Spring 2026 NHSN Vendor Webinar

April 29, 2026

Agenda

- Introduction
- General NHSN Release Overview
- NHSN Release Updates
- NHSN Digital Measures: Preparing for Reporting FHIR® Measures to NHSN
- Periprosthetic Joint Infection Changes
- Neonatal Pediatric Revisions
- AUR Module Updates
- NHSN Pre-Production Test Site (NPPT)
- Miscellaneous
- Q&A

Introduction

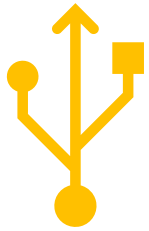
Joseph Sacht

Mission of CDC's Division of Healthcare Quality Promotion (DHQP)

To protect patients; protect healthcare personnel; and promote safety, quality, and value in both national and international healthcare delivery systems.

Image by David Mark from Pixabay

Vision… A Hands-Free Future for Reduced Burden



Current State: Electronic

- Electronic data flows to NHSN via HL7 CDA payloads via APIs or uploads.
- NHSN also allows for manual webform data entry.

Near Future: Fully Automated

- Electronic data flows automatically, hands-free to NHSN via FHIR APIs using USCDI defined data elements and HL7 NHSN FHIR Implementation Guides.
- CDA and webform entry still supported for certain circumstances.

NHSN Digital Quality Measures (dQMs)

dQMs in Development	
Adult Sepsis Mortality	Patient Level AUR (Antibiotic Use and Resistance)
Hypoglycemia	Hyperglycemia
HOB (Hospital onset bacteremia and fungemia)	HAKI (Hospital Onset Acute Kidney Injury)
RPS (Respiratory Pathogen Surveillance)	ORAE (Opioid-Related Adverse Events)
HT-CDI (Healthcare facility onset, antibiotic treated Clostridioides difficile infection)	LOS/MEN (Late-Onset Sepsis/Meningitis)
VTE/Anticoagulant-related Bleeding	Long-term Care AU
NVHAP (Non-Ventilator Healthcare Associated Pneumonia)	

General NHSN Release Overview

Pamela Crayon

NHSN Release Schedule Overview

- **Annual release – major release at the end of the year**
  - Changes included:
    - Protocol changes
    - Transition to new CDA versions due to protocol changes
    - Effective January 1st of each year
- **Quarterly releases**
  - May include:
    - New Component/Module
    - Minor change requests
    - Defect resolutions
    - Infrastructure maintenance and support
  - Users notified via message alert when logging into NHSN
- **Monthly releases**
  - May include:
    - Minor change requests
    - Defect resolutions
    - Infrastructure maintenance and support

2026 NHSN Release Roadmap for Vendors

R3-D4 Implementation:

PS: AR Summary Option
- – Allow Inpatient Locations

R4-D4 Implementation:

- PS: Update AR Option Event
  - CIDT results
- PS: Update AR Summary Option
- PS: Update UTI Option
  - Neurogenic Bladder Observation
  - Neurogenic Bladder Diagnosis

R4-D4 Implementation:

- DIAL: Dialysis Event
  - Add Required Field, Access Used
- DIAL: Dialysis Denominator

R4-D4.1 Implementation

- PS: BSI: Total Artificial Heart Present

NHSN will be deploying CDA updates in the NPPT environment with the different releases to give the vendors time to develop and test throughout the year.

NHSN Release Updates

Pamela Crayon

NHSN Release Updates – 14.0.0

Major Release 14.0.0 – Effective January 1, 2026

- **Add Mycoplasma organisms as Pathogen options for Pneumonia:** Mycoplasma organisms will now be available for selection in the Pathogens dropdown list for PNU2 and PNU3 events upon the selection of the Laboratory element "Virus, Bordetella, Legionella, Mycoplasma or Chlamydia identified from respiratory secretions or tissue."

- **Sex Variable Update:** As of 1/1/2026, a third selection was added to the Sex field option as N - Not Available/Missing. This will allow users to appropriately indicate that a patient has not provided a response in the Electronic Health Record for the required Sex field.

- **2026 ICD-10 Procedure Codes Update:** CMS has added 26 new ICD-10 codes for use starting Jan 1, 2026.

NHSN Release Updates – 14.0.1 & 14.0.2

- **Minor Release 14.0.1 – 01/24/2026**
  - **'Patients <= 1 year old' Business Rule Update:** Currently, the business rule for patients <= 1 year of age will capture age specific events in patients < 2 years of age. This is not the intent of the surveillance definitions for patients <= 1 year of age. The business rule will be changed to patients <= 365 days of age effective 1/1/2026 and forward.
  - **57.502 Dialysis Event Surveillance Form Updates for 2025 – Catheter-Graft Hybrid – CDA Update:** The capability to submit the vascular access type, Catheter-Graft Hybrid, via CDA will now be available effective 1/1/2026.
  - **Birthweight Rules Update for BSI Events:** The business rule to capture BSI events in neonates will be updated to allow neonates with birthweight >= 150 grams and <= 7000 grams to be effective for events dated 1/1/2026 and forward.
- **Minor Release 14.0.2 – 02/26/2026**
  - **Vendor IDM Update:** The HAI Drug Susceptibility tab has been updated with the requested code for IMIREL as 96372-8 and the removal of the duplicate row for the code, MICA.

NHSN Release Updates – 14.1.0

- **Major Release 14.1.0 – 03/26/2026**
  - **Allow Inpatient Locations in Facilities to Submit Summary Data:** As of January 2026, for the CDA AR Option, the plan can include FacWideIN, any eligible inpatient location, and any of the following outpatient locations: ED (OUT:ACUTE:ED), pediatric ED (OUT:ACUTE:ED:PED) and 24-hour observation (OUT:ACUTE:WARD). Review the R3-D4 Implementation Guide as a reference.

  - **Bloodstream Infection (BSI) - Total Artificial Heart Present (TAH) CLABSI Exclusion:** A new field, Total Artificial Heart Present, has been added for only bloodstream infections. This field is optional for data entry from 1/1/2026 until 12/31/2026. CDA Implementation (R4-D4.1) for this field as required is planned to be effective 1/1/2027**.**

  - **Urinary Tract Infection (UTI) - Inclusion of SCI-NB ICD10CM Diagnosis Code Fields:** Two new fields have been added to capture the ICD-10-CM codes that are utilized for NHSN surveillance of UTI events among patients with Spinal Cord Injury-associated Neurogenic Bladder (SCI-NB). CDA Implementation (R4-D4) to allow import via CDA is planned for 14.2.0 (June 2026).

  - **Vendor IDM Update:** The Specific Event-Criteria tab was updated to properly track that SS_PAIN represents Pain or Tenderness.

NHSN Release Updates – 14.1.1

- **Minor Release 14.1.1 – 04/23/2026**
  - **SSI Procedure Codes (ICD-10) - FUSN Removal Request:** There are five SSI procedure codes (ICD-10) that were inadvertently added for 2026. This only impacts Patient Safety (PS) SSI events. NHSN has removed the following five ICD-10 procedure codes for events effective 1/1/2026:
    - FUSN XRG13RB
    - FUSN XRG23RB
    - FUSN XRG43RB
    - FUSN XRGE3HB
    - FUSN XRGF3HB
  - **2015 and forward procedures accepting TOTREV/PARTREV for HPRO procCode:** Resolved issue where procedures that have an invalid HPRO or KPRO categorization were not aligned with the protocol definitions. The specific type of HPRO (for TOT- Total, HEMI-Hemi, RES-Resurfacing) should not include TOTREV and PARTREV.
  - **April 2026 ICD-10 Procedure Code Update:** CMS has added new ICD-10 codes for use effective April 1st, 2026.

Procedure Code Category	ICD-10-PCS Codes	Procedure Code Descriptions
XLAP	0DDU0ZZ	Extraction of omentum, open approach
XLAP	0DDU4ZZ	Extraction of omentum, percutaneous endoscopic approach
XLAP	0DDV0ZZ	Extraction of mesentery, open approach
XLAP	0DDV4ZZ	Extraction of mesentery, percutaneous endoscopic approach
PRST	0VT00ZE	Resection of Prostate, Open Approach,Capsule Intact
PRST	0VT04ZE	Resection of Prostate, Percutaneous Endoscopic Approach, Capsule Intact
PVBY	X2K00FB	Bypass Inferior Vena Cava using Autologous Cell Seeded Tissue Engineered Resorbable Scaffold to Pulmonary Artery, Open Approach, New Technology Group 11
PVBY	X2KG0FB	Bypass Hepatic Vein using Autologous Cell Seeded Tissue Engineered Resorbable Scaffold to Pulmonary Artery, Open Approach, New Technology Group 11

Future Release Updates

- **Major Release 14.2.0 – June 23, 2026**
  - **AR Option:** NHSN is planning to implement version R4-D4 of the CDA IG for AR Option reporting, effective 7/1/2026.
  - **UTI Event:** NHSN is planning to implement the Neurogenic Bladder Observation and Diagnosis. This includes submitting the Neurogenic Bladder indicator and the associated diagnosis for the neurogenic bladder and spinal cord injury. Effective Date is 7/1/2026. CDA submission of these changes can be tested in the NPPT site, v14.2.0.

