

ACE impact

Non-calcium-based phosphate binders for patients with chronic kidney disease

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PROVIDING MORE AFFORDABLE TREATMENT OPTIONS FOR HYPERPHOSPHATAEMIA

Chronic kidney disease (CKD) is a progressive condition where the kidneys lose their ability to filter waste, remove excess water, balance minerals, and regulate red blood cells and blood pressure. A serious complication that can occur in the later stages of CKD is hyperphosphataemia, which can lead to life-threatening consequences including cardiovascular calcification, bone diseases and secondary hyperparathyroidism.

In Singapore, the typical first-line treatment for hyperphosphataemia utilises calcium-based phosphate binders, subsidised by the Ministry of Health, Singapore (MOH). In cases of poor

control or intolerance to these binders, patients may be switched to non-calcium-based phosphate options, as an additional therapy or as a standalone treatment.¹

To ensure appropriate care for patients who are unable to receive calcium-based treatments, ACE conducted a Health Technology Assessment to inform subsidy recommendations for the non-calcium-based phosphate binders, sevelamer and lanthanum carbonate. Following value-based pricing negotiations conducted by ACE to improve cost-effectiveness, sevelamer carbonate was listed on the Medication Assistance Fund in October 2018.¹

DID YOU KNOW?

CKD is often called **'The Silent Killer'** as there are usually no symptoms and patients may feel normal until they have advanced kidney failure, when dialysis or a transplant is required.



Around **six people** are diagnosed with kidney failure each day, a threefold increase from two decades ago.²

By 2035, almost a quarter of Singapore residents aged 21 and above could have CKD, and more than half – about **500,000 cases** – will be undiagnosed.³

“Dialysis patients are always at risk of having a ‘positive calcium balance’ and having an option that does not contain calcium is important, as it allows us to have options and not put our patients at risk.”

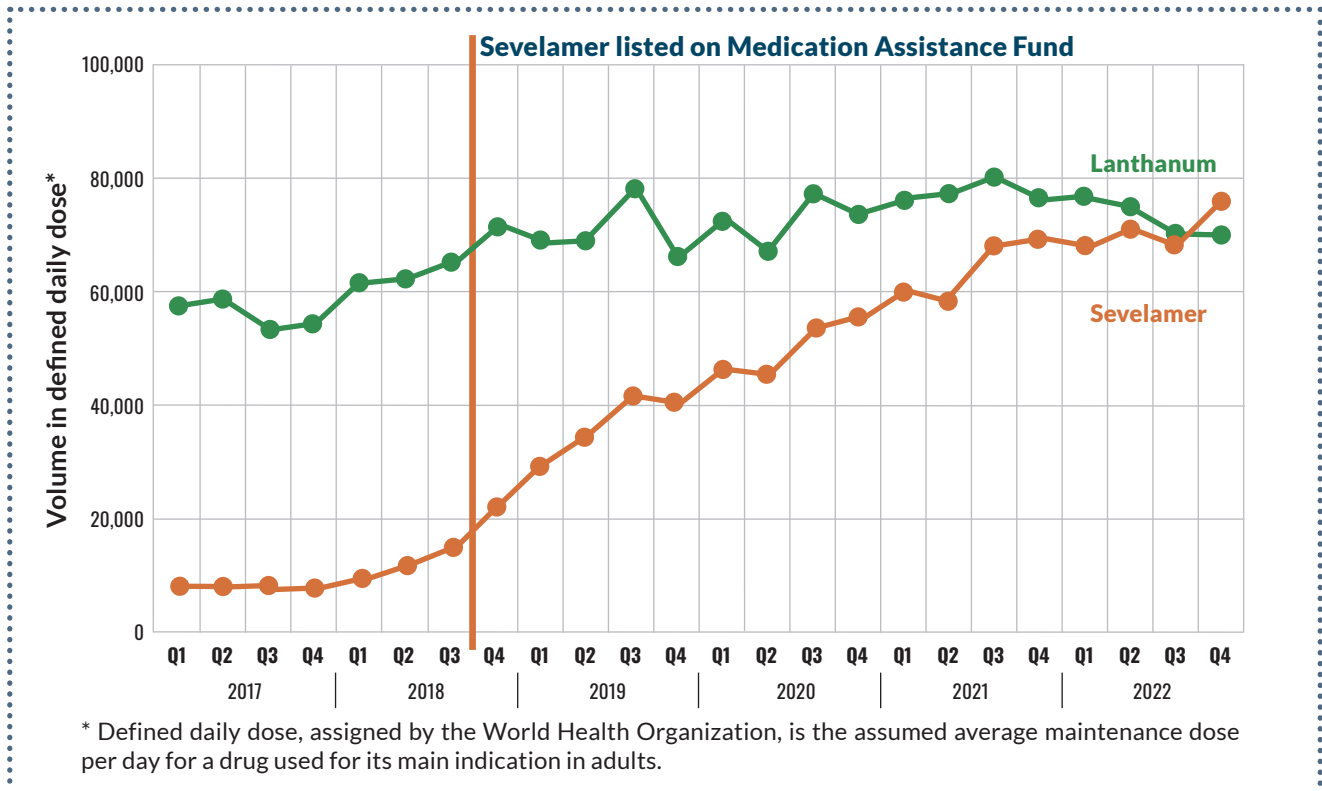


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SUBSIDY DRIVES POSITIVE IMPACT

After sevelamer was subsidised in October 2018, its use in public healthcare institutions increased significantly by over 400%, while use of lanthanum (the non-subsidised alternative) slowed. This increase can be attributed to more patients starting on sevelamer, either as an add-on therapy or when switching treatment. Minimal utilisation changes were observed for calcium-based phosphate binders as they continued to be the initial treatment.

Sevelamer vs other non-calcium-based phosphate binders



A real-world retrospective study by ACE showed that patients with end-stage renal failure started on non-calcium-based phosphate binders,** including sevelamer, had an 18% lower risk of cardiovascular events when compared with those on calcium-based phosphate binders, over a follow-up period of about two years. No differences in patient outcomes were observed between sevelamer and lanthanum.

**Most patients in the study received dialysis and were using non-calcium-based phosphate binders as add-on therapy or treatment switch.

Based on actual and projected numbers of end-stage renal failure patients using sevelamer in the first five years after subsidy listing, we estimated that:

120

hospitalisations were avoided due to cardiovascular events

\$7M

was saved from price reduction for sevelamer and shift away from the more costly alternative, lanthanum

RESULTING IN TOTAL HEALTHCARE SAVINGS OF

\$10M



References

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