STOCKAGE AND USE OF INTRAVENOUS CONCENTRATED POTASSIUM SOLUTIONS IN A HOSPITAL COMPLEX


Intravenous concentrated potassium solutions (ICPS) has been identified as a high-alert medication by organizations in Australia, Canada, United States of America and the United Kingdom. Despite that, there are reports of accidental death from the incorrect administration of ICPS.

**OBJECTIVES**

1. To evaluate the stockage and use of ICPS in a hospital complex.
2. To identify the factors that can influence in the use of ICPS versus prediluted solutions.

**METHODS**

Descriptive study. An audit of all hospital complex medical kits (place in clinical management units (CMU) where drugs are stored) was conducted; vials location and identification, CMU accreditation by Health Quality Andalusian Agency and knowledge of ICPS use by personal. Also, consumption of intravenous concentrated potassium salts was calculated and was compared with prediluted solutions consumption per CMU. A medical kit was considered appropriate when ICPS lockers were separated, identified and with safety alert.

**RESULTS**

- 78 kits from 30 CMU were tested. 64(82%) kits had correctly identified ICPS lockers and 39(51.3%) were adequately separated ICPS lockers from the rest. 20(25.6%) kits were safety alerts related with use ICPS: 11 of them were posters and 9 red boxes. 35(44.9%) kits belonged from an accredited CMU and 23(29.5%) had received safety clinical sessions.
- Only 12(15.4%) were appropriate medical kits: 9(75%) belonged to an accredited CMU.
- The total ratio mEq potassium concentrated/potassium prediluted was 9.68.
- The total ratio mEq potassium concentrated/potassium prediluted in a CMU with certified quality management was 9.26.
- The total ratio mEq potassium concentrated/potassium prediluted in a CMU trained in prevention of treatment errors was 6.74.

The percentage of suitable kits was very low and prediluted solutions consumption was much lower than ICPS. CMU with an accredited quality management and/or that were trained in prevention of treatment errors had better concentrated potassium storage conditions and had a slightly higher use of prediluted potassium solutions than non-accredited.