



Preparing Health Centers to Administer Outpatient COVID-19 Monoclonal Antibodies

Bureau of Primary Health Care (BPHC)

Tuesday, December 22, 2020

Vision: Healthy Communities, Healthy People



Session Overview

AGENDA

- **Opening Remarks**
Jim Macrae, Associate Administrator
Bureau of Primary Health Care (BPHC)
- **COVID-19 Response mAb**
CAPT David Wong, MD
Operation Warp Speed - Therapeutics
- **Health Center Experience**
Rebecca Hanratty, MD, Denver Health
Sarah Rall, PharmD. Marshfield Clinic Health System
- **Q&A**
- **Final Comments and Close**



Opening Remarks



James Macrae
Associate Administrator
Bureau of Primary Health Care (BPHC)

COVID-19 Response - mAb



CAPT David Wong, MD
Operation Warp Speed (OWS)
Therapeutics



COVID-19 Outpatient Therapeutics: Monoclonal Antibodies

CAPT DAVID WONG, MD

DECEMBER 22, 2020

Context

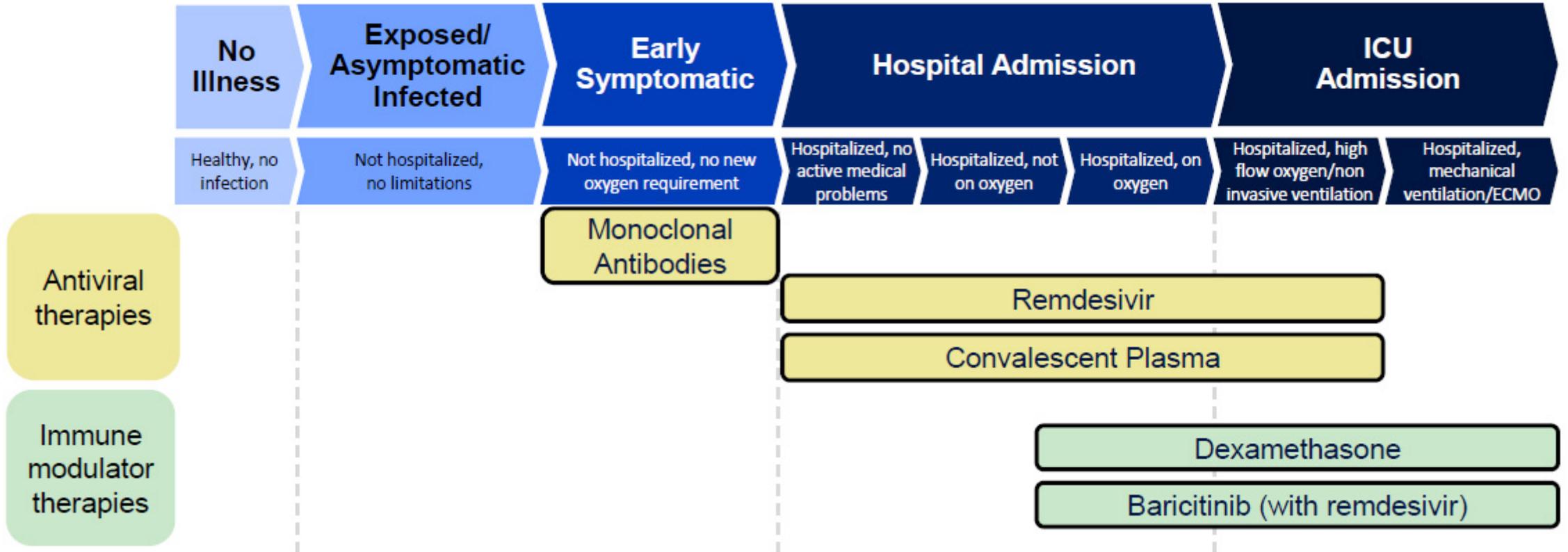
- **EUAs issued for bamlanivimab (Eli Lilly and Company) on Nov 9, 2020**
- **EUA issued for casirivimab/imdevimab (Regeneron Pharmaceuticals) on Nov 21, 2020**
- **Health equity implications**
 - **Product access**
 - **Capacity of healthcare facilities to administer monoclonal antibodies (mAbs)**

Topics for today

- **Overview** of monoclonal antibodies (mAbs)
 - Focus on bamlanivimab
- **Preparing HCs** for administering mAbs
- **Allocation and distribution**
 - State-based allocation
 - Special Projects for Equitable and Efficient Distribution (SPEED)
- **Reimbursement**

