

# **NHSN Antimicrobial Use and Resistance (AUR) Module Reporting for the CMS Promoting Interoperability Program**

**Michelle Fedrick, MPH**

**Public Health Analyst II**

Lantana Consulting Group | Contractor for the Division of Healthcare Quality Promotion, CDC

**Stephanie Sutton, MPH**

**Public Health Analyst II**

Lantana Consulting Group | Contractor for the Division of Healthcare Quality Promotion, CDC

NHSN Annual Training

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# Objectives

By the end of this session, you will be able to:

- Describe the data reported & the mechanism for reporting
- Outline the steps for meeting the AUR Measure within the CMS Promoting Interoperability Program for calendar year (CY) 2025
- Summarize answers to common questions

# Disclaimer

- **Slides & answers are based on:**
  - Details in the Federal Register: <https://www.cms.gov/newsroom/fact-sheets/fy-2025-hospital-inpatient-prospective-payment-system-ipps-and-long-term-care-hospital-prospective-0>
  - CMS published fact sheet containing CY 2025 Promoting Interoperability Program updates: <https://www.cms.gov/newsroom/fact-sheets/fy-2025-hospital-inpatient-prospective-payment-system-ipps-and-long-term-care-hospital-prospective-0>

## Question 1

**What is the Medicare Promoting Interoperability Program?**

# Medicare Promoting Interoperability Program

- Requires eligible hospitals and critical access hospitals (CAHs) to report on objectives and measures to be considered a meaningful electronic health record (EHR) user and avoid a downward payment adjustment

TABLE IX.F-03: SUMMARY OF PERFORMANCE-BASED SCORING FOR EHR REPORTING PERIODS IN CY 2025 AND SUBSEQUENT YEARS

Objective	Measure	Maximum Points	Required/Optional
e-Prescribing	e-Prescribing	10 points	Required
	Query of PDMP	10 points	Required
	Support Electronic Referral Loops by Sending Health Information	15 points	
	-AND-		
HIE	Support Electronic Referral Loops by Receiving and Reconciling Health Information	15 points	Required (eligible hospitals and CAHs must choose one of the three reporting options)
	-OR-		
	HIE Bi-Directional Exchange	30 points	
	-OR-		
	Enabling Exchange under TEFCA	30 points	
Provider to Patient Exchange	Provide Patients Electronic Access to Their Health Information	25 points	Required
Public Health and Clinical Data Exchange	Report the following six measures: <ul style="list-style-type: none"> <li>• Syndromic Surveillance Reporting</li> <li>• Immunization Registry Reporting</li> <li>• eCR</li> <li>• Electronic Reportable Laboratory Result Reporting</li> <li>• AU Surveillance*</li> <li>• AR Surveillance*</li> </ul>	25 points	Required
	Report one of the following measures: <ul style="list-style-type: none"> <li>• Public Health Registry Reporting</li> <li>• Clinical Data Registry Reporting</li> </ul>	5 points (bonus)	Optional

Notes: The Security Risk Analysis measure, SAFER Guides measure, and attestations required by section 106(b)(2)(B) of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) are required but will not be scored. Reporting eCQMs is required but will not be scored. Eligible hospitals and CAHs must also submit their level of active engagement for measures under the Public Health and Clinical Data Exchange objective. Participants may spend only one EHR reporting period at Option 1: Pre-production and Validation level per measure and must progress to Option 2: Validated Data Production level for the following EHR reporting period. See the FY 2023 IPPS/LTCH PPS final rule (87 FR 49337) for more details about active engagement.

\*Signifies a finalized measure in this FY 2025 IPPS/LTCH PPS final rule. For details on our finalized modifications to the AUR Surveillance measure, which we have separated into an AU Surveillance measure and an AR Surveillance measure, we refer readers to section IX.F.2 of this final rule.

# Medicare Promoting Interoperability Program – cont.

- AUR Surveillance measure has been split into two separate measures: AU Surveillance and AR Surveillance
- AU Surveillance and AR Surveillance are considered new measures for CY 2025 – facilities have an extra year for Option 1

TABLE IX.F-03: SUMMARY OF PERFORMANCE-BASED SCORING FOR EHR REPORTING PERIODS IN CY 2025 AND SUBSEQUENT YEARS

Objective	Measure	Maximum Points	Required/Optional
e-Prescribing	e-Prescribing Query of PDMP	10 points 10 points	Required Required
HIE	Support Electronic Referral Loops by Sending Health Information -AND- Support Electronic Referral Loops by Receiving and Reconciling Health Information -OR- HIE Bi-Directional Exchange -OR- Enabling Exchange under TEFCA	15 points 15 points 30 points 30 points	Required (eligible hospitals and CAHs must choose one of the three reporting options)
Provider to Patient Exchange	Provide Patients Electronic Access to Their Health Information	25 points	Required
Public Health and Clinical Data Exchange	Report the following six measures: <ul style="list-style-type: none"><li>• Syndromic Surveillance Reporting</li><li>• Immunization Registry Reporting</li><li>• eCR</li><li>• Electronic Reportable Laboratory Result Reporting</li><li>• AU Surveillance*</li><li>• AR Surveillance*</li></ul>	25 points	Required
	Report one of the following measures: <ul style="list-style-type: none"><li>• Public Health Registry Reporting</li><li>• Clinical Data Registry Reporting</li></ul>	5 points (bonus)	Optional

Notes: The Security Risk Analysis measure, SAFER Guides measure, and attestations required by section 106(b)(2)(B) of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) are required but will not be scored. Reporting eCQMs is required but will not be scored. Eligible hospitals and CAHs must also submit their level of active engagement for measures under the Public Health and Clinical Data Exchange objective. Participants may spend only one EHR reporting period at Option 1: Pre-production and Validation level per measure and must progress to Option 2: Validated Data Production level for the following EHR reporting period. See the FY 2023 IPPS/LTCH PPS final rule (87 FR 49337) for more details about active engagement.

