Completed Research Projects

Updated January 2021

Enhancing patient outcomes through quality use of pathology in general practice

Pathology services contribute to almost all branches of medicine. The diagnostic informatics research team at Macquarie University have used the Aurora dataset to advance understanding about how test ordering relates to patient outcomes. The final report is available here.

Near real-time automated vaccine safety signal detection

This project aimed to develop an early warning system for vaccines that may be unsafe by simultaneously analysing multiple (unlinked) health data sources including the Aurora dataset. The study revealed that surveillance using multiple data sources reduces the time to detect a potentially unsafe vaccine from 6 weeks to 2 weeks.

Using data to reduce avoidable hospitalisations

This South Eastern Melbourne PHN-approved project identified patients at risk of preventable chronic disease related hospitalisations using data linkage. Findings revealed that almost half (47%) of hospital admissions were unplanned. Of the patients with two hospital admissions within 30 days, 70% did not have a GP visit during that period. Asthma and COPD were the most prevalent causes of preventable hospital presentations.

Paediatric antibiotic prescribing patterns in the community

Broad spectrum antibiotic usage is decreasing in general practice was the main finding of this study. This project examined de-identified data pooled from 225 practices to analyse clinical paediatric encounters. Results revealed a steady decrease in antibiotic prescribing for children over a five-year period: 24% prescribed antibiotics in 2013 compared to 16% in 2017.