Data training: Laboratory and pharmacy specifications

August 17, 2022

EQIC
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Project overview

GOAL:

EQIC is collecting lab and medications data from our hospitals. The data fields that we are collecting are directly tied to specific EQIC Adverse Drug Event measures. We need three separate monthly reports:

- laboratory data;
- pharmacy data; and
- opioid reversal agent data.

PURPOSE:

The ADE measures that EQIC analyzes are very innovative and useful in furthering healthcare quality improvement efforts.

PATIENT POPULATION:

- Include: All inpatients - 18 years and older (medical/surgical units, critical care units, such as ICU, CCU, and NCCU, step-down/intermediate units, harm events not present on admission)
- Exclude: outpatient, observation, emergency department (not admitted), PPS-exempt units (psych, rehab, SNF/swing), pediatric/neonatal units, obstetric patients

WHEN TO SEND THE DATA:

- Monthly (60 days after the close of each month)

HOW TO SUBMIT THE DATA:

- Submit via the HANYS SFTP portal
- File Type: comma delimited .CSV files
- Follow the naming convention requirements
- Please see specifications workbook for full details

EQIC measurements

Improvement area	EQIC measure name	Numerator	Denominator	Measure type	Data source
Adverse drug events	Percentage of hyperglycemic POCT blood glucose episodes with results > 250 mg/dl	Number of POCT blood glucose episodes with results > 250 mg/dl	Number of POCT blood glucose episodes	Process	Pharmacy/Lab exchange
Adverse drug events	Percentage of hyperglycemic POCT blood glucose episodes with results > 180 mg/dl	Number of POCT blood glucose episodes with results > 180 mg/dl	Number of POCT blood glucose episodes	Process	Pharmacy/Lab exchange
Adverse drug events	Percentage of hypoglycemic POCT blood glucose episodes with results < 70 mg/dl	Number of POCT blood glucose episodes with results < 70 mg/dl	Number of POCT blood glucose episodes	Process	Pharmacy/Lab exchange
Adverse drug events	Percentage of hypoglycemic POCT blood glucose episodes with results ≤ 40 mg/dl	Number of POCT blood glucose episodes with results ≤ 40 mg/dl	Number of POCT blood glucose episodes	Process	Pharmacy/Lab exchange
Adverse drug events	Percentage of supratherapeutic INR results above normal range	Number of INR episodes with results > 5	Number of INR episodes	Process	Pharmacy/Lab exchange

Improvement area	EQIC measure name	Numerator	Denominator	Measure type	Data source
Adverse drug events	Percentage of subtherapeutic INR results below normal range	Number of INR episodes with results < 2	Number of INR episodes	Process	Pharmacy/Lab exchange
Adverse drug events	Percentage of patients with daily opioid dosage of ≥ 90 MME during hospitalization	Number of patients with daily opioid dosage of ≥ 90 MME during hospitalization	Number of patients discharged that had an opioid prescribed during hospitalization	Process	Pharmacy/Lab exchange
Adverse drug events	Opioid reversal agent utilization rate per 1,000 discharges	Number of patients on opioids with naloxone ordered on inpatient care units	Number of discharges with an opioid prescription	Process	Pharmacy/Lab exchange
Adverse drug events	Percentage of patients prescribed co-occurring opioid and benzodiazepine during hospitalization	Number of patients prescribed co-occurring opioid and benzodiazepine during hospitalization	Number of patients discharged that had an opioid prescribed during hospitalization	Process	Pharmacy/Lab exchange
Adverse drug events	Percentage of patients prescribed two or more opioids during hospitalization	Number of patients prescribed two or more opioids during hospitalization	Number of patients discharged that had an opioid prescribed during hospitalization	Process	Pharmacy/Lab exchange
Adverse drug events	Percentage of POCT blood glucose tests within normal range (70-180) during hospitalization	Number of POCT blood glucose tests within normal range (70-180) during hospitalization	Number of POCT blood glucose tests	Outcome	Pharmacy/Lab exchange

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Laboratory data specifications