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## Knowledge Check 1 (True/False)

Starting in 2025, the AUR Surveillance measure has been split into two separate measures: AU Surveillance and AR Surveillance.

- A. True**
- B. False**

## Knowledge Check 1 (True/False) - Answer

Starting in 2025, the AUR Surveillance measure has been split into two separate measures: AU Surveillance and AR Surveillance.

- A. True
- B. False

## Question 2

**What does “active engagement” mean?**

# Two ways to be in active engagement with NHSN

- **Option 1 – Pre-production and validation**
  - Registration within NHSN
  - Working on testing & validation of Clinical Document Architecture (CDA) files
- **Option 2 – Validated data production**
  - Registration within NHSN
  - Submitting production Antimicrobial Use (AU) Option and/or Antimicrobial Resistance (AR) Option files to NHSN
    - CY 2025 – 180 continuous days of AUR data submission
      - Also known as: EHR Reporting Period
- **Note: Definitions of active engagement are set within the Promoting Interoperability Program & are the same for other Public Health and Clinical Data Exchange Objective Promoting Interoperability Program measures**

# New for CY 2025

- **In CY 2025, eligible hospitals and CAHs must be in active engagement or claim an eligible exclusion for each measure**
  - Both are still required measures for the Promoting Interoperability Program
- **Hospitals can be at different levels of engagement for each measure**
  - Example 1: Hospital can attest to Option 2 for AU Surveillance and Option 1 for AR Surveillance
  - Example 2: Hospital can attest to Option 1 for AU Surveillance and claim an exclusion for AR Surveillance

## Knowledge Check 2

How many ways can your facility be in active engagement with NHSN?

- A. 1
- B. 2
- C. 3
- D. 4

## Knowledge Check 2 - Answer

How many ways can your facility be in active engagement with NHSN?

A. 1

### Option 1 – Pre-production and validation

- Registration within NHSN
- Working on testing & validation of Clinical Document Architecture (CDA) files

B. 2

C. 3

D. 4

### Option 2 – Validated data production

- Registration within NHSN
- Submitting production Antimicrobial Use (AU) Option & Antimicrobial Resistance (AR) Option files to NHSN
  - CY 2025 – 180 continuous days of AUR data submission
    - Also known as: EHR Reporting Period

## Question 3

**Are patient level data collected/shared?**

## AU: No, patient level data shared, AR: Yes, patient level data shared

- **AU: No, patient level data is shared**
  - Antimicrobial Days are aggregated to the month and location (aka unit) level and the Facility-wide inpatient level (aka FacWideIN)
- **AR: Yes, patient level data is shared**
  - Isolate-level susceptibility results for specific organisms reported for all inpatient locations and 3 outpatient locations types (ED, pediatric ED & 24 hr OBS)
- **For additional AUR trainings go to: <https://www.cdc.gov/nhsn/training/patient-safety-component/aur.html ->**

## Question 4

**What specific files must be submitted?**

## The following files must be submitted:

File Name	Key Data Included
Antimicrobial Use (AU)	Days Present, Admissions, Antimicrobial days
AR Event Data (AR)	Isolate level susceptibility results for specific organisms
Antimicrobial Resistance (AR)	AR Event Data, Patient Days, Admissions, Encounters

## Question 5

**What is the reporting period for the CMS Promoting Interoperability Program? Do I need to be reporting AUR data into NHSN now?**

# EHR Reporting Period

- **For CY 2025: 180 continuous days**
- **Each facility designates their own EHR reporting period**
  - Facility must use the same 180-day period for **ALL** CMS Promoting Interoperability Program measures
  - AU and AR data must be reported for the same 180 days
- **Examples:**
  - January 1–June 30
  - April 1–September 30
  - July 1–December 31

## Question 6

**How can NHSN users find out their facility's EHR Reporting Period?**

## Designated by each facility

- **Reach out to person(s) in charge of quality reporting within the facility and/or C-suite**
  - Check with the person who has access to the CMS Hospital Quality Reporting (HQR) system: <https://hqr.cms.gov/hqrng/login>

## Question 7

**What hospital software systems should these data come from?**

## AUR data from electronic sources only

- AU data from electronic medication administration records (eMAR)/ bar coding medication administration (BCMA) & Admission, Discharge, Transfer (ADT) systems
- AR data from Laboratory Information System (LIS) or EHR & ADT systems
- No manual data collection or entry into NHSN

## Knowledge Check 3 (True/False)

Manual data collection and entry are allowed in NHSN for AUR.

- A. True**
- B. False**

## Knowledge Check 3 (True/False) - Answer

Manual data collection and entry are allowed in NHSN for AUR.

