

PROJECT OUTCOME SUMMARY

Iron deficiency and associated conditions in Australian general practice

- ▷ MedicinesInsight is the leading large-scale general practice data set established to support quality improvement in Australian primary care and post-market surveillance of medicines, it is developed and managed by NPS MedicineWise. MedicinesInsight extracts longitudinal, de-identified, whole-of-practice data from the clinical information system (CIS) of consenting general practices to connect patient conditions with treatments and their outcomes.
- ▷ Vifor Pharma sponsored VentureWise to conduct this project which combines data and insights gleaned from an in-depth exploration of general practice data through MedicinesInsight, review of the literature and publicly available Pharmaceutical Benefits Scheme (PBS) and Medicare Benefits Schedule (MBS) data. The aim was to provide an understanding of the prevalence, incidence, testing, diagnosis and management of ID in Australian general practice, providing insights into potential gaps and challenges in diagnosis and management as well as associated barriers and enablers.
- ▷ NPS MedicineWise was commissioned by VentureWise to conduct the formative research, analyse MedicinesInsight data, and report on the findings and recommendations. NPS MedicineWise undertook this project with complete independence from Vifor Pharma. Vifor Pharma had no influence or involvement in the project.
- ▷ As this was a feasibility study to understand what data was available within MedicinesInsight, together with context from the scientific literature, the project team did not directly engage with consumers about this project. However, any future, more in-depth research/education project will engage with consumers, clinicians and other relevant stakeholders.
- ▷ Approval from the MedicinesInsight Data Governance Committee was obtained on 25 July 2018 to explore the MedicinesInsight data for the purposes of the project including an insight into the prevalence, testing, diagnosis and management of iron deficiency in Australian general practice.
- ▷ Key findings from the formative research and MedicinesInsight analyses included:
 - The number of Australians who are iron deficient is estimated to be 760,000 to two million while approximately 760,000 have some form of anaemia. People at higher risk of becoming iron deficient are menstruating or pregnant women or patients with chronic diseases such as kidney disease, inflammatory bowel disease or heart failure.
 - MedicinesInsight data suggests that just under 10% of regularly attending general practice patients have a record of iron deficiency and just under one in five of these patients also have anaemia.
 - Among the general MedicinesInsight patient population just over a third of patients had at least one ferritin test or at least one iron studies test ordered. In the last ten years, the number of requests for MBS iron studies has been rising and there were approximately 6.7 million requests in 2017–18.
 - Australian guidelines note that for most patients, oral iron is a suitable first line therapy with intravenous iron considered as an option for people who cannot tolerate oral iron supplements. However, for some patient populations, some guidelines suggest parental iron be used in preference to oral iron. Use of intramuscular iron is discouraged by some guidelines.
 - The most commonly dispensed iron formulation on the PBS is ferric carboxymaltose (Ferinject), which was dispensed 245,673 times in the financial year 2017–18. The next most commonly used iron formulation is oral Ferro-f-tab (dispensed 52,085 times).
 - The Drug Utilisation Sub-Committee (DUSC) of the Pharmaceutical Benefits Advisory Committee (PBAC) noted that in the year before Ferinject was added to the PBS approximately 37,500 new patients were dispensed a parenteral iron formulation but two years later this was approximately 115,500 patients. However, MedicinesInsight data suggests that oral iron remains the most commonly prescribed supplement. While only a third of patients with iron deficiency (with or without anaemia) had a recorded prescription for an iron supplement, 25% of these were for an oral supplement while 7.4% were for intravenous iron. Ferinject was the most widely used intravenous iron formulation.

- Despite the prevalence of iron deficiency and the widespread use of iron tests and supplements in general practice there is a lack of information about practice gaps in general practice, and the knowledge and attitudes of GPs with regards to iron deficiency and iron deficiency anaemia. While limited, the available evidence of practice gaps and issues around the management of iron deficiency and iron deficiency anaemia within Australia suggest an educational program for health professionals and/or consumers may be warranted.

Suggested citation: NPS MedicineWise. Project Outcome Summary – Iron deficiency and associated conditions in Australian general practice. Sydney: NPS MedicineWise, February 2019.

More information: for more information about this project, access to the full report or MedicineInsight enquiries, please visit <https://www.nps.org.au/medicine-insight> or email DataGovernance@nps.org.au