

# Understanding Anti-epileptic Drug Adherence using NYS Prescription Monitoring Program

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**Introduction:** Imperfect adherence is the most common cause of preventable seizures and status epilepticus in people with epilepsy (PWE).

**Methods:** In 2013 New York State established the prescription monitoring program (NYS PMP) for scheduled drugs, including several AEDs. Pharmacies are required to report to the database the date a prescription was filled and the number of pills dispensed.

24 adult patients taking at least one DEA scheduled AED were prospectively enrolled from DHSU epilepsy clinics. Demographic and clinical data, perceived barriers to adherence, a validated self-report of adherence and data from the NYS PMP for all scheduled AEDs were recorded. We used the NYS PMP data to record the dates of prescription refills and the number of pills dispensed going back a maximum of six months.

**Results:** Mean number of days per month without medication was 4.8 (range 0 – 17.8). There was a significant correlation between self-reported adherence for the past month and objective adherence (Pearson correlation,  $p = .027$ ). The most frequently cited barriers to adherence were forgetfulness, “business” and running out of pills.

**Conclusions:** The NYS PMP Registry of scheduled AEDs provides a unique objective measure of adherence, and revealed clinically significant nonadherence among the majority of our low SES minority patients. The objective data correlated significantly with a subjective adherence measure. Health-care providers can use PMP registries on an ongoing basis to monitor adherence and educate patients. These data can be used to help design and monitor the effectiveness of education and interventions to improve adherence.