Accidental direct intravenous injection of a concentrated solution of potassium often leads to patient death. In France, recommendations of healthcare agencies to prevent such accidents cover only preparation and intravenous infusion conditions" Charpiat et al (2015).

Abstract:

Accidental direct intravenous injection of a concentrated solution of potassium often leads to patient death. In France, recommendations of healthcare agencies to prevent such accidents cover only preparation and intravenous infusion conditions. Accidents continue to occur in French hospitals. These facts demonstrate that these recommendations are insufficient and ineffective to prevent such deaths, especially those occurring during a catheter flushing. This article reviews the measures able to reduce the number of accidents.

Countries which removed concentrated ampoules from ward stocks observed a decrease of the number of accidental deaths. This withdrawal, recommended by the World Health Organization, is now part of standards in studies aimed at determining the safety of care in hospitals. However, removal alone is insufficient to eliminate the risk. The combination with other measures should be considered. These measures are the provision of a combination of diluted intravenous ready to use solutions, the promotion of the oral route with tablets and oral solutions for potassium replenishment and to make available products with safeguards to prevent single shot intravenous injection. Studies aimed at determining the consequences on preventing concentrated potassium accidents of a widespread distribution of isotonic sodium chloride pre-filled ready-to-use syringes for catheter flushing should be performed.

Reference:

Charpiat, B., Magdinier, C., Leboucher, G. and Aubrun, F. (2015) Medication errors with concentrated potassium intravenous solutions: Data of the literature, context and prevention. Annales Pharmaceutiques Françaises. August 19th. . .

Thank you to our partners for supporting IVTEAM