

Kentucky Department
for Public Health

Clinical Protocol for Undesignated Glucagon Use in the School Setting

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safety of people I Kentucky through
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Kentucky Public Health

Prevent. Promote. Protect.

Kentucky regulations state that the Kentucky Department for Public Health (KDPH) shall develop clinical protocols to address emergency medication administration, including undesignated glucagon, in the school health section of the Clinical Service Guide that is maintained by the local health department. This protocol addresses undesignated glucagon kept by schools to administer to a student, in accordance with the student's diabetes medical management plan as defined in [KRS 158.837](#), Section 504 plan pursuant to the Rehabilitation Act of 1973, 29 U.S.C. sec. 794, individualized education program, or other written accommodations plan to administer glucagon to the student, who is believed to have a life-threatening hypoglycemia and to advise on clinical administration of the undesignated glucagon. This protocol shall be developed in collaboration with local health departments or local clinical providers, local schools and school districts.

Each school electing to keep undesignated glucagon shall implement policies and procedures for managing a severe hypoglycemic episode, developed and approved by the local school board.

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Public Health Authority for School Health

KDPH serves as Kentucky's statewide public health authority for school health, providing expertise, standards and clinical guidance to help schools deliver safe, consistent and medically sound services to students. Its work spans several core areas.

Public health leadership

KDPH develops and shares evidence-based health guidance that supports schools in managing everyday student health needs and responding to emergencies. This includes shaping clinical expectations for managing chronic conditions, addressing communicable disease concerns and promoting preventive health practices that reduce risks for students and staff.

Partnership with the education system

KDPH works closely with the Kentucky Department of Education (KDE) to align school health practices with public health principles. This collaboration ensures that school districts have access to medically accurate standards, training expectations and resources that support safe delivery of health services by nurses and trained school personnel.

Emergency preparedness and response

KDPH provides the clinical direction schools rely on during health emergencies, including severe hypoglycemia, anaphylaxis, asthma attacks and suspected opioid overdoses. By offering medically grounded protocols and training support, the department helps ensure that school staff can respond quickly and appropriately while maintaining student safety.

Support for healthier school environments

KDPH contributes to statewide efforts to promote healthier school environments, including initiatives in disease prevention, environmental health and student wellness. Its guidance helps schools adopt practices that support attendance, learning and overall well-being.

Statewide consistency and public health alignment

Through its expertise, KDPH helps create uniform expectations for school health across Kentucky, reducing variation among districts and ensuring that student health services reflect current public health knowledge. While schools and the education system manage day-to-day operations, KDPH provides the medical foundation that underpins safe and effective school health practice.

Purpose

This protocol establishes standardized procedures for the emergency use of undesignated glucagon by trained school personnel per [KRS 158.836 Possession and use of medication to treat documented medical conditions](#). It provides guidance on recognizing and responding to a student believed to be experiencing severe hypoglycemia and on safely administering undesignated glucagon in accordance with the student's diabetes medical management plan as defined in KRS 158.837, Section 504 plan pursuant to the Rehabilitation Act of 1973, 29 U.S.C. sec. 794, individualized education program, or other written accommodations plan to administer glucagon to the student. The goal is to reduce morbidity and mortality by making sure schools have access to this potentially lifesaving emergency treatment, enabling trained school personnel to respond rapidly and safely during a medical emergency.

This protocol was developed in collaboration with the Kentucky Department of Education (KDE), local school districts, local health departments, local clinical providers and pharmacists to provide guidance on the clinical administration of undesignated glucagon and to address its use in the school setting. It is available for download on our website.

Scope

This protocol applies to:

- Schools and school districts that maintain undesignated glucagon.
- Trained school personnel that are authorized to administer undesignated glucagon under a district standing order signed by a qualified health care provider.
- A student with diabetes on school property or at a school-sponsored event who is reasonably believed to be experiencing a severe hypoglycemia emergency

Definitions

- Glucagon: A hormone that raises blood glucose levels by causing the breakdown of glycogen (a storage form of glucose) and the release of glucose by the liver. It is a potentially lifesaving treatment for severe hypoglycemia emergencies and can be administered through injection or nasal spray.
- Diabetes Medical Management Plan (DMMP): A provider-signed medical document that outlines exactly how a student's diabetes needs are met during the school day. It is the foundational medical order that guides all diabetes care in school settings, including daily routines and emergency responses.
- Standing Order: Written authorization from a licensed healthcare practitioner permitting trained personnel to administer undesignated glucagon.
- Trained individual: Employees who have completed district-approved training and are authorized to administer medication under [KRS 156.502](#).