- A. True**
- B. False**

## Question 8

**What are the exclusions for the AU & AR measures for 2025? Have they changed from 2024?**

## **CY 2025 exclusions by measure: AU Surveillance**

- 1. Does not have any patients in any patient care location for which data are collected by NHSN during the EHR reporting period**
- 2. Does not have an eMAR/BCMA electronic records or an electronic ADT system during the EHR reporting period**
- 3. (New) Does not have a data source containing the minimal discrete data elements that are required for reporting.**

## CY 2025 exclusions by measure: AR Surveillance

- 1. Does not have any patients in any patient care location for which data are collected by NHSN during the EHR reporting period**
- 2. Does not have an electronic LIS or electronic ADT system during the EHR reporting period**
- 3. (New) Does not have a data source containing the minimal discrete data elements that are required for reporting.**

## Exclusion examples for CY 2025

1. Example: If *Candida* isolates are sent out for identification and/or AST and return to the facility via PDF or fax then the facility does not have interoperable data and should claim the exclusion.
2. Example: If *Candida* isolates cannot be speciated then those isolates are still eligible for AR Option reporting in CY 2025. Facility should not claim Promoting Interoperability Program exclusion.
3. Example: If *Candida* isolates are speciated but do not have AST performed, then those isolates are eligible for AR Option reporting in CY 2025. Facility should not claim Promoting Interoperability Program exclusion.

## **Must have an exclusion for each measure separately**

- **Because AU and AR are two separate measures for CY 2025, your hospital must meet an exclusion for each measure or be in active engagement**
  - Example 1: Hospital inpatient units were closed for construction. Hospital can claim exclusion 1 for both AU and AR surveillance measures.
  - Example 2: Hospital does not receive AST results from external lab in discrete fields. Hospital can claim exclusion 3 for AR Surveillance but must be in active engagement to report AU data to NHSN.

## Question 9

**My laboratory suppresses some susceptibility test results. Does that count as an exclusion? Can I still submit AR Surveillance measure data if I'm unable to send suppressed susceptibility results?**

## Data suppression is not an exclusion

- **No, data suppression does not count as an eligible exclusion for the AUR Surveillance measure for the EHR reporting period in 2024, or the AR Surveillance measure for the EHR reporting period in 2025.**
- **If your eligible hospital or CAH cannot obtain and/or send suppressed data to the NHSN AR Option, NHSN will accept the data your eligible hospital or CAH is able to provide.**
  - Please be sure that your AUR reporting software vendor is using 'Not Tested' for the unavailable tests/drugs. The NHSN application will not accept AR Event Clinical Document Architecture (CDA) files that do not contain all the required drugs for a given organism.

## Question 10

We send specimens to an external lab and they send results back via fax/pdf. Does our hospital qualify for an exclusion?

## Yes, facilities without discrete data meet exclusion criteria

- Many eligible hospitals and CAHs use outside labs for some, most, or even all susceptibility testing. We also know that, in some cases, those results might not make it into the hospital's LIS.
- At the same time, NHSN has minimum results requirements. A hospital may qualify for an exclusion in rare instances where the following conditions are met:
  - They have an LIS for non-microbiology data (e.g., hematology or chemistry results), but don't have an LIS for microbiology data.
  - The AR data required for submission to NHSN are not available as discrete fields in the LIS. For example, results for *Candida* species identification and/or susceptibility testing are faxed and scanned into the patient record as a PDF.\*

\*Note: For CY 2025, *Candida* isolates without susceptibility testing results will become eligible for the AR Option reporting. Therefore, eligible hospitals and CAHs that do not perform susceptibility testing on *Candida* isolates or are unable to access discrete susceptibility results for *Candida* isolates will no longer qualify for an exclusion for the EHR reporting period in 2025.

## Question 11

**For the EHR reporting period in 2025, will eligible hospitals and CAHs be expected to *separately* attest to meeting reporting requirements or exclusion criteria for the AU and AR Surveillance measures?**

## Yes, in 2025 facilities will separately attest

- Eligible hospitals and CAHs must report a “Yes” response to being in active engagement (Option 1 or Option 2)
- Eligible hospitals and CAHs that claim an applicable exclusion for only AU or AR would either need to be in active engagement for the other measure or claim a separate exclusion
- Eligible hospitals and CAHs that report a “No” response to either measure, fail to report any response, or fail to claim an applicable exclusion will not receive credit for the measure(s). These eligible hospitals and CAHs would fail to satisfy requirements of the Public Health and Clinical Data Exchange Objective and will earn a score of zero for the Medicare Promoting Interoperability Program.

## Question 12

**How are these data submitted to NHSN?**

# How to submit data to NShN

- Must have SAMS credentials
- Data must be uploaded via CDA
  - Too much data to enter by hand!
- Health Level 7 (HL7) standard
- Provides facilities with standardized way to package & upload data
  - AU, AR, & HAI
- CDA ≠ CSV (Excel)
  - CDA uses Extensible Markup Language (XML)

```
</participant>
<!-- Number of Patient-present Days -->
<entryRelationship typeCode="COMP">
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.5.6.69"/>
    <code codeSystem="2.16.840.1.113883.6.277"
          codeSystemName="cdcNShN"
          code="2525-4"
          displayName="Number of Patient-present Days"/>
    <statusCode code="completed"/>
    <value xsi:type="PQ" unit="d" value="700"/>
  </observation>
</entryRelationship>
<!-- the Drug, aggregate data, no specified route of administration -->
<entryRelationship typeCode="COMP">
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.5.6.69"/>
    <code codeSystem="2.16.840.1.113883.6.277"
          codeSystemName="cdcNShN"
          code="2524-7"
          displayName="Number of Therapy Days"/>
    <statusCode code="completed"/>
    <value xsi:type="PQ" unit="d" value="3"/>
    <participant typeCode="CSM">          <!-- antimicrobial Drug -->
      <participantRole classCode="MANU">
        <code codeSystem="2.16.840.1.113883.6.88"
              codeSystemName="RxNorm"
              code="620"
              displayName="Amantadine"/>
      </participantRole>
    </participant>
  </observation>
</entryRelationship>
<!-- stratified data: Drug + route -->
```

