Case Study:
An analysis of prescribing patterns in one Medicaid program reveals opportunity for reducing polypharmacy.

Intervention Decreases Improper Drug Combinations

The Challenge
Treating schizophrenia patients with multiple antipsychotic drugs is associated with an increased risk of adverse effects and drug interactions, as well as the potential for unnecessary health care costs. The American Psychiatric Association recommends that initial treatment for patients with schizophrenia consist of only one atypical antipsychotic drug and advises that therapy combinations should be attempted only when multiple trials of single agents fail.

One state Medicaid program in the Northeast wanted to assess whether clinical intervention was needed to ensure the safety of its members who were using atypical antipsychotic medications concurrently, as well as to reduce the expense of unnecessary antipsychotic prescriptions. Because there is insufficient documented evidence supporting the clinical value of the widespread use of combination atypical antipsychotic drugs, assessment of antipsychotic drug use is often necessary.

Background
The Drug Utilization Review Board of the one states’ Medicaid program sought the guidance of UMass Medical School’s Clinical Pharmacy Services to determine the need for clinical intervention to reduce the costs and risks associated with polypharmacy in this population. Expensive antipsychotic medications, which represent about 12 percent of total prescription spending in the U.S., are often prescribed outside of manufacturer recommendations.

Solution
Over a four-month period, UMass Medical School pharmacists collected and analyzed claims data and prescribing trends in order to identify the number of patients receiving antipsychotic therapy inconsistent with current guidelines.

- Of the state’s 145,000 Medicaid members, 480 were taking two or more atypical antipsychotic drugs.
- Patients transitioning to new medications needed no intervention.
- The 172 patients receiving two or more atypical antipsychotics for longer than 60 consecutive days

Results at a Glance
When UMass Medical School’s Clinical Pharmacy Services program helped reduce the number of patients taking two or more atypical antipsychotic drugs at the same time — a prescribing practice that goes against American Psychiatric Association guidelines — it saved one Medicaid program $120,000 each year.
required clinical intervention. CPS staff contacted providers and encouraged them to initiate a doctor-patient conversation regarding appropriate treatment. All prescribers were notified via a formal, patient-specific letter, asking for the following information:

- A close review of information provided
- Validation of clinical programs
- Assessment of need for clinical intervention

If a prescriber did not respond, our staff faxed a patient profile and a separate feedback form to the patient’s community pharmacist for follow up as needed.

To assess the impact on therapy, UMass Medical School collected and analyzed claims data again six months after the intervention letters were mailed.

**Results**

In the population originally identified as receiving two or more atypical antipsychotic drugs for more than 60 consecutive days, 32 percent were no longer receiving polypharmacy therapy during the post-letter assessment period. The improvement in prescribing habits among the targeted prescribers resulted in an annualized cost savings of $120,000 for one state Medicaid agency.

From inception to presentation, the research team at UMass Medical School completed the five phases of this project in four months:

- Design of the study
- Institutional review board approval
- Data extraction
- Data analysis
- Recommendations

The American Psychiatric Association advises against prescribing more than one atypical antipsychotic drug to patients with schizophrenia as a standard therapy. Yet in one state's Medicaid population, nearly 36 percent of patients who were prescribed two or more antipsychotics simultaneously were taking them for more than 60 days.

Several risks are associated with using multiple antipsychotics, rather than a single drug:

- Increased risk of adverse events and drug interactions
- Decreased adherence to prescribed regimen due to a higher number of pills to be taken
- Unnecessary and potentially avoidable costs to the health care system

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