

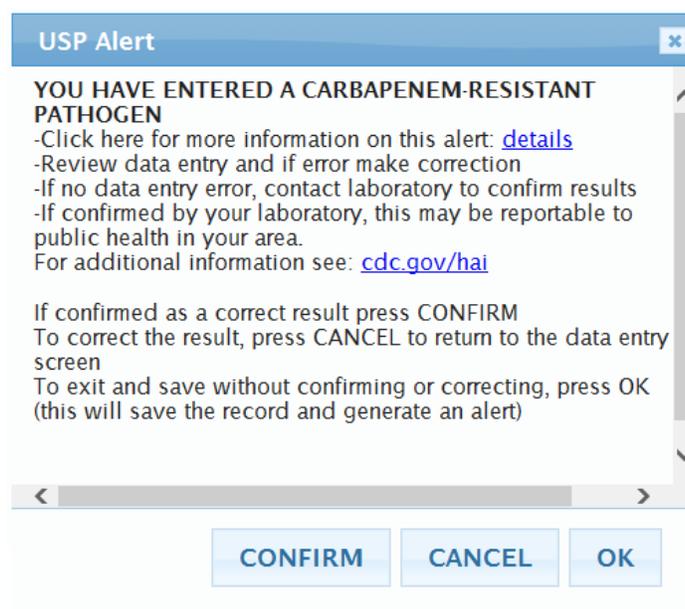
Unusual Susceptibility Profiles Alert

National Healthcare Safety Network (NHSN) is a surveillance system for healthcare-associated infections (HAIs) that includes data collection on antimicrobial susceptibility testing results for certain reported pathogens. Microorganisms with specific resistance patterns are of epidemiological significance and can have substantial infection control implications. The importance of early detection and implementation of intervention measures to prevent transmission and propagation cannot be understated. Redundancy across many systems to ensure identification of these important unusual susceptibility profiles is beneficial. NHSN notifies users when any of the twelve unusual susceptibility profiles listed below and further described in the Unusual Susceptibility Profiles Alert Table (found at the end of document) are reported to NHSN. This applies to in-plan events only.

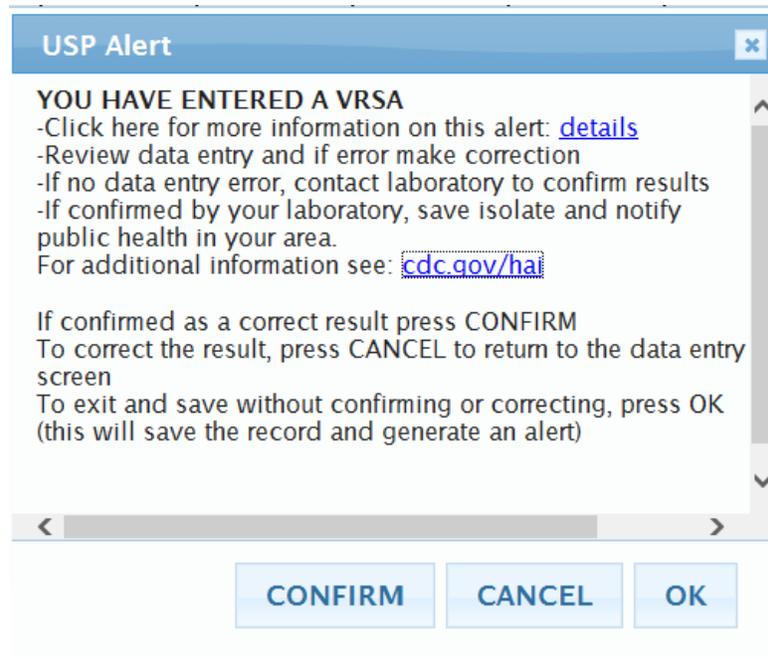
1. Carbapenem-resistant Enterobacterales
2. Carbapenem-intermediate or -resistant *Acinetobacter baumannii*
3. Carbapenem-intermediate or -resistant *Pseudomonas aeruginosa*
4. Highly Drug-Resistant Enterobacterales
5. Highly Drug-Resistant *Pseudomonas aeruginosa*
6. Highly Drug-Resistant *Acinetobacter baumannii*
7. Colistin/Polymyxin B-resistant *Acinetobacter baumannii*
8. Colistin/Polymyxin B-resistant *Pseudomonas aeruginosa*
9. Daptomycin non-susceptible and Linezolid-resistant *Enterococcus* spp.
10. Vancomycin-resistant *Staphylococcus aureus* (VRSA)
11. Daptomycin non-susceptible and Linezolid-resistant and Vancomycin-intermediate *Staphylococcus aureus*
12. Vancomycin-resistant *Staphylococcus*, coagulase negative (VRSE)

When a user enters a pathogen’s susceptibility testing result into the NHSN application that aligns with one of the unusual susceptibility profiles, upon saving the event, a “pop-up” message will appear on the screen. The message text will be tailored to the specific profile identified. There are three message types.

