For internal use only, not for distribution

Welcome, before we begin,
put in the chat:
What is your favorite thing about Summer!

Instructions for Contact Hour

1. Update your Zoom name to reflect your full name
2. Zoom name MUST match your evaluation name
3. Enjoy the entire program
4. Complete the post-evaluation by June 30, 2023, 5:00 PM (available on the last slide)
5. Certificate will be emailed to you by July 15, 2023

San Diego
Skilled Nursing Facility
Infection Prevention Collaborative

Grow - Collaborate - Succeed

Coordinated by the County of San Diego
Healthcare-Associated Infections (HAI) Program

For internal use only, not for distribution

Reminders

Recording is on!

PHS.HAI.HHSA@ sdcounty.ca.gov

Keep your lines muted

Participate in the polls and chat

Use the chat box for questions

Slides will be emailed

“Right click" to rename

Type into the chat your:

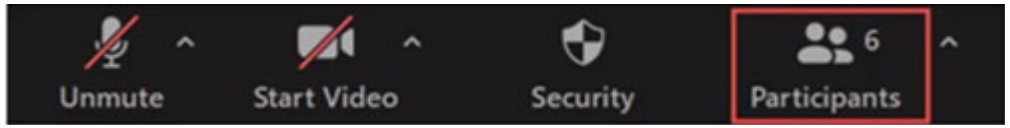
- Name
- Title
- Facility

For internal use only, not for distribution

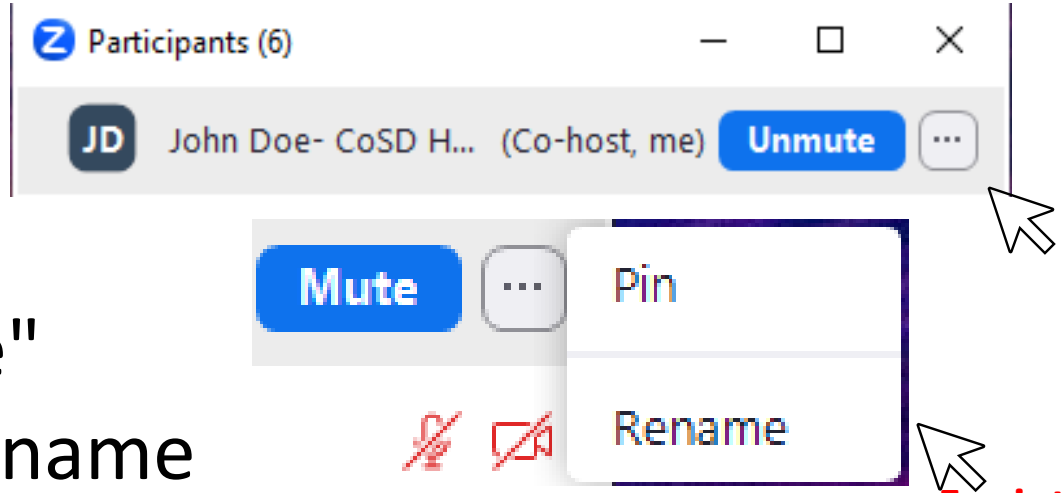
Reminders

Please update your name on the participant list

1. Find your name on the participant list



2. Hover over your name and click "..."



3. Click "Rename"
4. Type your full name

For internal use only, not for distribution

Land Acknowledgement

Public Health Services would like to begin by acknowledging the Indigenous Peoples of all the lands that we are on today. While we are meeting on a virtual platform, I would like to take a moment to acknowledge the importance of the lands, which we each call home. We respectfully acknowledge that we are on the traditional territory of the Kumeyaay. We offer our gratitude to the First Nations for their care for, and teachings about, our earth and our relations. May we honor those teachings.

For internal use only, not for distribution

Agenda

- Welcome
- General Updates
- Announcements
- Featured Topic: "Combatting Carbapenemase Producing Organisms (CPO)"
- Next Collaborative

For internal use only, not for distribution

General Updates

For internal use only, not for distribution

Respiratory Virus Update

San Diego County
Respiratory Virus Surveillance Report

Prepared by Epidemiology and Immunization Services Branch

www.sdepi.org

June 8, 2023

COVID-19

Cases	155,130
Deaths	463
Outbreaks*	466

7/3/2022 – 6/3/2023

Influenza

Cases	21,550
Deaths	43
Outbreaks*	25

7/3/2022 – 6/3/2023

For internal use only, not for distribution

Respiratory Virus Update

COVID-19 and Influenza Fiscal Year-to-Date Overview

Figure 1.1. San Diego County COVID-19* Cases by Episode Month

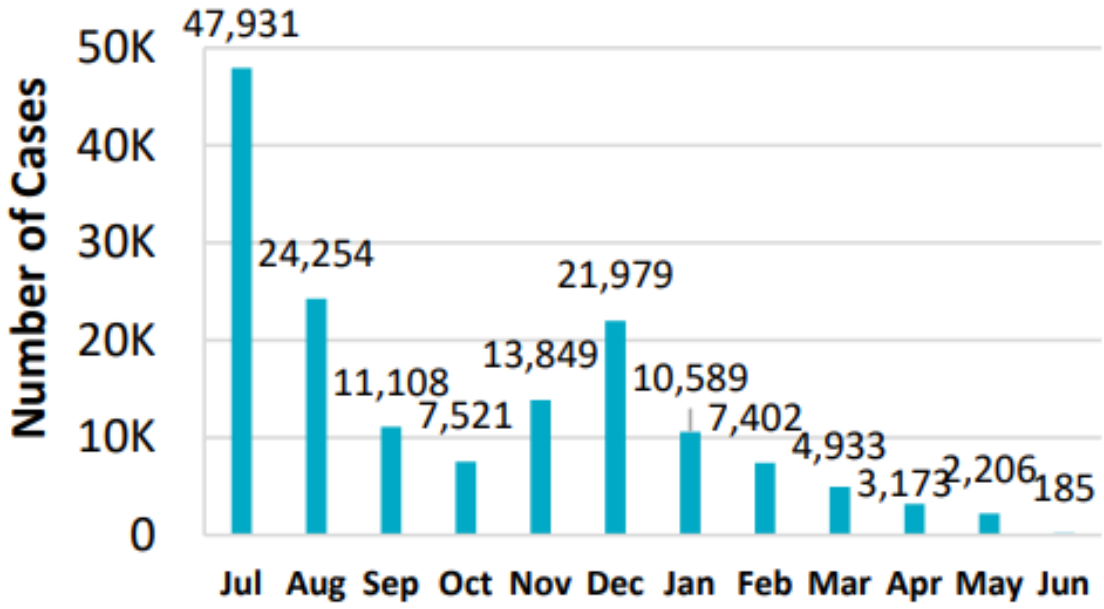
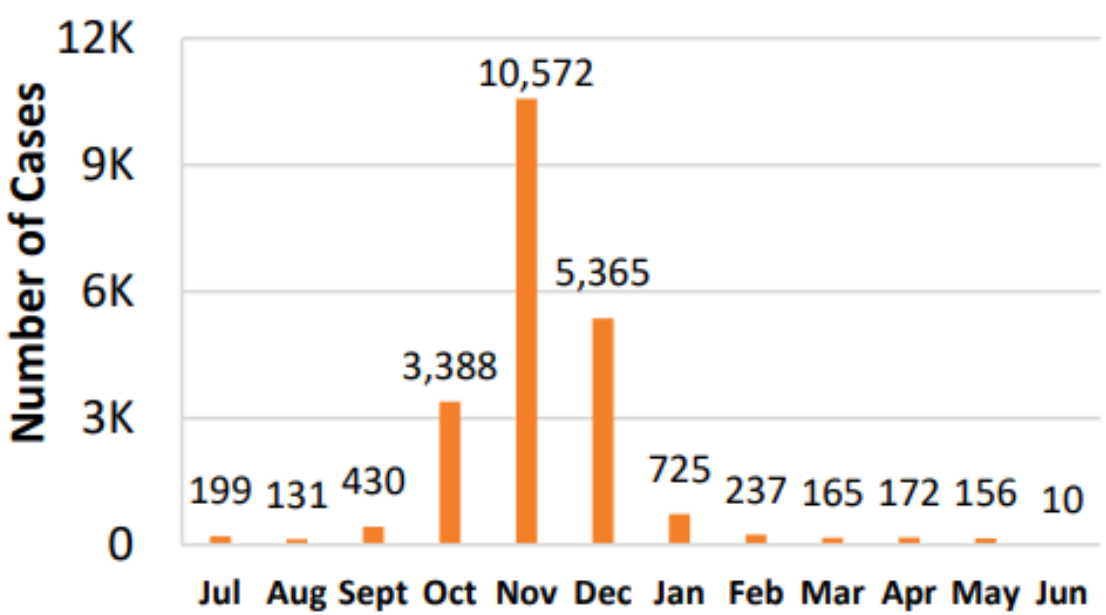


Figure 1.2. San Diego County Influenza Cases by Episode Month



For internal use only, not for distribution

COVID Update

U.S. FOOD & DRUG ADMINISTRATION

Updated COVID-19 Vaccines for Use in the United States Beginning in Fall 2023

Share | Tweet | Linkedin | Email | Print

FDA's Vaccines and Related Biological Products Advisory Committee (VRBPAC) met on June 15, 2023, to discuss and make recommendations for SARS-CoV-2 strain(s) for updated COVID-19 vaccines for use in the United States beginning in the fall of 2023.

