

# Demographic and Clinical Characteristics of Acromegaly Patients on SRL Therapy and Impact on Adherence: A U.S. Claims-Based Analysis

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## INTRODUCTION

- Real-world evidence shows that acromegaly management is variable, with patients often cycling through multiple therapies and showing inconsistent adherence and persistence with somatostatin receptor ligands (SRLs).<sup>1</sup>
- Proportion of days covered (PDC) is a validated adherence metric in the real-world evidence literature.<sup>2,3</sup> For injectable SRLs, PDC is especially meaningful because these therapies are administered by a health care professional (HCP), so claims data closely reflect actual receipt of treatment—unlike oral therapies, where fills do not guarantee ingestion.<sup>4</sup>
- Despite known adherence challenges, few studies have examined how SRL adherence relates to insulin-like growth factor-1 (IGF-1) control or patient characteristics. This presentation focuses on the characteristics and comorbidities of patients with acromegaly initiating SRLs.

## AIM

Using claims and electronic health record data, this real-world study characterizes patients with acromegaly initiating SRL therapy and assesses the relationship between adherence and demographics, comorbidities, concomitant medications, as well as IGF-1 control. This analysis was designed to determine baseline predictors of adherence leading to IGF-1 control at SRL initiation.

## METHODS

This retrospective cohort study utilized Optum® Market Clarity Database data from 01/01/2016–09/30/2024. Adults with acromegaly initiating SRL therapy (index = earliest SRL claim) were included. Eligibility required ≥6 months pre-index and ≥1 day post-index enrollment, and ≥1 post-index IGF-1 measurement. IGF-1 control was defined as age- and sex-adjusted normal levels.

- Adherence was defined as PDC ≥0.8. Characteristics were summarized by adherence level. A log-rank test comparing time-to IGF-1 control assessed association between adherence and IGF-1 control
- Comorbidities were assessed using the AHRQ Clinical Classifications Software (CCS), which groups International Classification of Diseases, 9th/10th Revision (ICD-9/ICD-10) diagnosis codes into clinically meaningful categories, simplifying analysis of disease burden in real-world datasets. The top 20 were reported.
- Additionally, select baseline comorbidities common to acromegaly were identified to characterize the cohort's disease burden.

## PATIENT SECTION CRITERIA

**Acromegaly diagnosis:** ≥2 medical claims or records with a diagnosis code for acromegaly separated by at least 30 days between 01 January 2016 and 30 September 2024. The earliest medical claim or record will be the diagnosis date.

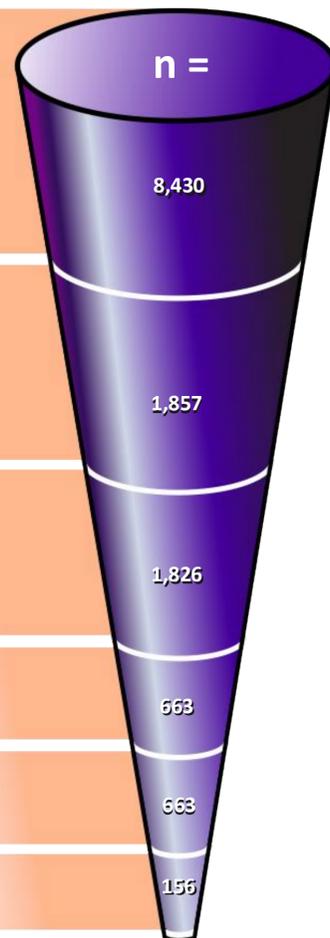
**SRL treatment:** ≥1 medical or pharmacy claim or record for 1st or 2nd generation SRL treatment after the diagnosis date and between 01 July 2016 to 30 September 2024. The earliest claim was assigned as the index date.

**Age:** At least 18 years of age as of the index year

**Pre-index continuous enrollment (CE):** CE for at least 6 months prior to the index date (baseline period)

**Post-index CE:** CE for at least 1 day after the index date (inclusive) during the follow-up period

Patients with at least 1 IGF-1 result in follow-up period



## RESULTS

### Baseline Characteristics

	Total N=156	PDC ≥ 0.8 n=107	PDC < 0.8 n=49	p-value	
<b>Age (continuous)</b>	mean	51.1	51.7	49.6	0.388
<b>Age group - n, (%)</b>					
18-39	38, (24.4)	22, (20.6)	16, (32.7)	0.102	
40-54	53, (34.0)	41, (38.3)	12, (24.5)	0.091	
55-64	36, (23.1)	24, (22.4)	12, (24.5)	0.777	
65+	29, (18.6)	20, (18.7)	9, (18.4)	0.961	
<b>Sex - n, (%)</b>					
Female	84, (53.9)	59, (55.1)	25, (51.0)	0.632	
Male	72, (46.1)	48, (44.9)	24, (49.0)	0.632	
<b>Insurance type - n, (%)</b>					
Commercial Only	108, (69.2)	72, (67.3)	36, (73.5)	0.438	
Medicaid Only	12, (7.7)	7, (6.5)	5, (10.2)	0.426	
Medicare Advantage Only	25, (16.0)	17, (15.9)	8, (16.3)	0.945	
Multiple Known	7, (4.5)	7, (6.5)	0, (0.0)	0.067	
Other/Unknown/Missing	4, (2.6)	4, (3.7)	0, (0.0)	0.170	
<b>Race/Ethnicity - n, (%)</b>					
Non-Hispanic White	117, (75.0)	78, (72.9)	39, (75.6)	0.370	
Non-Hispanic Black	10, (6.4)	7, (6.5)	3, (6.1)	0.921	
Non-Hispanic Asian	11, (7.1)	9, (8.4)	2, (4.1)	0.327	
Hispanic	10, (6.4)	6, (5.6)	4, (8.2)	0.545	
Other/Unknown/Missing	8, (5.1)	7, (6.5)	1, (2.0)	0.237	
<b>Region - n, (%)</b>					
Northeast	39, (25.0)	27, (25.2)	12, (24.5)	0.921	
Midwest	56, (35.9)	40, (37.4)	16, (32.7)	0.568	
South	29, (18.6)	21, (19.6)	8, (16.3)	0.623	
West	27, (17.3)	17, (15.9)	10, (20.4)	0.488	
Other/Unknown/Missing	5, (3.2)	2, (1.9)	3, (6.1)	0.162	

