

# REDUCING OVERPRESCRIBING OF QUETIAPINE IN MEDICARE PART D

*Peer comparison letters for high prescribers of quetiapine reduce prescription volume and improve guideline conformity of prescription fills*



## Target a Priority Outcome

Antipsychotics such as quetiapine are often prescribed for reasons not supported by clinical evidence, increasing healthcare costs and potentially exposing patients to

harms.<sup>1 2 3</sup> The Center for Program Integrity (CPI) at the Centers for Medicare and Medicaid Services (CMS) partnered with the Office of Evaluation Sciences (OES) and academic researchers to develop and test an intervention to reduce overprescribing of quetiapine and improve the value and safety of prescribing in Medicare Part D.<sup>4</sup>



## Translate Evidence-Based Insights

CPI sent a series of letters to high prescribers indicating that their quetiapine prescribing was extremely high relative to their within-state peers and that it was under review. Research indicates that sending messages to high prescribers informing them how their prescribing habits deviate from that of their peers offers a potentially effective, inexpensive, and low-touch intervention for reducing overprescribing.<sup>5 6 7</sup>

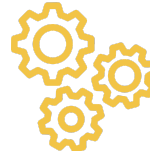
<sup>1</sup> Surrey M. Walton et al, *Developing Evidence-Based Research Priorities for Off-Label Drug Use*. (Agency for Healthcare Research and Quality, 2009).

<sup>2</sup> Government Accountability Office. *Antipsychotic Drug Use: HHS Has Initiatives to Reduce Use among Older Adults in Nursing Homes, but Should Expand Efforts to Other Settings*. (GAO, 2015).

<sup>3</sup> Christine M. Campanelli, "American Geriatrics Society Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults," *Journal of the American Geriatrics Society*, 60, 4 (2015): 2227-2246.

<sup>4</sup> For a full report, see: Adam Sacarny, Michael L. Barnett, Jackson Le, Frank Tetkoski, David Yokum, and Shantanu Agrawal, "Peer Comparison Letters for High Volume Prescribers of Quetiapine in Older and Disabled Adults: A Randomized Policy Evaluation with Two-Year Follow Up," (submitted, 2017).

<sup>5</sup> Adam Sacarny, David Yokum, Amy Finkelstein, and Shantanu Agrawal, "Medicare Letters to Curb Overprescribing of



**Embed Tests** The study team randomly assigned roughly the top 5 percent of general-care quetiapine prescribers in the Medicare Part D program (N = 5,055) to receive the treatment

letter or a control letter describing an unrelated Medicare regulation. CPI and OES compared the number of quetiapine prescription fills associated with the prescribers, as well as the prescription fills by the prescribers' baseline patients (N = 89,500) over 9 months.



## Analyze Using Existing Data

The study team accessed data from the CMS Integrated Data Repository (IDR), which tracks Medicare beneficiary enrollment and health care utilization. The database tracks

all prescribing in Medicare Part D, which we used to produce our outcome measure of quetiapine prescribing. IDR data are updated with a short lag, which allowed the study team to report results quickly.



**Reanalyzed Results** Prescribers who were sent peer comparison letters supplied 11.1 percent less quetiapine in the 9 months following the intervention than prescribers

Controlled Substances Had No Detectable Effect on Providers," *Health Affairs*, 35, 3 (2016): 471-479.

<sup>6</sup> Michael Hallsworth et al., "Provision of Social Norm Feedback to High Prescribers of Antibiotics in General Practice: A Pragmatic National Randomised Controlled Trial," *Lancet*, 387 (2016): 1743-1752.

<sup>7</sup> Daniella Meeker et al., "Effect of Behavioral Interventions on Inappropriate Prescribing among Primary Care Practices: A Randomized Controlled Trial," *Journal of the American Medical Association*, 315, 6 (2016): 562-570.

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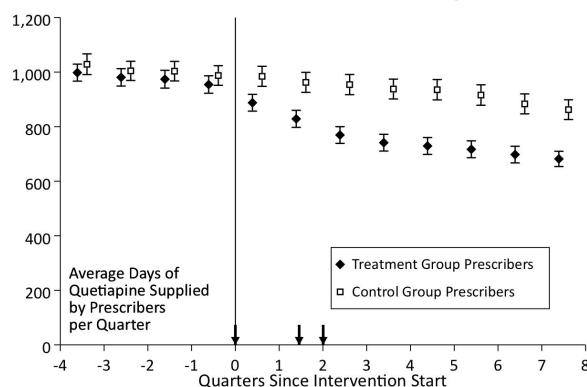
who were sent placebo letters ( $p < 0.001$ , 95% CI [9.2%, 13.1%]).

Baseline patients of prescribers who were sent peer comparison letters received 3.9 percent less quetiapine than patients of prescribers who were sent placebo letters ( $p < 0.001$ , 95% CI [2.9%, 5.0%]). This reduction in quetiapine receipt was significantly larger among patients who were low value candidates for quetiapine than patients with guideline concordant indications (test of difference:  $p = .01$ ): The reduction was 5.9 percent for patients with low value indications ( $p < 0.001$ , 95% CI [3.9%, 8.0%]) and 2.4 percent for patients with guideline concordant indications ( $p = 0.002$ , 95% CI [0.9%, 4.0%]). Analyses did not detect signs of prescriber “gaming” of study outcomes, and there was no evidence of patient harm based on hospitalization and emergency department visits.



**Build Evidence** Sending peer comparison letters to high prescribers of quetiapine reduced prescribing, and did so without any detectable adverse impacts.

**Figure 1. Quarterly Quetiapine Prescribing in Treatment and Control Groups**



\* Each point is the average days of quetiapine supplied by prescribers in the quarter. Error bars indicate 95% confidence intervals. Arrowheads denote when letters were sent to prescribers.