

# AU Line List

## Description

The line list is an organized, detailed list of each record entered into NHSN, which can be used by both facilities and groups.

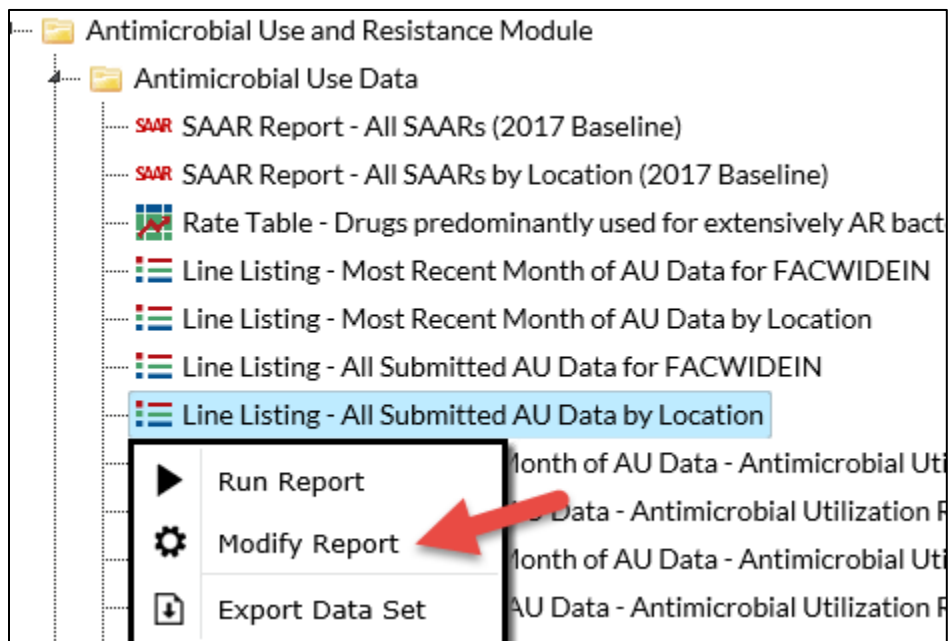
For a more basic explanation of the NHSN modification screen, refer to this document:

<https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/howtomodifyreport.pdf>.

## Example

Suppose you are interested in looking at all antimicrobial prescribing in the third quarter of 2017 that occurred in the adult 4<sup>th</sup> Floor MICU (4MICU). You would like to produce a line list that includes location, month, and information on each antimicrobial (total antimicrobial days, number of days present), as well as the route of administration (IV count, IM count, digestive count, and respiratory count). You would like the line list sorted by antimicrobial.

You have several report options to choose to generate a line listing. After generating data sets, to run a line list report, click Analysis > Reports > Antimicrobial Use and Resistance Module > Antimicrobial Use Data. After selecting the report, in this case, "Line Listing – All Submitted AU Data by Location," a pop-up box will appear that will allow you to "Run Report," "Modify Report," or "Export Data Set." Select "Modify Report" to customize your report.



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## Modifying the Report

When you choose to modify the report, the modification screen appears showing multiple tabs containing available modifications for the given report. The “Title/Format” tab allows you to update the report title and select the format in which you want the report displayed, such as HTML or PDF.

To filter the data by time period, choose the “Time Period” tab at the top of the page. In this example, we have limited the line list to include only antimicrobial use in the third quarter of 2017 (Summary Yr/Qtr = 2017Q3).

**Tip:** For more descriptive variable labels on your report, check the box “Show descriptive variable names” that appears near the top of the modification window (recommended).

The screenshot shows the 'Modify "Line Listing - All Submitted AU Data by Location"' window. At the top, there is a header bar with the title and a checked box for 'Show descriptive variable names (Print List)'. Below the header, there are several tabs: 'Title/Format', 'Time Period' (which is highlighted in green), 'Filters', 'Display Variables', 'Sort Variables', and 'Display Options'. The 'Time Period' section contains a 'Date Variable' dropdown set to 'Summary~Yr/Qtr', a 'Beginning' text box with '2017Q3', and an 'Ending' text box with '2017Q3'. There is a 'Clear Time Period' button to the right. Below this, there is a checkbox labeled 'Enter Date variable/Time period at the time you click the Run button'. At the bottom right, there are four buttons: 'Run', 'Save...', 'Export...', and 'Close'.

The “Filters” tab allows you to further filter the data that will be displayed in the report. For our example, we want to filter the report to only show data for location equal to “4MICU.”

**Tip:** For including more than one item in each filter such as multiple locations or multiple antimicrobial agents, the “in” operator can be used instead of the “equal” operator.

The screenshot shows the 'Modify "Line Listing - All Submitted AU Data by Location"' window with the 'Filters' tab selected. The header bar is the same as in the previous screenshot. The 'Filters' section has 'Additional Filters:' followed by 'Show' and 'Clear' buttons. Below this, there is a logical operator section with 'AND' and 'OR' buttons. A filter rule is defined: 'Location' (dropdown) 'equal' (dropdown) '4MICU - 4TH FLOOR MICU' (text box). At the bottom right, there are four buttons: 'Run', 'Save...', 'Export...', and 'Close'.

The “Display Variables” and “Sort Variables” tabs allow you to display and sort specific variables in your report. Both tabs will produce a similar window, shown below, which allows you to move variables from the available

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list in the left column to the selected list in the right column by using the directional arrows in the center. You can also re-order the selected variables using the “Up” and “Down” buttons, found to the right of the selected variables list. For our example, we will arrange the variables into the order we want for our final report and then sort them by antimicrobial (Antimicrobial Agent-Description).

