OUTBREAK RESPONSE IN HEALTHCARE SETTINGS

PROJECT **FIRST** LINE
CDC's National Training Collaborative
for Healthcare Infection Prevention & Control

CDPH
Chicago Department
of Public Health

AGENDA

- Welcome and Introductions

- Outbreaks in healthcare settings
  - Your role in an outbreak
  - How infection control actions can prevent outbreaks
  - Case studies - What infection control lessons can we learn from outbreaks?
  - Reflection - What infection control actions can I take to prevent future outbreaks?

- Session feedback form and next steps

INTRODUCTIONS

Please introduce yourself with:

- Your name

- Your role (e.g., type of healthcare setting, job title)

- Whether outbreak management plays a big part, or a smaller part, in your work responsibilities

LEARNING OBJECTIVES

- Explain why it is important to recognize outbreaks.

- Understand your role with your facility's outbreak response.

- Explain one (1) primary way infection control actions play a role in outbreak response.

- Explain one (1) infection control lesson we can learn from outbreak response.

BACKGROUND

WHAT IS AN OUTBREAK?

- <u>Outbreak</u>: an unexpected increase in cases of a disease.
  - This is usually sudden, and in a specific place like a hospital.

Cases of an Unknown Disease by Month of Onset

Centers for Disease Control and Prevention. (2021). *Managing Investigations During an Outbreak*. CDC. https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/outbreaks.html#:~:text=When%20relevant%2C%20the%20CDC%20guidance,need%20for%20public%20health%20resources.
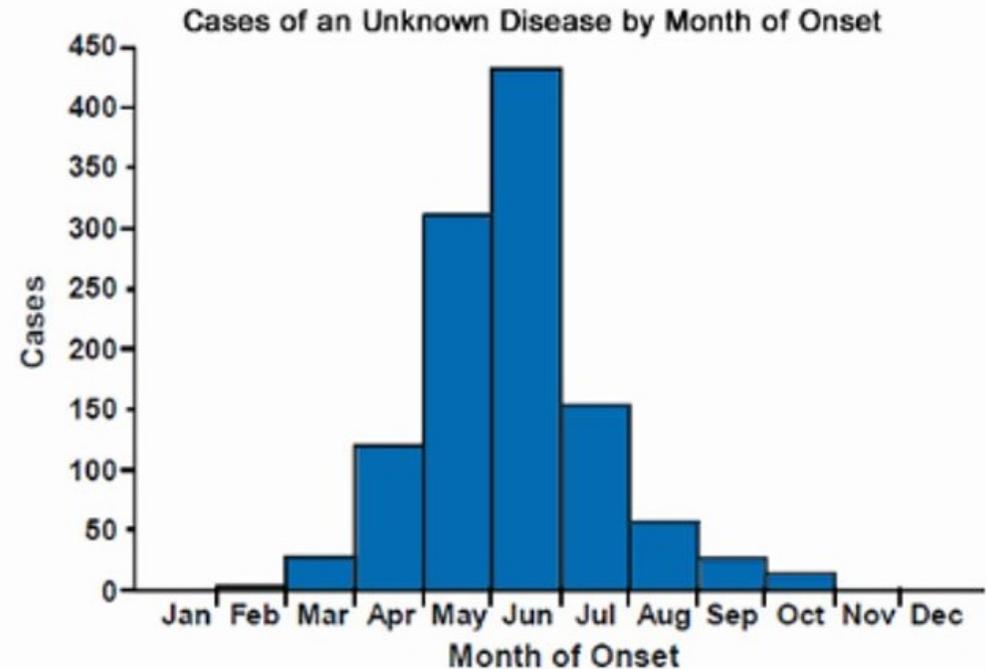
WHY IS IT IMPORTANT TO RECOGNIZE OUTBREAKS?

- The earlier your facility recognizes an outbreak, the earlier you can begin helpful infection control actions!

- Infection control measures in an outbreak can prevent:
    - Resident and staff illness
    - Staffing shortages, unit closures, or admission restrictions

Center for Disease Control. (2019, February 25). *Module 5 - Outbreaks; Nursing Home Infection Preventionist Training Course.* Train.org/cdctrain. Retrieved February 1, 2022, from https://www.train.org/cdctrain/course/1081803/?activeTab=about

WHAT'S MY ROLE IN AN OUTBREAK?

