

## **Package leaflet: Information for the patient**

### **Revestive 5 mg powder and solvent for solution for injection** Teduglutide

▼ This medicine is subject to additional monitoring. This will allow quick identification of new safety information. You can help by reporting any side effects you may get. See the end of section 4 for how to report side effects.

**Read all of this leaflet carefully before you start using this medicine because it contains important information for you.**

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor, pharmacist or nurse.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. See section 4.

#### **What is in this leaflet**

1. What Revestive is and what it is used for
2. What you need to know before you use Revestive
3. How to use Revestive
4. Possible side effects
5. How to store Revestive
6. Contents of the pack and other information

#### **1. What Revestive is and what it is used for**

Revestive contains the active substance teduglutide. It improves the absorption of nutrients and fluid from your remaining gastrointestinal tract (gut).

Revestive is used to treat adults, children and adolescents (aged 1 year and above) with Short Bowel Syndrome. Short Bowel Syndrome is a disorder arising from an inability to absorb food nutrients and fluid across the gut. It is often caused by surgical removal of all or part of the small intestine.

#### **2. What you need to know before you use Revestive**

##### **Do not use Revestive**

- if you are allergic to teduglutide or any of the other ingredients of this medicine (listed in section 6) or trace residues of tetracycline.
- if you have or are suspected to have cancer.
- if you have had cancer in the gastrointestinal tract, including liver, gallbladder or bile ducts, and pancreas within the last five years.

## **Warnings and precautions**

Talk to your doctor before using Revestive:

- if you have severely decreased liver function. Your doctor will consider this when prescribing this medicine.
- if you suffer from certain cardiovascular diseases (affecting the heart and/or blood vessels) such as high blood pressure (hypertension) or have a weak heart (cardiac insufficiency). The symptoms include sudden weight gain, swollen ankles and/or shortness of breath.
- if you have other severe diseases that are not well controlled. Your doctor will consider this when prescribing this medicine.
- if you have decreased kidney function. Your doctor may need to give you a lower dose of this medicine.

When starting and while getting treated with Revestive, your doctor may adjust the amount of intravenous fluids or nutrition you receive.

### Medical check-ups before and during treatment with Revestive

Before you start treatment with this medicine, your doctor will need to perform a colonoscopy (a procedure to see inside your colon and rectum) to check for the presence of polyps (small abnormal growths) and remove them. It is recommended that your doctor performs these examinations once a year during the first 2 years after starting treatment, and then at a minimum of five-year intervals. If polyps are found either before or during your treatment with Revestive, your doctor will decide whether you should continue using this medicine. Revestive should not be used if a cancer is detected during your colonoscopy.

Your doctor will take special care and monitor your small bowel function and monitor for signs and symptoms indicating problems with your gallbladder, bile ducts and pancreas.

## **Children and adolescents**

### Medical check-ups before and during treatment with Revestive

Before you start treatment with this medicine, you will need to have a test done to see if there is blood in the stool. You will also have a colonoscopy done (a procedure to see inside your colon and rectum to check for the presence of polyps (small abnormal growths) and have them removed) if you have unexplained blood in your bowel movements (stools). If polyps are found before your treatment with Revestive, your doctor will decide whether you should use this medicine. Revestive should not be used if a cancer is detected during your colonoscopy. Your doctor will perform further colonoscopies if you continue treatment with Revestive.

### Children below 1 year of age

This medicine should not be used in children under 1 year of age. This is because there is no experience with Revestive in this age group.

## **Other medicines and Revestive**

Tell your doctor, pharmacist or nurse if you are using, have recently used or might use any other medicines.

Revestive may affect how other medicines are absorbed from the gut and therefore how well they work. Your doctor may have to change your dose of other medicines.

## **Pregnancy and breast-feeding**

If you are pregnant or breast-feeding, the use of Revestive is not recommended.

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor, pharmacist or nurse for advice before using this medicine.

### **Driving and using machines**

This medicine may cause you to feel dizzy. If this happens to you, do not drive or use machines until you feel better.

### **Important information about some of the ingredients in Revestive**

This medicine contains less than 1 mmol sodium (23 mg) per dose. This means that it is essentially 'sodium-free'.

Caution is needed if you are hypersensitive to tetracycline (see “**Do not use Revestive**” section).

