Public Health England

Protecting and improving the nation's health

Take-home naloxone for opioid overdose in people who use drugs

Advice for local authorities and local partners on promoting the wider availability of naloxone to reduce overdose deaths from heroin and similar drugs.

The Advisory Council on the Misuse of Drugs (ACMD) recommended in 2012 that take-home naloxone should be made more widely available.[1] It is also a recommendation of the World Health Organization.[2]

Naloxone can be supplied to anyone:

- currently using illicit opiates, such as heroin
- receiving opioid substitution therapy
- leaving prison with a history of drug use
- who has previously used opiate drugs (to protect in the event of relapse)

With the agreement of someone to whom naloxone can be supplied, it can also be provided to their family members, carers, peers and friends.

Currently naloxone can only be supplied under prescription, but this requirement will be eased in October 2015 when a change to medicines regulations is expected to take effect.

Regardless of how naloxone is provided locally, information on the risks of overdose and how to respond in an emergency should be available to all those at risk, their carers and families, and staff.

What is naloxone?

Naloxone is an emergency antidote to opiate overdose. It blocks opioid receptors to counteract the effects of opioid drugs (such as heroin, methadone and morphine), reversing the life-threatening effects of an overdose such as depressed breathing. Naloxone itself has no psychoactive properties and "no intoxicating effects or misuse potential".[1] It is injected directly into the body so is quick to take effect.

In ‘take-home naloxone’ programmes, suitable naloxone products, information, advice and training are provided to people who use drugs and to others. Such programmes can include the training of families, carers and peers to enable them to respond in the event of an overdose emergency, including the use of any available naloxone.

Naloxone is currently available in ampoules, pre-filled syringes and a two-piece ampoule and syringe (called a Minijet®), and in concentrations of 400 micrograms (0.4mg) per ml or 1mg per ml. Pre-filled syringes and Minijets are simpler for emergency use by non-medics.

Only Martindale’s Prenoxad® product is licensed specifically for use in the community but other naloxone products may be suitable depending on local and individual circumstances (eg, tailored information and training on those products has been provided).

Naloxone has great potential for saving lives but, like most medicines, it can be harmful in some circumstances. Its use can induce rapid onset of withdrawal symptoms, such as nausea, vomiting and sweating. In a small number of cases, severe but short-term complications have been reported, including cardiac problems and risk of death.[3] A relatively low first dose of naloxone (typically 400mcg) will have a treatment effect but reduce the risks. Additional low naloxone doses can then be given for as long as needed to achieve and maintain its overdose blocking effects. Despite this important caution on how to use naloxone in an emergency, there is clear guidance that the risk-benefit balance is “strongly in favour of naloxone distribution, due to its clear potential for saving lives”.[2]

Current position in England

There were 765 deaths registered in England and Wales in 2013 in which heroin or morphine were mentioned on the death certificate: an average of more than two every day, and a significant increase of 32% compared to those registered in 2012.[4]

Naloxone is a prescription-only medicine and must be prescribed directly to a named patient (ie, someone who uses, or has used, opiates and is at risk of overdose), or supplied to an individual by means of a patient specific direction (PSD)[a] or a patient group direction (PGD). However, due to the nature of opiate overdose, naloxone is unlikely to be self-administered when needed. In 2005, naloxone was added to the list of injectable medicines that may be legally used by anyone for the purpose of saving a life in an emergency.[5] It may therefore be usefully held by a third party such as a family member or carer.

[a] PSDs are group prescriptions where each individual must be named on the documentation – as a result, they have rarely been used for take-home naloxone programmes.

Many services are currently using PGDs to provide take-home naloxone. PGDs are written instructions for the supply of prescription-only medicines to specified groups of patients without them being named in individual prescriptions.[6] According to a recent survey in England by Release and the National Needle Exchange Forum, one-third of local authorities are currently providing take-home naloxone to people who use drugs, as part of their efforts to prevent overdose deaths.[7]

Evidence and recommendations for take-home naloxone

In 2010 the National Treatment Agency for Substance Misuse (NTA) helped 16 pilot sites across England to train the carers and relations of opiate misusers to respond to drug overdoses and use naloxone.[8] The project concluded that "while training carers is beneficial in itself, training service users and providing overdose training and naloxone to as many people as possible may need to be considered to achieve a wider impact on overall fatal and non-fatal overdose rates."

