Indiana Department of Health

Infection Prevention Press

August 2024

EBP

Enhanced barrier precautions in long-term care facilities

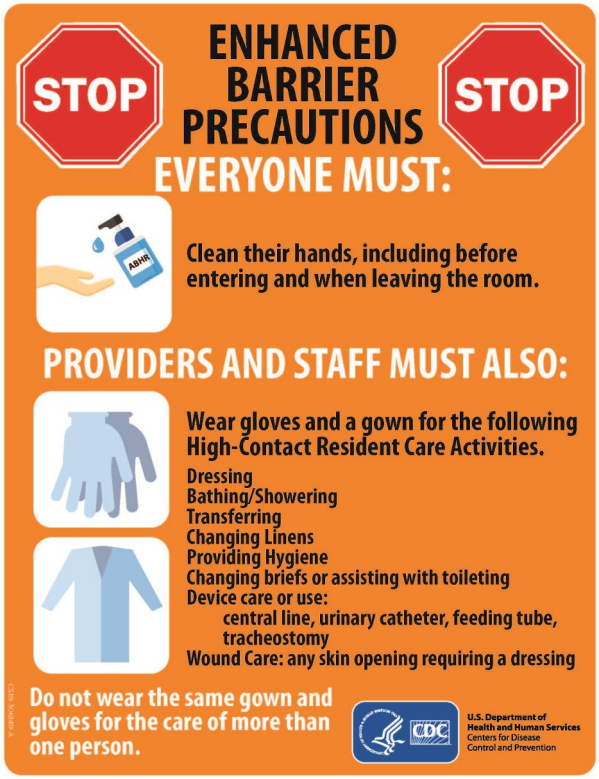
By Mary Enlow, Southern Region Infection Preventionist with information from CDC

Enhanced barrier precautions (EBP) is an infection control intervention designed to reduce transmission of multidrug-resistant organisms (MDRO) that employ targeted gown and glove use during high contact resident care activities.

Setting: Long-term care (LTC)
(Not intended for use in acute care or long-term acute care hospitals (LTACH))

Background:
MDRO transmission is common in LTC facilities, contributing to substantial resident morbidity and mortality and increased costs.

- In 2019, CDC introduced a new approach to the use of personal protective equipment (PPE) called EBP
- In the June 2021 white paper from Healthcare Infection Control Practices Advisory Committee reported more than 50% of nursing home residents may be colonized with a MDRO
- In July 2022, the CDC released updated EBP recommendations for nursing homes to prevent the spread of MDROs
- March 20, 2024 **CMS:** EBP recommendations now include use of EBP for residents with chronic wounds or indwelling medical devices during high-contact resident care activities regardless of their MDRO status



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Enhanced barrier precautions (continued)

Implementation of EBP:
Make staff aware of the facility's expectations about:

- Hand hygiene
- Gown/glove use
- Education/training (initial and refresher)
- Access to supplies

To accomplish awareness of the above:

- Post clear **signage** on the door (don't have to use the signs available), wall, inside of the closet or use a code. It's important for the staff to know the type of precautions and required personal protective equipment (PPE) to be used. The method used to communicate to staff of EBP status is at the discretion of the facility.

- Also indicate the high-contact resident care activities that require the use of PPE

- Make PPE available immediately outside of the resident room**.** However, if the facility can ensure that PPE located inside a resident room is not contaminated and not used for another resident, then PPE may be placed inside the room.

- Ensure access to alcohol-based hand rub (ABHR), ideally in every room—inside and outside

- Position a trash can inside the resident room and near the exit for discarding PPE after removal, prior to exit of the room or before providing care for another resident in the same room

- Incorporate monitoring and assessment of adherence to practices determining the need for additional training and education

- Provide education to staff, residents and visitors

CDC-targeted MDROs for which the use of EBP is mandated:

- Pan-resistant organisms
- Carbapenemase-producing carbapenem-resistant Enterobacterales
- Carbapenemase-producing carbapenem-resistant *Pseudomonas* spp.
- Carbapenemase-producing carbapenem-resistant *Acinetobacter baumannii*
- *Candida auris*

Additional epidemiologically important MDROs may include, but are not limited to:

- Methicillin-resistant *Staphylococcus aureus (MRSA)*
- ESBL-producing Enterobacterales
- Vancomycin-resistant *Enterococci (VRE)*
- Multidrug-resistant *Pseudomonas aeruginosa*
- Drug-resistant *Streptococcus pneumoniae*

Facilities have discretion in using EBP for residents who do not have a chronic wound or indwelling medical device and are infected or colonized with an MDRO that is not currently targeted by CDC

*CDC does not recommend routine retesting of residents with a history of colonization or infection with a MDRO and discontinuation of enhanced barrier precautions after negative test is not advised.

