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OBJECTIVES

1. Summarize current infection prevention & control guidelines from CDC, CMS, and DHSS.
2. Apply current guidance to commonly encountered clinical situations.
3. Relate quality improvement processes to infection management.



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GUIDELINES

Current at this time

- Guidelines Nursing Homes and Home Health <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html> Scroll down for Setting Specific: Nursing Homes (updated 3/18/24)
- Assisted Living, Group Homes, and Other Residential Care Settings (excluding nursing homes) <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html> Scroll down for Setting Specific: Assisted Living, Group Homes, and Other Residential Care Settings (excluding nursing homes).
 - Generally follow Community Prevention Strategies based on hospital admission levels:



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PREPARE

You are a new NHA. EBP has been rolled out and going ok. There are indications that there may be an increase in both COVID and influenza in the next 3 – 4 months. You are still on-boarding, but this is a priority!

What are some first steps should you take?



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WHOSE JOB IS IT TO PREPARE?



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REFLECT TO GUIDE THE NEW NORMAL




- What went well?
- How has the 'culture' of our building evolved?
- What physical changes could impact future outbreaks?
- What are the trends in census?
- What went poorly?
- How can we do better?
- How can we promote a spirit of teamwork that focuses on quality?



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PROMOTE OVERALL RESIDENT HEALTH

- Hydration
- Nutrition
- Mobility
- Contenance
- Engagement With Life

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VACCINATE

EDUCATE
Provide information (e.g., posted materials, letters) to residents, families, and staff

ENCOURAGE
Make recommended vaccines available to residents and staff
Offer vaccine clinics on a regular basis
Collaborate with pharmacy and public health partners





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UP TO DATE

All vaccines should be reviewed & offered on admission & routinely

- 65 and older
 - Protected with 2 updated 2023-2024 vaccine doses
 - If they chose Novavax, 2 updated Novavax vaccine followed by one additional dose of any updated 2023 – 2024 vaccine
 - If they chose Johnson & Johnson/Janssen vaccine, will need one updated 2023 – 2024 vaccine


COVID LTC website <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/ltc-residents.html>
 CDC Stay up to Date website <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html>

FYI
 Pfizer-BioNTech & Moderna – mRNA vaccines
 Novavax – protein subunit vaccines
<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/overview-COVID-19-vaccines.html#protein-subunit>






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VACCINE COSTS



- <https://www.cms.gov/files/document/billing-medicare-respiratory-vaccines.pdf>
- Information on pricing and codes (vaccines and monoclonal antibodies): <https://www.cms.gov/medicare/payment/part-b-drugs/vaccine-pricing>

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EDUCATION PRIORITY

System change
 Availability of alcohol-based handrub and/or access to a sink, water, soap and towels;

Staff training, education, & competency demonstration



Monitoring of hand hygiene practices (black light, apps, secret shopper)

Performance feedback

Reminders (e.g., signs)

Hand hygiene audits have shown 50 – 65% staff compliance. Residents are rarely observed completing hand hygiene. A PIP to promote hand hygiene was recently formed.

What would you do?

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Don'ts ❌

Do's ✅

DON'T

- Complete only annual hand hygiene competency and quarterly audits

DO

- Create a culture of collaboration where staff members are comfortable pointing out weaknesses in hand hygiene practices.

<https://www.who.int/campaigns/world-hand-hygiene-day/2023>





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HAND HYGIENE

I'm so tired of hearing about hand hygiene. Why does everyone keep talking about it!