- **Major Release 14.3.0 – September 24, 2026**
  - **Dialysis Event and Denominator:** NHSN is planning to start implementing CDA version R4-D4 IG, effective 1/1/2027, for Dialysis Events and Dialysis Denominator. There is no change for the Denominator. However, the change for Dialysis Events will include 'Access used for dialysis at the time of the event' field has been added as required in the CDA file for DIAL Events. CDA submission of these changes can be tested in the NPPT site, v14.3.0.

- **Major Release 15.0.0 – December 15, 2026**
  - **BSI Event:** NHSN is planning to add a new field, Total Artificial Heart Present. This is optional for all of 2026 and will be required in 2027. Effective date is 1/1/2027. CDA submission of these changes can be tested in the NPPT site, v15.0.0.

NHSN Digital Measures: Preparing for Reporting FHIR® Measures to NHSN

Nadine Shehab

What's New

- Data are pulled
- Data are at patient-level
- Data are "cleaned", aggregated, and metrics calculated by NHSN

With Manual or Semi-Automated Measures	With Digital Quality Measures
Data standards are **specific to the measure** and the organization to which they are reported	Data are represented using **nationally recognized standards** across the EHR vendors, facilities, and agencies
Data are **pushed** (NHSN waits for the facility to transmit data)	Data can be **pulled**, making real-time surveillance feasible
Data are often **aggregated**, facility-level risk adjustment is typical	Data are at the **patient level**, patient-level risk adjustment is possible
Measures are **pre-determined** before transmission	Measures can be **adapted** after data transmission

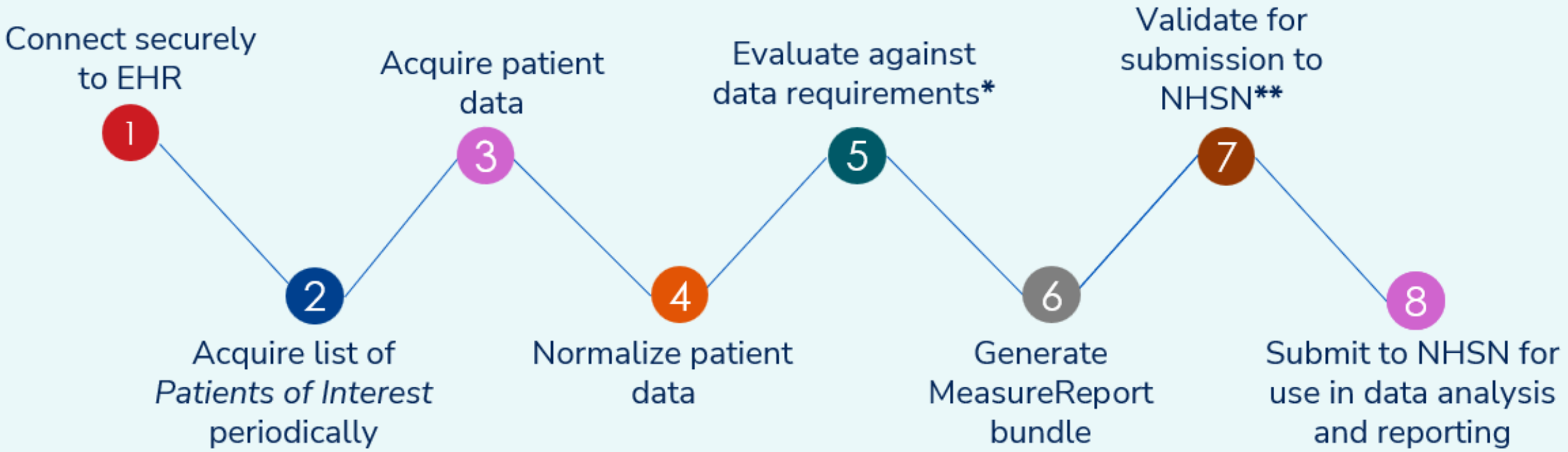
www.cdc.gov/nhsn/fhirportal

NHSNLink: Overview

- NHSN's FHIR application for public health reporting
  - Open-source, secure, publicly available
  - Integrated informatics, standards, and analytic support for automated extraction of patient-level data
- Extensible and configurable query engine **connects** to EHRs via **FHIR API**
- Supports **HL7 standards***
  - HL7 FHIR Quality Measure Implementation Guide
  - HL7 FHIR Data Exchange for Quality Measures Implementation Guide
- **Unidirectional** (no write-back to the EHR)
- Meets CDC security requirements and data-security and privacy laws

*Standards: QI Core 6.0.0 , US Core 6.1.0, FHIR 4.0.1, and DaVinci DEQM
www.cdc.gov/nhsn/fhirportal

NHSNLink: How It Works



* Data conforms to HL7 standards
** Data are complete for downstream measure calculation

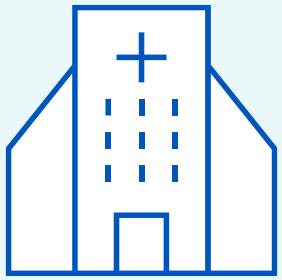
NHSN FHIR Implementation Guides

>>Overall framework for reporting dQMs to NHSN
https://hl7.org/fhir/us/nhsn-dqm/2024Sep

>>Measure-specific information
www.cdc.gov/nhsn/fhirportal/dqm/ig

NHSN dQMs: Pipeline

One single data-stream to capture *facility-wide*, *patient-level* data



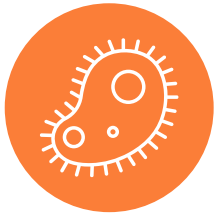
HL7 FHIR

NHSNLink

NHSN Digital Quality Measures (dQMs) calculated from single data-stream*

Hypoglycemia

Sepsis Mortality



Hospital-Onset Bacteremia & Fungemia

Healthcare Facility Treated *C. difficile* Infection

*Data are collected for all inpatient, emergency, observation, and short-stay encounters overlapping the measurement period.

NHSN dQM FHIR Readiness

- **Key Personnel**
- **Roles and Responsibilities**
- **Key resources for EHR vendors and facility information systems**
  - NHSN FHIR dQM IGs
  - Requested FHIR APIs
  - Key Action Items
  - Key Data Elements and Terminology Standardizations

Preparing Your Facility for Reporting FHIR Digital Quality Measures (dQMs) to NHSN

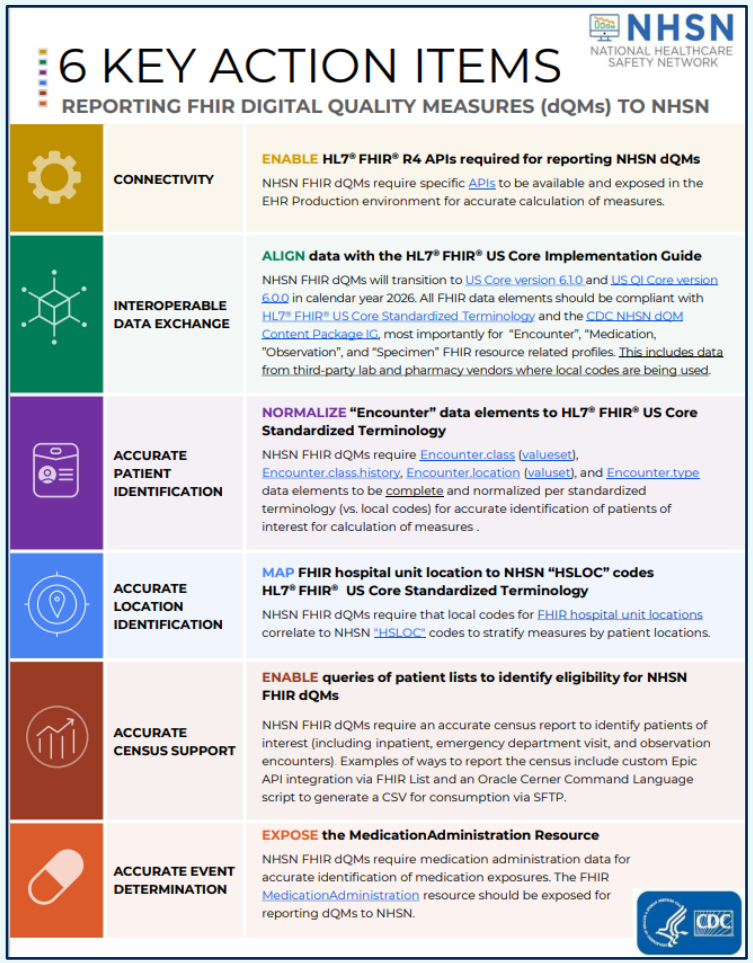
Print

AT A GLANCE

- **Prepare Stakeholders**: Engage key personnel at your facility for the transition to reporting digital quality measures (dQMs) using Healthcare Level Seven International (HL7®) Fast Healthcare Interoperability Resources® (FHIR®).
- **Appoint a Coordinator**: Appoint a staff member to serve as the NHSN dQM Implementation Coordinator to oversee reporting tasks.
- **Task Guide**: Use this page as a resource to prepare for reporting dQMs to NHSN and for compliance tasks.

www.cdc.gov/nhsn/fhirportal/dqm/fhir-ready.html

NHSN dQM FHIR Readiness



6 KEY ACTION ITEMS

NHSN NATIONAL HEALTHCARE SAFETY NETWORK

REPORTING FHIR DIGITAL QUALITY MEASURES (dQMs) TO NHSN

CONNECTIVITY

ENABLE HL7® FHIR® R4 APIs required for reporting NHSN dQMs

NHSN FHIR dQMs require specific APIs to be available and exposed in the EHR Production environment for accurate calculation of measures.