Legal Authority

This protocol is developed in accordance with state laws that permit schools to maintain and administer emergency medication under a standing order from a licensed healthcare provider and states that the KDPH shall develop clinical protocols to address the supply of emergency medication, including undesignated glucagon kept by schools. These laws provide civil and criminal immunity for good-faith administration during emergency administration.

[KRS 160.290 General powers and duties of the board](#), in summary, gives each local board of education broad authority to manage and oversee all public schools within its district. This includes the power to:

- Establish schools, courses and services that support education, student health and student welfare, if they align with Kentucky Board of Education regulations.

School District policies created under this authority:

- Explain how the district will carry out state laws and regulations.
- Provide guidance, protocols and procedures for staff and schools.
- Help protect students, employees and the district by ensuring consistent practices.
- May be developed with support from the Kentucky School Boards Association (KSBA), which offers a policy-writing service to districts.

Each school electing to keep undesignated glucagon shall implement policies and procedures for managing a student's life-threatening hypoglycemic episode, in accordance with the student's diabetes medical management plan, or other written accommodations plan, developed and approved by the local school board.

[KRS 156.502 Health services in the school setting](#), in summary, states that school employees may perform certain health services only when properly trained, formally delegated and documented in writing by a qualified health professional.

[KRS 158.838 Emergency administration and self-administration of diabetes and seizure medications](#), in summary, states that schools in Kentucky—public, private and parochial—must have at least one trained employee on duty throughout the entire school day who is qualified under KRS 156.502 to administer or assist students with:

- Glucagon (given subcutaneously) for students with diabetes experiencing hypoglycemia or other documented conditions.
- Insulin (given subcutaneously using the student's usual delivery method) at the times and under the conditions specified in the student's health care provider's written plan.

Employees assigned these responsibilities must receive training that includes:

- How to administer insulin and glucagon.
- How to recognize signs and symptoms of hypoglycemia and hyperglycemia.
- What steps to take in response to these symptoms.

Delegation

- [KRS 314.011 Definitions](#).
- [KRS 314.021 Policy](#) states that “all individuals licensed shall be responsible and accountable for making decisions that are based upon the individuals' educational preparation and experience and shall practice with reasonable skill and safety.”
- Nurses who make delegatory decisions regarding the performance of acts/tasks by others are governed by [201 KAR 20:400 Delegation of nursing tasks](#).
- Kentucky Board of Nursing [RN Supervision and Delegation - KBN](#).
 - [AOS #15 Supervision and Delegation](#).
 - [AOS #30 School Nursing Practice](#).

KDPH recommends that school staff be familiar with the laws governing medication administration in schools.

Training Requirements

School staff must complete the approved [Medication Administration Training Program](#) prior to administering medication to students as required per [KRS 156.502](#). The training must be provided annually, documented and retained for 1 year.

Staff should review manufacturer instructions for injectable glucagon or intranasal glucagon spray/powder as source material and, to the extent possible, utilize manufacturer instructions for training, including available visuals and videos, with clarifications specific to the situation.

All school personnel authorized to administer undesignated glucagon, including those in extracurricular programs, should receive annual training that provides:

- Basic understanding of diabetes,
- How to recognize and respond to the signs and symptoms of low blood glucose and high blood glucose (hyperglycemia),
- Understanding the undesignated glucagon's purpose and limitations,
- Safe administration techniques,
- Emergency response procedures, including calling 911,
- Post-event monitoring and documentation,
- Identification of the appropriate staff person(s) to contact immediately in case of an emergency.

