We carried out a service evaluation to determine if prolonged infusions were with associated infection" Wong and Sutherland (2016).

Abstract:

AIM: Ketamine is used for post-operative analgesia. There has been recent disruption in it's supply. It is usually prescribed by patient's weight (3 mg/kg in 50 ml 0.9% saline) at a rate of 1-5 ml/hr (1-5 microgram/kg/minute). To conserve ketamine supplies our policy was changed to a concentrated "standardised" concentration of ketamine (250 mg in 50 ml 0.9% sodium chloride) that could be run for a maximum of 72 hrs. There is evidence demonstrating no relationship between duration of infusion and microbiological contamination for 72 hrs.1 2 EPIC 3 guidelines recommend using infusion equipment for 72 hrs3. We carried out a service evaluation to determine if prolonged infusions were with associated infection. We also evaluated the volume of ketamine that was discarded per patient.

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METHOD: 125 patients received ketamine (66 patients 24 hr infusions; 59 patients prolonged infusions.) 24 patients were randomly selected (12 per group). A retrospective chart review was undertaken. Data was collected on: duration of treatment (hrs); indicators of line infection (temperature, white cells, Visual Infusion Phlebitis Score (VIP)); number of syringes administered; volume administered (in ml).

RESULTS: There were no clinical signs of infection in either cohort. No unexpected infections were reported. Concentrated ketamine ran for an average of 48 hrs per patient. 39.9% fewer syringes were used. Patients on 24 hr infusions received 55.8 ml ketamine and patients on long infusions received 51.5 ml ketamine. The amount of ketamine discarded was reduced by 65%.

CONCLUSION: Results should be interpreted with caution as patients had few co-morbidities, and received prophylactic antibiotics for surgery. These results suggest however that the risk of infusions running longer than 24 hrs is overstated. Our results raise important questions about the 24 hr expiry imposed on IV infusions. Further research on

colonisation of ward-prepared infusions is needed.

Reference:

Wong, J. and Sutherland, A. (2016) Prolonged infusions of ketamine and impact on infections and waste. Archives of Disease in Childhood. 101(9), p.e2.

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