INTEROPERABLE DATA EXCHANGE

ALIGN data with the HL7® FHIR® US Core Implementation Guide

NHSN FHIR dQMs will transition to US Core version 6.1.0 and US QI Core version 6.0.0 in calendar year 2026. All FHIR data elements should be compliant with HL7® FHIR® US Core Standardized Terminology and the CDC NHSN dQM Content Package IG, most importantly for "Encounter", "Medication, "Observation", and "Specimen" FHIR resource related profiles. This includes data from third-party lab and pharmacy vendors where local codes are being used.

ACCURATE PATIENT IDENTIFICATION

NORMALIZE "Encounter" data elements to HL7® FHIR® US Core Standardized Terminology

NHSN FHIR dQMs require Encounter.class (valueset), Encounter.class.history, Encounter.location (valuset), and Encounter.type data elements to be complete and normalized per standardized terminology (vs. local codes) for accurate identification of patients of interest for calculation of measures .

ACCURATE LOCATION IDENTIFICATION

MAP FHIR hospital unit location to NHSN "HSLOC" codes HL7® FHIR® US Core Standardized Terminology

NHSN FHIR dQMs require that local codes for FHIR hospital unit locations correlate to NHSN "HSLOC" codes to stratify measures by patient locations.

ACCURATE CENSUS SUPPORT

ENABLE queries of patient lists to identify eligibility for NHSN FHIR dQMs

NHSN FHIR dQMs require an accurate census report to identify patients of interest (including inpatient, emergency department visit, and observation encounters). Examples of ways to report the census include custom Epic API integration via FHIR List and an Oracle Cerner Command Language script to generate a CSV for consumption via SFTP.

ACCURATE EVENT DETERMINATION

EXPOSE the MedicationAdministration Resource

NHSN FHIR dQMs require medication administration data for accurate identification of medication exposures. The FHIR MedicationAdministration resource should be exposed for reporting dQMs to NHSN.

CDC

NHSN NATIONAL HEALTHCARE SAFETY NETWORK

FHIR Resources, Standards, and Conformance for Reporting dQMs to NHSN

The FHIR profiles below are further described in the *CDC National Healthcare Safety Network (NHSN) Digital Quality Measures (dQM) Content Package Implementation Guide*.

The Acute Care Hospital (ACH) Monthly Reporting Profiles

ACH Monthly FHIR Resources	Standard	ACH Monthly Conformance*
Condition	FHIR v4.0.1	MS
Coverage	QI Core 6.0.0	MS
Device	QI Core 6.0.0	MS
DiagnosticReport Profile for Laboratory Results Reporting	QI Core 6.0.0	MS
Diagnostic Report Profile for Report and Note Exchange	QI Core 6.0.0	MS
Encounter	QI Core 6.0.0	R
Laboratory Result Observation	QI Core 6.0.0	MS
Location	QI Core 6.0.0	R
Medication	QI Core 6.0.0	MS
Medication Administration	QI Core 6.0.0	MS
MedicationRequest	QI Core 6.0.0	MS
Patient	QI Core 6.0.0	R
Procedure	QI Core 6.0.0	MS
Service Request	QI Core 6.0.0	MS
Simple Observation	QI Core 6.0.0	MS
Specimen	US Core 6.1.0	MS
Vital Signs	US Core 6.1.0	MS

The Acute Care Hospital (ACH) Daily Reporting Profiles

ACH Daily FHIR Resources	Standard	ACH Daily Conformance*
Diagnostic Report Lab	QI Core 6.0.0	MS
Encounter	QI Core 6.0.0	R
Laboratory Result Observation	QI Core 6.0.0	MS
Location	QI Core 6.0.0	R
Medication	QI Core 6.0.0	MS
MedicationAdministration	QI Core 6.0.0	MS
MedicationRequest	QI Core 6.0.0	MS
Patient	QI Core 6.0.0	R
Procedure	QI Core 6.0.0	MS
Service Request	QI Core 6.0.0	MS
Simple Observation	QI Core 6.0.0	MS
Specimen	US Core 6.1.0	MS

*Conformance: MS = Must Support; R = Required

Below are high-level requirements for reporting digital quality measures (dQMs) to CDC's National Healthcare Safety Network (NHSN). All data (https://www.cdc.gov/nhsn/fhirportal/dqm/ig/), which builds upon the HL7® US Core Implementation Guide (https://hl7.org/fhir/us/core/STU FHIR data meets NHSN FHIR Bundle Pre-Qualification requirements may result in rejection of the submitted FHIR report and prevent the facility

Mandatory FHIR Resource & Data Element	Guidance
	The quantity should include a unit that clearly indicates the measurement of the dose. Units should be coded using UCUM whenever possible to support interoperability.
MedicationAdministration.effective	Critical for accurate medication exposure data. For .effectivePeriod, when both start and end are provided, the start date/time must occur before the end date/time.
MedicationAdministration.medication	Critical for accurate medication exposure data. This is a choice data element to use either: medicationReference or medicationCodeableConcept (preferred w/ a RxNorm code). *Local medication codes is required to be mapped to standardized medication codes, preferably RxNorm clinical drug codes. Facilities should work with their EHR vendors to map all local codes used for medication routes (including those from third party vendors) to the corresponding SNOMED codes.*
MedicationRequest.status	Required and must use a code from the defined medication request status value set.

www.cdc.gov/nhsn/fhirportal/dqm/fhir-ready.html

NHSN dQM Resource Center

- Definitions
- Protocols
- Flow Diagrams
- Value Sets (Terminology)

Title	Module	CBE ID*	Download Specifications	Component
Severe Hypoglycemia	Glycemic Control	3503e	ZIP file	Medication Safety
Hospital Onset Bacteremia	Bacteremia and Fungemia Surveillance	3686	Coming soon.	Patient Safety
Healthcare-associated, antibiotic treated *C. difficile* Infection	*C. difficile* Surveillance	3688	Coming soon.	Patient Safety
Adult Community-Onset (CO) Sepsis Standardized Mortality Ratio (SMR)	Sepsis Surveillance	TBD	Coming soon	Patient Safety

www.cdc.gov/nhsn/fhirportal/dqm/ach-dQMs.html

Action Items for Vendor Partners

01

Enable **FHIR R4 APIs required for reporting NHSN dQMs**

Review hospital license to ensure all APIs are available and complete for public health-reporting.

