

SA Palliative Care Community Pharmacy Update

A joint initiative of South Australian Palliative Care Services

Ensuring stability and compatibilities of medications administered via a Continuous Subcutaneous Infusion (CSCI) is essential to safeguard symptom management and safety of the patient. Marya's case discussions can be found here: [Part 1 \(129kb pdf\)](#) and [Part 2 \(136kb pdf\)](#).

Medication Compatibility

When Marya could no longer swallow her opioid tablets a syringe driver was commenced with hydromorphone 6mg over 24hours administered via CSCI.

Marya has now developed nausea and her GP plans to prescribe metoclopramide 40mg over 24hours via CSCI. The community pharmacist is phoned to check that the two medications can be safely delivered through the one syringe driver.

Physical compatibility

When combining more than one medication there is a risk they may be incompatible, reducing the amount of active medication being delivered to the patient and risk of exposure to toxic compounds. Numerous factors effect stability and compatibility including medication salt, pH, strength, diluents, order of addition to the syringe, temperature and infusion periods.

Issues to consider:

- > Little research has been conducted into stability of medication combinations;
- > Often reports in pharmaceutical texts are determined from limited periods (i.e. less than 24hrs);
- > Compatibility studies are conducted at specific concentrations of individual medications and extrapolation to higher concentrations may be problematic; and
- > Visual incompatibility (e.g. precipitation) may be evident upon inspection however non-visual chemical reactions may also be occurring.

Confirming compatibility

Observational data regarding commonly used combinations of medications are available from palliative care specific resources. In addition, it is always recommended to:

- > Monitor the combined medications in the syringe driver throughout the infusion period; and
- > Use an additional syringe driver when more than three medications are required.

Back to Marya

Using the "Syringe Driver Drug Compatibilities - Guide to practice" (Resource 1), it is confirmed that hydromorphone and metoclopramide are compatible in either sodium chloride (NaCl) 0.9% or Water for Injection (WFI).

Useful resources

- > Eastern Metropolitan Region Palliative Care Consortium (EMRPCC). [Syringe driver drug compatibilities – Guide to palliative care practice 2016 \(805kb pdf\)](#). Rangeview (VIC): EMRPCC; 2016 May 3.
- > Centre for Palliative Care Research and Education (CPCRE). [Guidelines for subcutaneous infusion device management in palliative care](#). 2nd ed. Brisbane; Queensland Health: 2010.

For more information

Contact the Advanced Practice Pharmacists:

- > **Josephine To, Northern**
Josephine.to@sa.gov.au 8161 2499
- > **Michaela del Campo, Central**
Michaela.delcampo@sa.gov.au 8222 6825
- > **Paul Tait, Southern**
Paul.tait@sa.gov.au 8275 1732

©Department of Health, Government of South Australia. All rights reserved.

This update is intended to provide practical up to date and factual information relating to pharmacy and medicines management in the setting of Palliative Care and is based on critical review of available evidence. Individual patient circumstances must be considered when applying this information. Please feel free to distribute this update further to interested colleagues.

