VIRGINIA PEDIATRIC CHAMPIONS



Connecting pediatric emergency healthcare providers throughout the state of Virginia....



At the August EMSC quarterly meeting, providers compared effectiveness and ease of use of different ambulance restraint systems.

When it comes to transporting children, the importance of proper safety measures cannot be emphasized enough. It is imperative to prioritize the use of pediatric restraints within ambulances, refraining from allowing children to ride on their parent's laps.

Parents and caregivers must understand that the use of pediatric restraints is a proactive measure that demonstrates our commitment to ensuring the best possible outcome for each patient.

We recognize, however, that this comes with its own challenges. Often, providers are not comfortable and confident in the utilization of the pediatric restraint systems used at their agencies. Moreover, not all restraint systems are created equally as the EMSC Committee recently demonstrated when comparing ECR, ACR and Pedimate systems. What you can do: Practice, practice, practice – pull out the system in your unit and secure them on real children. Get comfortable adjusting to different body types and ask your patient to squirm and resist a little. The time to figure out where all those straps go is not when you have an injured child needing your attention.



Editing and design for the Virginia Pediatric Champions provided by the Rappahannock EMS Council.

Lakeside Rescue's Car Seat Safety Check

ETY SEAT

CHECK

CPS Tech

As an EMS provider, you serve your community in many ways, including administering medical care and resources to those with a variety of needs. In your practice you may see car seat challenges that caregivers face or even receive questions from them on the subject.

Every car seat is slightly different, and every vehicle has specific safety systems used during car seat installation, which can leave caregivers with questions. Immediate guidance to a caregiver about use or installation of a car seat should be provided by directing them to follow their car seat manufacturer's instruction manual and their vehicle owner's manual. Both resources will aid them with the process. You can also refer them to local car seat fitting stations for assistance.

If you would like to be able to provide additional education and assistance to caregivers, consider becoming a Certified Child Passenger Safety Technician (<u>https://cert.safekids.org/</u>). CPS technicians receive education to use during community-based activities such as car seat checks, where caregivers receive education and hands-on assistance.

To learn more about the certification program, how to become a CPS technician and to locate a course in your region, go to the certification site <u>https://cert.safekids.org</u> or email Corri Miller-Hobbs with questions, <u>corri.millerhobbs@vcuhealth.org</u>.

Bonus! EMS providers who are CPS Techs report increased comfort in using pediatric restraints on their units!

Thank you!

Becky Anhold, Jody Carlton DNP, Sarah Curry NNP, Jen Farmer, Dr. Chris Holstege, Dr. George McDaniel, Dusty Lynn, Dr. Alix Paget-Brown, Bob Page, Beth Scott, and Jeremy Wampler for your on-going support of pediatric emergency education through the EMS-C Teaching Grant this year.

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Where we've been

- Greater Springfield EMS
- Tidewater EMS Symposium
- Virginia EMS Symposium
- Central Virginia EMS Expo
- Halifax Rescue Squad
- Halifax Regional Hospital
- Lakeside EMS
- Thomas Jefferson EMS Council
- Rappahannock EMS Council
- Shenandoah Valley EMS Expo
- Staunton/ Augusta Fire and EMS
- Greene County EMS
- Wintergreen EMS



What we've taught

- Neonatal Resuscitation Program for the Pre-Hospital
 Provider
- Pediatric Emergency Assessment & Simulation
- Pediatric Emergency Assessment
- Pediatric Video Case Studies
- Pediatric Cardiac Channelopathies
- Pediatric Shock for the Prehospital providers
- Pediatric Cardiac Arrest
- · Pediatrics & Parents: Pearls and Pitfalls
- Pediatric Education for Pre-hospital Professionals
- Extremes in Trauma- The Geriatric and Pediatric Patient
- When Meconium Hits the Fan! OB and Neonatal Emergencies for the ED and EMS provider

Handtevy Instructors Trained

The Department of EMS-C hosted a Train The Trainer Handtevy course on March 7th and 8th. It was well attended and there now are several Handtevy instructors available to teach a class near you!

Pediatric Education Training Impact

A total of 44 providers across the state have received training in PEPP (Pediatric Education for Prehospital Professionals) classes. Additionally, since January 2023, there have been over 16 Neonatal Resuscitation Program (NRP) sessions, collectively training more than 150 providers.

If you would

like to host a neonatal or pediatric educational class for your agency or department, please reach out to Dusty Lynn RN, EMT-P at dlynn@vaems.org What is Phenibut? Phenibut (4-amino-3-phenyl-butyric acid) is a GABA analog first synthesized in the 1960s in the former Soviet Union. It was previously used as part of the Russian cosmonaut space kit as an anti-anxiety medication to help the astronauts stay calm in space. It is still available by prescription in Russia and is used for anxiety, post-traumatic stress disorder, stuttering and vestibular disorders. In the United States (U.S.), phenibut is not available for prescription but it is sold online and in stores selling cannabis and tobacco products, marketed as a stress relieving agent. It is also sold as a nootropic substance, which is a substance that enhances one's cognitive abilities. Phenibut is also contained in products sold as nutritional supplements, however, it does not meet criteria to be defined as a dietary ingredient by the Food and Drug Administration and thus is not allowed to be labeled as such. There has been an increase in use in the U.S. noted since 2015 with phenibut being widely available for purchase online both in powdered and tablet form.



A Case Study:

By Christopher P. Holstege, M.D.