Therapeutics Depend on Stage of COVID-19 Illness

Objective: Optimize therapeutic use to prevent or shorten hospitalizations



Source: <https://www.covid19treatmentguidelines.nih.gov/therapeutic-management/>; Coronavirus disease 2019 (COVID-19): Management in hospitalized adults – UpToDate

Phase 2 Trial Results: Bamlanivimab in Outpatients with Covid-19

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

SARS-CoV-2 Neutralizing Antibody LY-CoV555 in Outpatients with Covid-19

Peter Chen, M.D., Ajay Nirula, M.D., Ph.D., Barry Heller, M.D.,
Robert L. Gottlieb, M.D., Ph.D., Joseph Boscia, M.D., Jason Morris, M.D.,
Gregory Huhn, M.D., M.P.H.T.M., Jose Cardona, M.D., Bharat Mocherla, M.D.,
Valentina Stosor, M.D., Imad Shawa, M.D., Andrew C. Adams, Ph.D.,
Jacob Van Naarden, B.S., Kenneth L. Custer, Ph.D., Lei Shen, Ph.D.,
Michael Durante, M.S., Gerard Oakley, M.D., Andrew E. Schade, M.D., Ph.D.,
Janelle Sabo, Pharm.D., Dipak R. Patel, M.D., Ph.D., Paul Klekotka, M.D., Ph.D.,
and Daniel M. Skovronsky, M.D., Ph.D., for the BLAZE-1 Investigators*

All study-patients, Hospitalization or ED visit within 29 days of administration

- Treatment group (n=309), 1.6%
- Placebo group (n=143), 6.3%
- **Number needed to treat (NNT) to avoid hospitalization/ED = 21.3**

Study-patients with BMI ≥ 35 or Age ≥ 65 , Hospitalization/ED within 29 days

- Treatment group (n=95), 4.2%
- Placebo group (n=48), 14.6%
- **NNT = 9.6**

Chen P, et al, for the BLAZE-1 Investigators. SARS-CoV-2 Neutralizing Antibody LY-CoV555 in Outpatients with Covid-19. *N Engl J Med*. Oct 28, 2020. DOI:10.1056/NEJMoa2029849

Bamlanivimab EUA – Eligibility Criteria

- All Patients (who meet at least 1 of the following criteria):
 - BMI \geq 35
 - Chronic kidney disease
 - Diabetes
 - Immunosuppressive disease
 - Receiving immunosuppressive treatment
 - Age \geq 65 years
 - Age \geq 55 years AND have any of the following
 - Cardiovascular disease
 - Hypertension
 - COPD/other chronic respiratory disease
- Adolescents (Age 12-17 years) who meet at least 1 of the following criteria:
 - BMI \geq 85th percentile for age/gender
 - Sickle cell disease
 - Congenital or acquired heart disease
 - Neurodevelopmental disorders (e.g. cerebral palsy)
 - Medical-related technological dependence [e.g., tracheostomy, gastrostomy, or positive pressure ventilation (not related to COVID-19)]
 - Asthma, reactive airway, or other chronic respiratory disease that requires daily medication for control

About Bamlanivimab

EUA authorizes use of Bamlanivimab for treatment of high-risk COVID-19 outpatients (ages ≥ 12 y/o, weight ≥ 40 kg) with mild-to-moderate symptoms at risk for progressing to severe disease/hospitalization

