

## Transcranial Doppler Ultrasonography Screening among Children with Sickle Cell Anemia

### Description

The percentage of children ages 2 through 15 years old with sickle cell anemia (SCA; hemoglobin [Hb] SS or HbS $\beta_0$ -thalassemia) who received at least one transcranial Doppler ultrasonography (TCD) screening within the measurement year. A higher proportion indicates better performance as reflected by appropriate testing.

### Calculation

This measure requires administrative data and is calculated as the numerator divided by the denominator.

### Specification

**Denominator** The number of children ages 2 through 15 years with SCA within the measurement year.

**Numerator** The number of children ages 2 through 15 years with SCA who received at least one TCD screening within the measurement year.

### Definitions

**Intake period** January 1 of the measurement year through December 31 of the measurement year.

**TCD** Receipt of TCD screening is identified as the presence of at least one CPT code for TCD screening within the measurement year (Table 1).

### Eligible Population

**Ages** Children 24 months or older on January 1 of the measurement year but younger than 16 years on December 31 of the measurement year.

**Enrollment** Continuous enrollment during the measurement year, with no other form of health insurance for the entire measurement year.

**Diagnosis** **ICD-9:** Children with sickle cell anemia are identified as those with sickle cell anemia-related ICD-9-CM diagnosis codes on three or more separate healthcare encounters within the measurement year (Table 2).

**ICD-10:** Children with sickle cell anemia are identified as those with at least one outpatient visit with a sickle cell anemia-related or D571 ICD-10-CM diagnosis code within the measurement year (Tables 3a and 3b).

**Measure Tables:** These tables identify all codes necessary to implement the specification.

**Table 1. Transcranial Doppler Ultrasonography Screening CPT Codes**

Description	Code Type	Code
Complete study	CPT	93886
Limited study	CPT	93888
Vasoreactivity study	CPT	93890
Emboli detection without intravenous microbubble injection	CPT	93892
Emboli detection with intravenous microbubble injection	CPT	93893

**Table 2. ICD-9-CM Diagnosis Codes for Identification of Denominator Population**

Description	Code Type	Code
Hb-SS disease without crisis	ICD-9-CM	282.61
Hb-SS disease with crisis	ICD-9-CM	282.62

**Table 3a. ICD-10-CM Diagnosis Codes for Identification of Denominator Population**

Description	Code Type	Code
Hb-SS disease with crisis, unspecified	ICD-10-CM	D5700
Hb-SS disease with acute chest syndrome	ICD-10-CM	D5701
Hb-SS disease with splenic sequestration	ICD-10-CM	D5702
Sickle-cell disease without crisis	ICD-10-CM	D571

**Table 3b. Outpatient Visit Codes**

<b>Code Type</b>	<b>Codes</b>				
CPT	99201	99202	99203	99204	99205
	99211	99212	99213	99214	99215
	99241	99242	99243	99244	99245
	99341	99342	99343	99344	99345
	99347	99348	99349	99350	99381
	99382	99383	99384	99385	99386
	99387	99391	99392	99393	99394
	99395	99396	99397	99401	99402
	99403	99404	99411	99412	99420
	99429	99455	99456	99461	
HCPCS	G0402	G0438	G0439	G0463	T1015
UBREV	0510	0511	0512	0513	0514
	0515	0516	0517	0519	0520
	0521	0522	0523	0526	0527
	0528	0529	0982	0983	
ICD10-CM	Z00.00	Z00.01	Z00.110	Z00.111	Z00.121
	Z00.129	Z00.5	Z00.8	Z02.0	Z02.1
	Z02.2	Z02.3	Z02.4	Z02.5	Z02.6
	Z02.71	Z02.79	Z02.81	Z02.82	Z02.83
	Z02.89	Z02.9			