- Everyone should use hand hygiene
 - Signage, website, newsletters
- Alcohol-based hand sanitizer is generally recommended but often is not readily available
- Educate, demonstrate, audit, and re-educate
 - Training should be relevant to their job description

Keep signs and auditing fresh

Educational Resources to use:

- The 4 Es of an Effective Hand Hygiene Program <https://www.cdc.gov/clean-hands/hcp/training/index.html>
- Clean Hands Count Campaign <https://www.cdc.gov/clean-hands/hcp/clean-hands-count/index.html>
- Hand Hygiene Training Tools <https://www.who.int/teams/integrated-health-services/infection-prevention-control/hand-hygiene-training-tools>
- The How-To's of Hand Hygiene <https://www.ahrs.gov/hai/quality/tools/cauti-tc/modules/implementation/education-bundles/infection-prevention/hand-hygiene/hand-hygiene-slides.html>
- Hand Hygiene: Resources related to hand hygiene for health care settings <https://www.jointcommission.org/resources/patient-safety-topics/infection-prevention-and-control/hand-hygiene/>

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MAKE IT FUN

- Games
- Songs
- Scenarios
- What would you do if....

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COACHING STAFF

- Help them understand the benefit of keeping themselves and residents healthy
- Coach and encourage > Dictate
- Be present and engaged
- Consistent staffing and assignment – know the environment and residents
- Identify and manage high-risk situations

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KNOW UPDATED RESOURCES

Quality Innovation Network (TMF's) COVID-19 Outbreak Response Guide <https://www.tmfworlds.org/infinetworks.org>

Important! Each facility creates and adds their own policies and procedures.

Use this guide to organize all policies and procedures:

Guide is easily accessible.

Provides immediate guidance when navigating a new outbreak.

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AREAS FOR PLANNING

- Notification (mass emails, calls, texts to staff and families)
- Dietary/Meal Delivery (meals to isolation rooms, physical distancing, sanitizing, weight loss)
- Therapy (assess residents, dedicated equipment, gym equipment, scheduling, isolation rooms last)
- Testing
- Isolation/Quarantine/Cohorting/Contact Tracing
- Personal Protective Equipment (PPE)
- Housekeeping
- Activities (physical distancing, ABHS, masks, dedicated Bingo chips)

No need to recreate the wheel!

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ALLOCATE & MONITOR RESOURCES

Ensure limited supplies of PPE and ABHS do not prevent adherence to recommended infection prevention and control (IPC) practices

Plan for situations (e.g., multiple types of TBP) that may require increased supplies.

Are you monitoring PPE burn rates since implementing EBP?


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Don'ts

Do's



DON'T

- Assume that just because everyone is doing EBP well that they will adapt to other types of TBP.



DO

- Have a plan for an outbreak (any respiratory disease) in addition to Enhanced Barrier Precautions





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BE COVID PREPARED!




- Ready and available
- Cart/caddies
- Stocked with: N95 respirators, gloves, gowns, eye protection, ABHS
- Trash receptacles
- Isolation signs – COVID, Influenza, RSV
- Checklists
- Donning/doffing instructions
- Restocking of supplies





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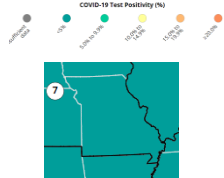
- The maintenance staff just discovered that there is a leak in the PPE storage area when asked to get back up PPE because of an outbreak. All PPE is wet except for the PPE that was in isolation carts.



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COVID DATA TRACKER AND MASKING

PERCENT POSITIVITY OF COVID-19 NAAT



Through 5/11/24

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MONITOR AND MASK



Monitor community levels of respiratory illnesses.

When levels in the community rise, consider masking for visitors and staff. Or ask residents to mask.

Those at high risk for severe illness should mask.

Mask (N95 respirator) when caring for someone with COVID-19.





Masks and respirators are effective when worn consistently and correctly.