The ACMD's 2012 report 'Consideration of naloxone' reviewed naloxone availability and concluded with the following recommendations for government:

- naloxone should be made more widely available, to tackle the high numbers of fatal opioid overdoses in the UK
- government should ease the restrictions on who can be supplied with naloxone
- government should investigate how people supplied with naloxone can be suitably trained to administer it in an emergency and respond to overdoses

A 2013 study found that distribution of naloxone to heroin users is cost-effective, "even under markedly conservative assumptions".[9]

Evaluation of the take-home naloxone programme for people being released from Scottish prisons demonstrated significantly reduced deaths in this group.[10]

World Health Organization (WHO) 2014 guidelines on 'Community management of opioid overdose' recommend that access to naloxone includes "people likely to witness an overdose in their community, such as friends, family members, partners of people who use drugs, and social workers."

Future developments

The responses to a public consultation undertaken by the Medicines and Healthcare products Regulatory Agency (MHRA) in 2014 were largely supportive of the ACMD's recommendations that naloxone be made more widely available, and the MHRA is drafting regulations to that end.

The legislative change expected to come into force in October 2015 is likely to mean that – similar to Water for Injections – naloxone is made exempt from prescription only medicine requirements when it is supplied by a drug service commissioned by a local authority or NHS. It may then be supplied to any individual needing access to naloxone, which could be:

- someone who is using or has previously used opiates (illicit or prescribed) and is at potential risk of overdose
- a carer, family member or friend liable to be on hand in case of overdose
- a named individual in a hostel (or other facility where drug users gather and might be at risk of overdose), which could be a manager or other staff

In all cases:

- supply is on the grounds that it for the purpose of making naloxone available for saving a life in an emergency
- there will be no need for the usual Prescription Only Medicine requirements, just a requirement that the supply is suitably recorded

There is some interest in nasal delivery of naloxone but a suitable product has not been licensed for use. However, a non-injectable product would likely not need to be prescription-only and could be easier for non-medical staff to administer.

Common myths about naloxone

"It can be abused"

Naloxone has no psychoactive properties and so no direct misuse potential.[1]

"It encourages overdose or risky behaviours"

Surveys of people who use opiates suggest this is not the case.[11] As naloxone works by inducing rapid withdrawal from opioid drugs, its use is likely to be something that people who use these drugs are keen to avoid. Take-home naloxone should always be provided alongside training on preventing and avoiding overdose, and efforts to raise awareness of risk behaviours and harm reduction solutions.

"It is difficult to administer"

Administering naloxone in the community is as easy as ABC(N) – see box. It is important first to call an ambulance, check the person is breathing and put them in the recovery position. Then simply attach a needle (if not already fitted) to a pre-filled syringe or MiniJet® and inject the overdosed person in a large muscle (thigh, buttock or top of the arm). There is a simple video at

Ambulance
Breathing
Re**C**overy position
Naloxone

www.harmreductionworks.org.uk/2_films/overdose_and_naloxone.html. It can be ordered on DVD at www.harmreductionworks.org.uk/6_booklets/overdose.html

In 2009, the NTA piloted a naloxone programme for families and carers, which demonstrated how these individuals were able to deliver this lifesaving intervention. Nearly 500 people were trained, and naloxone was used at least 18 times in emergency situations.[8]

The provision of naloxone should usually be accompanied by training in overdose prevention and management – though this does not need to be extensive.[12] See the section on 'What to cover in overdose and naloxone training'.

