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## Hyperkalemia: Epidemiology and contributing factors

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**Background:** Hyperkalemia is a situation that nephrologists frequently face. The aim of our study was to investigate its epidemiological characteristics and its contributing factors.

**Methods:** This transversal study included all the cases of hyperkalemia ( $K^+ > 5,5$  mmol/l) we were asked to manage in our hospital during 6 months [Sept 2016–Mars 2017].

**Results:** We recorded 207 patients with elevated serum potassium (63% males). Patients were mostly treated in the emergency department (61%) and the cardio-vascular surgery department (11%). Mean age was 63,5 years [15-93]. Among our patients, 46% had hypertension, 36% had diabetes and 62% had a chronic renal failure. Half of the patients had acute renal failure, caused by obstructive mechanisms in 17% of the cases. Thirty five patients (16,8%) were using renin-angiotensin system inhibitors. Mean serum potassium was 6,5 mmol/l [5,6-9,7]. Eighty five per

cent of the patients had metabolic acidosis. Mean serum creatinine was 677  $\mu$ mol/l [79-2360]. Electrocardiogram abnormalities were detected in 15% of the patients. All patients had a medical treatment of hyperkalemia and emergency hemodialysis was required for 128 patients (62%). Cardiorespiratory arrest happened in 7 cases (3%). Mean serum potassium was significantly higher in patients with electrocardiogram abnormalities ( $p < 10^{-3}$ ). Mean serum potassium was higher in patients under angiotensin-converting-enzyme inhibitor ( $p < 0,05$ ). There was no significant variation of serum potassium due to classical factors such as diabetes, acidosis, or renal failure.

**Conclusion:** Hyperkalemia remains a life threatening situation that can be promoted by several factors, hence the importance of its early diagnosis and treatment.

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