- Your role in an outbreak situation depends on:
  - Your professional training
  - If you work directly with patients
 - Your type of healthcare facility

WHAT DO I DO IN AN OUTBREAK?

- Follow any new guidance given by:
  - Your Infection Preventionist
  - Your Hospital Administrator/Director of Nursing
  - Federal, state, and local health departments
- Follow all signs posted with new instructions
  - Note any changes in PPE, cleaning and disinfection, or contact precautions
- Follow other infection control actions and protocols.
- Ask management if any questions.

OUTBREAK INVESTIGATIONS

Why do we investigate?
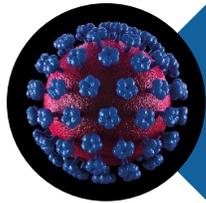
To STOP the spread of germs and prevent additional infections.

To implement new infection control methods.

To communicate findings to prevent future outbreaks.

When do we investigate?

Illness is severe

The disease can spread quickly throughout a population

Health threat is ongoing

To learn more about the disease

There is significant public concern (e.g. pandemic)

Center for Disease Control. (2019, February 25). *Module 5 - Outbreaks; Nursing Home Infection Preventionist Training Course*. Train.org/cdctrain. Retrieved February 1, 2022, from https://www.train.org/cdctrain/course/1081803/?activeTab=about

Discussion

What role have you played
in an outbreak previously?

HOW TO KEEP GERMS FROM SPREADING

- Strict adherence to proper **hand hygiene.**
    - Know when to use soap and water vs. alcohol-based hand rubs.
    - Hand hygiene limits the spread of germs through touch.

- **Use PPE appropriately** and keep extra PPE in stock!
    - PPE prevents germs from spreading through splashes and sprays, by being breathed in, or through touch.
    - Ask your IP for specifics on which PPE to use for different settings.

- Frequently and effectively **clean all areas** in your facility.
    - Germs can spread from common reservoirs in healthcare, such as wet surfaces, dry surfaces, dirt and dust, and common medical devices.
    - Follow instructions on the disinfectant label (pay special attention to high-touch surfaces and the disinfectant contact time).

HOW CAN INFECTION CONTROL END OUTBREAKS?

- Recognizing infection risks throughout your workday can help you protect your patients, yourself and coworkers.
    - **If you see something, say something!**
    - Notify your DON/IP if you notice a patient or a visitor with:
        - New fever
        - New rash
        - New respiratory symptoms
        - New diarrhea, vomiting or nausea

- Strictly following transmission-based precautions can prevent the spread of infections.

- Infection control actions help keep germs from spreading and causing additional infections (outbreaks).
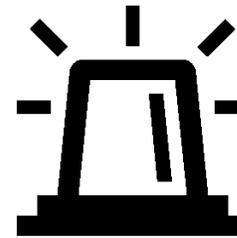
KEY TAKEAWAYS

- Early recognition of an outbreak can prevent staff or patient illness and prevent closures.

- Your role in an outbreak depends on your professional training. Ask your facility's infection control experts for specifics!

- Infection control actions can end outbreaks by stopping the spread of germs.

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Case Studies

Outbreaks in healthcare settings.

Case Details

- Skilled Nursing Facility A had 2 residents in building A test positive for SARS-CoV-2
  - 8 staff and 19 additional residents tested positive
- SARS-CoV-2 is the virus that causes COVID-19 infections
  - Spreads by being breathed in and by touch
- What infection control measures should you take as a staff member?

Infection Control Actions

- Notify your manager of any patients with new symptoms to help cohort patients appropriately.

- Use appropriate PPE and obey posted signs.

- Perform hand hygiene at the appropriate times.

- Tell your manager if you are sick and stay home.

- Implement social distancing, limit gatherings, restrict visitors.

- Encourage vaccination for healthcare workers.