For the 2023-2024 formulation of the COVID-19 vaccines for use in the U.S. beginning in the fall of 2023, the committee unanimously voted that the vaccine composition be updated to a monovalent COVID-19 vaccine with an XBB-lineage of the Omicron variant. Following discussion of the evidence, the committee expressed a preference for XBB.1.5.

During this meeting, the advisory committee was informed of the manufacturing timelines, they reviewed the available data on the circulation of SARS-CoV-2 virus variants, current vaccine effectiveness, human immunogenicity data of current vaccines against recently circulating virus variants, the antigenic characterization of circulating virus variants, animal immunogenicity data generated by new candidate vaccines expressing or containing updated spike components, and preliminary human immunogenicity data generated by one XBB.1.5 candidate vaccine.

Based on the totality of the evidence, FDA has advised manufacturers who will be updating their COVID-19 vaccines, that they should develop vaccines with a monovalent XBB 1.5 composition.

Content current as of:
06/16/2023

For internal use only, not for distribution

CDPH AFL Updates

California Department of PublicHealth

Active COVID-19 AFLs

Bulletin Number	Facility Type Affected	Subject	Release Date
AFL 20-31.6 (Supersedes AFL 20-31.4)	General Acute Care Hospitals (GACHs)	GACH Coronavirus Disease (COVID-19) Daily Reporting	05/12/2023
AFL 20-42	Acute Psychiatric Hospitals (APHs)	Coronavirus Disease (COVID-19) APH Reporting	04/17/2020
AFL 20-43.4 (Supersedes AFL 20-46.2)	Skilled Nursing Facilities (SNFs)	SNF Coronavirus Disease 2019 (COVID-19) Daily Reporting	05/11/2023
AFL 20-50.1 (Supersedes AFL 20-50)	Skilled Nursing Facilities	Skilled Nursing Facility Infection Prevention Meetings	06/22/2020
AFL 20-63.1 (Supersedes AFL 20-63)	Skilled Nursing Facilities	Deployment of Online Survey Application for Coronavirus Disease 2019 (COVID-19) SNF Mitigation Surveys	08/07/2020
AFL 20-73	Skilled Nursing Facilities	Advance Care Planning, Physician's Order for Life Sustaining Treatment (POLST) and Coronavirus Disease 2019 (COVID-19)	09/22/2020
AFL 20-81	General Acute Care Hospitals	GACH Coronavirus Disease 2019 (COVID-19) Vaccination	10/12/2020

https://www.cdph.ca.gov/Programs/CHCQ/LCP/Pages/COVID-19-AFLs.aspx

For internal use only, not for distribution

Virtual Train-the-Trainer Workshops

4 Train-the-Trainer Workshops will be offered over 15 weeks.

Participating SNFs should designate and register 2–4 representatives to attend each 90-minute workshop (i.e., IP, DON, DSD, NHA, EVS Manager, CNA Champion, Corporate Leadership). The representatives that attend each of the 4 workshops do not need to be the same for each workshop topic. Following completion of each workshop, trainees will be expected to train SNF staff on the IPC practices taught in each workshop.

Workshop Topics

All times are Pacific Standard Time (PST). Trainings are repeated four times per week for each workshop topic to accommodate schedules. Choose one day/time per workshop topic to attend.

Enhanced Standard Precautions

May 15–19, 2023

- May 15, 1–2:30 p.m.
- May 16, 11 a.m.–12:30 p.m.
- May 18, 12–1:30 p.m.
- May 19, 2–3:30 p.m.

Urinary Tract Infection Prevention

June 20–23, 2023

- June 20, 1–2:30 p.m.
- June 21, 11 a.m.–12:30 p.m.
- June 22, 12–1:30 p.m.
- June 23, 11 a.m.–12:30 p.m.

Certified Nursing Assistant IPC Curriculum

July 17–21, 2023

- July 17, 1–2:30 p.m.
- July 18, 11 a.m.–12:30 p.m.
- July 20, 12–1:30 p.m.
- July 21, 2–3:30 p.m.

EVS IPC Curriculum for EVS Managers

August 21–25, 2023

- August 21, 1–2:30 p.m.
- August 22, 11 a.m.–12:30 p.m.
- August 24, 12–1:30 p.m.
- August 25, 2–3:30 p.m.

For internal use only, not for distribution

County/CDPH Briefings

- **CDPH/HSAG SNF IP Webinars:**
  - 4th Wednesday @ 3PM-4PM
  - Next webinar is on 6/28/2023
- **County LTC Sector COVID Monthly Telebriefing:**
  - 4th Thursday @ 2PM-3PM
  - Next briefing is on 6/29/2023
- **CDPH Healthcare Facility Call:**
  - 2nd Tuesday of each month @ 8AM-9AM
  - Next call is on 7/11/23

For internal use only, not for distribution

Contact Hour Instructions

- **Ensure your full name identifies you on Zoom**
- **Enjoy the full presentation**
- **Complete the post-evaluation**

For internal use only, not for distribution

“Combatting Carbapenemase Producing Organisms (CPO)”

Mara Rauhauser, BSN, RN, PHN
Infection Preventionist

For internal use only, not for distribution

Objectives

Upon completion of this program, you will be able to:.

- Name three circumstances that have contributed to the increase in antimicrobial resistance in the United States.
- Describe three characteristics of CROs
- List 4 of the most commonly seen CROs in San Diego County.
- Identify 3 infection prevention actions that can prevent the spread of CROs in healthcare facilities.

For internal use only, not for distribution

Multidrug Resistant Organisms (MDRO)

Many complex issues have contributed to the increase in MDROs

- Antimicrobial use in people, including misuse and overuse
- Antimicrobial use in livestock
- Antifungal use in agriculture
- Global connectedness (movement of people and products)

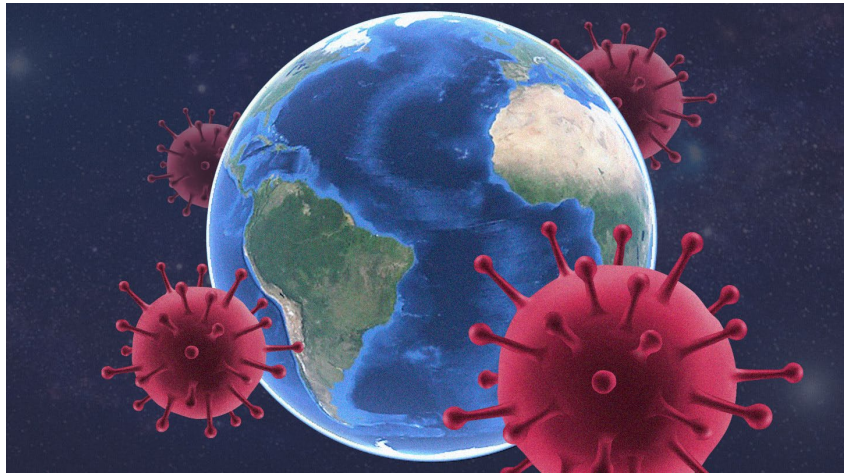
For internal use only, not for distribution

Effects of COVID-19 on the Antimicrobial Resistance

Higher acuity patients, resulting in longer hospital stays and more antibiotic use

Innovations unrelated to COVID-19 were not the priority

Staffing Shortages



This Photo by Unknown Author is licensed under CC BY-SA

PPE Shortages

Cohorting was mainly done according to COVID status

Detection and tracking of AR data slowed tremendously

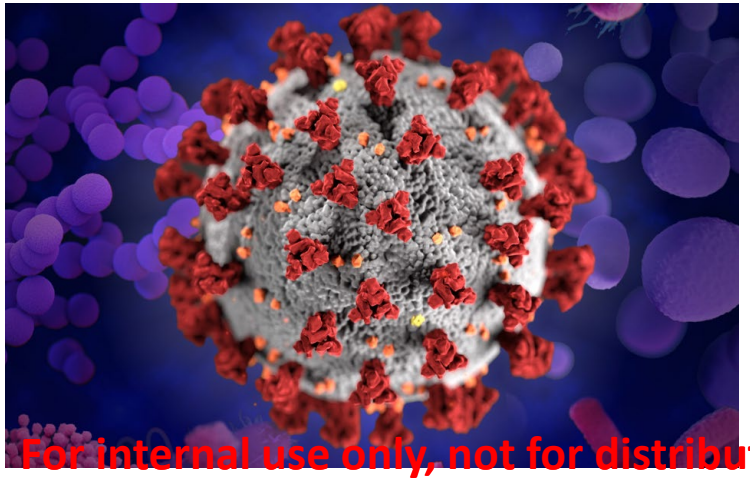
IPC practices suffered overall

For internal use only, not for distribution

The COVID Effect

Available data show an alarming increase in resistant infections starting during hospitalization, growing at least 15% from 2019 to 2020.

