

SW-BH3 – Using Alternatives to Opioids (ALTO) in Hospital Emergency Departments (ED): 1) Decrease use of Opioids 2) Increase use of ALTO

Data Manual

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SECTION 1: Scope of Measure

As defined in the Colorado Hospital Transformation Program (HTP) Performance Measures Specifications document

SW-BH3 – Using Alternatives to Opioids (ALTO) in Hospital Emergency Departments (ED): 1) Decrease use of Opioids 2) Increase use of ALTO

Definition: This is a two-part measure: 1) Decrease use of opioids and 2) Increase use of ALTO.

1. **Decrease use of opioids** – ED encounters with administration of an opioid as listed in the ***Opioids of Interest*** per 1,000 ED encounters for patients ages 18 years and older, among cases meeting the inclusion and exclusion criteria below.
2. **Increase use of ALTO** – ED encounters with administration of an ALTO as listed in the ***ALTO of Interest*** per 1,000 ED encounters for patients ages 18 years and older, among cases meeting the inclusion and exclusion criteria below.

Measure Stewards: Colorado Hospital Association (CHA); American College of Emergency Physicians (ACEP)

Data Source: Hospital self-report

Data Collection Methodology:

- *Numerator:* Electronic Health Record (EHR), Medication Administration Record (MAR)
- *Denominator:* EHR, billing systems or other tracking systems

Part 1 – Decrease use of opioids

- *Numerator:* Total ED encounters in which medications listed in *Opioids of Interest* were administered, among cases meeting the inclusion and exclusion criteria below.
 - This is a yes/no measure and patients are counted towards the numerator only once, even if they received multiple opioid medications during their ED visit.
- *Denominator:* Total number of ED visits for diagnoses meeting the inclusion and exclusion criteria below.

Part 2 – Increase use of ALTO

- *Numerator:* Total ED encounters in which medications listed in *ALTO of Interest* were administered, among cases meeting the inclusion and exclusion criteria below. For example, if a patient was given two ALTOs with the same medication name in two separate encounters, both encounters would count in the numerator of this metric.
 - This is a yes/no measure and patients are counted towards the numerator only once, even if they received multiple ALTO medications during their ED visit.
- *Denominator:* Total number of ED visits for diagnoses meeting the inclusion and exclusion criteria below.

***Opioids of Interest* (all routes):**

- Every medication has an approved name, which is a generic name. If a generic medication is made by several different pharmaceutical companies, it is given a brand or trade name. If your

hospital policy allows the use of generic and brand names interchangeably (except in cases where the bioavailability may be different, such as with Lithium), ensure these are captured but **not** counted twice.

- | | |
|---------------------------------|-------------------------------|
| • Carfentanil | • Hydromorphone |
| • Codeine | • Hydrocodone-Ibuprofen* |
| • Codeine-Acetaminophen* | • Meperidine |
| • Codeine Poli-Chlorphenir Poli | • Morphine |
| • Fentanyl | • Morphine Sulfate |
| • Fentanyl Citrate | • Oxycodone |
| • Hydrocodone bitartrate | • Oxycodone-Acetaminophen* |
| • Hydrocodone-Acetaminophen* | • Oxycodone-Hydrochloride |
| • Hydrocodone-Chlorpheniramine | • Oxymorphone-Hydrochloride |
| • Hydrocodone-Cpm-Pseudoephed | • Pseudoephedrine-Hydrocodone |
| • Hydrocodone-Homatropine* | • Tramadol |

***IMPORTANT NOTE:** For combination opioid ALTOs (e.g., Hydrocodone-Acetaminophen), the data should reflect only the opioid dosage, and not be counted as an ALTO administration also.

ALTO of Interest (all routes):

- Every medication has an approved name, which is a generic name. If a generic medication is made by several different pharmaceutical companies, it is given a brand or trade name. If your hospital policy allows the use of generic and brand names interchangeably (except in cases where the bioavailability may be different, such as with Lithium), ensure these are captured but **not** counted twice.