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LIMITED DRAMA SOURCE CONTROL

- Create culture that it is ok to mask while expecting appropriate use (mouth and nose covered)
- Masks available to staff and visitors – near entrances
- Discard when removed – trash can near entrances

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PREPARE TO MASK: EDUCATE

Summer Respiratory Crossword



<https://handhygiene.org/Portals/0/Research/COVID%20education%20Resource%20Series%202024.pdf>

- Who: Everyone – residents, visitors, and staff
- What: IPC Practices
 - Why precautions are necessary
 - Mask wearing
 - Hand hygiene
 - Physical distancing
 - Visitors – delay visiting if either symptomatic or exposed. Test and masking
- When: status change (outbreak, increase in community, end of outbreak)
- How: signage, mass email/text/phone calls, newsletters



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ENVIRONMENTAL SERVICES

Daily

- Common areas and resident rooms
- Review cleaning/disinfecting products
- Shorter contact times are better
- Spectrum of activity against common pathogens
- Ensure appropriate product use
- Standardize processes for room cleaning
- Audit
- Deep cleaning

Outbreak

- Increase frequency in common areas
- Who will clean isolation room?
- Terminal cleaning at end of TBP
- PPE and hand hygiene

- o CDC Cleaning, Disinfecting and Ventilation <https://www.cdc.gov/coronavirus/2019-ncov/community/clean-disinfect/index.html>
- o NETEC Cleaning and disinfection tool <https://repository.netecweb.org/files/original/63fb30e4e4f56532546e833b40e75113.pdf>
- o APIC <https://apic.org/resources/topic-specific-infection-prevention/environmental-services/> See tabs for both CDC STRIVE Program and For Healthcare Professionals



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DISINFECTANTS

DON'T

- Purchase the cheapest product without reviewing the product label.



[How to Read a Disinfectant Label](#)

DO

- Select products based on
 - Effectiveness against common pathogens
 - Ease of use (contact time, no mixing)
 - Safety
 - Compatibility with surfaces
- <https://www.youtube.com/watch?v=TCa7Gg1NUd4>



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VENTILATE – PREPARE THE BUILDING



Consult with facility engineers for options to improve ventilation and indoor air quality in resident rooms and all shared spaces.



Aerosol-Generating Procedures (AGPs) avoided if possible and alternatives are effective. Consider: inhaler with spacer



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TESTING PREPARATION



TESTS

- COVID tests
 - Check expiration date for extension <https://www.fda.gov/media/1158003/download>
- Influenza tests
 - Provider or health department
- Status COVID-Flu Combo Test kits: <https://www.wy1123.scripps.com/share/687aa0769a3a445783c9ac75ff52cd8d>
- RSV
 - rRT-PCR more sensitive than culture and antigen testing

CONSIDERATIONS

- Speak with lab partner re: current testing processes
- Nucleic Acid test more sensitive; may use antigen tests
- Confirm symptomatic antigen negative COVID/Flu test with second antigen test in 48 hours or nucleic acid test
- Staff education



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You have an outbreak and discover all COVID test kits have expired.



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PHARMACOLOGICAL PREPARATION



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PRE-EXPOSURE PROPHYLAXIS

PEMIVIBART (PEMGARDA)



- Emergency Use Authorization (EUA) 3/22/24
 - Authorized for
 - Not currently infected or recently exposed
 - Moderate to severe immunocompromise due to either medical condition or medication
 - Outpatient infusion (1 hour)
 - Can be readministered every 3 months
 - Free for those with either private insurance or Medicare Part B
- <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/outpatient-treatment-overview.html>



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ANTIVIRALS – COVID

*Antivirals are **not** a replacement for COVID-19 vaccines*

Vaccines help reduce risk of getting very sick.

Antiviral treatment can help you feel better if you have COVID-19.

- Halts the attack so the virus cannot attach to healthy cell or copy itself.

PREFERRED THERAPIES:

- **Paxlovid** (Nirmatrelvir with Ritonavir) - By mouth for 5 days.
- **Lagevrio** (Molnupiravir) - By mouth for 5 days.
- **Remdesivir** - Start as soon as possible. Begin within 7 days of when symptoms start. IV infusions.

