![STATinMED — The Authority in Real-World Evidence]

Segmentation: Powerful Insights about Patients with Rare Disease

See how STATinMED used segmentation to uncover disease burden for patients diagnosed with a rare immune condition.

Background

STATinMED used patient segmentation to help a global pharmaceutical company explore the common treatment segments with high healthcare utilization costs for patients diagnosed with a rare immune condition.

What is Patient Segmentation?

Patient segmentation divides a patient population into distinct groups, each with specific needs, characteristics, and behaviors, to allow care delivery and policies to be tailored.

For pharmaceutical companies, patient segmentation informs the clinical development process from pre-clinical through commercialization.

Challenge

Because treatment included the use of pharmacology and surgery, with several potential classes for each, the use of traditional patient segmentation methods by manually identifying treatment segments was not feasible and, rather, required advanced algorithms.

Method

STATinMED used statistical model machine learning to identify the most common treatment combination. The analysis was based on a study of approximately 4,000 patients divided into four segments.

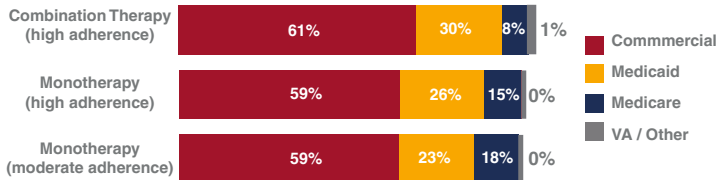| No Treatment (Tx)	Mild Pharmacologic Tx	Moderate Pharmacologic Tx	Invasive Tx
26%	16%	27%	32%

Analysis for each segment evaluated demographics, comorbidities, healthcare resource utilization (HCRU), costs, surgical intervention and treatment patterns, including the average number of prescription fills for biologics.
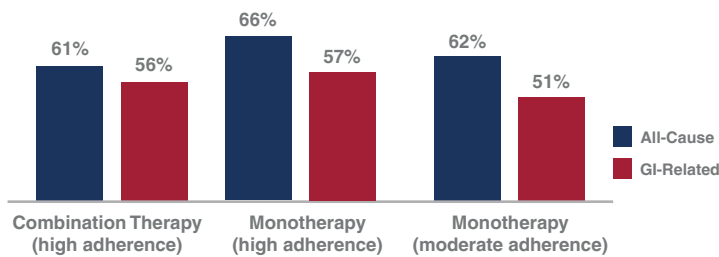
A Closer Look: Moderate Segment

STATinMED categorized the moderate pharmacologic treatment segment (27%) into three subsets of patients:

- **Combination Therapy (high adherence)**
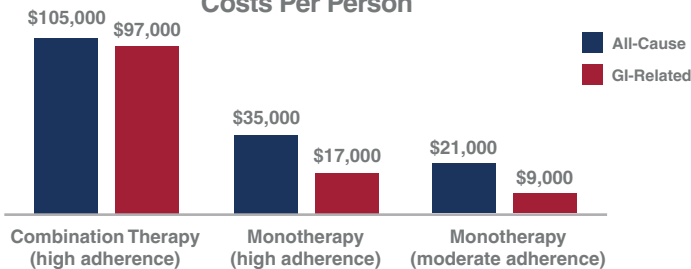- **Monotherapy (high adherence)**
- **Monotherapy (moderate adherence)**

Payer Distribution
(% of Patients Per Cluster)

Cluster	Commercial	Medicaid	Medicare	VA / Other
Combination Therapy (high adherence)	61%	30%	8%	1%
Monotherapy (high adherence)	59%	26%	15%	0%
Monotherapy (moderate adherence)	59%	23%	18%	0%

Distribution of Patients with at Least 1 Inpatient Stay (% of Patients Per Cluster)

Cluster	All-Cause	GI-Related
Combination Therapy (high adherence)	61%	56%
Monotherapy (high adherence)	66%	57%
Monotherapy (moderate adherence)	62%	51%

Mean Annual Total Healthcare Costs Per Person

Cluster	All-Cause	GI-Related
Combination Therapy (high adherence)	$105,000	$97,000
Monotherapy (high adherence)	$35,000	$17,000
Monotherapy (moderate adherence)	$21,000	$9,000

Key Insights

Access to Care

- Higher proportion with Medicaid in combination therapy group, demonstrating potential of disease on patients' ability to maintain coverage in the private sector
- Patients may require public assistance to afford therapy, indicating the importance of targeted evidence strategy focused on policy to ensure more innovative therapies are available and accessible
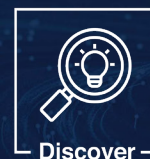
Cost of Therapy

- Direct correlation between aggressiveness of treatment and cost for patients with moderate disease, functioning like a continuum of disease progression from moderate to severe

High Cost of Avoidance

- Current guidelines: Combination therapy reserved for patients with moderate disease with the most significant disease burden
- Patients may delay advancement towards more invasive interventions and therefore incur significant costs from therapy

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About STATinMED

Our approach and insights are foremost in the industry based on hundreds of combined experience years and >1000 peer-reviewed publications in dozens of therapeutic areas.

Discover → Develop → Deliver

It's what we do best with RWD.

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