Dora AV, Winnett A, Jatt LP, et al. Universal and Serial Laboratory Testing for SARS-CoV-2 at a Long-Term Care Skilled Nursing Facility for Veterans — Los Angeles, California, 2020. MMWR Morb Mortal Wkly Rep 2020;69:651–655. DOI: http://dx.doi.org/10.15585/mmwr.mm6921e1

LESSONS LEARNED FROM A SKILLED NURSING FACILITY THAT STOPPED A COVID-19 OUTBREAK

MAR 28

After 2 symptomatic residents tested positive...

CDC.GOV

COVID-19
☐ POSITIVE ☐ NEGATIVE

All staff and residents were tested

- 8 staff tested positive
- 19 residents tested positive

bit.ly/MMWR52220

✓ Serial testing of residents performed until all were negative

✓ All infected residents were transferred to isolation

MMWR

Case Details

- Hospital B had 4 patients in their COVID-19 unit test positive for *C. auris*
  - 41 additional patients tested positive
- *C. auris* is a multi-drug resistant yeast that causes infections
  - Spreads through surfaces and touch
- What infection control actions should you take as a staff member?

Infection Control Actions

- Use appropriate PPE correctly and obey signs.
- Perform hand hygiene at the appropriate time.
- Clean and disinfect shared equipment (e.g., mobile computers and medical equipment) using EPA approved products.
- Store PPE per manufacturer guidelines.

LESSONS LEARNED FROM OUTBREAKS

- Extended use or reuse of PPE can increase the spread of germs

- Using extra layers of PPE creates additional waste without providing more protection to HCWs

- Extra layers of PPE can increase the risk for self-contamination

- Maintaining standard practices (e.g., hand hygiene and recommended cleaning and disinfection) prevents the spread of germs
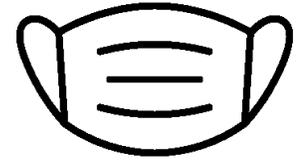
Reflection

What infection control actions can you take to prevent outbreaks in your facility?

RESOURCES AND FUTURE TRAINING SESSIONS

Project Firstline Resources

Project Firstline on CDC:
https://www.cdc.gov/infection control/projectfirstline/index.html

Project Firstline on Facebook:
https://www.facebook.com/CDCProjectFirstline/

Twitter:
https://twitter.com/CDC_Firstline

YouTube:
https://www.youtube.com/playlist?list=PLvrp9iOILTQZQGtDnS
DGViKDdRtIc13VX

To sign up for Project Firstline e-mails, click here:
https://www.cdc.gov/infectioncontrol/projectfirstline/index.html

Other Resources

- Recognize Infection Risks in Health Care: https://www.cdc.gov/infectioncontrol/projectfirstline/healthcare/recognize-risks.html

- CDC's Environmental Cleaning Evaluation Tools: https://www.cdc.gov/hai/prevent/prevention_tools.html#anchor_1561577385

- CDC's Reduce Risk from Surfaces: https://www.cdc.gov/hai/prevent/environment/surfaces.html

- EPA's Six Steps for Safe & Effective Disinfectant Use: https://www.epa.gov/sites/production/files/2020-04/documents/disinfectants-onepager.pdf

- EPA's List N Tool: https://cfpub.epa.gov/giwiz/disinfectants/index.cfm

- About List N: Disinfectants for Coronavirus (COVID-19): https://www.epa.gov/coronavirus/about-list-n-disinfectants-coronavirus-covid-19-0

- Selected EPA-Registered Disinfectants: https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants

- List N - Infographic Which disinfectants kill COVID-19?: https://www.epa.gov/sites/production/files/2020-12/documents/list_n_how-to_infographic_final_0.pdf

YOUR PFL-CHICAGO TEAM

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PFL-Chicago

- The Chicago Department of Public Health is proud to be a partner of Project Firstline, the CDC's National Training Collaborative for Healthcare Infection Control.

- Together, we are providing engaging and effective infection prevention and control (IPC) training for the frontline healthcare workforce.

- Our PFL-Chicago Team is available to answer your IPC questions, schedule onsite trainings (earn CEU credits), direct you to free CDC educational materials, and more!

- Visit our HAN page or contact us at projectfirstline@cityofchicago.org to learn more.