Descriptive Field Name	Format	Definition/Acceptable Values	Notes
UniqueFacilityIdentifier	varchar(10)	This should be your facility CMS CCN # If a system has multiple sites under the same CCN, The first 4 unique characters of the hospital name should be included after the six digit CCN #	Multiple hospitals from the same system **CANNOT** send data together in one lab file. Each hospital should submit its lab report through its individual HANYS SFTP connection
UniquePatientIdentifier	varchar(50)	Utilize the patient's medical record number	
PatientDOB	date	Date Format YYYY-MM-DD	
AdmitDate	date	Date Format YYYY-MM-DD	
DischargeDate	date	Date Format YYYY-MM-DD	
LabCode	varchar(10)		LOINC
LabName	varchar(100)		Utilize [restrict by] the INR (International Normalized Ratio) and POC-BS test codes in the "INR LOINC Codes" and "Glucose LOINC Codes" tabs of this workbook.
DrawDate	date	Date Format YYYY-MM-DD	
DrawTime	time	Time HH:MM:SS	
Result	varchar(50)		This should be reported as a numeric value. Utilizing < or > will be accepted. Unit value is not needed.

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Laboratory INR LOINC codes

LOINC Code	SHORTNAME
46418-0	INR BldC
61189-7	INR PPP Fetus
6301-6	INR PPP
5895-7	Deprecated INR Plas
5896-5	Deprecated PT Inv Ratio Plas
38875-1	INR PPP/Bld
52129-4	INR p hep neut PPP
92891-1	INR goal PPP
72281-9	Ds INR range/Ds INR det Patient-Rto
34714-6	INR Bld

Laboratory Glucose LOINC codes

LOINC Code	SHORTNAME
41896-2	Glucose Mtr Dev Class
13453-6	Deprecated Mean Glucose Bld gHb Est-aCnc
41899-6	Glucose Mtr Dev Serial #
14743-9	Glucose BldC Glucomtr-sCnc
14749-6	Glucose SerPl-sCnc
15074-8	Glucose Bld-sCnc
41900-2	Glucose Mtr Dev Software vers
2339-0	Glucose Bld-mCnc
2345-7	Glucose SerPl-mCnc
27353-2	Est. average glucose Bld gHb Est-mCnc
32016-8	Glucose BldC-mCnc
32318-8	Glucose Spec-sCnc
35211-2	Glucose SerPl-msCnc
39480-9	Glucose BldV-sCnc
39481-7	Glucose BldA-sCnc

Laboratory data specifications

Our full lists of acceptable INR and glucose LOINC codes can be found on the following tabs of the workbook:

- "INR LOINC Codes"
- "Glucose LOINC Codes"

<u>NOTE:</u> Your data can include LOINC codes that are not on our lists. We will periodically expand our list to include more codes.

Pharmacy data specifications

Descriptive Field Name	Format	Definition/Acceptable Values	Notes
UniqueFacilityIdentifier	varchar(10)	This should be your facility CMS CCN # If a system has multiple sites under the same CCN, The first 4 unique characters of the hospital name should be included after the six digit CCN.	Multiple hospitals from the same system **CANNOT** send data together in one pharmacy file. Each hospital should submit its pharmacy report through its individual HANYS SFTP connection
UniquePatientIdentifier	varchar(50)	Utilize the patient's medical record	
PatientDOB	date	Date Format YYYY-MM-DD	
AdmitDate	date	Date Format YYYY-MM-DD	
DischargeDate	date	Date Format YYYY-MM-DD	
DrugCodeType	varchar(25)	List whether the hospital uses RxNorm or NDC codes	At this time we are **ONLY** able to accept either RxNorm or NDC codes
DrugCode	varchar(25)	List the actual RxNorm or NDC code	Hospitals are only required to submit opioid, benzodiazapem, and high risk medications, which have been specified in the drug list tabs included in this workbook. Do not include opioid reversal agents in this report, as there is a seperate opioid reversal agents report report or those. **Note:** If your hospital's data has codes that are not on our lists, you can still include them, but please be sure that you also send us a list of those codes that we were missing, so that we can continuously expand our code lists
DateOrdered	date	Date Format YYYY-MM-DD	Date of administration is acceptable, **IF date ordered is unavailable** **Note:** Even if you do use date of administration for this field, the field entitled "Dosage" in row 11 should still only reflect what is ordered though, not what is administered
DateDiscontinued	date		Leave blank if unavailable
Dosage	Varchar(20)		Provider order. Reflects true dosage ordered. Does not need to match dosage that is included in the drug code (i.e. 25mg)
NumberofDosesOrdered	Numeric[18,2]		This element reflects the number of doses (pills, units, teaspoons, etc.) ordered for the patient This can be left blank if full "Dosage" is included in row 11. If left blank, we will default to "1"
Frequency	Varchar(20)		See "DoseFreq" tab for acceptable documentation or nomenclature **Note:** If your hospital uses frequency values that are not on our list, you can still include them, but please be sure that you also send us a list of those frequency values that we were missing, so that we can continuously expand our list

