

# PEDIATRIC SEIZURES



October 2011

Quality Improvement Resources



**Illinois EMSC**  
**Pediatric Simple Febrile Seizure**  
**Data Dictionary**  
**Confidential – for QI purposes only**

**AIM Statement:**

To provide safe and effective care for pediatric patients (6 months  $\leq$  5 years) presenting to the Emergency Department with simple febrile seizure activity as evidenced by:

- Appropriate Assessment
- Appropriate Management
- Appropriate Disposition & Education

**REVIEW THE PATIENT'S ENTIRE ED MEDICAL RECORD TO COLLECT THE NECESSARY DATA (i.e., BOTH MD AND RN NOTES)**

**Record Sampling:**

- Review a maximum of 10 patients treated in your ED that meet the inclusion criteria
- Timeframe: January 2010 – present.

**Inclusion Criteria:**

Each patient must meet the following inclusion criteria:

1. Age: between 6 months  $\leq$  5 years
2. Presenting Complaint – any child that presents with seizure activity that fits the following definition:
  - a. seizure accompanied by fever (before, during or after) without CNS infection (i.e., meningitis, encephalitis)
  - b. duration less than 15 minutes, and without recurrence within the next 24 hours
  - c. *Exclude: Meningitis, Encephalitis, Shunt-related, Complex Febrile Seizure, Neonatal Seizure, Infantile Spasms, Unprovoked, Status Epilepticus*

\*\*Suggested ICD-9 Codes:

- 780.0 – Alteration of consciousness
- 780.3 – Convulsions
- 780.31 – Febrile convulsions
- 780.39 – Other convulsions
- 780.6 – Fever
- 780.61 – Fever presenting with conditions classified elsewhere
- 780.97 – Altered mental status
- 382.0 – Acute suppurative otitis media
- 382.9 – Unspecified otitis media
- 079.99 – Unspecified viral infection

\*\*Ask your Medical Record and/or Quality Departments for help in identifying appropriate patients\*\*

**Answer the questions using the following acronyms (unless otherwise directed):**

Y = Yes

N/D = Not Documented/Unknown

N = No

N/A = Not Applicable

### **Status & Arrival:**

1. What was the patient's mode of arrival?
  - Prehospital (P) = transported by EMS from the scene (**go to Q.2**)
  - Transfer (T) = transported from one acute care facility to another acute care facility (**skip to Q.3**)
  - Walk- in (W) = brought in by family/caregiver; as a referral from an urgent care center, doctor's office, etc. (**skip to Q.3**)
  
2. What level of prehospital service was used? *Choose N/A if child was Transferred or was a Walk-in.*
  - BLS
  - ALS/ILS
  - 2a. Was the child's airway controlled appropriately?
  - 2b. Was the child's neurologic status assessed?
  - 2c. Was the child's blood glucose level checked?
  - 2d. Was a description of the seizure documented (for example: who witnessed seizure, what did the seizure look like, how long did it last, how was the child acting right before seizure, how was the child acting the day before, etc.)?

### **Initial ED Assessment:**

3. Age of child (in months or years)
4. Was the child actively seizing upon arrival to the ED?
5. Was the neurologic status assessed?
6. Was blood glucose checked? *Choose N/A if blood glucose was checked prehospital.*
7. Was full medical and seizure history documented (for example: medications given prior to arrival to treat fever, child/family seizure hx, antibiotic/antiepileptic medication hx, immunization status, hx of incontinence, last feeding/meal, recent hx of trauma, underlying health problems, surgical hx, recent ingestion, recent exposure, child's baseline status, age-related assessments, bruising, bites, etc.)?
8. Was a description of seizure documented (for example: who witnessed seizure, what did the seizure look like, how long did it last, how was the child acting right before seizure, how was the child acting the day before, etc.)?
9. Was an assessment performed to identify the source of the fever (for example: OM, UTI, URI, GI, etc.)?

