):S33-S43 [32 references] 1988 (revised 2000; republished 2001 Jan) **MAJOR RECOMMENDATIONS:** Family members and close associates of the patient who uses insulin should be taught to use **glucagon**.

The diagnosis and management of anaphylaxis.

J Allergy Clin Immunol 1998 Jun;101(6 Pt 2):S465-S528 [337 references] 1998 Jun. **MAJOR RECOMMENDATIONS:** Patient education may be the most important preventive strategy. Patients should be carefully instructed about hidden allergens, cross-reactions to various allergens, unforeseen risks during medical procedures and when and how to use self-administered **epinephrine**. Physicians should educate patients about the risks of future anaphylaxis, as well as the benefits of avoidance measures.

In a similar fashion CRA volunteer physicians took a long hard look at prescription of naloxone and came to similar medical conclusions. Prescribing naloxone has the great potential to reduce the massive increase in opiate-related fatalities in the USA.

In Chicago, opiate-related OD deaths have grown frighteningly in the last decade. Data from the Cook County Medical Examiners Office shows 198 such deaths in 1996 and 466 in 2000. Regardless of all else, opiate-related fatalities are occurring in epidemic

proportions in Cook County (Chicago and its suburbs) and any positive change to reduce this toll seemed like a good idea.

Naloxone is a non-scheduled or “controlled” drug, meaning the Drug Enforcement Administration, the “policemen” assigned to control drug availability in the US, have determined that naloxone has no potential for abuse. Thus, naloxone fits into a category of control along side prescription-strength hemorrhoid or anti-itch cream and such things as 800mg ibuprofen tablets – requiring a prescription but not otherwise controlled and not mentioned as illegal in state narcotic control laws. In Illinois, naloxone and similar opiate antagonists are specifically excluded from these criminal statutes.

To begin with, CRA and its volunteer physicians, an emergency medicine physician and a psychiatrist/addictionologist, met with a diverse group of CRA outreach program participants to ask about the critical aspects of the program. We asked for and were given advice on everything from intensity and focus of work to logistic particulars such as needle and naloxone container size. This advice was layered onto the legal and other mandates of the MD-patient relationship (Scott Burris , Joanna Norland , Brian R. Edlin “Legal aspects of providing naloxone to heroin users in the United States”

International Journal of Drug Policy 12 (2001) 237–248) and CRA’s financial abilities to develop the program as it operates today.

CRA developed participant materials, training aids and protocols for teaching outreach participants about opiate OD prevention/intervention, rescue breathing, naloxone care and administration, and training guides are available freely at CRA’s website (<http://www.anypositivechange.org/res.html>). This program began in near final form in January of 2001 and CRA staff enrolled 541 participants in our opiate OD prevention/intervention program this year. With major expansion of our effort beginning in January of 2002 we have reached over 1,600 people through 2002.

Through December 2002, CRA received first-person reports from participants of 115 reversals of opiate-involved ODs. These reports were passively collected on our outreach sites and questions were asked about the experiences. While the protocol describes recognition of lack of responsiveness to verbal and physical stimuli as the beginning of OD in over 90% of the cases discoloring of OD victims lips/fingers was reported prior to intervening. Rescued victims were approximately equally described as male or female and typical reasons for OD included a period of time away from drug (jail, detox, new source of drug, move, etc) and in around half of cases multiple drug use (usually alcohol) was also reported by the victim.

OD reversal reports have shown:

- **112 OD events were reversed by 1cc of IM naloxone**

- 2nd 1cc shot was required to reverse OD twice – one person thought they made a subcutaneous (SQ) shot by mistake, and one person was impatient (waited ~30 seconds for the IM shot to take effects).

