‘Healthcare Professional Guidance Document’

on Training and Support for Nyxoid® (naloxone)

Purpose of this Healthcare Professional (HCP) Guidance Document

To provide brief information for HCPs on Nyxoid (naloxone nasal spray solution)

To help HCPs support take-home naloxone initiatives, by training patients at risk of overdosing on opioids, and their family or friends (‘carers’) if available, to manage a known or suspected opioid overdose and to mitigate the risks associated with Nyxoid use.

For more information
Visit www.nyxoid.com

There are a number of educational materials provided to support training on use of the product, through this guide and a video, as well as information available in the product pack. These are listed below:

Nyxoid educational materials available:

1 HCP Guidance Document (this document):

A guide for HCPs on Training and Support for Nyxoid comprising:

- Information for Healthcare Professionals
- Training Card to demonstrate to patients & carers how to use Nyxoid Nasal Spray

2 Patient Information Card:

- This Patient Information Card should be handed over to the patient/carer to take home
- This card provides information for patients and carers on Nyxoid nasal spray and how to use it in emergency situations of opioid overdose
- This also has a QR code to access video via smartphone

3 On-line access point www.nyxoid.com

- Please ensure that the patient/carer has access to the video either through the QR code on the patient information card or through a memory stick
- Video film showing what to do in case of a suspected opioid overdose (Video is also available on a flash drive if access to website not possible)
- Link to copies of HCP guidance document and Patient Information Card
- Where to order more copies of printed information material – contact points

*Please note that the website does **not** have an interactive mode to deal with questions or comments on the product. Please contact your local Mundipharma office for further information about the product or to report any adverse drug reactions seen.*

Other information on Nyxoid and how to use:

A NYXOID PACK consists of:

- A **carton** containing two nasal sprays. A second spray is included to give a further dose of naloxone if necessary
- Each nasal spray is sealed individually in a blister pack
- A **Quick Start Guide** is printed on the back of the blister pack with pictograms showing how to use Nyxoid.
- A **Package Leaflet** with information about the product and stepwise instructions for use
- Encourage the patient/carer to read the Quick Start Guide and Package Leaflet

Introduction for HCPs:

Each Nyxoid single-dose nasal spray contains 1.8 mg of naloxone (as hydrochloride) in a 0.1ml solution. It is intended for immediate administration as emergency therapy for known or suspected opioid overdose as manifested by respiratory and/or central nervous system depression in both non-medical and healthcare settings. Nyxoid is indicated in adults and adolescents aged 14 years and over. Nyxoid is not a substitute for emergency medical care.[1]

Mode of action: Naloxone, a semisynthetic morphine derivative (N-allyl-nor-oxymorphone), is a specific opioid antagonist that acts competitively at opioid receptors. It reveals very high affinity for the opioid receptor sites and therefore displaces opioid agonists and partial antagonists from these sites. Naloxone has no agonist effects and in the absence of opioid antagonists, it exhibits essentially no pharmacologic activity.

Naloxone has not been shown to produce tolerance or cause physical or mental dependence. As the duration of action of some opioid agonists may be longer than that of naloxone, the effects of the opioid agonist may return as the effects of naloxone disappear. This may necessitate repeat doses of naloxone – though the need for repeat naloxone doses is dependent on the quantity, type and route of administration of the opioid agonist that is being treated.

Use of Nyxoid: The recommended dose is 1.8 mg administered into one nostril (one nasal spray). In some cases, further doses may be necessary. The appropriate maximum dose of Nyxoid is situation specific. If the patient does not respond, the second dose should be administered after 2-3 minutes. If the patient responds to the first administration but then relapses again into respiratory depression, the second dose should be administered immediately. Further doses (if available) should be administered in alternate nostrils and the patient should be monitored whilst awaiting arrival of the emergency services.

Nyxoid provides an alternative route to the intravenous, intramuscular or subcutaneous injections that are well established for HCP use. There is growing experience in many European countries of the direct supply of naloxone to persons at risk of opioid overdose, and involvement of family & friends when close support is available, via take-home naloxone programmes (THN)[2, 3, 4] based on targeted training. Nyxoid provides a treatment option which can be used within local policies to treat this group of patients.

