



Oncology Nursing Society

125 Enterprise Drive • Pittsburgh, PA 15275-1214
Toll Free: 866-257-4ONS • Phone: 412-859-6100 •
Fax: 412-859-6165
help.ons.org • www.ons.org

ONS Recommendations for Administration of Monoclonal Antibodies for COVID-19 Positive Patients

On November 9, the U.S. Food and Drug Administration issued an Emergency Use Authorization (EUA) for [bamlanivimab](#), a humanized monoclonal antibody to treat mild to moderate COVID-19. Monoclonal antibodies have long been used for their ability to mimic antibodies and enhance an immune response in the management of malignant and autoimmune conditions (Olsen et al., 2019). Other monoclonal antibodies continue to be explored, and clinicians anticipate EUA for additional monoclonal antibodies for the management of COVID-19. Use of monoclonal antibodies for the management of mild to moderate COVID-19 will require a careful and deliberate interprofessional collaboration of providers, nurses, pharmacists, administrators, infection control experts, and others. Administrative decisions about how and where these agents will be administered to COVID-19 positive patients need to account for the following:

- People with a cancer diagnosis are considered a vulnerable population at risk for more serious consequences if infected with COVID-19 (Kuderer et al., 2020).
- Monoclonal antibodies should be administered by RNs who have specialized knowledge, training, and clinical experiences outlined in institutional policies and procedures (Neuss et al., 2017).

For these reasons, factors that contribute to the safety of patients and staff surrounding monoclonal antibody administration pertain to training and staffing requirements, drug administration considerations, and environmental safety.

Training and Staffing Requirements

Monoclonal antibody administration typically requires a specialized subset of RNs who have completed dedicated training in the administration of these agents. In some instances, this training may be met by completion of antineoplastic training programs and the issuance of an ONS chemotherapy provider card, but this is not an absolute requirement because monoclonal antibodies are administered for a number of non-oncologic indications. [ONS recommends](#) that staff who will be responsible for the administration of a monoclonal antibody undergo training that includes the following:

- Infusion procedures
- Drug/dose verification procedures
- Monitoring considerations
- Anticipated side effects
- Procedures for safe handling and disposal

Staffing provisions need to account for the high vulnerability of patients with compromised immune systems in proximity to COVID-19 positive patients. As administrators face questions concerning staffing

models for the infusion of monoclonal antibodies for COVID-19 treatment, ONS recommends the following:

- Nurses caring for patients who are neutropenic should not have contact with patients with suspected or confirmed COVID-19 infection. This would mean that RNs designated to administer these agents to COVID-19 patients should not also be caring for patients with immunosuppression or others who are known to be more vulnerable to complications from a COVID-19 infection.
- Patients with a known COVID-19 diagnosis should be cared for by a designated cohort of nurses to prevent the risk of cross-contamination throughout the nursing staff.
- Policies should be put in place to prevent nurses caring for patients who are neutropenic from floating to areas that have known or suspected cases of COVID-19 and returning to care for immunocompromised patients.

Drug Administration Considerations

Despite limited experiences with bamlanivimab and other monoclonal antibodies that may receive EUA for COVID-19 specifically, prior experiences with similar humanized monoclonal antibodies suggest that certain clinical practices and institutional provisions optimize safety during administration and the postadministration monitoring period. ONS recommends the following:

- Two professionals deemed competent in the administration of monoclonal antibodies are present to have independent verification of patient identification, dose name and dose, and the route and rate of administration (Neuss et al., 2017).
- Emergency management order sets are in place to manage hypersensitivity and other infusion reactions that are associated with monoclonal antibodies.
- A crash cart is immediately available in the event of a medical emergency.
- Institutions where monoclonal antibodies are administered have the clinical infrastructure to do so, which would include basic life support–trained staff, as well as the ability to administer emergency drugs and oxygen, and access to emergency care.

Environmental Safety

As we learn more about COVID-19, the importance of environmental considerations in the reduction of infection transmission becomes paramount. ONS recommends that the [Centers for Disease Control and Prevention](#) (CDC) serve as the main point of reference for determining environmental requirements of facilities in which COVID-19 patients will be treated. Considerations may include the following:

- Preferably isolate COVID-19 positive patients in a designated location away from noninfected patients.
- Schedule COVID-19 positive patients for the end of the day, with strict cleaning implemented prior to any other patients being treated in the space.
- Because monoclonal antibodies and new drugs often meet the criteria to be considered a hazardous drug (National Institute for Occupational Safety and Health, 2016), make

considerations for the appropriate handling of the agent and tubing, as well as the disposal of the drug following administration. ONS recommends wearing two pairs of chemotherapy-tested gloves when administering or handling monoclonal antibodies.

ONS has created a COVID-19 landing page with resources and links specific to CDC recommendations, personal protective equipment use, patient care and support, nursing practice resources, and nursing self-care during the COVID-19 pandemic. Refer to this landing page for other helpful information and recommendations for clinical practice.

References

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