Procedure

Required Supplies

Each school that maintains undesignated glucagon must have the following supplies readily available for emergency use:

- Glucagon medication.
- Bulb syringe to use with intranasal medication.
- Personal protective equipment — gloves, face shields and other barrier devices to support safe response.
- Emergency response materials — items such as a CPR mask (if available), disposable wipes and a small trash bag for contaminated materials.
- Incident documentation forms — district-approved forms for recording undesignated glucagon administration and emergency response details.
- Copies of the standing order and this protocol — kept with the emergency medication kit or in an immediately accessible location.
- Optional supportive supplies — such as a pocket pulse oximeter or rescue breathing mask, if the district chooses to include them.

Storage, Security and Maintenance

- School staff should be familiar with the type of medication maintained by their agency and its use. (ready-to-use forms of glucagon are preferred),
- Store the undesignated glucagon in a secure but readily accessible location for emergency use.
- Conduct monthly checks for:
 - Expiration dates
 - Package integrity
- Replace undesignated glucagon immediately if used, expired, or damaged.
- School staff should refer to the package insert for undesignated glucagon medication used in their facility and store it according to the individual manufacturer's directions.

Glucagon kit for injection (vial of dry powder and syringe of diluent liquid)

- Store the kit at controlled room temperature between 20° to 25°C (68° to 77°F) before mixing glucagon powder with diluent liquid.
- Glucagon powder that has been mixed with diluent liquid should be used immediately.
- Discard any unused portion.
- Solutions should be clear and of a water-like consistency at the time of use.

Glucagon premixed liquid (autoinjector)

- Store at controlled room temperature between 20° to 25°C (68° to 77°F).
- Keep in foil pouch until you are ready to use it.

Glucagon intranasal (dry spray powder)

- Do not remove the shrink wrap or open the tube until you are ready to use it.
 - If the tube has been opened, the medication could be exposed to moisture.
 - This could cause the medication not to work as expected.

- The medication will work even if the student has a cold or is taking cold medicine.

Indications for Use

The use of undesignated glucagon is indicated for the treatment of severe hypoglycemia in students with diabetes, unable or unwilling to consume carbohydrates by mouth. After receiving glucagon, blood glucose levels increase within 5 to 25 minutes.

Undesignated glucagon may be administered in accordance with the student's diabetes medical management plan or other written accommodations plan, when a student is suspected of experiencing severe symptoms of hypoglycemia, indicated by:

- Acute confusion
- Unresponsive (including being unable or unwilling to swallow)
- Fainting or loss of consciousness
- Seizure activity

Contraindications

Nausea or other glucagon-related adverse events may occur with glucagon administration, but side effects are not unexpected and should not dissuade glucagon use in a student with diabetes who most likely is suffering from severe hypoglycemia, especially when inaction can lead to life-threatening consequences.

Administration

Act Fast!! Always go with a distressed individual. Never send the individual to the health room/school nurse alone or leave them alone. Do not move an individual who is in severe distress.

Initial Assessment

1. Identify that symptoms of a severe low blood sugar reaction are present.
2. Call for assistance.
3. Ask that another school staff person call 911 or emergency medical services.
4. Explain the procedure to the child at their level of understanding.
5. Assemble supplies and place on a clean surface.
6. Wash your hands if possible.
7. Put on gloves.
8. Administer undesignated glucagon as described below.
9. If the student becomes unconscious and is not lying on their side, move the student to a side-lying position because vomiting often follows the administration of glucagon.
10. If needed, ask another person for assistance.
11. If you are alone with the student and you have not called 911 or emergency medical services, do so now.
12. Monitor the student's arousal, pulse and respirations.
13. Keep the student in the side-lying position unless breathing and/or heartbeat stops.



14. If breathing stops, begin rescue breaths.
15. If breathing and heartbeat stops, begin CPR.
16. Have someone immediately get the AED (if available), turn it on and follow its prompts while continuing CPR.
17. Once the rescue squad arrives, inform them of the medication administered, including the type of medication, dose and time.
18. Send along the used dose of undesignated glucagon.
19. Dispose of all used materials in proper receptacles.
20. Remove gloves and wash hands.
21. Follow up with the parent or guardian and healthcare provider, as needed.
22. Document medication administration in the student's medication administration log.

