What is the Incidence of Iatrogenic Opioid Use Disorder?

Clinical Question: What is the risk of developing opioid use disorder (OUD) when taking prescription opioids?

Bottom Line: The incidence of OUD associated with prescribed opioids among chronic pain patients is likely ~3% (over ~2 years) but causation is uncertain. Patients with no history of substance use disorders appear to be at lower risk (<1%). Factors associated with increased risk of OUD include a history of substance use disorder and receiving opioids for longer duration (>90 days) or at higher doses (>120mg/day morphine equivalent).

Evidence:
- Systematic review¹ (12 studies, 310,408 patients): Pain patients prescribed opioid therapy (≥7 days and 97% had ≥3 months).
  - Incidence of opioid dependence or “abuse” was 3.1% in higher quality studies.
    - 4.7%, if all studies included.
  - Diagnostic criteria matter: incidence varies (from 1-11%) with different diagnostic criteria.
- Systematic review² (24 studies, 2507 patients): chronic pain patients prescribed opioid therapy, average exposure 26 months (range: 2-240).
  - Incidence of opioid addiction was 3.3%
    - 0.2% in patients without a history of “substance abuse/addiction” versus 5% with positive history.
  - Limitations: Varying addiction definitions; quality of trials included: retrospective (71%), prospective and/or randomized (29%); unclear pooling technique.
- Two systematic reviews:³,⁴ incidence 0.3%-0.5% but generally lower risk patients.³,⁴

Context:
- Incidence: new cases of OUD after opioid prescription and may better estimate iatrogenic OUD than prevalence. Prevalence: all OUD patients, including those who obtained prescribed opioids after developing OUD.²
Prevalence of OUD ranges from 0.05%–23%.\textsuperscript{3, 5-10}

- Wide variation attributable to differing study quality, variable diagnostic criteria/terminology, inconsistent reporting, and populations studied.

- Majority of included studies (using terms like “addiction” or “substance abuse”) published before DSM-V criteria.

- Exposure to prescription opioids in adolescents and young adults was associated with future non-medical prescription opioid use\textsuperscript{11} and OUD.\textsuperscript{12}

- From one insurance database cohort study (568,640 patients), after 12 months:\textsuperscript{13}
  - Duration: For doses 36-120mg/day morphine equivalent, OUD incidence with acute use (1-90 days) was 0.12% versus 1.3% with chronic use (prescriptions >90 days).
  - Dose: For prescriptions >90 days, OUD incidence with 1-36mg/day morphine equivalents was 0.7% versus 6.1% with >120mg/day morphine equivalent.

Authors:
Samantha Moe PharmD, G Michael Allan MD CCFP.

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References:

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