- | | | |
|-----------------------------|-----------------|---------------------|
| • Aspirin | • Duloxetine | • Methyl salicylate |
| • Acetaminophen | • Excedrin | • Metoclopramide |
| • Amitriptyline | • Famotidine | • Naproxen |
| • Baclofen | • Gabapentin | • Nortriptyline |
| • Bupivacaine
(Marcaine) | • Haloperidol | • Ondansetron |
| • Camphor | • Ibuprofen | • Pregabalin |
| • Capsaicin | • Indomethacin | • Prochlorperazine |
| • Celecoxib | • Ketamine | • Ropivacaine |
| • Cyclobenzaprine | • Ketorolac | • Simethicone |
| • Desmopressin | • Lidocaine | • Sucralfate |
| • Diclofenac | • Meloxicam | • Tamsulosin |
| • Dicyclomine | • Menthol | • Tizanidine |
| | • Methocarbamol | • Venlafaxine |

Inclusions:

- Include patients 18 years of age and older.
- Include any ED visit where the patient was treated at some point in the ED, including patients admitted to inpatient, kept in observation, or discharged home.
- Include the primary or secondary ICD-10-CM diagnosis codes listed in **Table 1, Inclusion column.**

Exclusions:

- Exclude any ED visit with the following hospice and intensive care exclusion revenue codes – **see Table 2.**
- Exclude the primary or secondary ICD-10-CM diagnosis codes listed in **Table 1, Exclusion column.**
- *Additional exclusions:* cases with age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

Target Population Notes: Adult ALL payor patients 18 years of age and older

Risk Adjustment: Not applicable

Timing and Time Intervals: Annual

Data Elements, Code Systems, Code Lists, Value Sets: See Tables 1-3.

- For hospitals partnering with CHA to submit data, please reach out to ODHIN.Admin@cha.com.
- Hospitals partnering with CHA to submit data will use the **CHA Data Manual for HTP SW-BH3.**

TABLE 1: ICD-10-CM primary and secondary diagnosis code ranges		
Condition	Include	Exclude
Migraines and Headaches	Headache (R51), Migraine (G44), Other Headache Syndromes (G43), Benign Intracranial Hypertension (G93.2), Post Concussional Syndrome (F07.81)	Malignant neoplasms of eye, brain and other parts of central nervous system (C69-72), Benign neoplasm of eye and adnexa, meninges, brain and other parts of central nervous system (D31-33), Transient cerebral ischemic attacks and related syndromes and Vascular syndromes of brain in cerebrovascular diseases (G45-46), Cerebrovascular diseases (I60-I69), Intracranial injury, Crushing injury of head, Avulsion and traumatic amputation of part of head, Other and unspecified injuries of head (S06-09)
Abdominal Pain	Abdominal and pelvic pain (R10), Abdominal rigidity (R19.3), Other chronic pain, not specified elsewhere (G89.29).	Malignant neoplasms of digestive organs (C15-26), Malignant neoplasm of retroperitoneum and peritoneum (C48), Carcinoma in situ of oral cavity, esophagus and stomach, other unspecified digestive organs (D00-01),

		Neoplasm of uncertain behavior of oral cavity and digestive organs (D37)
Back Pain	Other inflammatory spondylopathies(M46), Other spondylopathies (M48.00-08 and M48.30-38), Cervical disc disorders (M50), Thoracic, thoracolumbar, and lumbosacral intervertebral disc disorders (M51), Dorsalgia (M54), Biomechanical lesions, not elsewhere classified (M99), Muscle spasm of back (M62.830), Age-related osteoporosis with current pathological fracture, vertebra(e) (M80.08), Other osteoporosis with current pathological fracture, vertebra(e) (M80.88)	Disorder of continuity of bone (M84), Malignant neoplasm of peripheral nerves and autonomic nervous system (C47)
Chest Pain	Chest pain on breathing (R07.1), Precordial pain (R07.2), Other chest pain (R07.8), Chest pain unspecified, chest pain not cardiac related (R07.9), Pleurisy (R09.1)	Malignant neoplasm of bronchus and lung (C34), Malignant neoplasm of thymus (C37), Malignant neoplasm of heart, mediastinum and pleura (C38), Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs (C39), Mesothelioma (C45), Kaposi's sarcoma (C46), Malignant neoplasm of breast (C50), Ischemic heart diseases (I20-25)
Dental Pain	Dentofacial anomalies [including malocclusion] and other disorders of jaw (M26-27), Jaw pain (R68.84), Necrotizing ulcerative stomatitis (A69.0), Herpes viral gingivostomatitis and pharyngotonsillitis (B00.2), Candidal stomatitis (B37.0), Candidal cheilitis (B37.83)	Codes beginning with C00-14, D00, Benign Neoplasm of mouth and pharynx (D10), Neoplasm of uncertain behavior of oral cavity and digestive organs (D37), Other disorders of teeth and supporting structures (K08), Benign neoplasm of lower jawbone (D16.5)
Extremity Pain	Infectious arthropathies (M00-02), Inflammatory polyarthropathies (M05-14), Osteoarthritis (M15-19), Other joint disorders (M20-25), Disorders of muscles (M60-M63), Disorders of synovium and tendon (M65-67), Other soft tissue disorders (M70-79)	Malignant neoplasms of bone and articular cartilage (C40-41), Malignant neoplasm of other connective and soft tissue (C49)
Fracture Injuries	Codes beginning with Fracture of skull and facial bones (S02), Fracture of lumbar spine and pelvis(S32), Fracture of shoulder and upper arm (S42), Other and unspecified injuries of shoulder and upper arm (S49), Fracture of forearm (S52), Other and unspecified injuries of elbow and forearm (S59), Fracture at wrist and hand level (S62), Fracture of femur (S72), Other and unspecified injuries of hip and thigh (S79),	

