**SAFETY AND EFFICACY OF NEW ORAL POTASSIUM BINDER IN MANAGEMENT OF ACUTE HYPERKALEMIA**

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**INTRODUCTION**

Institut Jantung Negara is a cardiovascular center in Kuala Lumpur. Emergency Department (ED) often manages patients with acute hyperkalemia due to use of cardiac related medication that commonly cause hyperkalaemia, including Angiotensin Converting Enzyme inhibitors, Angiotensin Receptor Blockers, Calcium Channel Blockers, Beta Blockers and Angiotensin Receptor Neprilysin Inhibitors. There is also a high rate of Chronic Kidney Disease (CKD) among cardiac patients which exacerbates hyperkalaemia. Intravenous Lytic Cocktail (Calcium Gluconate, Insulin and Dextrose) is common and preferred in treating patients with hyperkalaemia but may cause adverse events such as hypoglycaemia. Lokelma (Sodium Zirconium Cyclosilicate) is a new oral potassium binder for managing hyperkalemia.

**OBJECTIVE**

We reviewed the utilization of Lokelma and its efficacy with the aim to improve management of hyperkalemia patients.

**METHODS**

This retrospective observational study was carried out among IJN’s patients with hyperkalemia between 1/2/024 to 31/5/2024. Patients were treated with Lytic Cocktail and given 10g of Lokelma. A repeat Potassium was done before discharge. Patients were discharged with Lokelma 10g 3 times a day for 2 days, then 10g daily for 2 weeks and given a follow up appointment. Data was analyzed for age, co-morbidities, baseline eGFR, ECG, medication, and potassium level pre and post Lokelma.

**RESULT**

A total of 30 patients were included in the study whereby 70% (n=21) were male and 30% (n=9) were female. 70% (n=21) were Malay, 17% (n=5) Indian and 10% (n=3) Chinese. Patient’s age ranged from 42 to 98 years with 61-70 age range being the highest. 93% (n=28) patients had established CKD. 97% (n=29) were on medications that predisposed to hyperkalaemia. Pre-treatment potassium level ranged from 5.5 to 7.4 mmol/L. 4 patients had tall tented T waves on ECG while 1 patient had sinus bradycardia. Post treatment potassium ranged from 3.4 to 5.9 mmol/L. There were no immediate adverse events after initial dose of Lokelma. 8 patients came for follow up 2 weeks later and potassium ranged from 3.3 to 5.2 mmol/L.

**CONCLUSION**

Sodium Zirconium Cyclosilicate is safe for use in treatment of acute hyperkalaemia with low risk of adverse events and maintained normokalaemia after 2 weeks.

**Keywords**

Hyperkalaemia,Lokelma,Sodium Zirconium Cyclosilicate.