### **ED Management:**

10. Was the child's airway controlled appropriately?
11. Was a LP performed?

12. Was a head CT performed while child was in the ED?
13. If the child was febrile in the ED (temp.  $\geq 100.4\text{F}/38.0\text{C}$ ), was an antipyretic administered? *Choose N/A if parent/caregiver gave antipyretic prior to arrival OR if patient no longer febrile.*
14. If child was actively seizing, was an anticonvulsant administered? *Choose N/A if child was not actively seizing*
- 14a. If yes, was it administered within 15 minutes of child's arrival?

**Disposition/Discharge:**

15. Was the child's neurologic status reassessed before disposition?
16. Was the child's temperature reassessed prior to discharge?
17. What was the child's disposition from the ED?
- Transferred (T) = transferred to a higher level of care (**answer Q.17a**)
  - PICU Admission (P) = admitted to PICU/ICU (*in same hospital*)
  - Intermediate Care Admission (I) = admitted to an intermediate care bed (*in same hospital*)
  - General Admission (F) = admitted to a general care floor (*in same hospital*)
  - Observed (O) = admitted to an observation unit/general floor and/or observed in the ED for  $\leq 23$  hours (*in same hospital*)
  - Home (H) = discharged home after a brief period of observation ( $\leq 6$  hours) (**answer Q.18 - 24**)
  - Expired (E) = expired in the ED
- 17a. If transferred, what level/type of patient transport service was used?
- Speciality/Transport Team (S)
  - ALS/ILS (A)
  - ALS/ILS (with nurse) (A/n)
  - BLS (B)
  - BLS (with nurse) (B/n)
  - Private vehicle (PV)
18. Was an outpatient EEG ordered upon discharge from the ED? *Choose N/A if child was transferred or if hospital policy does not require EEG.*
19. Was rectal diazepam prescribed in the ED for home use? *Choose N/A if already prescribed or if the child was transferred.*
20. Was an oral antiepileptic drug (for example: phenobarbital, phenytoin, valproate, etc.) prescribed in the ED for home use? *Choose N/A if already prescribed or if the child was transferred.*
21. Did the child/family receive pediatric seizure patient education prior to discharge? *Choose N/A if child was transferred.*

22. Did the child/family receive pediatric fever management education prior to discharge?  
*Choose N/A if child was transferred.*
23. Was the child/family instructed to follow up with a Primary Care Physician? *Choose N/A if child was transferred.*
24. Was the child/family instructed to follow up with a Neurologist? *Choose N/A if child was transferred.*

# Simple Febrile Seizures Record Review Tool

Record Number: \_\_\_\_\_

<b>1. What was the patient's mode of arrival?</b> ___Prehospital    ___Transfer    ___Walk in	
<b>2. If prehospital arrival, what level of prehospital service was used?</b> ___BLS            ___ALS/ILS	
<b>2a. If prehospital arrival, was the child's airway controlled appropriately?</b> ___Yes    ___No    ___N/D    ___N/A	<b>2b. If prehospital arrival, was the child's neurologic status assessed?</b> ___Yes    ___No    ___N/D    ___N/A
<b>2c. If prehospital arrival, was the child's blood glucose level checked?</b> ___Yes    ___No    ___N/D    ___N/A	<b>2d. If prehospital arrival, was a description of the seizure documented</b> (for example: who witnessed seizure, what did the seizure look like, how long did it last, how was the child acting right before seizure, how was the child acting the day before, etc.)? ___Yes    ___No    ___N/D    ___N/A
<b>3. Age (if &lt; 1yr, enter months)</b> Years: _____ Months: _____	<b>4. Was the child actively seizing upon arrival to the ED?</b> ___Yes    ___No    ___N/D    ___N/A
<b>5. Was the neurologic status assessed?</b> ___Yes    ___No    ___N/D    ___N/A	<b>6. Was blood glucose checked? Choose N/A if blood glucose was checked prehospital.</b> ___Yes    ___No    ___N/D    ___N/A
<b>7. Was full medical and seizure history documented</b> (for example: medications given prior to arrival to treat fever, child/family seizure hx, antibiotic/antiepileptic medication hx, immunization status, hx of incontinence, last feeding/meal, recent hx of trauma, underlying health problems, surgical hx, recent ingestion, recent exposure, child's baseline status, age-related assessments, bruising, bites, etc.)? ___Yes    ___No    ___N/D    ___N/A	<b>8. Was a description of seizure documented</b> (for example: who witnessed seizure, what did the seizure look like, how long did it last, how was the child acting right before seizure, how was the child acting the day before, etc.)? ___Yes    ___No    ___N/D    ___N/A
<b>9. Was an assessment performed to identify the source of the fever</b> (for example: OM, UTI, URI, GI, etc.)? ___Yes    ___No    ___N/D    ___N/A	<b>10. Was the child's airway controlled appropriately?</b> ___Yes    ___No    ___N/D    ___N/A
<b>11. Was a LP performed?</b> ___Yes    ___No    ___N/D    ___N/A	<b>12. Was a head CT performed while child was in the ED?</b> ___Yes    ___No    ___N/D    ___N/A

