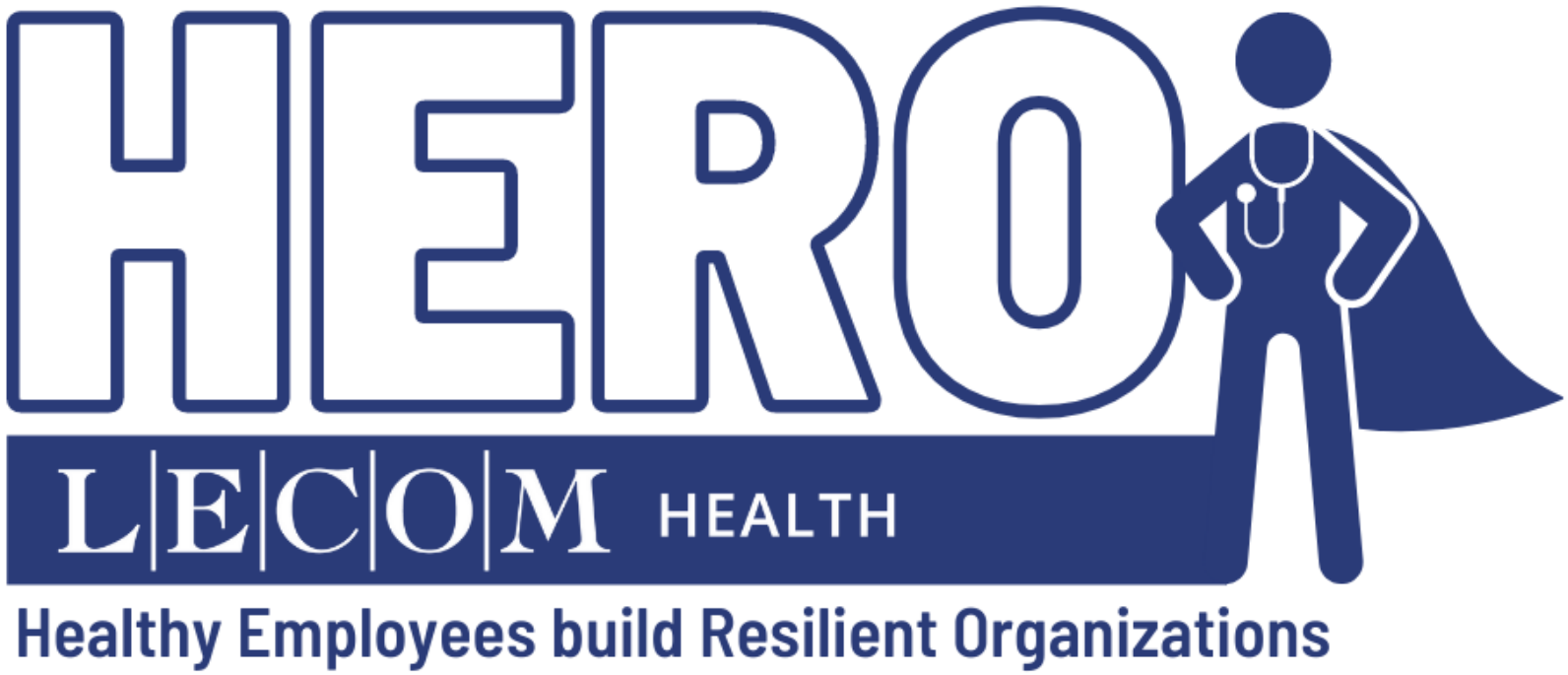
Test-to-Treat



Jim Caputo, RPh, BS Pharm, PharmD
Katie Zboyovski, PharmD, MHSA, BS

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Discloser

Jim Caputo,

has no relevant financial relationships with ineligible companies to disclose.

Katie Zboyovski,

has no relevant financial relationships with ineligible companies to disclose.

