

ADJUVANT ANALGESICS INTERACTIONS: HOW TO MANAGE PAIN IN PATIENTS RECEIVING ORAL THERAPY FOR BREAST CANCER TREATMENT



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Background and Importance:

Pain is an unpleasant sensory and emotional experience associated, or similar to that associated, with actual or potential tissue damage. [1] This is a dominant symptom in cancer patients and affects their day-to-day life. The World Health Organization published an analgesia implementation model consisting of three levels. [2] This model includes adjuvant analgesics, which are drugs marketed for indications other than pain, very useful when associated with opioid therapy.

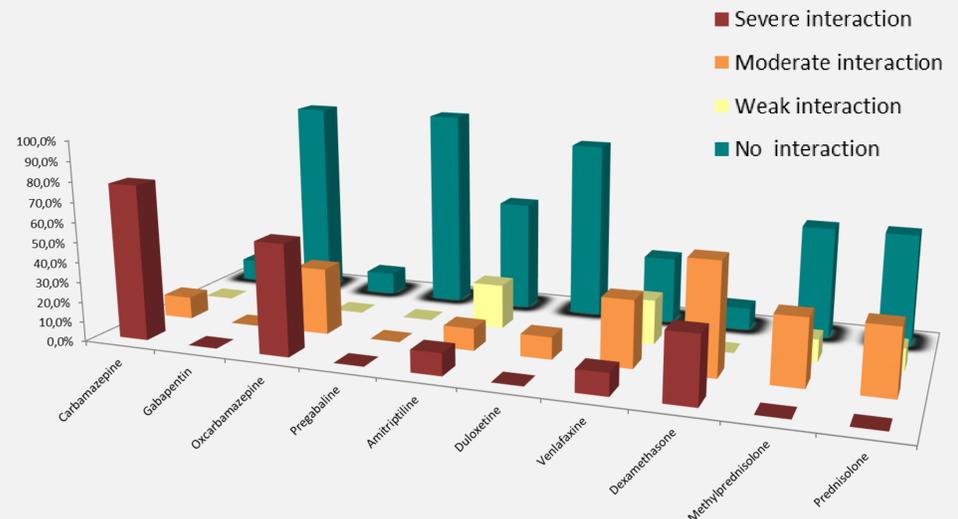
Aim and objectives:

The aim of the study was to collect and analyze the drug interactions that exist in the concomitant use of adjuvant analgesics used to control pain in patients with breast cancer undergoing oral therapy, in Braga Hospital.

Material and methods:

A list of adjuvant analgesics and oral medications used in the treatment of breast cancer was drawn up. The adjuvant analgesics studied were carbamazepine, gabapentin, oxcarbazepine, pregabalin, amitriptyline, duloxetine, venlafaxine, dexamethasone, methylprednisolone and prednisolone. The oral breast cancer drugs were abemaciclib, capecitabine, everolimus, lapatinib, olaparib, palbociclib, ribociclib, tucatinib and vinorelbine. Cancer Drugs Interaction, Drugs.com and Lexicomp® were consulted and the interactions were collected, evaluated and divided into four groups: 1) severe interaction, 2) moderate interaction, 3) weak interaction and 4) no known interaction. Tables were created and analgesic adjuvants interaction rates were calculated.

Results:



Graph 1: Interaction rate (%) of adjuvant analgesics

	ABEMACICLIB	CAPECITABINE	EVEROLIMUS	LAPATINIB	OLAPARIB	PALBOCICLIB	RIBOCICLIB	TUCATINIB	VINORRELBINE
CARBAMAZEPINE	Severe	No interaction	Severe	Severe	Severe	Severe	Severe	Severe	Moderate
GABAPENTIN	No interaction								
OXCARBAZEPINE	Moderate	No interaction	Severe	Severe	Severe	Severe	Severe	Moderate	Moderate
PREGABALIN	No interaction								

Table 1: Anticonvulsants

	ABEMACICLIB	CAPECITABINE	EVEROLIMUS	LAPATINIB	OLAPARIB	PALBOCICLIB	RIBOCICLIB	TUCATINIB	VINORRELBINE
AMITRIPTILINE	Weak	Weak	No interaction	Moderate	No interaction	No interaction	Severe	No interaction	No interaction
DULOXETINE	No interaction								
VENLAFAXINE	No interaction	Weak	Weak	Moderate	No interaction	Moderate	Severe	Moderate	No interaction

Table 2: Antidepressants

	ABEMACICLIB	CAPECITABINE	EVEROLIMUS	LAPATINIB	OLAPARIB	PALBOCICLIB	RIBOCICLIB	TUCATINIB	VINORRELBINE
DEXAMETHASONE	Moderate	No interaction	Severe	Severe	Severe	Moderate	Moderate	Moderate	Moderate
METHYLPREDNISOLONE	No interaction	No interaction	No interaction	Moderate	No interaction	Weak	Moderate	Moderate	No interaction
PREDNISOLONE	No interaction	No interaction	No interaction	Moderate	No interaction	Weak	Moderate	Moderate	No interaction

Table 3: Corticosteroids

Conclusion and relevance:

The study concludes that there are many severe, moderate and weak interactions to be taken into account when treating pain in patients undergoing oral therapy for breast cancer. Depending on the degree of interaction, the pharmacist may suggest replacing or closely monitoring these patients. These data reinforces the importance of the pharmacist as an element of the healthcare team, providing information in decision-making process and improving patient therapeutic outcomes.

References and/or acknowledgements:

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- <https://www.who.int/> (consulted in January 14, 2023)
- <https://extranet.infarmed.pt/INFOMED-fo/> (consulted in January 14, 2023)
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- <https://www.uptodate.com/drug-interactions> (consulted in January 22, 2023)

