CO's CURE

Hospital Medicine ALTO Project: Data Collection Manual

SECTION 1: Hospital Medicine ALTO Project

The Hospital Medicine Alternatives to Opioids (ALTO) Project is focused on the prescribing and administration of opioid medications and ALTO medications (all formulations) in Colorado's hospital inpatient settings. In addition, the Hospital Medicine ALTO Project focuses on opioid prescriptions at discharge. The hospital setting is a critical location to continue work towards decreasing the non-essential use of opioids around the state.

Note:

- Colorado Hospital Association (CHA) will determine the inclusion/exclusion criteria based on claims data.
- Reports submitted by pilot sites are based on medications of interest for all patients.

Inclusion Criteria:

1. Inpatients prescribed or receiving an opioid or an ALTO administration
2. Observation patients prescribed or receiving an opioid or an ALTO administration
   a. Patients going from observation status to inpatient status will be counted as one patient account
3. Adults age 18 years of age and older

Exclusion Criteria:

1. Patients in hospice or comfort care
2. Patient in intensive care or critical care units
3. Medical oncology services

SECTION 2: Data Requirements

The Hospital Medicine ALTO Project collects and analyzes data on opioids and ALTOs administered in the inpatient setting during a patient visit, prescriptions at discharge and opioid use prior to admission.

Data Sources:

Information about each patient's visit to the hospital and demographic information about that patient will come from the CHA Discharge Database, an administrative claims database maintained at CHA. Hospitals will submit medication reports, based on data they extract from their electronic health records (EHRs), pharmacy data and admissions data. The hospital-submitted data will be matched with to CHA Discharge Database to retrieve all necessary administrative elements for analysis and minimize reporting burdens on hospitals.

Data Management

The CHA data team will connect the medication reports and the administrative claims data using the supplied patient account number (PAN), medical record number (MRN), admission date and discharge date. Once this connection has been made, all patient identifying information will be stripped from the data and replaced with generic identifiers. All data is securely stored on an encrypted server with restricted access.

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SECTION 2: Data Requirements (Continued)

File Format Requirements

Files will be sent to CHA every month in one of two formats: Microsoft Excel or comma-separated values (CSV) file. If a CVS is used, all commas in medication names or other fields must be removed prior to compiling the file – extra commas will cause incorrect delimitation.

Files must be named with the following format, using the facility's assigned identifier and the year and month of data contained in the submission.

Example:
HospID_INPT_YYYYMM.xlsx
HospID_INPT_YYYY_baseline.xlsx

Since the file names will be used to automatically process the data, the files names must follow the exact format above. Please do not add any additional labelling to the file name unless a resubmission is necessary. In this case, please add "_V2" to the end of the file name.

Example:
HospID_INPT_YYYYMM_V2.xlsx

The first line of the data set in each file must contain the column name. Please use the field names in the data elements table below.

SECTION 3: Components and Data Format for Hospital Submitted Data

The following sections 3a-3d outline the required data elements to be submitted by hospitals in order for CHA to complete data analysis for the Hospital Medicine Project.

SECTION 3a: Medications of Interest

The following medications of interested are those that should be pulled from the hospital EHR and formatted into the Inpatient/ALTO Report (Section 3b). Medications of interest should be pulled by administration date and not patient admission date.

- **Opioids** prescribed and administered during hospital stay or prescribed at discharge (include all formulations: PO, IV, PCA, patch, liquid; do not include methadone, buprenorphine or suboxone)
  - Acetaminophen-codeine
  - Codeine
  - Oxycodone-acetaminophen
  - Fentanyl
  - Hydrocodone-acetaminophen
  - Hydromorphone
  - Morphine sulfate
  - Oxycodone
  - Oxycontin
  - Roxicodone
  - Tramadol

- **Benzodiazepines** prescribed and administered during hospital stay or prescribed at discharge
  - Lorazepam
  - Diazepam
  - Alprazolam
  - Clonazepam
  - Temazepam
  - Midazolam