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Needs Assessment

- Early identification of cases of COVID-19 is particularly important in long-term care facilities since rapid spread of infections associated with high case fatality rates has been repeatedly reported.
  - McMichael, N Engl J Med. 2020;382(21):2005. Epub 2020 Mar 27

- COVID-19 disproportionately affects NH populations due to the high proportion of frail older adults and those with underlying chronic conditions. These factors increase both the prevalence and severity of infection, resulting in high mortality rates.
  - https://www.uptodate.com/contents/covid-19-management-innursing-homes

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Learning Objectives

- At the conclusion of this training, the participant will be able to accomplish the following:

1. Recall long term care (LTC) testing protocols for admissions, screening, symptom-based, and outbreak

2. Discuss current COVID-19 treatment options, antivirals, monoclonal antibodies, and symptom management

3. Promote vaccination among long term care facility residents and staff

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Definitions[1,2]

- Healthcare Personnel (HCP):
  - All paid and unpaid persons serving in healthcare settings who have the potential for direct or indirect exposure to patients or infectious materials

- Community Levels vs. Community Transmission:
  - Community Levels: Used in non-healthcare settings
    - Measures hospitalizations and healthcare system strain, while accounting for community transmission
  - Community Transmission: Used in healthcare settings (LTC)
    - Measures the presence and spread of SARS-CoV-2
    - Provide guidance on implementation of select IPC practices
    - Allows for earlier interventions before there is healthcare system strain

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LTC Testing Protocols

Overview

Admission Testing

Screening, Routine, and Surveillance Testing

Symptom-Based Testing

Outbreak Testing (Contact Tracing, Broad-Based, Facility-Wide)

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Overview[1,3]

- A diagnostic test identifies an active SARS-CoV-2 infection
  - Two types:
    - Antigen Tests
      - Detect specific proteins on the virus's surface
    - Molecular Tests
      - Nucleic Acid Amplification Tests (NAAT) or Reverse Transcriptase Polymerase Chain Reaction (RT-PCR)
      - Detect the virus's genetic material
- Type of diagnostic test selected should be person-centered
- Tests need to be stored in accordance with the manufacturer's instructions and CDC guidelines
- Correct specimen collection and handling is imperative to ensure accuracy

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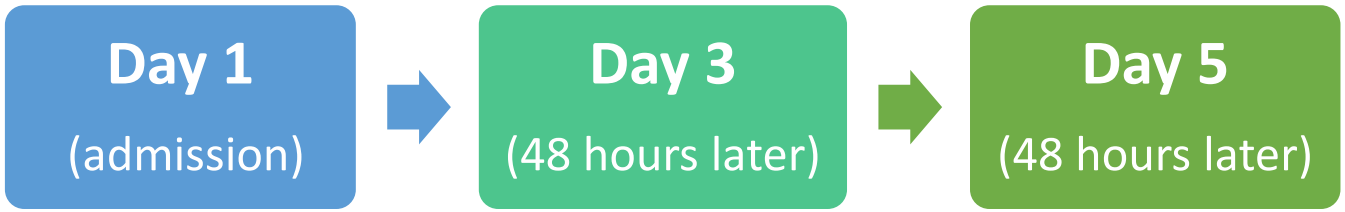
Admission Testing[1]

- New admissions and residents who leave the facility for ≥ 24 hours regardless of vaccination status are recommended to be managed as follows:
  - High Community Transmission Levels:
    - Test upon admission and if negative
    - Test again 48 hours after 1st negative test
    - Test again 48 hours after 2nd negative test



  - Substantial, Moderate, or Low Community Transmission Levels:
    - Testing is at the facility's discretion

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Screening/Routine/Surveillance Testing[1,3]

- No longer recommended for:
  - Asymptomatic healthcare providers (HCP) without a known higher-risk exposure
  - Asymptomatic individuals who recovered from SARS-CoV-2 in the past 30 days
  - Asymptomatic staff and residents, but may be performed at the facility's discretion