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If you have suggestions about what you would like to see in future editions of the *IP Press* newsletter, email Bethany Lavender at BLavender@health.in.gov.

Enhanced barrier precautions (continued)

Indications/use:

- Intended for MDROs *and* do not replace existing guidance regarding use of contact precautions for other pathogens (e.g., *Clostridioides difficile*, scabies, norovirus).
- Residents who have an infection or colonization with a CDC-targeted or other epidemiologically important MDRO.
- At the discretion of the facility—EBP can be used with residents Infected or colonized with a non-CDC targeted MDRO without a wound, indwelling medical device, or secretions/excretions that are unable to be covered or contained
- If a resident has a wound or indwelling medical device even if they are not known to be infected or colonized with any MDRO and do not meet the criteria for contact precautions
    - Chronic wounds: Any skin opening requiring a dressing.
        - Chronic wounds include, but are not limited to, pressure ulcers, diabetic foot ulcers, unhealed surgical wounds, and venous stasis ulcers
        - Not required for shorter-lasting wounds, such as skin breaks or skin tears covered with an adhesive bandage (e.g., Band-Aid or similar dressing)
        - Ostomies, such as colostomies or ileostomies, are not defined as a wound for EBP
    - Indwelling medical devices, regardless of their MDRO status
        - Examples include central lines, urinary catheters, feeding tubes, tracheostomies, peripherally inserted central catheter/PICC, and midlines
        - A peripheral intravenous line, continuous glucose monitor, insulin pump, or an ostomy are not considered an indwelling medical device for the purpose of EBP
- **Therapists should use gowns and gloves when working with residents on enhanced barrier precautions in the therapy gym or in the resident's room if they anticipate prolonged, close body contact where transmission of MDROs to the therapist's clothes is possible.**

Indiana Department of Health | Infectious Disease Epidemiology & Prevention Division

Activities not included with EBP:

- Transfers in common areas where contact is shorter
- Medication pass
- Passing meal trays
- Answer a call light
- Entering the room to speak with the resident

Enhanced barrier precautions is primarily intended to apply to care that occurs within a resident's room where high-contact resident care activities, including transfers, are bundled together with other high-contact activity, such as part of morning or evening care.

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Enhanced barrier precautions (continued)

Precautions to prevent Transmission of Infectious Agents

Refer to **Appendix A** for more information

	Standard Precautions	Contact (in addition to Standard Precautions)	EBP in conjunction with Standard Precautions QSO-24-08-NH (cms.gov)
Application with:	Infection prevention practices that apply to the care of all residents, regardless of suspected or confirmed infection or colonization status	Any room entry	High contact resident care activities Applied (when contact precautions do not otherwise apply)
PPE use situation:	Anticipated exposure to blood, body fluids, secretions, or excretions	Acute diarrhea, draining wounds, or other sites of secretions or excretions that are unable to be covered or contained	Infection or colonization with a CDC-targeted or other epidemiologically important MDRO Chronic wounds and/or indwelling medical devices May be used broadly in all units for residents at risk (i.e., those with indwelling medical devices, or chronic wounds)
Required PPE	Gloves, gown, face shield, mask, eye protection Use of PPE is based on staff interaction with residents and anticipated exposure to BBP, contamination, or pathogens	Gloves and gown	Minimally required: gloves, gown
Room restriction	None	Restricted to their room except for medically necessary care Restricted from participation in group activities	Residents are not restricted to their rooms or limited from participation in group activities Create roommate pairs based on MDRO colonization
Duration of precautions	Standard precautions are the basic practices that apply to all patient care and to all settings where care is delivered	Time limited	Duration of the resident's stay

When residents are placed in shared rooms, facilities must implement strategies to help minimize transmission of pathogens between roommates including:

- Maintaining separation of at least 3 feet between beds to reduce opportunities for inadvertent sharing of items between the residents
- Use of privacy curtains to limit direct contact
- Cleaning and disinfecting any shared reusable equipment and environmental surfaces on a more frequent schedule
- Changing personal protective equipment (if worn) and performing hand hygiene when switching care from one roommate to another

QSource and Vivien Health (EBP) Training Available

Scan this QR code to register.