# Using a vendor is recommended!

- **Most facilities use commercial software vendor**
  - EHR vendor or surveillance software vendor
  - Certified electronic health record technology (CEHRT) that has been updated to meet 2015 Edition Cures Update criteria (specifically, Office of the National Coordinator for Health Information Technology [ONC] certified)
  - Vendors that have met NHSN validation standards:
    - AU: <https://www.cdc.gov/nhsn/cdaportal/sds/au-vendor-list.html>
    - AR: <https://www.cdc.gov/nhsn/cdaportal/sds/ar-vendor-list.html>

## Question 13

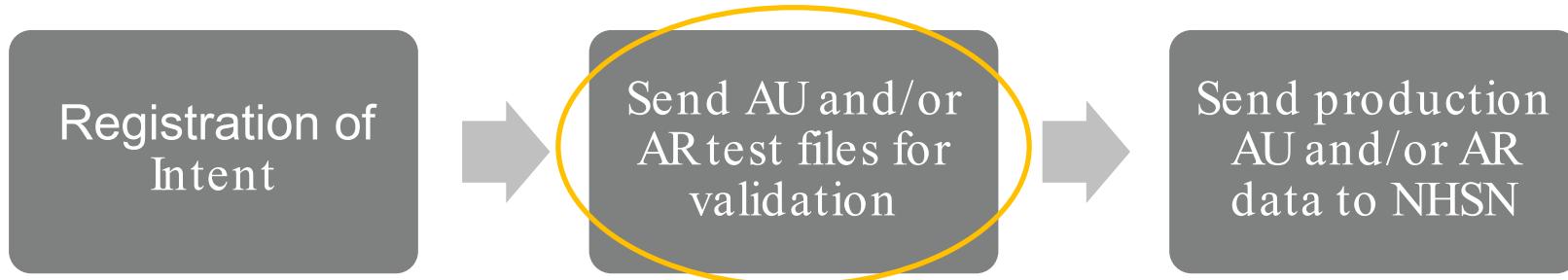
**What do facilities need to do to meet the AU and/or AR reporting piece of the CMS Promoting Interoperability Program?**

# What to do in CY 2025?



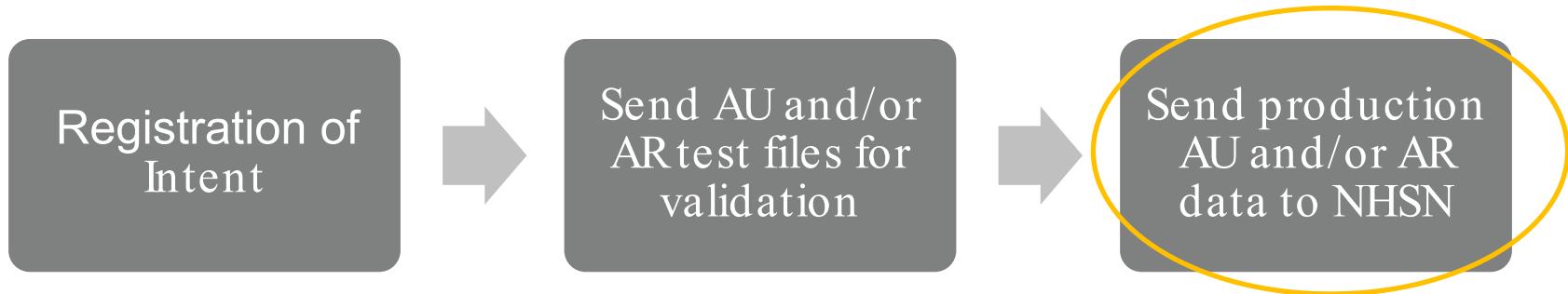
- **If your hospital already registered intent (in any previous calendar year), no further registration is needed**
- **If registration has not been completed:**
  - Only completed by the Facility Administrator, completed one time ever, and cannot be undone
  - Cannot register for only AU Surveillance measure or only AR Surveillance measure

## What to do in CY 2025? - cont'd.



- **If your hospital already sent test files (in any previous calendar year), no further test files are needed**
- **If test files have not been provided, submit the required relevant test files:**
  - Attest to active engagement for AU Surveillance measure only: **Send 1 AU Summary CDA test file**
  - Attest to active engagement for AR Surveillance measure only: **Send 2 AR CDA test files (AR Denominator & AR Numerator)**
  - Attest to active engagement for AU & AR Surveillance measures: **Send all 3 CDA test files (AU Summary, AR Denominator & AR Numerator)**

## What to do in CY 2025 ? - cont'd.



- **If your hospital is already sending production AU and/or AR data, continue sending production AU and/or AR data**
  - NHSN will automatically email the NHSN Facility Administrator and optional email contacts a monthly report outlining data submission status

