SAFETY EVALUATION OF INJECTABLE POTASSIUM CHLORIDE PRESCRIPTIONS IN HOSPITAL

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BACKGROUND

Error in the administration of injectable potassium chloride (KCl) is part of a list of 12 events described by ANSM (French drug safety agency).

Those events are called "Never-Events", which should never occur in hospital if preventive measures are applied.

PURPOSE

We wanted to know the level of safety of our injectable KCl prescriptions using ANSM safety criteria's.

METHODS

We carried out a two-weeks transversal-retrospective study. Between July, 1st and July, 15th, 2018 each nominal prescription of injectable KCl was included using our pharmacy validation software (DXCare). All services were included except ICU and emergencies. Then an intern in pharmacy processed analyses of the following safety criteria. A double check was made by a senior pharmacist. The reference guideline used for the safety criteria was the 2017 ANSM recommendations for injectable potassium chloride. For each prescription, recommended ANSM safety criteria's related to intravenous KCl were assessed:

1) Indication of severe hypokalemia (<3mmol/L) or inability to swallow.
2) Prescription of KCl using specific units (g or mmol).
3) Use of a slowly infusion rate (≤1g/h).
4) Use of the available ready-to-use solution.
5) Mention of the nature of dilution solution to be use.
6) Final concentration of the KCl infusion ≤4g/L.
7) Mention of the final volume of the KCl infusion.

104 patients were included

RESULTS

![Graph showing the level of safety for different criteria]

CONCLUSION

Indications to use injectable KCl were not strictly applied, that may be explain by prescribing habits and desire to quickly normalize hypokalemia.

A very low utilization of ready to use products which is probably due to an insufficient information to prescribers about the available ready to use products.

Most prescriptions were not using the recommended units, lack of knowledge of the prescriber of the obligation to prescribe in g or mmol may be the cause of.

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