### **3. How to use Revestive**

Always use this medicine exactly as your doctor has told you. Check with your doctor, pharmacist or nurse if you are not sure.

#### Dose

The recommended daily dose is 0.05 mg per kg body weight. The dose will be given in millilitres (ml) of solution.

Your doctor will choose the dose that is right for you depending on your body weight. Your doctor will tell you which dose to inject. If you are not sure, ask your doctor, pharmacist or nurse.

#### Use in children and adolescents

Revestive can be used in children and adolescents (aged 1 year and above). Use this medicine exactly as your doctor has told you.

#### How to use Revestive

Revestive is injected under the skin (subcutaneously) once daily. The injection can be self-administered or given by another person, for example your doctor, his/her assistant or your home nurse. If you, or your carer, are injecting the medicine, you or your carer must receive adequate training by your doctor or nurse. You will find detailed instructions for injections at the end of this leaflet.

It is strongly recommended that every time you or your child receive a dose of Revestive, the name and lot number of the product are recorded in order to maintain a record of the lots used.

#### **If you use more Revestive than you should**

If you inject more Revestive than you are told to by your doctor, you should contact your doctor, pharmacist or nurse.

#### **If you forget to use Revestive**

If you forget to inject this medicine (or cannot inject it at your usual time), use it as soon as possible on that day. Never use more than one injection in the same day. Do not inject a double dose to make up for a forgotten dose.

#### **If you stop using Revestive**

Keep using this medicine for as long as your doctor prescribes it for you. Do not stop using this medicine without consulting your doctor, as a sudden stop can cause changes in your fluid balance.

If you have any further questions on the use of this medicine, ask your doctor, pharmacist or nurse.

#### 4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them.

##### **Seek immediate medical attention if any of the following side effects occur:**

##### **Common** (may affect up to 1 in 10 people):

- Congestive heart failure. Contact your doctor if you experience tiredness, shortness of breath or swelling of ankles or legs
- Inflammation of the pancreas (pancreatitis). Contact your doctor or the emergency unit if you experience severe stomach ache and fever
- Intestinal obstruction (blockage of the bowel). Contact your doctor or the emergency unit if you experience severe stomach ache, vomiting and constipation
- Reduced flow of bile from the gallbladder and/or inflammation of the gallbladder. Contact your doctor or the emergency unit if you experience yellowing of the skin and the whites in the eyes, itching, dark urine and light-coloured stools or pain in the upper right side or middle of the stomach area

##### **Uncommon** (may affect up to 1 in 100 people):

- Fainting. If heart rate and breathing is normal and you awaken fast, speak to your doctor. In other cases, seek help as soon as possible

##### **Other side effects include:**

##### **Very common** (may affect more than 1 in 10 people):

- Respiratory tract infection (any infection of the sinuses, throat, airways or lungs)
- Headache
- Stomach pain, bloated stomach, feeling sick (nausea), swelling of stoma (an artificial opening for waste removal), vomiting
- Reddening, pain or swelling at the site of the injection

##### **Common** (may affect up to 1 in 10 people):

- Flu (influenza) or flu-like symptoms
- Decreased appetite
- Swelling of hands and/or feet
- Problems sleeping, anxiety
- Cough, shortness of breath
- Polyps (small abnormal growths) in your large bowel
- Passing gas (flatulence)
- Narrowing or blockage of your pancreatic duct, which may cause inflammation of the pancreas
- Inflammation of the gallbladder

##### **Uncommon** (may affect up to 1 in 100 people)

- Polyps (small abnormal growths) in your small bowel

##### **Not known** (frequency cannot be estimated from the available data):

- Allergic reaction (hypersensitivity)
- Fluid retention
- Polyps (small abnormal growths) in your stomach

##### **Use in children and adolescents**

In general, the side effects in children and adolescents are similar to those seen in adults.

There is no experience in children under 1 year of age.

## Reporting of side effects

If your child gets any side effects, talk to your child's doctor or pharmacist. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the national reporting system (see below). By reporting side effects you can help provide more information on the safety of this medicine.

### United Kingdom

Yellow Card Scheme

Website: [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard) or search for MHRA Yellow Card in the Google Play or Apple App Store

### Ireland

HPRA Pharmacovigilance Earlsfort Terrace

IRL - Dublin 2

Tel: +353 1 6764971

Fax: +353 1 6762517

Website: [www.hpra.ie](http://www.hpra.ie)

e-mail: [medsafety@hpra.ie](mailto:medsafety@hpra.ie)

## 5. How to store Revestive

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the carton, the vial and the pre-filled syringe after EXP. The expiry date refers to the last day of that month.