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Symptom Based Testing[1]

- Any staff or resident with signs and symptoms of COVID-19, regardless of vaccination status, must be tested

Prioritize Testing

Anyone with even mild symptoms should be tested as soon as possible

Antigen Testing Strategy

A negative result should be confirmed by either a negative molecular (NAAT, PCR) OR a second negative antigen test 48 hours later

Molecular Testing Strategy

A single negative test is usually sufficient; If high clinical suspicion for SARS-CoV-2 infection, confirm with a second negative molecular test

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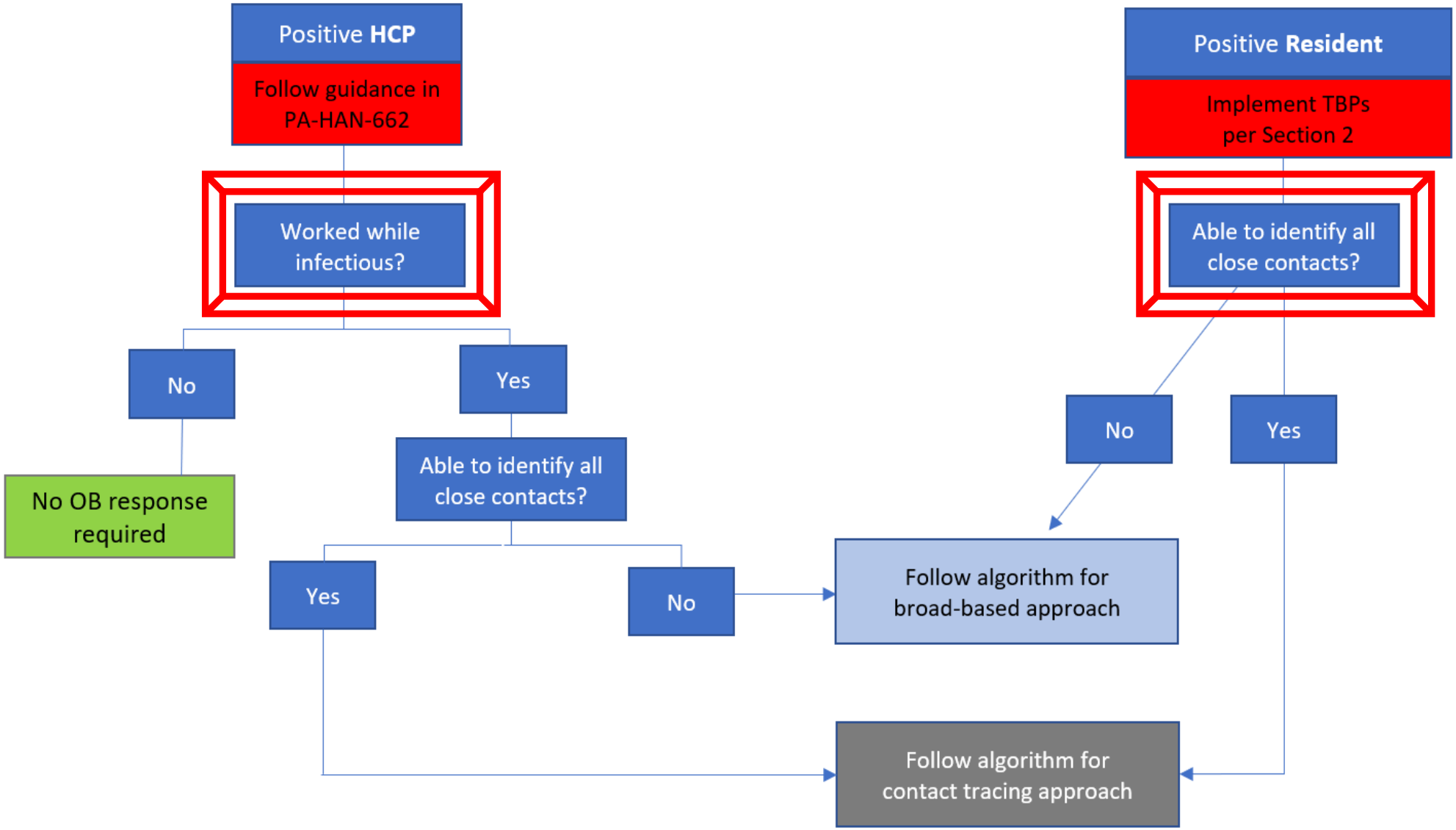
Outbreak Testing[1]



