SAT-0592

PATTERNS OF PHARMACOLOGIC TREATMENT IN US PATIENTS WITH ACROMEGALY

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BACKGROUND

- Acromegaly is a rare, slowly progressive, acquired disorder resulting from excessive growth hormone (GH) production.[1-3]
- About half of acromegaly patients require treatment after surgery. If treatment goals are not met, multiple modalities or medications may be required. Guidelines regarding treatment sequencing are vague, and little is known about the frequency and sequencing of existing drug treatments.

OBJECTIVE

- To use recent claims data to characterize 1st, 2nd, and 3rd line drug treatments for acromegaly, including duration of treatment and patterns of switching.

METHODS

Study Design and Data Source

Retrospective cohort study using Truven Health Analytics MarketScan® and IMS Health PharMetrics.

Study Timeframe and Population

Timeframe: 1/1/2002 to 12/31/2010

Pharmacologically Treated Patients:

- ≥2 medical claims with acromegaly (ICD-9-CM code 253.0) in the study timeframe; AND
- ≥1 claim of pharmacologic treatment in the study timeframe; identified using NDC and HCPCS codes

Newly Treated Patients:

- No claim of pharmacologic treatment in the 6 months prior to the first observed treatment date in the study timeframe; AND
- Continuously enrolled for at least 6 months prior to the first observed treatment date

Key Definitions

- Course of pharmacologic treatment: period from first to last treatment claim
- Combination treatment: ≥2 medications with overlap of ≥90 days

RESULTS

- 1,758 patients in study cohort; mean age 46.7 years; 50% female
- Between 19 and 145 patients per year were newly treated with a pharmacologic agent (total of 740 patients)
  - Somatostatin analogues (SSA) were the most common class of 1st line therapies (59%) (**Fig. 1**)
  - Octreotide LAR was most common drug (31.2%)
  - No combinations used in 1st line therapy
- Pegvisomant and octreotide LAR had the longest duration of use among 1st line therapies (**Fig. 2**)
- Patients on 1st line long-acting SSA switched to combination therapy more often than pegvisomant
- Among 503 2nd line patients during 2008-2010, SSA (50%) and drug combinations (20%) were used most frequently (**Fig. 3**)
  - SSA used in 88.9% of combination therapies
  - Most common 2nd line combination was octreotide LAR + cabergoline (29.3%)
- Among 209 3rd line patients during 2008-2010, SSA (51%) and DA (18%) were used most frequently (**Fig. 3**)
  - SSA used in 85.3% of combination therapies
  - Most common 3rd line combination was again octreotide LAR + cabergoline (25.3%)

LIMITATIONS

- The study included primarily commercially insured patients, excluding others such as patients in clinical trials, veterans, and the uninsured.
- Claims databases lacked biochemical parameters.
- No single patient group was followed consistently through all treatment lines.
- The study had small sample sizes for most individual treatment patterns.

FIGURES

Figure 1. 1st Line Treatment by Year (N=740)