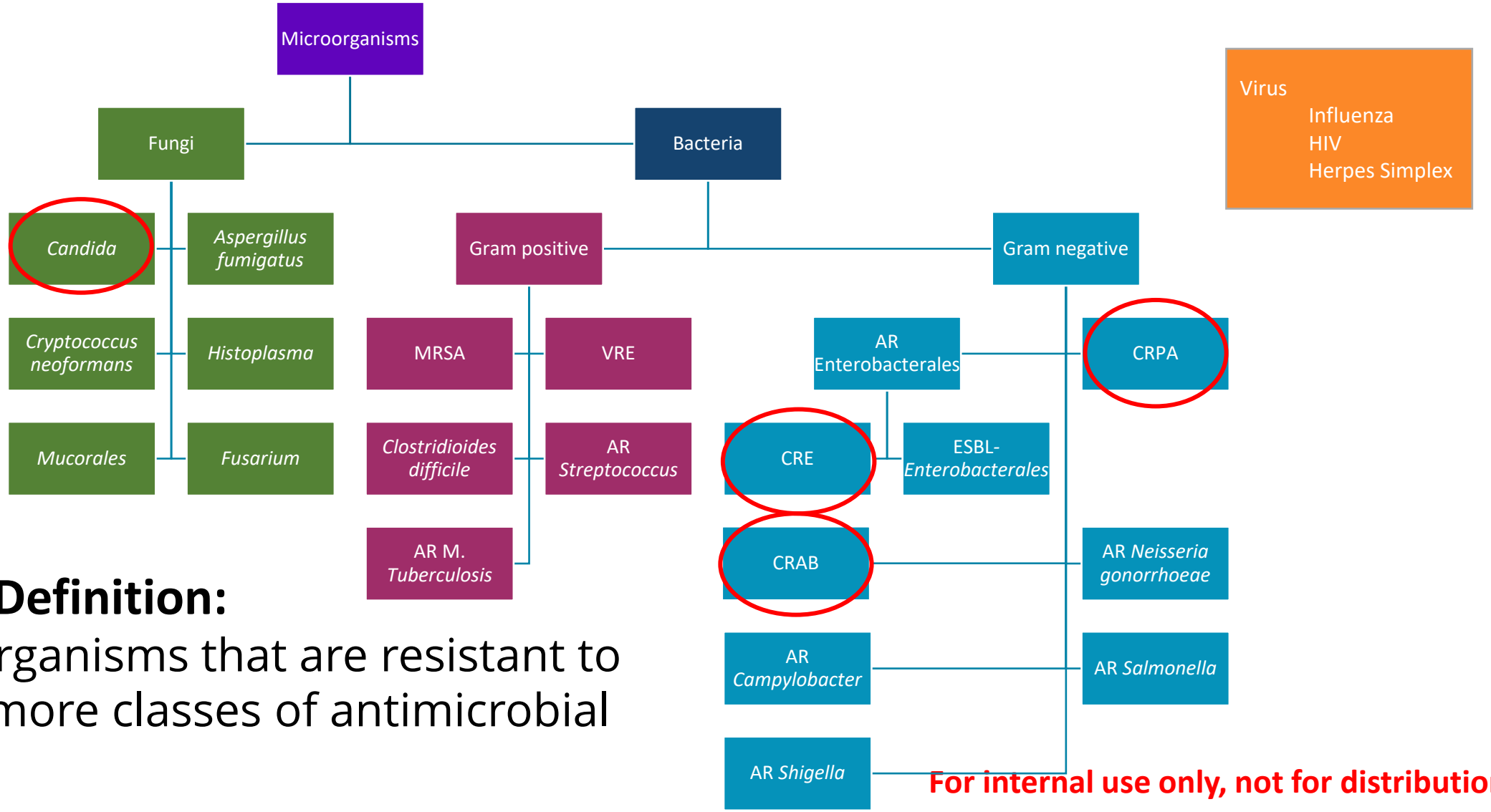
- Carbapenem-resistant *Acinetobacter* (↑78%)
- Antifungal-resistant *Candida auris* (↑60%)*
- Carbapenem-resistant Enterobacterales (↑35%)
- Antifungal-resistant *Candida* (↑26%)
- ESBL-producing Enterobacterales (↑32%)
- Vancomycin-resistant Enterococcus (↑14%)
- Multidrug-resistant *P. aeruginosa* (↑32%)
- Methicillin-resistant *Staphylococcus aureus* (↑13%)



2022 SPECIAL REPORT: COVID-19 U.S. Impact on Antimicrobial Resistance (cdc.gov)

For internal use only, not for distribution

Types of MDROs



MDRO Definition:

Microorganisms that are resistant to one or more classes of antimicrobial agents

For internal use only, not for distribution

Antimicrobial Stewardship

HOW ANTIBIOTIC RESISTANCE HAPPENS

BE ANTIBIOTICS AWARE
SMART USE, BEST CARE

1
There are lots of germs and a few are resistant to **antibiotics**.

2
When **antibiotics** kill bacteria causing illness, they also kill good bacteria protecting the body from infection.

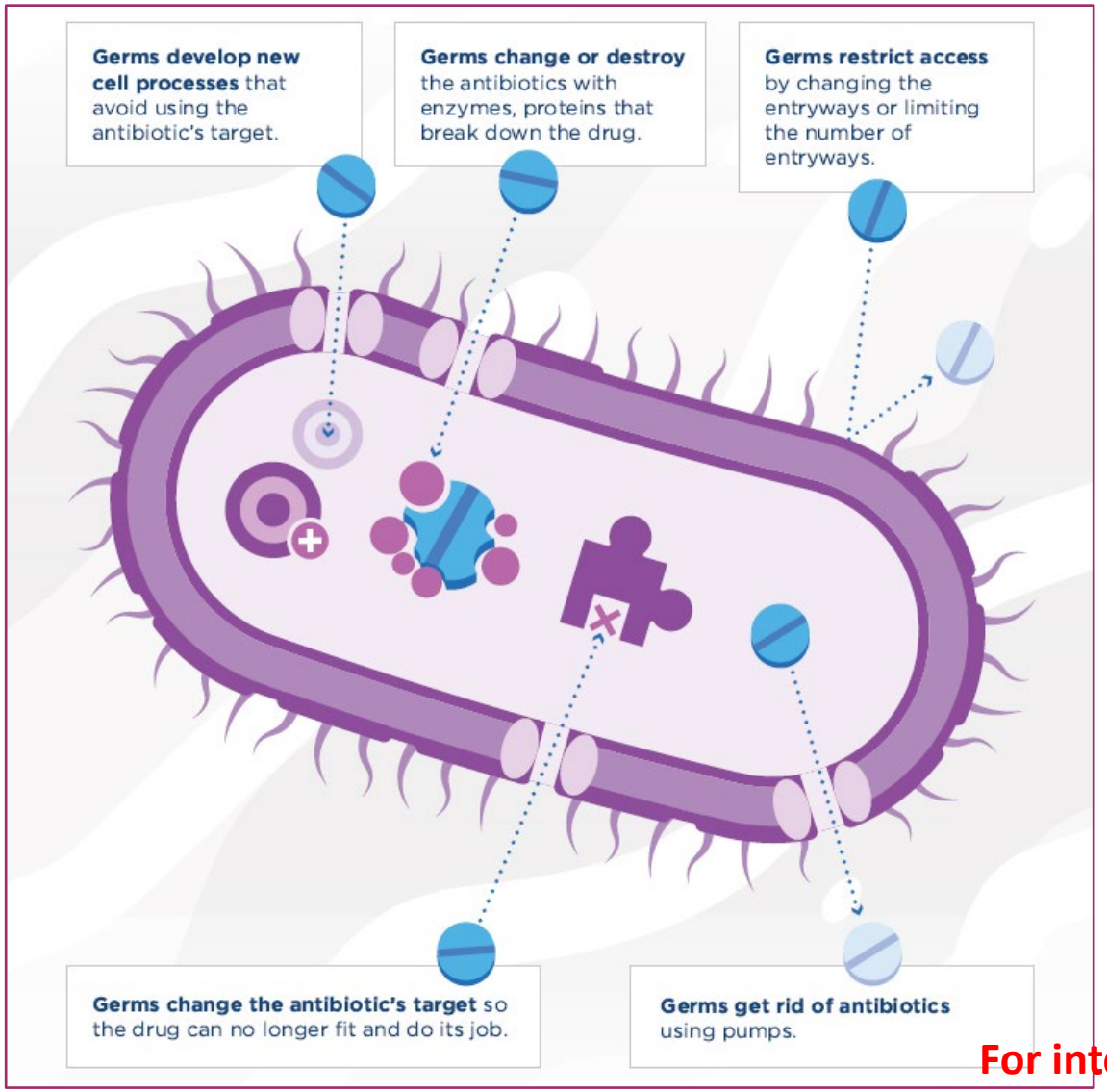
3
The **antibiotic-resistant** bacteria grow and take over.