Refer to:
www.cdc.gov/nhsn/pdfs/EHR_QICore6.pdf

>>**MedicationAdministration resource** should be exposed for reporting dQMs to NHSN (“Must Support”)

Action Items for Vendor Partners

02

Ensure **compliance of all FHIR data elements with standardized terminology; especially:**

- Encounter
- Location
- Medications*
- Observation
- Specimen

Refer to:
www.cdc.gov/nhsn/fhirportal/dqm/fhir-ready.html

>>Overview of Requested FHIR Resources and Standards Adherence for Reporting FHIR dQMs to NHSN

*Including data sourced from third party pharmacy vendors

Action Items for Vendor Partners

03

Identify **EHR workflows that require mapping to FHIR for reporting dQMs to NHSN**

- Workflows not fully mapped in FHIR:
  - Medication administration (eMAR)
  - Mechanical ventilation (flow sheets)
  - Nursing order sets (e.g., comfort care, VTE prophylaxis)

New Role: “dQM Implementation Coordinator”

Key Personnel for Reporting dQMs to NHSN

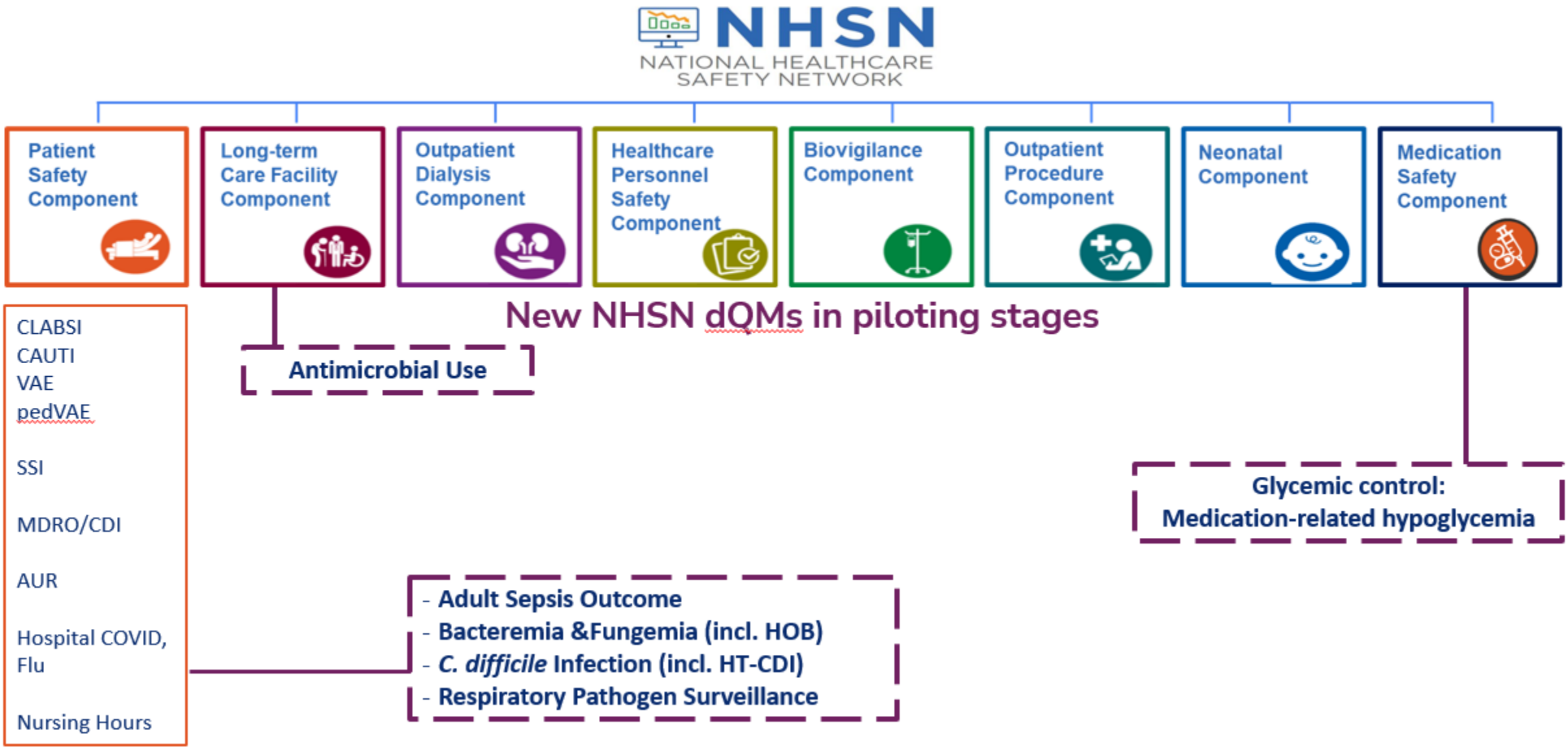
Facilities preparing to report FHIR dQMs to NHSN should identify key personnel, including those in the following roles:

NHSN dQM Implementation Coordinator

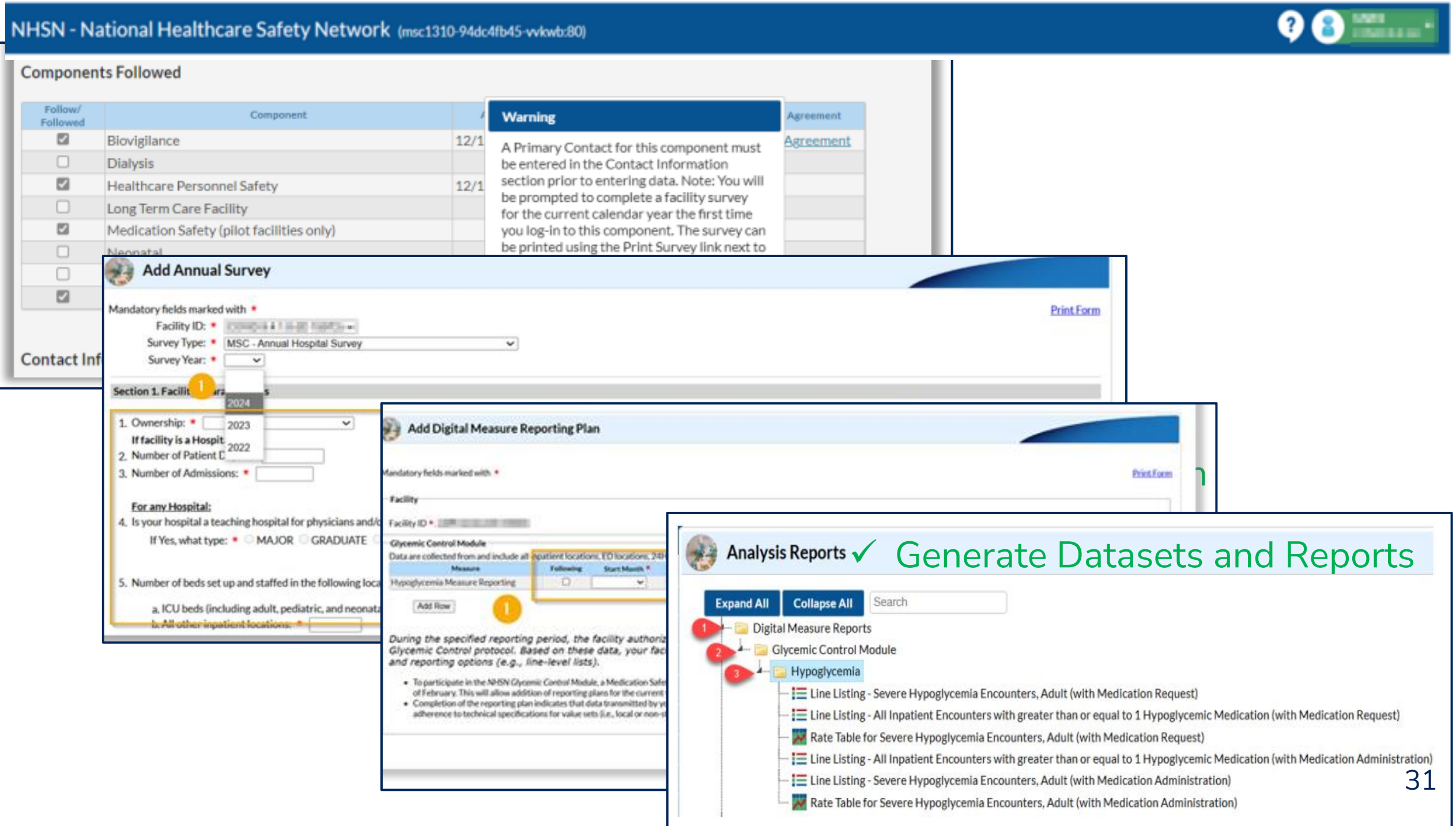
The NHSN dQM Implementation Coordinator is crucial for the success of the facility’s health system in this effort. This individual will:

- Coordinate with the NHSN Facility Administrator for submission of FHIR dQMs to NHSN.
- Serve as an educator for key personnel at the facility involved with reporting FHIR dQMs to NHSN
- Ensure the IT team is aware of and has implemented Key Action Items for Reporting FHIR dQMs to NHSN [PDF – 85 MB].
- Share feedback with NHSN about the facility’s experience in implementing reporting of FHIR dQMs to NHSN.

www.cdc.gov/nhsn/fhirportal/dqm/fhir-ready



AUR: antimicrobial use and resistance; CDI: *Clostridioides difficile* infection; CAUTI: catheter-associated urinary tract infection; CLABSI: central line-associated bloodstream infection; HOB: hospital-onset bacteremia & fungemia; HT-CDI: healthcare facility, antibiotic-treated *C. difficile* infection; MDRO: multi-drug resistant organism; SSI: surgical site infection; VAE: ventilator-associated event; pedVAE: pediatric VAE


