

be a manifestation of central anti-hyperalgesic involvement of MCR's.

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How are opioids used in Norway? Persistent use, utilization of depot formulation and age profile in non-palliation patients

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Objectives: The extent of persistent opioid use in Norway is unknown. We have studied how many persistent opioid users there are in Norway, whether they use long- or short acting opioids and the age distribution of these patients.

Methods: We have used the Norwegian prescription database containing all drugs dispensed since 2004. We have created three definitions of persistent opioid use corresponding to different clinical settings. The three definitions are based on amount of opioid dispensed, frequency of dispensing and distribution of dispensing throughout the year. We will present 2008 data of non cancer patients. These three patient groups are: (1) Wide: opioids are used on and off throughout the year in at least half the days. (2) Intermediary: opioids are used on average every day throughout the year. (3) Strict: opioids are used continuously every day in high doses throughout the year.

Results: There are 421,724 non-persistent opioid users in 2008. There are 24,462, 14,132 and 6547 in settings 1, 2 and 3 respectively. These numbers account for 8.90, 0.52, 0.30 and 0.14% of the Norwegian population. Together the three groups of patients account for 45,141 persistent opioid users (0.95% of the population). The percentage of users who use mainly long acting opioids (>80%) is: 2.7%, 9.7%, 16.0% and 36.9% for non-persistent users, groups 1, 2 and 3 respectively. The age of opioid users was studied. The percentage under 30 years old was 14.6%, 2.3%, 2.1% and 3.3% for non-persistent users and groups 1, 2 and 3 respectively. Over 60 years old the percentages are 36.0%, 53.0%, 46.1% and 33.1% respectively.

Conclusion: Less than 10% of people using opioids in 2008 are persistent users. Young people use opioids less persistently. There is a correlation between increased degree of persistence and increased use of long acting opioids.

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To which extent does incident and persistent use of weak opioids predict problematic opioid use?

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Background: A high consumption of weak opioids may contribute to prescription abuse of opioids, but the risk of development of problematic opioid use in patients starting opioid therapy is not established.

Objective: To investigate the prevalence of prescription patterns indicating problematic opioid use in a cohort of patients starting therapy with the weak opioids.

Materials and methods: Prescription data were drawn from the nationwide Norwegian Prescription Database. The study population ($N=243,228$) consisted of all adult patients in Norway receiving one or more dispensations of the weak opioids codeine and tramadol in 2005, who had not received any opioid in 2004. This cohort was followed until December 2008 and their dispensations of opioids and benzodiazepines during the study period were investigated, with focus on the patients who received opioid dispensations each year during the study period. Problematic opioid use patients had to meet the following three criteria: dispensed more than 365 defined daily doses (DDD) of opioids, receiving prescriptions from more than three doctors and were dispensed more than 100 DDDs of benzodiazepines during 2008.

Results: In 2005 there were 243,228 new users of weak opioids (216,902 of codeine, 26,326 of tramadol) representing 5% of the Norwegian population. 17,005 (7%) received opioids every year during the study period 2005–2008. About 4% ($N=669$) of the subjects who received opioids every year were dispensed >365 DDDs opioids in 2008 and 31% ($N=5328$) co-medicated with benzodiazepines. 182 subjects were classified as possible problematic opioid users.

Conclusion: Among new users of weak opioids in 2005, 7% continued to receive one or more prescription of weak opioids the three following years. However, only 0.07% of the cohort starting weak opioids in 2005 developed a prescription pattern during four years of follow-up which indicates problematic opioid use.

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Is transdermal buprenorphine for chronic non-malignant pain used long term without co-medication with other potentially addictive drugs?

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Objectives: Guidelines for the appropriate use of opioids to patients with persistent non-cancer pain recommend the use of long-acting opioids. Low dose transdermal buprenorphine (LD-TD-BUP) was introduced as the first depot opioid designed specifically to be used long term to patients with chronic non-malignant pain. Primary aim was to see how many patients prescribed LD-TD-BUP would become long-term users for non-malignant pain. Secondary aim was to see how many patients co-medicated with opioids or other potentially addictive drugs.

Methods: Data were drawn from the Norwegian prescription Data Base (NorPD), which covers all prescriptions dispensed to the entire population. Reimbursements codes are also recorded making it possible to differentiate between prescriptions for cancer pain and non-malignant pain.

We define the study population as all patients who were dispensed at least one prescription of LD-TD-BUP during the study period 2006–2008. Patients who were dispensed more than 24 patches (≥ 6 months) were defined as long-term users. Co-medication with opioids or other potential addictive drugs during the same period were included in the analyses.