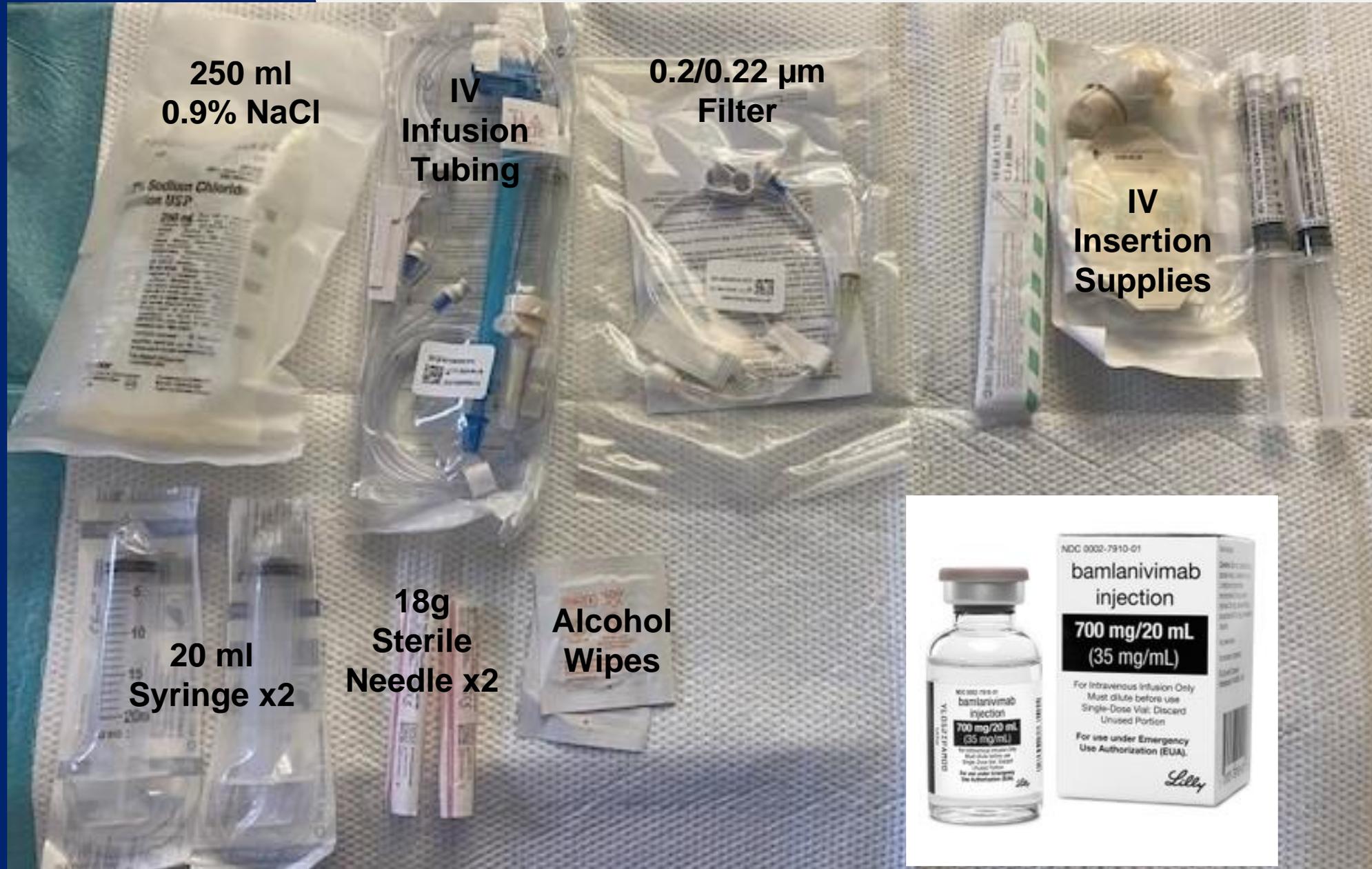
- 1 Direct SARS-CoV-2 test (e.g., PCR, rapid antigen test) must be positive
- 2 Administer as soon as possible after positive test result and within 10 days of symptom onset
- 3 Provider reviews Fact Sheet for Healthcare Providers
- 4 Discuss and provide copy of Fact Sheet for Patients, Parents, and Caregivers
- 5 Administer in setting where HCPs have immediate access to meds to treat severe infusion reactions (e.g., anaphylaxis) and ability to activate EMS
 - Infusion time: At least 60 minutes
 - Post-infusion monitoring: 60 minutes, visual observation and symptom check