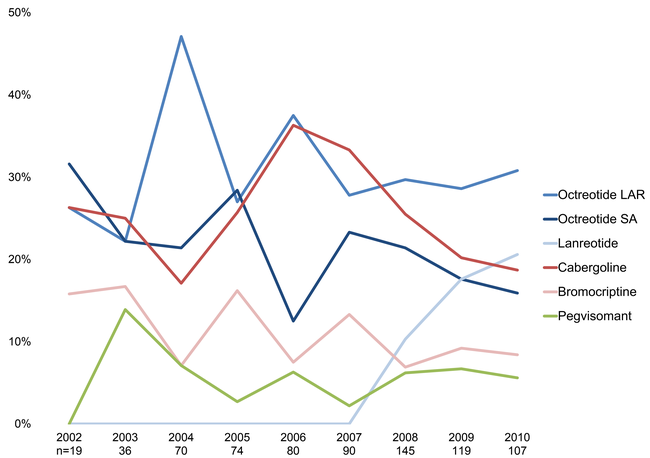
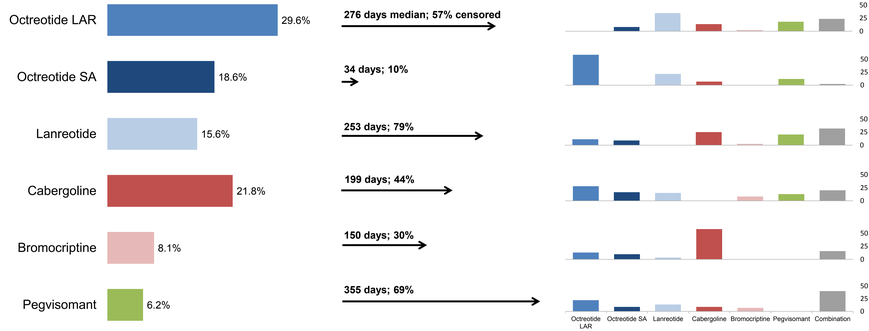
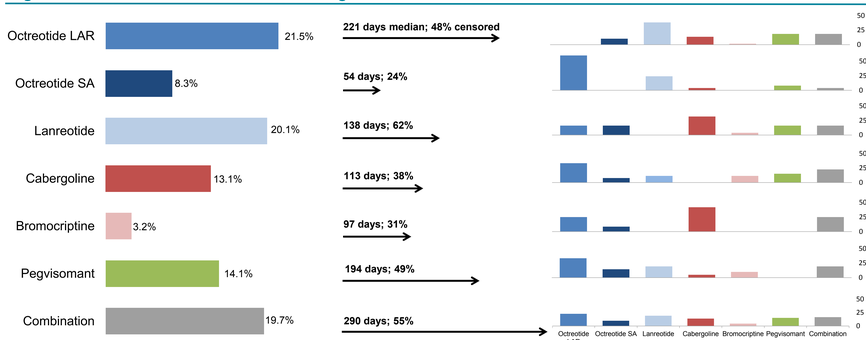


Figure 2. 1st Line Treatment and Switching to 2nd Line



Note: 1st line drug distribution is based on data from 2008 to 2010 only (N = 371). 44% of 1st line users of octreotide SA used the drug for ≤30 days and 19.1% for ≤15 days; this may reflect the possibility that the drug was being used as a temporary "bridge" to a different therapy. Duration of treatment is based on 740 patients from 2002 to 2010, 326 (44.1%) of whom were still on 1st line treatment by the end of enrollment or study end. 2nd line drug distribution also is based on data from 2008 to 2010 only (N = 503). Individual bars in 2nd line section represent <50 patients each.

Figure 3. 2nd Line Treatment and Switching to 3rd Line



Note: 2nd line drug distribution is based on data from 2008 to 2010 only (N = 503). Duration of treatment is based on 929 patients from 2002 to 2010, 436 (46.9%) of whom were still on 2nd line treatment by the end of enrollment or study end. 3rd line drug distribution also is based on data from 2008 to 2010 only (N = 209). Individual bars in 3rd line section represent <50 patients each.

CONCLUSIONS

- Using 2 claims databases across a 9-year period, we were able to examine complex treatment patterns in an important endocrine disease traditionally difficult to study.
- This study represents the largest claims-based analysis of acromegaly to date.
- Wide variation in acromegaly treatment patterns exists in US clinical practice.
- In both 1st line and 2nd line therapy, SSA was the most commonly used drug class.
- A decline in DA use, particularly cabergoline, was noted during 2006-2010.
- Patients on 1st line long-acting SSA switched to combinations more often than pegvisomant.
- Our technique of combining claims databases to study treatment patterns may be used for other rare diseases, although high censoring rates may be a challenge. Other methodologies such as chart reviews may confirm and validate the utility of this technique.

REFERENCES

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