# COVID-19 and HAI Updates and Q&A Webinars for Long-Term Care and Congregate Residential Settings

November 17th , 2023

# Housekeeping

- All attendees in listen-only mode
- Submit questions via Q&A pod to **All Panelists**
- Slides and recording will be made available later
- For continuing education credit, complete evaluation survey upon end of webinar
  - Must be registered individually to receive credit

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# Agenda

- Upcoming Webinars
- Multi-target Respiratory Test for LHDs
- Reporting Requirements for LTCF in Illinois
- Common Skin Infections and Infestations in Residents of Long Term Care Facilities
- Open Q & A

**Slides and recording will be made available after the session.**

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# Upcoming Infection Prevention and Control Q&A

## 1:00 pm - 2:00 pm

| Date | Infection Control Topic | Registration Link |
|---|---|---|
| Friday, December 1st | Top 10 IDPH Deficiencies and How to Prevent Them | https://illinois.webex.com/weblink/register/reb1e9a25e7c184016208f4a60327f18f |
| Friday, December 15th | Dialysis | https://illinois.webex.com/illinois/j.php?MTID=m460efba4c6fa75821d369d56c6cc59f5 |
| **2024 Schedule TBD** | | |

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PROTECTING HEALTH, IMPROVING LIVES

# Bureau of Testing Update:

# Multi-target Respiratory Test for LHDs

## (COVID + Flu + RSV)

**November 17, 2023**

# Free COVID + Flu + RSV Combo Test for LHDs

- 1-swab multiplex
- Lab-based PCR test
- Adults & children ≥ 2yo
- Each LHD ***eligible for 500 test kits*** over this respiratory season
- Recommended ***for outbreak response*** when rapid covid test is negative

labcorp OnDemand


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# Testing Options for LHDs

## Option #1:  Mail Test Kit to Patient

- LHD completes RedCap order form
- Test delivered FedEx
- Patient collects test
- Patient sends sample to lab
- Lab processes test w/results in 24-48hrs
- Test results returned to patient
- LabCorp follows up with patients with pos results
- *No provider order required

## Option #2 Store Test Kit on Site

- LabCorp establishes an LHD account
- Test kits delivered to LHD
- LHD collects sample
- LHD completes manual requisition
- Call LabCorp for courier pick-up
- Lab processes tests w/results to LHD in 24-48hrs
- LHD follows up with patient
- *Requires provider order

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# Labcorp key contact:


## Andrew Klinsky

Key Account Executive

Phone: 331-214-2996

Fax: 833-577-4394

E-mail: klinska@labcorp.com


# Kit Contents for Option #2

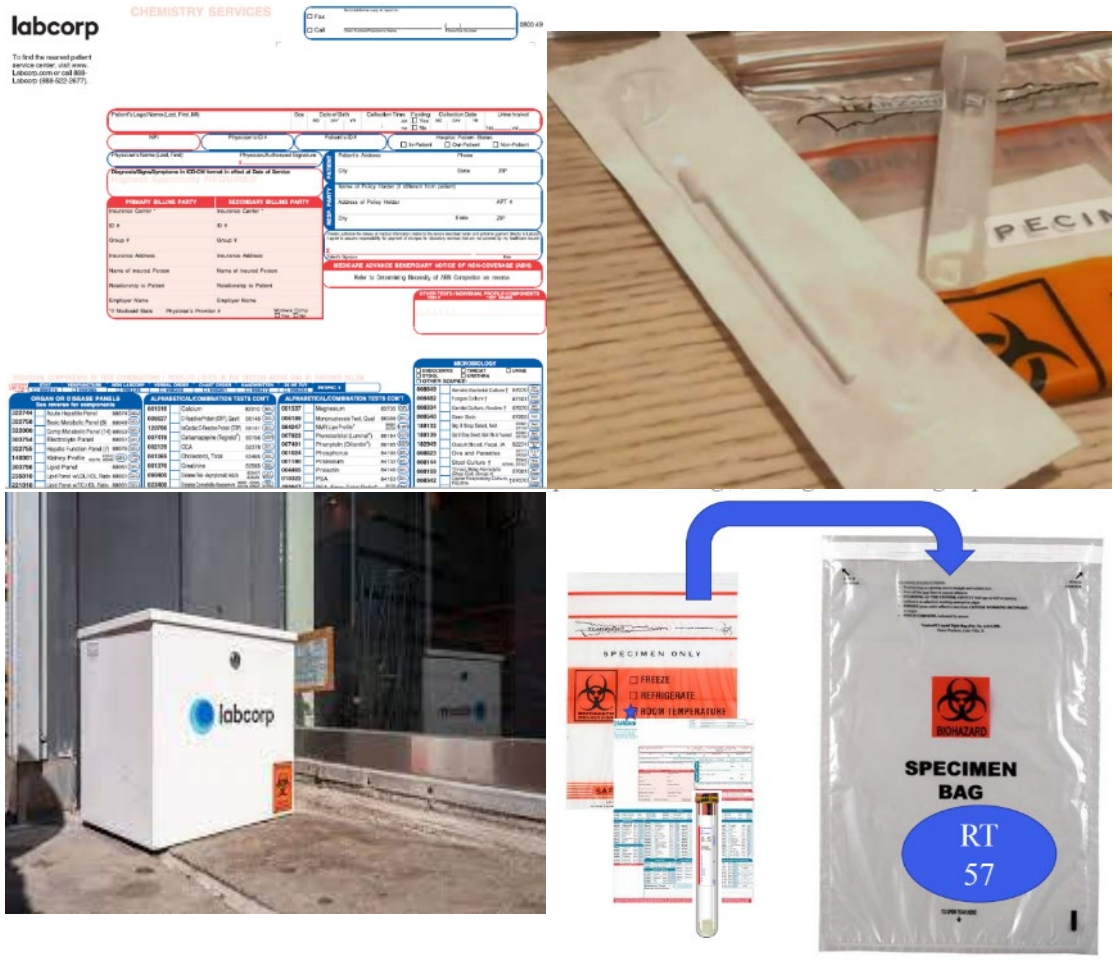
The labcorp supplies/kit you are sent for your new account with labcorp will contain the below supplies:

- **Saline collection kit:** These kits can be stored at room temperature but once collected, only have a stability of 72 hours. (Including time for transit to performing lab)

- **Manual order forms**: These will need to be filled out and sent with the collected sample.

- **Specimen bags:** Both the sample and the manual form will go into these specimen bags.

- **Lockbox (as needed):** All samples will go into this lockbox or designated collected point at the office.

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# The Labcorp COVID saline collection kit:

- The labcorp Covid saline kit is the approved collection kit used for collecting test code 140140, testing for Covid, Flu A/B, and RSV.
- The preferred temperature for this specimen is frozen as it offers the longest stability. **But room temperature or refrigerated samples are stable up to 72 hours.**
- The collection kits do not have any special requirements and can be stored at room temperature.

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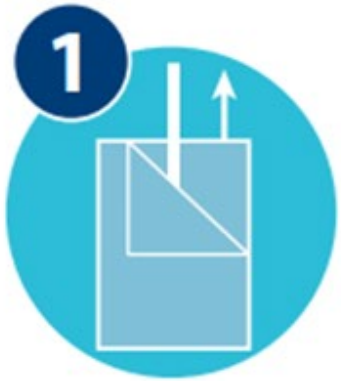
# How to collect using the Covid saline kit:

## Patient Collection Instructions




Take the swab out of its package. Do not touch the tip of the swab with your hands.