Bamlanivimab

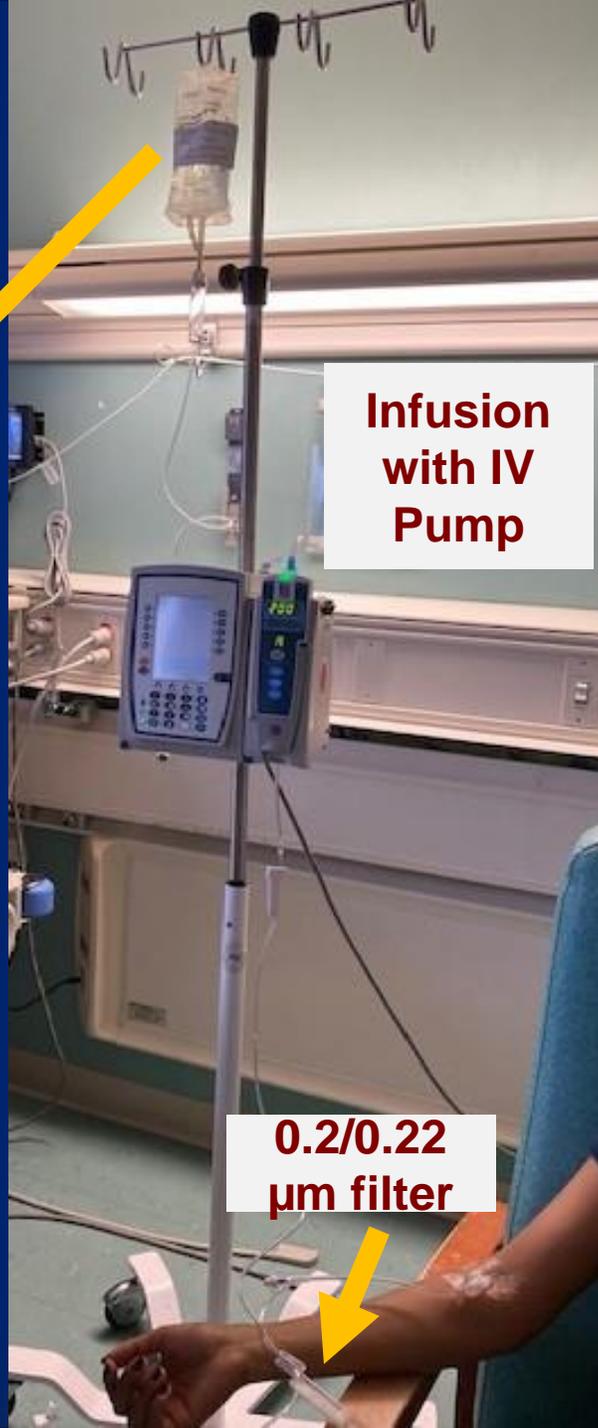
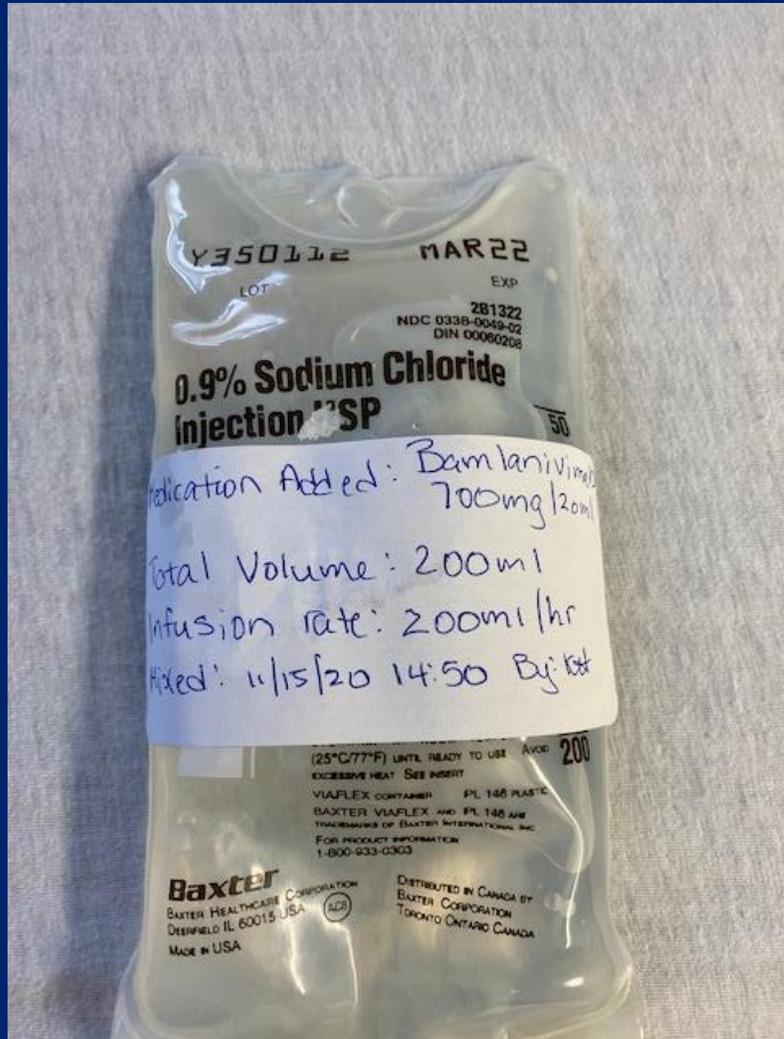
Dosing and Characteristics