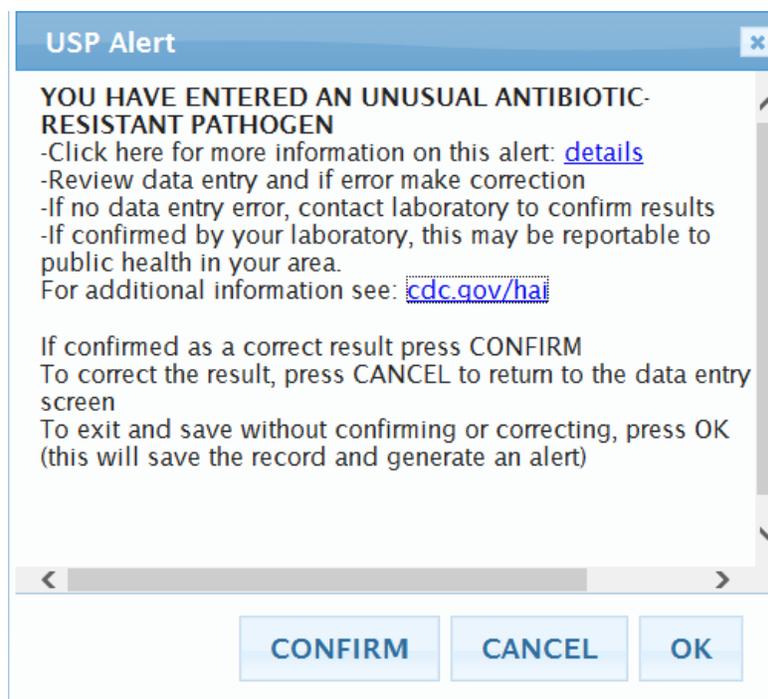
1. CR (Carbapenem-Resistant)



2. **VRSA** (Vancomycin-Resistant *Staphylococcus aureus*)



3. **Other**



When a message appears, the user will have the ability to do one of the following:

- Verify the data entry as accurate by selecting **CONFIRM**. This will complete the “Save” process.
- Return to the event susceptibility data entry screen by choosing **CANCEL**. The user can review and amend incorrect data entry if necessary.
- Acknowledge the notification by selecting **OK**. This selection will enable the user to complete the “Save” process without verifying or editing the data entry. This will generate an Alert on the Alerts screen. The Alert will appear under the Alert tab labeled “Unusual Susceptibility Profile” and will display the type of Alert message, as well as the profile identified. The user will have the ability to return to the event susceptibility data entry screen at a later point in time, directly from the Alert tab. The Alert will remain until the unusual susceptibility profile is verified to be accurate by selecting **CONFIRM** or amending the data entry such that an unusual susceptibility profile is no longer identified.

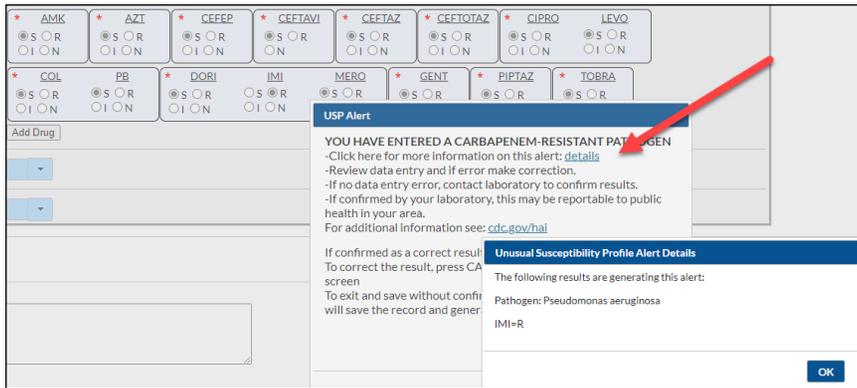
Events with unusual pathogen susceptibility results.

