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Retrospective Assessment of Adverse Events Following Subcutaneous Administration of Methadone in Veterans on a Hospice/Palliative Care Unit

Michael A Gillette[2], Scott Donelenko[1], Kimberleigh Campbell[1]
[1]Lake City VA Medical Center, Lake City, FL, United States, [2]Malcom Randall VA Medical Center, Gainesville, FL, United States

Purpose

The objectives of this retrospective pilot study includes: 1) describing demographic and clinical characteristics of a veteran population admitted to the Lake City Veterans Affairs Medical Center, Hospice and Palliative Care Unit (LCVAMC-HPCU), 2) evaluating the incidence and indications for administration of subcutaneous methadone, and 3) analyzing and describing adverse events following subcutaneous administration of methadone within the population.

Method

This study was a retrospective chart review conducted at the LCVAMC-HPCU. The study criterion included those veterans admitted or previously admitted who were prescribed at least one dose of methadone to be administered subcutaneously. Data was collected and included: patient age, gender, terminal diagnosis, dose(s) of methadone in milligrams, number of days treated with methadone, and description of all adverse reactions related to subcutaneous methadone administration. Descriptive statistics was used to summarize demographic and clinical characteristics as appropriate.

Results

A retrospective chart review was conducted at the LCVAMC-HPCU evaluating patients who met previously specified criteria. A total of 9 patients were administered 162 doses over 86 days with an average dose of 12.5 mg. Methadone was noted to be administered either through an indwelling subcutaneous catheter or via direct subcutaneous injection. Out of 9 patients, 2 patients required a premature site change due to redness and swelling noted at the site of administration which occurred after an average of 3.5 days and administration of 8 doses. After site change, no further local reactions were noted after an average of 17 additional doses administered. One other patient was also noted to have redness, tenderness and swelling and did not receive any further doses. The study population included only males with a median and average age of 62 years old. Cancer was the predominant diagnosis and highlighted the majority of cases (56%).

Conclusions

Our study shows that there is a limited incidence of side effects associated with the subcutaneous administration of methadone. The limitations of our study, however, included its retrospective design and limited number of patients. Furthermore, our study did not take into account the effects of other medications administered through the indwelling subcutaneous catheter. Our findings are similar to studies reported in the past and highlight the need for a larger randomized prospective trial to further evaluate the safety and efficacy of subcutaneous methadone.