

00179 A Retrospective Study of Fluid Prescribing Practice in Critically Ill Adult Patients

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Aims: Fluids play an important role in hemodynamic management in the intensive care units (ICUs). Accurate fluid management in critically ill patients is one of the most challenging and important tasks in the ICU. A positive correlation between fluid overload and adverse outcomes in critically ill patients has been demonstrated in multiple studies. The primary objective of this study was to investigate fluid prescribing practice in medical and surgical ICUs. The secondary objective was to compare clinical outcomes for patients with positive and negative fluid balance.

Methodology: A retrospective electronic medical record review was conducted focusing on daily fluid intake and output. Association between average daily fluid balance and clinical outcome such as ICU-, hospital- and 28 days-mortality, duration of mechanical ventilation, ICU and hospital-length of stay was studied.

Result: A total of 180 patients were included into this study. In general, most fluids administered to patients requiring fluid restriction were from intravenous (IV) medications, followed by oral feeds and maintenance IV drip. Among 67 patients with fluid overload on admission, 9 of them were not prescribed concentrated feeds while 12 patients did not have their IV medications diluted with minimal diluent volume. Besides, 1 patient was found given maintenance IV drip and oral feeding concurrently. A high average daily fluid balance was found significantly associated with an increased ICU mortality and length of mechanical ventilation.

Conclusion: In conclusion, current fluid prescribing practice in medical and surgical ICUs can be further optimized and pharmacist can contribute in this aspect of patient care. There was a trend towards increased ICU mortality and prolonged mechanical ventilation with higher average daily fluid balance.