4
Some bacteria give their **antibiotic resistance** to other bacteria, causing more problems.

For internal use only, not for distribution

www.cdc.gov/antibiotic-use

Resistance Mechanisms



How Bacteria and Fungi Fight Back Against Antibiotics (cdc.gov)

For internal use only, not for distribution

Resistance Mechanisms

CRPA

NDM

This Photo by Unknown Author is licensed under CC BY-NC-ND

VIM

CRAB

CRE

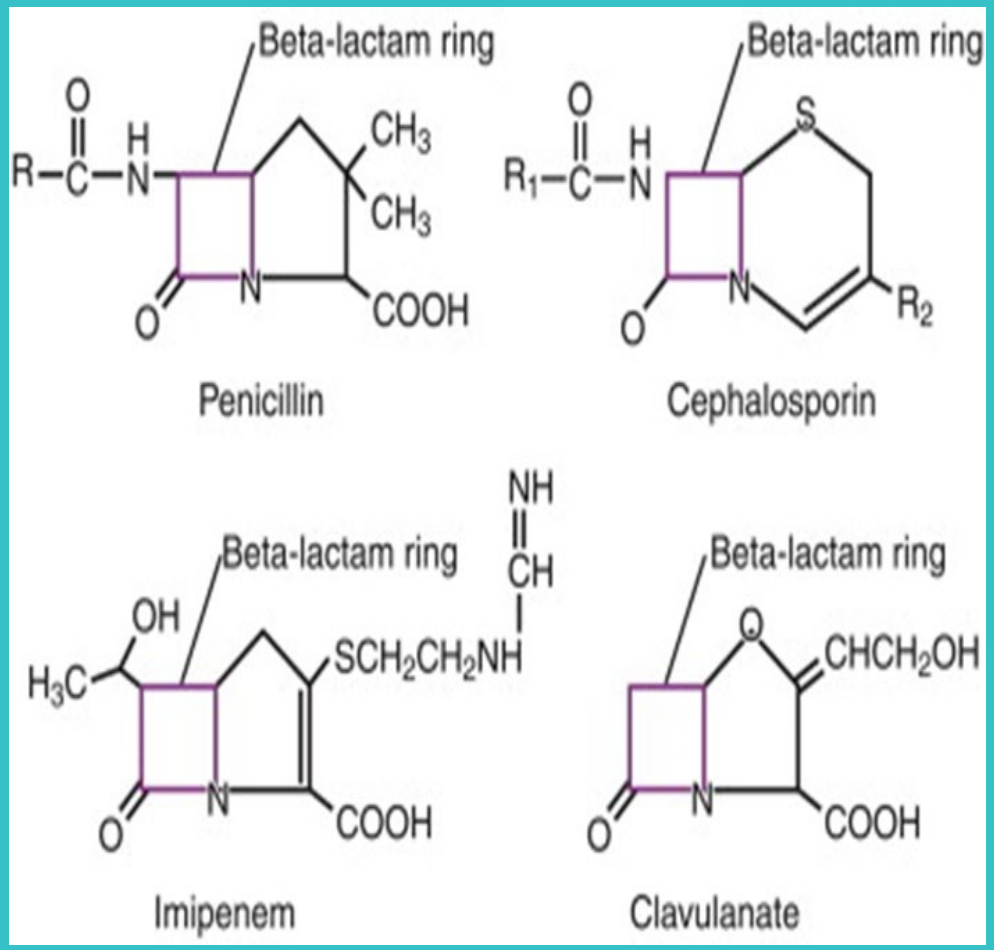
ESBL

IMP

For internal use only, not for distribution

Carbapenem Resistance

- **What is carbapenem resistance?**
  - When an organism is able to grow and thrive in the presence of a carbapenem antibiotic.
- **What are carbapenems?**
  - Class of last-line “beta-lactam” antibiotics, related to penicillin
  - Specific Carbapenems: Imipenem, Doripenem, Ertapenem, Meropenem



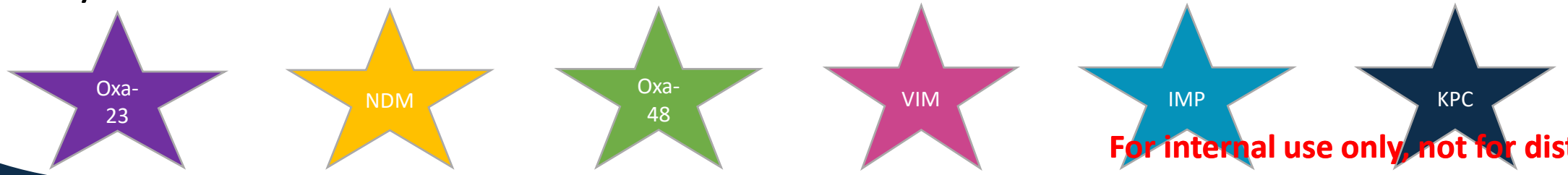
For internal use only, not for distribution

Carbapenemase Production

One type of antimicrobial resistance is the production of carbapenemase.

- Carbapenemase is an **enzyme** that prevents beta-lactam antibiotics from working effectively, this includes carbapenems
- There are different recipes for **carbapenemase.**
- These recipes are on segments of DNA. Each on has a different name. Sometimes they are in the non mobile portions of DNA and sometimes in the plasmids. Mobile segments, like plasmids, are more likely to be shared with other bacteria.

Plasmids
Circles of DNA that can move between cells.

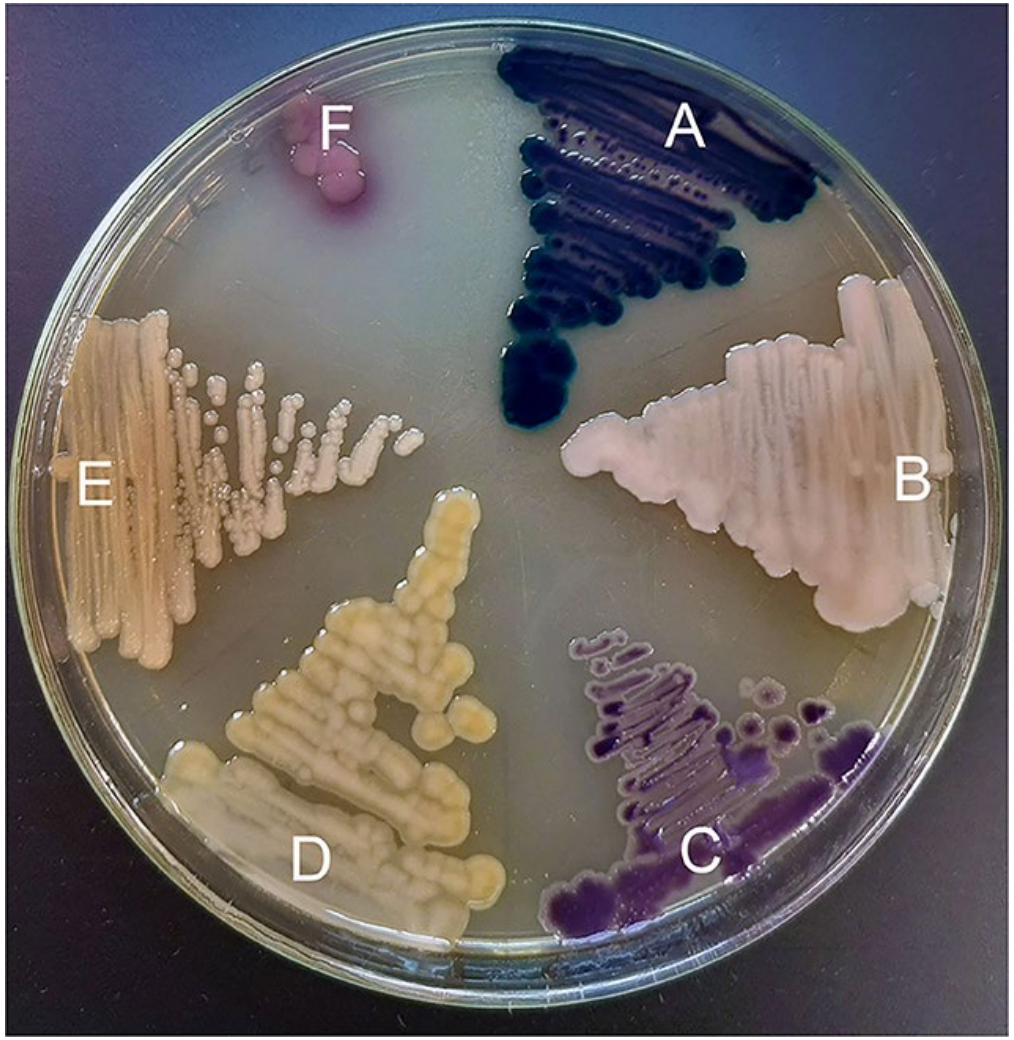


For internal use only, not for distribution

Most Common Enterobacterales

- *Escherichia coli*
- *Klebsiella pneumoniae*
- *Enterobacter*
- *Citrobacter*
- *Hafnia*
- *Morganella*
- *Proteus*
- *Providencia*
- *Serratia*

The most common types of carbapenemase seen in **CRE** in the United States are: KPC, NDM, VIM, IMP, OXA-48, Dual mechanism.

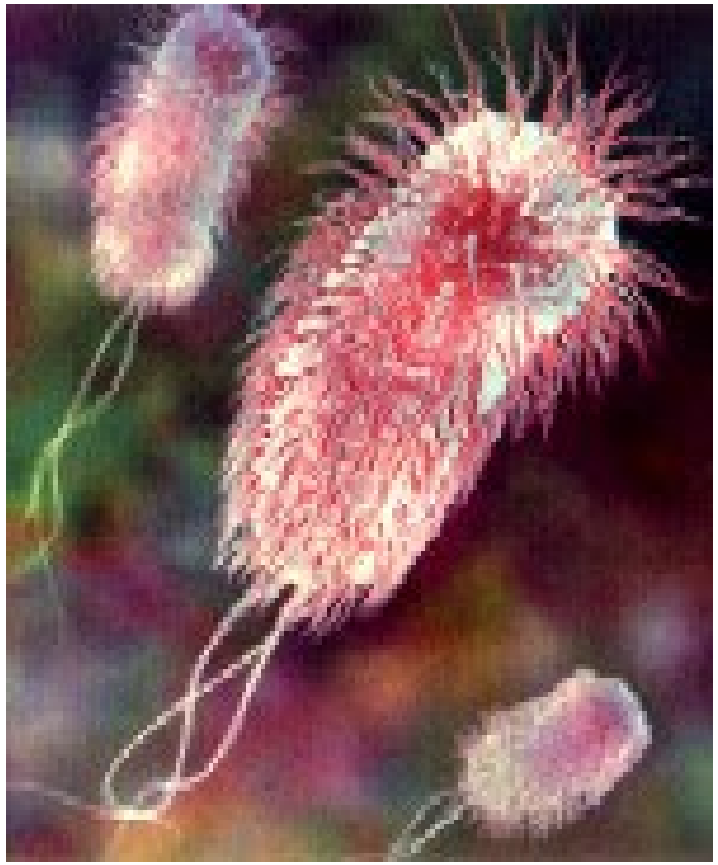


This Photo by Unknown Author is licensed under CC BY

For internal use only, not for distribution

Enterobacterales: *Escherichia coli*

- Gram-negative
- Found in the GI tract of humans and in the environment of hospitals and LTC facilities.
- Many strains cause intestinal illness including: STEC, ETEC, and EPEC
- Carbapenem resistant strains:
  - UTI is the most common extraintestinal site of infection by *E. coli*
  - Pneumonia: including VAP (ventilator-associated pneumonia)
  - Bacteremia, meningitis and many others