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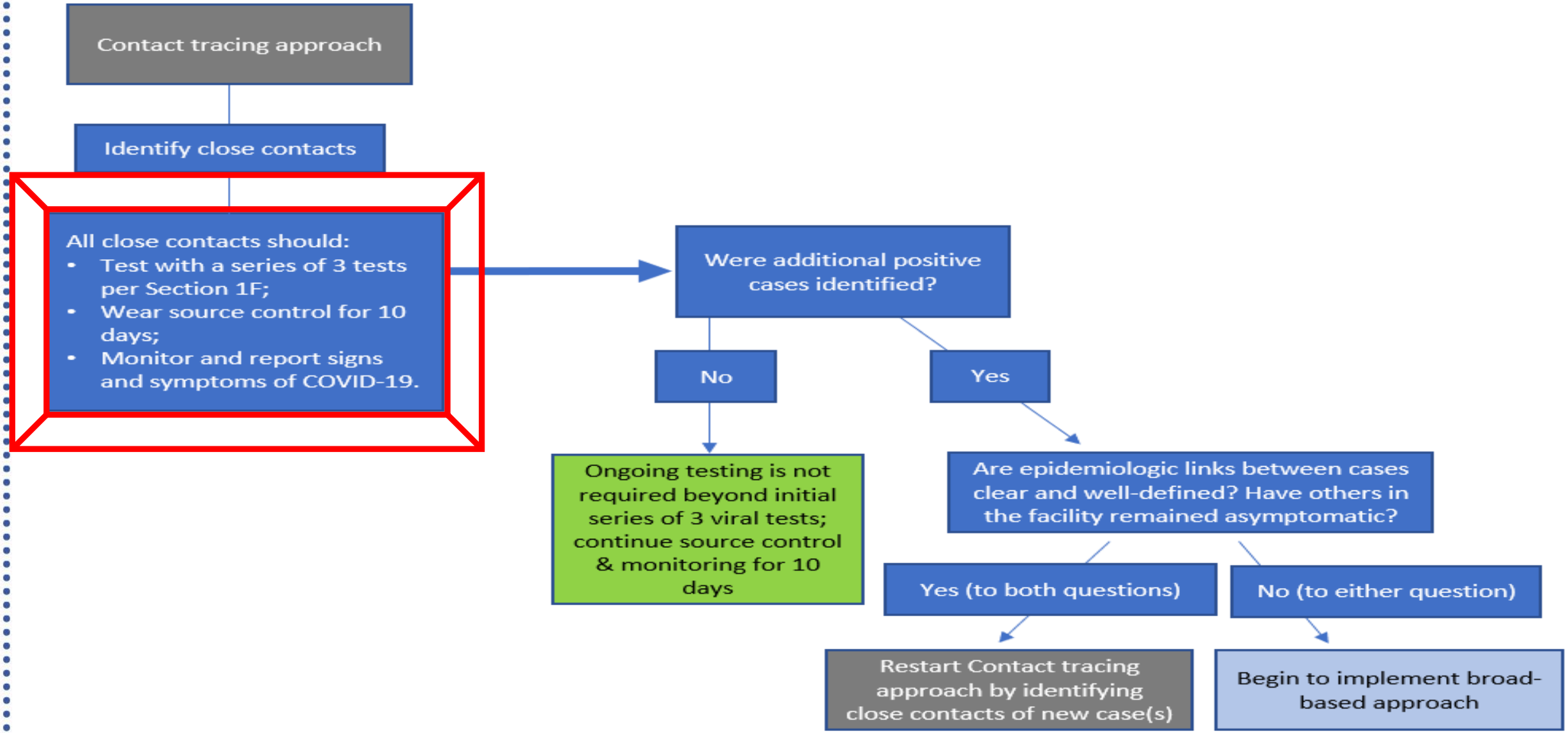