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Opioid RxNorm Codes

RxNorm Code	Description	Label
1053648	Abstral	ABSTRAL
1053651	Abstral (as fentanyl citrate) 100 MCG Sublingual Tablet	ABSTRAL
1053651	Abstral 0.1 MG Sublingual Tablet	ABSTRAL
1053651	Abstral (as fentanyl citrate) 100 MCG Sublingual Tablet	ABSTRAL
1053651	ABSTRAL 100 MCG Sublingual Tablet	ABSTRAL
1053654	Abstral 0.2 MG Sublingual Tablet	ABSTRAL
1053654	Abstral (as fentanyl citrate) 200 MCG Sublingual Tablet	ABSTRAL
1053654	Abstral (as fentanyl citrate) 200 MCG Sublingual Tablet	ABSTRAL
1053654	ABSTRAL 200 MCG Sublingual Tablet	ABSTRAL
1053657	Abstral (as fentanyl citrate) 300 MCG Sublingual Tablet	ABSTRAL
1053657	Abstral 0.3 MG Sublingual Tablet	ABSTRAL
1053657	Abstral (as fentanyl citrate) 300 MCG Sublingual Tablet	ABSTRAL
1053657	ABSTRAL 300 MCG Sublingual Tablet	ABSTRAL
1053660	Abstral 0.4 MG Sublingual Tablet	ABSTRAL
1053660	Abstral (as fentanyl citrate) 400 MCG Sublingual Tablet	ABSTRAL

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Opioid NDC Codes

NDC Code	Description	Label	RxNorm Code
378876593	buprenorphine 2 MG / naloxone 0.5 MG Buccal Film	BUPRENORPHINE AND NALOXONE	1010600
781721664	buprenorphine 2 MG / naloxone 0.5 MG Buccal Film	BUPRENORPHINE HYDROCHLORIDE, NALOXONE HYDROCHLORIDE	1010600
43598057930	buprenorphine 2 MG / naloxone 0.5 MG Buccal Film	BUPRENORPHINE AND NALOXONE	1010600
47781035503	buprenorphine 2 MG / naloxone 0.5 MG Buccal Film	BUPRENORPHINE AND NALOXONE	1010600
52427069203	buprenorphine 2 MG / naloxone 0.5 MG Buccal Film	BUPRENORPHINE AND NALOXONE	1010600
12496120203	buprenorphine 2 MG / naloxone 0.5 MG Sublingual Film [Suboxone]	BUPRENORPHINE HYDROCHLORIDE, NALOXONE HYDROCHLORIDE	1010603
378876793	buprenorphine 8 MG / naloxone 2 MG Buccal Film	BUPRENORPHINE AND NALOXONE	1010604
781723864	buprenorphine 8 MG / naloxone 2 MG Buccal Film	BUPRENORPHINE HYDROCHLORIDE, NALOXONE HYDROCHLORIDE	1010604
43598058230	buprenorphine 8 MG / naloxone 2 MG Buccal Film	BUPRENORPHINE AND NALOXONE	1010604
47781035703	buprenorphine 8 MG / naloxone 2 MG Buccal Film	BUPRENORPHINE AND NALOXONE	1010604
52427069803	buprenorphine 8 MG / naloxone 2 MG Buccal Film	BUPRENORPHINE AND NALOXONE	1010604
12496120803	buprenorphine 8 MG / naloxone 2 MG Sublingual Film [Suboxone]	BUPRENORPHINE HYDROCHLORIDE, NALOXONE HYDROCHLORIDE	1010606
55700014730	buprenorphine 8 MG / naloxone 2 MG Sublingual Film [Suboxone]	BUPRENORPHINE HYDROCHLORIDE, NALOXONE HYDROCHLORIDE	1010606
72887068303	oxycodone HCl 10 MG / acetaminophen 300 MG Oral Tablet	OXYCODONE AND ACETAMINOPHEN TABLETS	1014599
72887068103	oxycodone HCl 5 MG / acetaminophen 300 MG Oral Tablet	OXYCODONE AND ACETAMINOPHEN TABLETS	1014615
72887019303	oxycodone HCl 2.5 MG / acetaminophen 300 MG Oral Tablet	OXYCODONE AND ACETAMINOPHEN	1037259
29978042015	codeine phosphate 10 MG / chlorpheniramine maleate 2 MG / phenylephrine HCl 5	CODEINE PHOSPHATE, PHENYLEPHRINE HYDROCHLORIDE, CHLORPHENIRAMI	1042693