<p><b>13. If the child was febrile in the ED (temp. greater than or equal to 100.4F/38.0C), was an antipyretic administered? Choose N/A if parent/caregiver gave antipyretic prior to arrival OR if patient no longer febrile.</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>	<p><b>14. If child was actively seizing, was an anticonvulsant administered? Choose N/A if child was not actively seizing</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>
<p><b>14a. If anticonvulsant administered, was it administered within 15 minutes of child's arrival?</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>	
<p><b>15. Was the child's neurologic status reassessed before disposition?</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>	<p><b>16. Was the child's temperature reassessed prior to discharge?</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>
<p><b>17. What was child's disposition from the ED?</b></p> <p><input type="checkbox"/> Transferred   <input type="checkbox"/> Intermediate Care Admission   <input type="checkbox"/> Observed   <input type="checkbox"/> Expired</p> <p><input type="checkbox"/> PICU Admission   <input type="checkbox"/> General Admission   <input type="checkbox"/> Home</p>	
<p><b>17a. If transferred, what level/type of patient transport service was used?</b></p> <p><input type="checkbox"/> Specialty/Transport Team   <input type="checkbox"/> ALS/ILS (with nurse)   <input type="checkbox"/> BLS (with nurse)   <input type="checkbox"/> Private vehicle</p> <p><input type="checkbox"/> ALS/ILS   <input type="checkbox"/> BLS</p>	
<p><b>18. If the patient was discharged home, was an outpatient EEG ordered upon discharge from the ED? Choose N/A if hospital policy does not require EEG.</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>	<p><b>19. If the patient was discharged home, was rectal diazepam prescribed in the ED for home use? Choose N/A if already prescribed.</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>
<p><b>20. If the patient was discharged home, was an oral antiepileptic drug (for example: phenobarbital, phenytoin, valproate, etc.) prescribed in the ED for home use? Choose N/A if already prescribed.</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>	<p><b>21. If the patient was discharged home, did the child/family receive pediatric seizure patient education prior to discharge?</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>
<p><b>22. If the patient was discharged home, did the child/family receive pediatric fever management education prior to discharge?</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>	<p><b>23. If the patient was discharged home, was the child/family instructed to follow up with a Primary Care Physician?</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>
<p><b>24. If the patient was discharged home, was the child/family instructed to follow up with a Neurologist?</b></p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No   <input type="checkbox"/> N/D   <input type="checkbox"/> N/A</p>	

**Illinois EMSC**  
**Pediatric Unprovoked Seizure/Status Epilepticus**  
**Data Dictionary**  
**Confidential – for QI purposes only**

**AIM Statement:**

To provide safe and effective care for pediatric patients (1 month  $\leq$  15 years) presenting to the Emergency Department with seizure activity (unprovoked/nonfebrile or status epilepticus) as evidenced by:

- Appropriate Assessment
- Appropriate Management
- Appropriate Disposition & Education

**REVIEW THE PATIENT'S ENTIRE ED MEDICAL RECORD TO COLLECT THE NECESSARY DATA (i.e., BOTH MD AND RN NOTES)**

**Record Sampling:**

- Review a maximum of 10 patients that meet the inclusion criteria
  - o Can include same patient with multiple visits
- Timeframe: January 2010 – present.