# Same Deadlines Apply in CY 2025

- **Registration (if not already completed): register intent within 60 days of the start of your EHR Reporting Period**
- **Test files (if not already completed): reply to NHSN request for test files within 60 days of the request**
  - If test files are not yet ready when NHSN requests them, reply with a status update
  - No further status updates are needed
  - If your hospital would like an official letter from NHSN with your testing results in CY 2025, send files no later than November 1, 2025
- **Production data: report AU and AR data on an ongoing basis during your EHR Reporting period**

## Question 14

**Do I need to add AUR to my Monthly Reporting Plan in NHSN? If so, how?**

# Facilities must add AU and/or AR to the Monthly Reporting Plan when ready to submit production AU and/or AR data

- **AU reporting:**
  - Add Facility-wide Inpatient (FacWideIN)
  - Add each individual inpatient location & select eligible outpatient locations
- **AR reporting:**
  - Add Facility-wide Inpatient (FacWideIN)
  - Add select eligible outpatient locations

Antimicrobial Use and Resistance Module			
	Locations	Antimicrobial Use	Antimicrobial Resistance
<input type="checkbox"/>	FACWIDEIN - Facility-wide Inpatient (FacWIDEIn)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	MEDSURG64 - MED/SURGICAL WARD	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	MSICU - MEDICAL SURGICAL ICU - AU	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	WELLBABY - WELL BABY	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	LABOR11 - LABORDEL 011	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	ED - EMERGENCY DEPARTMENT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	24HROBS - 24-HR OBS.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Question 15

**I can see AUR items showing up on the Missing Data Alerts when I log into NHSN, but I've uploaded my AUR data and the monthly AUR submission status report emailed to me shows “Yes” for all reporting. Why is there a discrepancy?**

# Monthly Reporting Plan & Alerts

- **Facilities add AU and/or AR to their NHSN Monthly Reporting Plans**
  - Then upload AU and/or AR data
  - All locations listed in the Monthly Reporting Plan included in the upload?
    - Yes: no missing summary data alerts are generated
    - No: missing summary data alerts are generated

# Clear Alerts by Uploading Data

- **Why do I have missing data?**
  - Zip file may not have included all location types or data types
  - Individual files may have failed, and you didn't notice during upload
- **Try the upload again**
  - Pay attention to the number of files in the .zip and whether any fail
- **Work with your vendor representative**
  - Find missing files
  - Resolve errors in files
- **Try the upload again**
- **Goal is to have zero missing data alerts** 

## Knowledge Check 4

**True or False: When facilities add AU and/or AR to their NHSN Monthly Reporting Plans and upload AU and/or AR data, if not all locations listed in the Monthly Reporting Plan are included in the upload, missing summary data alerts will be generated.**

- A. True
- B. False

## Knowledge Check 4 - Answer

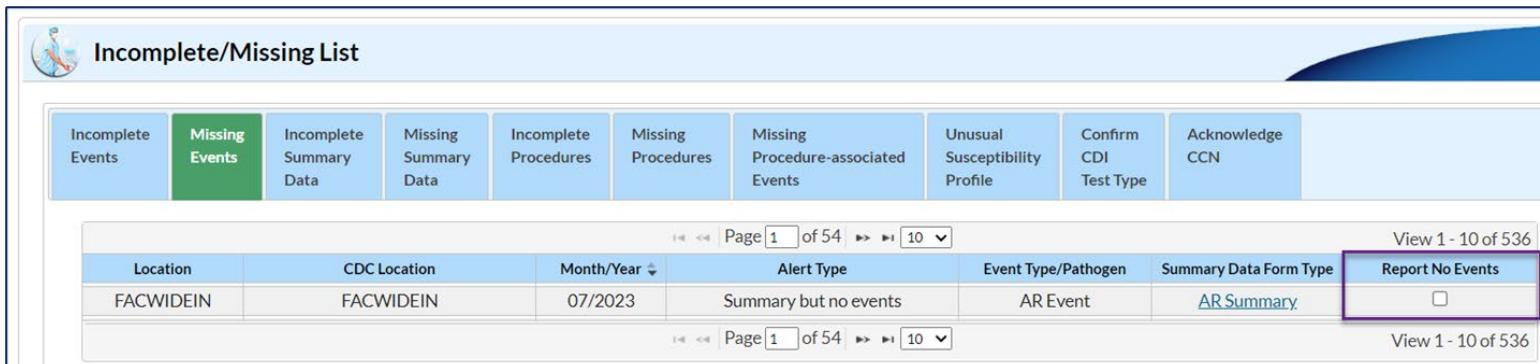
**True or False: When facilities add AU and/or AR to their NHSN Monthly Reporting Plans and upload AU and/or AR data, if not all locations listed in the Monthly Reporting Plan are included in the upload, missing summary data alerts will be generated.**

- A. True**
- B. False

**Explanation:** When facilities add AU and/or AR to their NHSN Monthly Reporting Plans and upload AU and/or AR data, it is essential that all locations listed in the Monthly Reporting Plan are included in the upload. If all locations are included in the upload, no missing summary data alerts are generated. If some locations are not included, missing summary data alerts will be generated.

