

Line List

Antimicrobial-Resistant Organisms

Updated 2021

This document provides instructions for the antimicrobial-resistant organism line list that is available in the NHSN analytic reports located in the following analysis folder: **HAI Antimicrobial Resistance (DA + PA Modules) > Antimicrobial Resistant HAIs**.

Overview

There are several analysis reports available in NHSN that will allow you to analyze HAI events from your facility (or group) in which a specific antimicrobial-resistant organism (or “phenotype”) was identified. CDC has defined 13 phenotypes of epidemiologic importance; the analysis reports will display data from these 13 phenotypes by default. Criteria and definitions for the pre-defined phenotypes can be found here:

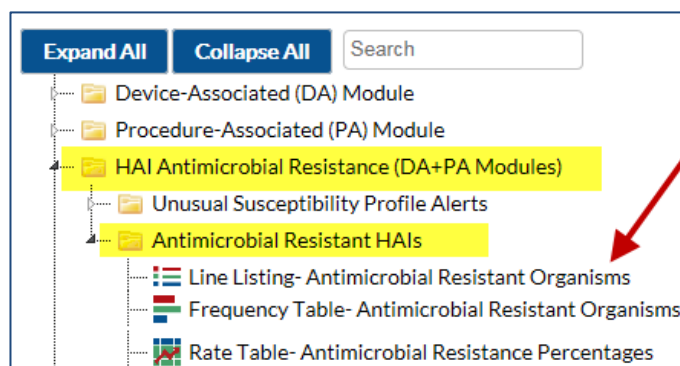
https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/phenotype_definitions.pdf

Note: If you are interested in reviewing events and organisms beyond the 13 phenotypes, you can export the Antimicrobial Resistant Organism Line List analysis dataset to view event records and antibiogram data for other reported pathogens. You can also run the Antibiogram Line List option, found in Advanced > Pathogen-level Data > Line Listing-Antibiogram, which will include all events/pathogens regardless of their susceptibility results.

Example

The line list will allow for a record-level review of each event in which an associated pathogen meets the criteria for at least one of the pre-defined phenotypes. In this example, we are interested in reviewing all HAI events that occurred in our facility in 2020 that had an associated organism meeting one of the antimicrobial resistant phenotype definitions.

1. On the Reports screen, navigate through the following folders: HAI Antimicrobial Resistance (DA + PA Modules) > Antimicrobial Resistant HAIs > Line Listing- Antimicrobial Resistant Organisms. Click on the report title to view options for running or modifying the report. On the pop-up menu, click “Run” to view all events and pathogens from each of the 13 phenotypes, or click “Modify” to specify a time period and/or phenotype of interest.



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- In this example, we will use the modify screen to edit the time period. To modify the time period, open the tab called “Time Period” shown at the top of the Modify screen. Set “EvtDateYr” to 2020.

Modify "Line Listing- Antimicrobial Resistant Organisms"

Show descriptive variable names ([Print List](#)) Analysis Data Set: Antibiogram_HAI

Title/Format Time Period Filters Display Variables Sort Variables Display Options

Time Period:

Date Variable	Beginning	Ending	
evtDateYr	2020	2020	<input type="button" value="Clear Time Period"/>

Enter Date variable/Time period at the time you click the Run button

- You can make additional modifications to the line list, such as limiting the report to a single phenotype, by using the tab called “Filters”. By default, several specifications are already made in the “Filters” tab, and for this example, no further modifications are needed. However, if you wish to modify the phenotypes displayed in the line list, you could edit the Filters screen to only display certain phenotypes.
- After all necessary changes have been made, click “Run” at the bottom of the Modify screen. You may also choose “Export” if you wish to obtain this output in another format (e.g., xls).



Report

The report will contain one line list for each phenotype that your facility has reported. Not all phenotypes are shown in this example. Fictitious data are presented below.

National Healthcare Safety Network										
Line Listing - Antimicrobial Resistant Organisms										
CREall_HAI - Carbapenem-resistant Enterobacteriaceae										
As of: December 1, 2020 at 1:30 PM										
Date Range: ANTIBIOGRAM_HAI evntDateYr 2020 to 2020										
orgID	patID	dob	gender	admitDate	eventID	eventDate	event Type	location	pathogenDesc	phenotype
10401	1234	12/12/2007	M	12/15/2019	90658	01/01/2020	BSI	MED	Klebsiella aerogenes - EA	CREall_HAI
10401	EC1	01/01/2001	F	09/15/2020	98679	10/01/2020	UTI	MED	Escherichia coli - EC	CREall_HAI
10401	KLEB1	04/09/1954	M	08/19/2020	98680	09/15/2020	SSI		Klebsiella aerogenes - EA	CREall_HAI

Criteria used to define each phenotype can be found on the Patient Safety Analysis Resources webpage at: <https://www.cdc.gov/nhsn/pd>
The data in this table include all applicable pathogens entered for an HAI, and are not limited to the first pathogen.
Sorted by orgID eventDate
Data contained in this report were last generated on December 1, 2020 at 1:24 PM to include data beginning January 2020 through December 2020 .

National Healthcare Safety Network										
Line Listing - Antimicrobial Resistant Organisms										
ESCecoli_HAI - Extended-spectrum cephalosporin-resistant E.coli										
As of: December 1, 2020 at 1:30 PM										
Date Range: ANTIBIOGRAM_HAI evntDateYr 2020 to 2020										
orgID	patID	dob	gender	admitDate	eventID	eventDate	event Type	location	pathogenDesc	phenotype
10401	EC1	01/01/2001	F	09/15/2020	98679	10/01/2020	UTI	MED	Escherichia coli - EC	ESCecoli_HAI

Criteria used to define each phenotype can be found on the Patient Safety Analysis Resources webpage at: <https://www.cdc.gov/nhsn/pd>
The data in this table include all applicable pathogens entered for an HAI, and are not limited to the first pathogen.

In 2020, this facility reported a bloodstream infection, urinary tract infection, and surgical site infection with carbapenem-resistant Enterobacteriaceae (CRE) pathogens identified; the BSI CRE pathogen identified was *Klebsiella aerogenes*, the UTI was *Escherichia coli*, and the SSI was *Klebsiella aerogenes*. This facility also reported a UTI with an extended-spectrum cephalosporin-resistant *E. coli* pathogen.

Additional Resources

Antimicrobial Resistance Definitions:

https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/phenotype_definitions.pdf

How to run and modify a Line List in NHSN:

<http://www.cdc.gov/nhsn/PS-Analysis-resources/PDF/LineLists.pdf>



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