Screw off the top of the collection tube. Hold swab in one hand and collection tube in the other, being careful not to spill the liquid. Do not drink the liquid.


Insert the tip of the swab into one nostril. The swab does not need to be inserted far – insert just until the tip of the swab is no longer visible. Rotate the swab in a circle around the entire inside edge of the nostril at least 3 times.

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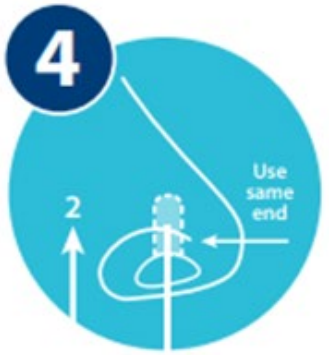
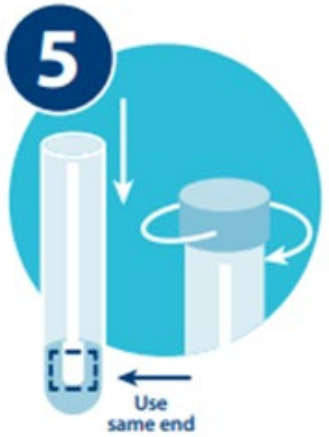
# How to collect using the Covid saline kit: (continued)




Take the swab out of the nostril. Using the same end of the swab, repeat step 3 in the other nostril.




Remove the swab from the second nostril and place in the collection tube. The end of the swab that went into the nose should be placed into the tube first so that it sits down in the liquid. Screw the top of the collection tube back on.


**Write the patient's full name and date of birth on the tube. Place the sample along with your lab order in the bag provided. Return to Labcorp or your healthcare provider as directed.**

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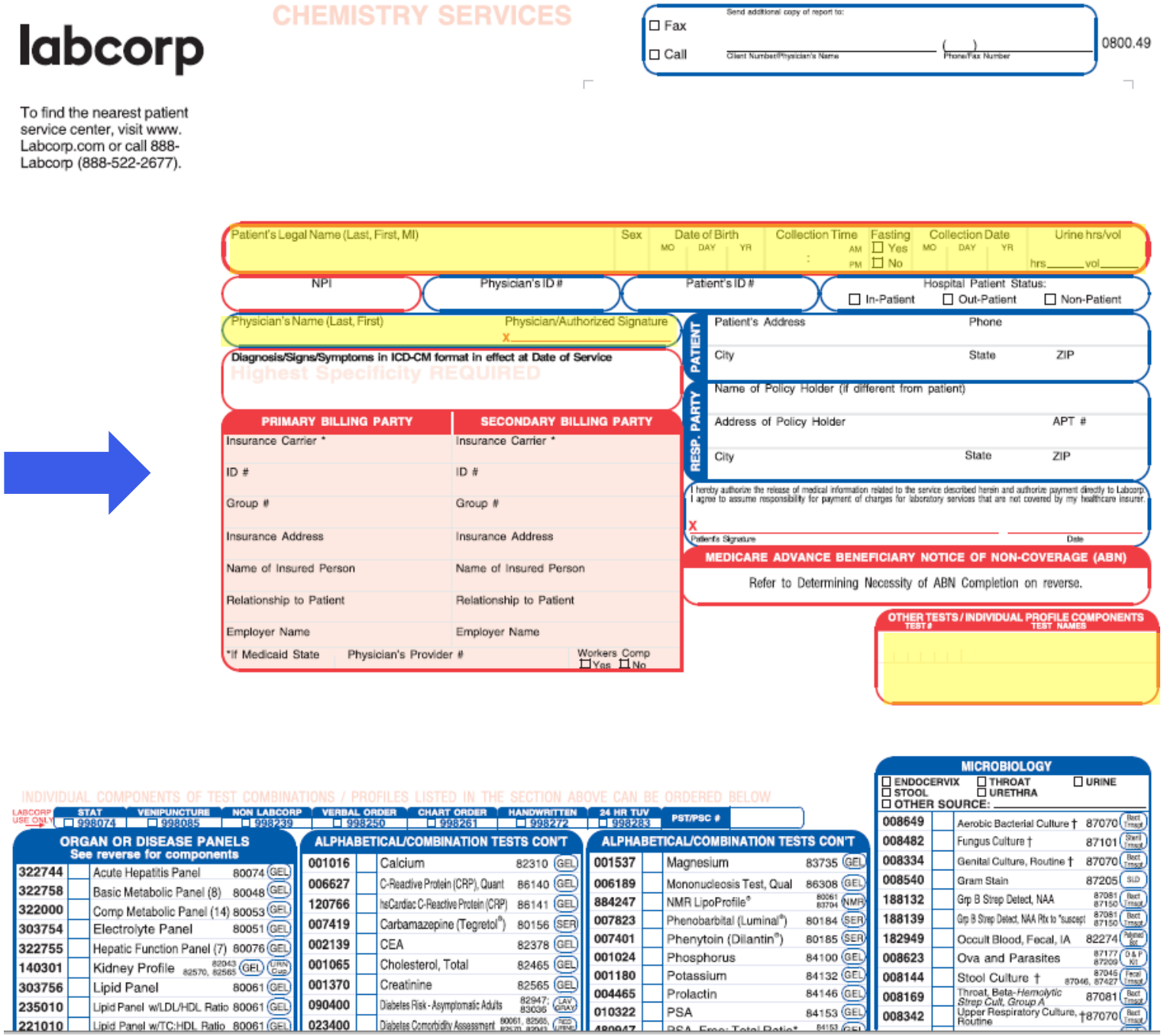
# Ordering on a Labcorp manual order form

- Staff would need to fill out the patient's name, sex, date of birth, collection date and time, and the ordering provider.
- Mark or Check the box for test code 140140. This will be preprinted on all reqs.



# Bagging Specimens and Preparing for pickup:

- Ensure the specimen is labeled with two patient identifiers:
  **(Name/DOB/Patient ID)**

- Please ensure the tube's top is tightened properly. This will prevent any specimen leaking into the bag.

- Place the specimen into the zipped portion of the specimen bag. And place the order in the plastic pouch, keeping it dry.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# Specimen Pick-Up

- Once all samples are completed, you will need to call for a pickup. The number to call for a pickup is 800-597-8026.
- Please have your labcorp account number ready so dispatch can schedule your account with a labcorp driver/route for pickup.

- The labcorp driver will pickup the specimens from your lockbox unless instructed otherwise. Each site has pickup notes in which we keep a lockbox location and any special instructions.