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SECTION 3a: Medications of Interest (Continued)

- **ALTOs** prescribed and administered during hospital stay:
  - Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)
    - Advil
    - Aleve
    - Aspirin
    - Bayer
    - Celebrex
    - Celecoxib
    - Diclofenac
    - Excedrin
    - Ibuprofen
    - Indocin
    - Indomethacin
    - Ketorolac
    - Meloxicam
    - Methyl salicylate
    - Mobic
    - Motrin
    - Naprosyn
    - Naproxen
  - Neuropathic, psychiatric
    - Amitriptyline
    - Cymbalta
    - Duloxetine
    - Effexor
    - Gabapentin
    - Lyrica
    - Neurontin
    - Nortriptyline
    - Pregabalin
    - Venlafaxine
  - Other (include all formulations: PO, IV, gtt, patch, liquid, topical)
    - Acetaminophen
    - Baclofen
    - Bentyl
    - Camphor
    - Capsaicin
    - Carafate
    - Compazine
    - Cyclobenzaprine
    - Desmopressin
    - DDVAP
    - Dicyclomine
    - Famotidine
    - Flexeril
    - Flomax
    - Haldol
    - Haloperidol
    - Ketamine
    - Lidocaine
    - Menthol
    - Methocarbamol
    - Metoclopramide
    - Naloxone
    - Ofirmev
    - Ondansetron
    - Pepcid
    - Prochlorperazine
    - Reglan
    - Sucralfate
    - Simethicone
    - Tamsulosin
    - Tizanidine
    - Zofran

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SECTION 3b: Inpatient Opioid/ALTO Report

The following data elements are those that should be pulled from the hospital EHR and sent to CHA on a monthly basis. Medications of interest should be pulled by administration date and not patient admission date.

Column Name	Type	Notes
Hospital_ID	Num	This is the standard 3-digit ID assigned by CHA for all discharge claims. Please contact CHA for the hospital ID, if needed.
Patient_Account_Number	Alpha-numeric	This should be the unique identifier for this patient AND visit. This account number is given to the patient once a bill has been created and sent to the patient. This is not an MRN or CSN.
Medical_Record_Number	Alpha-numeric	This should be the identifier unique to this patient that is used any time this patient visits the facility (doesn't change between visits).
Admission_Date	Date	Format: MM/DD/YYYY. Date of admission to the hospital.
Discharge_Date	Date	Format: MM/DD/YYYY. Date of discharge from the hospital.
Admin_Date_Time	Date	Format: MM/DD/YYYY (hh:mm:00). The date and time (if available) of medication administration. If the patient was transferred from observation to inpatient status, this should be the date that the patient was moved to inpatient status.
Medication	Char	Name of medication (generic or brand name)
Admin_route	Char	IV, PO, TD, IM, IN, etc.
Prescribed_dose	Num	Prescribed or ordered amount of drug of interest. Include only the number. Units should be in the admin_unit field.
Prescribed_frequency	Rate	Prescribed or ordered frequency of the Prescribed_dose
Admin_dose	Num	Administered amount of drug of interest
Admin_unit	Char	For opioids, only mg, g, or mcg. (no volumes, "mL", and "pills"). ALTOs, such as lidocaine, can have mL.
Opioids_prior_adm	Y/N	Did the patient present with an opioid prescription before admitted into the inpatient setting? "Y if the patient had a prior prescription, "N" if the patient was opioid naive

The naming convention of this report should be formatted as: **HospID_INPT_YYYYMM.xlsx**

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SECTION 3b: Inpatient Opioid/ALTO Report (Continued)

Data Format: Inpatient Opioids Component

- Each administration of a medication will need to be on its own line of data in the file

Correct:

Hospital_ID	Patient_Account_Number	Medical_Record_Number	Admission_date	Discharge_Date	Admin_Date_Time	Medication	Admin_route	Admin_dose	Admin_unit
999	ABCDEF	A1B2C3	01/01/2019	01/03/2019	01/01/2019(:04:55:00)	Hydromorphone	IV	.5	MG
999	ABCDEF	A1B2C3	01/01/2019	01/03/2019	01/01/2019(:05:07:00)	Hydromorphone	IV	.5	MG
999	123456	789002	01/01/2019	01/02/2019	01/01/2019(:20:23:00)	Hydrocodone	PO	2	MG

- Note: same patient, same visit, received two different administrations of medication, each medication is on its own line.