Store below 25°C.

Do not freeze.

After reconstitution, from a microbiological point of view, the solution should be used immediately. However, chemical and physical stability has been demonstrated for 3 hours at 25°C.

Do not use this medicine if you notice that the solution is cloudy or contains particulate matter.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment. Dispose of all needles and syringes in a sharps disposal container.

## 6. Contents of the pack and other information

### What Revestive contains

- The active substance is teduglutide. One vial of powder contains 5 mg of teduglutide. After reconstitution, each vial contains 5 mg teduglutide in 0.5 ml of solution, corresponding to a concentration of 10 mg/ml.
- The other ingredients are L-histidine, mannitol, sodium phosphate monohydrate, disodium phosphate heptahydrate, sodium hydroxide (pH adjustment), hydrochloric acid (pH adjustment).
- The solvent contains water for injections.

### **What Revestive looks like and contents of the pack**

Revestive is a powder and solvent for solution for injection (5 mg teduglutide in vial, 0.5 ml solvent in pre-filled syringe).

The powder is white and the solvent is clear and colourless.

Revestive comes in pack sizes of 1 vial of powder with 1 pre-filled syringe or 28 vials of powder with 28 pre-filled syringes.

Not all pack sizes may be available.

### **Marketing Authorisation Holder and Manufacturer**

Shire Pharmaceuticals Ireland Limited  
Block 2 & 3 Miesian Plaza  
50 – 58 Baggot Street Lower  
Dublin 2  
Ireland  
Tel: +44(0)1256 894 959  
E-mail: [medinfoEMEA@shire.com](mailto:medinfoEMEA@shire.com)

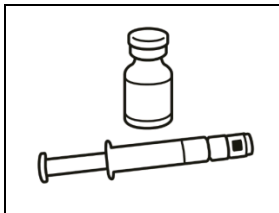
**This leaflet was last revised in 01/2019 .**

Detailed information on this medicine is available on the European Medicines Agency web site: <http://www.ema.europa.eu>. There are also links to other websites about rare diseases and treatments.

## Instructions for preparing and injecting Revestive

### **Important information:**

- Read the Package Leaflet before using Revestive.
- Revestive is for injection under the skin (subcutaneous injection).
- Do not inject Revestive into a vein (intravenously) or muscle (intramuscularly).
- Keep Revestive out of the sight and reach of children.
- Do not use Revestive after the expiry date which is stated on the carton, the vial and the pre-filled syringe. The expiry date refers to the last day of that month.
- Store below 25°C.
- Do not freeze.
- After reconstitution, from a microbiological point of view, the solution should be used immediately. However, chemical and physical stability has been demonstrated for 3 hours at 25°C.
- Do not use Revestive if you notice that the solution is cloudy or contains particulate matter.
- Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.
- Dispose of all needles and syringes in a sharps disposal container.



### Materials provided in the pack:

- 1 or 28 vials with 5 mg teduglutide as a powder
- 1 or 28 pre-filled syringes with solvent

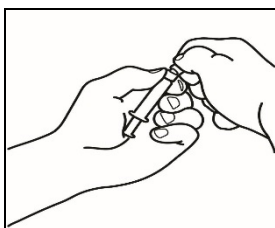
### Materials needed but not included in the pack:

- Reconstitution needles (size 22G, length 1½" (0.7 x 40 mm))
- 0.5 or 1 ml injection syringes (with scale intervals of 0.02 ml or smaller). ***For children, a 0.5 ml (or smaller) injection syringe may be used***
- Thin injection needles for subcutaneous injection (e.g., size 26G, length 5/8" (0.45 x 16 mm), or smaller needles for children, as appropriate)
- Alcohol wipes
- Alcohol swabs
- A puncture-proof container for safe disposal of the used syringes and needles

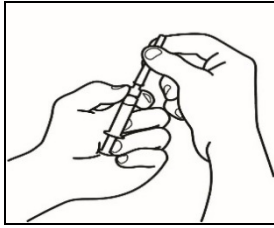
**NOTE:** Before you start, make sure you have a clean work surface and that you have washed your hands before proceeding.

