Sickle Cell Disease

Measure 17: Appropriate Emergency Department Pain Management for Children with Sickle Cell Disease

Description

The percentage of children identified as having Sickle Cell Disease presenting to an emergency department during the measurement year with severe pain who had parenteral analgesic within 60 minutes following initial contact, and a pain assessment within 30 minutes following analgesic administration. A higher proportion indicates better performance as reflected by appropriate treatment.

Calculation

This measure requires medical record data and is calculated as two rates:

1. The percentage of children who had parenteral analgesic within 60 minutes following initial contact (Parenteral analgesic numerator divided by denominator).

2. The percentage of children who had a pain assessment within 30 minutes following analgesic administration (Pain assessment numerator divided by denominator).

Definitions

Intake period	January 1 to December 31 of the measurement year
Severe pain	On a 3 point scale, a score of 3; on a 5 point scale, a score of 4 or 5; on a 10 point scale, a score of 6 or higher.
Parenteral analgesic	See Table 17-A for a list of acceptable analgesics.
Pain Assessment	A pain assessment was performed within 30 minutes following analgesic administration (see Table 17-B). Assume that an institution uses the same pain scale over time.
Initial contact	Child's first presentation to emergency department staff. Use the earliest time stamp in the medical record.

Table 17-A: Parenteral analgesics

Drug Class	Prescription	
Cyclooxygenase Inhibitors [MoA], Decreased Prostaglandin Production [PE], Nonsteroidal Anti-inflammatory Compounds, Nonsteroidal Anti-inflammatory Drug [EPC]	• Diclofenac Epolamine	• Diclofenac Sodium
Cyclooxygenase Inhibitors [MoA], Nonsteroidal Anti-inflammatory Compounds, Nonsteroidal Anti-inflammatory Drug [EPC]	• Bromfenac Sodium • Ibuprofen • Indomethacin • Ketorolac Tromethamine • Nepafenac	• Flurbiprofen Sodium • Ibuprofen Lysine • Indomethacin Sodium • Meloxicam
Full opioid Agonists [MoA], opioid Agonist [EPC]	• Alfentanil Hydrochloride • Fentanyl Citrate • Meperidine Hydrochloride • Morphine • Morphine Sulfate • Remifentanil Hydrochloride • Sufentanil Citrate	• Fentanyl • Hydromorphone Hydrochloride • Methadone Hydrochloride • Morphine Hydrochloride • Oxymorphone Hydrochloride
Opioid Antagonist [EPC], opioid Antagonists [MoA]	• Naloxone Hydrochloride	
Opioid Antagonist [EPC], opioid Antagonists [MoA], Quaternary Ammonium Compounds	• Methylnaltrexone Bromide	
Partial opioid Agonist [EPC], Partial opioid Agonists [MoA]	• Buprenorphine	• Buprenorphine Hydrochloride
Partial opioid Agonist [EPC], Partial opioid Agonists [MoA], opioid Antagonist [EPC], opioid Antagonists [MoA]	• Buprenorphine Hydrochloride; Naloxone Hydrochloride	

Table 17-B: Pain assessments for children with sickle cell disease

Definitions	Procedure Code	Short Description	Long Description
Pain Assessment	709110	Emer treat of pain minor prp46	Emer treat of pain minor prp46
Pain Assessment	1125F	Amnt pain noted pain prsnt	Pain severity quantified; pain present (onc)1
Pain Assessment	1126F	Amnt pain noted none prsnt	Pain severity quantified; no pain present (onc)1
Pain Assessment	G8440	Pain assess f/u pln document	Documentation of pain assessment (including location, intensity and description) prior to initiation of treatment or documentation of the absence of pain as a result of assessment through discussion with the patient including the use of a standardized tool and a follow-up plan is documented
Pain Assessment	G8509	Pain assess no f/u pln doc	Documentation of pain assessment (including location, intensity and description) prior to initiation of treatment or documentation of the absence of pain as a result of assessment through discussion with the patient including the use of a standardized tool; no documentation of a follow-up plan, reason not specified
Pain Assessment	G8512	Pain sev quant present	Pain severity quantified; pain present
Pain Assessment	G8730	Pain doc pos and plan	Pain assessment documented as positive utilizing a standardized tool and a follow-up plan is documented
Pain Assessment	G8731	Pain neg no plan	Pain assessment documented as negative, no follow-up plan is required

Eligible Population

The determination of eligible population for this measure requires medical record data.

Ages Younger than eighteen years of age during measurement year.

Event/Diagnosis Diagnosed with sickle cell disease and presented to an emergency department with severe pain as documented in the medical record (see Table 17-C). All emergency department visits for severe pain during the measurement year qualify, even for events such as a broken arm.

NOTE: See exclusions noted below; there are several sickle cell variants that may be recorded under the 282.49 ICD-9 code that do not qualify for inclusion (see Table 17-D). Medical records for cases with ICD-9 code 282.49 should not be reviewed unless a diagnosis of Hb beta zero-thalassemia can be confirmed.

Table 17-C: Codes to Identify Sickle Cell Disease

Condition Name		
Hb beta zero-thalassemia	Hb F only	282.49
Hb SC-disease	Hb F,S,C	282.63, 282.64
Hb SS-disease (sickle cell anemia)	Hb F,S	282.6, 282.61, 282.62

Specification

Denominator The eligible population for the numerator is the number of children younger than 18 years of age with SCD presenting to the emergency department with severe pain during the measurement year.

Numerators

Parenteral Analgesic The eligible population for the numerator is the number of children younger than 18 years of age with SCD who presented to an ED with severe pain during the measurement year who had parenteral analgesic within 60 minutes following initial contact.

Pain Assessment The eligible population for the numerator is the number of children younger than 18 years of age with SCD who presented to an ED with severe pain during the measurement year who had a pain assessment within 30 minutes following analgesic administration.

Documentation in medical record must include, at a minimum, a note containing the time at which the parenteral analgesic was administered, and the time at which the pain assessment was performed.

Exclusions

- Oral pain medications
- Inpatient stays, outpatient visits, urgent care visits, acute care (evaluation and management) visits with primary care physician
- Ineligible pain assessment procedure codes (see Table 17-D).
- Children with diagnosis in the sampled medical record indicating one of the sickle cell disease variants listed in Table 17-E should not be included in the eligible population *unless* there is also a diagnosis for a sickle cell variant listed in Table 17-C.

Table 17-D: Excluded pain assessment procedure codes

Definitions			
Pain Assessment	G8441	No document of pain assess	No documentation of pain assessment (including location, intensity and description) prior to initiation of treatment
Pain Assessment	G8508	Pt inelig; pain asses no f/u	Documentation of pain assessment (including location, intensity and description) prior to initiation of treatment or documentation of the absence of pain as a result of assessment through discussion with the patient including the use of a standardized tool; no documentation of a follow-up plan, patient not eligible

Table 17-E: Excluded Sickle Cell Disease Diagnosis Codes

Condition Name		
Hb C beta-thalassemia	Hb F,C,A	282.49
Hb E beta-thalassemia	Hb F,E,A	282.49
Hb E-disease	Hb F,E	282.7
Hb SE-disease	Hb F,S,E	282.68, 282.69
Hb D-carrier	Hb F,A,D	282.7
Hb S (sickle)-carrier	Hb F,A,S	282.5