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Efeito do uso de antidepressivos na redução de escores de depressão em mulheres com câncer de mama em tratamento com quimioterápicos antineoplásicos: Revisão Sistemática e metanálise

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**ABSTRACT** 

PRotocol for a sytematic review

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#### **Title**

1 Effect of the use of antidepressants on the reduction of depression scores in women with breast cancer undergoing treatment with antineoplastic chemotherapy: Systematic Review and meta-analysis

### **Original title**

2 Efeito do uso de antidepressivos na redução de escores de depressão em mulheres com câncer de mama em tratamento com quimioterápicos antineoplásicos: Revisão Sistemática e metanálise

#### Start date

**3** 08/01/2

### **Anticipated completion date**

4 10/15/23

## Stage of review at time of this submission.

**5** Preliminary searches:

Started: No

Completed: No

**6** Piloting of the study process:

Started: No

Completed: No

7 Formal screening of search results against eligibility criteria:

Started: No Completed: No

8 Data extraction:

Started: No Completed: No

9 Risk of bias (quality) assessment:

Started: No Completed: No

10 Data analysis:

Started: No Completed: No

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### Organisational affiliation of the review

14 Centro Universitario do Espirito Santo (UNESC)

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## Review team members and their organisational affiliations

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### **Funding sources/sponsors**

17 Centro Universitario do Espirito Santo (Scientific initiation scholarship).

#### **Conflicts of interest**

**18** None.

#### **Collaborators**

**19** None.

#### **Review question**

Are antidepressants effective for depressive symptoms caused by treatment with antineoplastic chemotherapy?

#### **Searches**

PubMED, CENTRAL, Embase and CINAHL databases will be used to search for articles. All terms related to depression, antidepressants, randomized clinical trials and breast cancer will be used in the search.

#### Condition or domain being studied

According to Inca (National Cancer Institute), breast cancer is a disease caused by the uncontrolled proliferation of abnormal breast cells, which form a tumor capable of invading and multiplying in other organs. This type of cancer is the most recurrent malignant disease among the female population. Among women with breast cancer, about 40% have a depressive condition and about 10 to 25% are diagnosed with major depression (CALLARI, 2013).

Depression is a chronic psychiatric illness, marked by mood swings, such as anguish, sadness and lack of interest. Depression is the psychiatric disorder that most prevails in cancer patients, being a limiting factor in the therapeutic process of cancer, due to the difficulty of accurate diagnosis and the high hospitalization of patients, thus reducing adherence to chemotherapy treatment.

### Participants/population

Inclusion: women with breast cancer diagnosed with depression undergoing chemotherapy treatment; Exclusion: women with breast cancer, without diagnosis of depression; children; men.

## Intervention(s), exposure(s)

24 Patients with breast cancer and diagnosed with depression, who start the administration of antidepressants during the chemotherapy process with antineoplastic agents, are subject to drug

reactions that can be harmful to said organisms. Considering that there are restrictions on the use of some antidepressants in line with breast cancer therapy, as they compromise the action of chemotherapy drugs, this work aims to verify the effectiveness of this joint treatment in women with such a pathology, evaluating the possible drug reactions and the its adverse effects when associated with chemotherapy.

#### **Comparator(s)/control**

Not applicable.

#### Types of study to be included

We will include all randomized clinical trials that used depression scores in the evaluation of treatment of depressive symptoms in women with breast cancer.

#### Context

Articles/studies that discuss depression and its treatment with antidepressants, breast cancer and its psychological effects, chemotherapy and its effects. Surveys done in other countries will also be used.

#### Main outcome(s)

The main objective of this research is to show the effects of antidepressants in reducing depression scores in women with breast cancer undergoing chemotherapy.

#### Additional outcome(s)

List the most effective antidepressants for these cases and discuss the effect of breast cancer and its treatment on the patients' psychology.

#### Data extraction (selection and coding)

After selecting the articles, the titles and abstracts will be analyzed by 2 evaluators for selection, and in case of disagreement, a third evaluator will judge the inclusion or exclusion. After selecting the articles, the data will be manually extracted and analyzed by a meta-analysis using the Revision Manager 5.4 ® software. The heterogeneity between the results will also be evaluated, and the final result will be expressed in Confidence Intervals (CI95%) and graphically through the forest plot. The risk of bias analysis will be performed using the RoB 2.0 tool, and the writing will follow the PRISMA criteria. If possible, subgroup analyzes will be performed for each class of antidepressants.

All data from all steps will be stored.

#### Risk of bias (quality) assessment

**31** RoB2

#### Strategy for data synthesis

The formal method of combining individual study data including, as applicable, information about statistical models that will be fitted (e.g. risk ratios for individual studies will be combined using a random effects meta-analysis) or methods of synthesising qualitative data.

## Analysis of subgroups or subsets

33 If there is a need for subgroup analysis, a meta-regression will be performed.

## Type and method of review

34 Intervention.

#### Language

35 Portuguese - BR and English.

### Country

36 Brazil.

## Keywords

Antidepressant; Depression; Breast cancer; Depression scores; Chemotherapy; Medicines; Treatment; Women;

#### **Current review status**

initial: the review is being started with a search strategy for the analysis of articles and data relevant to the construction of the work.