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ACUTE MANAGEMENT OF PROLONGED FEBRILE SEIZURES IN CHILDREN

Mariam Giorgashvili

Tbilisi State Medical University, Resident in Pediatrics, Tbilisi, Georgia

Background:

Febrile seizures are among the most common neurologic events in early childhood and are usually brief and self-limited. When convulsive activity persists, however, management must shift rapidly from observation to active intervention. Although prolonged febrile seizures are traditionally classified as complex when lasting 15 minutes or longer, an ongoing convulsive seizure at five minutes warrants emergency treatment as convulsive status epilepticus. Acute assessment must also consider alternative causes of seizure with fever, including central nervous system infection and metabolic abnormalities.

Educational Objective:

To provide pediatric and emergency clinicians with a concise, evidence-based cognitive framework for time-sensitive decision-making in children with suspected prolonged febrile seizures, emphasizing recognition of the five-minute treatment threshold, stabilization, selection of rescue-medication route, reassessment, escalation, and etiologic evaluation.

Educational Strategy:

Current evidence-based recommendations and national protocol guidance were synthesized into five sequential acute-management decisions: **recognize, stabilize, treat, reassess, and escalate,** while etiologic evaluation proceeds in parallel. Recognition identifies ongoing convulsive activity requiring emergency treatment while distinguishing it from a self-limited event. Stabilization prioritizes airway, breathing, circulation, cardiorespiratory monitoring, and rapid identification of reversible abnormalities such as hypoglycemia. At five minutes of persistent convulsive activity, a benzodiazepine should be administered promptly. When intravenous access is unavailable or would delay treatment, an appropriate non-intravenous rescue route, including intranasal, buccal, or intramuscular midazolam or rectal diazepam, should be used according to

local protocols. Persistent seizure activity after adequate first-line therapy requires immediate reassessment and timely progression to second-line antiseizure treatment. Etiologic evaluation occurs concurrently and is guided by clinical features such as focal neurologic findings, persistent altered consciousness, suspected metabolic disturbance, or signs of central nervous system infection. The framework is designed as a practical cognitive aid for bedside teaching and emergency decision-making.

Conclusion:

Prolonged febrile seizures require structured, time-sensitive management. A five-decision framework combined with parallel etiologic evaluation may help clinicians recognize the treatment threshold, minimize avoidable treatment delays, select an appropriate rescue-medication route, and escalate therapy safely when seizure activity persists.

Keywords: febrile seizures; status epilepticus; paediatric emergency; benzodiazepines; medical education