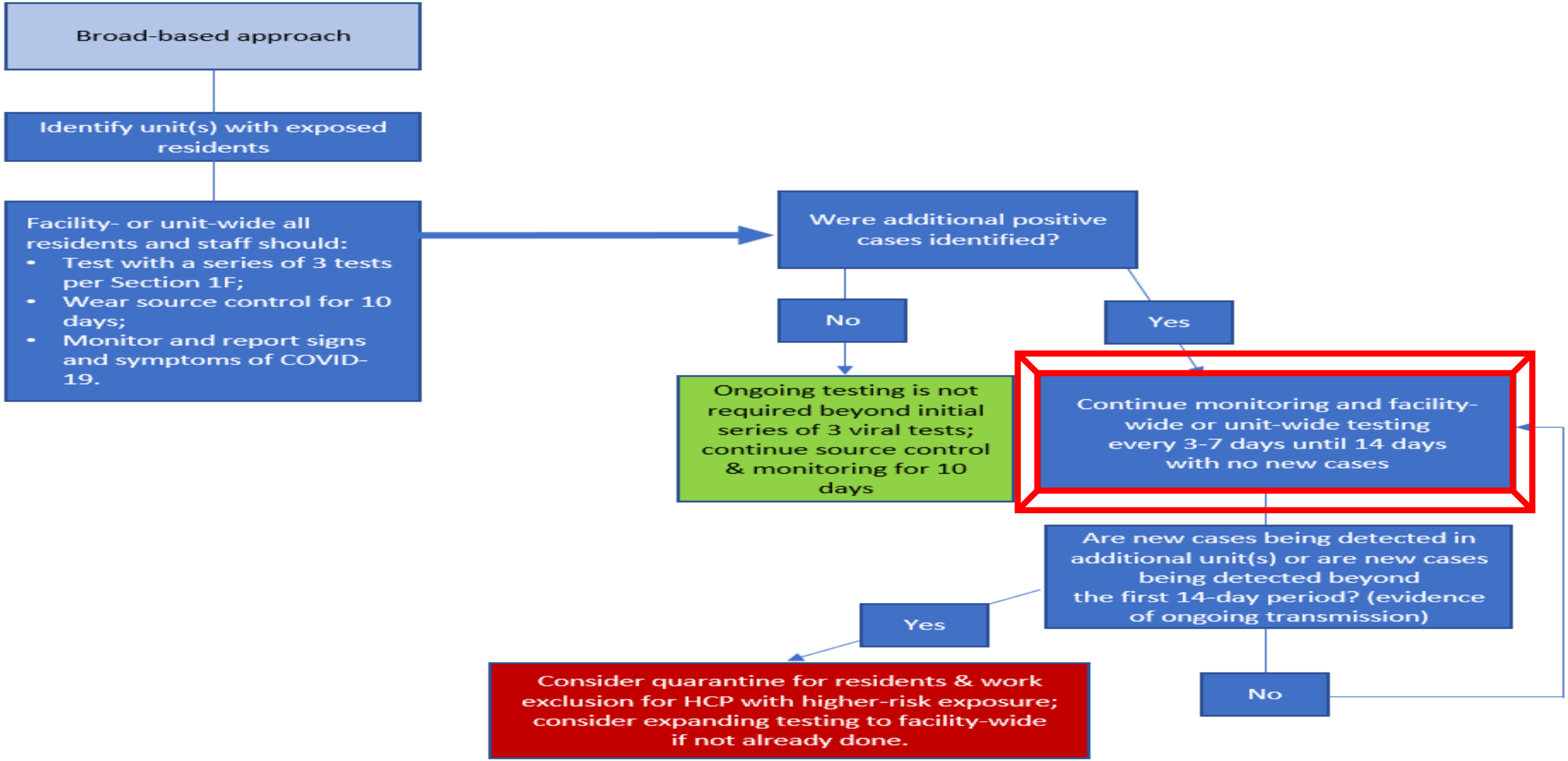
Outbreak Testing - Contract Tracing[1]



