(144) Routes of administration of tapentadol products as reported to poison centers
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Tapentadol immediate-release (NUCYNTA®) was launched in June 2009 with the extended-release product (Nucynta® ER) released in August 2011. Tapentadol is a centrally-acting analgesic with μ-opioid receptor agonistic and norepinephrine reuptake inhibition activities. In an effort to deter abuse, particularly through unintended routes of administration, the extended-release tablets were crush-resistant tablets reduce abuse of opioids by non-oral routes of administration (ROAs—insufflation, injection). However, an increase in the proportion of oral abuse is observed among those who do abuse ADF products. We examined prevalence of alternate oral abuse involving product manipulation (i.e., chewing, dissolving in mouth, or drinking after dissolving in liquid) versus swallowing the tablet whole. Data from January 2009 through March 2015 were examined from the ASI-MV™, a computerized, clinical interview for adults in substance abuse treatment, which captures self-report of past 30-day use of prescription opioid products and ROAs. Target drug categories included: crush-resistant ADF (re-formulated OxyContin, reformulated Opana ER, and Nucynta ER), non-ADF versions of ADFs, original/generic oxycodone ER, morphine ER, original/generic oxymorphone ER, and oxycodone ER SE (Single Entity). Among 364,329 unique patient assessments, 303 ER tapentadol exposures (17.6%) were Suspected Suicide exposures and 14.3% were Intentional Abuse exposures. Ten (4.6%) of these exposures reported use via injection or inhalation. Of these, 8 were Intentional Abuse exposures, 1 was Suspected Suicide, and 1 was Intentional Misuse. The proportion of tapentadol ER exposures mentioning injection or inhalation use is significantly lower than the proportion of IR tapentadol exposures ($\chi^2=3.95$, $p=0.047$).

Though intentional exposures still exist, extended-release tapentadol is associated with fewer incidents of injection or inhalation use in cases reported to the RADARS System poison centers. Supported by a research grant from Depomed, Inc.

(145) Relative abuse of abuse deterrent formulations via alternative oral routes
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Studies show that abuse deterrent formulations (ADF) such as crush-resistant tablets reduce abuse of opioids by non-oral routes of administration (ROAs—insufflation, injection). However, an increase in the proportion of oral abuse is observed among those who do abuse ADF products. We examined prevalence of alternate oral abuse involving product manipulation (i.e., chewing, dissolving in mouth, or drinking after dissolving in liquid) versus swallowing the tablet whole. Data from January 2009 through March 2015 were examined from the ASI-MV™, a computerized, clinical interview for adults in substance abuse treatment, which captures self-report of past 30-day use of prescription opioid products and ROAs. Target drug categories included: crush-resistant ADF (re-formulated OxyContin, reformulated Opana ER, and Nucynta ER), non-ADF versions of ADFs, original/generic oxycodone ER, morphine ER, original/generic oxymorphone ER, and oxycodone ER SE (Single Entity). Among 364,329 unique patient assessments, 303 ER tapentadol exposures (17.6%) were Suspected Suicide exposures and 14.3% were Intentional Abuse exposures. Ten (4.6%) of these exposures reported use via injection or inhalation. Of these, 8 were Intentional Abuse exposures, 1 was Suspected Suicide, and 1 was Intentional Misuse. The proportion of tapentadol ER exposures mentioning injection or inhalation use is significantly lower than the proportion of IR tapentadol exposures ($\chi^2=3.95$, $p=0.047$).

Though intentional exposures still exist, extended-release tapentadol is associated with fewer incidents of injection or inhalation use in cases reported to the RADARS System poison centers. Supported by a research grant from Depomed, Inc.

(146) Characteristics associated with non-diagnosed neuropathic pain in the United States

While proper diagnosis of neuropathic pain (NeP) involves a thorough clinical history and exam, validated screening tools are available to help identify NeP. This study was conducted to examine the characteristics most strongly associated with screening positive for probable NeP in subjects that had not been diagnosed as having NeP by a healthcare provider. A general US population health survey was administered using a multi-channel recruitment strategy to maximize representativeness (response rate=2.5%). Elderly and minority groups were oversampled, and all responses were weighted to match the total adult US population using 2015 US Census data. Respondents who stated they experienced any pain in the last 12 months completed the painDETECT NeP screening questionnaire (PDQ; range -1 to 38). Of N=24,925 respondents, N=15,751 (63.7%) reported pain in the last 12 months. Among those with pain, N=2,548 respondents (15.7%) screened positive for probable NeP (19+ on PDQ), and of those, N=1,722 (68.5%) reported being diagnosed with nerve pain by a healthcare provider. Respondents not diagnosed were significantly more likely to be female (54.7% vs. 48.4%), from the South (37.3% vs. 33.4%) and Midwest (23.5% vs. 19.0%), with p<0.05. No other demographic differences were observed. Respondents who were diagnosed were significantly more likely to report comorbidities, including diabetes (21.9% vs. 11.9%) and rheumatoid arthritis (17.8% vs. 7.4%) (both $p<0.05$). Similarly, respondents who were diagnosed were significantly more likely to report a number of pain types, with the largest discrepancies including shingles-related pain (6.20% vs. 1.12%), spinal cord injury (11.2% vs. 4.0%), and surgical pain (15.0% vs. 7.0%), all with p<0.05. Of interest, nearly half (49.8%) of non-diagnosed respondents reported experiencing pain for 5+ years. Results suggest nearly a third of probable NeP subjects, based on the PDQ screening tool go undiagnosed despite their comorbidities, pain type, and duration. Research supported by Pfizer.

(147) Prevalence and problems of pain in the homeless: a systematic review
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Worldwide, over 100 million people are affected by homelessness and many will have chronic pain. Although the homeless population have high rates of many health conditions that cause pain, epidemiological data on chronic pain in this population is limited. The purpose of this systematic review was to estimate the prevalence and major types of chronic pain in the homeless population. This systematic review was conducted using PRISMA guidelines. It included all studies that sampled subjects from a developed country and that used a quantitative measure of pain. The inclusion criteria were kept broad due to a paucity of papers on the subject of pain in the homeless. We searched PubMed, CINH, SCOPUS, and Google Scholar databases for “pain and homeless.” Further, we scanned all reference lists for other potential articles, and searched for specific authors with multiple articles included for final review. Prevalence estimates were made for all forms of pain, as well as location specific estimates where applicable. A total of 165 articles were initially identified and 29 articles were retrieved for full review, of these articles 10 studies met our inclusion criteria. Study quality, design, and specific sub-population varied. Most studies sampled all types of homeless individuals from shelters, but two studies focused on specific sub-populations of homeless. Specifically, homeless mothers, and HIV positive individuals. Only three studies included a measure of pain for their a-priori hypothesis. The NRS-20 was most commonly used standardized measure. Type of pain ranged from general chronic pain, to toothaches. Three studies included low income controls, of these studies the homeless

routes associated with product manipulation. Supported by Colle-

gium Pharmaceutical, Inc