# CURRENT RESEARCH TOPICS IN PHARMACY:

An Overview of Novelties in Cancer Treatment

**February 15th, 2024** 

# **FIRST SESSION** 10:00-11:30 AM

Moderator: Betül OKUYAN

Welcome Prof.Hatice Kübra ELÇİOĞLU

Natural products mediated targeting of deregulated signaling pathways for chemoprevention of carcinogenesis and metastasis Prof. Ahmed Ammad Faroogi

Mesoporous silica nanoparticles: A smart tool for biomedical applications Assoc.Prof.Fahima Dilnawaz

Phytosomes: A Dynamic Innovation in Cancer Treatment Assist. Prof. Dhanashree Sanap

### SECOND SESSION 13:00-14:30 PM

Moderator: Ceyda EKENTOK ATICI

Increased awareness of sex and gender as modulators of cancer risk and outcome is required among cancer researchers

Assoc.Prof.Berna Özdemir

Management of oral chemotherapyrelated problems in cancer patients Pharmacist Elif Aras Atik

Cervical Cancer Treatment and HPV Vaccination: Preventive Priority for Future Generations

Assist. Prof. Sneha Agrawal

## THIRD SESSION 15:30-17:00 PM

Moderator: Esra TATAR

Exploring new drug delivery avenues for targeted and localized cancer therapy through advanced nanotherapeutics

Assist.Prof.Monika Dwivedi

Plectranthus: A Valuable Source of Bioactive Compounds for Therapeutic Applications Assoc.Prof.Patricia Rijo

Targeted delivery of ligand-displaying exosomes using RNA nanotechnology for breast cancer Dr.Burcu Üner

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ONLINE SYMPOSIUM

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### MANAGEMENT of ORAL CHEMOTHERAPY-RELATED PROBLEMS

### Elif ARAS ATIKD\*

Department of Clinical Pharmacy, Faculty of Pharmacy, Hacettepe University, Ankara, Türkiye.

eczelifaras@gmail.com

\*Corresponding and presenting author

Advances in cancer treatment have led to new treatment options. Since 1953, oral chemotherapy has been used. The first oral chemotherapy agents were mercaptopurine and methotrexate, followed by capecitabine in 1998. In the early 2000s, approximately 5% of the treatments used were oral chemotherapy, in 2007 this rate was 17%. This rate is expected to reach approximately 30% soon. In the treatment of breast cancer, colorectal cancer, lung cancer, lymphoma, leukemia, multiple myeloma, kidney and prostate cancers, targeted drugs, hormonal chemotherapy, and conventional chemotherapy are frequently used alone or in combination.

When the mechanisms of oral chemotherapy drugs are examined, it is known that they act through 3 basic mechanisms: surface proteins, tumor biological pathways and receptor-targeted small molecule inhibitors. Capecitabine, busulfan and melphalan, among the conventional chemotherapy drugs, can be shown among the drugs frequently used orally in the clinic. Gefitinib, imatinib, erlotinib and sunitinib was among the first oral agents to be used as a targeted agent.

Since patients using oral chemotherapy take their medication at home. The frequency of doctor's visits sometimes varies according to the re-prescription of the medication, the patient has less under the supervision of health professionals than the patient using intravenous medication, and this leads to the patient having an important role in the management of his/her treatment. Among the advantages of oral chemotherapy; are being comfortable and easy to apply, taking the drug at home, the patient's self-management, lack of problems related to the use of venous catheter, low toxic effect, effect on quality of life, cost-reducing aspect, increased participation in daily and social activities, and reduction of personnel allocation for the patient receiving inpatient treatment in the clinic.

Toxic effects due to wrong and inappropriate drug use, failure to ensure safety in antineoplastic drug administration by the patient and his family (exposure to waste), food interactions (inability to adjust the usage interval of the drug) and drug interactions (increase in polypharmacy drug use due to other accompanying diseases) are among the disadvantages of oral chemotherapy.

Access to medicine, compliance problems, polypharmacy, drug interactions, nutrient interactions, safe drug use and adverse effect problems are among the common problems encountered in the use of oral chemotherapy.

Strategies that can be applied to properly manage the problems that arise during the use of oral chemotherapy include: treatment dosage schedules should be given to all patients clearly and understandably, they should be taught what to do in case of missing a dose or vomiting, they should be educated about heat, light and storage conditions, all prescription and non-prescription medications, vitamins, supplements and alternative treatment products should be checked by the pharmacist for interactions.

**Keywords:** Cancer; oral chemotherapy; problems; management.

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