 What are Unusual Susceptibility Profiles?
 View 1 - 5 of 5

Patient ID	Last Name	First Name	Event #	Event Type	Date Admitted to Facility	Pathogen	Result Causing Alert	Alert Message Type	Unusual Susceptibility Profile
2014CG1			15176655	PNEU	06/09/2014	SA	VANC=R	VRSA	VR_SA
08132014			15361829	BSI	06/09/2014	EA	DORI=R	CR	CRE
12345			15885056	BSI	07/15/2014	SA	DAPTO=NS, LN	OTHER	HDR_SA
1234			16602804	BSI	11/10/2014	EC	MERO=R, ERTA	CR	CRE
1234			16616869	BSI	09/08/2014	ENTFS	DAPTO=NS, LN	OTHER	HDR_ENTSP

View 1 - 5 of 5

When an Unusual Susceptibility Profile Alert “pop-up” message appears the user can select the **details** link to gather additional information.



USP Alert

YOU HAVE ENTERED A CARBAPENEM-RESISTANT PATHOGEN

- Click here for more information on this alert: [details](#)
- Review data entry and if error make correction.
- If no data entry error, contact laboratory to confirm results.
- If confirmed by your laboratory, this may be reportable to public health in your area.

For additional information see: cdc.gov/hai

If confirmed as a correct result To correct the result, press CA screen To exit and save without confirm will save the record and generate

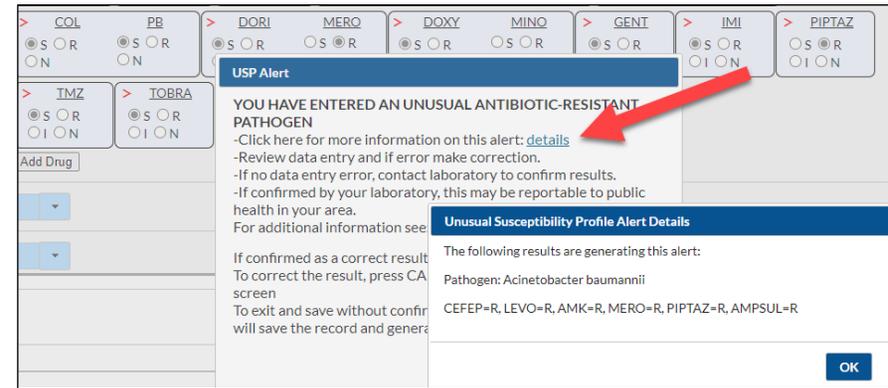
Unusual Susceptibility Profile Alert Details

The following results are generating this alert:

Pathogen: Pseudomonas aeruginosa

IMI=R

OK



USP Alert

YOU HAVE ENTERED AN UNUSUAL ANTIBIOTIC-RESISTANT PATHOGEN

- Click here for more information on this alert: [details](#)
- Review data entry and if error make correction.
- If no data entry error, contact laboratory to confirm results.
- If confirmed by your laboratory, this may be reportable to public health in your area.

For additional information see: cdc.gov/hai

If confirmed as a correct result To correct the result, press CA screen To exit and save without confirm will save the record and generate

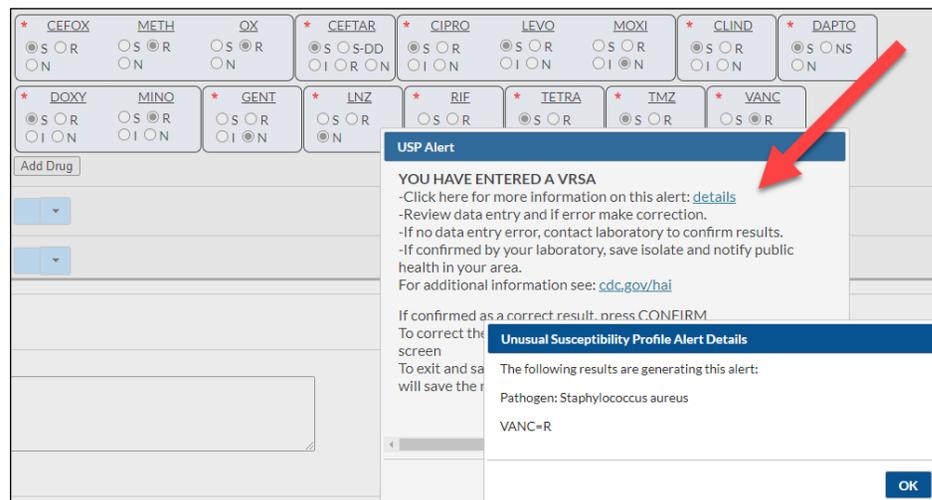
Unusual Susceptibility Profile Alert Details

