NHS England

Patient Safety Alert

Stage Two: Resources

Support to minimise the risk of distress and death from inappropriate doses of naloxone

26 October 2015

Alert reference number: NHS/PSA/Re/2015/009

Alert stage: Two - Resources

A Stage One: Warning Alert [1] was issued 20 November 2014 drawing attention to the safety implications of inappropriate doses of the opioid/opiate antagonist naloxone. Whilst naloxone use can be life-saving in respiratory depression and respiratory arrest, the previous Stage One Alert highlighted that use of naloxone in patients where it is not indicated, or in larger than recommended doses, can cause a rapid reversal of the physiological effects for pain control, leading to intense pain and distress, and an increase in sympathetic nervous stimulation and cytokine release precipitating an acute withdrawal syndrome. Hypertension, cardiac arrhythmias, pulmonary oedema and cardiac arrest may result from inappropriate doses of naloxone being used for these types of patients.

Appropriate dosing of naloxone is clinically complex. This Stage Two: Resource Alert points to the resources that have been developed in response to the Stage One Alert to support all providers of NHS funded care to ensure local protocols and training related to use of naloxone reflect best practice.
Key resources include:

- UK Medicines Information (UKMI) considered the relevant literature base and consulted with a range of national stakeholders to a unique comprehensive review to be used to inform actions to minimise the risk of excessively high doses of naloxone and inform appropriate dosing in all settings and circumstances when naloxone is indicated http://www.evidence.nhs.uk/search?q=%22What+naloxone+doses+should+be+used+in+adults+to+reverse+urgently+the+effects+of+opioids+or+opiates%22.
- The working group updating the 2007 *Drug misuse and dependence – UK guidelines on clinical management* has published preliminary advice on naloxone before addressing its supply and use more fully in the published update planned for 2016 http://www.nta.nhs.uk/uploads/chairsletter-naloxone-22july2015.pdf. The advice covers naloxone dosing in overdose situations, take-home naloxone products that can be supplied and training that should be provided, now and following legislation to make naloxone more widely available from October 2015 onwards.
- NHS England has provided supporting information and shares local learning and local resources via its network of Medication Safety Officers http://www.england.nhs.uk/wp-content/uploads/2015/02/psa-naloxone-supp-info.pdf.

These resources emphasise that there should be no conflict between the needs of patients with drug misuse and dependence who overdose, and those with chronic pain or in end of life care; the safety of all patients depends on staff who understand that doses that can be life-saving for one patient group and set of circumstances, can be life-threatening for another patient group.

Whilst these resources focus primarily on the circumstances where naloxone use is - or is not - appropriate, and dosing schedules for different patient groups, healthcare organisations should use these resources in the wider context of the whole patient pathway. This includes consideration of steps that can be taken to avoid the need for naloxone, and recognition that frontline staff need easy access to local protocols and local expertise for managing withdrawal, lost pain control, or other effects.

Actions

Who: All organisations providing NHS funded care where naloxone is prescribed, dispensed and/or administered

When: As soon as possible, and in parallel with any changes to naloxone use that are being considered in response to legislative change, but no later than 26 April 2016

1. Bring this Alert and linked resources to the attention of those in the organisation with responsibilities for local training, procedures and protocols for naloxone use
2. Use the resources in this Alert and any other relevant local or national resources to review, and if necessary revise, local training, procedures and protocols for naloxone use
3. Commence implementation of procedures and practice compliant with these resources within cycles of continuous improvement including consideration of teamwork and training, human factors and cultural aspects of compliance.
4. Share locally developed resources and local learning via the Medication Safety Officers network or by emailing: England.medication-safety@nhs.net

Contact us: patientsafety.enquiries@nhs.net

Publications Gateway Reference: 04267

Alert reference number:	NHS/PSA/Re/2015/009
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Technical information

The findings from a National Reporting and Learning System (NRLS) review are described in the initial Stage One Patient Safety Alert http://www.england.nhs.uk/wp-content/uploads/2014/11/psa-inappropriate-doses-naloxone.pdf

References

1. Stage One: Warning - Patient Safety Alert: Risk of distress and death from inappropriate doses of naloxone in patients on long-term opioid/opiate treatment. NHS England, November 2014 https://www.england.nhs.uk/2014/11/20/psa-naloxone/

Stakeholder engagement

This alert has been developed with advice from the following, who fully support its publication:

- NHS England Surgical Services Patient Safety Expert Group
- NHS England Medical Specialties Patient Safety Expert Group
- NHS England Patient Safety Steering Group

For details of the membership of the NHS England Patient Safety Expert Groups see http://www.england.nhs.uk/ourwork/patientsafety/patient-safety-groups/

Acknowledgement

The resources highlighted in this Alert were developed with the support of, amongst others:

- United Kingdom Medicines Information (UKMi)
- The Royal College of Emergency Medicine
- National Poisons Information Service
- Department of Health Drugs and Alcohol Team
- College of Mental Health Pharmacy
- Association for Palliative Medicine of Great Britain and Ireland
- UK Ambulance Services
- The expert group currently developing the 2016 update to *Drug misuse and dependence – UK guidelines on clinical management*

We would also like to acknowledge Mr Richard von Abendorff, for bringing to the attention of NHS England and the healthcare community the risks of harm from inappropriate dosing of naloxone, after a tragic incident involving the death of his mother.

Contact us: patientsafety.enquiries@nhs.net

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