Reducing Dosing Errors with Opioid Medicines

Issue
Incidents have been reported to the National Reporting and Learning System (NRLS) concerning patients receiving unsafe doses of opioid medicines, where a dose or formulation was incorrect, based on the patient’s previous opioid dose. Every member of the team has a responsibility to check that the intended dose is safe for the individual patient. Knowledge of previous opioid dose is essential for the safe use of these products. There is a wide variety of opioid medicines, and supply shortages may result in products being used which are unfamiliar to practitioners.

Evidence of harm
The NPSA received reports of five deaths and over 4,200 dose-related patient safety incidents concerning opioid medicines up to June 2008.

Scope of Guidance
This guidance applies when the following opioid medicines are prescribed, dispensed or administered: Buprenorphine, diamorphine, dipipanone, fentanyl, hydromorphone, meptazinol, methadone, morphine, oxycodone, papaveretum, pethidine.

For IMMEDIATE ACTION by the NHS and the independent sector.
Deadline for ACTION COMPLETE is 30 January 2009.

This guidance is applicable to all healthcare professionals prescribing, dispensing or administering opioid medicines to NHS patients. All relevant healthcare professionals and organisations should be made aware of this guidance, including independent contractors and Out of Hours providers. Actions should be co-ordinated by The Chief Pharmacist or Pharmaceutical Advisor supported by the Chief Executive, Medical Director, Nursing Director and Clinical Governance/Risk Manager (or their equivalents).

Action
When opioid medicines are prescribed, dispensed or administered, in anything other than acute emergencies, the healthcare practitioner concerned, or their clinical supervisor, should:

- Confirm any recent opioid dose, formulation, frequency of administration and any other analgesic medicines prescribed for the patient. This may be done for example through discussion with the patient or their representative (although not in the case of treatment for addiction), the prescriber or through medication records.
- Ensure where a dose increase is intended, that the calculated dose is safe for the patient (e.g. for oral morphine or oxycodone in adult patients, not normally more than 50% higher than the previous dose).
- Ensure they are familiar with the following characteristics of that medicine and formulation: usual starting dose, frequency of administration, standard dosing increments, symptoms of overdose, common side effects.

Healthcare organisations should ensure local medicines and prescribing policies, including Standard Operating Procedures, are reviewed to reflect this guidance.

While dose increments should be in line with this guidance, it is recognised that in palliative care higher than normal doses may be required. These recommendations are not designed to restrict clinical use of opioid medicines, but to ensure they are used in a way that is as safe as possible for patients.

Related Guidance
In May 2006 the NPSA issued Safer Practice Notice (SPN) 12 ‘Ensuring safer practice with high dose ampoules of diamorphine and morphine’, which aimed to ensure that look-alike packages of morphine or diamorphine were not mis-selected. The actions in this Rapid Response Report cover a wider range of opioid medicines and formulations and aim to reduce errors due to a lack of understanding of how opioid medicines are dosed correctly, or inadequate checks on previous doses resulting in mismatching the needs of the patient with the dose prescribed.

Further information
Further queries to Bruce Warner - Senior Pharmacist, c/o rrr@npsa.nhs.uk; Telephone 020 7927 9890.

NPSA has informed
NHS Organisations, the Independent Sector, commissioners, regulators and relevant professional bodies in England and Wales.