"It is not cost effective"

Research from the USA found that naloxone distribution "was cost-effective in all deterministic and probabilistic sensitivity and scenario analyses, and it was cost-saving if it resulted in fewer overdoses or emergency medical service activations".[9]

"It is contradictory to a recovery focus"

Take-home naloxone is a safeguard for people still using opiate drugs (including those on opioid substitution treatment) and those currently abstinent who are at risk of relapse and overdose, including those leaving prison or treatment services.

"We need to wait until October 2015"

In October 2015, legislation is expected to be enacted that will allow wider access to naloxone. But this should not delay the provision of take-home naloxone to at-risk individuals now, using existing provision for prescriptions and PGDs as outlined on page 2.

Birmingham: a case study in how to introduce take-home naloxone

In 2012, the clinical leads for Birmingham's drug treatment services decided to offer overdose training and take-home naloxone as part of normal service provision across the city – building on the NTA pilot schemes and the national programme in Scotland. To date, they have provided training and naloxone to more than 2,000 people through a PGD. No additional funding was obtained – the costs of naloxone make up just a small fraction of the overall prescribing costs for services. All staff and selected peer trainers received training on the use of naloxone, and this has become part of normal keywork. Training of individuals takes only 10-20 minutes during one-to-one keyworking sessions before naloxone is dispensed.

A representative of each service attends 'naloxone steering group' meetings each month. Records capture the number of kits dispensed and the reported use of naloxone in emergencies.

Introducing take-home naloxone

Based on Birmingham's experience, useful steps may include:

1. Identify local naloxone champions – this may be you
2. Organise an initial 'informing the managers' or 'training the trainers' session
3. Consider who will receive naloxone supplies and how: users and carers, hostels and pharmacies, etc
4. Consider who will pay for naloxone supplies from different locations
5. Agree how you will re-supply people when naloxone is used or expires, and who will pay. Will you have a system that flags approaching expiry dates to keyworkers/pharmacies/etc?
6. Hold regular meetings for local naloxone champions – including people who use drugs – to encourage progress, discuss any barriers or concerns, and learn from each other
7. Explore the products and prices available, speaking to local pharmaceutical representative(s), and decide together with local service providers which to purchase
8. Complete the paperwork and processes for a PGD, working with the local clinical commissioning group(s) and director of public health as appropriate
9. Inform and liaise with the police, local coroners, ambulance service clinical lead, hostel managers and pharmacies
10. Purchase the naloxone kits, and make the necessary arrangements for stocking and distributing them, and for re-supply when naloxone held by an individual has been used or expires
11. Provide training to all drug keyworkers, all opioid substitution treatment (OST) prescribers locally, dispensing pharmacists, and local service user groups – all of whom can contribute to the onward dissemination of information
12. Arrange for training to be provided to people who use drugs, patients and clients, and their families and friends (see next section). Consider who is best positioned to deliver this training. Offer training to as many people as possible
13. Consider whether and how you will record the numbers of kits dispensed and the reported number of times that naloxone has been used to reverse overdoses

What to cover in overdose and naloxone training

The provision of naloxone should usually be accompanied by training in overdose prevention and management. This does not need to be complex or long but should highlight the need for individuals to seek medical attention even if naloxone has been administered, because of its relatively short duration of action.

Training will usually cover:

- overdose risks: polydrug (especially benzodiazepines) and alcohol use, getting older, post-detox/rehab/prison
- what naloxone can and can't do: it just reverses opiate overdose. If someone has also taken too many other drugs or too much alcohol, it won't reverse their effects
- how to identify an opiate overdose – lack of consciousness, shallow or no breathing, 'snoring', and blueing of the lips and fingertips
- steps to take in responding to an overdose*
- how to use naloxone, including addressing any fears about needles and injecting
- how to get naloxone replaced when it has either been used or is approaching its expiry date

***Having identified an overdose:**

1. Call an ambulance
2. Give rescue breaths if the person is not breathing
3. Put them in the recovery position
4. Inject the initial recommended small amount of naloxone (usually 400mcg), wait (about 1 minute). If unresponsive, inject another small amount. Repeat as necessary
5. Stay with the person at least until the ambulance arrives

Recording

Local areas and their services will want to make suitable arrangements to record the supply of naloxone for the following purposes:

- to demonstrate that supply has been made appropriately for use in emergency
- to monitor who has received training and naloxone supplies, and ensure equitable provision to different groups
- to understand when and how naloxone is used in overdose situations and to arrange re-supply when naloxone has been used or is approaching expiry
- for contract and performance management

Naloxone-alone is not enough

Naloxone is just one way to try to reduce drug-related deaths. A whole package of measures needs to be considered to prevent overdoses and other causes of drug-related deaths.