Characteristics	Requirements
Dose	700mg in 270mL 0.9% NaCl IVPB over at least 60 minutes (PVC infusion set with 0.20/0.22 micron filter)
Monitoring	Monitor during infusion (no specified interval) and for 1 hour after completion
Storage Requirements	700mg/20mL vial – store in original carton to protect from light at 2-8°C; do not freeze, shake, or expose to direct light or heat
Stability Once Reconstituted	24 hours at 2-8°C OR up to 7 hours (including infusion time) at room temperature
Required Chart Documentation	<ul style="list-style-type: none"> - That patient/caregiver has been given fact sheet - Informed patient of treatment alternatives to bamlanivimab - Inform patient that bamlanivimab is an unapproved drug used under the auspices of EUA
Adverse Effects (in ≤3% of pts)	Hypersensitivity reactions, nausea, diarrhea, dizziness, headache, pruritis, vomiting

Infusion Supplies



Infusion Setup

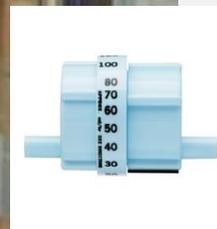


Gravity Infusion

- Utilize flow limiting device or
- Calculate drip rate (see p. 18 of Lilly playbook)

Solution Stability

- 7 hours at room temperature, including infusion time
- 24 hours at 2-8°C



Key Resources:

Preparing and Planning to Administer mAbs

[OWS Playbook:](https://www.phe.gov/emergency/events/COVID19/investigation-MCM/Documents/OWS%20playbook_22Nov20_Vupdated-508.pdf)

https://www.phe.gov/emergency/events/COVID19/investigation-MCM/Documents/OWS%20playbook_22Nov20_Vupdated-508.pdf

[Lilly Playbook:](https://www.covid19.lilly.com/assets/pdf/bamlanivimab/lilly-antibodies-playbook.pdf)

<https://www.covid19.lilly.com/assets/pdf/bamlanivimab/lilly-antibodies-playbook.pdf>

[Fact Sheet for Healthcare Providers:](https://www.fda.gov/media/143603/download)

<https://www.fda.gov/media/143603/download>

[Bamlanivimab Baseball Card \(a.k.a. Pocket Resource Card\):](https://www.phe.gov/emergency/events/COVID19/investigation-MCM/Bamlanivimab/Documents/Bamlanivimab-Pocket-Resource-Card.pdf)

<https://www.phe.gov/emergency/events/COVID19/investigation-MCM/Bamlanivimab/Documents/Bamlanivimab-Pocket-Resource-Card.pdf>

State-Based Allocation System for mAbs



- 1 Maximize use of existing infrastructure within USG, as well as manufacturer and distributor channels
 - Eli Lilly (manufacturer) and AmerisourceBergen (distributor)
- 2 Allocations must ensure both *temporal* and *geographic* equity
- 3 USG to allocate to state and territorial health departments based on:
 - Confirmed Hospitalizations (7- Day Incident)
 - Confirmed Cases (7- Day Incident)
- 4 States/Territories responsible for allocation to final points of care

www.phe.gov/bamlanivimab

Special Projects for Equitable and Efficient Distribution (SPEED)

- Launched week of 12/14/20
- Goal: Assist states with identifying and allocating mAbs to healthcare facilities that serve priority populations
 - Long-term care facilities
 - FQHCs
 - Dialysis centers
 - Correctional facilities
- **HHS intends to provide 100% of mAb requests (2 weeks' anticipated need) to SPEED sites via direct federal allocations**
 - SPEED allocations can include partnerships between FQHCs and medical centers/infusion centers
- FQHC SPEED program being coordinated with State Primary Care Associations

<https://www.phe.gov/emergency/events/COVID19/investigation-MCM/Pages/SPEED.aspx>

Reimbursement

mAbs have been purchased by USG and currently are provided to healthcare facilities at no cost

CMS has set a fully-loaded Medicare reimbursement rate (national average of \$309.60) to cover administration costs in all settings

[Detailed Summary](https://www.cms.gov/files/document/covid-medicare-monoclonal-antibody-infusion-program-instruction.pdf): <https://www.cms.gov/files/document/covid-medicare-monoclonal-antibody-infusion-program-instruction.pdf>

[Infographic](https://www.cms.gov/files/document/covid-infographic-coverage-monoclonal-antibody-products-treat-covid-19.pdf): <https://www.cms.gov/files/document/covid-infographic-coverage-monoclonal-antibody-products-treat-covid-19.pdf>



Thank you!