NHSN - National Healthcare Safety Network (msc1310-94dc4fb45-vvkwb:80)
Components Followed
Follow/ Followed
Component
Agreement
Biovigilance
Agreement
Dialysis
Healthcare Personnel Safety
Long Term Care Facility
Medication Safety (pilot facilities only)
Warning
A Primary Contact for this component must be entered in the Contact Information section prior to entering data. Note: You will be prompted to complete a facility survey for the current calendar year the first time you log-in to this component. The survey can be printed using the Print Survey link next to
Add Annual Survey
Mandatory fields marked with *
Print Form
Facility ID: *
Survey Type: * MSC - Annual Hospital Survey
Survey Year: *
2024
2023
2022
1. Ownership: *
2. Number of Patient D
3. Number of Admissions: *
For any Hospital:
4. Is your hospital a teaching hospital for physicians and/
If Yes, what type: * MAJOR GRADUATE
5. Number of beds set up and staffed in the following loca
a. ICU beds (including adult, pediatric, and neonata
Add Digital Measure Reporting Plan
Facility
Glycemic Control Module
Measure
Following
Start Month *
Hypoglycemia Measure Reporting
Add Row
Analysis Reports ✓ Generate Datasets and Reports
Expand All
Collapse All
Search
Digital Measure Reports
Glycemic Control Module
Hypoglycemia
Line Listing - Severe Hypoglycemia Encounters, Adult (with Medication Request)
Line Listing - All Inpatient Encounters with greater than or equal to 1 Hypoglycemic Medication (with Medication Request)
Rate Table for Severe Hypoglycemia Encounters, Adult (with Medication Request)
Line Listing - All Inpatient Encounters with greater than or equal to 1 Hypoglycemic Medication (with Medication Administration)
Line Listing - Severe Hypoglycemia Encounters, Adult (with Medication Administration)
Rate Table for Severe Hypoglycemia Encounters, Adult (with Medication Administration)

NHSNCoLab: 12 Sites* Connected & Exchanging FHIR Data for Patient Safety and Healthcare Accountability

The NHSNCoLab: Leading U.S. Health Systems Informing Nationwide Implementation of NHSN dQMs

Glycemic Control

5 sites in Production for the severe medication-related hypoglycemia measure and validating NHSN analysis reports

Bacteremia & Fungemia

3 sites in Production for the HOB measure and validating NHSN analysis reports

Respiratory Pathogen Surveillance

4 sites in Production with data under review for completeness and feasibility

Sepsis Outcome

6 sites in Production with data under review for completeness and feasibility

www.cdc.gov/nhsn/nhsncolab

*21 total health systems with signed collaborative agreements

NHSN dQMs: Seeking Early Adopters

- **Lead** the transformation of automated public health surveillance nationwide.
- **Shape** a smarter, more reliable dQM framework by advancing data accuracy and workflow efficiency.
- **Inform** the national standard by identifying solutions before broad implementation.
- **Partner** at the forefront of innovation with NHSN and EHR vendors.
- **Accelerate** progress through continuous learning, turning insights into scalable improvement.

NHSN dQMs: How to Participate as an Early Adopter

- **Submit ticket to NHSN ServiceNow with the following information:**
  - Component: **"Patient Safety"**
  - Category: **"Early Adopter"**
  - dQM(s) your facility is interested in reporting:
    - **Glycemic Control, and/or**
    - **Bacteremia & Fungemia Surveillance Module (HOB)**
  - Your facility's EHR vendor
  - Confirmation from your IS representative that your EHR uses **"FHIR R4"** (or later)
  - Acknowledgement that you and your IS representative have reviewed the **NHSN FHIR readiness webpage:** https://www.cdc.gov/nhsn/fhirportal/dqm/fhir-ready.html

Selection of early adopters is subject to evaluation of facility readiness and NHSN development timelines. Early adopters are volunteer facilities and are not funded for their participation.

NHSN dQMs: Facility “Readiness”
Shared Readiness, Shared Success

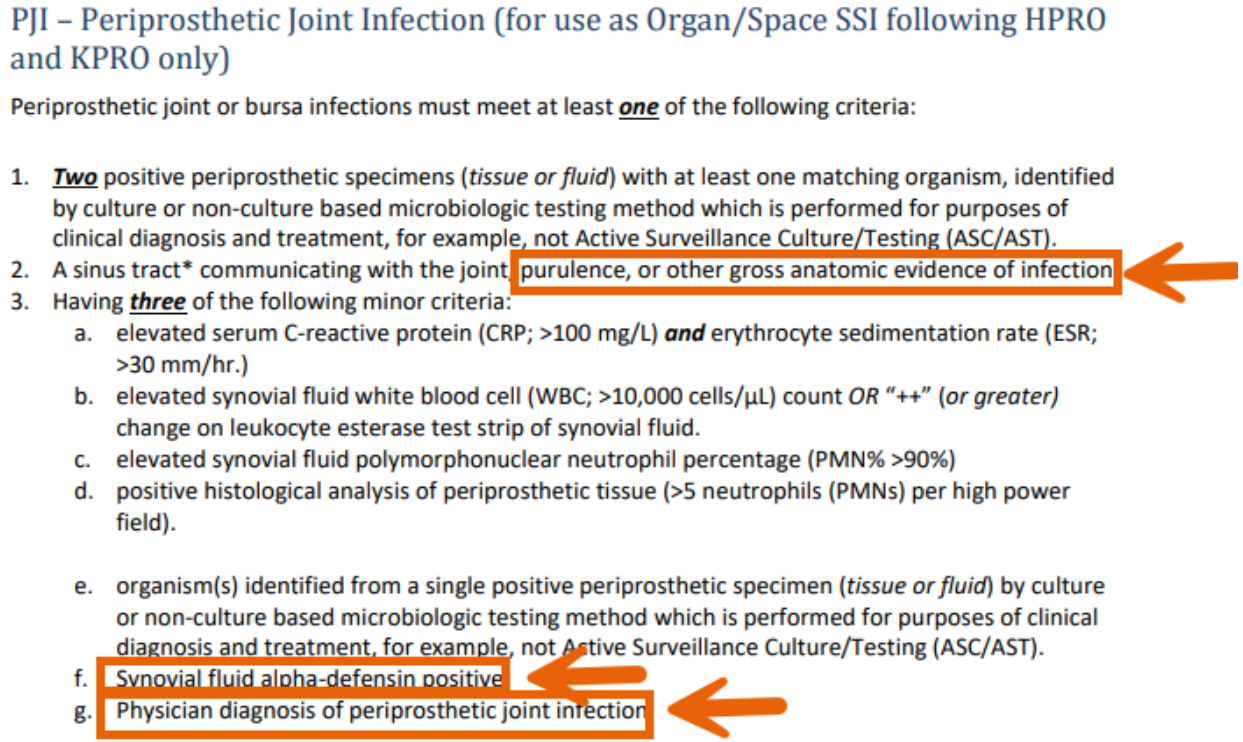
- **Facility readiness is multi-factorial** — spans leadership (governance), technical (FHIR), data validation (clinical), and cross-team coordination
- **IPs and NHSN facility administrators are key leaders** — serving as champions, coordinators, and partners with clinical, IT, and leadership teams
- **EHR vendors** are **integral** to the process — ensuring data are properly structured, standardized, and ***ready for data exchange!***
- **Success is team-based** — readiness and implementation extend beyond any single role

Periprosthetic Joint Infection Changes

Melissa Otis

Periprosthetic Joint Infection [PJI] Changes

- PJI is a site-specific event type available for Organ/Space SSI attribution following an NHSN qualifying HPRO or KPRO
- In 2026, updates were made by NHSN to the PJI definition to help reflect current clinical practice:



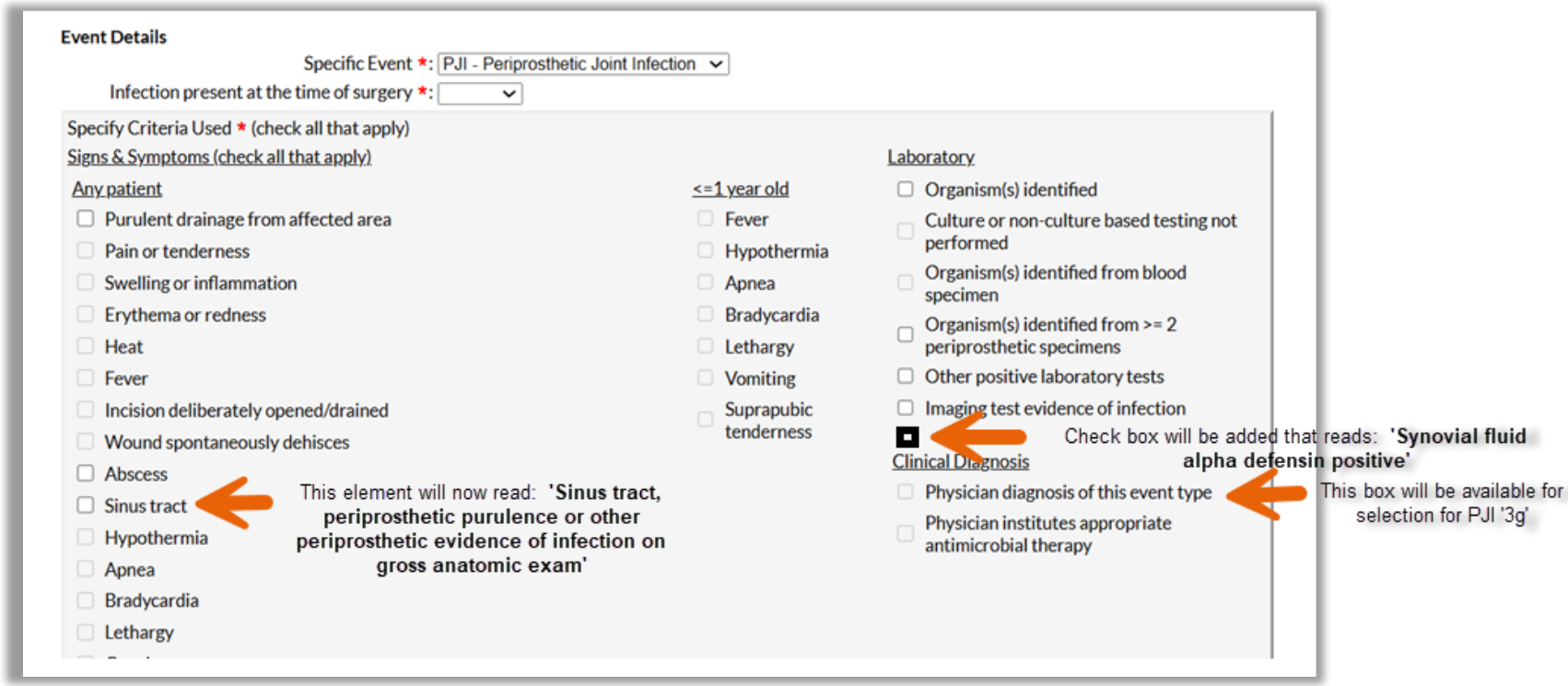
PJI – Periprosthetic Joint Infection (for use as Organ/Space SSI following HPRO and KPRO only)

Periprosthetic joint or bursa infections must meet at least ***one*** of the following criteria:

1. ***Two*** positive periprosthetic specimens (*tissue or fluid*) with at least one matching organism, identified by culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis and treatment, for example, not Active Surveillance Culture/Testing (ASC/AST).
2. A sinus tract* communicating with the joint, purulence, or other gross anatomic evidence of infection
3. Having ***three*** of the following minor criteria:
   a. elevated serum C-reactive protein (CRP; >100 mg/L) ***and*** erythrocyte sedimentation rate (ESR; >30 mm/hr.)
   b. elevated synovial fluid white blood cell (WBC; >10,000 cells/µL) count *OR* "++" *(or greater)* change on leukocyte esterase test strip of synovial fluid.
   c. elevated synovial fluid polymorphonuclear neutrophil percentage (PMN% >90%)
   d. positive histological analysis of periprosthetic tissue (>5 neutrophils (PMNs) per high power field).
   e. organism(s) identified from a single positive periprosthetic specimen (*tissue or fluid*) by culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis and treatment, for example, not Active Surveillance Culture/Testing (ASC/AST).
   f. Synovial fluid alpha-defensin positive
   g. Physician diagnosis of periprosthetic joint infection

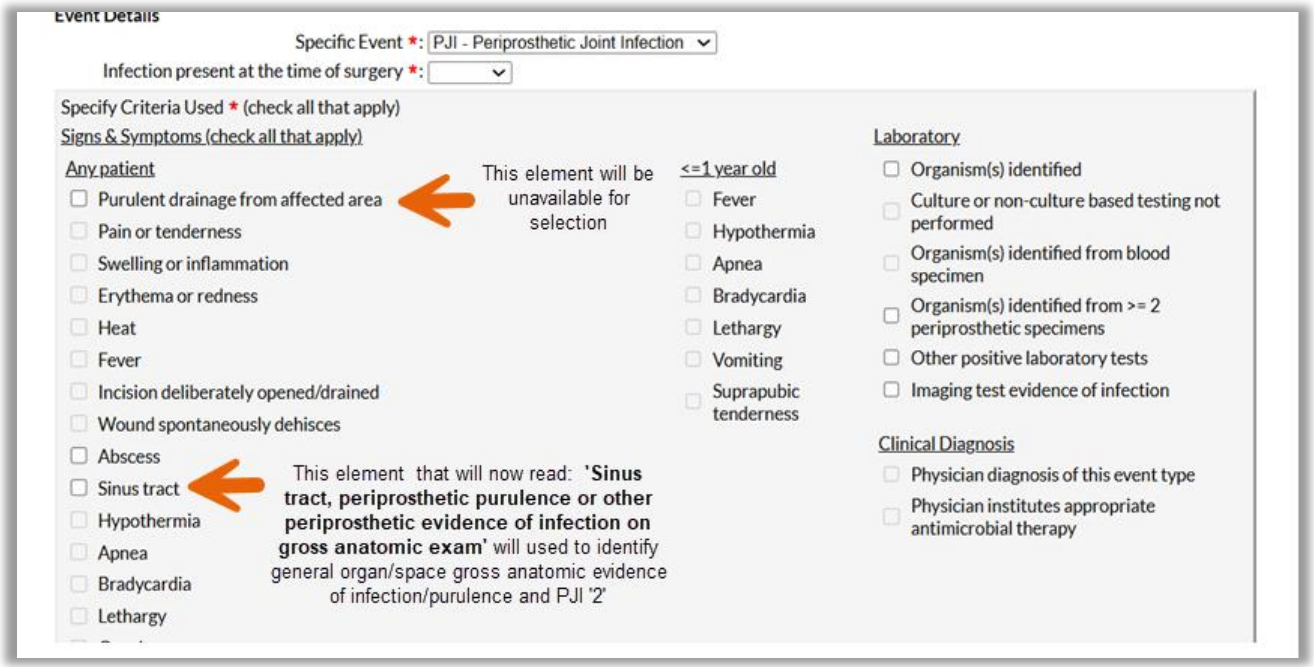
Periprosthetic Joint Infection [PJI] Changes

- Changes will be made to the NHSN application for 2027 to reflect the updates made to the PJI definition.



Periprosthetic Joint Infection [PJI] Changes

- The check box 'Purulent drainage from affected area' will be unavailable for selection.
- Both general Organ/Space and PJI ‘2’ will be indicated with the check box ‘Sinus tract, periprosthetic purulence or other periprosthetic evidence of infection on gross anatomic exam.’



Neonatal Pediatric Revisions

Jennifer Watkins

Neonatal Pediatric Revisions

- **Age-based revisions to HAI and SSI protocols**
  - Based on recommendations by the Neonatal-Pediatric Workgroup
- **Most revisions are related to signs and symptoms**
  - More to come later in the year once finalized
- **Bloodstream Infection (BSI) updates related to neonatal BSI exclusions**
  - Extremely Low Gestation
  - Perinatal Bone Marrow Suppression

Extremely Low Gestation

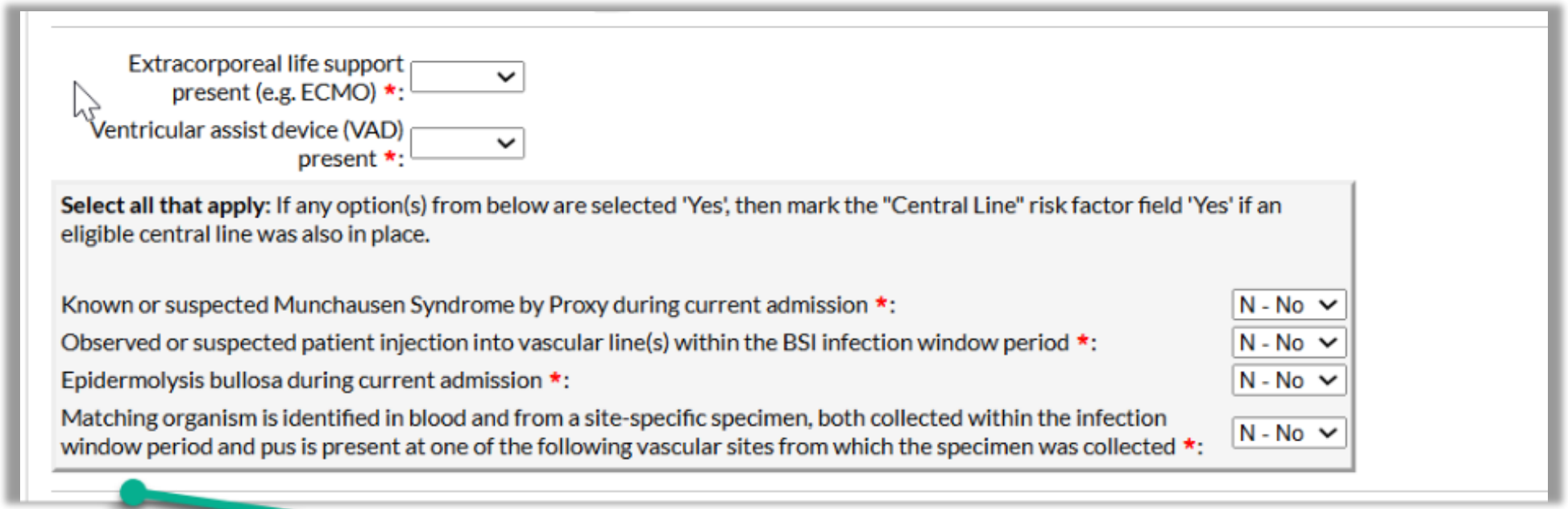
- **Infant who meets LCBI criteria with an eligible central line**
- **Infant with corrected gestational age <25 0/7 weeks gestation on the bloodstream infection (BSI) date of event (DOE)**
- **CLABSI event is reported and "Extremely low gestation" field is selected as 'Yes'**