Outbreak Testing - Broad-Based & Facility-Wide[1]



Outbreak Testing Algorithm[3]

1. Contact Tracing

- Newly identified positive case within the facility that CAN identify close contacts
- Test all staff and/or residents, regardless of vaccination status, that had a higher-risk exposure with a COVID-19 positive individual

2. Broad-Based

- Newly identified positive case within the facility that is UNABLE to identify close contacts and ARE assigned to or reside in a specific location
- Test all staff and/or residents, regardless of vaccination status, that are assigned to or reside in a specific location where the new case was identified

3. Facility-Wide

- New positive case within the facility that is UNABLE to identify close contacts and are NOT assigned to or reside in a specific location
- Test all staff and/or residents, regardless of vaccination status

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COVID-19 Treatment

Overview

Antivirals

Monoclonal Antibodies

Symptom Management

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Overview[4]

- Individuals at high risk for severe illness should consider the available treatments that are proven to reduce hospitalizations and death
- Several treatment options are available for both inpatient and outpatient settings
- Treatment must be started within days of symptom onset to be effective
- Medications for symptom support and reduction are highly beneficial in managing illness
- The National Institutes of Health (NIH) provides COVID-19 Treatment Guidelines to assist in determining the best treatment option for residents

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Treatment – Antivirals[4]

- Nirmatrelvir with Ritonavir (Paxlovid): (EUA)
  - Adults and children ages 12 years and older weighing at least 88 lbs.
  - Must begin within 5 days of symptom onset
  - Taken at home: Three tablets by mouth twice daily for 5 days

- Molnupiravir (Lagevrio): (EUA)
  - Adults; ages 18 years and older
  - Must begin within 5 days of symptom onset
  - Taken at home: Four capsules by mouth every 12 hours for 5 days

- Remdesivir (Veklury): (Approved Drug)
  - Adults and children 28 days and older weighing at least 6.6 lbs.
  - Must begin within 7 days of symptom onset
  - Taken at a healthcare facility: Intravenous (IV) infusion for 3 consecutive days

- These antiviral drugs are expected to be active against emerging subvariants

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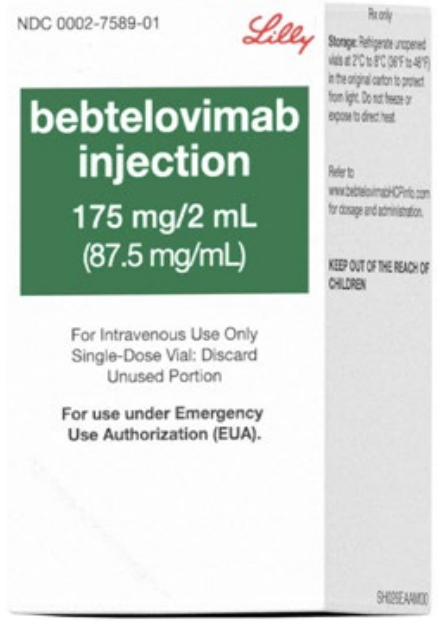
Treatment - Monoclonal Antibodies[4]

- Monoclonal Antibodies (mAb):
  - Help the immune system recognize and respond more effectively to the virus

