

## ENDOCRINOLOGY, DIABETES AND METABOLISM

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**An audit of Sodium-Glucose co-Transporter 2 (SGLT2) inhibitors in a specialist outpatient service: Are the Pharmaceutical Benefits Scheme (PBS) approval guidelines too restrictive****Judith R Fleming**

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**Background & Aim:** Launceston is an isolated city with a relatively high prevalence of diabetes mellitus at around 5.3%. SGLT2 inhibitors were enlisted on the Australian PBS between 2013 and 2015 to be prescribed under strict criteria-similar to that of NICE (UK) and the NZF (New Zealand). The study aims to explore the affect of SGLT2 inhibitors on BMI, blood pressure, renal function and HbA1c when prescribed both within and outwith PBS guidelines.

**Method:** Records of the presenting outpatient patient cohort (n=60) currently prescribed/newly commenced on SGLT2 inhibitors between 1st January 2018 and 31st July 2018 inclusive were scrutinised for demographics and changes in aforementioned variables.

**Result:** 64% of patients were prescribed SGLT2 inhibitors within PBS guidelines. Statistically significant reductions were seen in HbA1c, weight and BMI ( $p=0.0008$ ,  $p=0.0010$ ,  $p=0.0171$ , respectively) with no significant effect on renal function ( $p=0.6043$ ). Similarly in the group prescribed SGLT2 inhibitors outwith PBS guidelines, statistically significant reductions were seen in HbA1c, weight and BMI ( $p$  values of  $p=0.0285$ ,  $p=0.0143$ ,  $p=0.0087$ , respectively) with no significant effect on renal function ( $p=0.7280$ ). Mean HbA1c reduction was greater in this group. Co-prescription of GLP-1 agonists outwith PBS guidelines was common but afforded no statistically significant difference in HbA1c or weight.

**Conclusion:** The addition of SGLT2 inhibitors as anti-diabetic agents in a specialist outpatient service have shown significant improvements in HbA1c, weight and BMI with no significant deterioration in renal function. It should be considered that SGLT2 inhibitors may show more net benefit if the PBS guidelines were relaxed.

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