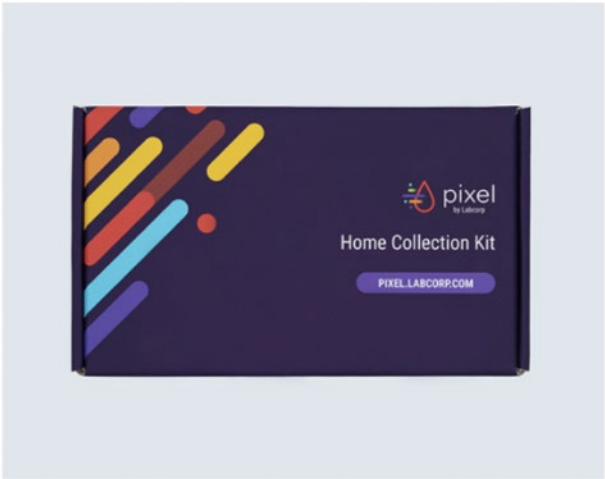
# Free COVID + Flu + RSV Combo Test for LHDs

**Option #1 Mail Order:**

Complete this form to have a test kit sent directly to a patient

https://redcap.dph.illinois.gov/surveys/?s=LME7CY7RXMYL397H

labcorp OnDemand




**Option #2 Store on Site Option:**

Complete this form to have LabCorp set up an account and provide test kits

https://redcap.dph.illinois.gov/surveys/?s=8DWNMHNDKADDXM9R

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# Thank you

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ILLINOIS DEPARTMENT OF PUBLIC HEALTH

# Additional labcorp contacts and resources:

**Main number: 800-597-8026**

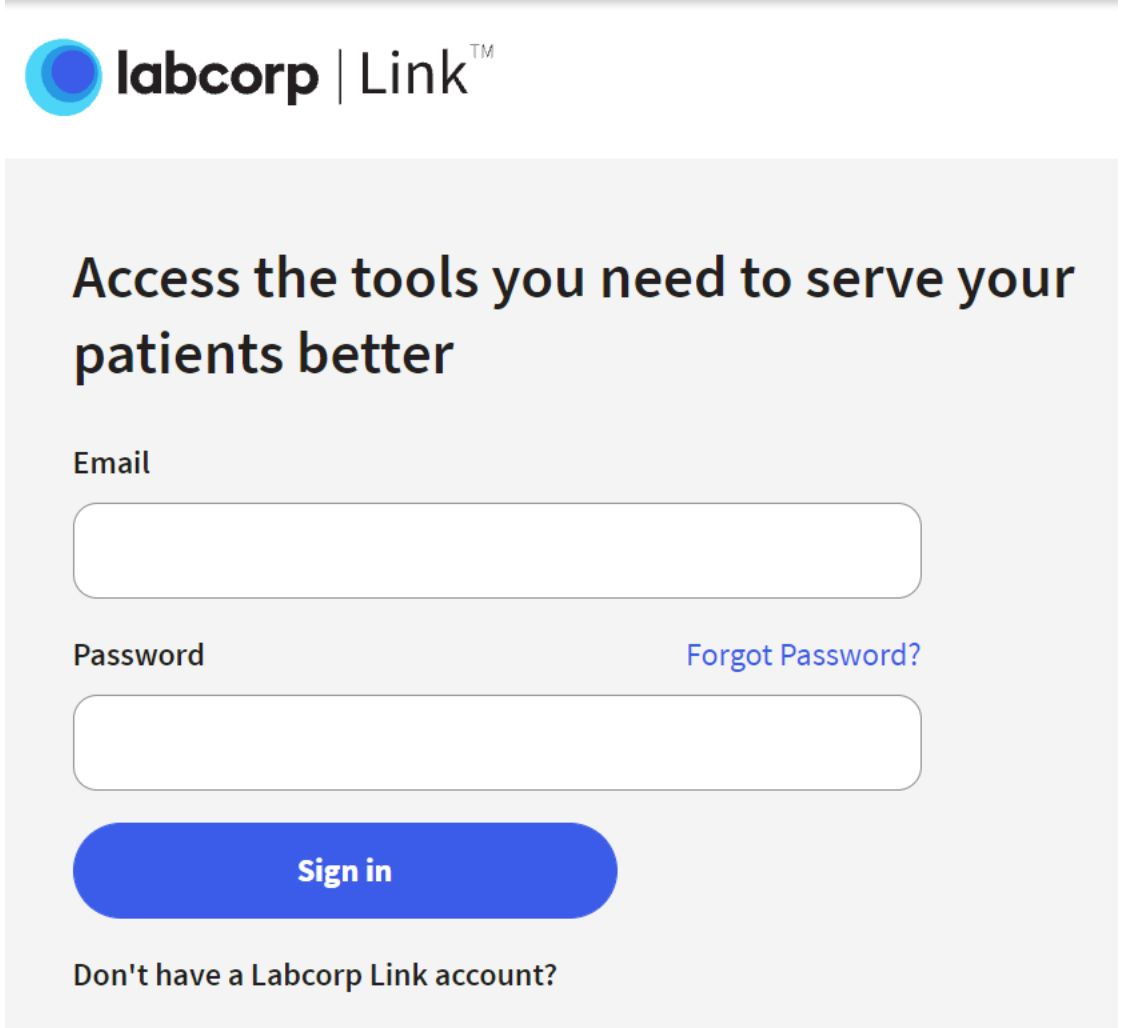
For Health Care Providers – Press 2 and then follow the prompts:

**Customer Service/Client Inquiry/Test Results**
Option - #1
**Courier Service/Specimen Pickup**
Option- # 2
**Specimen Suppy Department**
Option- #3

# Labcorp Link: Our online results portal

## www.labcorplink.com

- Patient Results
- Each user has unique access
- Training services available

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# Results Inbox

- Access to patient results via the results inbox in Link
- The ability to search for specific patients and check the status of their sample (pending vs resulted)
- Normal TAT for Covid/Flu/RSV testing is 2-4 days.
- From here, you have the option to print out the results
- Training resources available (PDF)


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## COVID-19 Case and Outbreak reporting requirements for Long Term Care Facilities in Illinois

Note: There may be a need to report cases and/or outbreaks to multiple entities. **Reporting to one does NOT satisfy the need to report to the others.**

| Who reports: | To whom: | What reported: | How reported: | Why reported: | Who to contact for help: |
|---|---|---|---|---|---|
| All facility types | Local Health Department | **Outbreaks** of COVID-19 (see portal: COVID-19 (illinois.gov))<br>**Cases** of COVID-19* | Report to LHD in a timely manner in the format preferred by the LHD | 77 Ill. Admin. Code §690 | Local Health Department (IDPH Health Regions & Local Health Departments (illinois.gov))<br><br>*tests conducted in the facility under their CLIA waiver can be reported via Simple Reports; tests conducted by a lab must be reported by the facility to the LHD |
| All facilities *who conduct tests under a CLIA waiver* | Simple Reports (Simple Reports transmits to INEDSS, LHD, and IDPH) | **Cases** of COVID-19 | Simple Report: COVID Point of Care (POC) Reporting Registration (illinois.gov) | 77 Ill. Admin. Code §690 | support@simplereport.gov<br><br>Webpage on troubleshooting: https://www.simplereport.gov/support/ |
| All facilities licensed by IDPH | Office of Healthcare Regulations (OHCR) | **Cases and outbreaks** of COVID-19 (within 24 hours) | Facility Reported Incidents (smartsheet.com) | Illinois Administrative Code 77, 300.690b), 330.780b), 340.1330b), 340.1510a)c),350.700b) , 390.700b) | LTC REGIONAL OFFICE CONTACT INFORMATION:<br>Rockford: IDPH.Rockford@Illinois.gov<br>Peoria: DPH.LTC.Peoria@Illinois.gov<br>Metro East: DPH.MetroEast.LTC@Illinois.gov<br>Marion: DPH.Marion.LTC@Illinois.gov<br>Champaign: DPH.Champaign.LTC@Illinois.gov<br>West Chicago: DPH.WestChicago.LTC@Illinois.gov<br>Bellwood: DPH.Bellwood.LTC@Illinois.gov |
| CMS-Certified Facilities | NHSN (National Healthcare Safety Network) | **Cases and vaccination** (Two modules must be completed, Respiratory Pathogens and Vaccination) | Long-term Care Facilities (LTCF) Component \| NHSN \| CDC | CMS requirement | DNH_TriageTeam@cms.hhs.gov |

