Veeva Data Cloud Longitudinal Patient Data

Data and Platform Needs to Prepare for a Rare Disease Launch

CUSTOMER PROFILE:

- Biopharmaceutical company focused on the discovery and development of therapies for liver diseases
- · Seeking an indication in rare disease under a newer class of therapeutics
- · Pre-commercial and anticipating the company's first launch in the next year

As they prepared for their rare disease launch, this emerging biopharmaceutical company leveraged Veeva Longitudinal Patient Data to perform a comprehensive patient journey analysis, including a deep dive into specialists diagnosing and treating the condition.

Key Customer Challenges

- Difficulty finding patients in a rare, often misdiagnosed condition
- Complex and multifaceted patient journey
- Specialty pharmacy fulfillment that makes it difficult to have full visibility into competitive prescribing

Analysis Objectives

- Identify disease markers to signal potential for earlier intervention and diagnosis
- · Analyze specialty visits and care team dynamics to inform targeting
- · Continuous access to data for future analysis and tracking opportunities in anticipation of launch

Veeva Approach

Veeva Longitudinal Patient Data is designed to provide visibility into diagnoses, claims, and prescriptions that are hard to capture with traditional data sources. Designed to support today's complex therapies, Veeva takes a patient-first approach to building a longitudinally complete data set. Veeva Longitudinal Patient Data brings together data from health plans, PBMs, payers, retail and specialty pharmacies, switch companies, and more. Data is connected at a patient level using Al prior to de-identification, further driving complete data for complex therapies.

For this analysis, the customer pulled data that included all records over a 5-year period for qualified patients.

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Patient Journey Analysis

The patient journey was analyzed in terms of:

- Treating and diagnosing specialists
- · Referring healthcare providers
- Diagnosis visits

- · Drug therapy and procedures
- Elapsed time between interventions

The patient journey can take multiple years to get to the eventual treatment and monitoring phase. Symptoms are similar to those of many other conditions, which results in both underdiagnoses and misdiagnoses. It is critical to understand what dynamics lead to proper diagnosis in order to increase early interventions and speed the path to treatment. The predictors of the undiagnosed patient population are evolving in real time, which requires an iterative data and analytics approach.

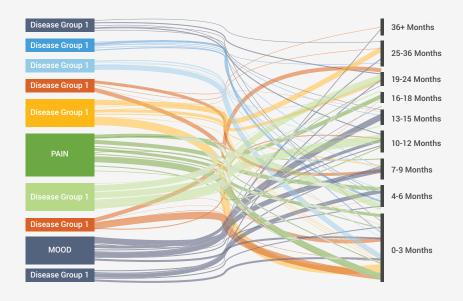
Key Findings

In addition to those conditions known to commonly occur among diagnosed patients, the patient journey analysis uncovered a high rate of mood disorders. While mood disorders were included in prior qualitative research with focus groups, the full longitudinal patient history highlighted how meaningful and common this comorbidity is for patients.

Business Impact

By identifying key disease markers, the client developed predictive models to find HCPs treating high-risk patients, allowing for earlier intervention, diagnosis, and treatment.

CONDITIONS SUFFERED BY DIAGNOSED PATIENTS



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Finding Key Specialists and Healthcare Providers

By analyzing doctors' visits along the patient journey, a wide range of specialists were observed. Key specialists varied by the age of the patient, with urologists and nephrologists playing the largest role in diagnosing middleaged patients, significantly greater than patients of other ages. After seeing numerous specialists for a year prior to diagnosis, the referral to a urologist or nephrologist was highly correlated with a correct diagnosis and treatment.

SPECIALISTS VISITED UP TO AND AT THE TIME OF DIAGNOSIS

	10-12 mo.	7-9 mo.	4-6 mo.	0-3 mo.	Diagnosis
Patient Age 18-34	• IM- 18% • DR- 7% • OB/GYN- 7% • LAC - 4% • FM- 4% • NEP - 4% • PN - 4% • PA- 4% • PUD- 4% • URO - 4%	• FM- 9% • IM- 9% • LAc - 6% • NEP - 6% • PA- 6% • PSY- 12% • AH- 3% • DR- 3% • URO - 3%	• FM- 13% • CLP - 8% • LAc- 5% • DR- 5% • EM- 5% • IM- 5% • NEP- 5% • PN- 5% • PA- 5% • URO - 5%	• DR – 10% • FM – 10% • URO – 10% • IM – 8% • PA – 7% • CD – 6% • NEP – 5% • EM – 4% • AC. – 4% • PSY – 1%	• IM- 15% • URO - 13% • FM- 11% • AH- 4% • CLP- 4% • NEP - 4% • PG- 4% • AM- 2% • DR- 2% • EM- 2%
Patient Age 35-59	• IM - 13% • DR - 12% • FM - 12% • EM - 7% • URO - 6% • CD - 4% • NEP - 4% • CML - 4% • AC - 3% • ID - 2%	• URO - 13% • DR - 10% • IM - 9% • FM - 9% • EM - 8% • CD - 5% • NEP - 4% • CML - 3% • CLP - 2% • IC - 2%	• URO - 14% • IM- 10% • DR- 9% • FM- 11% • CML- 5% • EM- 5% • NEP - 5% • END- 2% • GE - 2%	• URO – 15% • DR – 10% • IM – 9% • FM – 9% • NEP – 7% • EM – 6% • CD – 5% • CML – 3% • AN – 2%	• URO – 48% • NEP- 10% • IM- 8% • FM- 5% • ID- 3% • PA- 3% • AH- 2% • DR- 2% • GE - 2% • CLP - 1%

Legend

AC: Ambulatory/Urgent Care AH: Adolescent Hepatology AM: Adolescent Medicine AN: Anesthesiology CD: Cardiovascular Diseases CLP. Clinical Pathology CML: Clinical, Medical & Lab Immunology

DR: Diagnostic Radiology

EM: Emergency Medicine END: Endocrinology FM: Family Medicine GE: Gastroenterology IC: Interventional Cardiology **ID: Infectious Disease** IM: Internal Medicine LAc: Licensed Acupuncturists NEP. Nephrology OB/GYN: Obstetrics & Gynecology PA: Pharmacology, Clinical PG: Pediatric Gastroenterology PN: Pediatric Nephrology PSY: Psychiatry PUD: Pulmonary Diseases **URO: Urology**

Business Impact

Through expanded HCP segmentation, the customer was able to:

- Identify key HCPs for earlier, more targeted HCP outreach
- Better understand referral, diagnosis and treatment patterns by specialty
- · Have a clearer picture of the full treatment team and referral patterns, enabling earlier specialist referrals

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Preparing for Launch

The brand's commercial strategy is built on a better understanding of the full patient journey, as well as specialist referral and diagnosis patterns. As pre-launch planning continues, the brand is focused on speeding up the path to diagnosis by engaging the full treatment team. Using disease markers, the brand is finding HCPs treating at-risk patients to drive to accurate diagnosis faster.

Veeva Longitudinal Patient Data can be leveraged to support a successful commercial launch.

- · Market landscape analysis
- · Trend and share reporting
- · Advanced patient analytics
- · Customer segmentation and targeting

Using Veeva Longitudinal Patient Data, the customer was able to successfully define launch KPIs and establish a strong foundation for launch.

To learn more about how Veeva Data Cloud can support your business, visit veeva.com/datacloud.