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Patterns of initial opioid prescription and its association with short-term and long-term use among opioid-naive patients in Malaysia: a retrospective cohort study

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Abstract

Objective This study examined opioid prescription initiation patterns and their association with short-term and long-term opioid use among opioid-naive patients.

Design This study was designed as a retrospective cohort study.

Setting and participants In this study, we analysed the prescription databases of tertiary hospitals in Malaysia. This study included patients aged ≥ 18 years with at least one opioid prescription (buprenorphine, morphine, oxycodone, fentanyl, dihydrocodeine or tramadol) between 1 January 2011 and 31 December 2016. These patients had no opioid prescriptions in the 365 days prior, and were followed up for 365 days after the initial opioid prescription.

Main outcome measures The main outcome measures were the number of short-term (< 90 days) and long-term opioid users (≥ 90 days), initial opioid prescription period and daily dose.

Results There were 33 752 opioid-naive patients who received opioid prescriptions ($n=43\ 432$ prescriptions) during the study period. Of these, 29 824 (88.36%) were short-term opioid users and 3928 (11.64%) were long-term opioid users. The majority of these short-term (99.09%) and long-term users (96.18%) received an initial daily opioid dose of < 50 mg/day with a short-acting opioid formulation. Short-term opioid users were predominantly prescribed opioids for 3-7 days (59.06%) by the emergency department (ED, 60.56%), while long-term opioid users were primarily prescribed opioids for ≥ 7 days (91.85%) by non-ED hospital departments (91.8%). The adjusted model showed that the following were associated with long-term opioid use: increasing opioid daily doses, prescription period ≥ 7 days and long-acting opioids initiated by non-EDs.

Conclusions The majority of opioid-naive patients in tertiary hospital settings in Malaysia were prescribed opioids for short-term use. The progression to long-term use among opioid-naive patients was attributed to the prescription of higher opioid doses for a longer duration as well as long-acting opioids initiated by non-ED hospital departments.

Keywords

KeyWords Plus: CHRONIC NONCANCER PAIN; PRESCRIBING PATTERNS; CDC GUIDELINE; RISK-FACTORS; OVERDOSE; HEALTH; INDIVIDUALS; VETERANS; TRENDS; ABUSE

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