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**Title**

*Long-term opioid dose reduction and subsequent healthcare utilization in patients with hypertension or diabetes*

**Priority 1 (Research Category)**

Healthcare Services, Delivery, and Financing

**Presenters**

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**Abstract**

Context: Opioid dose tapering has increased among patients prescribed long-term opioid therapy (LTOT). Concerns have been raised that tapering may disrupt the patient-physician relationship, which could negatively impact healthcare utilization and co-morbid chronic disease control. Objective: To evaluate the impact of opioid dose tapering on outpatient, emergency (ED), and hospitalization utilization among patients prescribed LTOT who have hypertension or diabetes. Study Design: Retrospective cohort study 2008-2019. Dataset: Data from the OptumLabs® Data Warehouse contains de-identified retrospective administrative claims data, including medical and pharmacy claims and eligibility information as well as electronic health record (EHR) data for commercial and Medicare Advantage enrollees, representing a diverse mixture of ages, ethnicities and geographical regions. Population: Adults aged  $\geq 18$  years who were (1) prescribed stable doses of LTOT  $\geq 50$  morphine milligram equivalents (MME)/day during a 12-month baseline period and (2) had hypertension or diabetes treated with medication for  $\geq 2$  months/year. Outcomes: Monthly counts of primary care visits, specialty care visits, ED visits, and hospitalizations for up to 12 months after cohort entry. Visit counts were modeled using negative binomial regression as a function of tapering ( $\geq 15\%$  relative dose reduction during 6 overlapping 60-day periods after cohort entry), and patient level-covariates (sociodemographics, comorbidities, chronic disease severity, and baseline utilization). Results: Among 41,213 patients with hypertension and 23,340 patients with diabetes prescribed stable LTOT, tapering was associated with fewer subsequent primary care visits among both hypertension and diabetes (adjusted incidence rate ratio [aIRR] 0.95, CI 0.93-0.96 and 0.96, 95% CI: 0.94-0.98, respectively), more ED visits (aIRR 1.10, CI: 1.07-1.14 and 1.09, CI 1.04-1.14), but no significant differences in specialty visits (aIRR 1.02, CI: 0.98-1.06 and 1.00, CI 0.96-1.05). Tapering was associated with a higher rate of hospitalization for hypertension (aIRR 1.16, CI: 1.08-1.24) but not diabetes (aIRR 1.08, CI 0.99-1.18). Conclusions: Among patients with hypertension or diabetes prescribed LTOT, opioid tapering was associated with subsequently lower primary care and higher ED utilization plus higher hospital utilization

among patients with hypertension. The impacts of these utilization shifts on chronic disease control warrant study.