	Fracture of lower leg, including ankle (S82), Other and unspecified injuries of lower leg (S89), Fracture of foot and toe, except ankle (S92), Osteoporosis with and without current pathological fracture (M80-81)	
Non-fracture Injuries	Dislocation and sprain of joints and ligaments of head (S03), Other and unspecified injuries of thorax (S29), Dislocation and sprain of joints and ligaments of lumbar spine and pelvis (S33), Other and unspecified injuries of abdomen, lower back, pelvis and external genitals (S39), Dislocation and sprain of joints and ligaments of shoulder girdle (S43), Injury of muscle, fascia and tendon at shoulder and upper arm level (S46), Dislocation and sprain of joints and ligaments of elbow (S53), Injury of muscle, fascia and tendon at forearm level (S56), Dislocation and sprain of joints and ligaments at wrist and hand level (S63), Other and unspecified injuries of wrist, hand and finger(s) (S69), Injury of muscle, fascia and tendon at hip and thigh level (S76), Dislocation and sprain of joints and ligaments of knee (S83), Injury of muscle, fascia and tendon at lower leg level (S86), Dislocation and sprain of joints and ligaments at ankle, foot and toe level (S93), Injury of muscle and tendon at ankle and foot level (S96); Temporomandibular joint disorder (M26.601-659)	
Urolithiasis (stone in the kidney, bladder, or urinary tract)	Urolithiasis (N20-N23), Hydronephrosis with renal and ureteral calculus obstruction (N13.2)	Malignant neoplasms of urinary tract (C64-68), Secondary malignant neoplasm of other and unspecified sites (C79), D09, D17, Benign neoplasm of urinary organs (D30), Neoplasm of uncertain behavior of urinary organs (D41), Neoplasms of unspecified behavior (D49)
Sickle Cell Anemia	None	Sickle-cell disorders, and other sickle-cell disorders (D57)

Table 2. Hospice and Intensive Care Exclusion Codes (REVENUE codes)			
Code Type	Code	Description	Exclusion reasoning
Revenue codes	020x*	ICU Revenue code	Identify those that were seen in the ED and then admitted to the ICU
Revenue codes	065x*	Hospice Revenue code	Identify those that were seen in the ED and then admitted to internal hospice
Revenue codes	0125	Routine Charges-Hospice	Identify those that were seen in the ED and then admitted to internal hospice
Revenue codes	0135	Routine Charges-Hospice	Identify those that were seen in the ED and then admitted to internal hospice
Revenue codes	0145	Routine Charges-Hospice	Identify those that were seen in the ED and then admitted to internal hospice
Revenue codes	0155	Routine Charges-Hospice	Identify those that were seen in the ED and then admitted to internal hospice
Revenue codes	0235	Routine Charges-Hospice	Identify those that were seen in the ED and then admitted to internal hospice
Revenue codes	0115	Routine Charges-Hospice	Identify those that were seen in the ED and then admitted to internal hospice
Revenue codes	0233	Routine Charges-ICU	Identify those that were seen in the ED and then admitted to the ICU
Patient Status/Discharge Disposition	50	Hospice – Home	Identify those that were admitted and then discharged to an external hospice facility
Patient Status/Discharge Disposition	51	Hospice – Medical facility (certified) providing hospice-level care	Identify those that were admitted and then discharged to an external hospice facility
CPT codes	99291	Critical Care CPT codes	Identify those that had received intensive/critical care in the ED
CPT codes	99292	Critical Care CPT codes	Identify those that had received intensive/critical care in the ED
<i>* These fields represent parent codes for any revenue code beginning with the first three digits</i>			

SECTION 2: Requested Data Elements

Hospitals submitting data should provide data for opioid and ALTO administrations for the population and conditions listed in Table 1. Each administration of a medication of interest should be recorded.

Data Dictionary

Hospitals should submit a monthly report to CHA with the data elements shown in Table 4, extracted from the EMR.