As part of a comprehensive programme of work to reduce the transmission of blood-borne viruses and to prevent DRDs PHE:

- published a Turning Evidence into Practice briefing on preventing drug-related deaths
- continues to support the implementation of NICE's updated guidelines on needle and syringe programmes
- convened a national summit on DRDs in partnership with DrugScope and the Local Government Association
- convenes regular meetings of a national intelligence network on drug-related health harms which maintains a focus on DRDs

Resources

- The ACMD's 'Consideration of naloxone': www.gov.uk/government/uploads/system/uploads/attachment_data/file/119120/consideration-of-naloxone.pdf
- The Scottish Drugs Forum's www.naloxone.org.uk, which has lots of resources itself
- The NTA's report on its overdose and naloxone training programme for families and carers: www.nta.nhs.uk/naloxone-report-2011.aspx
- Harm Reduction Works overdose and naloxone DVD (HRDVD6N): www.harmreductionworks.org.uk/6_booklets/overdose.html
- The World Health Organization's 2014 guidelines on 'Community management of opioid overdose': www.who.int/substance_abuse/publications/management_opioid_overdose
- SMMGP's e-learning, 'Naloxone saves lives': www.smmgp-elearning.org.uk
- An international website supporting naloxone distribution with free resources: www.naloxoneinfo.org

Produced with the help of the National Needle Exchange Forum: www.nnef.org.uk

References

[1] ACMD (2012) Consideration of naloxone

[2] World Health Organization (2014) Community management of opioid overdose

[3] NHS England (2014) Patient Safety Alert. Stage One: Warning – Risk of distress and death from inappropriate doses of naloxone in patients on long-term opioid/opiate treatment. NHS/PSA/W/2014/016

Note: This alert focused on the use of naloxone in patients prescribed opioids for pain.

[4] ONS (2014) Deaths Related to Drug Poisoning in England and Wales, 2013

[5] The Medicines for Human Use (Prescribing) (Miscellaneous Amendments) Order 2005.

[6] See, for example: http://www.naloxone.org.uk/images/pdf/pgd naloxone approved apr 2011.pdf

[7] Date from Release and the National Needle Exchange Forum, to be published

[8] NTA (2011) The NTA overdose and naloxone training programme for families and carers

[9] Coffin PO & Sullivan SD. Cost-effectiveness of distributing naloxone to heroin users for lay overdose reversal. Ann Intern Med. 2013 Jan 1;158(1):1-9

[10] Strang J, Bird SM, Parmar MKB. Take-home emergency naloxone to prevent heroin overdose deaths after prison release: rationale and practicalities for the N-ALIVE randomized trial. J Urban Health. Oct 2013; 90(5):983-996

[11] Seal KH, Downing M, Kral AH, Singleton-Banks S, Hammond J-P, Lorvick J, Ciccarone D and Edlin BR. Attitudes about prescribing take-home naloxone to injection drug users for the management of heroin overdose: a survey of street-recruited injectors in the San Francisco Bay Area. J Urban Health. Jun 2003; 80(2): 291–301

[12] Behar E, Santos G-M, Wheeler E, Rowe C, Coffin PO (2015) Brief overdose education is sufficient for naloxone distribution. Drug and Alcohol Dependence [in press]

Produced by the Health & Wellbeing Directorate, Public Health England
Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
www.gov.uk/phe
Twitter: @PHE_uk

PHE publications gateway number: 2014739
First published: February 2015