

SA Palliative Care Community Pharmacy Update

A joint initiative of SA Palliative Care Services and Ambulatory & Primary Health

Often, the oral route is lost in the last few days of life and subcutaneous administration of medicines is required for maintaining symptom control. Pharmacists may be asked to determine the compatibility of medicine combinations within the syringe.

Compatibility of Medicines

In the last few days of life, people may experience several symptoms at once. For practical reasons, two or more medicines are often administered within the same syringe. This has its risks, as various components within the syringe may react. These reactions may be described as:

- > **Physical incompatibility** resulting in the development of visible changes to the solution. This may include the formation of solid particles, change in solution colour or separation of the solution into different components (e.g. water and fat). It is usually immediate and may result in the blocking of an infusion line, or an adverse outcome, if it makes its way into the patient.
- > **Chemical incompatibility** resulting in loss of potency of one or more of the active ingredients. As chemical reactions are invisible, they can only be recognised in the laboratory. This may result in the medicine being ineffective.

Recommendations

- > Use current references to support combinations within a syringe. Note that the concentration of the medicine, infusion time, diluent and exposure to light may all affect medicine stability.
- > Always prepare medicines immediately before administration.
- > Encourage the carer to check for any changes in the appearance of the syringe immediately after preparation; as well as regularly during the administration period, as the reaction may be delayed.
- > The potential for problems increase as more medicines are added to a syringe.

Therefore, limit the number of medicines added to three.

- > Medicines with a long half-life (e.g. clonazepam) may be administered as subcutaneous boluses rather than continuous infusion. This avoids the need to mix it with other medicines in a syringe.
- > In the absence of convincing compatibility or incompatibility information assume that the products cannot be mixed.

Useful Resources

- > Australian injectable drugs handbook [Society of Hospital Pharmacists of Australia]
- > Drug information services at the local hospital pharmacy department
- > www.eviq.org.au – healthcare workers need to register (for free) before using this site
- > www.pallcare.info – information is free. Limited information
- > www.palliativedrugs.com – healthcare workers need to subscribe.
- > www.emrpcc.org.au/wp-content/uploads/2013/08/Syringe-Driver-Drug-Compatibilities-Guide-to-Practice-2013.pdf

For more information

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