

An Investigation to Measure the Frequency of the Occurrence of Interactions Between Enzalutamide and Abiraterone with Other Medications

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Background This project studies the interactions found in patients commencing Enzalutamide (ENZ) or Abiraterone (ABI) for metastatic prostate cancer in a large secondary care hospital. These medicines are both substrates of, and inhibitors/inducers of, many cytochrome p450 enzymes, leading to numerous interactions with other medications. The cohort of patients treated with these drugs is often elderly, with co-morbidities leading to polypharmacy. At this trust, drug histories for patients on ENZ or ABI are carried out by oncology nurses. However, on occasion interactions between these drugs and other medications are unnoticed and significant interactions leading to incident reports have been recorded as a result.

Aims & Objectives Aim: An investigation to measure the co-prescription of Enzalutamide and Abiraterone with other interacting medications.

Objectives:

- To record the number of interactions found between ENZ/ABI with other medications
- To record the severity of any interactions found.
- To investigate whether any action was taken to prevent/resolve interactions.

Methods Retrospective review of electronic nurse records was undertaken to obtain a list of regular home medications for patients starting treatment within a 6 month period using the trust electronic prescribing system. These medications were entered into the Cancer Drug Interaction Checker against the relevant chemotherapy drug. Any interactions were recorded along with the severity and the recommended adjustment. Clinical documentation was used to investigate any amendments made where an interaction was found. Data was collected between 1/4– 31/10/2020. This audit was approved by the departmental audit & research group.

Results & Discussion Of the 50 patients in this audit, 39 patients were found to have at least 1 potential interaction between their chemotherapy and regular medications, yet on only 4 occasions was a patient flagged to the pharmacist on suspicion of a drug interaction. For ENZ, 93 interactions (64 severe) were found with 29 different medications. Thirty patients were prescribed at least one medication with a severe interaction. For ABI, 5 interactions were found, none of which were graded as severe. The difference in number of interactions between ABI and ENZ can be attributed to the smaller number of patients on ABI (7) compared to ENZ (43) but there is also a smaller number of documented potential interactions with ABI (375) vs ENZ (566 drugs). It was also found that documentation of medication histories is an area that requires improvement. Spelling errors, omissions and a lack of specificity all contributed to unreliability of the medication history in nursing notes and may have impacted the results found in this audit.

Rank	Drug interaction with ENZ	Severity	Frequency
1	Paracetamol	Weak	11
2	Tamsulosin	Severe	8
3	Lansoprazole	Severe	7
4.5	Naproxen	Moderate	6
4.5	Omeprazole	Severe	6

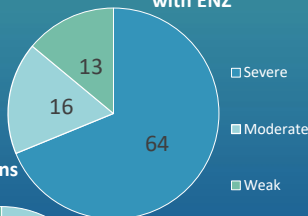
Table 1: Ranking of most frequent interacting medications with ENZ found in this audit.

Conclusion Further improvements to the medication history process are necessary. This would improve patient safety and patient-centred care throughout treatment. A consideration could be to have more pharmacist-focused involvement when conducting and documenting medication histories. Pharmacists are more thoroughly trained on how to conduct an in-depth medication history as well as having the expertise to take action where required. This increases the likelihood of significant interactions being identified, reducing harm to patients.

Reference:

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Frequency of Interactions with ENZ



Frequency of Interactions with ABI