Incorrect:

Hospital_ID	Patient_Account_Number	Medical_Record_Number	Admission_date	Discharge_Date	Admin_Date_Time	Medication	Admin_route	Admin_dose	Admin_unit
999	ABCDEF	A1B2C3	01/01/2019	01/03/2019	01/01/2019(:04:55:00) 01/01/2019(:05:07:00)	Dilaudid Hydromorphone	IV Intravenous	.5 15	MG ML
999	123456	789002	01/01/2019	01/02/2019	01/01/2019(:20:23:00)	Vicodin	Sublingual	2	MG

- Note: same patient, same visit, received two different administrations of medication, but two administrations of hydromorphone are sharing one line of data.

Data Format: Inpatient ALTOs Component

- Each administration of a medication will need to be on its own line of data in the file

Correct:

Hospital_ID	Patient_Account_Number	Medical_Record_Number	Admission_date	Discharge_Date	Admin_Date_Time	Medication	Admin_route	Admin_dose	Admin_unit
999	ABCDEF	A1B2C3	01/01/2019	01/03/2019	01/01/2019(:07:45:00)	Acetaminophen	PO	200	MG
999	ABCDEF	A1B2C3	01/01/2019	01/03/2019	01/01/2019(:08:19:00)	Lidocaine	IV	.5	MG
999	123456	789002	01/01/2019	01/02/2019	01/01/2019(:23:42:00)	Ibuprofen	PO	200	MG

- Note: same patient, same visit, received two different administrations of medication, each medication is on its own line.

Incorrect:

Hospital_ID	Patient_Account_Number	Medical_Record_Number	Admission_date	Discharge_Date	Admin_Date_Time	Medication	Admin_route	Admin_dose	Admin_unit
999	ABCDEF	A1B2C3	01/01/2019	01/03/2019	01/01/2019(:07:45:00) 01/01/2019(:08:19:00)	Acetaminophen Xylocaine	IV	1 .5	Pill MG
999	123456	789002	01/01/2019	01/02/2019	01/01/2019(:23:42:00)	Advil	mouth	200	MG

- Note: same patient, same visit, received two different administrations of medication, but two administrations of hydromorphone are sharing one line of data.

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SECTION 3c: Discharge Prescription Report

The following data elements are those that should be pulled from the hospital EHR and sent to CHA on a monthly basis. Pull all discharge prescriptions of the opioid drugs of interest, benzodiazepines and naloxone.

Column Name	Type	Notes
Hospital_ID	Num	This is the standard 3-digit ID assigned by CHA for all Discharge Claims. Please contact CHA for the hospital ID, if needed.
Patient_Account_Number	Alpha-numeric	This should be the unique identifier for this patient AND visit. This account number is given to the patient once a bill has been created and sent to the patient. This is not an MRN or CSN.
Medical_Record_Number	Alpha-numeric	This should be the identifier unique to this patient that is used any time this patient visits the facility (doesn't change between visits).
Discharge_Date	Date	Format: MM/DD/YYYY. Date of discharge from the emergency department. If patient is admitted as inpatient, can also be date of discharge from hospital.
Medication	Char	Name of medication
Rx_dose	Num	Prescribed amount of drug of interest
Rx_unit	Char	Only mg, g, or mcg.. (For opioids no volumes, such as "mL" or "pills")
Rx_frequency	Char	Frequency of Rx given

The naming convention of this report should be formatted as: **HospID_RX_YYYYMM.xlsx**

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SECTION 3d: Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Report
These are the measures that should be pulled from the inpatient HCAHPS results and sent to CHA on a monthly basis. Pull HCAHPS questions 12-14 and 18 for phone and mail surveys only.