Perinatal Bone Marrow Suppression

- **Infant who meets LCBI criteria with an eligible central line**
- **Infant with white blood cells (WBC) <2,000 mm^3 or absolute neutrophil count (ANC) <1000 mm^3 with corrected gestational age documented at ≤30 days of age and present for ≥2 consecutive calendar days on the bloodstream infection (BSI) date of event (DOE)**
- **CLABSI event is reported and "Perinatal bone marrow suppression" field is selected as 'Yes'**

Neonatal BSI Exclusion Fields

- **Both fields will be implemented as optional beginning January 1, 2027.**
- **Both fields will become mandatory January 1, 2028.**



AUR Module Updates

Stephanie Sutton, Michelle Fedrick, Hayley Koslik, Virgie Fields & Amy Webb

Updates for 2026 AUR Reporting

Michelle Fedrick

Update to AU Option Drugs

- **Effective January 1, 2026**
- **Added:**
  - Aztreonam/avibactam – RxNorm 2705352
  - Gepotidacin – RxNorm 2709212
  - Sulopenem/probenecid – RxNorm 2717836
  - Monoclonal antibody: Clesrovimab – RxNorm 2716802
- **No removals for 2026**

AR Option Enhancement: Summary Data by Inpatient Location

- **Allows facilities to report AR Option summary data (patient days) at the individual location level**
- **Key Updates:**
  - Reporting Plan: Update to allow the AR box to be checked per inpatient location
  - Business Rules: Modified to accept AR Summary CDA files tied to individual inpatient locations
  - Optional in 2026; required in 2027
- **Why This Matters:**
  - Enables alignment of AU and AR data
  - Provides clearer visibility into which inpatient locations are included in AR Option reporting
  - Supports more granular analysis and benchmarking

Update to AR Drug Panels

Effective January 1, 2026

- **AntiP20 – *Acinetobacter* panel:**
  - Added: Sulbactam/Durlobactam – LOINC 106859-2
  - Removed: Doxycycline
- **AntiP20Ur – *Acinetobacter* urine panel**
  - Removed: Tetracycline
  - Removed entire panel. *Acinetobacter* urine specimens will use AntiP20 as of 1/1/2026.
- **AntiP21 – *Candida* panel:**
  - Added: Rezafungin – LOINC 106858-4

Update to AR Option Specimen Sources

- **Effective January 1, 2026**
- **All specimen source groups were reviewed & updated using Snomed 09/2025**
- **Terms added within each specimen source group to make reporting more inclusive using a rule-based approach to creating the value set**
- **Corrections to current list**
  - Added synovial fluid specimen source
- **Terms removed no longer existed in Snomed 09/2025**
- **See Specimen Source 2026 tab for complete details**

Update to AR Option Pathogens

- **Refreshed AR Option Pathogen Roll-up Workbook using SNOMED 09/2025**

- **Made two revisions after original posting (see Revision history tab)**
  - Current version includes “20260130” in the document title

SAAR Rebaseline

Virgie Fields

2023 Baseline SAAR Reports now available in NHSN!

- **SAAR Reports using the updated 2023 baseline are now available for hospitals (March release) and groups (April release)**
  - Users should generate data sets to see the new reports
- **More locations!**
  - 26 adult
  - 9 pediatric
  - 4 neonatal
- **Minor updates to drugs in each category**
- **Risk adjustment variables still hospital and location-specific variables**
- **Education and training materials are being posted to the SAAR Rebaseline webpage as they become available**

AR Summary Data from Inpatient Locations

Stephanie Sutton

AR Option Summary Data by Inpatient Location

- **Allow facilities to report AR Option summary data (patient days) at the individual location level**
- **Key Updates:**
  - Reporting Plan: Update to allow the AR box to be checked per inpatient location
  - Business Rules: Modify to accept AR Summary CDA files tied to individual inpatient locations
- **Why This Matters:**
  - Enables alignment of AU and AR data
  - Provides clearer visibility into which inpatient locations are included in AR Option reporting
  - Supports more granular analysis and benchmarking

AR Option Summary Data by Inpatient Location: Reporting Plan and Alerts

Section 3: Antimicrobial Use and Resistance Module

	Locations	Antimicrobial Use	Antimicrobial Resistance
🗑	FACWIDEIN - Facility-wide Inpatient (FacWIDEIn)	☑	☑
🗑	1152EMERGY - ER	☑	☐
🗑	5GPED - PED MED_SURG - AU	☑	☑
🗑	MEDWARD - MEDICAL WARD_AU	☑	☑
🗑	MSICU - MED SURG ICU	☑	☑
🗑	NICU - NICU-2/3	☑	☐

Summary Type	Location Code	CDC Location	Month/Year	Alert Type	Event Type
AUR	LDRP	IN:ACUTE:WARD:LD_PP	02/2026	No summary data entered Add Summary	AR Event
AUR	MSICU	IN:ACUTE:CC:MS	02/2026	No summary data entered Add Summary	AR Event
AUR	SICU	IN:ACUTE:CC:S	02/2026	No summary data entered Add Summary	AR Event
AUR	5GPED	IN:ACUTE:WARD:MS_PED	01/2026	No summary data entered Add Summary	AR Event
AUR	MEDWARD	IN:ACUTE:WARD:M	01/2026	No summary data entered Add Summary	AR Event
AUR	MSICU	IN:ACUTE:CC:MS	01/2026	No summary data entered Add Summary	AR Event

R4-D4 Update & CIDT

Amy Webb

R4-D4 Implementation will be optional for 2026

- **AR Summary and AR Event will be updated to use R4-D4 IG <u>effective June 2026.</u>**
  - AU Summary is not moving to R4-D4, will continue to use R6 and R1.
- **AR Event is the only CDA with major changes.**
  - Due to inclusion in the CMS PI Program, ASTP has asked that AR CDAs use the same IG version, so we are additionally updating AR Summary to R4-D4.
- **R4-D4 IG is now published on the HL7 website**
- **Plan to implement in 14.2 June release**

ASTP: Assistant Secretary for Technology Policy

R4-D4 AR Summary Updates

- **No major updates when moving to R4-D4**
- **May have templateID updates**

R4-D4 AR Event Updates

- **May have templateID updates**
- **Changes from administrative gender to sex observation**
  - Language and interpreter needed/used will be optional variables
- **Removing *Staph aureus*-specific requirement for PCR mec and PBP2a tests**
- **Adding section for gene identification tests**
  - Requests for reporting rapid molecular detection of antimicrobial resistance markers
  - Value set complete
    - Contains 88 LOINC terms
    - Examples: Bacterial carbapenem resistance blaKPC-18 gene [Presence] by Molecular method, Bacterial carbapenem resistance blaNDM-1 gene [Presence] by Molecular method

R4-D4 AR Event Updates – Rapid Molecular Detection of Antimicrobial Resistance Markers

- **Molecular test will be included in the AR Event CDA file if conducted**
  - Will **not** be tied to specific organisms (e.g., *S. aureus* for mecA gene)
  - Include as many molecular tests as were conducted by the lab
  - Specific code to include if no molecular tests were performed on the isolate
- **Result value set using SNOMED:**
  - Detected
  - Not detected
  - Indeterminate
  - Invalid
  - NA = No discrete data available

AR Event De-duplication

- **For a given isolate, all phenotypic and molecular test results should be included in a single AR Event CDA file**
  - If submitted as two separate AR Events, one will be considered a duplicate and will not upload
- **If additional testing is performed, results should be combined into a single AR Event CDA file**
- **When de-duplicating in the vendor software:**
  - If the isolate does not have phenotypic results or if two isolates have conflicting molecular results, report the isolate with the higher amount of resistance genes detected during molecular testing