(up to date as of 11/16/2023; subject to updates)

# Common Skin Infections and Infestations in Residents of Long Term Care Facilities

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Infection Control Consultant
Hektoen Institute of Medicine/ IDPH grantee

# Disclosure:

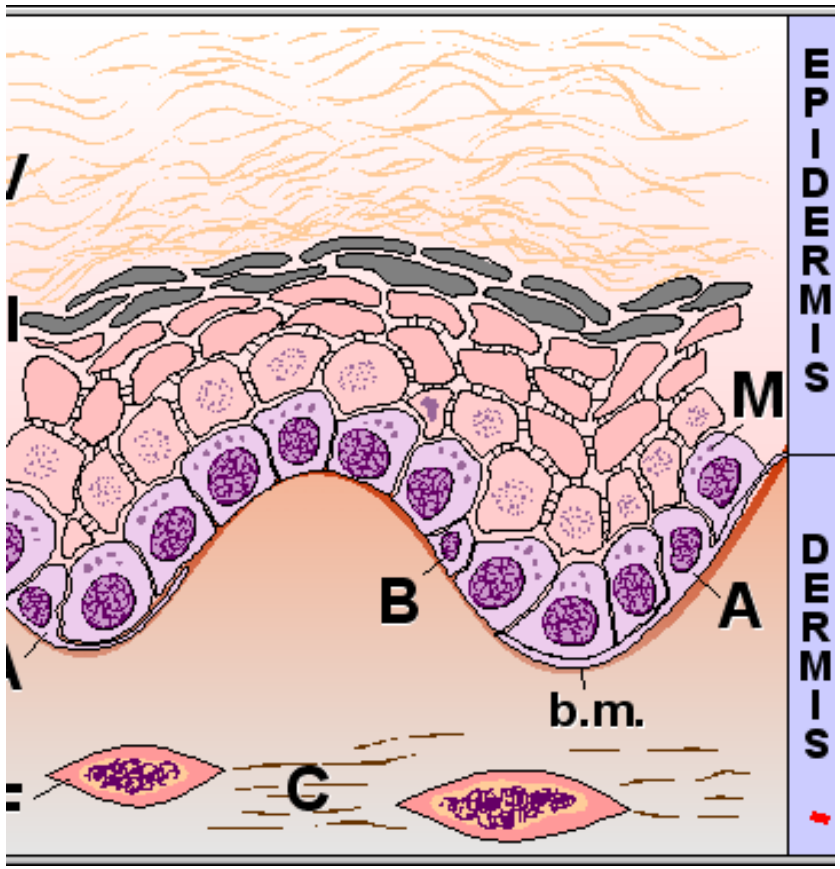
I have no actual or potential conflict of interest in relation to this program/presentation.

# Objectives:

1. Discuss the epidemiology of skin and soft tissue infection in the elderly population.
2. Discuss the factors that make the elderly more prone to skin infections and infestations, especially those residing in long-term care facilities.
3. Enumerate and describe the most common skin infections and infestations that affect the elderly population in long-term care facilities
   - Characteristic clinical manifestation
   - Methods of diagnosis
   - Possible Risk factors
   - Methods of prevention
   - Principles of management
   - Possible complications
   - When to report to the local health department and to the Office of Health Care Regulation

# Epidemiology

- Skin and soft tissue infection are the 3rd most common infection in nursing home residents.
- Prevalence rate varies between 1%-9%.
- Incidence rate 0.9 to 2.1 cases per 1,000 resident days




Source: Skin and soft-tissue infections in long-term care
https://collections.nlm.nih.gov/catalog/nlm:nlmuid-101555866-pdf

# Reasons for the increase in skin infection in elderly

Integrity of skin declines with age

- Malnutrition
- Weaker Immune system function
- Function of sweat glands decreases
- Moisture content of the skin declines
- Reduced blood flow
- Lower collagen production

Presence of comorbidities e.g. diabetes and cardiovascular disease

# Several factors make skin infections in residents of nursing homes more likely

Higher  presence of invasive medical devices

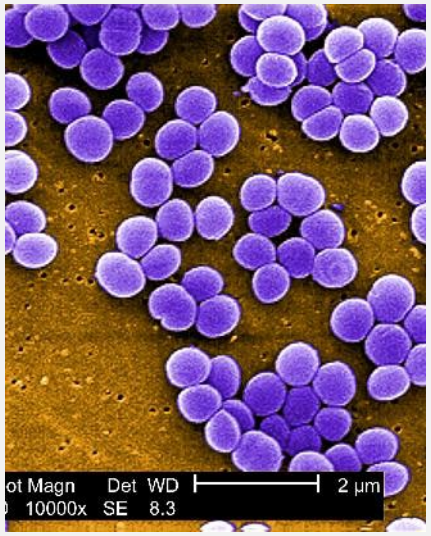
Steady stream of outside visitors and staff

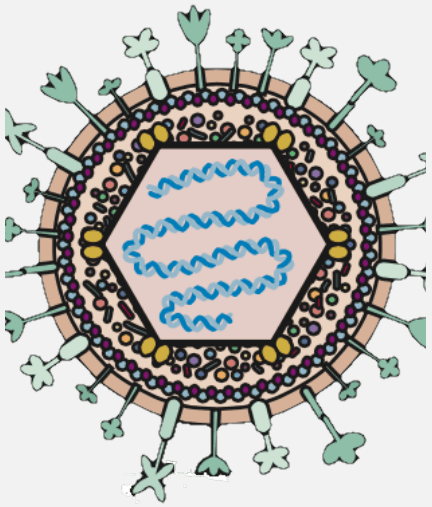
Close quarters living with shared property

Healthcare workers treating multiple residents

# Types of organism that cause skin infections and infestations

- Bacterial
- Viral
- Fungal
- Parasites



Sacoptes scabiei - penyebab skabies pada ternak

# Herpes zoster (Shingles)

Caused by the reactivation of **varicella-zoster virus (VZV),** the same virus that causes varicella (chickenpox).

About **1 out of every 3 people** in the United States will develop shingles, in their lifetime. Risk increases as you get **older**

## Signs and Symptoms

- **Painful, usually itchy, rash** that develops on **one side of the face or body**; rash consists of blisters that typically scab over in 7 to 10 days and fully clear up within 2 to 4 weeks.
- Fever, headache, chills and nausea

## Transmission

Through direct contact with the fluid from shingles rash blisters or breathing in virus particles that come from the blisters (disseminated cases).

Shingles on face

Shingles on chest

# Herpes zoster (Shingles)

**Diagnosis**

Clinical – appearance and distribution of the rash

Laboratory test – confirmation

- **Polymerase chain reaction (PCR) -** Swabs of unroofed vesicular lesions and scabs from lesions – **most reliable method** for confirming infection
- Other tests
  - Direct Fluorescent Antibody (DFA) and Tzanck smear – limited sensitivity
  - Serologic methods - should only be used when suitable specimens for PCR testing are not available.
    - Positive serologic test – positive varicella-zoster IgM antibody or four-fold or greater rise in serum varicella immunoglobulin G (IgG) antibody titer between acute and convalescent sera

# Herpes zoster (Shingles)

**Risk factors**

Increasing age and medical conditions or medications that suppress a person's immune system.

