Single-dose NEPA (netupitant/palonosetron) versus 3-day aprepitant for preventing chemotherapy-induced nausea and vomiting: a pooled analysis

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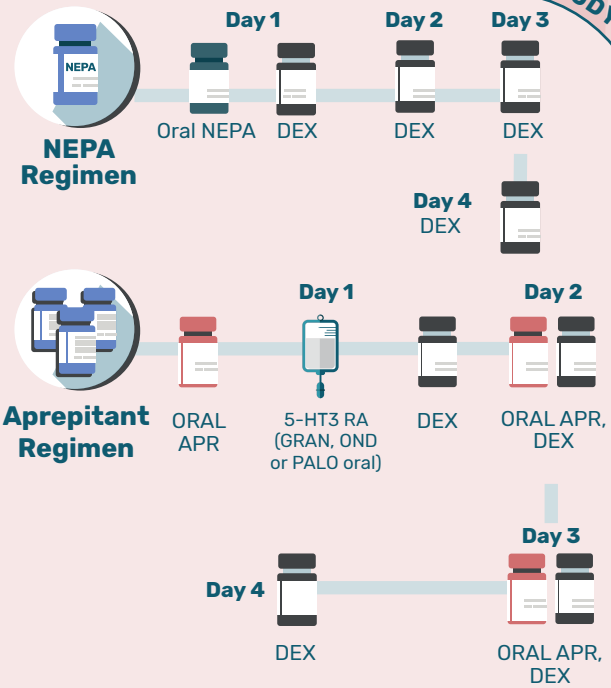
Citation: https://www.futuremedicine.com/doi/10.2217/fon-2021-0023

OBJECTIVES

This analysis sought to compare the efficacy of NEPA versus an aprepitant regimen in preventing CINV in this highly emetogenic chemotherapy setting.

STUDY DESIGN



NEPA is a simplified fixed NK_1 receptor antagonist (RA) (netupitant)/$5\text{-}HT_3$ RA (palonosetron) antiemetic combination available as bioequivalent oral and intravenous formulations.

This was a pooled analysis of three similarly designed cisplatin-based NEPA registration trials, each with arms containing NEPA and a 3-day aprepitant-containing regimen.

CONCLUSION

Results from this analysis have shown that a single dose of oral NEPA administered on Day 1 of chemotherapy only, was more effective than a 3-day aprepitant regimen in preventing delayed chemotherapy-induced nausea and vomiting associated with cisplatin-based highly emetogenic chemotherapy.

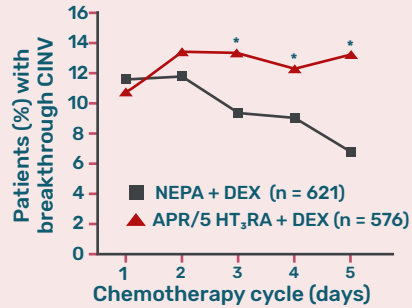
GLOSSARY

$5\text{-}HT_3$ RA: Serotonin Type 3 receptor antagonist;
APR: Aprepitant;
CR: Complete response;
DEX: Dexamethasone;
GRAN: Granisetron;
IV: Intravenous;
NEPA: Netupitant/palonosetron;
NETU: Netupitant;
NSN: No significant nausea;
OND: Ondansetron;
PALO: Palonosetron;
RA: Receptor antagonist

EFFICACY EVALUATION

The efficacy data from 621 NEPA and 576 aprepitant patients was pooled for rates of complete response (CR: no emesis + no antiemetic rescue use), complete protection (CR + no significant nausea), total control (CR + no nausea) and NSN during the acute (0–24 h), delayed (>24–120 h) and overall (0–120 h) phases post-chemotherapy. Daily breakthrough CINV (emesis or use of rescue) was also assessed.

OUTCOMES



Response rates were similar for the acute phase and significantly higher for NEPA during the delayed phase for complete response, complete protection, and NSN and also during the overall phase for NSN. NEPA patients also experienced significantly less breakthrough nausea & vomiting on Days 3-5 post-chemotherapy. In the subset of patients receiving the highest doses of cisplatin chemotherapy, these differences favoring NEPA were amplified.

IMPLICATIONS FOR PRACTICE

The current antiemetic guidelines consider all NK_1 RAs as interchangeable. This is due to the lack of controlled comparative clinical trials; however, the outcome differences favoring NEPA shown in this pooled analysis may question this assumption.