# Alerts for Missing AR Event Data

- **Do you have isolates that qualify as AR Events?**
  - Yes: find & upload them
  - No: click the “Report No Events” box
    - <https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/AR-QRG-NoEvents-508.pdf>



The screenshot shows a web-based application titled "Incomplete/Missing List". The interface includes a header with a logo and the title, followed by a navigation bar with ten categories: Incomplete Events, Missing Events, Incomplete Summary Data, Missing Summary Data, Incomplete Procedures, Missing Procedures, Missing Procedure-associated Events, Unusual Susceptibility Profile, Confirm CDI Test Type, and Acknowledge CCN. Below the navigation bar is a search and filter section with fields for Location (FACWIDEIN), CDC Location (FACWIDEIN), Month/Year (07/2023), Alert Type (Summary but no events), Event Type/Pathogen (AR Event), Summary Data Form Type (AR Summary), and a "Report No Events" checkbox. The "Report No Events" checkbox is highlighted with a purple border. At the bottom of the page, there is a footer with a similar search and filter section and a "View 1 - 10 of 536" link.

Location	CDC Location	Month/Year	Alert Type	Event Type/Pathogen	Summary Data Form Type	Report No Events
FACWIDEIN	FACWIDEIN	07/2023	Summary but no events	AR Event	AR Summary	<input type="checkbox"/>

# Clear Alerts by Updating Reporting Plan

- In some circumstances, you may not be able to report data for a location in your reporting plan
  - E.g., cannot accurately capture numerator or denominator data
  - Remove that location from the reporting plan
- Click the garbage can icon to remove a whole row
  - See AU FAQs for more info: <https://www.cdc.gov/nhsn/faqs/faq-au.html>

Antimicrobial Use and Resistance Module				
	Locations	Antimicrobial Use	Antimicrobial Resistance	
	FACWIDEIN - Facility-wide Inpatient (FacWIDEIn)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	MSICU - MEDICAL SURGICAL ICU - AU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	700 - SURG WARD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

## Question 16

**If a hospital uses a validated vendor, does that change the requirements?**

# No – Using a validated vendor does not change the requirements

- If attesting to “Option 1 – Pre-production and Validation”, and the hospital would like a letter from NHSN denoting the validation stage is complete, send relevant test files regardless of the vendor used to submit AU and/or AR data
- If attesting to “Option 2 – Validated Data Production”, do not need to send test files for validation

# Three Distinct Types of Validation

## 1. Data Quality Validation

- Conducted by the individual facility/system
- Validates data are accurate and complete (e.g., antimicrobial days)
- Do not need to share results with NHSN AUR Team

## 2. CDA File Validation

- Part of the CMS PI Program process
- Validates that CDA files pass NHSN business rules (e.g., correct drugs in the file, include all required fields)

# Three Distinct Types of Validation Continued

## 3. Vendor Software Validation

### a) NHSN validation (also known as SDS validation)

- Validates vendor software can correctly apply rules of the AUR Protocol
- Required for all vendors: <https://www.cdc.gov/nhsn/cdaportal/sds/index.html>

### b) ONC certification

- Validated vendor software can generate CDA files that meet format requirements
- Required for all vendors: <https://chpl.healthit.gov/#/search>

## Question 17

**My hospital is already submitting production AU and/or AR data to NHSN. Do we need to submit an AU and/or AR file(s) for testing and validation?**

## No - Validation File Submission Not Required for Eligible Hospitals and CAHs

- Eligible hospitals and CAHs can attest 'Yes' to 'Option 1' without submitting files for validation, if working towards AUR file creation during the EHR reporting period.
- To receive an official NHSN letter, email the relevant files (AU, AR Event, AR Summary) based on the attestation measure.

## More about the request for test files...

- If your hospital intends to attest to “Option 2 – Validated Data Production”, you can disregard these emails
  - If attesting to “Option 1 – Pre-Production and Validation”
  - Respond to the request for test files within 30 days indicating you registered before having test files ready. **Failure to respond to either the first or the second request for test files within an EHR reporting period will result in that eligible hospital or CAH not meeting minimum measure requirements and earning a total score of zero for the Medicare Promoting Interoperability Program.**
- Don’t have test files ready?
  - If the eligible hospital or CAH replies one time within 60 days, no further updates are needed until the test files are ready for validation.

## Question 18

**When do facilities need to register and send test files to attest to "Option 1 – Preproduction & Validation for CY 2025?**

## Timing varies...

- **Registration should be completed within 60 days of the start of the EHR Reporting Period**
  - After registering, NHSN immediately sends a request for test files
  - Facilities should respond to NHSN request with test files or a status update within 30 days
- **Ask that facilities submit test files no later than November 1**
  - Allows the NHSN team to process the test files

## Example Timeline for Option 1

- Facility A designates March 1–August 31 as their 180-day EHR reporting period
- Must register intent to submit AUR data within NHSN by April 30
  - CMS specifications: complete registration within 60 days of the start of EHR reporting period
- (to receive a letter back from NHSN showing passing validation) Must send test files no later than November 1
  - Send test files as soon as they are ready – no need to wait until Nov 1
  - If the hospital replies within 60 days, no further updates are needed until the test files are ready for validation.

