

## Overuse of Imaging

### **Measure 1: Overuse of Imaging for the Evaluation of Children with Simple Febrile Seizure**

#### **Description**

This measure assesses the percentage of children, ages 6 months through 4 years, diagnosed with simple febrile seizure, who are evaluated with imaging of the head (computed tomography [CT] or magnetic resonance imaging [MRI]) without indications for neuroimaging, including lumbar puncture and complex febrile seizure. The simple febrile seizure must be diagnosed on the day of or within 30 days of imaging. A lower percentage indicates better performance, as reflected by avoiding imaging when it is not indicated.

#### **Calculation**

This measure of imaging overuse requires administrative and medical record data and is calculated as a percentage as follows:

The number of children diagnosed with simple febrile seizure who are evaluated with imaging of the head (CT or MRI) without indication for neuroimaging divided by the number of eligible children with simple febrile seizure (numerator divided by denominator times 100%).

#### **Eligible Population**

The determination of the eligible population for this measure requires administrative and medical record.

<b>Ages</b>	Children at least 6 months old on January 1 of the measurement year but younger than 5 years on December 31 of the measurement year.
<b>Enrollment</b>	Eligible children must be continuously enrolled in their same health plan during the measurement year, January 1 through December 31, and the year prior to the measurement year. Children younger than 2 years during the measurement year must be continuously enrolled from birth through the end of the measurement year.
<b>Event/Diagnosis</b>	Imaging studies of the head (CT or MRI; Table IMG1) for the evaluation of simple febrile seizure (ICD-9-CM Code 780.31 from Table IMG2) occurring on the day of or up to 30 days prior to imaging. (Note, IMG tables begin on page 47.)

## Specification

<b>Denominator</b>	The number of eligible children diagnosed with simple febrile seizure.
<b>Numerator</b>	The number of eligible children diagnosed with simple febrile seizure who are evaluated with imaging of the head without indications for neuroimaging; CT or MRI was obtained within 30 days of the simple febrile seizure diagnosis.

## Exclusions

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### Denominator Exclusions

- Exclusions based on ICD-9-CM codes captured in administrative claims data:
  - Afebrile seizure (Table IMG2) on the day of or within the 365 days before the first simple febrile seizure in the measurement year
  - Medical conditions that would warrant imaging on the day of or within the 365 days before the simple febrile seizure (Tables IMG4-IMG9)
  - Lack of expected normal physiological development (ICD-9-CM code 783.40) or delayed milestones (ICD-9-CM code 783.42) within the 365 days before the simple febrile seizure (Table IMG2)
  - Signs or symptoms of increased intracranial pressure (Table IMG11) between the date of simple febrile seizure diagnosis and imaging study
- Exclusions based on clinical documentation:
  - Afebrile seizure
  - Medical conditions that would warrant imaging
  - Developmental delay, lack of normal physiological development, or delayed milestones
  - Family history of seizures
  - Signs or symptoms of increased intracranial pressure
  - Abnormal neurologic exam between the time of diagnosis and the time of imaging (indications include references to alertness, facial and extremity muscle movements, sensation, etc.)
  - Neurologic exam NOT documented between the time of diagnosis and the time of imaging

### **Numerator Exclusions**

- Exclusions based on clinical documentation:
  - *Complex* febrile seizure
  - Lumbar puncture (spinal tap)

