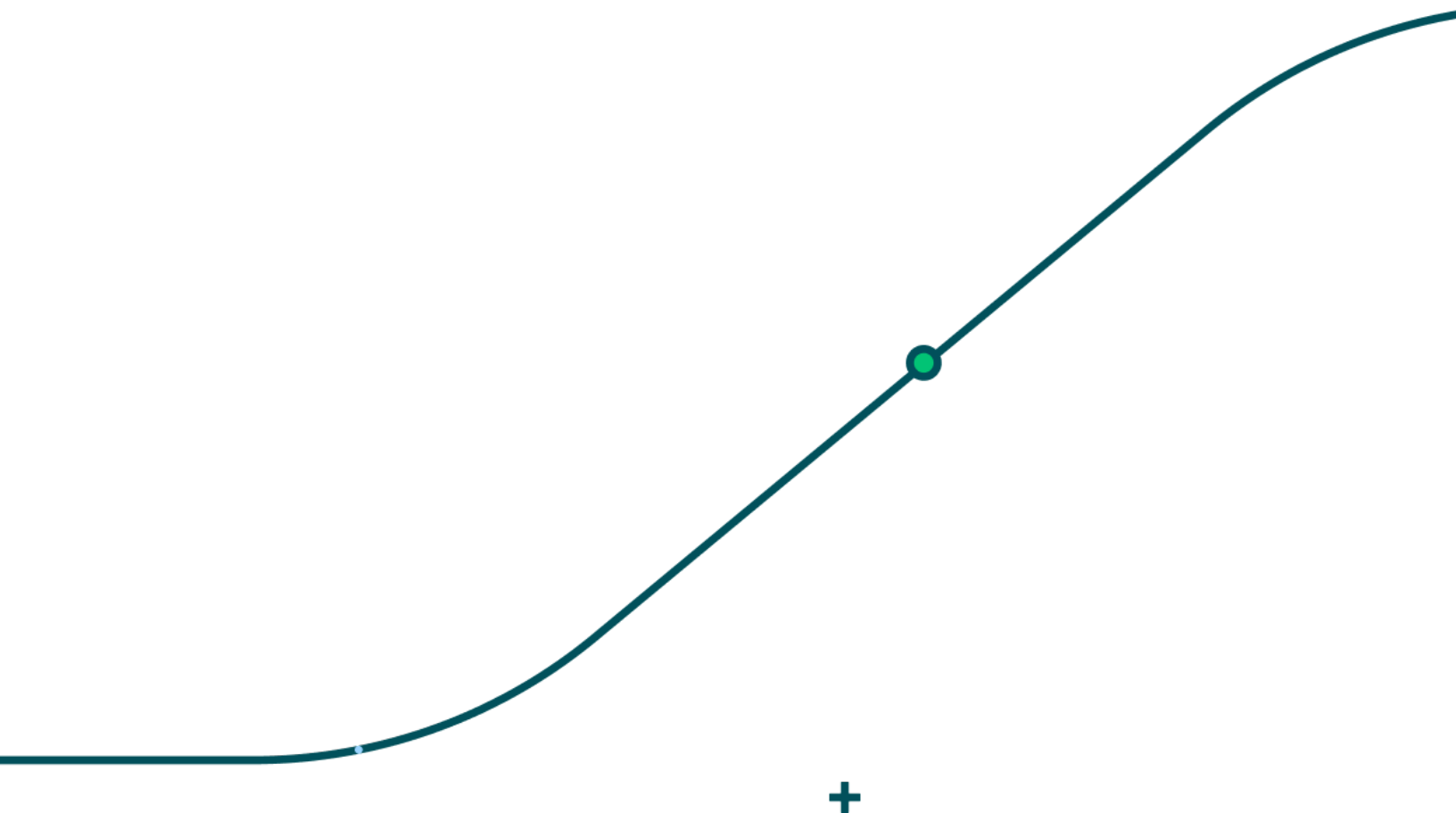


Case Study:

Treatment persistence in Crohn's disease





Geography

National

Market focus

Market/Patient Analytics
Evidence Generation

Therapeutic Area

Immunology / Gastroenterology

Our Client's Challenges

Crohn's Disease (CD) is a common but chronic form of inflammatory bowel disease (IBD) with a high prevalence in Australia. Persistence to CD treatment, the time from initiation to discontinuation or switch of therapy, is key to providing successful long-term treatment outcomes in CD. However, in Australia, real-world evidence to support CD treatment practice is limited.¹