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Health Center Experience

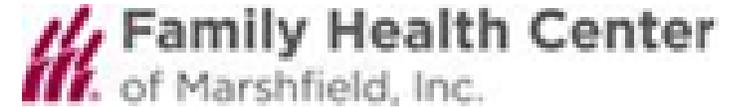


Rebecca Hanratty, MD

Director of General Internal Medicine, Denver Health
Associate Professor of Medicine, Division of General
Internal Medicine

University of Colorado School of Medicine

Health Center Experience



Sarah Rall, PharmD
Marshfield Clinic Health System,
Director of Pharmacy Operations,
Purchasing & Supply

QUESTIONS



Resources



Medicare Monoclonal Antibody COVID-19 Infusion Program Instruction Updated: December 3, 2020

On November 9, 2020, the U.S. Food and Drug Administration (FDA) issued an emergency use authorization (EUA) for the investigational monoclonal antibody therapy, bamlanivimab, for the treatment of mild-to-moderate COVID-19 in adults and pediatric patients with positive COVID-19 test results who are at high risk for progressing to severe COVID-19 and/or hospitalization. Bamlanivimab may only be administered in settings in which health care providers have immediate access to medications to treat a severe infusion reaction, such as anaphylaxis, and the ability to activate the emergency medical system (EMS), as necessary. Review the [Fact Sheet for Health Care Providers \(EUA\) of Bamlanivimab](#) regarding the limitations of authorized use.

On November 21, 2020, the FDA issued an EUA for the investigational monoclonal antibody therapy, casirivimab and imdevimab, administered together, for the treatment of mild-to-moderate COVID-19 in adults and pediatric patients with positive COVID-19 test results who are at high risk for progressing to severe COVID-19 and/or hospitalization. Similar to bamlanivimab, casirivimab and imdevimab may only be administered in settings in which health care providers have immediate access to medications to treat a severe infusion reaction, such as anaphylaxis, and the ability to activate the emergency medical system (EMS), as necessary. Review the [Fact Sheet for Health Care Providers \(EUA\) of Casirivimab and Imdevimab](#) regarding the limitations of authorized use when administered together.

During the COVID-19 public health emergency (PHE), Medicare will cover and pay for these infusions (when furnished consistent with their respective EUAs) the same way it covers and pays for COVID-19 vaccines.

This would allow a broad range of providers and suppliers, including freestanding and hospital-based infusion centers, home health agencies, nursing homes, and entities with home health agency contracts for this, to administer these treatments in accordance with the EUA. Medicare will not pay for the COVID-19 monoclonal antibody products that providers receive for free. If providers begin to purchase COVID-19 monoclonal antibody products, Medicare anticipates setting the payment rate for the products, which will be 95% of the average wholesale price (AWP) for many health care providers, consistent with usual vaccine payment methodologies. Additionally, Medicare anticipates establishing codes and rates for the administration of the products.

In order to facilitate the efficient administration of COVID-19 vaccines to SNF residents, CMS will exercise enforcement discretion with respect to certain statutory provisions as well as any associated statutory references and implementing regulations, including as interpreted in section guidelines collectively, "SNF Centralized Billing Provisions". Through the exercise of that discretion, CMS will allow Medicare-enrolled immunizers including, but not limited to, pharmacists working with the United States, as well as infusion centers, and home health agencies to bill directly and receive direct reimbursement from the Medicare program for vaccinating Medicare SNF residents.

<https://www.cms.gov/files/document/covid-medicare-mono-clonal-antibody-infusion-program-instruction.pdf>

Coverage of Monoclonal Antibody Products to Treat COVID-19

Monoclonal antibody products to treat Coronavirus disease 2019 (COVID-19) help the body fight the virus or slow the virus's growth. Medicare beneficiaries have coverage without beneficiary cost sharing for these products when used as authorized or approved by the Food and Drug Administration (FDA).