- Bebtelovimab: (EUA)
  - Adults and children ages 12 years and older weighing at least 88 lbs.
  - Must begin within 7 days of symptom onset
  - Single IV injection over at least 30 seconds
  - Only recommended when Paxlovid or remdesivir cannot be used

- Emerging subvariants BQ.1 and BQ.1.1 are likely to be resistant to bebtelovimab



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Treatment - Symptom Management[4]

- All residents should be offered symptom management
- Advise and encourage residents to drink fluids regularly to avoid dehydration
- Rest is recommended as needed during the acute phase of COVID-19
  - Ambulation and other forms of activity should be increased as tolerated
    - 4 M's – Mobility
- Over-the-counter:
  - Antipyretics (fever)
  - Analgesics (headache, myalgias)
  - Antitussives (cough)
- Supplements:
  - Vitamin C
  - Vitamin D
  - Zinc

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COVID-19 Prevention

Overview

COVID-19 Vaccines

Vaccination Promotion

Pre-Exposure Prophylaxis (PrEP)

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Overview[5]

- Why are vaccinations important?
  - Code of Ethics:
    - Prioritizing Patient Safety
    - Code of Conduct “Do No Harm”
    - Duty to Protect
    - Act as an Example

- When is herd immunity achieved?
  - Herd immunity depends on the contagiousness of the disease
    - Diseases that spread easily, require a higher number of immune individuals in a community to reach herd immunity

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COVID-19 Vaccines[6]

- Vaccination is the most effective way to prevent SARS-CoV-2 infection
- Four authorized primary series vaccines in the United States
  - mRNA Vaccines - Pfizer-BioNTech and Moderna
  - Protein Subunit Vaccine - Novavax
  - Viral Vector Vaccine - Johnson & Johnson's Janssen (J&J/Janssen)
- Two authorized bivalent booster vaccines in the United States
  - mRNA Vaccines - Pfizer-BioNTech and Moderna
- One authorized monovalent booster (18-years and older)
  - Protein Subunit Vaccine - Novavax

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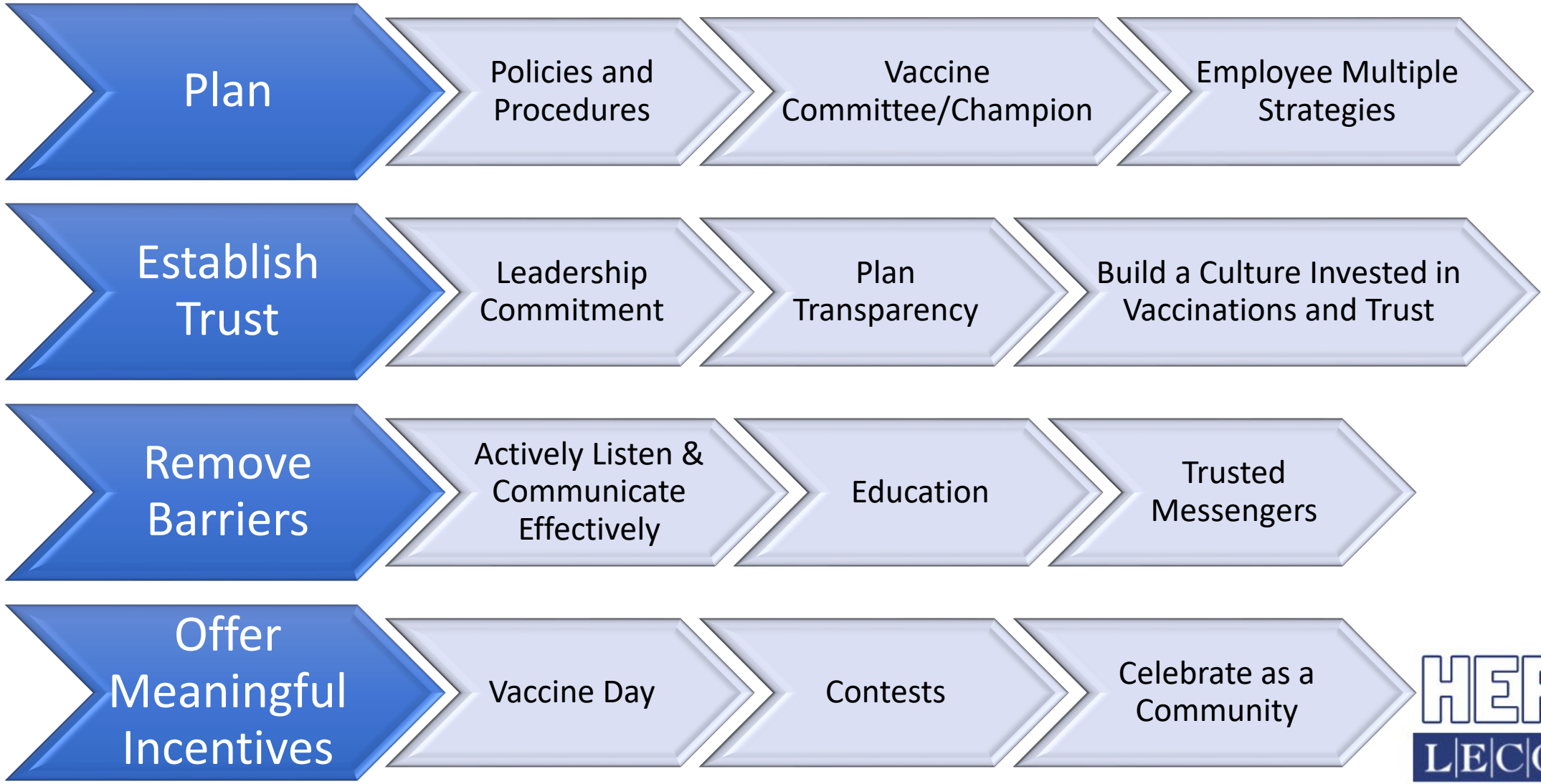
Vaccination Promotion[7]



