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Evaluation of appropriate antiemetic prophylactic Olanzapine administration in patients receiving cisplatin chemotherapy

Abstract:

Background: Chemotherapy-induced nausea and vomiting is an unpleasant side effect of highly emetogenic cisplatin chemotherapy. New guidelines from the ASCO and NCCN have stated that new studies found olanzapine to be beneficial in patients receiving highly emetogenic chemotherapy regimens to prevent CINV. **Objective:** This project is a medication use evaluation to be conducted as a retrospective chart review for the purpose of evaluating the utilization of olanzapine in the prophylaxis of CINV in patients receiving cisplatin-based therapy. **Methods:** Twenty-five patients were screened for olanzapine utilization during their first dose of cisplatin therapy between the dates of 11/1/2019 - 11/1/2022 at Mercy Hospital St. Louis. The primary outcome of this study was to evaluate the ratio of patients who did and did not receive olanzapine antiemetic prophylaxis when cisplatin chemotherapy was administered. Secondary outcomes for this study were to determine the need for emesis-related care in cisplatin-receiving patients as a function of olanzapine use, to identify barriers to the use of olanzapine as an antiemesis agent in patients receiving cisplatin, and to determine if provider education should be recommended regarding the guideline-based use of olanzapine as a prophylactic antiemetic in patients receiving cisplatin. **Results:** Zero patients out of 25 screen had received olanzapine as antiemetic prophylaxis during their first cisplatin administration. Six out of the 25 patients had follow up encounters related to nausea and vomiting within the first week status post their cisplatin infusion. **Conclusion:** Provider education would likely be beneficial for the updated guidelines related to CINV prophylaxis in those receiving cisplatin or other highly emetogenic chemotherapy regimens.