Generalized Convulsive Status Epilepticus (GCSE)

Urgent Care (UC)

Nationwide Children's — When your child needs a hospital, everything matters.

Center for Clinical Excellence

Inclusion Criteria:

Patients ≥ 28 days in generalized convulsive status epilepticus (GCSE)

Exclusion Criteria:

- Focal status epilepticus
- Psychogenic nonepileptic events (PNEE)
- Presenting history incudes trauma prior to seizure activity (follow trauma activation protocols)
- Hyponatremic etiology for seizures
- Known toxicological ingestion

Initial management

- Cardiorespiratory monitoring
- Suction secretions
- Supplemental oxygen for O2 sats < 90%
- Consider placing Intravenous (IV) line

Labs

- Point of care Glucose

Do not delay medication administration in order to obtain labs

Generalized Convulsive Status Epilepticus:

Bilateral tonic-clonic (BTC) seizures lasting ≥ 5 minutes
or
≥ 2 discrete BTC seizures between which there is incomplete recovery of consciousness

Call EMS and Transfer to ED

- **Midazolam IN** 0.3 mg/kg (max 10 mg/dose), split between nostrils
- If glucose < 60 mg/dL, place IV and give 5 mL/kg D10 bolus (max 250 ml)

Prepare next Midazolam while waiting for current medication to take effect

Seizure continues for 5 minutes

Repeat

- **Midazolam IN** 0.3 mg/kg (max 10 mg/dose), split between nostrils

Transfer to ED

For Urgent Care use for seizures:
Intranasal midazolam (Versed) 5 mg/mL

Generalized Convulsive Status Epilepticus (GCSE) versus Psychogenic Non-Epileptic Events (PNEE)

Distinguishing GCSE and PNEE can be challenging, and it is important to recognize that exceptions can occur.

Below is generalized guidance to distinguish GCSE and PNEE

Signs Favoring PNEE	Signs Favoring Epileptic Seizures	Indeterminate Signs
• Long duration • Fluctuating Course • Asynchronous Movements* • Pelvic Thrusting* • Side-to-side Head or Body Movements** • Forced Eye Closure • Ictal Crying • Memory Recall	• Occurrence from Physiologic Sleep • Postictal Confusion • Stertorous Breathing	• Gradual Onset • Non-Stereotyped Events • Flailing or Thrashing Movements • Opisthotonos • Tongue Biting • Urinary Incontinence

*May not reliably differentiate between PNEE and frontal lobe partial epileptic seizures
** May only be helpful in distinguishing convulsive PNEE and epileptic seizures

Adapted from:

Avbersek A, Sisodiya S. Does the primary literature provide support for clinical signs used to distinguish psychogenic nonepileptic seizures from epileptic seizures? J Neurol Neurosurg Psychiatry. 2010; 81:719–725.

Perez DL, LaFrance WC. Nonepileptic seizures: an updated review. CNS Spectr. 2016 June;21(3:) 239-246.

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Team & Process

Pathway Development Team

Leader:
Urgent Care:
Luciana Berg, MD

Members
Emergency Medicine:
Aarti Gaglani MD
Berkeley Bennett MD, MS
Neurology:
Jorge Viduarre, MD
Monica Islam, MD
Dara Albert, DO
ED Pharmacy:
Andrew McClain, RPH
Kimberly Jones, PharmD, BCPS
Neuroradiology:
Jerome Rusin, MD
Emergency Services:
Kelli Mavromatis, RN, BSN, CPEN

Clinical Pathways Program:
Medical Director – Clinical Informatics & Emergency Medicine:
Laura Rust, MD, MPH
Medical Director – Emergency Medicine:
Dana Noffsinger, CPNP-AC
Business & Development Manager:
Rekha Voruganti, MBOE, LSSBB
Program Coordinator:
Tahje Brown, MBA

Clinical Pathway Approved
Medical Director – Associate Chief Quality Officer, Center for Clinical Excellence:
Ryan Bode, MD, MBOE
Advisory Committee Date:

Origination Date:

Next Revision Date:

Clinical Pathway Development

This clinical pathway was developed using the process described in the NCH Evidence Based Practice Guideline Development Manual v4.1.

Clinical Pathways at Nationwide Children's Hospital (NCH) are standards which provide general guidance to clinicians. Patient choice and clinician judgment remain central to the selection of diagnostic tests and therapy. The ordering provider is ultimately responsible for care decisions. Nationwide Children's clinical pathways are reviewed periodically for consistency with new evidence; however, new developments may not be represented.

For more information about our pathways and program please contact:
ClinicalPathways@NationwideChildrens.org

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Metrics

Pathway Goal

Timely treatment and evaluation of Generalized Convulsive Status Epilepticus (GCSE)

Quality Measures

Outcome Metrics

- Time to first antiepileptic drug administration
- Time to IV access

Process Metrics

- Pathway Visualization
- Pathway Order Set Utilization

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