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Commentary on Boscarino et al: Understanding the Spectrum of Opioid Abuse, Misuse and Harms among Chronic Opioid Therapy Patients

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In this issue, Boscarino et al. [1] report that one in four chronic opioid therapy (COT) patients in general practice met DSM-IV criteria for current opioid dependence. Since over five million Americans use COT on a regular basis while several million more chronic pain patients use opioids intermittently [2], understanding the extent of opioid abuse, misuse and opioid-related harms among COT patients is of clinical and public health significance. How does the high estimate of the prevalence of opioid dependence reported by Boscarino et al. compare to other estimates? A Cochrane review reported that only 0.27% of COT patients enrolled in randomized trials abused opioids [3]. Fishbain et al.'s [4] meta-analysis found that 3.3% of COT patients abused opioids, 11.5% had aberrant drug use behaviors, and 14.5% had illicit substances detected by urine drug screening. However, COT patients pre-screened for substance abuse risk had very low rates of opioid abuse and aberrant drug use behaviors. Given these disparate results, it is not surprising that confusion reigns about the extent of opioid abuse, misuse and opioid-related harms among COT patients.

Among COT patients enrolled in randomized trials, low rates of opioid abuse are likely due to careful pre-screening of patients and, in some trials, use of passive methods with poor sensitivity for detecting opioid abuse. Since screening of COT patients for abuse risk is often cursory in general practice, the low rates of opioid abuse among pre-screened COT patients reported in structured reviews [3,4] are likely not generalizable to typical COT patients in primary care. However, DSM-IV criteria for opioid dependence have limitations in assessing opioid abuse among COT patients. Physiological dependence, tolerance, and withdrawal do not necessarily implicate a maladaptive pattern of substance use among chronic pain patients receiving medically prescribed opioids. Proposed DSM-V criteria do not consider either opioid tolerance or withdrawal among persons receiving medically prescribed analgesics in diagnosing opioid use disorder. For this reason, Boscarino et al.'s [1] prevalence estimate based on DSM-IV criteria is higher than would be found if opioid tolerance and withdrawal were ignored. In the absence of studies directly evaluating DSM-V criteria for opioid use disorder among COT patients, Fishbain et al.'s meta-analysis results [3] are useful, likely conservative, estimates of the extent of opioid abuse, aberrant drug use,

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and concurrent use of illicit substances among COT patients. Boscarino et al.'s finding [1] that opioid dependence was predicted by substance abuse history and psychological disorder are consistent with Fishbain et al.'s observation [3] that pre-screening yields low rates of opioid abuse and misuse among COT patients. These findings call attention to the importance of careful evaluation of opioid abuse risk among patients being considered for COT.

Before adopting a sanguine view that opioid-related problems are relatively uncommon among COT patients, and that risks could be further reduced by pre-screening, there are troubling observations that need to be considered. COT patients without an opioid use disorder often have opioid-related problems. Fleming et al. [5] found that among COT patients without any substance use disorder, 19% purposely over-sedated themselves, 12% used opioids for reasons other than pain control, 16% used alcohol to relieve pain, 29% felt intoxicated when using opioids, and 33% increased opioid dose on their own. Banta-Green et al. [6] found that among typical COT patients without a pattern of addictive behaviors, 49% wanted to stop or cut-down use of opioids, 14% were angry or mistrustful of doctors, 9% borrowed opioid medicines, and 34% needed more opioids to achieve the same effect. COT patients in general practice often have: high levels of pain-related interference with major social role activities; apathy, lethargy, avoidance and depression; and other psychosocial problems and concerns potentially related to opioid use [7]. There are also risks of opioid-related medical harms among COT patients with potentially serious consequences including: opioid overdose [8], serious fractures [9], pneumonia [10], sleep-disordered breathing [11], opioid-induced hyperalgesia [12], chronic constipation [13], and hypogonadism [14], among others [15].

Given a wide-spectrum of opioid-related problems, along with conceptual and methodological difficulties in defining opioid use disorder among COT patients, focusing on opioid abuse as the predominate risk associated with COT seems too narrow. Rather, careful studies of the full spectrum of opioid-related problems among COT patients are needed, including opioid abuse, misuse, psychosocial harms and medical harms. Since specific manifestations of opioid abuse, misuse, psychosocial harms and medical harms are often not highly correlated, it is important to know the frequency of each kind of opioid-related problem, along with the distribution of number of problems observed among COT patients (e.g. 0, 1, 2 or more). Summary classifications, like DSM-IV opioid dependence or DSM-V opioid use disorder, do not adequately convey the character, range and extent of opioid-related problems among COT patients in general practice settings.

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