Our client's brand, an anti-IL12 and anti-IL23 monoclonal antibody (Drug A), is indicated for the treatment of adults with moderate to severe active CD who are not responding to or have medical contraindications to either conventional therapy or TNF α antagonists. Drug A was to be the first biological therapy for severe CD subsidised by the Australian government's Pharmaceutical Benefits Scheme (PBS) in several years. Our client wanted to understand the real-world treatment persistence patterns, in particular, how patients prescribed biologics progressed with their treatment over a 12-month period and their reasons for discontinuation.¹

Our Targeted Solution

Prospection collected and analysed 10% PBS longitudinal patient claims data to better understand treatment persistence of CD patients after 12 months of therapy. This dataset offered valuable insights into the long-term treatment patterns for patients with CD in Australia. Using our unique Prospection platform and other analytic software, we performed a retrospective cohort analysis using a PBS sample data set of 301 Australian patients treated for CD between September 2017 and March 2020. We performed data analysis using several tools, including Kaplan-Meier and Cox proportional hazards modelling based on age, gender and prior use of biologics.¹

Our Key Insights

Our analysis showed the overall 12-month treatment persistence to Drug A was greater than 82% for both biologic naïve and experienced patients (Figure 1). Although our analysis had limitations due to the small sample size and lack of information relating to disease severity and the reason for treatment discontinuation, our overall results were comparable with other real-world global studies, including those in the United States. The published results were additive to the global body of evidence on real world use of Drug A and expanded on evidence for treatment utilisation of current treatments for CD in Australia. Our findings provided guidance on optimising treatment persistence in CD and addressed the gap in available data. This gave our client confidence that treatment with Drug A would persist beyond 12 months, regardless of whether patients are administered concomitant CD therapy.¹ This



real-world evidence supported internal strategies and was subsequently included in the client's medical education initiatives, patient support programs, medical events, conferences and promotional materials.

Persistence is an important driver for long-term CD treatment outcomes. This analysis provided evidence to support the use of Drug A in the Australian clinical setting and enabled our client to leverage the published results to support their brand messaging and educational materials for Drug A and provide real-world evidence supporting clinical treatment decisions and adoption of Drug A by prescribing physicians.

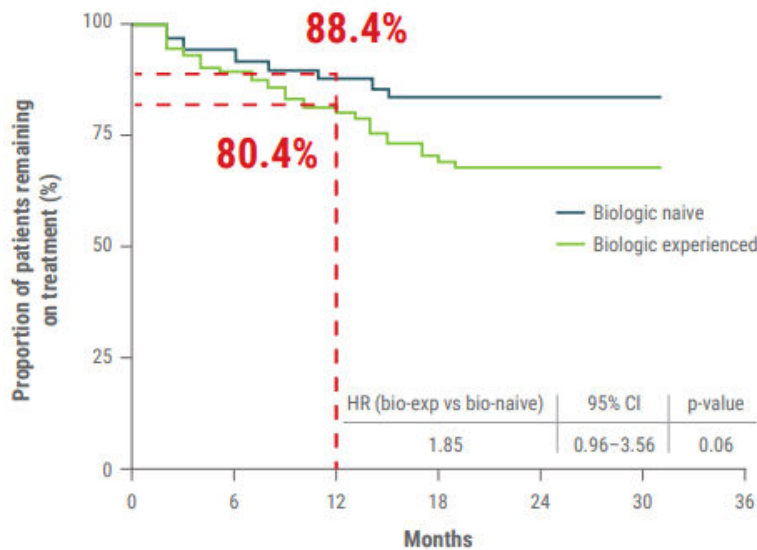


Figure 1: Twelve-month persistence to Drug A was greater for patients who were biologic naïve prior to receiving Drug A (88.4%) compared to patients who had received previous biologic therapies (80.4%).

References: 1. Chien TH, Puig A, Khuong T, Kouhkamari MH, Che S, Huang TH. An Australian Real-World Study of Treatment Persistence of Ustekinumab in Crohn's Disease. *Biologics*. 2021 Jun 16;15:237-245.



About Prospection

Prospection is a pioneer in health data analytics technology. We are on a mission to make advancements to precision medicine through real-world evidence, with an aim to put the right patient on the right treatment at the right time. Applying advanced machine learning algorithms to real-world data we unearth health journey and treatment insights by analysing longitudinal data for hundreds of millions of patients to see how drug treatments are used after the clinical trial. Delivering actionable real-world evidence that enables better outcomes for patients, across the world.