

Protocol for loading intravenous medications for continuous infusion

Background

Hospital in the Home services often involve the administration of intravenous medications, usually antibiotics, as continuous infusions. The majority of continuous infusions are administered in Baxter Intermate® LV10 Infusors. As there is generally a delay from when an order is placed for compounded antibiotics and the actual delivery, (2 – 4 days), alternative solutions have been developed to cover for this short timeframe (gap infusions) for patients who are able to be discharged on the day of referral.

Evidence

The Out & About IV Therapy Program has been using nurse-loaded infusions for approximately eight years to cover this short gap. Originally the nurse-loaded infusions were made up in normal IV bags and administered via a portable infusion pump (CADD®). The disadvantage of using a CADD® for the gap infusions is that patients need to be educated on the use of two different devices: temporary CADD® & ongoing Infusor®. Patients with CADD® pumps need to be able to hear pump alarms, and read the dials, which restricts some patients from using this method of administration, and the cost of CADD® pumps is quite high, resulting in limited numbers available for gap infusions. In the last two years, the service has switched to nurse-loaded Intermate® infusors for gap infusions. In patients managed in the Out & About IV Therapy Program, there have been 12 definite line infections in 14 years covering 74,323 patient days (rate of sepsis per 1000 line days is 0.16). In the past three years, only one sepsis event has occurred, in a patient with a leaky positive pressure valved bung. Our service has demonstrated high success rates after long-term follow-up of patients treated for serious infections e.g. endocarditis and bone & joint infections¹. This evidence confirms that when loaded under appropriate conditions, nurse-loaded continuous infusions are a safe and effective alternative for gap infusions.

Principles

Nurse-loaded infusions are made up:

- Immediately before use
- in a clean area
- using non-touch aseptic technique
- double checked with another RN or medication endorsed EN
- each day (solution is only considered sterile for 24 hours)
- to cover gap infusions only
- using Baxter® guide for loading infusors

Reference:

1. Cairns, KA, **Dobson PM**, Loewenthal MR. (2009). 13 years experience managing serious infections using 24 hour infusor devices. Australian Society of Antimicrobials. Melbourne, February 2009.

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