

AMC Health Systems and Cancer Research Division

Cancer Blood Skin Effects and Other Health-Related Issues During Cancer Treatment

Empowering Patients to Navigate Wellness During and After Oncology Care

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1. Introduction

When undergoing treatment for cancer, patients often have questions beyond the direct effects of the disease and its therapies. Common concerns include vaccinations, alcohol consumption, exposure to infectious individuals, smoking cessation, and coordination with non-oncology healthcare providers. Addressing these issues holistically supports improved quality of life and optimizes treatment outcomes.

2. Vaccinations and Cancer Treatment

2.1 Annual Influenza Vaccine

The influenza (flu) vaccine is strongly recommended for individuals undergoing cancer treatment. Because cancer and its therapies often weaken the immune system, contracting the flu can lead to more severe complications, prolonged illness, and hospitalization. While the flu shot does not guarantee full protection, it significantly reduces symptom severity and likelihood of infection.

The flu shot should ideally be received between October and November. However, vaccination as late as January is still beneficial. Immunity generally develops within two weeks and lasts throughout the flu season. Patients should encourage household members to be vaccinated to reduce the risk of transmission. The traditional flu shot is safe for cancer patients, but the nasal spray version (FluMist), a live vaccine, is not advised unless approved by a healthcare provider.

Patients should not receive the flu vaccine if they are allergic to eggs, have a history of Guillain-Barré syndrome, or are currently febrile. The vaccine may be postponed if a patient's white blood cell count is critically low.

2.2 Pneumococcal Vaccine

The pneumococcal vaccine (Pneumovax) protects against *Streptococcus pneumoniae*, a bacterium responsible for severe pneumonia, particularly in immunocompromised patients. Unlike the flu shot, the pneumococcal vaccine is administered once, with a possible booster after five years.

Patients undergoing treatment for Hodgkin's lymphoma or bone marrow transplantation must consult their oncologist about appropriate timing. Side effects include mild fever,

muscle aches, and injection-site soreness. Like the flu vaccine, it can be administered in tandem with other vaccines, provided each is given in a different arm.

3. Exposure to Recently Vaccinated Individuals

Certain childhood vaccines—particularly varicella (chickenpox) and the intranasal flu vaccine—are live attenuated vaccines. Though rare, live vaccines can potentially transmit viruses to immunocompromised individuals.

Cancer patients should consult their care team regarding exposure to recently vaccinated children. Most inactivated vaccines pose no risk of transmission. When in doubt, refer to CDC guidelines (www.cdc.gov/vaccines) or your local health department.

4. Continuing Care with Other Healthcare Providers

Cancer patients should maintain communication with their primary care providers, dentists, gynecologists, and other specialists during treatment. Routine health maintenance, such as mammograms, colonoscopies, Pap smears, dental checkups, and management of chronic conditions (e.g., diabetes, hypertension), should be integrated into the oncology treatment timeline.

Before any procedure or appointment—especially dental work—patients must inform their oncologist. Some interventions may need to be postponed or supplemented with antibiotics or lab tests (e.g., complete blood counts) to reduce risk.

Shared decision-making between oncologists and general practitioners is essential to avoid redundancy in diagnostics and reduce patient costs.

5. Alcohol Consumption During Treatment

There is no universal prohibition against alcohol for cancer patients. Light to moderate drinking may be permissible depending on the patient's type of cancer, treatment regimen, and overall health.

However, alcohol can interfere with drug metabolism, increase liver burden, and irritate the stomach—particularly when combined with chemotherapy, antibiotics, or pain medication. It may also impair nutritional absorption. Patients should always consult their oncologist before consuming alcohol, and should err on the side of caution.

6. Smoking and Cancer

Smoking remains one of the most detrimental behaviors for anyone, but especially for cancer patients. Smoking impairs lung function, compromises healing, and increases the risk of complications from surgery, chemotherapy, and radiation therapy.

In addition to lung cancer, smoking raises the risk of cancers of the mouth, throat, pancreas, cervix, bladder, stomach, and blood (leukemia). Studies have shown that patients who quit smoking after a cancer diagnosis live longer than those who continue to smoke.

6.1 Quitting Support and Medications

Quitting is not easy, and many patients are addicted to nicotine. Several treatment options can support smoking cessation:

- **Nicotine Replacement Therapy (NRT):** Includes gum, patches, lozenges, inhalers, and sprays. These products are available over the counter or by prescription.
- **Medications:** Bupropion (Zyban) and Varenicline (Chantix) can help manage withdrawal symptoms. These drugs are often most effective when combined with NRT and behavioral therapy.
- **Support Groups and Behavioral Programs:** Many hospitals and cancer centers offer cessation programs. Resources include:
 - American Cancer Society: www.cancer.org (800-227-2345)
 - American Lung Association: www.lungusa.org (800-586-4872)
 - QuitNet: www.quitnet.com

Patients with cardiovascular conditions must consult a physician before using NRT, as nicotine can exacerbate heart conditions.

7. Conclusion

Navigating health maintenance during cancer treatment requires ongoing vigilance and coordination with healthcare providers. Vaccinations, smoking cessation, responsible alcohol consumption, and continuing primary care are essential components of a patient's health plan. Empowered with accurate information and guided by their care teams, cancer patients can safely engage in these health-related decisions to optimize both longevity and quality of life.

2. Conclusion

Neurologic, fluid-related, and blood chemistry complications are complex but manageable aspects of cancer care. Early identification, appropriate medical interventions, and supportive therapies play a pivotal role in mitigating their impact. Patient education, multidisciplinary care, and personalized follow-up are key to ensuring better outcomes and enhanced quality of life.

7. Recommendations

- Centers for Disease Control and Prevention (CDC). Influenza Vaccine Information: www.cdc.gov/flu
- CDC Vaccine Schedules: www.cdc.gov/vaccines
- American Cancer Society. Smoking and Cancer: www.cancer.org
- American Lung Association: www.lungusa.org
- National Institutes of Health (NIH) MedlinePlus: Alcohol and Cancer