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preventing opioid overdose deaths with take-home naloxone

New EMCDDA insights into naloxone, the overdose antidote that can help save lives

(18.1.2016, LISBON) Between 6 000 and 8 000 drug-induced deaths are reported in Europe every year, with opioids, such as heroin, found in most overdose cases. Yet with adequate intervention, using the overdose-reversal drug naloxone, many of these deaths can be prevented. This issue is explored today in a new report from the **EU drugs agency (EMCDDA)** entitled ***Preventing opioid overdose deaths with take-home naloxone*** (1).

Naloxone — a pharmaceutical drug used to reverse respiratory depression caused by opioid overdose — has been used in emergency medicine since the 1970s (2). Listed by the **World Health Organization (WHO)** as an ‘essential medicine’, it is traditionally available in injectable form, although non-injectable formulations of the drug are now emerging. **WHO guidelines** on community-based naloxone provision were published in 2014 (3).

Research shows that many opioid overdoses occur in the presence of bystanders, who, if empowered to act appropriately, have the potential to save lives while waiting for emergency services to arrive at the scene (4). This has led to the emergence of naloxone as a harm-reduction measure since the 1990s, with the provision of take-home naloxone kits to opioid users and those likely to witness opioid overdoses.

‘Each of the lives lost every day in Europe to opioid overdose is worth all our efforts to improve prevention and responses’, says **EMCDDA Director Alexis Goosdeel**. ‘Empowering bystanders to deliver a potentially life-saving intervention is an important step in a diversified and balanced European response to drugs’.

In Europe, take-home naloxone initiatives currently operate at city level in **Denmark, Germany, Estonia, Ireland, Italy**,the **UK (England)** and **Norway**, and at regional level in **Spain (Catalonia)** and the **UK (Scotland** and **Wales)**. A number of other EU countries are also exploring the practice and considering adding take-home naloxone to the existing range of interventions to prevent drug-related deaths (5).

Following on from a 2015 **EMCDDA** review of the effectiveness of take-home naloxone (6), today’s report provides practitioners and policymakers with a comprehensive, up-to-date review of the evidence base on the issue. Examining the case for distributing naloxone, the report traces the drug’s historical developments, presents examples of good practice and training and considers ongoing debates on naloxone availability and legal frameworks.

**Legal barriers and developments**

On the issue of legal barriers in the EU, the report says: ‘In most jurisdictions, naloxone is a prescription-only medicine and its use is restricted to medical personnel or to patients to whom it is prescribed. The introduction of take-home naloxone provision in some countries would therefore require adjustments to be made to current regulations’.

In some jurisdictions, the notification of overdose events can trigger a report to the police, which may discourage overdose witnesses from contacting emergency medical services. The report describes how the dissemination of take-home naloxone has been facilitated by the introduction of so-called ‘Good Samaritan’ legislation in some countries (**Luxembourg, Scotland**, some **US** states), which exempt lay responders from liability when they offer assistance.

Although most EU Member States have not implemented formal legal provisions for take-home naloxone, a number of communities and countries have clarified the legal status of prescribing and administering it.

**Options for the future: new products**

Naloxone formulations are currently licensed in injectable form, which can prove a psychological obstacle for non-medical responders as well as a health risk for all those administering the drug. Safer and easier routes of administration are currently under development, which could contribute to the drug’s wider use.

In November 2015, the **US Food and Drug Administration** approved a concentrated nasal naloxone preparation. This important breakthrough in facilitating naloxone use by overdose witnesses raises the prospect of nasal naloxone becoming available in the EU in the near future. In Europe, pilot nasal spray naloxone programmes are currently running in **Denmark** and **Norway**, while the feasibility of a buccal tablet is being explored in the **UK**.

**Training family and friends: an essential element**

The training of family and friends is increasingly being recognised as an essential element of urgent interim overdose management using naloxone. It helps bystanders become familiar with the medication and the legalities around it and feel competent to use it as they wait for emergency responders.

Take-home naloxone training may vary in intensity and coverage, with the choice of the training level determined by the setting, target group needs and available resources. Among the issues covered in training are the potential side-effects of naloxone use, including acute opioid withdrawal symptoms and the risk of post-recovery re-intoxication as the effects of the naloxone wear off.

**Improving availability to save more lives**

Reducing fatal drug overdoses remains an important challenge for public health policy. According to today’s report: ‘Action is urgently needed to improve take-home naloxone availability’, with the antidote currently available in less than a third of the 28 EU Member States.

Some 50 years after its original manufacture, naloxone remains the drug of choice for reversing opioid overdose. This report shares existing experience with the medication in order to broaden the current knowledge base for decision-making and for improving emergency treatment responses.

**Notes**

(1) For more, see [www.emcdda.europa.eu/publications/insights](http://www.emcdda.europa.eu/publications/insights)

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(2) In addition to reversing the effects of a heroin or morphine overdose, naloxone also works to reverse respiratory depression caused by other opioids, including methadone (depending on dose and route of administration).

(3) For more, see [www.emcdda.europa.eu/best-practice/guidelines](http://www.emcdda.europa.eu/best-practice/guidelines)

(4) While naloxone administered by bystanders is a potentially life-saving emergency interim response to opioid overdose, it should not be seen as a replacement for comprehensive medical care (WHO guidelines).

(5) Outside the EU, programmes have been established in Australia, Canada and the US. Pilot projects are also running in Afghanistan, China, Georgia, India, Kazakhstan, Kyrgyzstan, Tajikistan, Thailand, Ukraine and Vietnam.

(6) For more, see [www.emcdda.europa.eu/news/2015/naloxone](http://www.emcdda.europa.eu/news/2015/naloxone)