**Inclusion Criteria:**

Each patient must meet the following inclusion criteria:

1. Age: 1 month  $\leq$  15 years
2. Presenting Complaint – any child that presents with seizure activity that fits either of the following definitions:
  - **Status Epilepticus:** condition in which epileptic activity persists (with prolonged or repeated seizures without intervals of consciousness) causing a wide spectrum of clinical symptoms, and with a highly variable pathophysiological, anatomical, and aetiological basis.
  - **Unprovoked:** seizure that does not require an immediate precipitating event; occurrence suggests possible underlying neurologic disorder that may predispose a child to recurrent seizures.
  - *Exclude: Neonatal Seizure, Infantile Spasms, Simple Febrile Seizure*

\*\*Suggested ICD-9 Codes:

- 345 to 345.5 – Epilepsy
- 345.9 – Epilepsy unspecified
- 780.0 – Alteration of consciousness
- 780.3 – Convulsions
- 780.39 – Other convulsions
- 780.97 – Altered mental status

\*\*Ask your Medical Record and/or Quality Departments for help in identifying appropriate patients\*\*

**Answer the questions using the following acronyms (unless otherwise directed):**

Y = Yes

N/D = Not Documented/Unknown

N = No

N/A = Not Applicable



### **Status & Arrival:**

1. Was the seizure related to a traumatic event?
2. What was the patient's mode of arrival?
  - Prehospital (P) = transported by EMS from the scene (**go to Q.3**)
  - Transfer (T) = transported from one acute care facility to another acute care facility (**skip to Q.5**)
  - Walk-in (W) = brought in by family/caregiver; as a referral from an urgent care center, doctor's office, etc. (**skip to Q.5**)
3. Was the child actively seizing at scene upon EMS arrival?
4. What level of prehospital service was used? *Choose N/A if child was Transferred or was a Walk-in.*
  - BLS (**answer Q.4a-e**)
  - ALS/ILS (**answer Q.4a-f**)
- 4a. All levels: Was the child's airway controlled appropriately?
- 4b. All levels: Was the child's neurologic status assessed?
- 4c. All levels: Was the child's blood glucose level checked?
- 4d. All levels: Was the child and/or family's seizure history documented (for example: child/family seizure hx, previously treated with anticonvulsant, etc.)? *Choose N/A if child had no previous history of seizures*
- 4e. All levels: Was a description of the seizure documented (for example: who witnessed seizure, what did the seizure look like, how long did it last, how was the child acting right before seizure, how was the child acting the day before, etc.)?
- 4f. ALS/ILS: If child was actively seizing, was an anticonvulsant administered by prehospital provider? *Choose N/A if child was not actively seizing OR if parent/caregiver administered anticonvulsant prior to EMS arrival.*

### **Initial ED Assessment:**

5. Age of child (in months or years)
6. Was the child actively seizing upon arrival to the ED?
7. Was the neurologic status assessed?
8. Was full medical and seizure history documented (for example: child/family seizure hx, antibiotic/antiepileptic medication hx, medications given prior to arrival, immunization status, hx of incontinence, recent hx of trauma, last feeding/meal, underlying health problems, surgical hx, recent ingestion, recent exposure, patient's baseline status, age-related assessments, bruising, bites, etc.)?

9. Was a description of the seizure documented (for example: who witnessed the seizure, what did the seizure look like, how long did it last, how was the child acting right before seizure, how was the child acting the day before, etc.)?
10. Was a full physical examination performed (for example: vital signs; head to toe; look for bruises, bites, exposure, etc.)?
11. Were labs ordered specific to the presenting history (per hospital guideline such as: CBC, electrolytes, accucheck, blood gases, urine tox screen, antiepileptic drug level, etc.)?

**ED Management:**

12. Was the child's airway controlled appropriately?
13. Was an IV/IO started?
14. Was a head CT and/or MRI performed while child was in the ED?
15. If child was actively seizing, was an anticonvulsant administered? *Choose N/A if child was not actively seizing*
  - 15a. If yes, was it administered within 15 minutes of child's arrival?
16. Were seizure precautions taken (per policy)? *Choose N/A if not required per policy.*