Monitoring

- Stay with the individual until EMS arrives.
- If breathing improves, place the person in the recovery position.
- Be aware that symptoms may return as the undesignated glucagon wears off.

Glucagon kit for injection (vial of dry powder and syringe of diluent liquid)

1. Remove the vial containing glucagon powder and syringe containing the diluent liquid from the case.
2. Remove the gray cap from the vial by flipping it up with your thumb.
3. Pull the needle cover off the syringe.
 - a. Do not remove the plastic clip from the syringe, as this may allow the push rod to come out of the syringe.
4. Insert the needle tip in the center of the rubber stopper on the vial.
5. Push the plunger of the syringe all the way down to inject the entire contents of the diluent liquid from the syringe into the vial containing the powder.
 - a. **Do not** remove the needle from the vial at this point.
6. With the needle still in the vial, gently swirl (do not shake) the vial until the solution is clear (about 10-15 seconds) and is clear and water-like in consistency.
 - a. **Do not** use the medication if the solution is cloudy, contains particles, or appears gel-like.
7. Keep the needle inside of the vial and turn the vial upside down, so the vial is on top of the syringe.
8. Pull back on the syringe plunger slowly to draw all the mixed solution back into the syringe.
9. If air bubbles are visible at the top of the syringe, gently tap the side of the syringe to move them up and then push the plunger slightly to expel the air back into the vial.
10. Once the syringe is filled with the medication, remove the needle from the vial.
11. Identify the location (buttock, thigh, or upper arm) for the injection.
 - a. May inject through clothing if necessary.

12. If possible, cleanse the injection site with an alcohol wipe.
13. Insert the needle into the skin at a 90-degree angle.
14. Slowly inject the solution.
15. Remove the syringe and put the used syringe in the carrying case.
16. Close the carrying case to avoid a possible needle stick injury.
17. Turn the person on their side in case of vomiting, a common side effect.

Glucagon premixed liquid (autoinjector)

1. Look at the liquid medicine through the viewing window.
 - a. It must be clear and colorless, or a pale yellow.
2. Identify the location (stomach, thigh, or upper arm) for the injection.
 - a. **Note:** GVOKE HypoPen cannot be administered through clothing.
3. If possible, cleanse the injection site with an alcohol wipe.
4. Pull the red needle cap straight off the device.
5. Push the yellow end straight down on the skin.
 - a. Listen for a “click.”
6. Hold the device down and count slowly to 5.
7. When the injection is complete, the viewing window will be red.
8. Lift the device straight up from the injection site.
9. The yellow guard will lock over the needle.
10. Turn the person on their side in case of vomiting, a common side effect.

Glucagon intranasal (dry spray powder)

1. Look into the child’s nostrils to determine if there is fluid or mucus in the nostrils.
 - a. If drainage or mucous is present, use a bulb syringe to remove it.
2. Remove the shrink wrap by pulling on the red stripe.
3. Open the lid and remove the device from the tube.
 - a. **Caution**—do not push the plunger until ready to give the dose.
4. Use your free hand to hold the crown of the head stable.
5. Hold the device between your fingers and thumb.
 - a. Do not push the plunger yet.



6. Insert the tip gently into one nostril until your finger(s) touch the outside of the nose.
7. Push the plunger firmly all the way in.
 - a. Dose is complete when the green line disappears.



Post-Event

- Notify school administration and the school nurse.



- Notify parent/guardian if the individual is a student.
- Provide EMS with all known information about the event.
- Replace used undesignated glucagon promptly.
- Complete required documentation within 24 hours.

Documentation Requirements

Documentation must include:

- Date, time and location of the incident.
 - Observed symptoms and circumstances.
 - Undesignated glucagon administration details.
 - Response to undesignated glucagon medication.
 - EMS involvement.
 - Names of staff involved.
 - Parent/guardian notification (if applicable).
 - Name, date, time and route that the undesignated glucagon was administered.
-
- Give this information to EMS so that the information will accompany the individual to the hospital's emergency department.
 - All documentation must be submitted to the school nurse or designated administrator.
 - Complete the school incident report.
 - Replace undesignated glucagon as soon as possible.