Table 4. Data elements to be extracted from EMR and submitted monthly.		
Name	Data Type	Notes
Hospital_ID	Num	This is the standard three-digit hospital ID assigned by CHA for all Discharge Claims. Please contact the CHA data team for the ID number for your facility.
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 your facility (doesn't change between visits).
Admission_Date	Date	Format: MM/DD/YYYY. Date of admission into the emergency department.
Discharge_Date	Date	Format: MM/DD/YYYY. Date of discharge from the emergency department. If patient is admitted as inpatient, the admission date into the hospital should be used as the discharge date from the ED.
Admin_Date_Time	Date	Format: MM/DD/YYYY (hh:mm:00). The date and time (if available) of medication administration.
Medication	Char	Name of medication
Admin_route	Char	IV, PO, TD, IM, IN, etc.
Admin_dose	Num	Only mg, g, or mcg. (No Volumes)
Admin_unit	Char	

SECTION 3: Data Submission Requirements

CHA will analyze data submitted by hospitals on opioids and ALTOs *administered* in the ED during a patient visit, not data on opioid or ALTO *prescriptions* from the ED.

Data Sources:

Hospitals will submit medication reports from data extracted from EMRs, pharmacy data, and admissions data. Patient demographic information and total ED visit data will be extracted from the CHA Discharge Database, an administrative claims database maintained at CHA.

Data Management:

The CHA Data and Analytics team will reconcile the medication reports submitted by hospitals and the administrative claims data using the supplied Patient Account Number (PAN) and admission date. Patient-identifying information will be stripped to generate a deidentified record, which will then be assigned a record identification number.

File Format Requirements:

- Files will be sent to CHA every month in one of two formats: Microsoft Excel or delimited text files. Files must be named with the following format, using your facility's assigned ID and the year and month of data contained in the submission:

HospID_EMR_YYYYMM.xls

- Because 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:

HospID_EMR_YYYYMM_V2.xls

- For delimited text files, the preferred delimiter is the pipe ("|"). Comma and tab-delimited files are acceptable but must be cleaned of those characters embedded in the actual data.
- The first line of the data set in each file must contain the column name. If possible, please use the field names in the data elements table below. If it is not possible to use these standardized names, whatever column names are used must remain consistent across each monthly data submission.

Expectations of Hospitals

Participating hospitals are expected to submit data on the **15th of each month** to ensure timely processing. All submissions must follow the format provided in this data manual, and errors in submission should be corrected in a timely fashion. By submitting data through the SharePoint site, participating members are attesting to the accuracy of data and endorsement by the organization. Finally, participating hospitals will need to work with CHA to confirm the validity and accuracy of measures prior to submission to HCPF.

Sample Data Submissions

Table 5. Acceptable Data Submission

Hospital_ID	Patient_Account_Number	Medical_Record_Number	Admission_Date	Discharge_Date	Admin_Date_Time	Medication	Admin Route	Admin Dose	Admin Unit
999	ABCD EF	A1B2C 3	01/01/202 0	01/03/202 0	01/01/2020(04:55:0 0)	Hydromorph one	IV	.2	mg
999	12345 6	789002	01/01/202 0	01/02/202 0	01/01/2020(20:23:0 0)	Ibuprofen	PO	200	mg

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

Table 6. Unacceptable Data Submission

Hospital_ID	Patient_Account_Number	Medical_Record_Number	Admission_Date	Discharge_Date	Admin_Date_Time	Medication	Admin Route	Admin Dose	Admin Unit
999	ABCDEF	A1B2C 3	01/01/202 0	01/03/202 0	01/01/2020 (:04:55:00) 01/01/2020 (:05:07:00)	Hydromorphone Hydromorphone	IV IV	.2 .3	mg mg
999	123456	78900 2	01/01/202 0	01/02/202 0	01/01/2020 (:20:23:00)	Hydrocodone	PO	2	mg

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

SECTION 4: Privacy and Data Security

CHA complies with the Privacy Rule, also known as the Standards for Privacy of Individually Identifiable Health Information, which are regulations 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, visit http://privacyruleandresearch.nih.gov/pdf/research_repositories_final.pdf.

The data repository will contain data about patient ED 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) such as dates of service to patients.

In addition to safe storage, the data will be safe during transmission. Hospitals will upload data files to a secure SharePoint site using this link:
<https://chadata.sharepoint.com/sites/htpmeasures/SitePages/Home.aspx>

Before uploading the file, please ensure that the correct file name format is used. If a file is being resubmitted, please use the following file name format:

HospID_EMR_YYYYMM_V4.xls

The latest submitted version will be used for the final data analysis. Hospitals should not email data files to CHA for processing.

For questions or concerns about the data manual submission process, contact ODHIN.Admin@cha.com.