**Disposition/Discharge:**

17. Was the child's neurologic status reassessed before disposition?
18. What was the child's disposition from the ED?
  - Transferred (T) = transferred to a higher level of care (**answer Q.18a**)
  - PICU Admission (P) = admitted to PICU/ICU (*in same hospital*)
  - Intermediate Care Admission (I) = admitted to an intermediate care bed (*in same hospital*)
  - General Admission (F) = admitted to a general care floor (*in same hospital*)
  - Observed (O) = admitted to an observation unit/general floor and/or observed in the ED for  $\leq 23$  hours (*in same hospital*)
  - Home (H) = discharged home after a brief period of observation ( $\leq 6$  hours) (**answer Q.19 - 23**)
  - Expired (E) = expired in the ED
- 18a. If transferred, what level/type of patient transport service was used?
  - Speciality/Transport Team (S)
  - ALS/ILS (A)
  - ALS/ILS (with nurse) (A/n)
  - BLS (B)
  - BLS (with nurse) (B/n)
  - Private vehicle (PV)

19. Was rectal diazepam prescribed in the ED for home use? *Choose N/A if already prescribed or if the child was transferred.*
20. Was an oral antiepileptic drug (for example: phenobarbital, phenytoin, valproate, etc.) prescribed in the ED for home use? *Choose N/A if already prescribed or if the child was transferred.*
21. Was pediatric seizure patient education initiated in the ED? *Choose N/A if child was transferred.*
22. Was the child/family instructed to follow up with a Primary Care Physician? *Choose N/A if child was transferred.*
23. Was the child/family instructed to follow up with a Neurologist? *Choose N/A if child was transferred.*

# Unprovoked Seizures and Status Epilepticus Record Review Tool

Record Number: \_\_\_\_\_

<p><b>1. Was the seizure related to a traumatic event?</b>  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>	<p><b>2. What was the patient's mode of arrival?</b>  <input type="checkbox"/> Prehospital    <input type="checkbox"/> Transfer    <input type="checkbox"/> Walk in</p>
<p><b>3. If prehospital arrival, was the child actively seizing at the scene upon EMS arrival?</b>  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>	<p><b>4. If prehospital arrival, what level of prehospital service was used?</b>  <input type="checkbox"/> BLS    <input type="checkbox"/> ALS/ILS</p>
<p><b>4a. If prehospital arrival, for all levels of care: Was the child's airway controlled appropriately?</b>  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>	<p><b>4b. If prehospital arrival, for all levels of care: Was the child's neurologic status assessed?</b>  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>
<p><b>4c. If prehospital arrival, for all levels of care: Was the child's blood glucose level checked?</b>  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>	<p><b>4d. If prehospital arrival, for all levels of care: Was the child and/or family's seizure history documented</b> (for example: child/family seizure hx, previously treated with anticonvulsant, etc.)? <b>Choose N/A if child had no previous history of seizures</b>  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>
<p><b>4e. If prehospital arrival, for all levels of care: Was a description of the seizure documented</b> (for example: who witnessed seizure, what did the seizure look like, how long did it last, how was the child acting right before seizure, how was the child acting the day before, etc.)?  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>	
<p><b>4f. If prehospital arrival, ALS/ILS level only: If child was actively seizing, was an anticonvulsant administered by prehospital provider? Choose N/A if child was not actively seizing OR if parent/caregiver administered anticonvulsant prior to EMS arrival.</b>  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>	
<p><b>5. Age of child (if &lt; 1yr, enter months)</b>          Years: _____          Months: _____</p>	<p><b>6. Was the child actively seizing upon arrival to the ED?</b>  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>
<p><b>7. Was the neurologic status assessed?</b>  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>	<p><b>8. Was full medical and seizure history documented</b> (for example: child/family seizure hx, antibiotic/antiepileptic medication hx, medications given prior to arrival, immunization status, hx of incontinence, recent hx of trauma, last feeding/meal, underlying health problems, surgical hx, recent ingestion, recent exposure, patient's baseline status, age-related assessments, bruising, bites, etc.)?  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>
<p><b>9. Was a description of the seizure documented</b> (for example: who witnessed the seizure, what did the seizure look like, how long did it last, how was the child acting right before seizure, how was the child</p>	<p><b>10. Was a full physical examination performed</b> (for example: vital signs; head to toe; look for bruises, bites, exposure, etc.)?  <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/D    <input type="checkbox"/> N/A</p>