Escherichia Coli - StatPearls - NCBI Bookshelf (nih.gov)

Escherichia coli, E.coli (medirecord.eu)

For internal use only, not for distribution

Enterobacterales: *Klebsiella pneumoniae*

- Considered the most common cause of HA pneumonia in the United States
- Accounts for 3-8% of all nosocomial bacterial infections
- Typically colonizes human mucosal surfaces of the oropharynx, GI tract, and stool
- It is estimated that 5-38% of the general population carry the organism in their stool and 1-6% in the nasopharynx
- Found in contaminated food, water, and healthcare environments including sink drains and toilets

Klebsiella Pneumonia - StatPearls - NCBI Bookshelf (nih.gov)

Klebsiella Pneumonia - StatPearls - NCBI Bookshelf (nih.gov)

For internal use only, not for distribution

Enterobacterales: *Enterobacter spp.*

- Less commonly a cause of community acquired infections including UTI, osteomyelitis, and respiratory infections
- Found in GI tract, human skin, water, soil, sewage and certain foods
- Gram negative, rod-shaped, some have flagella and thus are motile
- Common HA infections include bacteremia, pneumonia and UTI

This Photo by Unknown Author is licensed under CC BY-SA-NC

For internal use only, not for distribution

Pseudomonas spp.

- Most common types seen in humans: ***P. aeruginosa*** and ***P. maltophilia***
- Which gene mechanisms are prevalent in CP-CRPA
  - VIM
  - NDM
  - IMP
  - GES
- Community acquired infections like puncture wounds and pneumonia
- HA infections:
  - VAP (ventilator associated pneumonia)
  - CAUTI (catheter associated urinary tract infections)
  - CLABSI (central line-associated infection)
  - SSI (surgical site infection)

For internal use only, not for distribution

Acinetobacter baumannii

- *Acinetobacter calcoaceticus-baumannii* complex includes:
  - *Acinetobacter calcoaceticus*
  - *Acinetobacter baumannii*
  - *Acinetobacter pittii*
  - *Acinetobacter nosocomialis*

- Found in soil and water as well as in healthcare settings
- Frequently seen in facilities in San Diego County
- Often resistant to most or all antibiotics it is tested against

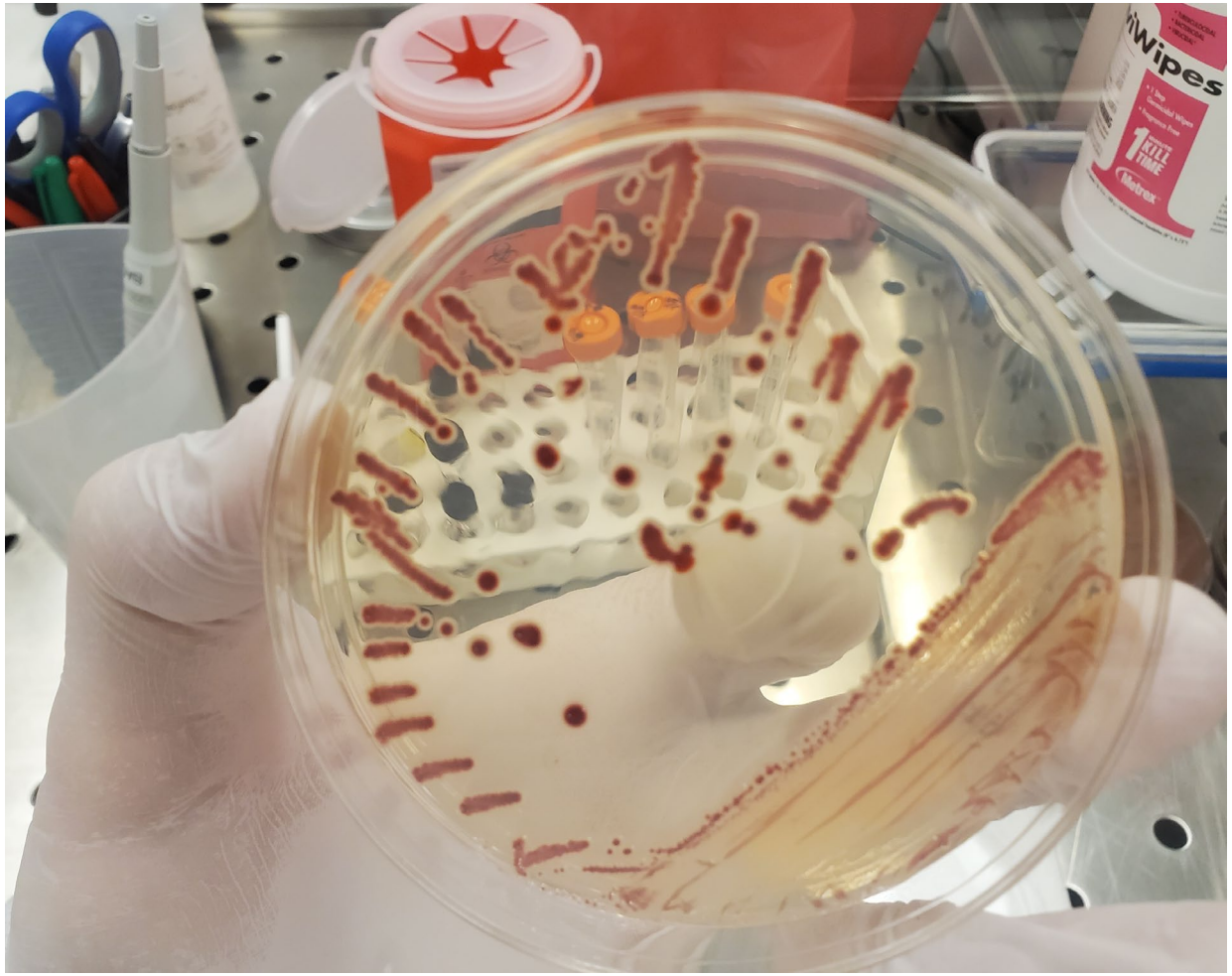
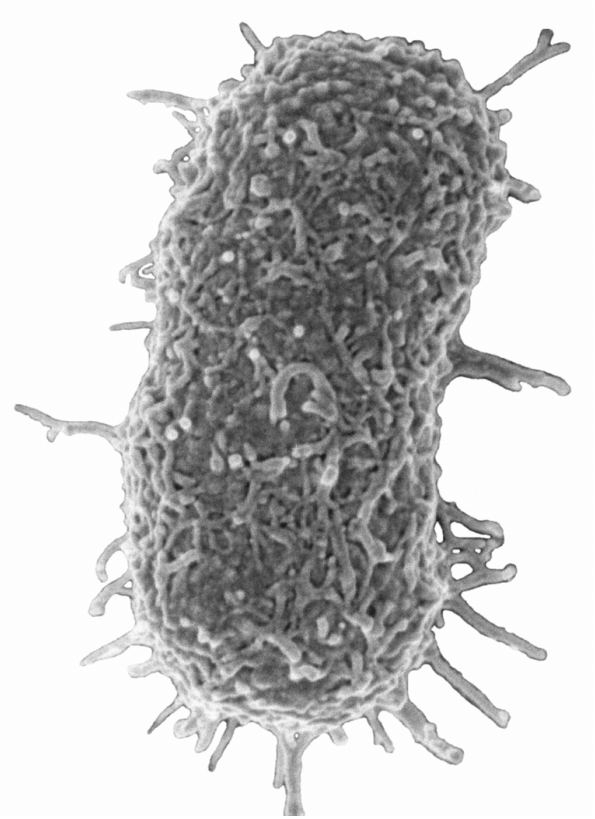


Photo taken at our own PHL

For internal use only, not for distribution

Carbapenem Resistant *Acinetobacter baumannii* (CRAB)



[Giving Acinetobacter baumannii a choice: death by phage or death by antibiotic | Nature Portfolio Microbiology Community]

Which gene mechanisms are prevalent in CRAB?

