PATIENT & CAREGIVER EDUCATION

Insulin Regular

This information from UpToDate® Lexidrug™ explains what you need to know about this medication, including what it's used for, how to take it, its side effects, and when to call your healthcare provider.

Brand Names: US

HumuLIN R U-500 KwikPen; HumuLIN R [OTC]; Myxredlin; NovoLIN R FlexPen ReliOn [OTC]; NovoLIN R FlexPen [OTC]; NovoLIN R ReliOn [OTC]; NovoLIN R [OTC]

Brand Names: Canada

Entuzity KwikPen; HumuLIN R; HumuLIN R KwikPen; Myxredlin; NovoLIN GE Toronto

What is this drug used for?

- It is used to lower blood sugar in patients with high blood sugar (diabetes).

What do I need to tell the doctor BEFORE my child takes this drug?

- If your child is allergic to this drug; any part of this drug; or any other drugs, foods, or substances. Tell the doctor about the allergy and what signs your child had.
- If your child has low blood sugar.

This is not a list of all drugs or health problems that interact with this drug.

Tell the doctor and pharmacist about all of your child's drugs (prescription or OTC, natural products, vitamins) and health problems. You must check to make

sure that it is safe to give this drug with all of your child's other drugs and health problems. Do not start, stop, or change the dose of any drug your child takes without checking with the doctor.

What are some things I need to know or do while my child takes this drug?

All products:

- Tell all of your child's health care providers that your child is taking this drug. This includes your child's doctors, nurses, pharmacists, and dentists.
- Be sure your child has the right insulin product. Insulin products come in many containers like vials, cartridges, and pens. Be sure that you know how to measure and get your child's dose ready. If you have any questions, call the doctor or pharmacist.
- Low blood sugar may happen with this drug. Very low blood sugar can lead to seizures, passing out, long lasting brain damage, and sometimes death. Talk with the doctor.
- Low blood potassium may happen with this drug. If not treated, this can lead to a heartbeat that is not normal, very bad breathing problems, and sometimes death. Talk with the doctor.
- Have your child avoid tasks or actions that call for alertness until you see how this drug affects your child. These are things like riding a bike, playing sports, or using items such as scissors, lawnmowers, electric scooters, toy cars, or motorized vehicles.
- Some diabetes drugs like pioglitazone or rosiglitazone may cause heart failure or make it worse in people who already have it. Using insulin with these drugs may increase this risk. If your child is taking one of these drugs, talk with the doctor.
- It may be harder to control blood sugar during times of stress such as fever, infection, injury, or surgery. A change in physical activity, exercise, diet, or weight may also affect your child's blood sugar.
- Have your child wear disease medical alert ID (identification).

- Check your child's blood sugar as you have been told by the doctor.
- Have your child's blood work checked often. Talk with your child's doctor.
- Alcohol interacts with this drug. Be sure your child does not drink alcohol or take products that have alcohol in them.
- Do not share your child's insulin product with another person. This includes any pens, cartridge devices, needles, or syringes, even if the needle has been changed. Sharing may pass infections from one person to another. This includes infections you may not know your child has.

If your child is pregnant or breast-feeding a baby:

- Talk with the doctor if your child is pregnant, becomes pregnant, or is breast-feeding a baby. You will need to talk about the benefits and risks to your child and the baby.

U-500 shot product:

- This brand of insulin is 5 times stronger than other brands. Use extra care when you measure a dose. Accidental overdose may lead to very bad side effects or life-threatening low blood sugar. Talk with the doctor.

What are some side effects that I need to call my child's doctor about right away?

WARNING/CAUTION: Even though it may be rare, some people may have very bad and sometimes deadly side effects when taking a drug. Tell your child's doctor or get medical help right away if your child has any of the following signs or symptoms that may be related to a very bad side effect:

- Signs of an allergic reaction, like rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever; wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat. Rarely, some allergic reactions have been life-threatening.
- Signs of low potassium levels like muscle pain or weakness, muscle cramps, or a heartbeat that does not feel normal.

- Swelling in the arms or legs.
- Thick skin, pits, or lumps where the injection was given.
- Low blood sugar may happen. Signs may be dizziness or passing out, blurred eyesight, mood changes, slurred speech, headache, feeling sleepy or weak, shaking, fast heartbeat, confusion, hunger, sweating, or seizures. Call the doctor right away if any of these signs happen. Follow what you have been told to do if low blood sugar happens. This may include taking glucose tablets, liquid glucose, or some fruit juices.

What are some other side effects of this drug?

All drugs may cause side effects. However, many people have no side effects or only have minor side effects. Call your child's doctor or get medical help if any of these side effects or any other side effects bother your child or do not go away:

- Weight gain.
- Irritation where the shot is given.

These are not all of the side effects that may occur. If you have questions about side effects, call your child's doctor. Call your child's doctor for medical advice about side effects.