A 24-year-old male intentionally ingested phenibut to self-treat his anxiety. He became unresponsive and a bystander called EMS. Upon arrival, EMS found the patient with mid-point pupils, marked sedation, and respiratory depression. Naloxone 2 mg was administered without success. On arrival to the emergency department, his gag was intact, and he responded to voice and noxious stimuli, but rapidly drifted back to sleep. His vital signs were: pulse 54 beats/min; respiratory rate 12 breaths/min; blood pressure 92/40 mmHg, and temperature 37.90 C. His basic laboratory tests were unremarkable and urine drug screen was negative. He was admitted to the intensive care unit for monitoring and he gradually improved with all symptoms resolved on day 2 of admission. His urine was sent for advanced analytic testing and found to be positive for phenibut.

How does phenibut work?

Phenibut works primarily as a GABA-B receptor agonist. It also has some GABA-A agonism and increases dopamine levels. Other GABA-B agonists include such drugs as baclofen and gamma-hydroxybutyrate (GHB).

What symptoms are caused by phenibut use and how are symptoms treated?

Phenibut is advocated for anxiolytic, euphoric and nootropic properties. It causes symptoms consistent with a sedative/hypnotic toxidrome, including decreased consciousness, stupor, and depressed respiratory drive. Vitals signs may demonstrate bradycardia, bradypnea, hypotension, and hypothermia. It also been reported to cause agitation, hallucinations, seizures and delirium. Seizures may be related to the feedback inhibition of GABA-B receptor on presynaptic GABA-A neurons.

Treatment of symptoms is largely supportive and may include intravenous fluids, airway monitoring and potentially benzodiazepines for seizures. If severe agitation is present, consider withdrawal in the diagnosis and not acute intoxication.

What symptoms are caused by phenibut withdrawal?

Tolerance to phenibut has been demonstrated and thus withdrawal symptoms can occur with cessation of use. Withdrawal from phenibut resembles baclofen withdrawal and may include hallucinations, psychosis, agitation, tachycardia, hyperthermia, seizures, and myoclonus.

Treatment of phenibut withdrawal and treatment can be started with GABA-A agonists (e.g., benzodiazepines). However, because the primary mechanism of phenibut is GABA-B agonism, there are case reports using baclofen, another GABA-B agonist. There is no approved dosing regimen for baclofen for phenibut withdrawal, instead it should be tailored to the patient's clinical effects. Symptoms of withdrawal can be severe and may require management in an ICU setting.

For guidance treating patients with tianeptine toxicity call the Poison Control Center at 1-800-222-1222. Medical toxicology experts are standing by for free consultation 24-hours a day, every day.

References available upon request.



Christopher P. Holstege, M.D.

Christopher P. Holstege, M.D. is a University of Virginia Professor of Emergency Medicine and Pediatrics within the School of Medicine, Chief of the Division of Medical Toxicology, Director of the Blue Ridge Poison Center (BRPC), and serves as the Executive Director of UVA's Department of Student Health & Wellness. Dr. Holstege clinically provides care for poisoned patients both at UVA Health and through the BRPC and serves as a practicing member of the UVA emergency medicine faculty. He has numerous ongoing research projects in clinical, basic science, and epidemiologic arenas.



Share YOUR ideas for the newsletter!

Let us know what your agency is doing - car seat checks, classes - we want to know so we can advertise your classes! Do you have a case study or question you'd like answered? Send it in. Follow the QR code to submit articles or topics for consideration. Not a writer - that's okay! We can help! We just need your ideas.

We are glad you are here!

Welcome to the newly formed Virginia EMS-C pediatric champion partnership! Our mission is to facilitate connections among EMS and Emergency Department personnel who share a passion for providing exceptional care to children. Through this partnership, we aim to foster a supportive network that offers education, references, and discussions on pediatric care throughout the state.

Meet our team



Patricia "Dusty" Lynn, RN, M.SC., TCRN, EMT-P, has had a remarkable career in healthcare, starting as a neonatal ICU nurse and later venturing into pediatric trauma and emergency care. With over 30 years of experience in pediatric trauma, PedsICU, PedsCVICU, and as an ECMO specialist, she is a respected educator in the field. Dusty's passion for teaching led her to become an instructor for AHA PALS courses. She also trained medical professionals across multiple states and taught pediatric emergency care topics internationally. She is currently the Training Director for the Thomas Jefferson EMS Council.

David Edwards, MBA, is the Pediatric Emergency Care Coordinator for Virginia. Formerly, he was the Director of Administration for the Richmond Ambulance Authority. He has 49 years of experience in EMS; as a paramedic, in operations and support of medical direction, as an author, teaching at the community college and university levels, and EMS administration. He also served as the Executive Director of the EMS Division, and as a faculty associate in Emergency Medicine & Surgery at Texas Tech University School of Medicine. David is a Past-Chair of the Pediatric Emergency Care (PEC) Council of the National Association of State EMS Officials (NASEMSO).





Jennifer Farmer, MSN, RN, NRP, CCRN, CPN, CPST, is currently serving as Interim Director of Nursing for VCU Health Children's Services at Brook Road. Prior to this, she served in the supplemental staffing department providing care to pediatric patients throughout VCU Health to include NICU, PICU, pediatric emergency department, mother/infant unit, burn unit, and the epilepsy monitoring unit. She is also a paramedic with Lakeside Volunteer Rescue Squad, and has served as the training officer, preceptor, and currently serves as the Pediatric Emergency Care Coordinator for the organization.

Lara Traylor, NREMT, works at the Rappahannock EMS Council in Fredericksburg as the Regional Field Coordinator. She has a background in Search and Rescue as a NASAR SAR Tech II and K9 handler, is a previous EMT-I provider, and Safe Kids Chapter Coordinator of North Shore Safe Kids (Greater New Orleans Area).

