Randall Children's Hospital

Co-Management and Referral Guidelines
Initial Management of Febrile Convulsions
Randall Children's Neurology

Phone: **503-413-3600**
Fax: **503-413-3621**

Introduction

- Febrile convulsions are the most common childhood seizure type, seen in 2–5 percent of all children in the U.S. They most often occur in children 6 months to 5 years of age during a spike in fever, usually on the first day of fever.
  - Simple febrile convulsions are generalized seizures that last less than 10–15 minutes and do not recur within 24 hours.
  - Complex febrile convulsions are seizures that are focal rather than generalized and/or last more than 10–15 minutes, and/or recur within 24 hours.
- The risk for epilepsy in children with simple febrile convulsions is close to that seen in the general population (1–2 percent risk).
- There is a five-fold increased risk of epilepsy in patients with complex febrile convulsions.
- Some children with epilepsy have a lowered seizure threshold and are more likely to have seizure with fever.

Evaluation and Management

Evaluation

Simple febrile convulsions

- **No diagnostic studies are needed.** (No labs, no scans, no EEG)

Complex febrile convulsions

- There are no established guidelines. Consider EEG and possible MRI in patients who are developmentally abnormal, have a family history of epilepsy or who have prolonged and/or focal seizures.

→ Consider an LP in a child with seizures and fever if clinically indicated (toxic-appearing child, meningeal signs, under-vaccinated, especially if the child has already received antibiotics and may have a partially treated bacterial infection).

Management

- **The mainstay of management is reassurance and education.** Counsel families that simple febrile seizures are benign events, unassociated with significant morbidity and mortality and recur in about 30 percent of cases.
- Antipyretics may be ineffective in preventing seizures.
- There is usually no role for prophylactic anticonvulsants (either continuous or intermittent).
- There is some reduction in seizure frequency with the use of benzodiazepines intermittently during febrile illness, but the potential benefit must be weighed against potential side effects.
- Rectal diazepam gel may be useful to abort seizures in select patients with complex febrile convulsions.

When to refer

- All children with a first seizure with fever should be assessed by a physician (primary care provider or in the emergency department)
- Consider referral to neurology for:
  - Multiple febrile convulsions
  - Febrile convulsions in a developmentally abnormal child
  - New occurrence of afebrile seizures in a child with a history of febrile convulsions

(continued)

Referral process

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Refer via Epic or fax the Randall Children's Hospital Specialty Referral form to **503-413-2419 (OR)** or **360-487-1033 (WA)**.

If urgent evaluation is required, contact the **Randall Children's Hospital Emergency Department: 503-276-9191.**

Jeff Ekstrand, M.D.
Alana Golden, M.D.
Jennifer Huffman, M.D.
Teng Ji, M.D.

Additional Resources

American Academy of Pediatrics: Clinical Practice Guideline-Febrile Seizures — Guideline for Neurodiagnostic Evaluation of the Child with a Simple Febrile Seizure; *Pediatrics* Volume 125, Number 2, 389–394 (Feb 2011) **http://pediatrics.aappublications.org/content/127/2/389.full.pdf**

Prophylactic Drug Management for Febrile Seizures in Children; Evidence-Based Child Health — *A Cochrane Review Journal*: 8:4 1378–1485 (2013) **http://www.ncbi.nlm.nih.gov/pubmed/23877946**

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Find this and other co-management/referral guidelines online at: **www.legacyhealth.org/randallguidelines**

RANDALL CHILDREN'S HOSPITAL
LEGACY EMANUEL