The following results are generating this alert:

Pathogen: Acinetobacter baumannii

CEFEP=R, LEVO=R, AMK=R, MERO=R, PIPTAZ=R, AMPSUL=R

OK



USP Alert

YOU HAVE ENTERED A VRSA

- Click here for more information on this alert: [details](#)
- Review data entry and if error make correction.
- If no data entry error, contact laboratory to confirm results.
- If confirmed by your laboratory, save isolate and notify public health in your area.

For additional information see: cdc.gov/hai

If confirmed as a correct result, press CONFIRM. To correct the screen To exit and save without confirm will save the record and generate

Unusual Susceptibility Profile Alert Details

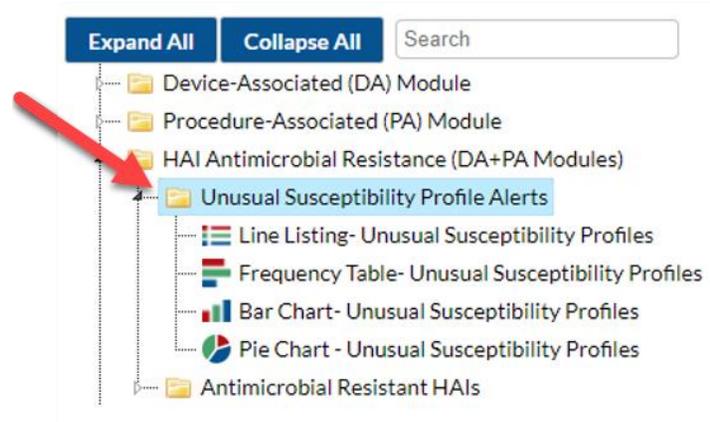
The following results are generating this alert:

Pathogen: Staphylococcus aureus

VANC=R

OK

In analysis, the user will be able to generate line list, frequency table, bar and pie chart outputs. The output options can be found in the HAI Antimicrobial Resistance folder within the Unusual Susceptibility Profile Alerts sub-folder. The outputs will identify the type of profiles (variable: suscCode), number and location of each profile and in addition, whether the profile has been confirmed to be accurate (variable: suscConfirm) or if the profile is pending verification (variable: suscPend). Please visit <http://www.cdc.gov/nhsn/PS-Analysis-resources/reference-guides.html> for additional instructions on how to run NHSN analysis reports. Generate data sets prior to creating reports.



National Healthcare Safety Network
Line Listing of All Unusual Susceptibility Profiles (Confirmed and Pending)
 As of: July 29, 2021 at 2:23 PM
 Date Range: SUSCEPTIBILITY eventDate 06/01/2021 to 06/30/2021

Unusual Susceptibility Profile has been confirmed.

suscCode=CRE

orgID	patID	dob	admitDate	eventDate	eventID	eventType	location	pathogen	suscCode	suscConfirm	suscPend
15331	1002	12/08/1954	08/01/2021	08/15/2021	47786251	UTI	711CU	EC	CRE	Y	

Sorted by eventDate
 Data contained in this report were last generated on July 29, 2021 at 2:18 PM to include data beginning January 2017 through June 2021.

National Healthcare Safety Network
Line Listing of All Unusual Susceptibility Profiles (Confirmed and Pending)
 As of: July 29, 2021 at 2:23 PM
 Date Range: SUSCEPTIBILITY eventDate 06/01/2021 to 06/30/2021

Unusual Susceptibility Profile is Pending.

suscCode=CR_PA

orgID	patID	dob	admitDate	eventDate	eventID	eventType	location	pathogen	suscCode	suscConfirm	suscPend
15331	1013	12/07/1956	08/01/2021	08/12/2021	47786612	UTI	711CU	PA	CR_PA		Y

National Healthcare Safety Network
Frequency Table of All Unusual Susceptibility Profiles (Confirmed and Pending)
 As of: July 29, 2021 at 2:53 PM
 Date Range: SUSCEPTIBILITY eventDate 03/01/2021 to 06/30/2021

