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Electronic Health Records in Evaluating the Potential for Opioid Use Disorder

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Background: Geisinger's Medication Therapy Disease Management (MTDM) program promotes safer treatments for patients with chronic diseases. Under the MTDM program, chronic pain patients sign a medication use agreement (MUA) in which they are required to follow strict guidelines for opioid use. We have found previously that this population has increased incidence of psychiatric traits and other indicators of Opioid Use Disorder (OUD). **Purpose:** This study describes opioid use characteristics of a patient population from the MTDM program. **Methods:** We conducted in-depth chart review of 200 MTDM patients to identify DSM-5 criteria derived from EHR metrics and evaluate potentially undiagnosed OUD. Using the following criteria from the DSM-5 (No OUD <2, Mild 2-3, Moderate 4-5, Severe 6+), we generated a proxy DSM-5 risk score to predict severity of OUD among the patients. **Results:** There was a high prevalence of moderate to severe OUD with 94 patients (47%) meeting the criteria for severe OUD and 50 patients (25%) meeting the criteria for moderate OUD. Only 11 patients (5.5%) exhibited no signs of OUD. **Conclusion:** These results indicate a higher than average percentage of patients in this MTDM population exhibiting markers of OUD. In ongoing studies, we will compare this set of patients to patients on chronic opioid therapy outside of the MTDM program to evaluate differences in DSM-5 results. Our plan is to identify high probability and low probability OUD populations to ultimately compare clinical phenotypes and genetic information to evaluate risk factors for OUD. (Funding by NIH R01 DA044015)