You may report side effects to your national health agency.

How is this drug best given?

Give this drug as ordered by your child's doctor. Read all information given to you. Follow all instructions closely.

All subcutaneous products:

- It is given as a shot into the fatty part of the skin in the upper arm, thigh, buttocks, or stomach area.
- If you will be giving your child the shot, your child's doctor or nurse will teach you how to give the shot.
- Wash your hands before use.

- Give 30 minutes before meals.
- Move the site where you give the shot with each shot.
- Do not shake.
- Do not give into skin that is thickened, or has pits or lumps.
- Do not give into skin that is irritated, tender, bruised, red, scaly, hard, scarred, or has stretch marks.
- Do not use if the solution is cloudy, leaking, or has particles.
- Do not use if solution changes color.
- Throw away needles in a needle/sharp disposal box. Do not reuse needles or other items. When the box is full, follow all local rules for getting rid of it. Talk with a doctor or pharmacist if you have any questions.
- Have your child follow the diet and exercise plan your child's doctor told you about.
- Be sure you know what to do if your child does not eat as much as normal or if your child skips a meal.

U-100 vials:

- Do not draw into a syringe and store for future use.
- It may be given into a vein by a doctor or other health care provider.
- This drug may be mixed with another type of insulin called insulin NPH if the doctor tells you to. Be sure you know how to mix this drug with insulin NPH. Do not mix with another type of insulin.
- Some brands of this drug must not be used in an insulin pump unless the doctor tells you to. If your child will be using an insulin pump, check with the doctor or pharmacist to see if your child's brand may be used in a pump.
- If using this drug in a pump, be sure you know how to use it. Follow what the doctor has told you or read the package insert. Change the drug and parts of the pump when you have been told.

U-100 cartridges and pens:

- Remove all pen needle covers before injecting a dose (there may be 2). If you are not sure what type of pen needle you have or how to use it, talk with the doctor.
- Take off the needle after each shot and safely put it in a needle/sharp disposal box. Do not store this device with the needle on it.
- Do not move this drug from the pen to a syringe or mix with other types of insulin.
- This product may make a clicking sound as you prepare the dose. Do not prepare the dose by counting the clicks. Doing so could lead to using the wrong dose.

U-500 vials:

- If you are using the U-500 vials for your child's doses, you will need to use a special insulin syringe. Only use the special insulin syringe to measure and inject your child's dose. If you use the wrong syringe, you may give your child the wrong dose of insulin U-500. The wrong dose can lead to low or high blood sugar. Talk with your child's doctor.
- Do not mix this insulin in the same syringe with other types of insulin.
- Do not draw into a syringe and store for future use.
- Do not mix with other liquids.

U-500 prefilled pens:

- Remove all pen needle covers before injecting a dose (there may be 2). If you are not sure what type of pen needle you have or how to use it, talk with the doctor.
- Take off the needle after each shot and safely put it in a needle/sharp disposal box. Do not store this device with the needle on it.
- Do not move this drug from the pen to a syringe or mix with other types of insulin.

- This product may make a clicking sound as you prepare the dose. Do not prepare the dose by counting the clicks. Doing so could lead to using the wrong dose.

IV infusion:

- It is given as an infusion into a vein over a period of time.

What do I do if my child misses a dose?

All subcutaneous products:

- Be sure you know what to do if you forget to give your child a dose.
- If you are not sure what to do if your child misses a dose, call the doctor.

IV infusion:

- Call your child's doctor to find out what to do.

How do I store and/or throw out this drug?

All subcutaneous products:

- Store unopened containers in a refrigerator. Do not freeze.
- Do not use if it has been frozen.
- If an unopened container has been stored at room temperature, be sure you know how long you can leave this drug at room temperature before you need to throw it away. If you are not sure, talk with the doctor or pharmacist.
- After opening, be sure you know how long the product is good for and how to store it. Ask the doctor or pharmacist if you are not sure.
- Protect from heat and light.

IV infusion:

- If you need to store this drug at home, talk with your child's doctor, nurse, or pharmacist about how to store it.

All products:

- Keep all drugs in a safe place. Keep all drugs out of the reach of children and pets.
- Throw away unused or expired drugs. Do not flush down a toilet or pour down a drain unless you are told to do so. Check with your pharmacist if you have questions about the best way to throw out drugs. There may be drug take-back programs in your area.

General drug facts

- If your child's symptoms or health problems do not get better or if they become worse, call your child's doctor.
- Do not share your child's drug with others and do not give anyone else's drug to your child.
- Some drugs may have another patient information leaflet. If you have any questions about this drug, please talk with your child's doctor, nurse, pharmacist, or other health care provider.
- If you think there has been an overdose, call your poison control center or get medical care right away. Be ready to tell or show what was taken, how much, and when it happened.

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If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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