In collaboration with Viven Health, Qsource is providing a free, interactive educational model to aid in reducing the spread of multi-drug resistant organisms. Available for all staff, this short program covering enhanced barrier precautions is:

- Scenario-based for survey preparation;
- Conveniently accessible on cellphone, tablet, or computer; and
- Intended to help a facility adhere to CMS guidance

Click **here to register**.

For more information, contact Natasha Dickinson at: **n.dickinson@vivenhealth.com**.

Moving the Needle: IIPW 2024

By Janene Gumz-Pulaski, IP Manager, with information from APIC

Save the date: IIPW 2024 takes place Oct. 13–19
Infection preventionists (IPs) play a crucial role in keeping the public safe and healthy — protecting us from surges in healthcare-associated infections and so many other infectious threats.

International Infection Prevention Week (IIPW), established in 1986, aims to shine a light on infection prevention each and eve- year.

Find everything you need to plan IIPW for your facility **HERE.**

Reminder: transfer forms help improve communication

By the HAI team

Having a good professional relationship with the hospitals is beneficial for better resident care and outcomes.

To address gaps in communication regarding healthcare-associated infections (HAIs) like invasive Group A *Strep* and multidrug resistant organism, make sure you reach out to the hospitals and ask them to utilize the **transfer forms** when transferring a resident back to the facility.

MDRO spotlight: VISA/VRSA

By Jared Novitski, AR Epidemiologist II

What does VISA/VRSA stand for and how is it identified?

VISA/VRSA is the abbreviation for vancomycin Intermediate/resistant *Staphylococcus aureus*. These intermediate and resistant designations are based upon results obtained from laboratory minimum inhibitory concentration (MIC) tests, which are tests for the lowest concentration of a particular antibiotic that will inhibit the growth of the bacteria. An MIC between 4-8 ug/ml is considered an intermediate result. An MIC of >= 16ug/mL indicates a resistant result. If either of the above conditions are met, it is possible that an intermediate or resistant *Staph aureus* has been identified.

If a hospital or other outside lab has indicated the presence of a resistant *Staph aureus*, then the isolate needs to be sent to the Indiana State Department of Health Lab (IDOHL) for further confirmatory testing. If MIC result is lower than the indicated thresholds, the *Staph aureus* is susceptible, and no further action is necessary. IDOHL follows the same criteria that other labs follow for determining resistance.

VISA/VRSA infections can look like pimples, boils or other skin conditions. VRSA can cause wound infections. Individuals at risk are those with underlying health conditions, individuals with invasive devices, people with methicillin (oxacillin)-resistant *Staph aureus* (MRSA) infections, and individuals that have been treated with vancomycin or other antibiotics.

What does VISA/VRSA look like in the US and in Indiana?

These types of resistant *Staph aureus* cases are incredibly rare.

- VISA
  - Due to the rarity, overall national numbers are difficult to track down.
  - In Indiana, we have been two confirmed cases
- VRSA
  - For the nation, there have been a total of 16 confirmed cases
  - No confirmed cases of VRSA have been identified in Indiana
  - States surrounding Indiana have seen cases

Can I/should I screen for VISA/VRSA?

Screening guidance varies based upon which resistance category the organism falls within.

- VISA
  - There are no official recommendations regarding VISA screening. Because of that, the Indiana Department of Health generally does not advocate for VISA screening, unless there is suspicion or confirmation that transmission has occurred in the facility.
- VRSA
  - There are some screening recommendations in place in cases of VRSA identification in Indiana—VRSA screening is based largely on close contacts and based upon the level of interaction with the original case-patient. The extent of interaction would inform who to screen; this would include roommates, providers in direct patient care that have prolonged direct contact, physicians providing wound care or extensive examinations. Moderate interaction would be individuals who share patient care areas or healthcare providers, staff that provide medications or assist with IVs, and physicians on daily rounds. Minimal interaction would be other patients on the same ward but for short periods of time, nursing staff on same floor doing activities outside of caring directly for index patient, and other ancillary staff.
  - If a VRSA case is detected, the CDC would be heavily involved in the direction of investigation and subsequent facility recommendations.