<https://www.cdc.gov/coronavirus/2019-ncov/your-health/treatments-for-severe-illness.html>



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PATIENT ASSISTANCE PROGRAMS

Paxlovid

- Through December 31, 2024:
 - Medicare, Medicaid, and uninsured are eligible for program and receive at no cost.
 - Eligible commercially insured can participate in Paxlovid co-pay savings program. <https://aspr.hhs.gov/COVID-19/Therapeutics/Pages/COVID19-Tx-Transition-Guide.aspx>
- Paxcess Patient Support Program (<https://www.paxlovid.com/paxcess>)

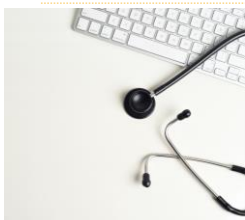
Lagevrio

- **Merck Co-Pay Savings Program** (private insurance) – coupon for max savings of \$300
- **Merck Patient Assistance Program** (uninsured) – no cost
- No program for Medicare or other government programs



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IMPLEMENTATION



SCENARIO:

- A resident has signs & symptoms of a viral respiratory infection.
- What would you do?
- Your preparation will pay off!



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SYMPTOMATIC RESIDENT

- Test
- Implement appropriate TBP based on the suspected cause of the infection.

- Follow the plan!
- ✓ stocked isolation carts,
 - ✓ signs, and
 - ✓ checklists

- Masking for staff (surgical or N95)
- Ventilation – HEPA air cleaners, open windows



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KEEP THE RESIDENTS SAFE

- Symptomatic residents: Do not place with a new roommate unless they have both been confirmed to have the same respiratory infection.
- Residents on Transmission-Based Precautions should primarily remain in their rooms except for medically necessary purposes. Face mask and physical distance.
- Potentially exposed roommates: Do not place with new roommates. Quarantine not required. Consider face mask when around others.
- If COVID-positive resident is moved, the room should be terminally cleaned. Consider moving roommate.



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COHORTING AND TRANSMISSION BASED PRECAUTIONS (TBP)

- **COVID:** single-person room or with other COVID-positive (full PPE with N95)
- **Influenza:** single person room or with other influenza positive (Droplet precautions + Standard; mask and eye protection, gloves, and gown as needed)
- **RSV:** single room (Contact + Standard)

Like organism with Like organism

- Generally, shelter in place
 - Large numbers may require a dedicated COVID unit; staffing may be a concern
- Collaborative problem solving and flexibility in necessary – things will change!



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Asymptomatic COVID negative resident refuses to be moved away from her COVID positive roommate.



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OUTBREAK TESTING

OUTBREAK TESTING

- Broad-based or contact tracing
- Exposure Day 0
- Test on Days 1, 3 and 5
- If contact tracing results in more cases, generally expand to broad-based testing.

[Respiratory Virus Toolkit \(cdc.gov\)](https://www.cdc.gov/respiratory-virus-toolkit/)

ENDING OUTBREAK TESTING

- If initial three rounds, show no new cases
- End Testing
- If new cases discovered, continue testing every 3 – 7 days, until no new cases for 14 days. Every 3 days testing recommended with antigen testing.



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The five residents and three staff tested positive for COVID. What are you forgetting to do? What other measures should be taken to stop this outbreak?

Notify the local or state public health department when respiratory viral outbreaks are suspected or confirmed. Health departments have IPC expertise.

[Respiratory Virus Toolkit \(cdc.gov\)](https://www.cdc.gov/respiratory-virus-toolkit/)



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ACTIVE SURVEILLANCE

- Encourage staff and visitors to report symptoms (signs at all entrances)
 - Masks & ABHS available
- Daily or every shift review of symptoms among residents and HCP
- Sick leave policies: non-punitive, flexible, and consistent with public health guidance to discourage presenteeism and allow HCP with respiratory infection to **stay home** for the **recommended duration of work restriction**.
- Manage people who were exposed or infected.