Quality Assurance

The district will:

- Review all undesignated glucagon administration reports annually.
- Maintain inventory and expiration logs.
- Monitor staff training compliance.
- Update this protocol annually in collaboration with the prescribing healthcare provider.

Integration with Individual Health Plans (IHPs)

- Clarify that students with known diabetes should have an IHP that includes their diabetes medical management plan or other written accommodations plan, and personal use glucagon.
- Undesignated glucagon may be used for:
 - Emergencies when a student's glucagon is unavailable.

Resources and References

American Diabetes Association (ADA)

- [Safe at School | ADA](#): The American Diabetes Association® (ADA) provides free Safe at School® training materials and guidance for school personnel, including a training curriculum on hypoglycemia and glucagon administration. This curriculum is intended to be used with the ADA's free guide, Helping the Student with Diabetes Succeed: A Guide for School Personnel.
 - [Diabetes Care Tasks at School | ADA](#): Training Curriculum: Diabetes Care Tasks at School: What Key Personnel Need to Know
 - [03-Hypoglycemia.pptx](#)
 - [07-Glucagon Administration.pptx](#)
 - [Helping the Student with Diabetes Succeed: A Guide for School Personnel](#)
- [ADA-Glucagon-full-toolkit-Final.pdf](#)
- [2026 Standards of Care in Diabetes | ADA Clinical Guidelines](#)
 - American Diabetes Association Professional Practice Committee for Diabetes*; 6. Glycemic Goals, Hypoglycemia and Hyperglycemic Crises: Standards of Care in Diabetes—2026. *Diabetes Care* 1 January 2026; 49 (Supplement_1): S132–S149. <https://doi.org/10.2337/dc26-S006>
 - American Diabetes Association Professional Practice Committee for Diabetes*; 14. Children and Adolescents: Standards of Care in Diabetes—2026. *Diabetes Care* 1 January 2026; 49 (Supplement_1): S297–S320. <https://doi.org/10.2337/dc26-S014>
- [How to Use Glucagon | ADA](#)
- [Severe Hypoglycemia | ADA](#)

Centers for Disease Control and Prevention (CDC)

- [Managing Diabetes in Schools | Managing Health Conditions in School | CDC](#)
- [Managing Diabetes at School | Diabetes | CDC](#)

National Association of School Nurses (NASN)

- [Undesignated Glucagon in Schools for the Treatment of Diabetes-Related Hypoglycemia: A 2025 Update - Matthew R. Krecic, 2025](#)

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDKD)

- [Helping the Student with Diabetes Succeed - NIDDK](#)

Infographics for printing

- [ADA Severe Hypoglycemia Solutions Helping When it Happens.pdf](#)
- [ADA How to Administer - Glucagon Nasal Spray/Powder and Mixed Glucagon.pdf](#)
- [Glucagon Product Information \(2 pages\).pdf](#)

District Policy: Emergency Medication Standing Orders, Procedures, and Protocols

Standing orders

The district shall maintain current standing orders issued by a licensed healthcare provider authorizing the purchase, storage, and emergency administration of epinephrine, bronchodilator rescue inhalers, nebulizers, glucagon, and any other approved emergency medications. Standing orders shall define the medical authority under which designated school personnel may administer these medications during a suspected emergency.

Policies and Procedures

The district shall develop and implement written policies and procedures to support the safe execution of these standing orders. These procedures shall include requirements for staff training, delegation, documentation, storage, monitoring, and emergency response actions. Designated personnel must complete annual training approved by the Kentucky Department of Education, the Kentucky Department for Public Health, and the Kentucky Board of Nursing.

Protocols

All standing orders and district procedures shall be carried out in accordance with the clinical protocols developed by the Kentucky Department for Public Health. These protocols, located in the School Health section of the Clinical Service Guide, provide the standardized clinical guidance for recognizing emergencies, administering the authorized medications, and ensuring appropriate follow-up care.

Approval Signatures

School District Superintendent:

Name: _____

Signature

Date

District School Health Coordinator:

Name: _____

Signature

Date

Health Care Provider:

Name: _____

Signature

Date