ATP Machines

ATP machine trainings

Adenosine Triphosphate (ATP) Luminometers Training Effective July 31, a training webinar will be conducted every Wednesday at 2:30 p.m. EST for facilities that have received ATP machines. We encourage Directors of Nursing, Assistant Directors of Nursing, Infection Preventionists, Environmental Services, and other staff of your choice to attend the training.

You can select your date and register **HERE.**

There is also a recorded version, available **HERE**

For more information about the delivery and receipt of the ATP machines, see the **Long-term Care Newsletter 2024-14**. If you have any questions, please contact Fallon Marsh at **fallon@hygiena.com**.

LTC COVID-19 Reporting Reminder

Event	Where and when to report		
	Certified SNF/NF	RCF (Licensed AL)	Assisted Living (Unlicensed)
Positive COVID-19 — test either by PCR or POC: Resident cases only	Long-term Care Gateway Application/ Within 24 hours of the result if the number of cases meets the outbreak reporting threshold*	Long-term Care Gateway Application/ Within 24 hours of the result if the number of cases meets the outbreak reporting threshold*	N/A
Positive COVID-19 Point-of-Care test – **Staff or Resident**	NHSN Covid Module / Weekly per CMS instructions	N/A	N/A
Positive COVID-19 Lab Result (PCR Not Point-of-Care) – **Staff or Resident**	NHSN Covid Module / Weekly per CMS instructions	N/A	N/A
COVID-19 Related Death – Staff or Resident	Complete a Confidential Report of Communicable Disease Form. Enter "COVID-19" for the Disease section, fax to 317-234-2812.	Complete a Confidential Report of Communicable Disease Form. Enter "COVID-19" for the Disease section, fax to 317-234-2812	Complete a Confidential Report of Communicable Disease Form. Enter "COVID-19" for the Disease section, fax to 317-234-2812.

Outbreak Reporting Threshold:** **three cases of COVID-19 occur in residents in one defined area (such as hall, unit, neighborhood, street, pod, secured unit, vent unit) in a 48-hour period; or 10% or more of the current building census has COVID-19.

***Effective April 4, 2022, reporting of negative results, either individual test results or in aggregate, is optional, but can be reported to NHSN*

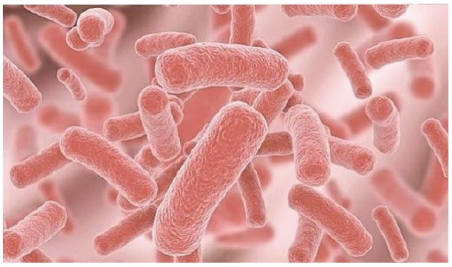
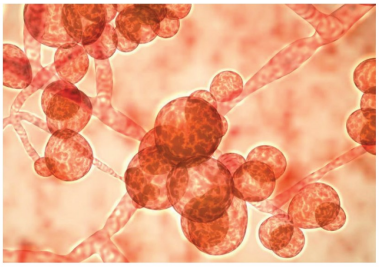
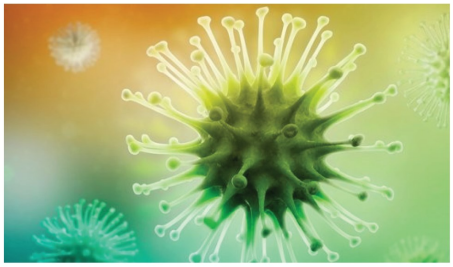
**** Effective July 12, 2023, reporting COVID-19 POC results into the IDOH REDCap is no longer required*

Long-Term Care Gateway Application: https://gateway.isdh.in.gov/

COVID-19 Death: Complete Confidential Report of Communicable Disease Form (https://forms.in.gov/Download.aspx?id=5082) **and fax to: 317-234-2812**

REGISTER NOW!

Indiana MDRO Regional Education Events!

