



The **PediDOSE** Study



PECARN
Pediatric Emergency Care
Applied Research Network

PEDIATRIC SEIZURES AND EMS

Seizures are one of the most common reasons people call an ambulance, or Emergency Medical Services (EMS), for a child. Seizures that do not stop on their own can be life-threatening. Paramedics have medications to treat seizures before the child gets to the hospital. Research shows that it is harder to stop a prolonged seizure, so it is important for paramedics to be able to give the medication quickly. EMS agencies have various methods of selecting the dose and various options for the delivery method for the medication they give to a seizing child. Delays can occur when they have to calculate how much medication to give and/or how to give it.

One-third of children transported to the hospital for an active seizure will still be having the seizure upon arrival.

STUDY PURPOSE

The Pediatric Dose Optimization for Seizures in EMS (PediDOSE) study is an emergency medicine study designed to evaluate if a standardized method for paramedics to administer seizure medication leads to timely delivery of the right dose. The purpose of this study is to simplify how paramedics give medication to seizing children to stop the seizure and to decrease the number of children still seizing when they arrive at a hospital emergency department. By replacing complicated dose calculations with age-based standardized dosing, we aim to increase the number of children who receive the right amount of seizure-stopping treatment before arriving at the hospital.

SEIZURE MEDICATION

Midazolam is the benzodiazepine medication that will be used in this study. This medication is the standard of care for treating seizures. Like all medications, midazolam has risks. In this study, we will determine if the risks increase or decrease when using the age-based standardized dosing. We will look specifically at how breathing is affected, since respiratory depression (decreased breathing rate) is a known risk of midazolam. On the other hand, a potential benefit of this study is that more children may receive the right treatment to stop their seizures early.

STUDY PROCEDURES

At least one of your local hospitals is working with one or more EMS agencies to participate in this research study. EMS will transport children enrolled in the study to an emergency department because of a seizure. The EMS agency will share transport records with the research team, and we will use data from that transport record and hospital visit to determine whether or not the children enrolled in this study received medication and if their seizure stopped.

Participating EMS agencies will be randomly assigned a timeline for adopting the standardized treatment plan over the course of the four-year study. This will allow researchers to compare the new standardized treatment plan to current methods and allow for the new method to be safely implemented for children who need emergency treatment for seizures.

Treatment methods for seizures are prescribed by a doctor who oversees all medical care for the entire agency, and changes to the medical treatment method will be adopted by all paramedics who are working for the EMS agency. Therefore, no alternative treatments for seizure will be available and there is no way to opt-out of the study. However, parents of children enrolled in this study will be able to request that no further data be collected for research.

WE WOULD LOVE TO HEAR FROM YOU!

Because treating a seizure must be done emergently and ideally within 5 minutes, there will not be time to ask parents for permission to enroll their child in the study. Parents will be notified in-person, by phone, or by mail after their child is enrolled so that they can tell us if they object to further participation.

The purpose of this handout is to notify our community about this research trial and to provide contact information and resources where you can learn more about the study and your options after enrollment. We know that families want timely and accurate treatment when their child has an emergency, and we know the community may have hesitation about allowing children to be in a research study. Your input is important to improve how we do pediatric emergency care research, so we invite you to give us your feedback by completing our survey.

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MORE INFORMATION

Scan the QR code to complete our survey



Visit our website for more information
texaschildrens.org/PediDOSE

CONTACT US

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