## Question 19

**When do facilities need to report AU and/or AR data to attest to “Option 2 – Validated Data Production” for CY 2025?**

# No later than January 31, 2026

- Data should be reported monthly during the EHR Reporting Period
- NHSN automatically sends out status letters on the first day of every month
- Final annual summary letter sent out on February 1 showing previous year's submissions
  - Submit all relevant AU and AR data to NHSN no later than January 31, 2026, to be included on the annual report sent to facilities on February 1

Month/Year	Antimicrobial Use Surveillance Measure	Antimicrobial Resistance Surveillance Measure	
	Antimicrobial Use Summary	Antimicrobial Resistance Events	Antimicrobial Resistance Summary
01/2025	No	No	No

## Example Timeline for Option 2

- Facility B designates July 1 – December 31 as their 180-day EHR reporting period
- Must register intent to submit AUR data within NHSN by August 31
  - CMS specifications: complete registration within 60 days of the start of EHR reporting period
- Must report production AUR data to NHSN for July – December on an ongoing basis
  - NHSN recommends sending the month's data within 30 days of the completion of the month
  - Make sure December 2025 AUR data are submitted by January 31, 2026

## Knowledge Check 5

**When must all relevant CY 2025 AU and AR data be submitted to NHSN to be included in the annual report sent to facilities?**

- a) December 31, 2025
- b) January 1, 2026
- c) January 31, 2026
- d) February 1, 2026

## Knowledge Check 5 - Answer

When must all relevant CY 2025 AU and AR data be submitted to NHSN to be included in the annual report sent to facilities?

- a) December 31, 2025
- b) January 1, 2026
- c) January 31, 2026**
- d) February 1, 2026

**Explanation:** All relevant CY 2025 AU and AR data must be submitted to NHSN by January 31, 2026, to be included in the annual report sent to facilities on February 1, 2026.

## Question 20

**Do the quarterly CMS Quality Reporting Program deadlines apply to AUR Module reporting for the CMS Promoting Interoperability Program?**

## No — Two separate CMS Programs

- AUR measure within the CMS Promoting Interoperability Program does not have quarterly deadlines
- AUR reporting completed on an ongoing basis
- Facilities attest within CMS HQR system once a year (due the last day in February)

<https://hqr.cms.gov/hqrng/login>

## Question 21

**What's the penalty for failure to report AU and/or AR data for 2024 and subsequent years?**

# **Eligible hospitals and CAHs must report a “yes” response or claim an applicable exclusion**

- Failure to fulfill any of the required measures, including the AU and/or AR Surveillance measures, will result in a score of zero for the Medicare Promoting Interoperability Program.
- The eligible hospital or CAH would not be considered a meaningful user of CEHRT and would be subject to a downward payment adjustment.
- CAHs will receive a downward Medicare payment adjustment from 101% of reasonable costs to 100%.
  - Eligible hospitals will receive a reduction of 75% of their annual market basket update.

## Question 22

**Does CDC/NHSN provide data to CMS?**

# No, AU and AR Measures are attestation based

- **CDC/NHSN does not provide any data to CMS for these reporting measures**
  - Goal of CMS Promoting Interoperability Program is to increase interoperable healthcare data exchange
- **Facilities must attest to CMS that they are in active engagement with NHSN**
  - Attest within the CMS Hospital Quality Reporting (HQR) system: <https://hqr.cms.gov/hqrng/login>
- **NHSN provides documentation to facilities to use as proof**

## Question 23

**When and where do facilities complete the CMS Promoting Interoperability Program attestations?**

## Attest within the CMS HQR

- Facilities attest within CMS HQR system once a year for the previous year (due the last day in February unless otherwise specified by CMS)
  - Example: Submit attestations for CY 2025 by March 14, 2026
  - Note: This date is subject to change due to weekends, federal holidays, or other changes proposed and finalized in CMS regulations. Date changes are communicated by CMS.
- All CMS Promoting Interoperability Program measures are included in the attestation process
- Review CMS Promoting Interoperability Program Resource Library for more information: <https://www.cms.gov/medicare/regulations-guidance/promoting-interoperability-programs/resource-library>

## Question 24

**Where/how do facilities get documentation of active engagement status?**

# Option 1 Documentation/Verification of Facility Status

## Option 1 – Pre-production & Validation

- First: email that you've successfully registered & request to send test files
  - Sent to NHSN Facility Administrator and any optional Promoting Interoperability Program users
- Second: email that your test files passed validation
  - Sent to NHSN Facility Administrator and any optional Promoting Interoperability Program users
  - Only sent after 1 AU file and/or 2 AR files (AR Event and AR Summary) are validated by NHSN

# Option 2 Documentation/Verification of Facility Status

## Option 2 – Validated Data Production

- Monthly email showing AUR data submission status
  - Sent to NHSN Facility Administrator and any optional Promoting Interoperability Program users
  - Generated the 1st day of each month
  - Annual letter generated February 1st
- Ad hoc letters can also be generated at any time by the Facility Administrator  
(<https://www.cdc.gov/nhsn/pdfs/cda/PHDI-Facility-Guidance-508.pdf>)

Subject: PI Program Report of 2023 NHSN AUR data

This notice serves as written confirmation of your CMS Promoting Interoperability (PI) Program status with the National Healthcare Safety Network (NHSN) as of November 29, 2023 for the PI Program Antimicrobial Use and Resistance (AUR) reporting objective according to certification criterion § 170.315(h)(6).

Reporting for this PI Program objective includes reporting of Antimicrobial Use Summary, Antimicrobial Resistance Event, and Antimicrobial Resistance Summary data to NHSN.

For each year, data intended for inclusion in the annual PI Program status report must be uploaded into NHSN no later than the end of January of the following year (i.e. AUR data for 2022 must be reported into NHSN by January 31, 2023).