Column Name	Type	Notes
Hospital_ID	Num	This is the standard 3-digit ID assigned by CHA for all Discharge Claims. Please contact CHA for the hospital ID, if needed.
Date	Date	Format: MM/YYYY. Month of HCAHPS dada should represent month in which data were collected, not month data were submitted or released.
Question	String	Pull HCAHPS questions 12-14 and 18: Q 12. "During this hospital stay, were you given any medicine that you had not taken before?" Q 13. "Before giving you any new medicine, how often did hospital staff tell you what the medicine was for?" Q 14. "Before giving you any new medicine, how often did hospital staff describe possible side effects in a way you could understand?" Q 18. "Using any number from 0 to 10, where 0 is the worst hospital possible and 10 is the best hospital possible, what number would you use to rate this hospital during your stay?"
Answer	String	Y, N or Never, Sometimes, Usually, Always, Blank (if Q 12 is N) or 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
n	Double	Number of responses which meet the row level criteria

The naming convention of this report should be formatted as: **HospID_HCAHPS_YYYYM.xlsx**

SECTION 4: Data Collection and Transmission
In addition to safe storage, the Hospital Medicine ALTO Project data will be safe during transmission as well. A secure SharePoint site will be used to upload the data files collected from the hospital and a @mychadata.com login is required for this site. Do not email data files to CHA. The latest submitted version will be used for the final data analysis.

Before uploading the file please ensure that the correct filename format is used. To resubmit data, please reference the following filename format examples:

- HospID_RX_ YYYYMM_V2.xls
- HospID_INPT_YYYY _baseline_V3.xls
- HospID_HCAHPS _YYYYMM_V4.xls

The following link is directed to the secure site: https://chadata.sharepoint.com/sites/alto/SitePages/Home.aspx.

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SECTION 5: Privacy and Data Security

Colorado Hospital Association complies with the Privacy Rule, also known as the Standards for Privacy of Individually Identifiable Health Information, the regulations are issued by the Department of Health and Human Services in relation to the Health Insurance Portability and Accountability Act of 1996 (HIPAA). This became a requirement on April 14, 2003. For more information about the Privacy Rule, please reference: http://privacyruleandresearch.nih.gov/pdf/research_repositories_final.pdf

The data repository will contain data about inpatient visits at participating facilities. It will not contain individual identifiable health information as defined by the Privacy Rule. However, it will contain a limited data set of Protected Health Information (PHI), which included limited elements such as dates of service.

Data Storage

Study materials with PHI will be stored in a secure manner to avoid unintended access by non-study personnel. The following University of Colorado guidelines for health care personnel expand on the safe storage and transmission of all types of PHI, secure disposal of electronic PHI, and the protection of PHI from risks.

The study team will take the following steps to protect electronic PHI:

- Protect computer's ePHI with strong passwords.
- Whenever possible, do not store ePHI on a portable storage device.
- Avoid emailing PHI, but if necessary, then encrypt e-mail messages containing PHI.
- Back up ePHI.
- Use virus protection software and keep it updated.
- Mask work with password-protected screen savers.
- Encrypt ePHI when not in use.
- All e-mails containing PHI will be encrypted.

Additional steps to secure PHI include:

- Lock all entrances to offices containing PHI when feasible.
- Store paper PHI documents in a file cabinet with a lock.
- Periodically update and scan computer antivirus protection software.
- Thoroughly and immediately dispose of PHI that is no longer needed and does not need to be retain.

Contact Dominick Kuljis, CHA senior data analyst, at Dominick.Kuljis@cha.com, with any questions or concerns about the data submission processes.

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