**Prevention**

- **Shingles vaccine** called Shingrix (recombinant zoster vaccine)- adults 50 years and older get two doses. 91-97% effective in preventing Shingles
- By following infection control precautions to prevent transmission and spread of infection. (will be discussed later)

# Herpes zoster (Shingles)

**Treatment**

- Antiviral medications (Acyclovir, Valacyclovir, & Famciclovir)
- Pain relief medicine

**Complications**

Most Common Complication

- Long-term nerve pain (post-herpetic neuralgia (PHN) )

Other Complications:

- Bacterial infection of rash, Vision loss, Pneumonia, Hearing problems, Encephalitis

**Reporting:**

- Individual cases are not reportable. Clusters of cases ( 3 or more cases) should be reported to the local health department and Office of Healthcare Regulation.

# Herpes zoster (Shingles)

## Preventing Transmission of Shingles in Healthcare Settings

### 1. Resident with Shingles

- Follow infection control precautions based on immune status of the resident and rash localization (see table )

Infection control precautions based on patient's immune status and rash localization

| Patient Immune Status | Localized Herpes Zoster | Disseminated Herpes Zoster |
|---|---|---|
| **Immunocompetent** | Completely cover lesions and follow standard precautions until lesions are dry and scabbed. | Airborne and contact precautions until lesions are dry and scabbed. |
| **Immunocompromised** | Airborne and contact precautions until disseminated infection is ruled out.<br><br>After dissemination is ruled out, completely cover lesions and follow standard precautions until lesions are dry and scabbed. | Airborne and contact precautions until lesions are dry and scabbed. |

# Herpes zoster (Shingles)

2. **Healthcare Personnel <u>with Shingles</u>**

For localized herpes zoster in an **immunocompetent** person.

- Cover lesions and **restrict from care of high-risk resident**s until all lesions are dry and scabbed.
- If lesions **cannot** be completely covered, exclude them from duty until all lesions are dry and scabbed.

For disseminated herpes zoster or localized herpes zoster in an **immunocompromised person** until disseminated infection is ruled out:

- Exclude from duty until all lesions are dry and scabbed.

CDC list of immunocompromising conditions - https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-who-are-immunocompromised.html

# Herpes zoster (Shingles)

**3. Healthcare personnel exposed to someone with Shingles**

HCP with **one or more documented dose(s) of varicella vaccine or other evidence of immunity to chickenpox**.

- Do **not** need post-exposure prophylaxis
- Do **not** need work restrictions.
- If with only one documented dose of varicella vaccine, **should receive the second dose within 3 to 5 days after exposure**
- Monitor for symptoms of **chickenpox** from the **8th day after the first exposure through the 21st day after the last exposure** and immediately report any fever, headache, skin lesions, or systemic symptoms.
- If symptoms occur, **immediately remove healthcare personnel from resident care**, place them on **sick leave**, and provide them with **antiviral medication**.

# Herpes zoster (Shingles)

Healthcare personnel who are **not vaccinated or do not have other evidence of immunity to chickenpox.**

- Should be **furloughed or temporarily reassigned** to locations remote from resident-care areas from the **8th day after the first exposure through the 21st day after the last exposure.**
- Should receive **post-exposure vaccination**
- Should be vaccinated **within 3 to 5 days of exposure** to rash.
- Vaccination **6 or more days after exposure** is still indicated because it induces protection **against subsequent exposures** if the current exposure did not cause infection.
- Should receive varicella zoster immune globulin if they are at risk for severe disease and chickenpox vaccination is contraindicated (e.g., pregnant healthcare personnel).
- If varicella zoster immune globulin is administered as post-exposure prophylaxis, exclude from work from the 8th day after the first exposure through the 28th day after the last exposure.

# Herpes zoster (Shingles)

**How to prevent Chickenpox outbreak in healthcare institutions from residents or health care personnel with Shingles or Chickenpox**

- Have documented evidence of varicella immunity for all healthcare personnel readily available
- Offer those without evidence of immunity two doses of varicella vaccine, administered 4 to 8 weeks apart, when they begin employment.
- Establish protocols and recommendations for screening and vaccinating healthcare personnel and for managing healthcare personnel after exposures in the workplace.

# Folliculitis

Skin condition in which the hair follicles become infected/inflamed and form a pustule or erythematous papule of overlying hair-covered skin.

**Types of Folliculitis**

1. Superficial bacterial folliculitis
   - ➢ Most common type - *Staphylococcus aureus*
2. Gram-negative folliculitis
   - ➢ ”Hot tub folliculitis“ - *Pseudomonas aeruginosa*
   - ➢ Long-term use of antibiotics – *Klebsiella and Enterobacter*
3. Other causes are *fungal species, and viruses* and can even be *noninfectious*.

**Risk Factors**

- History of diabetes, obesity, prolonged use of oral antibiotics, immunosuppressed, those who shave frequently

# Folliculitis

**Signs and Symptoms**

- Red bumps that look like pimples on your skin, itchy, burning skin, painful, tender skin

**Diagnosis**

- Clinical - thorough history and physical exam

**Prevention**

- Wash skin regularly, Don't share towels or washcloths, Avoid wearing tight clothing, Shave with care, After getting out of the hot tubs/spas remove your swimsuit and shower

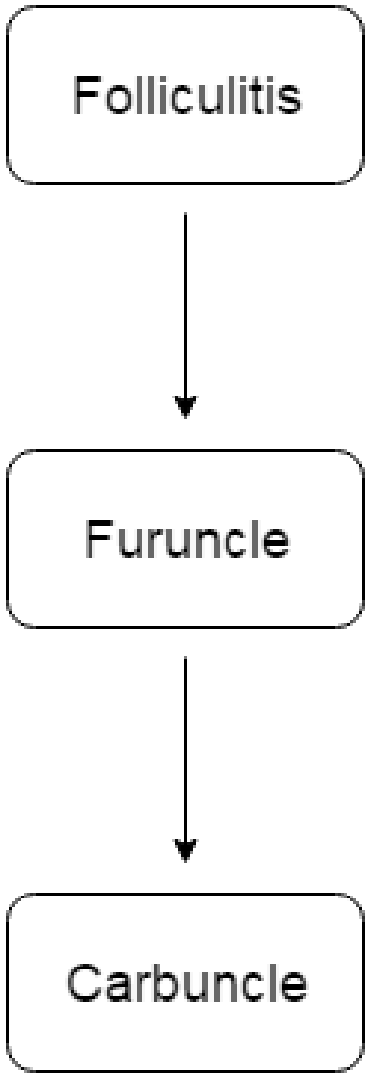
**Treatment**

- Simple cases will generally resolve spontaneously - Staphylococcal and Gram-negative folliculitis
- Antibiotics, Antifungal, Antiviral – depending on the causative agent

**Complications:**

- Progression to a more severe skin condition such as cellulitis or abscess








# Furuncles and Carbuncles

**Furuncles (boil)** - usually originates from pre-existing folliculitis. Occurs when infection around the hair follicles spreads **deeper**

**Carbuncles** are clusters of furuncles connected subcutaneously, causing deeper suppuration and scarring.

-*Staphylococcus aureus* is the most common bacteria to cause these infections, and frequently involves *methicillin-resistant Staphylococcus aureus (MRSA)*

## Risk factors

History of diabetes, obesity, immunosuppressed, colonized with *Staph aureus*

# Furuncles and Carbuncles

**Signs and Symptoms**

**Furuncles** - tender red which gradually become fluctuant and, if untreated, may have a purulent blood-tinged discharge.