- OXA-23
- OXA-24/40
- OXA-235 like/237
- NDM

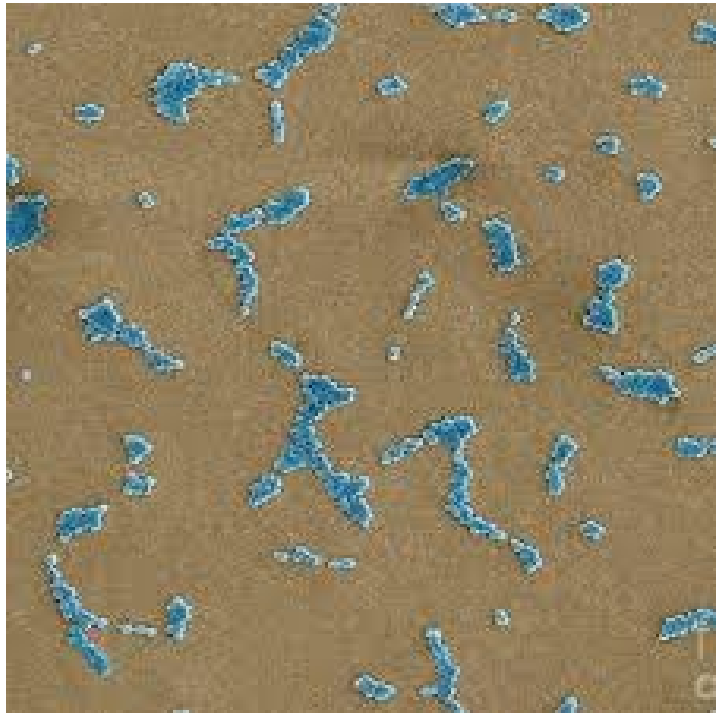
Infections

- Blood, urinary tract, lungs, or wounds.
- Treatment options are often very limited
- Morbidity and mortality rates are high

For internal use only, not for distribution

Additional Challenges For These MDROS

- **Colonization**
  - Asymptomatic
  - Can be a source of transmission
  - Indefinite duration
  - Currently there is no decolonization strategy.
  - Cases often start as colonization and move into active infection
- **Additional Challenges**
  - Harm and death rates for invasive infections are high
  - Highly transmissible in healthcare settings
  - Can live for weeks to months on environmental surfaces
  - Difficult to eradicate with commonly used disinfectants



For internal use only, not for distribution

Examples

	P. aeruginosa	
ANTIBIOTICS	MIC mcg/mL	INT
Amikacin	<=8	S D1
Aztreonam	8	S D1
Ceftazidime	2	S D2
Ciprofloxacin	<=0.5	S D2
Cefepime	2	S D2
Gentamicin	<=2	S D1
Meropenem	4	I
Tobramycin	<=2	S D1
Piperacillin/Tazobactam	4/4	S D3

Not CRO
Pseudomonas aeruginosa

	P. aeruginosa	
ANTIBIOTICS	MIC mcg/mL	INT
Amikacin	<=8	S D1
Aztreonam	16	I D1
Ceftazidime	>16	R D2
Ciprofloxacin	2	R D2
Cefepime	8	S D2
Gentamicin	<=2	S D1
Meropenem	>8	R
Tobramycin	<=2	S D1
Piperacillin/Tazobactam	>64/4	R D3

CRO
?CPO
CRPA

For internal use only, not for distribution

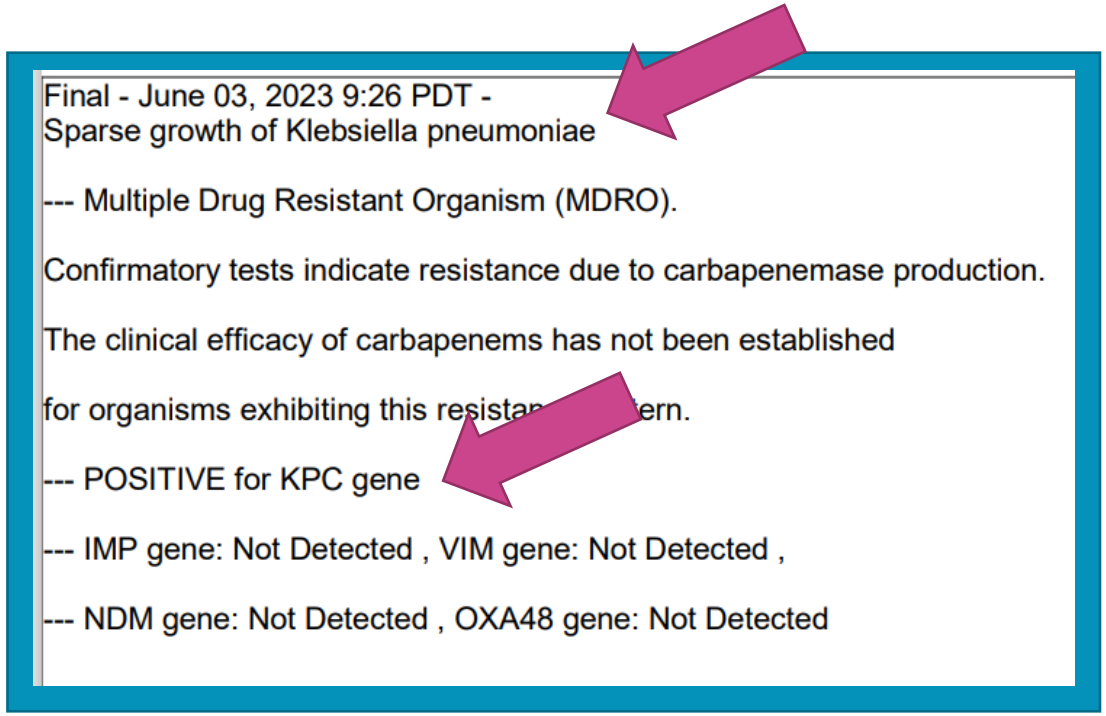
Examples

	P. aeruginosa		
ANTIBIOTICS	MIC mcg/mL	INT	
Amikacin	>32	R	D1
Aztreonam	>16	R	D1
Ceftazidime	>16	R	D2
Ciprofloxacin	>2	R	D2
Cefepime	>16	R	D2
Gentamicin	>8	R	D1
Meropenem	>8	R	
Tobramycin	>8	R	D1
Piperacillin/Tazobactam	>64/4	R	D3
Colistin	<=2	S	D4
Ceftolozane + Tazobactam	>8/4	R	D5
Ceftazidime + Avibactam	>16/4	R	D6

CRO
?CPO
CRPA

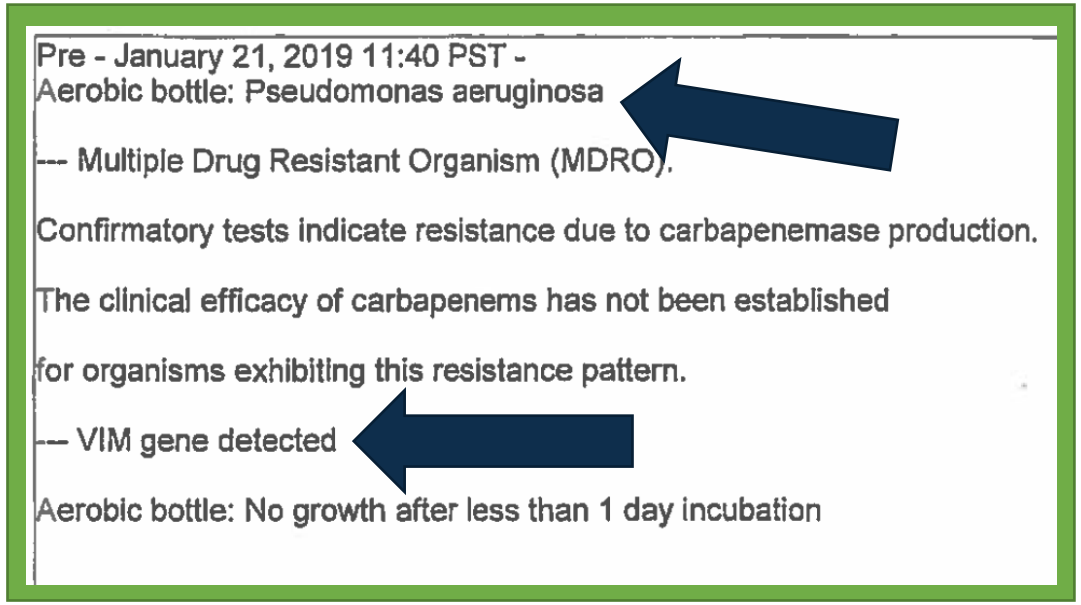
For internal use only, not for distribution