High-risk medications in the elderly

RxNorm Code	Description	Prescription	Group
9260	reserpine	RESERPINE	Alpha agonists, central
198196	reserpine 0.1 MG Oral Tablet	RESERPINE	Alpha agonists, central
198196	reserpine 0.1 MG Oral Tablet	RESERPINE	Alpha agonists, central
198197	reserpine 0.25 MG Oral Tablet	RESERPINE	Alpha agonists, central
198197	reserpine 0.25 MG Oral Tablet	RESERPINE	Alpha agonists, central
316635	reserpine 0.25 MG	RESERPINE	Alpha agonists, central
317484	reserpine 0.1 MG	RESERPINE	Alpha agonists, central
373769	reserpine Oral Tablet	RESERPINE	Alpha agonists, central
1164832	reserpine Oral Product	RESERPINE	Alpha agonists, central
1164833	reserpine Pill	RESERPINE	Alpha agonists, central
1424	benztropine	BENZTROPINE	Anticholinergics, anti-Parkinson agents
18927	benztropine mesylate	BENZTROPINE	Anticholinergics, anti-Parkinson agents
371038	benztropine Oral Tablet	BENZTROPINE	Anticholinergics, anti-Parkinson agents
885204	benztropine mesylate 1 MG/ML	BENZTROPINE	Anticholinergics, anti-Parkinson agents
885205	benztropine mesylate 2 MG per 2 ML Injection	BENZTROPINE	Anticholinergics, anti-Parkinson agents

Dose frequency codes

EXAMPLE OF FREQUENCY DOSE ISSUES - MULTIPLE APPROACHES	
Frequency of Dosage Value	**Meaning**
qH	Every Hour
qAM	Every Morning
qPM	Every Night
qHs	Every Bedtime
qD	Everyday
qOD	Every Other Day
qWK	Every Week
qMO	Every Month
q__o	(Q) 1°, 2°, 3°, 4°, (Every 4 Hours)
q__H	Every__Hour (Every 4 Hours)
BID	Twice a day
TID	Three times a day
QID	Four times a day
X_D	Times_Day (3x a day)
AC	Before Meal
PC	After Meal
HS	At Bedtime
PRN	As Needed

Pharmacy data specifications

Our full lists of acceptable RxNorm and NDC drug codes and our list of dose frequency codes can be found on the following tabs of the workbook:

- "Opioid RxNorm Codes"
- "Opioid NDC Codes"
- "Benzo RxNorm Codes"
- "Benzo NDC Codes"
- "High Risk Meds RxNorm Codes"
- "High Risk Meds NDC Codes"
- "DoseFreq"

NOTE: Your data can include drug codes and dose frequency values that are not on our lists. We will periodically expand our lists to include more codes.

Reversal agents data specifications

Descriptive Field Name	Format	Definition/Acceptable Values	Notes
UniqueFacilityIdentifier	varchar(10)	This should be a facility CCN. If a system has multiple sites under the same CCN, The first 4 unique characters of the hospital name should be included after the six digit CCN.	Multiple hospitals from the same system CANNOT send data together in one reversal agents file. Each hospital should submit its reversal agents report through its individual HANYS SFTP connection
UniquePatientIdentifier	varchar(50)	Utilize the patient's medical record	
PatientDOB	date	Date Format YYYY-MM-DD	
AdmitDate	date	Date Format YYYY-MM-DD	
DischargeDate	date	Date Format YYYY-MM-DD	
DrugCodeType	varchar(25)	List whether the hospital uses RxNorm or NDC codes	At this time we are ONLY able to accept either RxNorm or NDC codes
DrugCode	varchar(25)	NDC or RxNorm codes are acceptable.	Hospitals are only required to submit opioid, benzodiazapem, Narcan and high risk medications all specified in the drug list tabs included in this workbook. Note: If your hospital's data has codes that are not on our lists, you can still include them, but please be sure that you also send us a list of those codes that we were missing, so that we can continuously expand our code lists.
DateAdministered	date	Date Format YYYY-MM-DD	Date drug was given
DateDiscontinued	date	Date Format YYYY-MM-DD	Leave blank if unavailable
OpioidReversalAgentDosesGiven	int	Number of doses given	Note: This element is drug administered or given to the patient (not the data on the MD ordered/pharmacy dispensed data in the rest of the specifications). This is the number of times a specific opioid reversal agent was given during the hospitalization.

