

The use of standard concentrations and short infusions in PICU using DERS is feasible & achievable as demonstrated by high compliance, and does not have a negative impact on patient outcome, especially fluid balance” Cree et al (2017).

Abstract:

AIM: To review compliance with the DERS, and to evaluate the impact on daily fluid balances as a standard outcome in paediatric intensive care.

METHOD: A prospective audit of patients admitted to our tertiary level PICU over a 10day period. The audit tool collated information on patient’s weight, diagnosis, medication infusions, whether standard concentrations were selected, daily fluid balance, target fluid balance, and renal support including use of diuretics.

RESULTS: Seventy-seven (84%) of patients weighed less than 10kg. On average, there were 7 medication infusions per patient and 98% of the medication infusions adhered to standard concentrations for medication infusions and DERS. In 2% of medication infusions staff opted not to use the DERS, or selected non-standard concentration, and 2% of patients had no labels on the syringe. 90% of patients had a minimal positive balance of 0.5mL/kg/h, averaged over 24h; 48% of patients received renal support and 16% of patients were 24h post cardiac surgery, where a negative fluid balance was recorded. It is standard practice post cardiac surgery to receive diuretics. Standard concentrations did not have a significant impact on patients’ daily fluid balance.

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CONCLUSIONS: The use of standard concentrations and short infusions in PICU using DERS is feasible & achievable as demonstrated by high compliance, and does not have a negative impact on patient outcome, especially fluid balance.

Reference:



Cree, M.L., Stocker, C.F., Tu, Q.M. and Scaini, L.F. (2017) Adherence to standard medication infusion concentrations and its impact on paediatric intensive care patient outcomes. Australian Critical Care. August 21st. .

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