This case study presents the first ever report of an inadvertent overinfusion of NORepinephrine due to the loading dose option on the infusion pump, and resulting cardiac arrest of the patient” Ibey et al (2015).

Abstract:

Programming infusion pumps has been recognised as a high-risk step and a source of adverse events (Nuckols et al., 2008; Hyman, 2010). Literature describing infusion pump loading dose errors and NORepinephrine complications is scarce (Girard et al., 2010). This case study presents the first ever report of an inadvertent overinfusion of NORepinephrine due to the loading dose option on the infusion pump, and resulting cardiac arrest of the patient.

A patient was admitted to the emergency room and started on a NORepinephrine infusion inadvertently as a loading dose rather than a primary infusion. Historical values for the loading dose volume to be infused (VTBI) and primary rate were not adjusted during the setup. Eight hours and 58 minutes later, the loading dose VTBI reached 0mL and the pump reverted to the historical primary rate of 999mL/hour. The event log showed that 37.1mL of NORepinephrine was infused resulting in an equivalent calculated bolus dose of 1.8mg administered in two minutes. The patient suffered a cardiac arrest and the infusion was stopped. No faults were found with the pump. Herein, we discuss our analysis of the pump event logs and propose further safety strategies and interventions.

Reference:


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