### **1. Assemble the pre-filled syringe**

Once you have all the materials ready, you need to assemble the pre-filled syringe. The following procedure shows how you do this.



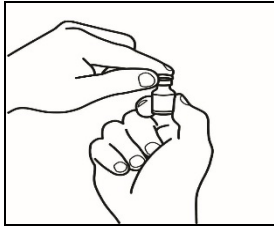
- 1.1 Take the pre-filled syringe with the solvent and flip off the top part of the white plastic cap on the pre-filled syringe so that it is ready for the reconstitution needle to be attached.



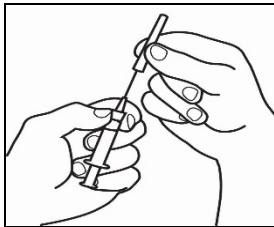
1.2 Attach the reconstitution needle (22G, 1½" (0.7 x 40 mm)) to the assembled pre-filled syringe by screwing it on in a clockwise direction.

## 2. Dissolve the powder

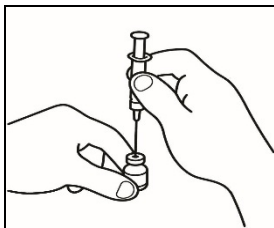
Now you are ready to dissolve the powder with the solvent.



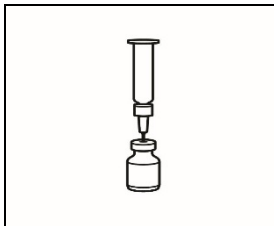
2.1 Remove the green flip-off button from the powder vial, wipe the top with an alcohol wipe and allow to dry. Do not touch the top of the vial.



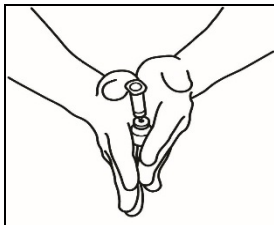
2.2 Uncap the reconstitution needle on the assembled pre-filled syringe with solvent without touching the tip of the needle.



2.3 Taking the powder vial, insert the reconstitution needle attached to the assembled pre-filled syringe into the centre of the rubber stopper and gently push the plunger all the way down to inject all the solvent into the vial.



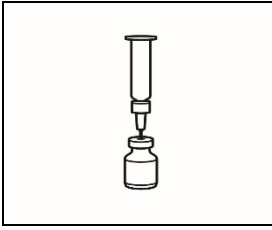
2.4 Leave the reconstitution needle and empty syringe in the vial. Let the vial rest for approximately 30 seconds.



2.5 Gently roll the vial between your palms for about 15 seconds. Then gently turn the vial upside-down once with the reconstitution needle and empty syringe still in the vial.

**NOTE:** Do not shake the vial. Shaking the vial may produce foam, which makes it difficult to extract the solution from the vial.





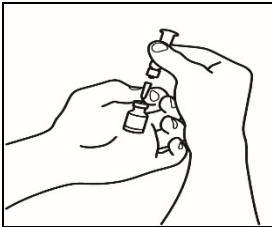
2.6 Let the vial rest for about two minutes.

2.7 Observe the vial for any undissolved powder. If any powder remains, repeat steps 2.5 and 2.6. Do not shake the vial. If there is still some undissolved powder, discard the vial and start the preparation again from the beginning with a new vial.

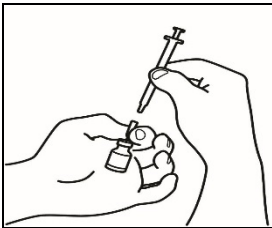
**NOTE:** The final solution should be clear. If the solution is cloudy or contains particulate matter, do not inject it.

**NOTE:** Once prepared, the solution should be used immediately. It should be kept below 25°C and maximum storage time is three hours.

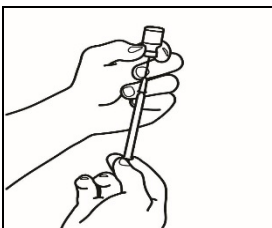
### 3. Prepare the injection syringe



3.1 Remove the reconstitution syringe from the reconstitution needle which is still in the vial and discard the reconstitution syringe.