The Indiana Department of Health's Antimicrobial Resistance Team will be providing regional MDRO education in the coming months. We will provide education on CPOs, *Candida auris* and ICARs. Contact Jared Novitski: JNovitski@health.in.gov for more information.

Events will have in-person and virtual attendance opportunities.

Northern Indiana Regional Education

When: August 30, 2024
Where: Memorial Hospital South Bend Auditorium.

Central Indiana Regional Education

When: September 20, 2024
Where: Franciscan Indianapolis Auditorium

Southern Indiana Regional Education

When: October 11, 2024
Where: Monroe County Public Library

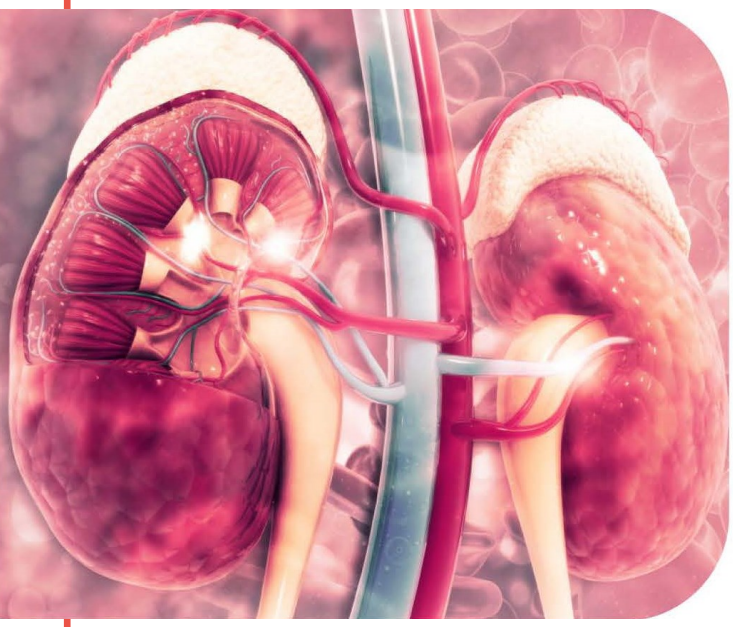
Indiana Department of Health

Register here:

https://www.in.gov/health/idepd/healthcare-associated-infections-and-antimicrobial-resistance-epidemiology/antimicrobial-resistance/

Save the Date:

IDOH Dialysis Infection Prevention Webinar



By Alicia Dolan, HAIs Epidemiologist II

The IDEPD HAI/AR Team is hosting a Dialysis Infection Prevention webinar for healthcare providers in outpatient hemodialysis facilities. Come meet our team and learn about new opportunities for collaboration and education with tailored site visits and shared resources.

Join us!

Time: 2-2:45 p.m. EDT Wednesday, Aug. 21
Teams meeting link **HERE**

Or dial in by phone: 317-552-1674

Phone conference ID: 607 469 156#

Contact Alicia Dolan with questions @ **ADolan@health.in.gov**

CDC New Report: Antimicrobial Resistance Threats in the United States, 2021-2022

Info from CDC

New CDC data underscore that antimicrobial resistance (AR) remains an urgent global public health threat. CDC used new data to analyze the United States burden of seven antimicrobial-resistant pathogens typically found in healthcare settings in 2021 and 2022 and compares against 2019 data.

You can sign up for CDC email alerts **HERE**.

	Threat	Change in Rates or Number of Infections***			
		2020 vs. 2019	2021 vs. 2020	2022 vs. 2021	2022 vs. 2019
URGENT*	Hospital-onset CRE	▲ Increase	▲ Increase	▬ Stable	▲ Increase
URGENT*	Hospital-onset Carbapenem-resistant *Acinetobacter*	▬ Stable	▬ Stable	▬ Stable	▲ Increase**
URGENT*	Clinical Cases of *C. auris*	▲ Increase	▲ Increase	▲ Increase	▲ Increase
SERIOUS*	Hospital-onset MRSA	▲ Increase	▬ Stable	▼ Decrease	▬ Stable
SERIOUS*	Hospital-onset VRE	▲ Increase	▲ Increase	▬ Stable	▲ Increase
SERIOUS*	Hospital-onset ESBL-producing Enterobacterales	▲ Increase	▬ Stable	▬ Stable	▲ Increase
SERIOUS*	Hospital-onset MDR *Pseudomonas aeruginosa*	▲ Increase	▲ Increase	▬ Stable	▲ Increase