Disclaimer: The contents of this document do not have the force and effect of law and do not amend or alter the public law, unless specifically incorporated into a contract. This document is intended only to provide clarity to the public regarding existing requirements under the law.

Site of Care*	Payable by Medicare	Expected Patient Cost-Sharing	Expected Payment to Providers: Key Facts
Inpatient Hospital		No patient cost-sharing	<ul style="list-style-type: none"> Medicare payment for monoclonal antibody products to treat COVID-19 is similar across sites of care, with some small differences. Multiple payers for the administration of monoclonal antibody products to treat COVID-19. For example, Medicare will pay a national average of approximately \$150 for the administration of certain monoclonal antibody products. CMS will exercise enforcement discretion to allow Medicare-enrolled immunizers working within their scope of practice and subject to applicable state law to bill directly and receive direct reimbursement from the Medicare program for administering monoclonal antibody treatments to Medicare Part A skilled nursing facility residents.
Outpatient Hospital or "Hospital without Wall"		No patient cost-sharing	<ul style="list-style-type: none"> Multiple payers for the administration of monoclonal antibody products to treat COVID-19. For example, Medicare will pay a national average of approximately \$150 for the administration of certain monoclonal antibody products. CMS will exercise enforcement discretion to allow Medicare-enrolled immunizers working within their scope of practice and subject to applicable state law to bill directly and receive direct reimbursement from the Medicare program for administering monoclonal antibody treatments to Medicare Part A skilled nursing facility residents.
Outpatient Physician Office/ Infusion Center		No patient cost-sharing	<ul style="list-style-type: none"> Multiple payers for the administration of monoclonal antibody products to treat COVID-19. For example, Medicare will pay a national average of approximately \$150 for the administration of certain monoclonal antibody products. CMS will exercise enforcement discretion to allow Medicare-enrolled immunizers working within their scope of practice and subject to applicable state law to bill directly and receive direct reimbursement from the Medicare program for administering monoclonal antibody treatments to Medicare Part A skilled nursing facility residents.
Nursing Home (see their state or key facts on CMS enforcement discretion)		No patient cost-sharing	<ul style="list-style-type: none"> Multiple payers for the administration of monoclonal antibody products to treat COVID-19. For example, Medicare will pay a national average of approximately \$150 for the administration of certain monoclonal antibody products. CMS will exercise enforcement discretion to allow Medicare-enrolled immunizers working within their scope of practice and subject to applicable state law to bill directly and receive direct reimbursement from the Medicare program for administering monoclonal antibody treatments to Medicare Part A skilled nursing facility residents.
Home		No patient cost-sharing	<ul style="list-style-type: none"> When purchased by the provider, Medicare payment is typically at reasonable cost or at 95% of the average wholesale price (an amount determined by the manufacturer). These payment amounts vary depending on which type of provider is supplying the product. Original Medicare will pay for these products for beneficiaries enrolled in Medicare Advantage. For more specific information about Medicare payments to providers for these monoclonal antibody products, please see these Frequently Asked Questions.

*Services must be furnished within the scope of the product's FDA authorization or approval and within the provider's scope of practice.

*Under the Hospital Without Walls coverage, hospitals can provide hospital services in other healthcare facilities and sites that would not otherwise be considered to be part of a Medicare facility, or set up temporary registration sites to help address the urgent need to increase capacity to care for patients.

*Cost sharing may apply to Medicare beneficiaries when they receive care from a provider that doesn't participate in Medicare.

*Certain monoclonal antibody products to treat COVID-19 have been authorized under Food and Drug Administration (Emergency Use Authorizations) since November 19, 2020. More information including the usual HCPCS codes for the administration/infusion and post-administration monitoring of these products can be found online in the Program Instructions.

December 2020

<https://www.cms.gov/files/document/covid-infographic-coverage-mono-clonal-antibody-products-treat-covid-19.pdf>

COVID-19 Therapeutics Bamlanivimab Baseball Card 12/14/20

Bamlanivimab Injection (700 mg/20 ml)

Manufacturer: Eli Lilly and Company
Distributor: AmeriSourceBergen (a.k.a., ABC); liltherapeutic@amerisourcebergen.com

Product: Single monoclonal antibody for outpatient infusion
Emergency Use Authorization (EUA): 11/9/2020
Unit: Supplied as one single-dose 20-ml vial per carton
Storage: Keep in carton until use. Unopened vials must be stored at refrigerated temperature (2°C–8°C / 36°F–46°F) until use. Do not freeze, shake, or expose to direct light.
Earliest Expiration Date of Units Shipped: 9/9/2021

Single Vial w/ Carton Dimensions: 1.7" (d) x 1.8" (w) x 2.7" (h)
Single Vial w/ Carton Weight: 2.1 oz.

