

# Hypersensitivity to chemotherapeutic drugs for the treatment of neoplasms. Literature review

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**Conflict of interest:** none

**BACKGROUND.** Like any other drug, chemotherapy drugs can cause hypersensitivity reactions and are the third leading cause of drug-induced anaphylaxis deaths in the United States. Timely detection of hypersensitivity reactions to chemotherapeutic drugs in oncology is extremely important because, unlike other drugs (for example, antibiotics or anesthetics), which can be relatively easily replaced by others, chemotherapeutic drugs are often unique and indispensable for the treatment of neoplasms. In such situations, the doctor should evaluate the benefits of continuing treatment in comparison with the risk of a potentially fatal anaphylactic reaction when continuing chemotherapy with the drug that caused the development of hypersensitivity reactions, and also look for the possibility of replacing the chemotherapeutic drug that has become an allergen with another one.

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**OBJECTIVE.** Analysis of existing data on the etiology, pathogenesis, clinic, diagnosis and prevention of hypersensitivity reactions associated with chemotherapy drugs for the treatment of neoplasms.

**MATERIALS AND METHODS.** Search for available sources of information, their analytical processing and discussion of the obtained results.

**RESULTS.** To date, there is a lack of data and research on approaches to the diagnosis and treatment of patients with neoplasms and hypersensitivity reactions to chemotherapy drugs. Cases of hypersensitivity reactions to chemotherapeutic drugs require the creation of a multidisciplinary team consisting of allergists, oncologists and therapists to choose rational tactics for managing such patients. For the diagnosis of hypersensitivity reactions to chemotherapeutic drugs, the clinical and anamnestic method, skin, laboratory and, if necessary, provocation tests with drugs should be used. In order to treat and prevent the development of hypersensitivity reactions to chemotherapeutic drugs, premedication with corticosteroids and antihistamines, replacement of the allergen drug, and in case of impossibility of such replacement, desensitization with the allergen drug should be used.

**CONCLUSIONS.** The problem of the development of hypersensitivity reactions to chemotherapeutic drugs used for the treatment of patients with neoplasms is extremely important and requires further research.

**KEY WORDS:** neoplasms, chemotherapeutic drugs, hypersensitivity, clinical manifestations, diagnosis, premedication, desensitization, algorithm.