# H2-antagonists for prevention of taxane infusion reactions: are they required?

Kimberley-Ann Kerr[1,2,3], Huda Binte Ryaz Patel[4], Angela Shum[5], Kirsty Tait[1,2,5], Chen-Yao Hung[1,2,], Christopher Hocking[1,4]

1. Lyell McEwin Hospital, Elizabeth Vale, South Australia, 2. SA Pharmacy, 3. Digital Health SA, 4. University of Adelaide, 5. University of South Australia

## Background

- Taxane-based chemotherapy is used in the treatment of multiple malignancies
- Due to the high risk of hypersensitivity reactions, product information for paclitaxel and cabazitaxel recommends pre-medication with antihistamine, corticosteroid and H2-antagonist
- In September 2019, ranitidine became unavailable due to possible contamination. Prior to routine availability of alternate H2-antagonists our unit administered taxane chemotherapy without H2-antagonists. This practice has continued for weekly paclitaxel and 3-weekly cabazitaxel protocols

## Aims

- To determine if the rate or severity of taxane infusion reactions changed following removal of ranitidine as a standard pre-medication within our institution

## Method

- A retrospective review of case notes was conducted of all patients who received weekly paclitaxel or 3-weekly cabazitaxel for one year preceding unavailability of ranitidine (August 2018 to August 2019) and one year post unavailability (October 2019 to October 2020
- Case notes were reviewed for the first three cycles of all patients who received weekly paclitaxel  and all cycles for patients who received cabazitaxel

## Results

- 191 patients received 593 infusions of weekly paclitaxel or 3-weekly cabazitaxel
- No patient receiving cabazitaxel experienced an infusion reaction
- No patient experienced more than one reaction

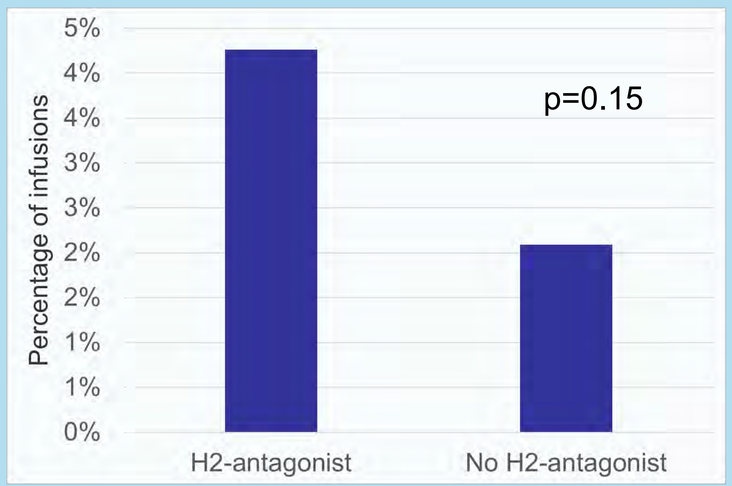


Figure 1: Infusion reactions

| Characteristic | H2-antagonist (n=258) | No H2-antagonist (n=335) |
|---|---|---|
| Paclitaxel | 243 (94%) | 290 (87%) |
| Cabazitaxel | 15 (6%) | 45 (13%) |
| | | |
| Monotherapy | 114 (44%) | 170 (51%) |
| Combination therapy | 144 (56%) | 165 (49%) |

Table 1: Patient characteristics

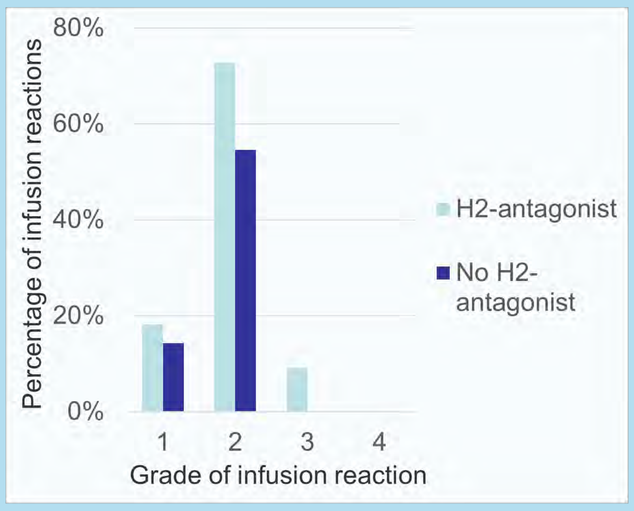


Figure 2: Grade of Infusion Reactions

## Conclusion

- We observed no increase in the rate of infusion reactions with weekly paclitaxel and 3-weekly cabazitaxel despite cessation of routine H2-antagonists administration
- **Our study suggests patients may be able to safely receive these treatments without routine H2-antagonist**

For more information

Kimberley-Ann Kerr
Pharmacy Analyst
Kimberley-Ann.Kerr@sa.gov.au

https://au.linkedin.com/in/Kimberley-ann-kerr-266a20214

@kahkerr

Government of South Australia
SA Health
SA Pharmacy