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Sex differences in high opioid dose escalation among Malaysian patients with long term opioid therapy

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JOURNAL OF PAIN RESEARCH
 Volume: 12 Pages: 1251-1257
 DOI: 10.2147/JPR.S199243
 Published: 2019
 Document Type: Article
[View Journal Impact](#)

Abstract

Purpose: This study evaluated the risk of opioid dose escalation as it relates to sex differences among patients receiving opioids for long-term therapy.

Patients and methods: This retrospective cohort study was conducted in tertiary hospital settings in Malaysia using electronic prescription records. Opioid naive patients, aged ≥ 18 years, who were undergoing long-term opioid therapy of ≥ 90 days, with at least one opioid prescription (buprenorphine, morphine, oxycodone, fentanyl, dihydrocodeine or tramadol) between 1st January 2011 and 31st December 2016, were included in the study. They were followed until (i) the end of the study period, (ii) death from any cause or (iii) discontinuation of therapy from their first opioid prescription without any intervals of ≥ 120 days between successive prescriptions. The risk of high opioid dose escalation to ≥ 100 mg/day and ≥ 200 mg/day relative to men and women was measured.

Results: A total of 4688 patients (58.8% women, 41.3% men) on long-term opioid therapy were identified. Among these patients, 248 (5.29%) were escalated to high opioid doses of ≥ 100 mg/day and 69 (1.47%) were escalated to ≥ 200 mg/day. The escalation to high-dose opioid therapy was more likely to occur in men than in women, even after adjustment for age (dose ≥ 100 mg/day [adjusted hazard ratio 2.32; 95% confidence interval (CI), 1.79 to 3.00; $p < 0.0001$] and ≥ 200 mg/day [adjusted hazard ratio 6.10; 95% CI, 3.39 to 10.98; $p < 0.0001$]).

Conclusion: The risk of opioid dose escalation differed between men and women, as men were at higher risk than women for high opioid dose escalation.

Keywords

Author Keywords: opioids; dose escalation; opioid prescribing; male patient; female patient
 KeyWords Plus: CHRONIC PAIN; GENDER; OVERDOSE; TRENDS; MORTALITY; PATTERNS; RISKS

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Funding

Funding Agency	Grant Number
Ministry of Education Malaysia (Fundamental Research Grant Scheme)	FRGS 19-010-0618
International Islamic University Malaysia	RIGS 17-076-0651

[View funding text](#)

Publisher

DOVE MEDICAL PRESS LTD, PO BOX 300-008, ALBANY, AUCKLAND 0752, NEW ZEALAND

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Impact Factor: [Journal Citation Reports](#)

Categories / Classification

Research Areas: Neurosciences & Neurology
 Web of Science Categories: Clinical Neurology

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