

## Medication Alert

# CAFFEINE CITRATE ORAL SOLUTION

Alert 13 October 2011

**For the attention of:** General Practitioners, Community Pharmacists, Neonatologists

### Purpose of this alert

To highlight & reduce the risk of inadvertent under or overdosing with caffeine citrate oral solution

### Definition

- If caffeine oral solution is prescribed as 'caffeine only' with no indication of whether the dose has been calculated as the base or citrate, a baby can potentially receive either double the dose (with the risk of adverse effects) or half the dose (with the risk of under dosing and apnoea occurring) i.e. caffeine citrate 2mg = caffeine base 1mg
- Caffeine citrate solution is an unregistered product and does not have a data sheet
- Caffeine citrate dose recommendations are currently only available in paediatric reference sources

### Required Action

#### Prescribers

- Prescribe as caffeine citrate and specify caffeine citrate on the prescription
- Check with the neonatologist/paediatrician if discharge documents from secondary care do not specify caffeine citrate or caffeine base
- If your PMS does not automatically display caffeine as caffeine citrate, ask the vendor to change the display

#### Pharmacists

- Do not dispense prescriptions that do not specify whether the caffeine is citrate or base until the prescriber has clarified which is intended

#### Dosing information:

- The usual maintenance dose of oral caffeine citrate for apnoea of prematurity is 5mg/kg every 24 hours, equivalent to caffeine base 2.5mg/kg every 24 hours. This can be increased to 10mg/kg every 24 hours, equivalent to caffeine base 5mg/kg every 24 hours if required. For further details and up to date information refer to a paediatric reference source e.g. Royal Childrens Hospital, Melbourne, Paediatric Pharmacopoeia, BNF for Children.

## Background to this Medication Alert

- Caffeine citrate oral solution is now funded for prescribing and dispensing in primary care
- Incidents involving over and under dosing with this preparation have occurred in the secondary care setting where health professionals are familiar with the indication and dose of the product
- There is no data sheet available to access in primary care for dosing information because caffeine citrate oral solution is a Section 29 medicine
- Caffeine can be prescribed as citrate (preferred) or base – the dose is different by a factor of two i.e. caffeine citrate 2mg = caffeine base 1mg



Caffeine citrate oral solution (October 2011)

## For further action by the Safe and Quality Use of Medicines Group

- Work with NZULM to clearly display what information is and is not available so that the correct information will be available in practice management and dispensary systems

For an electronic version of this alert download from the website, [www.safeuseofmedicines.co.nz](http://www.safeuseofmedicines.co.nz) or contact Beth Loe, [beth.loe@hqsc.govt.nz](mailto:beth.loe@hqsc.govt.nz)

These recommendations are based on a review of the currently available information in order to assist practitioners. The recommendations are general guidelines only and are not intended to be a substitute for individual clinical decision making in specific cases

**If you require any further information or wish to provide feedback on this alert, please go to [www.safeuseofmedicines.co.nz](http://www.safeuseofmedicines.co.nz)**