



مركز الحسين للسرطان

KING HUSSEIN CANCER CENTER

Comparing the incidence of febrile neutropenia resulting in hospital admission between the branded docetaxel and the generic formulations

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INTRODUCTION

- Though generic medications are commonly used, studies have raised the concern about their safety, compared to the branded drugs.

OBJECTIVES

- To compare febrile neutropenia (FN) resulting in hospital admission between the branded docetaxel (Taxotere®, Sanofi) and two generic formulations (docetaxel Ebewe and docetaxel Hospira) in breast cancer patients.

METHODS

- A retrospective study conducted at a 170-bed comprehensive cancer center.
- The pharmacy database and medical records were utilized to identify patients with breast cancer who had received docetaxel.
- Among those patients, patients who had an admission diagnosis of FN and had received docetaxel within 14 days prior to their admission were identified.
- The patients' characteristics and outcomes, as well as the docetaxel brand, dose and cycle number were recorded.

METHODS

- The incidence of FN was compared between the branded and the generic formulations using Chi-square test.

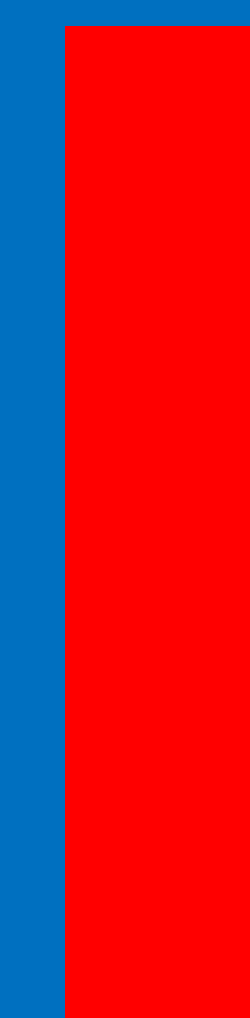
RESULTS

- During the study period, 2904 cycles of docetaxel were given for 814 patients (1519 cycles of Taxotere®, 811 cycles of docetaxel Hospira, and 574 cycles of docetaxel Ebewe).
- Among the cycles given, 130 cycles were associated with FN.
- The incidence of FN was significantly higher in the 100mg/m² docetaxel Hospira group, compared to Taxotere® [35(8.3%) cycles vs. 36 (4.5%) cycles, $P = 0.006$], but there was no significant difference between docetaxel Ebewe and Taxotere® [22 (6.6%) cycles vs. 36 (4.5%) cycles, $P = 0.136$].
- No significant difference was seen between the groups in the incidence of FN at the 75 mg/m² dose regimen.
- FN resolved in all except for one patient who died in the ICU.
- The mean hospital LOS for all cases of FN was 4.18 days \pm 2.14 (SD).

RESULTS

Incidence of FN among patients who had received 100 mg/m² docetaxel dose regimen

8.30%



Hospira

4.50%



Sanofi

6.60%



Ebewe

CONCLUSION

- There was a significant difference in the incidence of FN between Taxotere® Sanofi and docetaxel Hospira in the 100mg/m² dose regimen, but all cases in both groups resolved completely.