* Threat level for each pathogen, as categorized in CDC's *Antibiotic Resistance Threats in the United States, 2019*.
** There was no statistically significant difference in rate of hospital-onset carbapenem-resistant *Acinetobacter* in 2020, 2021, and 2022 when compared to the previous year. However, there was a statistically significant increase in rate of hospital-onset carbapenem-resistant *Acinetobacter* in 2022 when compared to 2019.
*** Hospital-onset rates were described using multivariable models for all threats except *C. auris*. Please note that in above table, stable indicates there was no statistically significant increase or decrease, decrease indicates a statistically significant decrease where $p<0.05$, and increase indicates a statistically significant increase where $p<0.05$, for all threats except for *C. auris*. Increases or decreases in *C. auris* were indicated by changes in the number of clinical cases reported nationally without hypothesis testing.

IP Team Map

Infection Prevention Team Regions

Trent Gulley, MPH - Healthcare Associated Infections Director
Tgulley@health.in.gov 317-431-5257

Total 739 LTC/AL Facilities

IP Program Manager

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&

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* Please email both IPs for questions in this region

Southern Region

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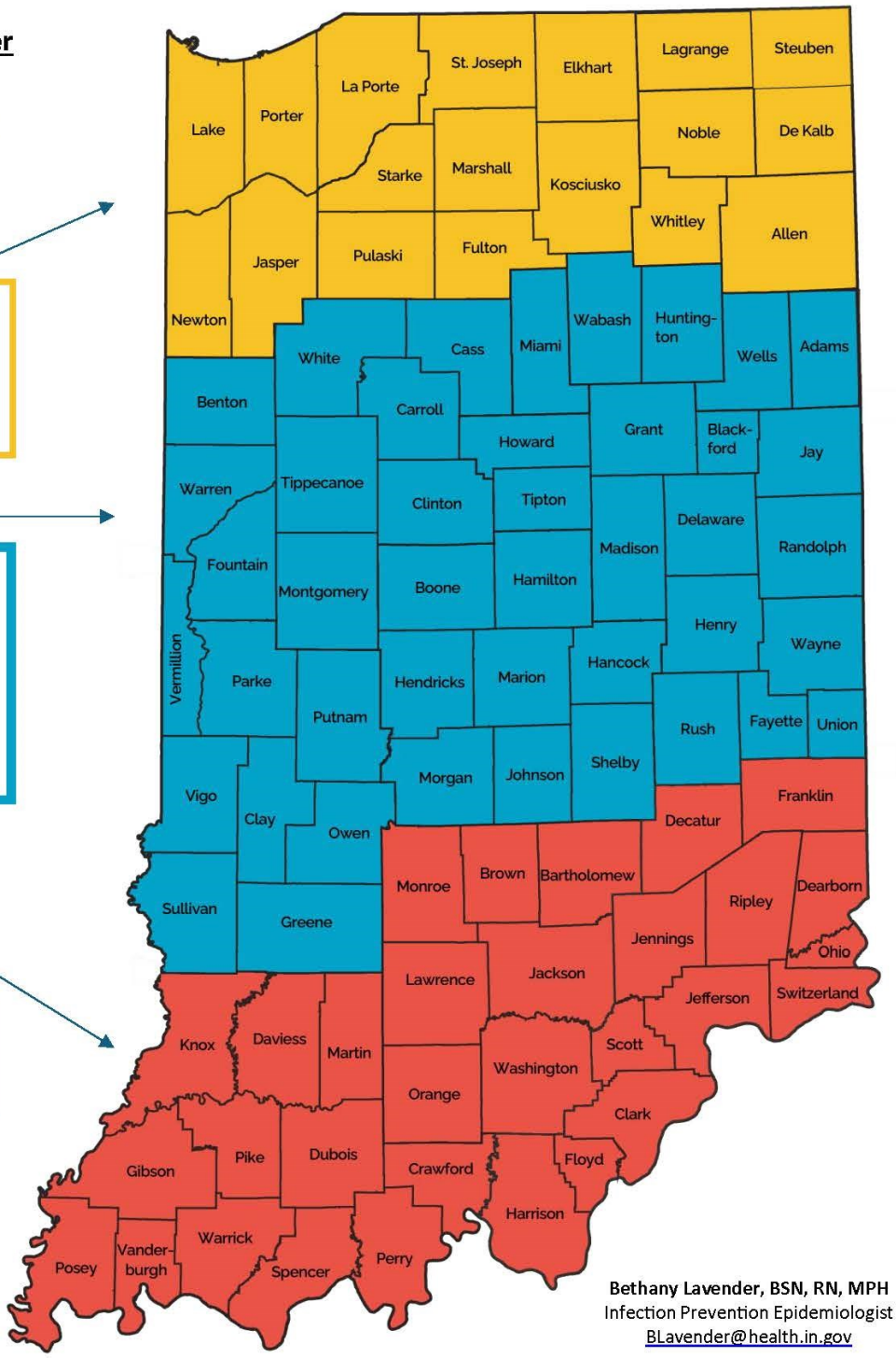

