HOW TO RESPOND TO HIGH LEVELS OF SERUM POTASSIUM

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Background
Hyperkalemia is an elevated serum potassium level above 5.5 mmol/L. It can be due to an increased intake, redistribution or decreased potassium renal excretion. Very high levels of potassium are a medical emergency because of the risk of cardiac arrhythmias.

Purpose
-To analyze the treatment that may cause hyperkalemia in in-patients with serum potassium levels ≥ 5.5 mmol/L.
- Evaluate the percentage of acceptance of recommendations made by the clinical pharmacist

Materials and Methods
A descriptive, retrospective study of 6 months in which we reviewed the prescription of patients with potassium serum levels ≥ 5.5 mmol/L using the electronic medical record (Archinet®). Variables collected: age, sex, weight, serum creatinine and drugs.

Results
There were 1,500 determinations of potassium serum. The 4.6% (70/1500) had a value ≥ 5.5 mmol/L. These 70 measurements belonged to 50 different patients (35 women and 25 men). The average age was 85 years (58-102). The creatinine clearance was ≥ 60 mL/min for 5/88 determinations, 30-59 mL/min for 25/88 determinations and ≤ 23 mL/min for 40/88. All the patients were treated with drugs-induced hyperkalemia, except one patient. 140 suspected drugs were detected: LMWH 46.4%, 14.6% ACE inhibitors, digoxin 10.6%, 7.3% potassium-sparing diuretics, 5.3% potassium parenteral, 4.1% other drugs. 28 recommendations were made to optimize the treatment but only in 14 cases were accepted according to the proposal. The proposals included recommendations for reducing dose, discontinuation of drugs-induced hyperkalemia, and proposals for monitoring drugs-induced hyperkalemia.

Conclusions
-The use of drugs-induced hyperkalemia is high.
-Renal function is impaired in the majority of patients with drugs-induced hyperkalemia.
- The pharmacy department shall systematically review the potassium serum levels in in-patients and do recommendations.
- In our study, the degree of acceptance of the recommendations is moderate.

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