

## PROJECT SUMMARY

---

### A pharmaco-epidemiological study of osteoporosis management in Australian general practice

#### Design and objectives

Theramex sponsored VentureWise to conduct a retrospective observational cohort study using routinely collected de-identified data from MedicineInsight.

The objectives of the study were to explore prevalence estimates, demographic information and medicine use in patients with a diagnosis of osteoporosis in the primary care setting.

NPS MedicineWise was commissioned by VentureWise to undertake the study and report on their findings. NPS MedicineWise undertook this project with complete independence from Theramex and Theramex had no influence or involvement in the project.

Approval for the study from the MedicineInsight Data Governance Committee was obtained on 20th June 2018.

#### Results

Using MedicineInsight data, the following was found:

- A diagnosis of osteoporosis was recorded for over 25,000 patients in our cohort of 203,201 patients, giving an overall prevalence rate of 12.4%, which is consistent with previous estimates in Australia.
- There was a significant increase in the proportion of osteoporosis medicine prescriptions between 1 January 2012 and 31 December 2017; denosumab prescriptions increased, although prescriptions for both bisphosphonates and other osteoporosis medicines decreased.
- Over 90% of denosumab and 85% of bisphosphonate prescriptions were for patients whose medical records included a diagnosis of osteoporosis.
- Almost a quarter of patients with osteoporosis recorded did not have a record of a prescription for an osteoporosis medicine during the study period.
- We also investigated the initiation and cessation of bisphosphonates and denosumab during the study period to identify the proportion of patients who had a record of a prescription for a bisphosphonate following denosumab cessation and vice versa.

Information from the study was used to inform qualitative research with GPs to gain their insights regarding osteoporosis treatment pathways and management and their perspectives on patient non-adherence to osteoporosis treatment. Collectively this research can inform the development of educational interventions to address best practice for osteoporosis management.

A manuscript is in preparation for submission for publication