- **One OD required an additional shot to reverse impending return of OD**

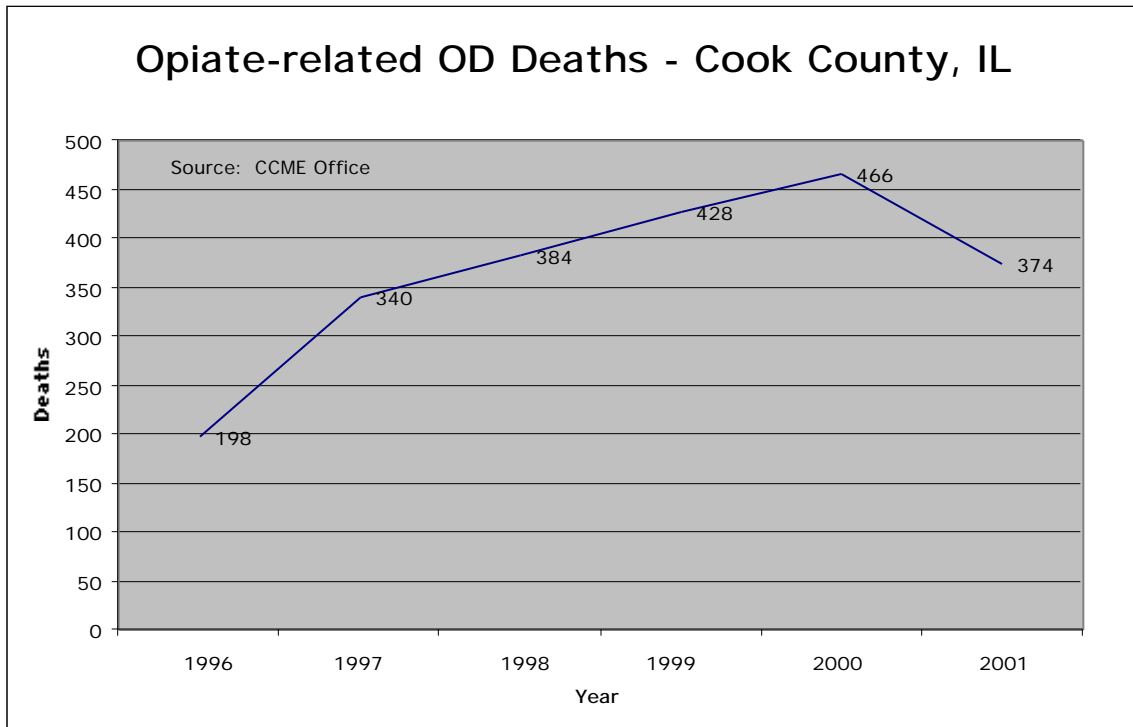
While the person remained conscious, they were concerned at 90 minutes post-revive that they were going to OD again – the second shot was given while they were still conscious.

- **Withdrawal or other discomfort was reported as significant in three instances**

