## 18 THE CHEMICAL COMPATIBILITY AND STABILITY OF DRUG COMBINATIONS ADMINISTERED BY CONTINUOUS SUBCUTANEOUS INFUSIONS USED IN END OF LIFE CARE

[1]Andrew Dickman, [2]Ellen Roberts, [2]Phil Weir, [1]Stephen Mason, [1]John Ellershaw. *[1]Marie Curie Palliative Care Institute Liverpool, University of Liverpool; [2]Quality Control North West, Stepping Hill Hospital, Stockport*

10.1136/bmjspcare-2016-001204.18

**Introduction** In 2007, the National Patient Safety Agency recommended that healthcare staff need to have full technical information about compatibility of commonly used mixtures used in specialist areas only (National Patient Safety Agency 2007). In 2008, the Commission on Human Medicine (CHM) recommended that research should be commissioned to develop authoritative national advice on mixing of medicines to encompass compatibility and stability data (Commission on Human Medicines, 2008).

In the UK, a continuous subcutaneous infusion (CSCI) is considered to be the preferred method of drug administration to maintain symptom management at the end of life. Despite this common practice, compatibility data are lacking. Analysis of national practice identified commonly used drug combinations administered by CSCI that were included in this study.

**Aims/objectives** To determine the chemical compatibility/stability of a total of 40 commonly encountered drug combinations. A CME T34 syringe pump was used to simulate infusion of the syringe preparation over a 24 hour period. The combinations were analysed by High Performance Liquid Chromatography-Diode Array Detection (HPLC-DAD).

**Results** Thirty combinations were identified as compatible by HPLC-DAD. These combinations also remained clear and free from visible particulate matter and the pH remained constant over the monitored period. Four combinations will require additional analysis as variances were detected during the testing procedure.

**Conclusion** This research is the first step towards providing technical information required by healthcare staff for the mixing of injectable medicines in the same syringe.

## REFERENCES


1 Commission on Human Medicines. *Outcome of the consultation exercise on proposals for regularising the position of those mixing and administering medicines in palliative care*. London: MHRA; 2008. http://webarchive.nationalarchives.gov.uk/20141205150130/http://mhra.gov.uk/publications/consultations/medicinesconsultations/mlxs/con033523. Accessed June 3, 2016.

2 National Patient Safety Agency. Promoting safer use of injectable medicines; 2007. http://www.nrls.npsa.nhs.uk/resources/?entryid45=59812. Accessed June 3, 2016.