### Top 20 AHRQ CCS comorbidities<sup>3</sup>

Conditions, (AHRQ code)	Total N=156; n, (%)	PDC ≥ 0.8 n=107; n, (%)	PDC < 0.8 n=49; n, (%)	p-value
Other endocrine disorders (51)	151, (96.8)	105, (98.1)	46, (93.9)	0.162
Factors influencing health care (17.2)	118, (75.6)	80, (74.8)	38, (77.6)	0.707
Residual codes; unclassified; all E codes (Endocrine, nutritional, and metabolic diseases) (18)	101, (64.7)	75, (70.1)	26, (53.1)	<b>0.039</b>
Benign neoplasms (2.16)	97, (62.2)	63, (58.9)	34, (69.4)	0.209
Other nutritional; endocrine; and metabolic disorders (3.11)	72, (46.2)	52, (48.6)	20, (40.8)	0.365
Hypertension (7.1)	65, (41.7)	47, (43.9)	18, (36.7)	0.398
Diabetes mellitus without complication (3.2)	61, (39.1)	38, (35.5)	23, (46.9)	0.175
Symptoms; signs; and ill-defined conditions (17.1)	55, (35.3)	35, (32.7)	20, (40.8)	0.325
Neoplasms of unspecified nature or uncertain behavior (44)	54, (34.6)	32, (29.9)	22, (44.9)	0.068
Disorders of lipid metabolism (53)	50, (32.1)	35, (32.7)	15, (30.6)	0.794
Other nervous system disorders (95)	50, (32.1)	35, (32.7)	15, (30.6)	0.794
Diseases of the heart (7.2)	47, (30.1)	29, (27.1)	18, (36.7)	0.224
Non-traumatic joint disorders (13.2)	47, (30.1)	36, (33.6)	11, (22.5)	0.157
Spondylosis; intervertebral disc disorders; other back problems (13.3)	45, (28.9)	32, (29.9)	13, (26.5)	0.666
Eye disorders (6.7)	44, (28.2)	31, (29.0)	13, (26.5)	0.753
Other connective tissue disease (13.8)	44, (28.2)	37, (34.6)	7, (14.3)	<b>0.009</b>
Immunizations and screening for infectious disease (10)	42, (26.9)	28, (26.1)	14, (28.6)	0.753
Other skin disorders (200)	42, (26.9)	30, (28.0)	12, (24.5)	0.643
Diseases of the urinary system (10.1)	40, (25.6)	28, (26.1)	12, (24.5)	0.824
Other gastrointestinal disorders (9.12)	40, (25.6)	28, (26.1)	12, (24.5)	0.824

### Select Baseline Comorbidities Common to Acromegaly

	Total N=156; n, (%)	PDC ≥ 0.8 n=107; n, (%)	PDC < 0.8 n=49; n, (%)	p-value
Osteoarthritis	23, (14.7)	18, (16.8)	5, (10.2)	0.279
Hypertension	66, (42.3)	47, (43.9)	19, (38.8)	0.546
Cardiomyopathy	6, (3.9)	3, (2.8)	3, (6.1)	0.317
Heart failure	10, (6.4)	4, (3.7)	6, (12.2)	<b>0.044</b>
Sleep apnea	46, (29.5)	33, (30.8)	13, (26.5)	0.584
Nasal polyps	2, (1.3)	1, (0.9)	1, (2.0)	0.569
Scoliosis	6, (3.9)	3, (2.8)	3, (6.1)	0.317
Kyphosis	2, (1.3)	0, (0.0)	2, (4.1)	<b>0.035</b>
Carpal tunnel syndrome	18, (11.5)	17, (15.9)	1, (2.0)	<b>0.012</b>
Arthropathy	1, (0.6)	1, (0.9)	0, (0.0)	0.497
Arthritis	4, (2.6)	2, (1.9)	2, (4.1)	0.417
Esophageal reflux	29, (18.6)	20, (18.7)	9, (18.4)	0.961

## CONCLUSIONS

- No major demographic variables were associated with adherence, with age, sex, race/ethnicity, region, and insurance type showing no significant differences between adherence groups.
- The cohort showed a high and diverse comorbidity burden, with only a few comorbidities differing between groups (e.g., heart failure, connective tissue disorders, carpal tunnel, kyphosis).
- Adherence varied despite HCP-administered SRLs, underscoring the need for treatment options that ensure consistent, reliable drug exposure.
- The combination of high disease burden and variable adherence highlights the need for therapies that minimize patient management demands and reduce adherence vulnerability in the medically complex acromegaly population.

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