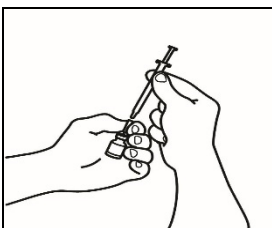


3.2 Take the injection syringe and attach it to the reconstitution needle which is still in the vial.

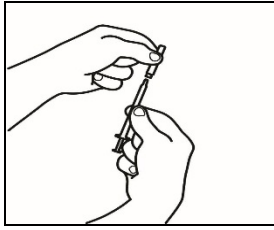


3.3 Turn the vial upside down, slide the tip of the reconstitution needle close to the stopper and allow all the medicine to fill the syringe by pulling the plunger back gently.

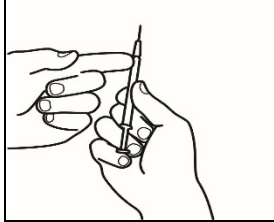
**NOTE:** If your doctor has told you that you need two vials, prepare a second pre-filled syringe with solvent and a second powder vial as shown in the main steps 1 and 2. Withdraw the solution from the second vial into the same injection syringe by repeating step 3.



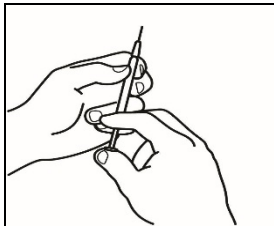
3.4 Remove the injection syringe from reconstitution needle leaving the needle in the vial. Discard the vial and reconstitution needle together into the sharps disposal container.



3.5 Take the injection needle, but do not remove the plastic needle cap. Attach the needle to the injection syringe containing the medicine.

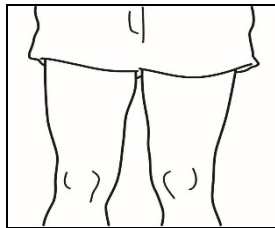
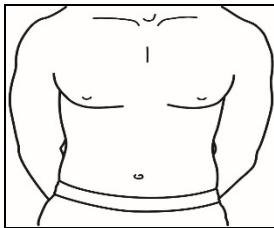


3.6 Check for air bubbles. If air bubbles are present, gently tap the syringe until they rise to the top. Then gently push up the plunger to expel the air.



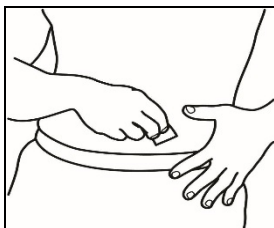
3.7 Your dose in ml has been calculated by your doctor. Expel any excessive volume from the syringe with the needle cap still on until your dose is reached.

#### 4. Inject the solution

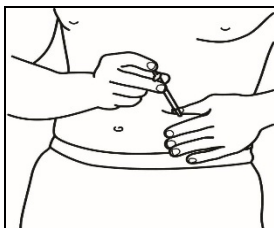


4.1 Find an area on your belly, or if you have pain or hardening of the tissue on your belly, on your thigh where it is easy for you to give the injection (see the diagram).

**NOTE:** Do not use the same area each day for each injection - rotate sites (use upper, lower, and left and right side of your belly) to avoid discomfort. Avoid areas that are inflamed, swollen, scarred or covered by a mole, birthmark or other lesion.



4.2 Clean the intended site of injection on your skin with an alcohol swab, using a circular motion, working outwards. Allow the area to air-dry.



4.3 Remove the plastic cap from the needle of the prepared injection syringe. Gently grasp the cleaned skin at the injection site with one hand. With the other hand, hold the syringe as you would with a pencil. Bend your wrist back and quickly insert the needle at a 45° angle.

4.4 Pull back the plunger slightly. If you see any blood in the syringe, withdraw the needle and replace the needle on the injection syringe with a clean one of the same size. You can still use the medicine that is already in the syringe. Try to inject in another place in the cleaned skin area.

- 4.5 Inject the medicine slowly by pushing steadily on the plunger until all the medicine is injected and the syringe is empty.
- 4.6 Pull the needle straight out of the skin and discard the needle and syringe together into the sharps disposal container. A small amount of bleeding may occur. If necessary, press gently on the injection site with an alcohol swab or 2x2 gauze until any bleeding has stopped.
- 4.7 Dispose all needles and syringes in a sharps disposal container or hard-walled container (for example, a detergent bottle with a lid). This container must be puncture proof (top and sides). If you need a sharps disposal container, please contact your doctor.