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Differential Patterns of Adherence to Opioid Therapy in Opioid Naive and Opioid Existing Patients With Different Age Groups

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Abstract

Limited data are available on the adherence to opioid therapy and the influence of different patient groups on adherence. This study examined the patterns of adherence in opioid naive and opioid existing patients with varying age and gender. This retrospective cohort study was conducted using the prescription databases in tertiary hospital settings in Malaysia from 2010 to 2016. Adult patients aged ≥ 18 years, receiving at least two opioid prescriptions, were included and stratified into the opioid naive and existing patient groups. Adherence to opioid therapy was measured using the proportion of days covered (PDC), which was derived by dividing the total number of days covered with any opioids by the number of days in the follow-up period. Generalized linear modeling was used to assess factors associated with PDC. A total of 10,569 patients with 36,650 prescription episodes were included in the study. Of these, 91.7% ($n = 9,696$) were opioid naive patients and 8.3% ($n = 873$) were opioid existing patients. The median PDC was 35.5% (interquartile range (IQR) 10.3–78.7%) and 26.8% (IQR 8.8–69.5%) for opioid naive and opioid existing patients, respectively. A higher opioid daily dose (coefficient 0.010, confidence interval (CI) 0.009, 0.012 $p < 0.0001$) and increasing age (coefficient 0.002, CI 0.001, 0.003 $p < 0.0001$) were associated with higher levels of PDC, while lower PDC values were associated with male subjects (coefficient -0.0041, CI -0.072, -0.010 $p = 0.009$) and existing opioid patients (coefficient -0.134, CI -0.191, -0.077 $p < 0.0001$). The suboptimal adherence to opioid medications was commonly observed among patients with non-cancer pain, and the opioid existing patients were less adherent compared to opioid naive patients. Increasing age and a higher daily opioid dose were factors associated with higher levels of adherence, while male and opioid existing patients were potential determinants for lower levels of adherence to opioid medications.

Keywords

Author Keywords: [adherence](#); [opioid therapy](#); [opioid naive](#); [existing patients](#); [proportion of days covered](#); [patterns](#)

KeyWords Plus: [CHRONIC NONMALIGNANT PAIN](#); [MEDICATION ADHERENCE](#); [SEX-DIFFERENCES](#); [DRUG-THERAPY](#); [PERSISTENCE](#); [METAANALYSIS](#); [DEFINITIONS](#); [ASSOCIATION](#); [TRENDS](#); [IMPACT](#)

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