Frequency Percent Row Pct Col Pct	Table of eventType by suscCode			
	suscCode			
eventType	CRE	CR_PA	HDR_ACBA	Total
BSI	0 0.00	3 50.00	0 0.00	3 50.00
UTI	1 16.67	1 16.67	1 16.67	3 50.00
	0.00	33.33	33.33	100.00
	0.00	25.00	100.00	
Total	1 16.67	4 66.67	1 16.67	6 100.00

Unusual Susceptibility Profiles Alert Table

Unusual Susceptibility Profiles	Profile Codes	Definition of Unusual Susceptibility Profiles	Alert Message Type
Carbapenem-resistant Enterobacterales	CRE	Carbapenem (imipenem, meropenem, doripenem, ertapenem, imipenem/relebactam, meropenem/vaborbactam) is Resistant(R)	CR
Highly Drug-Resistant Enterobacterales	HDR_E	Defined as highly drug-resistant if all five drug classes have at least one drug within the class reported as either Intermediate(I) or Resistant(R): <ul style="list-style-type: none"> Extended spectrum cephalosporin (cefepime, cefotaxime, ceftriaxone, ceftazidime, ceftazidime/avibactam, ceftolozane/tazobactam) Fluoroquinolones (ciprofloxacin, levofloxacin, moxifloxacin) Aminoglycosides (amikacin, gentamicin, tobramycin) Carbapenems (imipenem, meropenem, doripenem, ertapenem imipenem/relebactam, meropenem/vaborbactam) Piperacillin/tazobactam 	Other
Colistin/Polymyxin B-resistant <i>Pseudomonas aeruginosa</i>	PR_PA	Colistin/polymyxin B is Intermediate(I) or Resistant(R)	Other
Carbapenem-intermediate or -resistant <i>Pseudomonas aeruginosa</i>	CR_PA	Carbapenem (imipenem, meropenem, doripenem, imipenem/relebactam, meropenem/vaborbactam) is Intermediate(I) or Resistant(R)	CR
Highly Drug-Resistant <i>Pseudomonas aeruginosa</i>	HDR_PA	Defined as highly drug-resistant if all five drug classes have at least one drug within the class reported as either Intermediate(I) or Resistant(R): <ul style="list-style-type: none"> Extended spectrum cephalosporin (cefepime, ceftazidime, ceftazidime/avibactam, ceftolozane/tazobactam), Fluoroquinolones (ciprofloxacin, levofloxacin) Aminoglycosides (amikacin, gentamicin, tobramycin) Carbapenems (imipenem, meropenem, doripenem) Piperacillin/tazobactam 	Other
Colistin/Polymyxin B-resistant <i>Acinetobacter baumannii</i>	PR_ACBA	Colistin/polymyxin B is Resistant(R)	Other
Carbapenem-intermediate or -resistant <i>Acinetobacter baumannii</i>	CR_ACBA	Carbapenem (imipenem, meropenem, doripenem) is Intermediate(I) or Resistant(R)	CR
Highly Drug-Resistant <i>Acinetobacter baumannii</i>	HDR_ACBA	Defined as highly drug-resistant if all six drug classes have at least one drug within the class reported as either Intermediate(I) or Resistant(R): <ul style="list-style-type: none"> Extended spectrum cephalosporin (cefepime, ceftazidime, cefotaxime, ceftriaxone), Fluoroquinolones (ciprofloxacin, levofloxacin) Aminoglycosides (amikacin, gentamicin, tobramycin) Carbapenems (imipenem, meropenem, doripenem) Piperacillin/tazobactam Ampicillin/sulbactam 	Other

Unusual Susceptibility Profiles	Profile Codes	Definition of Unusual Susceptibility Profiles	Alert Message Type
Daptomycin susceptible-dose dependent, resistant or non-susceptible and Linezolid-resistant <i>Enterococcus</i> spp.	HDR_ENTSP	Daptomycin is Susceptible-dose dependent (S-DD), Resistant(R) or Non Susceptible (NS) AND Linezolid is Resistant(R)	Other
Vancomycin-resistant <i>Staphylococcus aureus</i> (VRSA)	VR_SA	Vancomycin is Resistant(R)	VRSA
Daptomycin non-susceptible and Linezolid-resistant and Vancomycin-intermediate <i>Staphylococcus aureus</i>	HDR_SA	Daptomycin is Non Susceptible(NS) AND Linezolid is Resistant(R) AND Vancomycin is Intermediate(I)	Other
Vancomycin-resistant <i>Staphylococcus</i> , coagulase negative (VRSE)	VR_CSN	Vancomycin is Resistant(R)	Other