Plan to accept R3 & R4-D4 for 2026

- **For 2026 AR Option reporting, you will be able to use either the R3 (current IG) or the R4-D4 IG.**

- **Rapid molecular detection of antimicrobial resistance markers results cannot be reported if using the R3 IG.**

Education & Resources

- **Plan to post updated AUR Module protocol, AR CDA Toolkit in coming months**
- **Will host a webinar with AUR Module Users outlining the changes (tentatively planned for June)**

AUR Module Updates:
AR and AU Synthetic Data Set

Amy Webb

AU SDS Release 5.1

- **AU SDS v5.1 available**
- **Includes changes to bring the dataset up to current standards**
  - Uses 2023 dates, required drugs/codes, and updates to the admissions counting logic to match AR SDS

AR SDS Release 1.6

- **AR SDS Release 1.6 available**
- **Re-validation with AR SDS 1.6 is optional**

- **Currently working on an updated version (2.0) of AR SDS which will include 2026 value sets & logic**
  - Including validating patient day reporting from individual inpatient locations
  - To be released in mid-2026

SDS web service links

- **AU SDS:**
  - https://nhsnpilot.ng.techlab.cdc.gov/AUValidation-Production/home.html
- **AR Event SDS:**
  - https://nhsnpilot.ng.techlab.cdc.gov/ARValidation-Numerator/home.html
- **AR Denominator SDS:**
  - https://nhsnpilot.ng.techlab.cdc.gov/ARValidation-Denominator/home.html

AU Validation Protocol

Hayley Koslik

Updated AU Data Validation Protocol – What to Expect

- **New AU Option Implementation Data Validation Protocol**
  - A revised AU data validation protocol is now available to facilities.
  - The protocol was updated to improve clarity and ease of use.
  - Link: https://www.cdc.gov/nhsn/pdfs/ps-analysis-resources/aur/AU-Option-Implementation-Data-Validation-P.pdf

- **What This Means for Vendors**
  - Facilities will likely reach out for support with validation activities.
  - Requests may involve review of drug and location mappings.
  - Being prepared for these requests will help ensure accurate and timely reporting.

How Vendors Can Support Facilities

- **Drug Mapping and Aggregation**
  - Ensure accurate mapping of antimicrobials and routes of administration
  - Help verify correct aggregation of antimicrobial days
- **Location Mapping**
  - Assist in confirming antimicrobial use is attributed to the correct location
  - Update or inactivate locations to reflect the current facility structure
  - Review locations included in FacWideIN reporting
- **Line Lists**
  - Provide pre-aggregated line lists for facility review, if possible
  - Support comparisons with source systems (e.g., eMAR/BCMA)

AU & AR Data Quality Outreach

Amy Webb

Upcoming AUR data quality evaluation and outreach

- **Outreach related to any AU & AR survey and data findings**
- **2025 AU data quality outreach**
  - Planned for May & June
- **2025 AR data quality outreach**
  - Tentatively planned for June & July
  - Admission status

Candida auris in NHSN Option

- ***Candida auris (C. auris)* among all AR pathogens**
  - Outreach will be conducted that addresses the percentage increases of *Candida auris (C. auris)* among all AR pathogens in 2024 compared to 2023 in AR data
  - AR events: positive cultures, deduplicated by organism identification

Reminders for CDA files

Amy Webb

Size limit

- **Limit: 1000 files or 2MB zipped whichever comes first**
- **Larger zip files will take longer to process**
- **Recommend splitting large files into separate smaller zip files**

Rhapsody errors & “Error contacting server”

- **Added infrastructure and code changes in 2025 to mitigate Rhapsody errors**
- **If an upload generates an error, try the upload again outside of peak hours (prior to 10am ET or after 4pm ET)**

Other reminders

- **Match year of summary/event to value set for that year.**
  - Example: if creating an AR Event for a specimen collected in December 2025, use the 2025 value sets even though the file is being uploaded in 2026.

- **Include admission date (or encounter date) in all AR Event files.**
  - All AR Event files must include a date in the admission date field regardless of whether the patient was admitted to an inpatient location during that encounter.
  - See AUR Module Protocol Appendix G.

- **Password protected files will not upload into NHSN.**

NHSN Pre-Production Test Site (NPPT)

Hamna Baig

NHSN Pre-Production Test Site

- **Copy of the NHSN development environment**
- **Includes Analysis and Reporting (A&R) functionality**
- **Does not include DIRECT CDA Automation or Groups**
- **No SAMS credentials required**
- **To enroll:**
  - Complete form found at https://www.cdc.gov/nhsn/cdaportal/datavalidation/toolsandtestsites.html.
  - Send completed form to the nhsncda@cdc.gov mailbox.

NHSN Pre-Production Test Site (NPPT) cont.

- **V14.1.1 is the current environment.**
  - Reminder: Read “Important Message” at login.
- **A blast email will be sent out when NPPT is upgraded to new version.**
- **Report any issues you find to the nhsncda@cdc.gov mailbox.**

Miscellaneous

Hamna Baig

DIRECT CDA Automation Updates

- **~207 direct addresses and > 9,500 facilities sending via DIRECT**
- **DIRECT**
  - Batch submission process
  - No immediate reply
  - Turnaround time based on volume of messages in the queue
- **New to implement DIRECT?**
  - DIRECT toolkit on the NHSN website http://www.cdc.gov/nhsn/cdaportal/importingdata.html#DIRECTProtocol
  - Contact NHSNCDA@cdc.gov for any questions or to set up an onboarding discussion.

DIRECT CDA Automation Reminder

To troubleshoot an issue with a Direct. Please provide the information to NSHN listed in the table below, send an email to **nhsncda@cdc.gov**, and the DIRECT database administrator will research the issue.

-Facility Name

-NHSN Facility ID#

-Submitted Date/Time

-Zip File Name

-Message ID

Facility Name	NHSN Facility ID#	Submitted Date/Time	Zip file Name	Message ID
Best Hospital Ever	12345	11/27/2018 13:15	AU123_NOV_2018	1230589110.20827.1543342802378.JavaMail.tomcat@vendor-hisp02

CDA Version Support

- **CDA support:** https://www.cdc.gov/nhsn/cdaportal/index.html
- **Toolkits:** https://www.cdc.gov/nhsn/cdaportal/toolkits.html
- **Guide to CDA versions:** https://www.cdc.gov/nhsn/cdaportal/toolkits/guidetocdaversions.html

Guide to CDA Versions

Print

For creating CDA files, please see the specific Implementation Guide (IG) and its associated reference materials.

The table below describes the specific Implementation Guide (IG) to be used for each component based on the event/insertion/procedure/specimen collection dates (as applicable) for each year.

Download the corresponding CDA Toolkits for the corresponding year.

Events or Denominators	2026	2025	2024	2023
CDA Toolkit Release	14.1.0	13.1	12.2	11.1
DIALYSIS				
Dialysis Event	R3-D4	R3-D4	R3-D4	R3-D4
Dialysis Denominator	R3-D3	R3-D3	R3-D3	R3-D3
EVENTS				
Primary Bloodstream Infection (BSI)	R4-D1	R4-D1	R4-D1	R4-D1
Central Line Insertion Practices Adherence (CLIP) Monitoring	R2-D2.1	R2-D2.1	R2-D2.1	R2-D2.1
Urinary Tract Infection	R4-D1	R4-D1	R4-D1	R4-D1
Laboratory-identified (LabID) MDRO or CDI Event	R2-D2.1	R2-D2.1	R2-D2.1	R2-D2.1
Ventilator-associated Event (VAE)	R4-D1	R4-D1	R4-D1	R4-D1

CDA Version Support (continued)

- **Implementers can also use the HL7 GitHub website for latest IG Guides**
- **HL7 GitHub site (https://github.com/HL7/cda-hai) also includes:**
  - XML
  - Related files
  - Schematron
  - CDA Schema
  - Samples
  - Stylesheet

Helpful NHSN Resources

- **NHSN Newsletter: https://www.cdc.gov/nhsn/newsletters/index.html**
- **Release Notes and Communication Updates: https://www.cdc.gov/nhsn/commup/index.html**

NHSN Reminders

- **We welcome feedback & offer individual vendor conference calls.**
- **Make sure you are on the NHSNCDA email distribution list.**
- **Visit the CDA Submission Support Portal (CSSP): https://www.cdc.gov/nhsn/cdaportal/index.html**

CDA Submission Support Portal (CSSP)

Toolkits, FAQs, webinars and resources for testing and validation for CDA implementers.

Additional Vendor Engagement Opportunities

- **1-1 meetings with NHSN**
  - Opportunity to ask questions, receive updates, and dive deeper into discussions around specific topics
  - Send a request to NHSNCDA@cdc.gov to schedule

Thank you!

Questions?

NHSNCDA@cdc.gov

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 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.