Treatment Algorithms in Parkinson’s Disease

The symptomology of Parkinson’s disease (PD) is heterogeneous; individual patients experience different combinations of primary motor symptoms, complications of therapy, and/or key nonmotor comorbidities (e.g., dementia, psychosis). Moreover, in each patient, the balance of the many disease- and therapy-related symptoms typically changes as the disease progresses. PD treatment is thus highly individualized as physicians settle on a drug regimen that best addresses the myriad signs and symptoms specific to each patient at a given point in time and make therapeutic adjustments as needed—sometimes frequently. The availability of numerous and complementary therapeutic options adds to the complexity of the treatment algorithm in PD, and growing generics competition in this market further complicates treatment decisions. Using national patient-level claims data, this report explores the evolving position of current drugs in PD treatment. Quantitative analyses of the “Newly Diagnosed Patients” data include share by line of therapy, progression between lines, duration of treatment on each line, and the use of concomitant treatment. For “Recently Treated Patients,” the report expands the understanding of PD treatment patterns by quantifying drugs’ source of business and patient flow through preceding therapies. Additional analyses explore persistency and compliance by brand.

Questions Answered in This Report:

- Newly diagnosed patients: Within the first year of diagnosis, slightly more than half of PD patients initiate treatment. What percentage of these patients progress to a second- or third-line drug within the first year? Which products capture the most patient share in the first, second, and third lines of treatment? How often is combination therapy used in each line of therapy?

- Recently treated patients: Consistent with historical treatment patterns, levodopa continues to capture the majority of recent prescriptions, but other key drug classes in PD continue to hold strong positions in the treatment algorithm. Which specific drugs garner the most patient share for recently treated PD patients? How and when do patients progress from one therapy to the next in PD, and how does this progression differ between key drugs? How are patients using off-label agents targeted at the nonmotor symptoms of PD?

- Pathways to key therapies: Longitudinal claims data reveal relatively stable use patterns of key therapies among recently treated patients. Have any therapies experienced market growth or decline over the key therapy period studied? To what extent are key therapies prescribed concomitantly to recently treated patients? Has the uptake of the few remaining branded agents in the PD market changed with the growing generic availability of other commonly used PD drugs?
Scope:

Primary patient-level data: This report provides quantitative findings from our analysis of data covering approximately 40 million lives and provides the most representative sample of U.S. treatment practice for Medicare and commercially insured patients. This report is delivered as a key findings slide deck and a dashboard that can be accessed using the Internet and presents claims that are 6-12 months old at time of publication.

Patient Sample: Patients who are continuously enrolled for the complete two-year study period must meet the following condition: at least one claim with a diagnosis code for PD (International Classification of Diseases, Ninth Revision [ICD-9] diagnostic codes 332.0) during the study period.

Quantified lines of therapy analysis showing exact share of each agent in each line of therapy, including rate of progression between lines and length of time patients are on each line.

Newly diagnosed patients:
- Patient share by drug class and key products across three lines of therapy, within one year of diagnosis.
- Patient flowcharts through one year of treatment for all first-line products, including progression rates and add/switch behavior.
- Polypharmacy and concomitant prescriptions among key acute therapies by line of therapy.
- Quarterly trending of patient share by line of therapy.

Recently treated patients:
- Quarterly snapshot of patient share by drug class and key products.
- Pathway to key therapy flowcharts tracking the preceding therapy patterns for all key therapies, including add/switch behavior.
- Brand source of business including share for continuing, new (switches/adds), and new (initial therapy) business.
- Polypharmacy and key concomitant therapies.
- Drug persistence and compliance.
- Quarterly trends in patient share for all key therapies.

Report Details

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