**Carbuncles** - larger, deep-seated abscesses composed of aggregates of interconnected furuncles that drain at multiple points on the cutaneous surface may present with severe pain, fever, and malaise

**Diagnosis**

- Clinical - history and physical exam. characteristic of rash and presence of constitutional symptoms
- Laboratory - bacterial culture to determine appropriate antibiotic treatment

**Type of Precautions**

**S. aureus**

- Standard Precaution if wound drainage is contained
- Contact Precaution - if wound drainage is **not** contained

**Methicillin-resistant Staph Aureus (MRSA)**

- Enhanced Barrier Precaution – if wound drainage is contained
- Contact Precautions – if drainage is **not** contained

Souce: https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html

# Furuncles and Carbuncles

**Mode of Transmission**

Direct skin contact with an infected person, wound drainage or contaminated surfaces; increased risk in crowded conditions

**Prevention**

Good hygiene is important, Don't re-use or share personal items such as washcloths, wash items that come in contact with infected lesions, and Change bandages often

**Treatment**

Apply warm moist compresses, Incision and drainage of fluctuant lesions, Antibiotics.

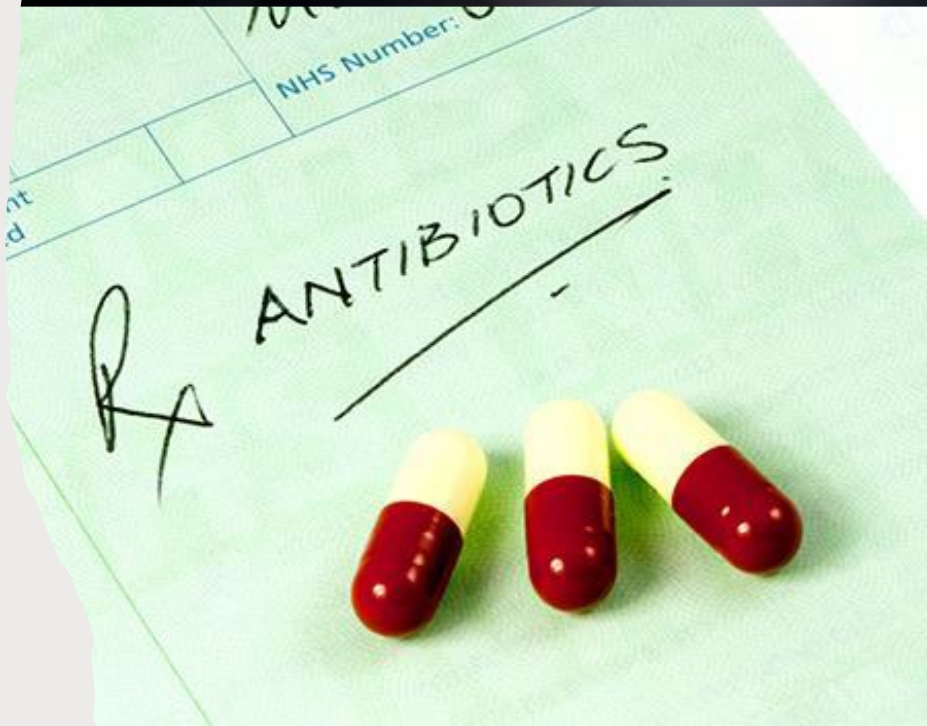
**Complications**

Sepsis, infections spread to other parts of the body such as heart, bone, CNS, etc.

**Reporting**

S. aureus, MRSA - Individual cases are **not** reportable.

However, a cluster of 2 or more cases with infections in a 14-day period and with an epi-link should be reported to the local health department and Office of Healthcare Regulation. Source: Section 690.658. https://ilga.gov/commission/jcar/admincode/077/077006900D06580R.html



# Erysipelas and Cellulitis

**Erysipelas** - bright red patch of skin with a clearly demarcated raised border. Classic sign - *peau d'or*ange.
*Superficial infection* that affects the dermis and superficial lymph vessels. Facial infection

**Cellulitis** - *deeper layers of the skin (subcutaneous tissue)*, so it classically presents with indistinct borders that are not raised. Usually involve extremities.

**Need medical attention** – If red area of skin spreads quickly and resident develops fever or chills.

**Causative agents**
The most common bacteria that cause erysipelas and cellulitis include**:**

- Group A ß - hemolytic streptococcus
- Streptococcus pneumoniae
- Staphylococcus aureus

Erysipelas

Cellulitis

# Erysipelas and Cellulitis

**Risk factors**

- Injuries that cause a break in the skin such as **bed sore**
- Chronic skin conditions (like athlete's foot and eczema)
- Chickenpox and shingles
- Obesity
- Venous insufficiency or chronic edema

**Diagnosis**

- Clinical – history and physical exam
- Laboratory test– culture of lesion to identify the causative organism

**Prevention** - Wash hands often; hygiene of residents, Clean and care for wounds

**Treatment** – Antibiotic

**Complications:** Bacteremia, Suppurative arthritis, Osteomyelitis, Endocarditis, Thrombophlebitis.


Wash hands often


**Bandage wounds**

Clean and cover draining or open wounds with clean, dry bandages until they heal.

# Erysipelas and Cellulitis

## The type of Precautions depends on the causative agent

**S. aureus**

- **Contact Precautions -** until wound drainage stops or can be contained by dressing.

**Methicillin-resistant Staph Aureus (MRSA)**

- **Contact** -until drainage stops or can be contained by dressing
- **Enhanced Barrier Precautions** – if wound drainage is contained

**Group A ß Strep**

- **Contact, Droplet**, - until 24 hours after initiation of effective therapy and until drainage stops or can be contained by dressing

Souce:https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html;

## Reporting

Individual cases of Erysipelas and Cellulitis are not reportable

- **S. aureus** & **MRSA** -**cluster of 2 or more cases** with infections in a 14-day period and with an epi-linked should be reported to the local health department and Office of healthcare Regulation.

Source: Section 690.658. https://ilga.gov/commission/jcar/admincode/077/077006900D06580R.html

- **Group A ß - hemolytic streptococcus –**

**(**non-invasive disease)

**Ten** epi-linked persons with lab-confirmed GAS (not from sterile site) with onsets within a 10-day period is reportable to the local health department and Office of Healthcare Regulation.

# Necrotizing Fasciitis

Also known as “flesh-eating disease”, is a bacterial infection that affects the tissue under your skin called fascia.

**What causes necrotizing fasciitis**

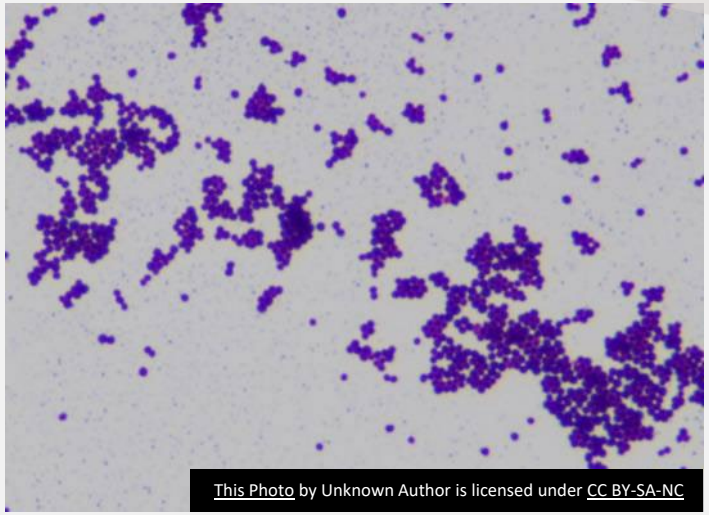
Bacteria enter through a cut in your skin, although it can happen if you have a trauma that doesn’t break the skin.

