Prevalence of co-trimoxazole induced hyperkalemia in chronic and acute users in a tertiary teaching hospital.

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PREVALENCE OF CO-TRIMOXAZOLE INDUCED HYPERKALEMIA IN CHRONIC AND ACUTE USERS IN A TERTIARY TEACHING HOSPITAL

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Objective

• Primary: evaluate the risk of hyperkalemia in patients receiving cotrimoxazole.
• Secondary:
  1) detect the changes of potassium level from baseline to 7, 14, 21, and 30 days
  2) determine the association between co-trimoxazole dose and potassium level
  3) examine the relationship between renal function and hyperkalemia

Method

• A retrospective observation study of all patients treated with cotrimoxazole during Jan 2012 till Jan 2013.
• Exclusion criteria include patients received less than 2 doses or have no lab test.
• Patient’s medical records (both electronic and paper-based) were used to collect required data.
• Data analyzed using descriptive & inferential analyses.

Results

○ There was no significant correlation between cotrimoxazole doses and hyperkalemia (25.9% in 480mg, 31.2% in 960 and 28.6% in 1920mg; p=0.863) in each dose group, however, 82.5% of hyperkalemia cases were associated with significant increase in serum creatinine (p=0.00).
○ The highest mean change of potassium level in once daily dosing was at “baseline-7 days” interval, while it was highest at “baseline-30 days” interval in every other day dosing. However; none of the changes from baseline to 7, 14, 21 and 30 days was found to be significant.

Conclusion

Although many patients taking co-trimoxazole developed Hyperkalemia, the effect of renal function and use of other concomitant medications can’t be ignored.

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