**Tip:** Not sure of the meaning of the variables in the list? Use the variable reference list:

[http://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/varlabelxref-ps\\_current.pdf](http://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/varlabelxref-ps_current.pdf).

The screenshot shows the 'Modify Line Listing - All Submitted AU Data by Location' interface. At the top, there is a header bar with the title and a sub-header 'Analysis Data Set: SummaryAU Type: Line Listing Data Set Generated On: 11/29/2018 12:10:00'. Below this is a navigation bar with tabs: 'Title/Format', 'Time Period', 'Filters', 'Display Variables' (which is highlighted in green), 'Sort Variables', and 'Display Options'. The main area is titled 'Display Variables:' and is divided into two columns: 'Available Variables:' and 'Selected Variables:'. The 'Available Variables:' list includes: Antimicrobial Agent, Antimicrobial Category, Antimicrobial Class, Antimicrobial Subclass, CDC Location, CMS Certification Number, Create Date, drugDescription, Facility Org ID, Location, Location Label, Location Type, modifiedDate, Modify User ID, and NHSN Facility ID - Location. The 'Selected Variables:' list includes: Summary Year/Month, Antimicrobial Agent~Description, Antimicrobial Days, Days Present, Admissions, Route: IM, Route: IV, Route: Digestive, Route: Respiratory, and Location. Between the two lists are buttons for 'All', 'Selected', and 'All'. To the right of the 'Selected Variables:' list are buttons for 'Up', 'Down', and 'Undo'. At the bottom right of the interface are buttons for 'Run', 'Save...', 'Export...', and 'Close'.

## Final Report

The example line list shown below is the result of the modifications shown in this document. There is one row for each antimicrobial by month and one column for each variable. The list is sorted alphabetically by antimicrobial, and chronologically by month. The output below shows only the first three antimicrobials but would continue alphabetically through Zanamivir.



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Note: This example uses fictitious data for illustrative purposes only.

| National Healthcare Safety Network<br>Line Listing - All Submitted AU Data by Location |                                       |                    |              |            |           |           |                  |                    |          |
|--|---------------------------------------|--------------------|--------------|------------|-----------|-----------|------------------|--------------------|----------|
| As of: December 3, 2018 at 3:09 PM   |                                       |                    |              |            |           |           |                  |                    |          |
| Date Range: SUMMARYAU summaryYQ 2017Q3 to 2017Q3                                       |                                       |                    |              |            |           |           |                  |                    |          |
| if(((location = 4MICU )))  |                                       |                    |              |            |           |           |                  |                    |          |
| Location=4MICU   |                                       |                    |              |            |           |           |                  |                    |          |
| Summary Year/Month   | Antimicrobial Agent Description       | Antimicrobial Days | Days Present | Admissions | Route: IM | Route: IV | Route: Digestive | Route: Respiratory | Location |
| 2017M07  | AMAN - Amantadine                     | 0                  | 500          | .          | 0         | 0         | 0                | 0                  | 4MICU    |
| 2017M08  | AMAN - Amantadine                     | 0                  | 482          | .          | 0         | 0         | 0                | 0                  | 4MICU    |
| 2017M07  | AMK - Amikacin                        | 0                  | 500          | .          | 0         | 0         | 0                | 0                  | 4MICU    |
| 2017M08  | AMK - Amikacin                        | 0                  | 482          | .          | 0         | 0         | 0                | 0                  | 4MICU    |
| 2017M07  | AMOX - Amoxicillin                    | 0                  | 500          | .          | 0         | 0         | 0                | 0                  | 4MICU    |
| 1 2017M08  | AMOX - Amoxicillin                    | 2                  | 482          | .          | 0         | 0         | 2                | 0                  | 4MICU    |
| 2017M07  | AMOXWC - Amoxicillin with Clavulanate | 2                  | 500          | .          | 0         | 0         | 2                | 0                  | 4MICU    |
| 2017M08  | AMOXWC - Amoxicillin with Clavulanate | 2                  | 482          | .          | 0         | 0         | 2                | 0                  | 4MICU    |
| 2017M07  | AMP - Ampicillin                      | 0                  | 500          | .          | 0         | 0         | 0                | 0                  | 4MICU    |
| 2 2017M08  | AMP - Ampicillin                      | 6                  | 482          | .          | 0         | 6         | 0                | 0                  | 4MICU    |
| 2017M07  | AMPH - Amphotericin B                 | 0                  | 500          | .          | 0         | 0         | 0                | 0                  | 4MICU    |
| 2017M08  | AMPH - Amphotericin B                 | 0                  | 482          | .          | 0         | 0         | 0                | 0                  | 4MICU    |
| 2017M07  | AMPHOT- Amphotericin B Liposomal      | 0                  | 500          | .          | 0         | 0         | 0                | 0                  | 4MICU    |

1. In August 2017, there were two Amoxicillin antimicrobial days in the 4MICU. Both of these antimicrobial days were administered via the digestive route.
2. In August 2017, there were six total Ampicillin antimicrobial days in the 4MICU. All of these antimicrobial days were administered via the IV route.

## Additional Resources

AUR Module Protocol: <http://www.cdc.gov/nhsn/pdfs/pscmanual/11pscaurcurrent.pdf>

Introduction to NHSN Analysis: <http://www.cdc.gov/nhsn/PDFs/training/intro-AnalysisBasics-PSC.pdf>

How to Export Data from NHSN: <http://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/exportdata.pdf>

Surveillance for Antimicrobial Use Option: <http://www.cdc.gov/nhsn/acute-care-hospital/aur/>