**Most common bacteria that cause necrotizing fasciitis**

- Group A ß strep
- Staphylococcus aureus

**Early symptoms** Body aches, Fever, Chills, Nausea, Diarrhea, Severe pain at the site of injury

**Later symptoms:** Ulcers, blisters, or black spots on the skin, Changes in the color of the skin, pus or oozing from the infected area, Dizziness, Fatigue (tiredness), Diarrhea or Nausea.

# Necrotizing Fasciitis

## Type of Precautions

- **Group A strep wound – Contact, Droplet**- until 24 hours after initiation of effective therapy and until drainage stops or can be contained by dressing
- **S. aureus – Contact** - until drainage stops or can be contained by dressing.
- **MRSA – Contact** - until drainage stops or can be contained by dressing

  **Enhanced Barrier Precautions** - drainage contained or wound completely covered by the dressing.

Souce: https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.ht



## Risk factors

Diabetes, Kidney disease, Cirrhosis (scarring) of the liver, Cancer.

**Minor skin conditions such as furuncles** were found to be present in about 20% c patients before developing necrotizing fasciitis. Cellulitis although rare can lead to necrotizing fasciitis.

## Prevention

Wash hands often; hygiene of residents, Clean and care for wounds

# Necrotizing Fasciitis

## Diagnosis

Performing a biopsy, bloodwork for signs of infection and muscle damage, imaging (CT scan, MRI, ultrasound)

## Treatment

IV Antibiotics and surgery are typically the first lines of defense.

## Complications

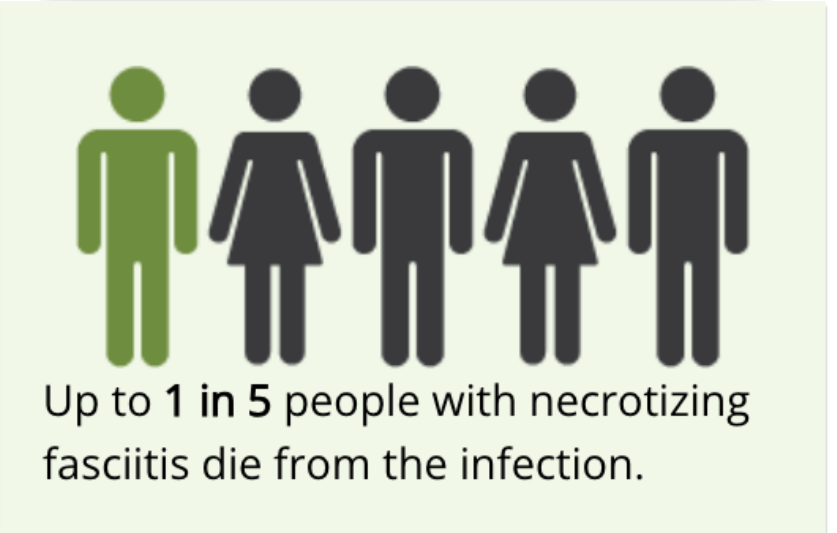
Sepsis, Shock, and Organ failure, Life-long complications from loss of limbs or severe scarring, and Death.

## Reporting

**Group A ß Strep** – one case of necrotizing fasciitis is reportable to the health department and to the Office of Healthcare Regulation.

Souce: **Section 690.670** https://ilga.gov/commission/jcar/admincode/077/077006900D06700R.html

**S. aureus** & **MRSA** –a **cluster of 2 or more cases** with infections in a 14-day period and with an epi-linked should be reported to the local health department and to the Office of Healthcare Regulation. Source: 690.658 https://ilga.gov/commission/jcar/admincode/077/077006900D06580R.html

# Dermatophytosis (Ringworm)

A common infection of the epidermis (**skin, hair, or nails**) caused by dermatophyte molds.

Types of fungi that cause ringworm are *Trichophyton, Microsporum*, and *Epidermophyton*.

**Areas of the body that can be affected by ringworm include:**

- Feet including Nails (tinea pedis, “athlete’s foot”)
- Toenails or fingernails (tinea unguium, also called “onychomycosis”) -
- Groin, inner thighs, or buttocks (tinea cruris, commonly called “jock itch”),
- Scalp,  (tinea capitis),
- Beard (tinea barbae),
- Hands (tinea manuum),
- Other parts of the body such as arms or legs (tinea corporis)

# Dermatophytosis (Ringworm)

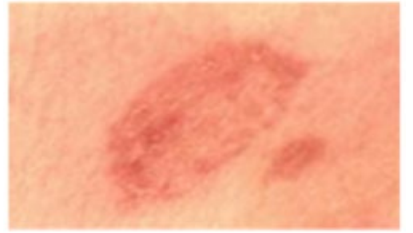
## Symptoms of ringworm by location on the body

- **Feet (tinea pedis or "athlete's foot"):** include red, swollen, peeling, itchy skin between the toes (especially between the pinky toe and the one next to it).
- **Nails (tinea unguium or onychomycosis**) nails to become discolored, thick, fragile, or cracked.
- **Groin (tinea cruris or "jock itch"):** looks like scaly, itchy, red spots, usually on the inner sides of the skin folds of the thigh.
- **Beard (tinea barbae):** include scaly, itchy, red spots on the cheeks, chin, and upper neck. The spots might become crusted over or filled with pus, and the affected hair might fall out.
- **Scalp (tinea capitis):** usually looks like a scaly, itchy, red, circular bald spot. is more common in children

## Risk Factors

- Have weakened immune systems, use public showers or locker rooms, athletes (contact sports such as wrestling), tight shoes and have excessive sweating, and close contact with animals

Nail fungus



Ringworm on the back

Ringworm on the arm

# Dermatophytosis (Ringworm)

**Prevention**

- Practicing Good Hygiene

**How it spreads:**

- From a person, pet, or the environment

**Period of Communicability**

- From the onset of lesions until 48 hours of antifungal treatment.

# Dermatophytosis (Ringworm)

## Diagnosis

- History and physical exam
- Laboratory test
  - **Potassium hydroxide (KOH) preparation of skin scrapings or nail clippings**
  - Fungal Culture
  - Histopathologic exam with periodic acid Schiff
  - Polymerase Chain Reaction (PCR)
  - Ultraviolet light (WOODS LAMP)


## Treatment:

- usually treated with over-the-counter topical antifungal products e.g. Lamisil.
- **Tinea unguium and Tinea capitis:** Treatment with *systemic* antifungal medication is **required** e.g. Griseofulvin.
- **Drug-resistant ringworm infection -** caused by *Trichophyton indotineae,* often severe and difficult to treat.

## Reporting

Individual cases are not reportable. Clusters of cases should be reported to the local health department and to the Office of Healthcare Regulation.

# Cutaneous candidiasis

Superficial infections of skin and mucous membranes are the most common types of cutaneous candidiasis.

Fungal infection is caused by a yeast (a type of fungus) called *Candida*, most commonly *Candida albicans.*

Candidiasis tends to occur in moist areas of the skin

Typical areas affected are the lining of the mouth, the groin, the armpits, the spaces between fingers and toes, under the breasts, the nails, and the skinfolds of the stomach.