Examples



CRO
CPO
CP-CRE

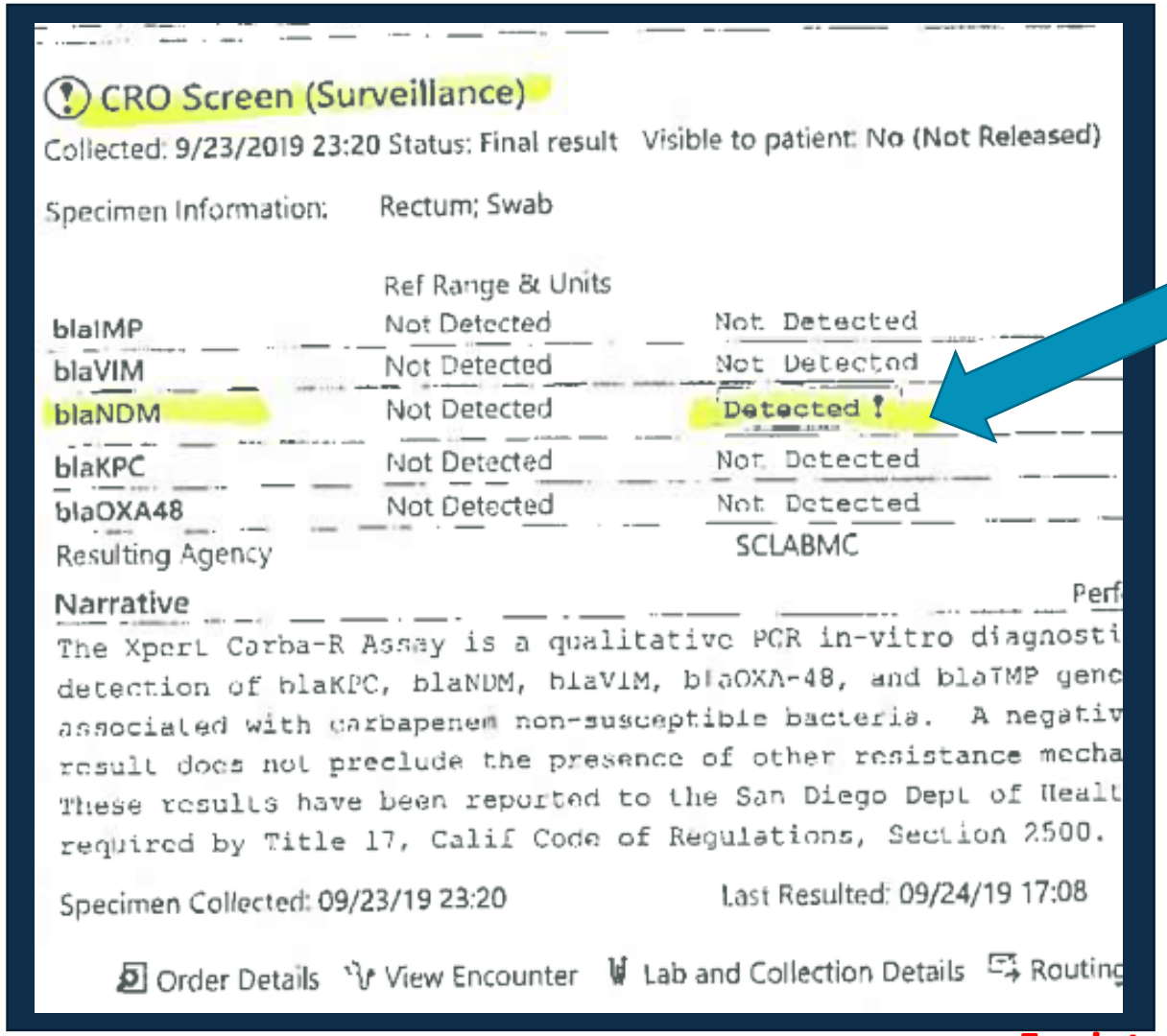
****Not all *Klebsiella pneumoniae* are KPC**



CRO
CPO
CP-CRPA

For internal use only, not for distribution

Examples



CRO Screen (Surveillance)

Collected: 9/23/2019 23:20 Status: Final result Visible to patient: No (Not Released)

Specimen Information: Rectum; Swab

	Ref Range & Units	
blaIMP	Not Detected	Not Detected
blaVIM	Not Detected	Not Detected
blaNDM	Not Detected	Detected !
blaKPC	Not Detected	Not Detected
blaOXA48	Not Detected	Not Detected
Resulting Agency		SCLABMC

Narrative

The Xpert Carba-R Assay is a qualitative PCR in-vitro diagnosti
detection of blaKPC, blaNDM, blaVIM, blaOXA-48, and blaTMP genc
associated with carbapenem non-susceptible bacteria. A negativ
result does not preclude the presence of other resistance mecha
These results have been reported to the San Diego Dept of Healt
required by Title 17, Calif Code of Regulations, Section 2500.

Specimen Collected: 09/23/19 23:20 Last Resulted: 09/24/19 17:08

Order Details View Encounter Lab and Collection Details Routing

CRO
CPO

For internal use only, not for distribution

Examples

ORGANISM Acinetobacter baumannii !

Susceptibility

	Acinetobacter baumannii ANTIMICROBIAL SUSCEPTIBILITY	
Ampicillin+Sulbactam	16	**RESISTANT**
Cefepime	>=64	**RESISTANT**
Ceftazidime	>=64	**RESISTANT**
Ceftriaxone	>=64	**RESISTANT**
Ciprofloxacin	>=4	**RESISTANT**
Colistin	<=0.25	**SUSCEPTIBLE**
Gentamicin	>=16	**RESISTANT**
Meropenem	>=16	**RESISTANT**
Piperacillin+Tazobactam	>=128	**RESISTANT**
Tigecycline	1	**SUSCEPTIBLE**
Trimethoprim+Sulfamethoxazole	<=20	**SUSCEPTIBLE**

CRO
?CPO
CRAB

For internal use only, not for distribution

At Risk Population

Who is at risk?

- These are opportunistic organisms that most often affect very ill people.
- Patients with history of admission to high-risk healthcare facility (e.g., ICU, LTACH, or SNF)
- Being on a mechanical ventilator
- Having lines, tubes, drains, wounds
- Recent healthcare abroad or in areas with known transmission

For internal use only, not for distribution

These MRDOs Spread By Contact

Healthcare worker hands

Healthcare worker uniforms

For internal use only, not for distribution

These MRDOs Spread By Contact

Shared and Reusable Equipment

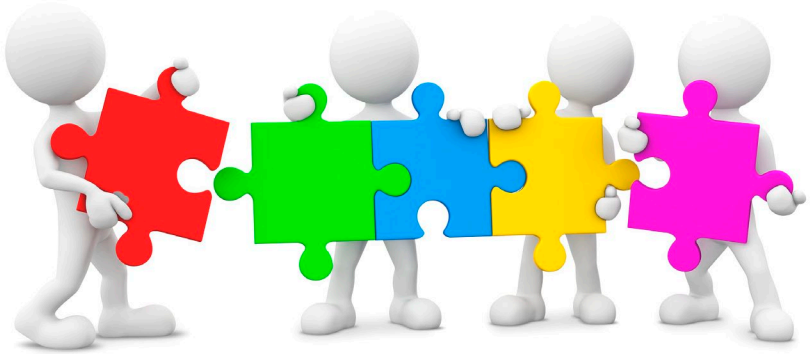
This Photo by Unknown Author is licensed under CC BY

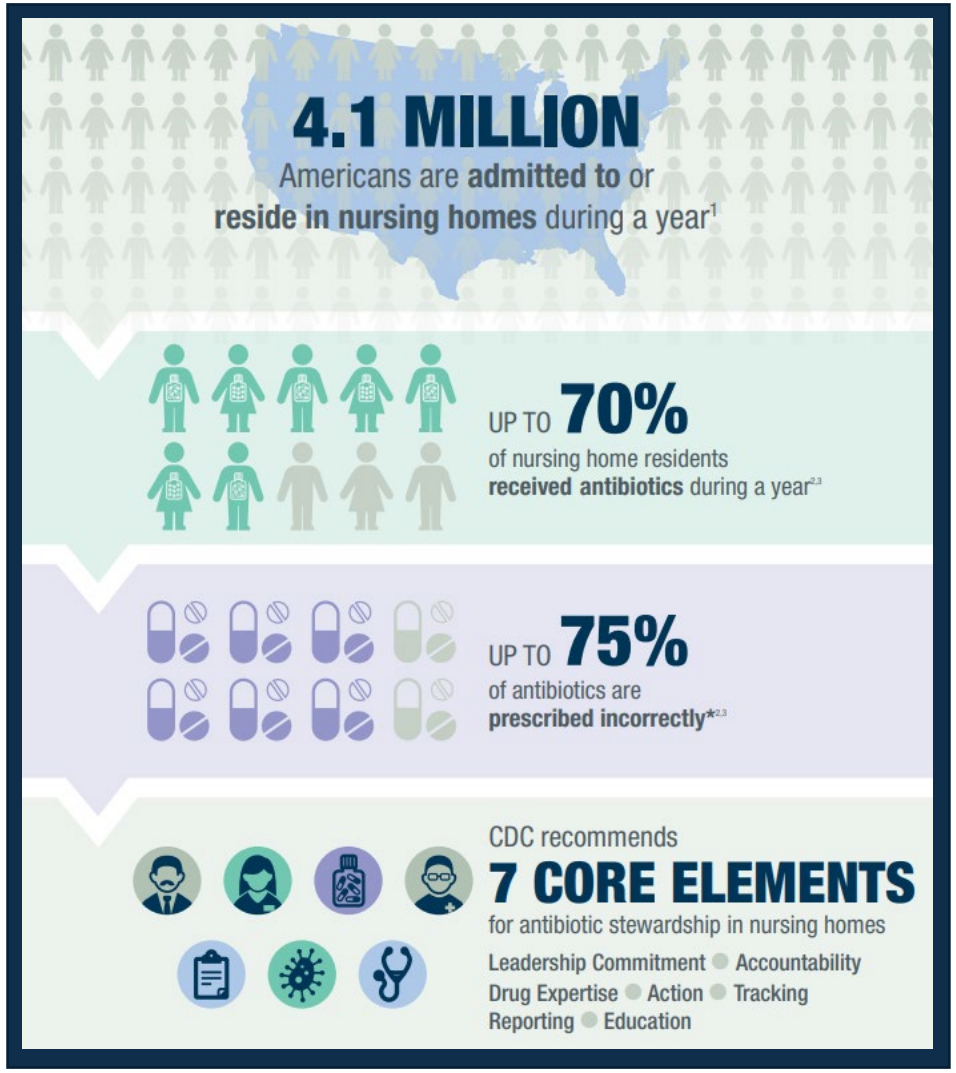
Contaminated Surfaces

For internal use only, not for distribution

Antimicrobial Stewardship

A strong **Antimicrobial Stewardship Program**(ASP) is a key piece in fighting antimicrobial resistance





