

Background

- Patients who are being treated for cancer may be at increased risk of COVID-19 related hospitalizations and more severe outcomes¹
- Healthcare professionals play a vital role in the education and selection of COVID-19 prevention strategies for patients with special treatment considerations
- By encouraging adequate prevention of COVID-19, providers can reduce delays in cancer treatment

Objective

- To summarize the current literature on COVID-19 prevention in cancer patients
- To discuss appropriate sources healthcare providers can use to aid in clinical decisions making regarding cancer patients and COVID-19

Methods

- A literature search was conducted using PubMed electronic database and cancer organization information
- Information was analyzed for accurate and up-to-date COVID-19 guidance in October 2022
- The most common themes, ideas, and interventions found were included and summarized in this review

Discussion

Prevention

- According to the National Comprehensive Cancer Network (NCCN), adults and teens over the age of 12 with weakened immune systems should receive a series of 3 vaccine doses with 1 bivalent booster shot. The mRNA vaccines from Moderna and Pfizer-BioNTech are recommended for both the primary series and boosters²
- A fourth vaccine dose increases humoral immunity against omicron variants in patients with cancer³
- COVID-19 vaccinations can be given without regard to timing of other vaccines (except those receiving an Orthopoxvirus vaccine)²
- Patients should wait 3 months after they finish therapy to get vaccinated if they are currently undergoing any stem cell transplant or cellular therapy such as CAR T-cell or NK cell therapies²
- Vaccination should be delayed until neutrophil recovery for patients with hematologic malignancy who are undergoing intensive chemotherapy²
- After a major surgery patients should wait a few days to up to 2 weeks to get vaccinated²
- If possible, patients should complete vaccination for COVID-19 at least 2 weeks before starting chemotherapy⁴
- Health care professionals in the US can find up to date guidance on COVID-19 vaccinations for cancer patients from the following sources: NCCN, NIH, CDC, and ASCO
- Patients at high risk for COVID-19 complications may be eligible to receive a long-acting monoclonal antibody combination of Tixagevimab plus Cilgavimab (Evusheld) for pre-exposure prophylaxis²
- Evusheld may be used in certain adults or pediatric individuals (12 years of age and older weighing at least 40 kg) as an extra layer of protection on top of vaccination for moderately or severely immunocompromised patients⁵
- Evusheld is given by healthcare professionals initially as 2 consecutive intramuscular injections (preferably one in each of the gluteal muscles) at least 2 weeks after COVID-19 vaccinations. Repeat doses can be timed every 6 months⁶⁻⁷
- Patients should be clinically monitored for 1 hour following administration of Evusheld. Cardiac risk factors and prior history of cardiovascular disease should be assessed prior to administration due to the risk of myocardial infarction and cardiac failure serious adverse event⁶

Conclusion

- The first line of COVID-19 prevention for cancer patients is adequate vaccination involving a series of 3 vaccine doses and a bivalent booster protecting against Omicron variants
- Considerations for timing of COVID-19 vaccines include stem cell transplants, cellular therapy, neutrophil count, major surgery, or chemotherapy cycles
- Pharmacists can serve as a reference to community oncology teams regarding COVID-19 prevention

References

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