Are Subcutaneous Fluids Underused in the Hospice Setting?

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10.1136/bmjspcare-2014-000654.292

Background Subcutaneous (SC) fluids have been shown in several randomised controlled trials to be as effective as intravenous (IV) fluids for the treatment of mild-moderate dehydration, and are probably superior in confused patients. They are associated with reduced equipment costs, nursing time, fewer complications and less patient discomfort. However, they are often underused due to reliance on, and familiarity with the IV route.

Aims To assess how many patients were receiving fluids within a 32 bed UK hospice and review what proportion could have been appropriate for SC rather than IV fluids.

Methods 140 consecutive hospice inpatient admissions, for which notes were available, were reviewed retrospectively. Data
was collected on demographics, indications for fluids as well as type and delivery of fluids. An algorithm to enable selection of SC fluids versus IV fluids within the hospice was drawn up and then used to assess retrospective use.

**Results** 21 patients (15%) received 26 episodes of fluids during their admission (all via the IV route). All had a malignant disease and had a mean hospice stay of 19 days. 16/21 patients died and 5 were discharged. Fluids were given for an average of 53 hours with 24 episodes delivering 2 litres of fluid or less per 24 hours. Indications were: infection (7), renal impairment/dehydration (6), hypercalcaemia (5), other (8). 24 episodes were assessed as having been suitable for SC fluid delivery although 16 had IV access for another reason. 7 episodes had a documented complication of fluid use, 5 of which related to cannulation.

**Conclusions** All the patients in this study were given fluids exclusively via the IV route, but most would have been suitable for SC fluid administration. There is scope for a change in policy to administration more routinely via the SC route.