

Drug utilization review of parenteral analgesic opioids in Amir-al-momenin hospital at 1390 in Zabol–Iran

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Background and Aims: Pain is the most common reason for physician consultation and a major symptom in many medical conditions. Opioids are the most available medicine to get rid of any general severe pain and avoiding of any deleterious sequential that can worsen patient outcomes. Rational consumption of opioid analgesics with respect to possible abuse are a big concern in medical care costs. Zabol a city in the east of Iran, lies in Afghanistan border has the most opioid traffic in region. In this study the rational consumption of parenteral opioid in Amir-al-momenin general hospital were investigated.

Methods: A retrospective drug utilization review was performed for 509 in-patients who received parenteral opioids including morphine, pethidin, pentazocin, fentanyl, alfentanil, sufentanil and methadone from March 21st to September 23st, 2011 in Amir-al-momenin Hospital wards. Prescription was analyzed calculating DDD/100bed-days and PFEQ/100bed-days (DDD: Defined Daily dose, PFEQ: Parenteral Fentanyl Equivalents). Multivariate conditional regression modeling was used to determine independent predictors for daily parenteral opioid consumption.

Results: Total daily parenteral opioid consumption was 38.63 DDDs/100bed-days for morphine, pethidine and pentazocin and 84564.78 PFEQs/100bed-days for fentanyl, alfentanil and sufentanil and 766 mg for methadone. Pethidine was the most frequently prescribed parenteral opioid. Most patients were prescribed by the intramuscular route, ordered PRN. Daily parenteral opioid consumption was highest and lowest for urgency and ICU wards, sincerely.

Conclusions: According to our findings, total daily parenteral opioid consumption was almost high in Amir-al-momenin Hospital. Unexpected to some relevant factors that can affect on consumption of analgesic opioids like gender, age, drug-drug interaction and etc, we found out no rational consumption in above hospital.

Keywords: Drug; Utilization; Opioid; ATC/DDD; Hospital; Zabol