For internal use only, not for distribution

How To Prevent Transmission

- Use of good **hand hygiene** by all staff
- Proper use of **PPE** by all staff
- Excellent **EVS practices** to reduce cross contamination and decrease the number of bacteria in the environment
- Use a whole house disinfectant that is on **EPA List P** and has a **contact time** of 5 minutes or less
- Proper disinfection of **shared/reusable medical** equipment and **high touch areas** throughout the facility and across all departments
- Good Hand hygiene and personal hygiene for **residents**
- **Adherence monitoring** to improve above practices

For internal use only, not for distribution

How To Prevent Transmission

- **Enhanced Standard Precautions Program**
- Place resident in **Contact isolation** or **ESP** as appropriate if you have a whole facility program
- **Cohort** appropriately-like with like
- **Dedicate** equipment when possible
- **Limit** room changes for any MDRO positive residents
- **Communicate** MDRO history and isolation status to any receiving facility
- **Communicate** with HAI team and San Diego Public Health as requested
- Utilize HAI team **support**

For internal use only, not for distribution

Infection Prevention and Control- Quick Reference Chart

Healthcare Associated Infections Program

Table 1. *C. auris*, other MDRO (including *C. diff*) and COVID-19 Containment, Infection Control Measures

	C. auris	*Acinetobacter*	Other MDRO (e.g., CRE)	*C. diff*	COVID-19
Good hand hygiene – ABHS preferred	X	X	X	Soap & water	X
Contact precautions, single room if possible	X	X	X	X	+ respirator, eye protection
Thorough environmental cleaning and disinfection	Use *C. auris*/ List K agent	X	X	Use List K agent	Use List N agent (*C. auris*/List K agent OK)
Routine adherence monitoring	X	X	X	X	X
Cohorting of patients and HCP	X	X	X	X	X
Lab surveillance	X	X	X	X	X
Screening of high-risk contacts	X	X	X		X

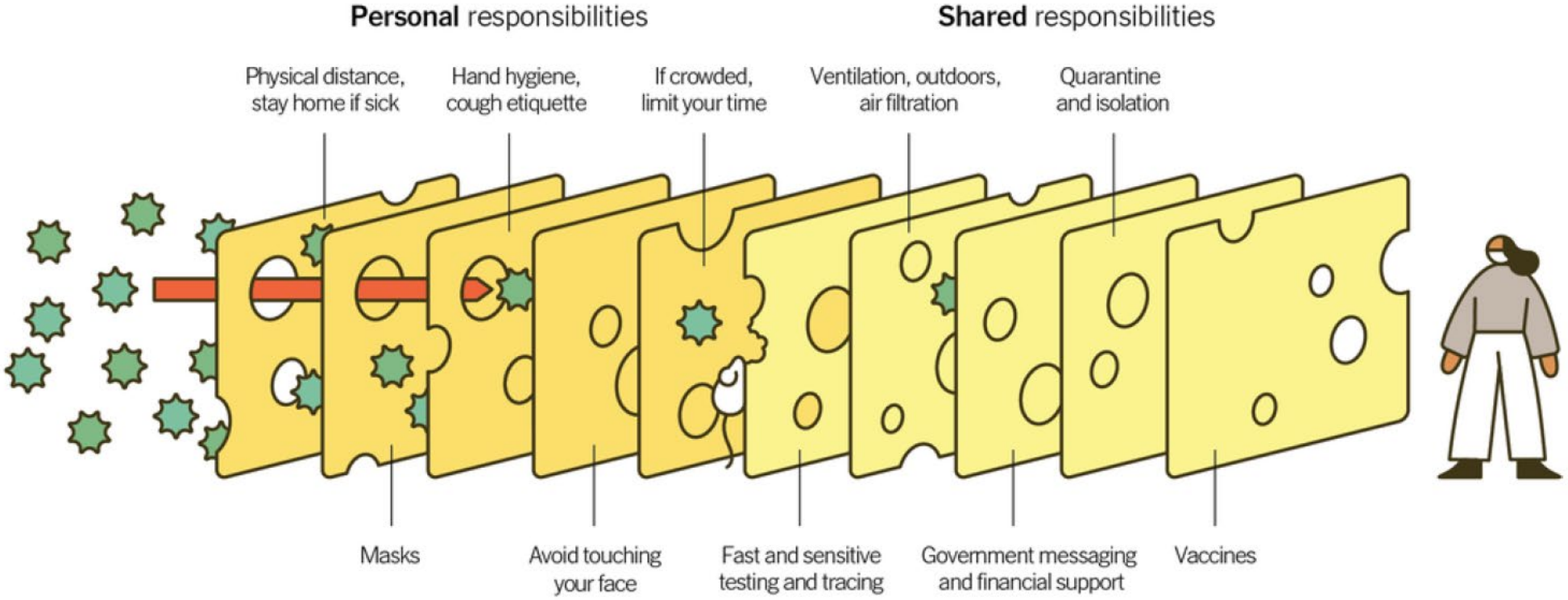
ABHS=alcohol-based hand sanitizer; *C. diff*=*Clostridiodes difficile*; CRE=Carbapenem-resistant Enterobacterales

For internal use only, not for distribution

Swiss Cheese Approach

Multiple Layers Improve Success

The Swiss Cheese Respiratory Pandemic Defense recognizes that no single intervention is perfect at preventing the spread of the coronavirus. Each intervention (layer) has holes.



Source: Adapted from Ian M. Mackay (virologydownunder.com) and James T. Reason. Illustration by Rose Wong

For internal use only, not for distribution

Unknown MDRO Carriage

Unknown MDRO Carriage in Skilled Nursing Facility Residents

Previously Documented MRDO

MRDO Carriage-previously UNKNOWN

No Known MDRO

McKinnell JA et al. Clin Infect Dis. 2019; 69(9):1566-1573

For internal use only, not for distribution

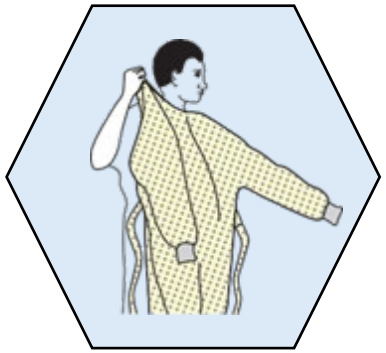
Enhanced Barrier Precautions
Enhanced Standard Precautions

For internal use only, not for distribution

What is ESP

Enhanced Standard Precautions is:

- ✓ A resident-centered, risk factor-based approach to prevent MDRO transmission in SNFs.
- ✓ For residents at **high risk of MDRO colonization** and transmission:
  - ✓ **Gloves and gowns** are used during specific care activities with greatest risk for MDRO contamination of HCW hands, clothes and environment
- ✓ Does not rely on knowledge of resident MDRO colonization status
- ✓ Allows residents with adequate hygiene and containment of body fluids to **leave their room** and **participate** in facility activities.



For internal use only, not for distribution

FAQ

1. When can this resident be cleared of isolation?
2. When can we place this person in ESP instead of Contact isolation?
3. What are the symptoms for CRAB/CRE/CRPA?
4. If colonization is asymptomatic, why does this resident need to be in contact isolation?
5. When can this resident be retested?
6. Why is it best practice to cohort this person in a single room or with residents who have the same organism/gene mechanism?

For internal use only, not for distribution

FAQ

7. The admissions team is frustrated by my request to be included in admission decisions. What should I do?
8. The facility staff in my building is nervous about caring for this resident. What should I do?
9. How can we avoid miscommunication with discharging or receiving facilities?
10. Why shouldn't the dedicated BP cuff and stethoscope live in the PPE container?
11. What should I do when I have a question?

For internal use only, not for distribution

Resources and References

- MDRO Guides | HAI | CDC
- Antibiotic Resistance Threats in the United States, 2019 (cdc.gov)
- The Antibiotic Resistance Crisis - PMC (nih.gov)
- 2022 SPECIAL REPORT: COVID-19 U.S. Impact on Antimicrobial Resistance (cdc.gov)
- WHO fungal priority pathogens list to guide research, development and public health action
- Pseudomonas - Medical Microbiology - NCBI Bookshelf (nih.gov
- Show Me the Science | Hand Hygiene | CDC
- Promotional Materials | Hand Hygiene | CDC
- Core Elements of Antibiotic Stewardship for Nursing Homes | Antibiotic Use | CDC
- Toolkit To Improve Antibiotic Use in Long-Term Care | Agency for Healthcare Research and Quality (ahrq.gov)
- Web Images and Graphics | Antibiotic Use | CDC
- Continuing Education and Informational Resources | Antibiotic Use | CDC
- Precautions | Appendix A | Isolation Precautions | Guidelines Library | Infection Control | CDC

For internal use only, not for distribution

Contact Hour Instructions

- **Ensure your Zoom name is your full name**
- **Complete the post-evaluation by Friday, June 30th, 5:00PM**
- **Expect your certificate by July 15th.**

For internal use only, not for distribution

Next Collaborative

July 26, 2023

11:00AM – 12:00PM

ZOOM

Featured Topic:

“Advocating for Infection Prevention Initiatives”

1 Contact Hour Offered

Submit questions about

or

Feedback about today’s collaborative meeting to:

PHS.HAI.HHSA@sdcounty.ca.gov

For internal use only, not for distribution

Contact us at:

PHS.HAI.HHSA@sdcounty.ca.gov

COUNTY OF SAN DIEGO HHSA HEALTH AND HUMAN SERVICES AGENCY | LIVE WELL SAN DIEGO | Healthcare Associated Infections Program

For internal use only, not for distribution