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Pre-Exposure Prophylaxis (PrEP)[4]

- Tixagevimab plus cilgavimab (Evusheld): (EUA)
- Monoclonal antibodies
- Adults and children 12 years of age and older weighing at least 88 lbs.
- It is not a substitute for COVID-19 vaccination
- Two separate consecutive 3 mL intramuscular (IM) injections
  - Wait at least 2 weeks after COVID-19 vaccination to administer
  - Repeat dosing recommended every 6 months
- Emerging subvariants BA.4.6, BA.2.75.2, BF.7, BQ.1, and BQ.1.1, are likely to be resistant to Evusheld

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Summary

LTC Testing Protocols

COVID-19 Treatment Options

COVID-19 Prevention

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High Yield Recap

- LTC Testing Protocols:
  - PA HANs
    - 661 – Work Restrictions for Healthcare Personnel with Exposure to COVID-19
    - 662 – Return to Work for Healthcare Personnel with Confirmed or Suspected COVID-19
    - 663 – Interim Infection Prevention and Control Recommendations for Healthcare Settings
  - CMS
    - QSO-20-38-NH – Additional Policy and Regulatory Revisions in Response to the COVID-19 Public Health Emergency related to Long-Term Care (LTC) Facility Testing Requirements
    - QSO-20-39-NH – Nursing Home Visitation – COVID-19

- COVID-19 Treatment:
  - Antivirals, Monoclonal Antibodies, and Symptom Management
  - Ensure provider confidence and availability of treatments

- COVID-19 Prevention:
  - COVID-19 Vaccines
  - Ensure access to vaccines
  - Build a culture of vaccination and trust

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Test-to-Treat

What Questions Do You Have

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Never Ending Gratitude
THANK YOU!

CE Credit Question

Rate your confidence level in implementing the proper testing protocol within your facility among a variety of scenarios?

Not Confident Slightly Confident Somewhat Confident Fairly Confident Completely Confident

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