acting the day before, etc.)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A	
<b>11. Were labs ordered specific to the presenting history</b> (per hospital guideline such as: CBC, electrolytes, accucheck, blood gases, urine tox screen, antiepileptic drug level, etc.)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A	<b>12. Was the child's airway controlled appropriately?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A
<b>13. Was an IV/IO started?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A	<b>14. Was a head CT and/or MRI performed while child was in the ED?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A
<b>15. If child was actively seizing, was an anticonvulsant administered? Choose N/A if child was not actively seizing</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A	
<b>15a. If an anticonvulsant was administered, was it administered within 15 minutes of child's arrival?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A	
<b>16. Were seizure precautions taken</b> (per policy)? <b>Choose N/A if not required per policy.</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A	<b>17. Was the child's neurologic status reassessed before disposition?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A
<b>18. What was child's disposition from the ED?</b> <input type="checkbox"/> Transferred <input type="checkbox"/> Intermediate Care Admission <input type="checkbox"/> Observed <input type="checkbox"/> Expired <input type="checkbox"/> PICU Admission <input type="checkbox"/> General Admission <input type="checkbox"/> Home	
<b>18a. If transferred, what level/type of patient transport service was used?</b> <input type="checkbox"/> Specialty/Transport Team <input type="checkbox"/> ALS/ILS (with nurse) <input type="checkbox"/> BLS (with nurse) <input type="checkbox"/> Private vehicle <input type="checkbox"/> ALS/ILS <input type="checkbox"/> BLS	
<b>19. If the patient was discharged home, was rectal diazepam prescribed in the ED for home use?</b> <b>Choose N/A if already prescribed.</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A	<b>20. If the patient was discharged home, was an oral antiepileptic drug</b> (for example: phenobarbital, phenytoin, valproate, etc.) <b>prescribed in the ED for home use? Choose N/A if already prescribed.</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A
<b>21. If the patient was discharged home, was pediatric seizure patient education initiated in the ED?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A	
<b>22. If the patient was discharged home, was the child/family instructed to follow up with a Primary Care Physician?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A	<b>23. If the patient was discharged home, was the child/family instructed to follow up with a Neurologist?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/D <input type="checkbox"/> N/A

# Illinois EMSC Pediatric Seizure Emergency Department (ED) Survey

Job Title of Survey Respondent(s) *Check all that apply*

- Pediatric Quality Coordinator
- ED Medical Director
- ED Nurse Manager
- ED Staff Nurse
- ED Physician
- ED Educator
- Hospital QI/QA Manager
- Seizure/Neuro Educator
- Pediatric Neurologist
- Chief/staff Department of Neurology
- Chief of Staff
- Other \_\_\_\_\_

## Definitions

**Seizure:** abnormal paroxysmal neuronal discharge associated with motor, sensory, autonomic, or behavioral alterations.

**Simple Febrile:** seizure accompanied by fever (before, during or after) without CNS infection (i.e., meningitis, encephalitis); duration less than 15 minutes, and without recurrence within the next 24 hours.

**Unprovoked:** seizure that does not require an immediate precipitating event; occurrence suggests possible underlying neurologic disorder that may predispose a child to recurrent seizures.

**Status Epilepticus:** condition in which epileptic activity persists (with prolonged or repeated seizures without intervals of consciousness) causing a wide spectrum of clinical symptoms, and with a highly variable pathophysiological, anatomical, and aetiological basis.

1. How does your emergency department define the pediatric population? *Check one answer only*

<input type="checkbox"/>	0 through 12 years old	<input type="checkbox"/>	0 through 18 years old
<input type="checkbox"/>	0 through 13 years old	<input type="checkbox"/>	0 through 19 years old
<input type="checkbox"/>	0 through 14 years old	<input type="checkbox"/>	0 through 20 years old
<input type="checkbox"/>	0 through 15 years old	<input type="checkbox"/>	0 through 21 years old
<input type="checkbox"/>	0 through 16 years old	<input type="checkbox"/>	Not defined specifically
<input type="checkbox"/>	0 through 17 years old	<input type="checkbox"/>	Other