Registration of Intent Completed [REDACTED]

The following is a status report of received Antimicrobial Use Summary, Antimicrobial Resistance Event, and Antimicrobial Resistance Summary data per month for 2023.

Month/Year	Antimicrobial Use Summary	Antimicrobial Resistance Events	Antimicrobial Resistance Summary
01/2023	Yes	Yes	Yes
02/2023	Yes	Yes	Yes
03/2023	Yes	Yes	Yes
04/2023	Yes	No	Yes
05/2023	Yes	Yes	Yes
06/2023	Yes	No	No
07/2023	Yes	No	Yes
08/2023	Yes	No	No
09/2023	Yes	Yes	No

Thank you for partnering with NHSN to support antimicrobial stewardship via electronic reporting.

Please retain this notification for your facility's records.

## Knowledge Check 6

**True or False: CDC/NHSN provides data to CMS for AU and AR reporting measures.**

- A. True
- B. False

## Knowledge Check 6 - Answer

**True or False: CDC/NHSN provides data to CMS for AU and AR reporting measures.**

- A. True
- B. False**

**Explanation:** CDC/NHSN does not provide any data to CMS for these reporting measures. Facilities must attest to CMS that they are in active engagement with NHSN via the CMS HQR system and NHSN provides documentation to facilities as proof.

# AUR Module Resources

- **Bookmark the AUR Module webpage:** <https://www.cdc.gov/nhsn/psc/aur/index.html>
- **Review the protocol:** <https://www.cdc.gov/nhsn/pdfs/pscmanual/11pscaurcurrent.pdf>
- **Listen/watch the training webinars:** <https://www.cdc.gov/nhsn/training/patient-safety-component/aur.html>

# Promoting Interoperability - specific AUR Module Resources

- NHSN/CMS Requirements: <https://www.cdc.gov/nhsn/cms/ach.html>

## Antimicrobial Use and Resistance

[Operational Guidance for reporting AUR data – August 2023](#)  [PDF – 239 KB]

AUR Module Reporting for the CMS Promoting Interoperability Program – March 2024

[YouTube](#)

[Slide set](#)  [PDF – 3 MB]

[Slide set – En Español](#)  [PDF – 2 MB] – March 2023

[FAQs: AUR Reporting for the CMS Promoting Interoperability Program – July 2024](#)

[Promoting Interoperability – Guidance for Facilities – March 2023](#)  [PDF – 250 KB]

[Promoting Interoperability – Guidance for Facilities – March 2023 – En Español](#)  [PDF – 358 KB]

[Office Hours: AUR Module Reporting for the CMS Promoting Interoperability Program – Spring 2024](#)  [PDF – 1 MB]

[Office Hours: NHSN AUR Module Updates for 2025 – Fall 2025](#)  [PDF – 2 MB]

# CMS Help Desk

- For questions regarding the Medicare Promoting Interoperability Program, you can submit your questions using the QualityNet Questions & Answer tool at: [QualityNet.cms.gov](https://QualityNet.cms.gov)
- You can also contact the CMS Live Support Center Help Desk for assistance at 1-844-472-4477.

Program Knowledge Bases

All Program

|

Hospitals - Inpatient

Hospitals - Outpatient

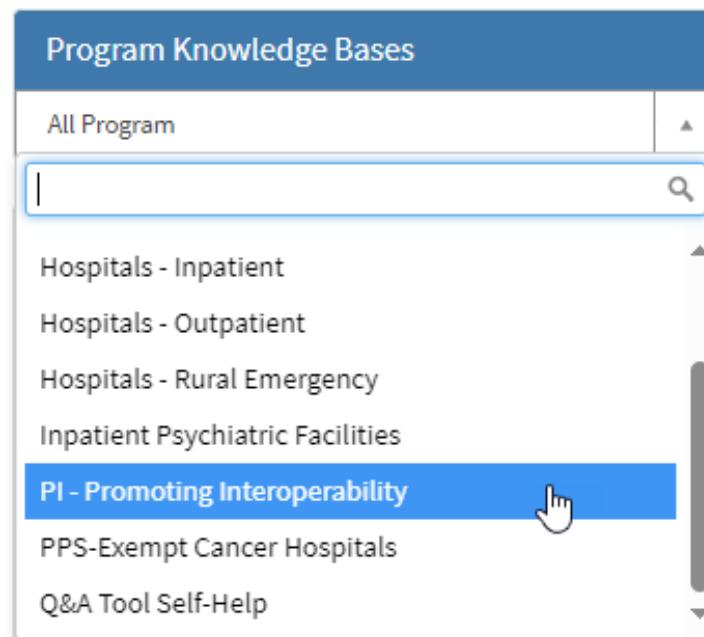
Hospitals - Rural Emergency

Inpatient Psychiatric Facilities

**PI - Promoting Interoperability** 

PPS-Exempt Cancer Hospitals

Q&A Tool Self-Help



# For NHSN questions or concerns, contact the NHSN Helpdesk

- **NHSN-ServiceNow** to submit questions to the NHSN Help Desk.
- Access new portal at <https://servicedesk.cdc.gov/nhsncsp> .
- If you do not have a SAMS login, or are unable to access ServiceNow, you can still email the NHSN Help Desk at [nhsn@cdc.gov](mailto:nhsn@cdc.gov).

For more information, contact CDC

1-800-CDC-INFO (232-4636)

TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