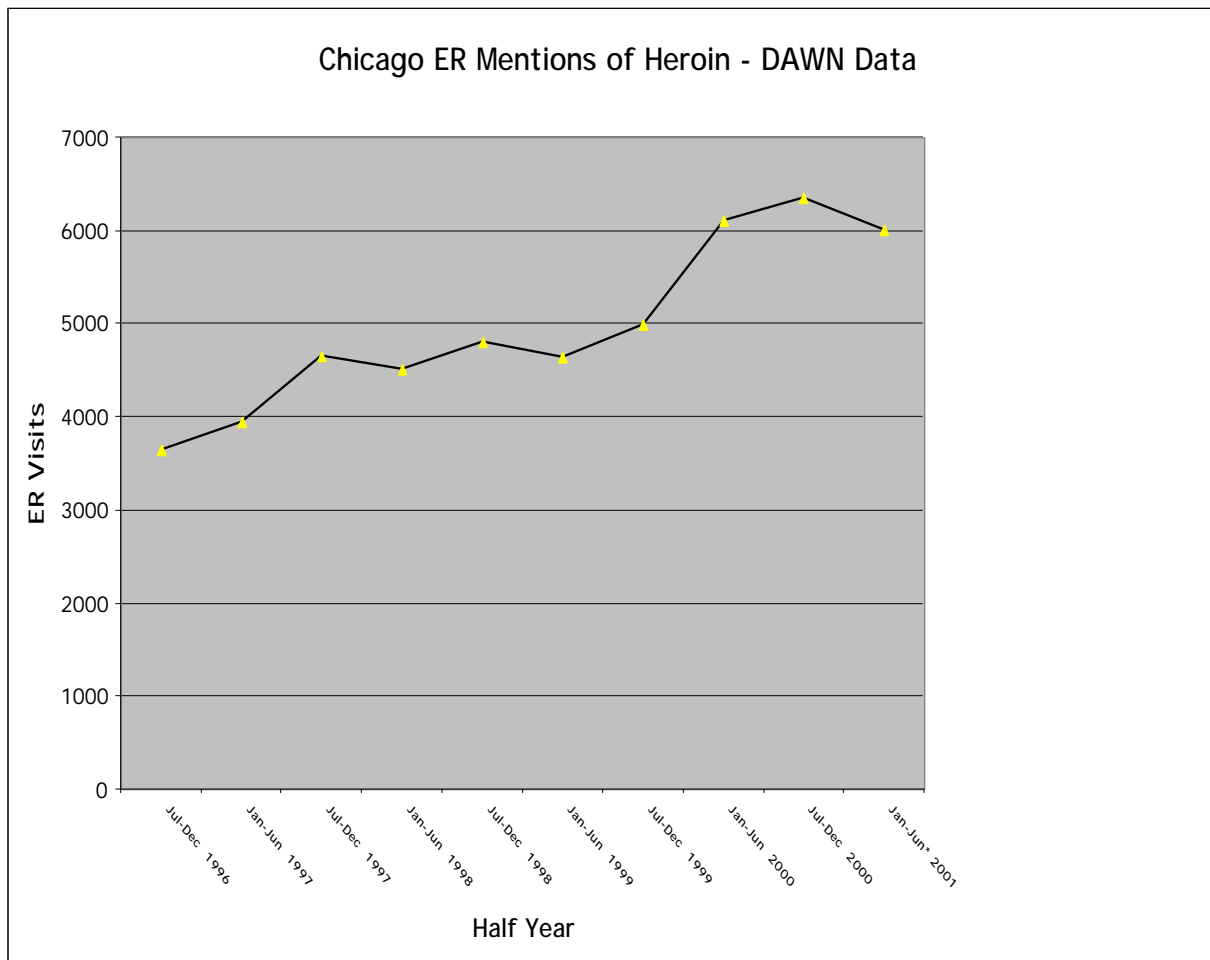
Two instances of 1cc IV use (one due to the person being dressed in thick, full-body clothing and one out of fear of too slow a response from IM injection (one brief seizure and one vomiting) with one person responded to a 2cc dose by vomiting lightly for a short period or time.

Rescuers, while intellectually proud of helping to save a friend's life, were universally disturbed by the necessity of their actions and the intense discomfort they felt in having to save their colleague from death. None of the rescuers or victims cared to repeat the OD experience or rescue as it was aversive to all.

Other indicators of impact include the 2001 data from the Cook County Medical Examiners Office. This data indicate a reduction of 92 (~ 20%) opiate-related OD deaths in Cook County in 2001 – the first time in years there has been a reversal of the upward trend in opiate-related OD deaths.



While we do not know for certain that this data is evidence of the effectiveness of our OD prevention/intervention work we are in the process of examining other data indicative of opiate OD potential in a community (drug purity, opiate-related arrests, treatment admissions, ER mentions of heroin, etc) and we hope to further learn about this reduction of deaths. For instance, ER mentions of heroin through the Drug Abuse Warning Network (DAWN) show a decrease in the first part of 2001:



CRA hopes to further evaluate our OD work and is actively looking for research funding to this end. As well, we hope to expand our work as widely as possible. Based on our experience to date, we hope that naloxone ultimately becomes an over-the-counter medicine -- further research may suggest naloxone's utility as an intra-nasally administered agent which may speed this change. We also hope that it becomes standard practice within methadone treatment and other opiate prescription events for naloxone to be prescribed and that all persons knowing an opiate user also know about and have naloxone available. We hope that the old mistakes of shame and condemnation do not prevent such life-saving care from being available and being used.

Also of note:

Overall, heroin use in the United States appears to have stabilized at relatively high levels. Nonetheless, most law enforcement officials throughout the country agree that the trend toward higher purity, lower cost heroin is continuing... p.15
[National Drug Threat Assessment 2002](#), National Drug Intelligence Center 319 Washington Street, 5th Floor, Product No. 2002-Q0317-001 December 2001.