# Cutaneous candidiasis

**Symptoms**

- Red, growing skin rash
- Intense itching
- Rash is typically found in warm moist crease areas such as folds under the breast and lower abdomen, beneath other skin folds, corners of the mouth, around dentures in elderly, and in the nail beds

**Risk Factors**

- Poor Hygiene, Hot, humid weather, Tight, synthetic underclothing, weakened immune system resulting from diabetes or chemotherapy, prolonged use of antibiotics and corticosteroids, obesity, and pregnancy

**Diagnosis**

- Physical examination
- Potassium hydroxide (KOH) wet mount and culture of scraping sample

# Cutaneous candidiasis

**Management/Treatment**

- Keeping the skin dry and exposed to air is helpful. Drying (absorbent) powders.
- Proper blood sugar control may also be helpful to those with diabetes.
- Antifungal skin creams, ointments, or powders (Nystatin, Miconazole nitrate or Clotrimazole).
- Antifungal medicine by mouth ( oral fluconazole) for severe mucocutaneous candida infections

**Complications**

- Widespread candidiasis may occur in people with weakened immune systems.
- May invade deeper tissues as well as the blood, causing life-threatening systemic candidiasis

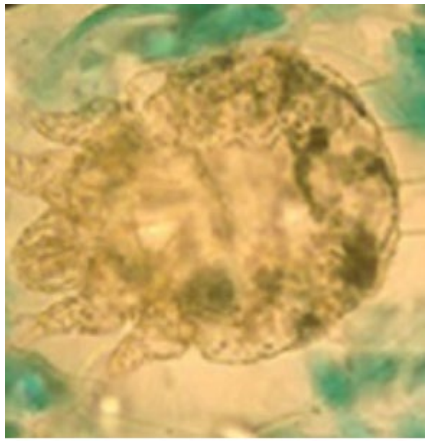
**Type of Precautions**

- Standard

**Reporting**

Individual cases are not reportable. Cluster of cases should be reported to the local health department and the office of healthcare regulation.

# Scabies



An **infestation** of the skin by the human itch mite (***Sarcoptes scabiei* var. *hominis***)

scabies mite burrows into the upper layer of the skin where it lives and lays its eggs

**Crusted (Norwegian) scabies** - a severe and highly contagious form of scabies that can occur in some persons who are immunocompromised, elderly, disabled, or debilitated.

Have thick crusts of skin that contain large numbers (hundreds to millions )of of scabies mites and eggs. Persons with crusted scabies are very contagious to other persons.

**How is it spread?** By direct, prolonged, skin-to-skin contact with a person who has scabies and by contamination of items such as clothing, bedding, and furniture.

**Incubation period**: Symptoms may take **4-8 weeks** to develop If a person never had scabies before; much sooner (**1-4 days**) after exposure, in a person who had scabies before.

**Type of Precautions: Contact until 24 hours** after initiation of effective therapy

# Scabies

## Symptoms

- Intense itching and a pimple-like skin rash, can include tiny blisters (vesicles) and scales

  and tiny burrows sometimes are seen on the skin

- Common sites are wrist, elbow, armpit, webbing between the fingers, nipple, penis, waist, belt-line, and buttocks.
- In **elderly and immunocompromised persons** presentation may be atypical, appearing on the back, abdomen, under breasts, or at the waistline rather than the typical scabies rash, itching and burrows may be less apparent.

## Diagnosis

- History and Physical Exam - appearance and distribution of the rash and the presence of burrows.
- Laboratory test - obtaining skin scraping or carefully removing a mite from the end of its burrow using the tip of a needle to examine under a microscope for mites, eggs, or mite fecal matter


Crusted (Norwegian) scabies

# Scabies

**Treatment**

- *Scabicides* (topical and oral medications) only with a doctor's prescription. Lotion or cream (5% permethrin).
- Crusted scabies usually require treatment with a combination of both topical and oral medication (Ivermectin).
- Treat persons diagnosed with scabies, as well as his or her sexual partners and members of the same household. In a healthcare facility, treat any healthcare personnel and visitor, particularly those persons who have had prolonged skin-to-skin contact with the infested person.

**Complications**

- Secondary bacterial infections

**Reporting**

- One case of healthcare provider diagnosed Crusted (Norwegian) scabies.  Non-curTWO or more symptomatic persons with epi-linked exposure and at least TWO are skin scraping positive.

# Scabies

## infection control for non-crusted  Scabies

- Infection control personnel and dermatologists should be involved as soon as scabies is suspected in an institution
- Place the resident with scabies on **contact precautions** and restrict the resident to their room for the duration of the first treatment period (8-12 hours). Contact precaution should continue **until 24 hours following treatment**.
- **Avoid skin-to-skin contact** with anyone with scabies for **at least 8 hours after application of scabicide treatment.**
- Bathe or shower the resident before applying scabicide if the resident has not been bathed within the previous 24 hours.
- Treat all symptomatic healthcare personnel, volunteers, and visitors. Healthcare personnel diagnosed with scabies **should not return to work until 24 hours after treatment** and should also speak with their healthcare provider about simultaneous prophylactic treatment of their household contacts.
- **Prophylactic treatment** of health care personnel, other residents, and household members who had prolonged skin-to-skin contact with suspected and confirmed cases.

# Scabies

## infection control for non-crusted Scabies

- **Educate everyone in the facility** including management, medical, nursing, and support staff about scabies, the scabies mite, and how scabies is and is not spread.
- **Surveillance** for additional cases should be undertaken among healthcare workers and contacts of the case, including family members and regular visitors.

# Scabies

## Additional infection control practices for Crusted Scabies

- **Assigning a cohort of caretakers** to care only for residents with crusted scabies.
- Direct skin-to-skin contact between a resident with crusted scabies and his/her caretakers and visitors should be eliminated by following strict contact precautions, including the use of protective garments such as gowns, gloves, and shoe covers.
- Maintain contact precautions until skin scrapings from a patient with crusted scabies are negative. Persons with crusted scabies generally must be treated at least twice, a week apart; oral ivermectin may be necessary for successful treatment.
- Identify and treat all residents, staff, and visitors who may have **been exposed to a resident with crusted scabies or to his/her clothing, bedding, furniture, or other items (fomites**) used by such a resident; **strongly consider treatment even in equivocal circumstances**
- Staff generally can return to work the day after treatment. However, symptomatic staff who provide hands-on care to any resident may need to **use disposable gloves for several days after treatment.**

# Scabies


## Environmental Disinfection

- Ensure bedding and clothing used by a person with crusted scabies **is collected and transported in a plastic bag and emptied directly into the washer**; machine wash and dry all items using the **hot water and high heat cycles** (temperatures of **over 50°C or 122°F for 10 minutes** will kill mites and eggs); ensure laundry personnel use protective garments and gloves when handling contaminated items.
- Attempt to ensure that all persons who receive treatment have the clothing and bedding they used anytime **during the 3 days before treatment** machine-washed and dried using **hot water and high heat cycles**.
- Clean the room of residents with crusted scabies **regularly** to remove contaminating skin crusts and scales that can contain many mites.
- Thoroughly clean and vacuum the room when a resident with crusted scabies leaves the facility or moves to a new room.
- Fumigation is not necessary

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Thank You!

# Open Q&A

Submit questions via Q&A pod to **All Panelists**

**Please do not resubmit a single question multiple times**

**Slides and recording will be made available after the session.**

# Reminders

- For continuing education credit, please fill out the evaluation survey upon end of webinar

- SIREN Registration
  - To receive situational awareness from IDPH, please use this link to guide you to the correct registration instructions for your public health related classification: http://www.dph.illinois.gov/siren

- Telligen Resources:
  - Project Firstline Trainings: https://www.telligenqiconnect.com/infectionpreventionandcontrol/
  - Contact Telligen: **nursinghome@telligen.com**