Case: A full case contains 300 vials in cartons
Case Dimensions: 9.3" (d) x 18.8" (w) x 6.3" (h)
Case Weight: 13.3 lb.

Administration: (For detailed guidelines, click [here](#))

- Inject 20 ml bamlanivimab into an infusion bag containing 250 ml 0.9% sodium chloride
- Infuse final volume (270 ml) containing bamlanivimab over at least 60 min

Note: If immediate patient infusion is not possible, store the diluted bamlanivimab solution at refrigerated temperature (2°C–8°C / 36°F–46°F) for no more than 24 hours and at room temperature for no more than 7 hours, including infusion time.

Resources/links:

- Lilly Bamlanivimab webpage, including:
 - FDA Letter of Authorization
 - Fact Sheet for Healthcare Providers
 - Fact Sheet for Patients and Caregivers (English)
 - Fact Sheet for Patients and Caregivers (Spanish)
 - Lilly Bamlanivimab Antibody Paybook
- FDA Frequently Asked Questions on the EUA for Bamlanivimab
- FAQ: Allocation, Distribution, and Administration of Bamlanivimab

Bamlanivimab
Baseball Card

COVID-19 Therapeutics Casirivimab + Imdevimab Baseball Cards 11/23/20

Casirivimab (a.k.a., REGN10933) Injection (120 mg/ml)
MUST ADMINISTER WITH IMDEVIMAB

Manufacturer: Regeneron Pharmaceuticals, Inc.
Distributor: AmeriSourceBergen (a.k.a., ABC); liltherapeutic@amerisourcebergen.com

Product: Component of 2-drug monoclonal antibody cocktail for outpatient infusion
Emergency Use Authorization (EUA): 11/21/20
Units: Supplied in 2 volumes

- 132 mg/1.1 mL single-dose vial in carton (10 mL from 1 vial needed for patient course)
- 300 mg/2.5 mL single-dose vials in cartons (10 mL from 2.5 mL from each of 4 vials needed for patient course)

Note: Some cartons and vials of casirivimab may be labeled as REGN10933.

Storage: Keep in carton until use. Unopened vials must be stored at refrigerated temperature (2°C–8°C / 36°F–46°F) until use. Do not freeze, shake, or expose to direct light.

Earliest Expiration Date of Units Shipped: 06/2022

Single Vial w/ Carton Dimensions: 1.7" (d) x 1.8" (w) x 2.8" (h)
Single Vial w/ Carton Weight: 1.5 oz. for 132 mg/1.1 mL vial; 0.9 oz. for 300 mg/2.5 mL vial

Case: A full case contains 34 vials in cartons
Case Dimensions: 9.9" (d) x 7.4" (w) x 4.9" (h)
Case Weight: 2.7 lb. for 132 mg/1.1 mL vials; 1.8 lb. for 300 mg/2.5 mL vials

Administration: (For detailed guidelines, click [here](#))

- Remove 20 ml from 250-ml normal saline IV bag
- Inject 10 ml (100 mg) casirivimab
- Inject 10 ml (100 mg) imdevimab
- Infuse final volume (250 ml) containing cocktail of 2 monoclonal antibodies over at least 40 min

Note: If immediate patient infusion is not possible, store the diluted cocktail solution at refrigerated temperature (2°C–8°C / 36°F–46°F) for no more than 24 hours and at room temperature for no more than 4 hours, including infusion time.

Resources/links:

- Regeneron webpage, including:
 - FDA Letter of Authorization
 - Fact Sheet for Healthcare Providers
 - Fact Sheet for Patients and Caregivers (English)
 - Fact Sheet for Patients and Caregivers (Spanish)
- FDA Frequently Asked Questions on the EUA for Casirivimab + Imdevimab
- FAQ: Allocation, Distribution, and Administration of Casirivimab + Imdevimab

Page 1 of 2

Casirivimab + Imdevimab
Baseball Cards



Thank You

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