2. What is the average volume of pediatric (defined as 0 through 15 years old) ED visits per year in your facility? *Check one answer only*

<input type="checkbox"/>	0 – 2,000/year	<input type="checkbox"/>	7,001 – 9,000/year
<input type="checkbox"/>	2,001 – 3,000/year	<input type="checkbox"/>	9,001 – 11,000/year
<input type="checkbox"/>	3,001 – 5,000/year	<input type="checkbox"/>	11,001 – 13,000/year
<input type="checkbox"/>	5,001 – 6,000/year	<input type="checkbox"/>	13,001 – 15,000/year
<input type="checkbox"/>	6,001 – 7,000/year	<input type="checkbox"/>	15,001+/year

3. What is the average volume of ALL patient (adult and pediatric) ED visits per year in your facility? *Check one answer only*

<input type="checkbox"/>	0 – 4,000/year	<input type="checkbox"/>	40,001 – 50,000/year
<input type="checkbox"/>	4,001 – 10,000/year	<input type="checkbox"/>	50,001 – 60,000/year
<input type="checkbox"/>	10,001 – 20,000/year	<input type="checkbox"/>	60,001 – 70,000/year
<input type="checkbox"/>	20,001 – 30,000/year	<input type="checkbox"/>	70,001 – 80,000/year
<input type="checkbox"/>	30,001 – 40,000/year	<input type="checkbox"/>	80,001+/year

4. Does your ED have a documented protocol/policy/guideline/clinical pathway **that addresses the clinical management of seizures (e.g., Seizure, Altered Level of Consciousness, Fever)**?
- Yes (answer Q.4a)
  - No (go to Q.5)
- 4a. Does your ED's protocol/policy/guideline/clinical pathway specifically address pediatrics?
- Yes
  - No
5. Does your ED have a documented **Status Epilepticus** protocol/policy/guideline/clinical pathway?
- Yes (answer Q.5a)
  - No (go to Q.6)
- 5a. Does your ED's **Status Epilepticus** protocol/policy/guideline/clinical pathway specifically address pediatrics?
- Yes
  - No
6. What laboratory and radiologic measure(s) does your ED routinely require for the management of **Simple Febrile Seizures (SFS)**? *Check all that apply*

<b>Laboratory Evaluation</b>	<b>SFS</b>
a. CBC with differential	0
b. Blood cultures	0
c. Blood glucose	0
d. Urinalysis	0
e. Urine culture	0
f. Electrolytes (Ca, Mg, Phos)	0
g. Strep/RSV swab	0
h. BUN and Creatinine	0
i. Lumbar puncture	0
j. Chest x-ray	0
k. Head CT	0
l. EEG	0
m. MRI/MRA	0
n. EKG	0
o. None	0
Other _____	

7. What documentation does your ED routinely require for the management of **Simple Febrile Seizures**? *Check all that apply*

Documentation	SFS
a. Respiratory status	0
b. Cardiovascular status	0
c. Neurologic status	0
d. Signs of infection (OM, UTI, URI, GI, etc.)	0
e. Description of presenting seizure	0
f. Immunization history/status	0
g. Previous seizure activity	0
h. Medication history (include antibiotics)	0
i. Medical/surgical history	0
j. Exposure or ingestion history	0
k. Familial history of seizure	0
l. None	0
Other _____	

8. For **Simple Febrile Seizure** patients, what are your ED's criteria for doing an LP? *Check all that apply*

- Based on child's age (e.g., every child under 12 months)
- Based on clinical presentation (signs/symptoms of meningitis/bacteremia; child looks "toxic")
- Based on child's immunization status (unknown or deficient in *H. influenzae* and *S. pneumoniae* immunizations)
- Based on if child has/had been previously/recently treated with antibiotics
- Per physician decision (no set criteria)
- LPs are *not* done on patients presenting with simple febrile seizures
- I don't know
- Other \_\_\_\_\_

9. For patients presenting with **First Unprovoked/Non-febrile Seizures**, what tests are routinely conducted in the ED? *Check all that apply*

- Head CT
- EEG
- MRI/MRA
- EKG
- None
- Other \_\_\_\_\_



10. What laboratory and radiologic measure(s) does your ED routinely require for the management of **Status Epilepticus**? *Check all that apply*

