Safety Alert number 004/11

HYDROmorphone: High-risk analgesic

21 Apr 2011

Distributed to:

- LHN Chief Executives
- LHN Directors of Clinical Governance
- LHN Directors of Clinical Operations

Action required by:

- LHN Directors of Clinical Governance
- Drug and Therapeutics Committees

For response by:

- LHN Directors of Clinical Governance

We recommend you also inform:

- Directors of Surgery
- Directors of Anaesthetics
- Directors of Intensive Care/Critical Care
- LHN Directors of Nursing and Midwifery
- Medical staff
- Directors of Palliative Care
- Directors of Pharmacy
- Directors of Oncology and Cancer Care
- Nursing Unit Managers
- Midwifery Unit Managers
- Intensive Care Nurses
- Oncology and Cancer Care Nurses
- Palliative Care Nurses

Deadline for completion of action

29 April 2011

Clinical Safety, Quality and Governance Branch
NSW Department of Health
Tel. 02 9391 9200
Fax. 02 9391 9556
Email:
quality@doh.health.nsw.gov.au
Internet Website:
http://www.health.nsw.gov.au/quality/sabs
Intranet Website
http://internal.health.nsw.gov.au/quality/sabs/

Background

Serious incidents continue to occur in NSW hospitals surrounding use of this medicine. Because of its high potency, any level of mistake in administration may result in serious adverse patient outcomes. HYDROmorphone hydrochloride is an opioid analgesic of approximately **five times the potency of morphine.** It is used to manage moderate-to-severe acute or chronic pain. Relative potency can be demonstrated by the following:

- HYDROmorphone 1.5–2 mg SC/IM = 10mg morphine SC/IM
- HYDROmorphone 6–7.5 mg oral = 30mg morphine oral
- HYDROmorphone 6–7.5 mg oral = 1.5–2 mg HYDROmorphone SC/IM

Mistakes can arise from:

- Confusion between look-alike, sound-alike names of HYDROmorphone and morphine salts
- Selection error: Both HYDROmorphone and morphine products stored together in a Schedule 8 drug safe in clinical areas.
- Complexity of branded products. Both drug groups are available in multiple strengths and dose forms, injectable and oral, immediate and sustained release.
- Use of fractional doses, often necessary due to the high potency of HYDROmorphone, leading to ten times overdoses due to incorrect use of decimal points.

Immediate action:

1. Drug and Therapeutics Committees must undertake a **risk assessment** of use of HYDROmorphone in each clinical unit where it is or may potentially be used:
   a. **Review all local protocols** to ensure clarity in dose selection, monitoring and avoidance of cumulative effects with other therapy.
   b. **Appropriately restrict prescribing.** To ensure prescribing competencies match the ability and availability of staff to safely prescribe HYDROmorphone.
2. **Review storage.**
   a. Set **appropriate minimum stock** levels in each clinical S8 safe. In situations of irregular use, individually issue the required product per patient and return to pharmacy at the end of the patient care episode. Use specified after-hours access arrangements for late admissions.
   b. **Separate HYDROmorphone and morphine** products within the S8 safe.
   c. Ensure **naloxone** is available wherever HYDROmorphone may be used.
3. Ensure all staff carry out a **fully independent double check** on all HYDROmorphone doses as legally required prior to administration, including correct patient ID, drug, dose form, correct dose, its preparation, strength, route and witnessed administration.
4. **Prioritise pharmaceutical review** and medication reconciliation for patients on HYDROmorphone.

Drug and Therapeutics Committees also should consider:

- **In addition to generic name** in prescribing (noting current policy requiring generic prescribing), encourage use of **brand name as well** to define specific HYDROmorphone products.
- **Increasing frequency of observations** for all patients newly prescribed or having a dose increase of HYDROmorphone with immediate escalation of care if respiratory depression is evident.
- Use of **TALLman lettering** by capitalising the distinctive component of the drug name to distinguish HYDROmorphone from similar drugs e.g. morphine.
- Add **distinctive labelling** to further define HYDROmorphone ensuring that the original product text is not obscured.

References:

Australian Medicine Handbook Pty Ltd. Last modified by AMH: January 2010 ,
Tall man lettering reference: http://www.ismp.org/Tools/tallmanletters.pdf

Action required by Local Health Networks

1. Distribute this safety alert to all relevant clinical staff
2. Ensure the matter is considered by the Drug and Therapeutics Committee with actions and risk assessment results reported to the Director of Clinical Governance for referral to LHN Clinical Council.
3. Schedule short education sessions on this subject in a case study context in key clinical discussion fora e.g. at Grand Rounds.
4. Ensure all new staff receive orientation to the risks associated with HYDROmorphone therapy.