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Reversal agent NDC Codes

NDC Code	Description	Label	RxNorm Code
591039501	naloxone (as naloxone hydrochloride) 0.5 MG / pentazocine (as pentazocine hydrochlq	PENTAZOCINE HYDROCHLORIDE AND NALOXONE HYDROCHLORIDE	312289
43063014220	naloxone (as naloxone hydrochloride) 0.5 MG / pentazocine (as pentazocine hydrochlq	PENTAZOCINE HYDROCHLORIDE AND NALOXONE HYDROCHLORIDE	312289
43386068001	naloxone (as naloxone hydrochloride) 0.5 MG / pentazocine (as pentazocine hydrochlq	PENTAZOCINE HYDROCHLORIDE AND NALOXONE HYDROCHLORIDE	312289
43386068005	naloxone (as naloxone hydrochloride) 0.5 MG / pentazocine (as pentazocine hydrochlq	PENTAZOCINE HYDROCHLORIDE AND NALOXONE HYDROCHLORIDE	312289
61919055630	naloxone (as naloxone hydrochloride) 0.5 MG / pentazocine (as pentazocine hydrochlq	PENTAZOCINE HYDROCHLORIDE AND NALOXONE HYDROCHLORIDE	312289
63304050601	naloxone (as naloxone hydrochloride) 0.5 MG / pentazocine (as pentazocine hydrochlq	PENTAZOCINE AND NALOXONE	312289
63629320601	naloxone (as naloxone hydrochloride) 0.5 MG / pentazocine (as pentazocine hydrochlq	PENTAZOCINE HYDROCHLORIDE AND NALOXONE HYDROCHLORIDE	312289
63629320602	naloxone (as naloxone hydrochloride) 0.5 MG / pentazocine (as pentazocine hydrochlq	PENTAZOCINE HYDROCHLORIDE AND NALOXONE HYDROCHLORIDE	312289
63629320603	naloxone (as naloxone hydrochloride) 0.5 MG / pentazocine (as pentazocine hydrochlq	PENTAZOCINE HYDROCHLORIDE AND NALOXONE HYDROCHLORIDE	312289
409121901	naloxone HCl 0.4 MG/ML Injectable Solution	NALOXONE HYDROCHLORIDE	1191222
409121925	naloxone HCl 0.4 MG/ML Injectable Solution	NALOXONE HYDROCHLORIDE	1191222
17478004210	naloxone HCl 0.4 MG/ML Injectable Solution	NALOXONE HYDROCHLORIDE	1191222
51662138501	naloxone HCl 0.4 MG/ML Injectable Solution	NALOXONE HYDROCHLORIDE	1191222
51662142601	naloxone HCl 0.4 MG/ML Injectable Solution	NALOXONE HYDROCHLORIDE	1191222
55150032810	naloxone HCl 0.4 MG/ML Injectable Solution	NALOXONE HYDROCHLORIDE	1191222
55150032825	naloxone HCl 0.4 MG/ML Injectable Solution	NALOXONE HYDROCHLORIDE	1191222
67457029910	naloxone HCl 0.4 MG/ML Injectable Solution	NALOXONE HYDROCHLORIDE	1191222
67457098710	naloxone HCl 0.4 MG/ML Injectable Solution	NALOXONE HYDROCHLORIDE	1191222

Reversal agents data specifications

Our full lists of acceptable RxNorm and NDC reversal agent codes can be found on the following tabs of the workbook:

- "OpioidReversalAgent RxNorm Code"
- "OpioidReversalAgent NDC Codes"

NOTE: Your data can include reversal agent drug codes that are not on our lists. We will periodically expand our list to include more codes.

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Next steps

- Evaluate your hospital's capability of providing the required specifications.

- Complete the survey to schedule the date that your hospital plans to begin sending this data.

- Contact us if you need to establish an SFTP connection with HANYS.

- Please contact your EQIC Project Manager or Bridget Baker with any questions.

Questions?

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Thank you.

Bridget Baker

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