



COMMENTARY



## The Clinical Application and Pharmaceutical Treatment in Cancer Patients

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### Description

Pharmacology is a branch of medicine, biology, and pharmaceutical sciences that studies how drugs or medications work. More specifically, it is the study of how interactions between a living thing and chemicals impact whether biochemical activity is normal or pathological. Pharmacy is the science and technique of preparing and dispensing the drugs studied and produced by pharmacologists. The Pharmaceuticals are chemicals that have therapeutic qualities. The field includes molecular and cellular mechanisms, molecular diagnostics, interactions, chemical biology, medical applications, and antipathogenic properties.

Cancer pharmacology is crucial to the development of new medications. It has to adapt the evolving nature of drug development in both the laboratory and the clinic by developing experimental models and target-oriented methodologies. Any cancer treatment can be employed as the first line of defence; however surgery is the most popular primary cancer treatment for the most prevalent cancer forms. They might get one of those treatments as main course of treatment if cancer is highly susceptible to radiation therapy or chemotherapy.

When completely removing a tumour could harm an organ or the body, debulking is employed. Other therapies may be more effective if a part of the tumour is removed. Tumor removal is a typical cancer surgery procedure. This could also be referred to as Excision or Resection. The margin refers to the tissue that surrounds the tumour. In comparison to a biopsy, tumour removal typically necessitates a wider incision.

Cancer may be treated with radiotherapy before it spreads or after it has already done so. It can be used to increase the effectiveness of other treatments, such

as chemotherapy or surgery, or to try to totally cure the cancer by Curative radiation and Neo-adjuvant radiotherapy. The cancer is eradicated through radiation therapy. The benefit outweighs the little possibility that the treatment might lead to the development of a new cancer in the future. The patient does not continue to emit radiation following treatment sessions after receiving external beam radiation therapy.

Chemotherapy is a potent medicinal therapy that utilizes chemicals to kill rapidly proliferating cells in the body, particularly cancer cells, which reproduce at a faster rate than most normal cells. This therapy involves the use of numerous medications, collectively referred to as chemotherapy medications, which can be categorized into well-known groups such as alkylating agents, plant alkaloids, anti-metabolites, anthracyclines, topoisomerase inhibitors, and corticosteroids. Unlike radiation therapy, chemotherapy has a lower risk of harming dormant cells, such as normal cells. Its main objective is to eradicate cancer cells by targeting their rapid growth and multiplication. Therefore, chemotherapy is an important treatment option for cancer patients.

The major cause of chemotherapy's are the destruction to healthy cells in the bone marrow, digestive tract, and hair follicles of cells that divide quickly and are susceptible to anti-mitotic drugs. The side effects can be excruciating and include mouth sores, headaches, muscle and stomach pain, as well as burning, numbness, and tingling or shooting pains in the hands and feet.

A strategy for the detection and treatment of cancer is an essential part of any comprehensive cancer control strategy. Its primary objective is to either completely cure cancer patients or greatly extend their lives while ensuring a high quality of life.