Laboratory Evaluation	Status Epilepticus
a. CBC with differential	0
b. Blood cultures	0
c. Blood gases	0
d. Blood glucose	0
e. Urinalysis	0
f. Electrolytes (Ca, Mg, Phos)	0
g. Urine drug/tox screen	0
h. BUN and Creatinine	0
i. Antiepileptic drug level (as indicated)	0
j. Urine HCG (age-appropriate)	0
k. Lumbar puncture	0
l. Head CT	0
m. EEG	0
n. MRI/MRA	0
o. EKG	0
p. None	0
Other _____	

11. What documentation does your ED routinely require for the management of **Status Epilepticus**? *Check all that apply*

Documentation	Status Epilepticus
a. Respiratory status	0
b. Cardiovascular status	0
c. Neurologic status	0
d. Description of presenting seizure	0
e. Immunization history/status	0
f. Previous seizure activity	0
g. Medication history (include anti-epileptic drug)	0
h. Medical/surgical history	0
i. Exposure or ingestion history	0
j. Familial history of seizure	0
k. Seizure precautions	0
l. None	0
Other _____	

12. How frequently is an antiepileptic drug prescribed for a pediatric ED patient presenting in **Status Epilepticus** (exclude refilling previously ordered medications)? *Check all that apply*

- For every patient
- Less than 50% of the time
- Less than 25% of the time
- Per ED Physician decision
- Per Neurologist decision
- I don't know
- Never
- Other \_\_\_\_\_

13. What neurology services does your hospital provide on site? *Check all that apply*
- Pediatric Neurologist – at all times (24/7)
  - Pediatric Neurologist – limited coverage
  - Adult Neurologist with pediatric privileges – at all times (24/7)
  - Adult Neurologist with pediatric privileges – limited coverage
  - Adult Neurologist (provides no/minimal pediatric consultation services) – at all times (24/7)
  - Adult Neurologist (provides no/minimal pediatric consultation services) – limited coverage
  - None
  - Other \_\_\_\_\_

14. Typically, who provides the seizure-related patient/parent education prior to discharge from the ED? *Check all that apply*
- Treating physician
  - Primary nurse
  - Nurse educator
  - Neurologist
  - Hospitalist
  - No hospital staff
  - Other \_\_\_\_\_

15. What component(s) are included on your ED’s seizure discharge instructions/patient education **Simple Febrile Seizure**? *Check all that apply*

Education	Simple Febrile
a. Explanation of febrile seizure	0
b. What to do if another seizure occurs	0
c. When to return to ED/call 911	0
d. Provide reassurance (benign nature, doesn’t lead to neuro problems, etc.)	0
e. Fever management	0
f. Review risk of reoccurrence	0
g. Conduct medication reconciliation	0
h. Review seizure precautions	0
i. Primary Care Physician referral	0
j. Neurology referral	0
k. None	0
Other _____	

16. In the past year, has your ED staff received education related to pediatric seizure disorders?
- Yes
  - No

17. Does your hospital conduct chart reviews of patients with *any type of Seizure diagnoses* for QI purposes?
- Yes (go to Q.17a-b)
  - No

17a. What QI indicators are included in the *Seizure* chart reviews? *Check all that apply*

<b>QI Indicators</b>	<b>0</b>
a. Prehospital evaluation	0
b. Documentation of laboratory evaluation	0
c. Seizure precautions taken	0
d. Vital signs assessment	0
e. Neurologic status assessment	0
f. Blood glucose assesement	0
g. Supplemental oxygen provided	0
h. History of seizure activity	0
i. History of antiepileptic drug non-compliance	0
j. Neurologic status reassessment	0
k. Blood glucose reassessment	0
l. Neurology consultation (while in ED)	0
m. EEG assessment (while in ED)	0
n. Neurology referral	0
o. EEG outpatient referral	0
p. Patient disposition	0
q. Patient/caregiver discharge instructions/education	0
Other _____	0

17b. Is this information reviewed at some type of formal QI committee/process within your organization?

- Yes
- No

**THANK YOU FOR COMPLETING THE SURVEY!**