Bethany Lavender, BSN, RN, MPH
Infection Prevention Epidemiologist
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Updated 6.5.2024

Indiana Department of Health

Links and References

If you are viewing this newsletter online, you can open the **links** throughout by clicking on them. If you are viewing in printed form, the full URLs are below:

Enhance Barrier Precautions in long-term care

Thank you Wendy Whitkanack for the article suggestion

1. CMS: https://www.cms.gov/files/document/qso-24-08-nh.pdf
2. Signage: https://www.cdc.gov/infection-control/hcp/basics/transmission-based-precautions.html#cdc_infection_control_res-resources
3. Appendix A: https://www.cdc.gov/infection-control/hcp/isolation-precautions/appendix-a.html
4. Reference: https://www.cdc.gov/long-term-care-facilities/hcp/prevent-mdro/ppe.html
5. Reference: https://www.cdc.gov/long-term-care-facilities/hcp/prevent-mdro/faqs.html

QSource and Vivien Health Enhanced barrier precautions (EBP) training available

1. Registration: https://www.vivenhealth.com/corporations/qsource/auth/loginviacorporation

Moving the Needle: International Infection Prevention Week (IIPW) 2024

1. IIPW website with resources to plan: https://infectionpreventionandyou.org/iipw/
1. PMC8411156/
2. Reference: https://www.ncbi.nlm.nih.gov/books/NBK214361/

Reminder: transfer forms help with communication

1. IDOH's interfacility transfer form: https://www.in.gov/health/idepd/files/17-Inter-Facility-Infection-Control-Transfer-Form-8.30.2023.pdf

MDRO Spotlight: VISA/VRSA

1. Reference: https://www.cdc.gov/staphylococcus-aureus/about/vancomycin-resistant-staph.html
2. Reference: https://dph.georgia.gov/visavrsa#:~:text=VISA%20and%20VRSA%20are%20defined,is%20%3E16%20%CE%BCg%2Fml.

ATP Machines

1. Register for live training: https://register.gotowebinar.com/rt/3116037283656238942
2. Review recorded training: https://attendee.gotowebinar.com/recording/8561316943786737754
3. Previous LTC Newsletter about the ATP machines: https://www.in.gov/health/ltc/files/LTC-Newsletter-2024-14-Jul-2-24.pdf

COVID-19 Reporting

1. IDOH Gateway: https://gateway.isdh.in.gov/Gateway/SignIn.aspx
2. Communicable Disease reporting guidelines: https://www.in.gov/health/idepd/communicable-disease-reporting/

Save the Date: MDRO IREs

1. Jared Novitski @ JNovitski@health.in.gov

Save the Date: Dialysis Infection Prevention Webinar

1. Meeting link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_MTc1ZTMwZTctMjc2YS00ZTc1LWIwYjEtZDlkZDg1MTQ5NjE2%40thread.v2/0?context=%7b%22Tid%22%3a%222199bfba-a409-4f13-b0c4-18b45933d88d%22%2c%22Oid%22%3a%221e5a49e6-49f0-4a41-9d25-9f35f5eeb322%22%7d

CDC released new report on AR infections

1. New data/report and image from: https://www.cdc.gov/antimicrobial-resistance/data-research/threats/update-2022.html

To promote, protect, and improve the health and safety of all Hoosiers

Indiana Department of Health

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