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These are short-term measures

ADDITIONAL MEASURES

Consult with local or state public health, QIPMO, and/or ICAR	Consider cohort unit with dedicated staff Minimize staff movement between areas	Physical distancing Modify group activities and communal dining
Consider visitation policies Educate visitors Outdoor visits Indoor visits in the resident's room	Avoid new admissions/transfers to areas with infected residents	



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A family wishes to have a birthday celebration in your facility during an outbreak.



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DURATION OF TBP - COVID

- TBP and Return to Work are in alignment....generally
 - At least 10 days since date of first positive, or **Additional criteria for those who are moderately to severely immunocompromised**
 - At least 10 days since symptoms first appeared AND
 - At least 24 hours since last fever without fever reducing meds AND
 - Symptoms (cough, shortness of breath, etc.) improved
- Test-based strategy:
- 7 days for staff AND **No change for staff since September 2022!**
 - Afebrile & symptoms improved
 - 2 negative tests 48 hours apart
- <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assessment-hcp.html>



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ENDING AN OUTBREAK

- After 3 weeks of no new cases, you finally have gone over 14 days with no new positive cases in staff or residents.
 - Terminal cleaning of isolation rooms
 - Walk through the building with an eye for 'misplaced items' – tables, carts, etc.
 - Check PPE stock, testing supplies, etc.
 - Prepare a couple TBP carts for just in case
 - Notify staff and family
 - Update signs on the front door
- Now What?**



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No EVS staff working today have been trained to deep clean a room after isolation has ended. The EVS supervisor and other experienced person is out with COVID.



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EVALUATION

DEBRIEFING



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FOLLOW UP ON IMPLEMENTATION



Huddle to debrief on managing a new infection

- What are some questions to ask?
- What could streamline how the outbreak was detected, managed, and ended?
- Change protocol and policies if indicated



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RESOURCES TO DEVELOP POLICIES AND PROCEDURES

- Centers for Disease Control and Prevention (CDC) Infection Control Guidelines: <https://www.cdc.gov/infectioncontrol/guidelines/index.html>
- TMF Resources: <https://tmfnetworks.org/Home/HIDDEN/Coronavirus-COVID-19-Updates-and-Resources/tg/ARNHCOVID1?st=>
- DHSS Resources
 - <https://health.mo.gov/seniors/ombudsman/covid19.php>
 - Reporting: <https://health.mo.gov/living/healthcondiseases/communicable/novel-coronavirus/case-reporting.php>



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Thank you!



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REFERENCES

- Long-Term Care Quick Start Guide: Preparing for Respiratory Virus Season | CDC
- Preventing Transmission of Viral Respiratory Pathogens in Healthcare Settings | Infection Control | CDC
- PPE Coronavirus disease 2019 (COVID-19) Factsheet (cdc.gov)
- ACIP Vaccine Recommendations and Schedules | CDC
- Transmission-Based Precautions | Basics | Infection Control | CDC
- Masks and Respirators (cdc.gov)
- Ventilation in Buildings | CDC
- Infection Control: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) | CDC
- Precautions | Appendix A | Isolation Precautions | Guidelines Library | Infection Control | CDC
- The 4 E's of an Effective Hand Hygiene Program <https://www.cdc.gov/clean-hands/hcp/training/index.html>
- Clean Hands Count Campaign <https://www.cdc.gov/clean-hands/hcp/clean-hands-count/index.html>
- Hand Hygiene Training Tools <https://www.who.int/teams/integrated-health-services/infection-prevention-control/hand-hygiene-training-tools>
- The How-To's of Hand Hygiene <https://www.ahrq.gov/hai/quality/tools/cauti-lic/modules/implementation/education-bundles/infection-prevention/hand-hygiene/hand-hygiene-slides.html>
- Hand Hygiene: Resources related to hand hygiene for health care settings <https://www.jointcommission.org/resources/patient-safety-topics/infection-prevention-and-control/hand-hygiene/>



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