

Budget Impact of New Potassium-Lowering Therapies in the Treatment of Chronic Hyperkalemia: A Saudi Experience



Alshahrani A¹, Al-Nasser MS¹, Tawhari F¹, Assiri A¹, Alhawwashi ST², Zaitoun M¹

¹Pharmaceutical Care Administration, Armed Forces Hospital Southern Region, Khamis Mushayt, Asir, Saudi Arabia, ² Security Forces Hospital, Riyadh, Saudi Arabia

OBJECTIVES

Patiromer and Sodium Zirconium are relatively novel anti-hyperkalemic therapies approved for the management of chronic hyperkalemia. Hyperkalemia could prevent RAAS inhibitors initiation, maintenance, or dose-optimization, a clinical scenario associated with increased mortality. This comparative analysis aims to assess the budget impact of Patiromer and Sodium Zirconium introduction to the formulary of a Saudi Tertiary Hospital.

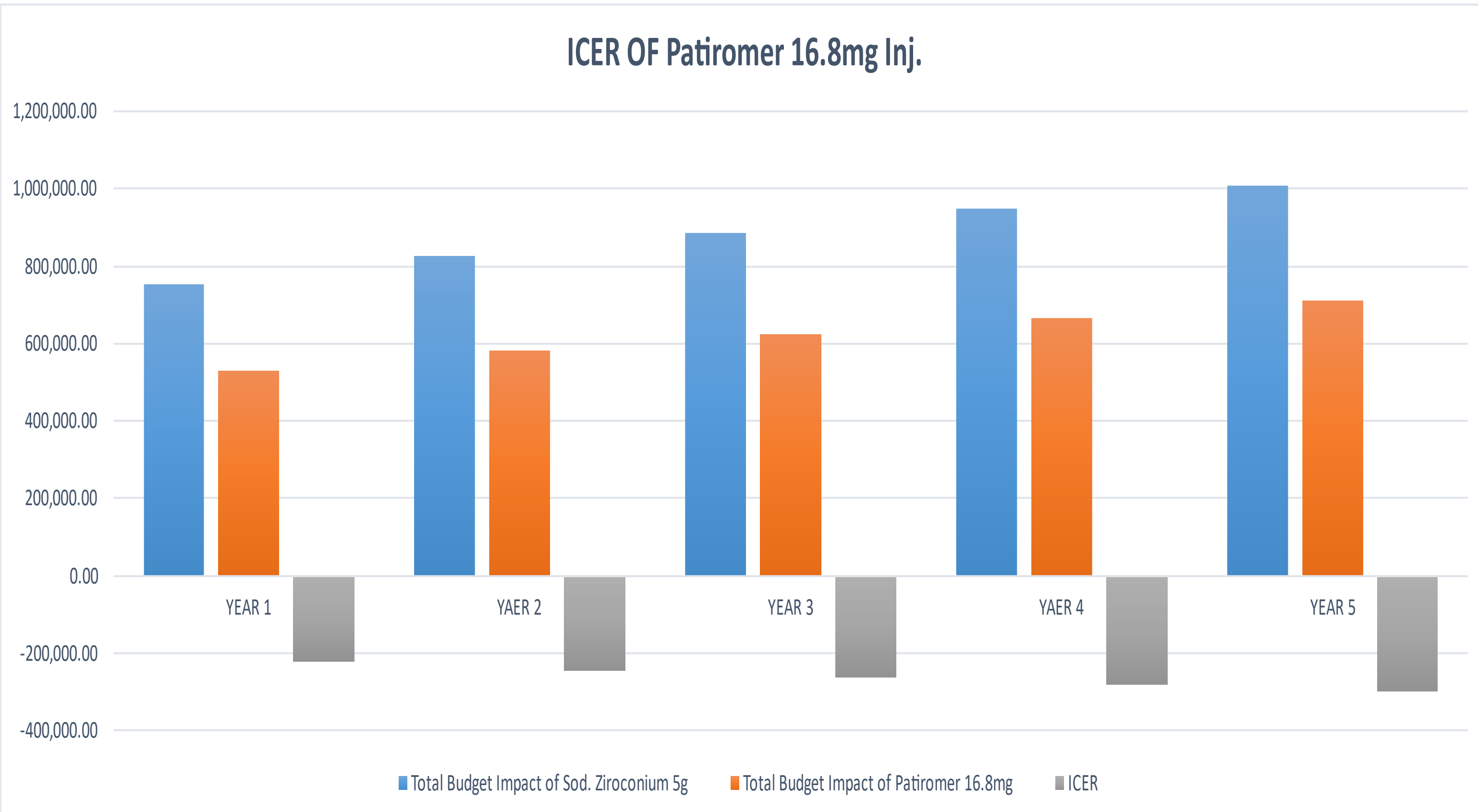
METHODS

Utilizing the purchasing cost estimates in Saudi Arabian Riyal (SAR) from the National Unified Procurement Company (NUPCO) and the WHO-defined daily dose (DDD). A budget impact model was developed using Microsoft Excel® to compare the costs of two scenarios: the 'formulary with Patiromer' and 'formulary with Sodium Zirconium

RESULTS

DDD of Patiromer and Sodium Zirconium were found to be 8.4 gram and 7.5 gram, respectively. The estimated population eligible for treatment in the first year was 50 patients, with an estimated uptake rate of 50 % in year 1 and 100% in year 5.

- Over five years after the addition of each drug to the hospital formulary and from the perspective of the healthcare payer "pharmacy budget".
- For Sodium Zirconium; the gross impact on the pharmacy budget of SAR 751,536 in year one and SAR 1,007,058 in year five.
- Compared to Patiromer, the introduction of Sodium Zirconium to the hospital formulary was associated with an incremental budget impact of SAR 221,916 in the first year and SAR 297,367 in the fifth year.



CONCLUSION

In a Saudi Practice setting, the introduction of Sodium Zirconium is associated with substantially increased costs. In the absence of head-to-head trials, and considering the same place of the two medications in heart failure and CKD guidelines, Patiromer could be a better formulary option from a pharmacy budget perspective.