Pharmacokinetic data have shown that naloxone is sufficiently absorbed through the nasal mucosa to exert an antagonist effect upon opioids which have caused the symptoms of overdose.[5]

The patient is expected to respond within 2-3 minutes of administration.[1]

Important information on the use of Nyxoid to be shared with the patients/carers. This information is also included in the Patient Information Card:

Recognising a suspected opioid overdose: **If opioid overdose is suspected in a patient, perhaps with injecting materials lying around, the carer should approach with care, check for response, check airways and breathing and check for signs of overdose.**

Calling for help: **The emergency services must always be called immediately before administering Nyxoid, even if the patient wakes up.**

- As naloxone is a short acting antagonist, its effect can wear off, especially if the patient has taken a long acting opioid which outlasts the effect of naloxone
- Alternatively, the patient will need medical support if their symptoms have a non-opioid cause

Using Nyxoid correctly: **Nyxoid is supplied in a ready to use spray to insert into the nostril.**

- Once applied into the nose, the spray is activated by depressing the plunger, until it clicks
- The nasal spray should not be primed or tested before use or the dose will be lost. Whilst there are two sprays, correct use of the first spray, then the second one if needed, gives more chance for the patient to respond, until help arrives

Waiting with the Patient Until Emergency Medical Help Arrives: **Nyxoid is not a substitute for emergency medical care or basic life support (such as CPR).**

- If the carer waits with the patient they can put the patient into the recovery position, give a second naloxone dose if the patient does not respond to the first or goes back into respiratory depression, give CPR if trained to do so, and monitor patient for the risks of recurrence of respiratory depression or precipitation of opioid withdrawal effects. They can also tell the arriving paramedics or ambulance crews what has happened

The possibility of recurrence of respiratory depression: **This is a potentially life threatening event. Two nasal sprays are included in the carton to extend length of naloxone effect prior to medical attention, but immediate calling of emergency medical services is important to sustain patient's recovery from opioids.**

The possibility of precipitation of opioid withdrawal effects: **In persons with physical dependence on opioids, naloxone can produce moderate to severe withdrawal symptoms which appear within minutes of administration and may subside after approximately two hours.**

- The severity of the withdrawal symptoms is related to the dose of naloxone and the degree and type of opioid dependence. Some people may seem to act aggressively as they wake up

The Training Card for Patients and Carers within this pack provides material for HCPs to talk through these topics with patients and carers in a simpler, stepwise approach and uses the same points as the Patient Information Card, which can be given to trainees to take home. In addition, there is a link to a short training video which provides a clear run through of the treatment process.

Quick reference:

1. Check for signs of overdose
2. Call an ambulance 
3. Give Nyxoid 
4. Put into recovery position 
5. Monitor and give support
   until the ambulance arrives
6. Give 2nd dose of Nyxoid
   if no improvement after 2–3 minutes OR overdose symptoms come back 
7. Take care for your personal safety:
   watch for acute withdrawal symptoms
8. Dispose of used Nyxoid
   and get a replacement

According to your local clinic or health care centre policy, you should also inform the patient or carer about the arrangements to obtain replacement packs if:

- The original Nyxoid pack exceeds its expiry date, or
- The patient has been treated with the original Nyxoid pack, is still at risk of overdose and thus needs a replacement

References: 1. Nyxoid Summary of Product Characteristics.2. European Monitoring Centre for Drug Addiction, European Drug Report, 2017 3. Bird SM *et al* Effectiveness of Scotland's National Naloxone Programme for reducing opioid-related deaths: Addiction. 2016 May; 111(5): 883-91 4. Madah-Amiri D *et al* Rapid widespread distribution of intranasal naloxone for overdose prevention. Drug Alcohol Depend. 2017 Apr 1; 173: 17-23 5. Mundin G,*et al* Pharmacokinetics of concentrated naloxone nasal spray over first 30 minutes post-dosing. Addiction. 2017 Sep; 112(9): 1647-1652.

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet.
You can also report side effects directly via HPRA Pharmacovigilance, Website: www.hpra.ie
By reporting side effects you can help provide more information on the safety of this medicine.

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