The One Minute Counselor™

The Pharmacist's Guide to Injectable Drugs for Diabetes and Obesity

Burden of Disease

In the United States, more than 38 million Americans have diabetes (about 1 in 10), and about 90% to 95% of them have type 2 diabetes (T2D).[1,2] Chronic hyperglycemia associated with T2D can increase the risk of micro- and macrovascular complications.[3] Pharmacotherapy and lifestyle modifications are commonly indicated for hyperglycemia management.[4,5]

Obesity is a chronic, relapsing, and progressive disease driven by the interaction of multiple factors, many of which are beyond an individual's control.[6-8] Obesity affects all organ systems, contributing to more than 200 complications, including T2D, hypertension, hyperlipidemia, cardiovascular disease, obstructive sleep apnea, and certain types of cancer.[9] Weight reduction of 5%–10% or more improves many obesity-related complications.[10] Individuals with obesity can achieve clinically meaningful weight loss with lifestyle modifications alone, but weight regain is common.[7,11] Pharmacotherapy is indicated, along with a healthy diet and physical activity, for chronic weight management in adults with obesity.[11]

Incretin-Based Therapy for T2D and Obesity

Injectable incretin-based therapies were initially approved for adults with T2D in 2005 and for those with obesity in 2014.[12] They exert their pharmacological effect through agonist activity at the incretin receptors such as GLP-1 and GIP.[12-14] The medications work in the following ways for people with obesity or T2D:

Obesity[15-17]

- Reduce body weight with greater fat mass loss than lean mass loss
- Reduce food intake
- Decrease appetite
- Delay gastric emptying
- Enhance insulin secretion

T2D[18-22]

- Activate glucose-dependent insulin release
- Improve insulin secretion
- Reduce glucagon levels
- Delay gastric emptying

Pharmacists play an integral role in ensuring a successful medication start by providing support. For incretin-based therapies, this can include training on self-injection. Along with reviewing the instructions for use with the patient, the pharmacist can also teach injection best practices, offer a demonstration, and answer questions, which could help reduce patients' concerns about self-injection.[23,24]

The Pharmacy: A Prime Place for Patient Education

Several incretin-based therapeutics requiring self-injection are approved for the treatment of obesity or T2D.[5-22]

Patient education at the point of sale is key. When a patient fills a prescription for an injectable incretin-based therapeutic, especially for the first time, use the visit as an opportunity for patient education. Keep in mind that the patient may not have received this information at the time of prescribing.

Pharmacists are in a unique position to counsel patients about self-injected medications and set patients up for success.[23,24] They have extensive education and experience teaching patients and showing them how to perform self-injections. Therefore, pharmacists can play a vital role in ensuring a successful medication start by providing support and training on self-injection.

Key points of education include:[15-24]



Device Considerations

- Check dose
- Check expiration date
- Review administration schedule and requirements (e.g., weekly, with or without food)
- Review supplies needed for injection (e.g., gauze, needles, etc.)
- Examine liquid through vial or syringe window, if applicable



Pharmacist's Role

- Answer questions
- Reassure patients when they have concerns about self-injection
- Suggest resources for additional education and support (e.g., instructions for use, a video on the manufacturer's website, or trusted association websites)
- Review instructions for use
- Show how to wash hands and clean the area
- Teach injection best practices
- Give a demonstration
- Educate about proper needle disposal

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APhA American Pharmacists Association

Patients' Frequently Asked Questions About Incretin-Based Therapies

Be prepared to answer these common questions about incretin-based medications:

Q: When should I take this medication?

A: Consult the prescription and the instructions for use. Most of these medications are taken weekly at whatever time of day is convenient, but it's best to take it on the same day each week and around the same time.[15-22]

Q: Will it hurt?

A: You may feel a pinch or slight discomfort. You can reduce this feeling by injecting into a fattier area rather than a muscular area, using a new needle for each injection, and letting the medication get to room temperature.[23-26]

Q: Will the area bleed?

A: You may see a small spot of blood after the injection, which you can manage by lightly pressing with a tissue or cotton ball and applying a small bandage.

Q: What's the best place to stick the needle?

A: Find a place on your abdomen or thigh you can reach comfortably. Avoid areas that are bruised, swollen, tender, or scarred. Also avoid stretch marks and the belly button. Rotate the injection site with each dose. If injecting into the same body part, try to pick a spot at least 1 cm away from the last injection spot.[25] These medications need to be injected into the layer of fat between skin and muscle. Do not inject into muscle or blood vessels.[23,24]

Q: How do I know if all the medication got into my body?

A: Check the instructions for use. Some injection pens use a countdown to let you know the injection is done. Others use a series of clicks.[15-22]

Q: Will I have side effects?

A: The most common side effects are gastrointestinal, such as stomach pain, indigestion, nausea, vomiting, heartburn, diarrhea, constipation, gas, feeling bloated, as well as injection-site reactions. You may also experience headaches, fatigue, or dizziness.[15-22] Contact your prescriber if your side effects are bothersome or do not go away.

Q: When should I call my doctor?

A: Severe allergic reactions aren't common, but they do occur. Seek immediate medical attention if you have any symptoms of a serious allergic reaction. Symptoms can include swelling in your face, lips, tongue, or throat; problems breathing or swallowing; severe rash or itching; dizziness or fainting; or a very rapid heartbeat.[15-22] You can look at the medication guide for a full list of potential serious side effects.

Q: What happens if I forget to put the medication in the fridge?

A: It might be okay depending on how long it's been. Let's look at the information for your medication to determine if it's okay to use it. This medication should not be stored in the freezer or in direct heat or sunlight.[15-22]

Q: What happens if I miss a dose?

A: Each manufacturer has different guidelines. Let's look at the package insert.[15-22] Generally, if you are overdue by a few days, then you can take it. But if you are almost ready for your next dose when you remember to take it, just skip the missed dose. Contact me or your doctor if you miss a dose and aren't sure.

Conclusion

Pharmacists are an essential resource for patients. They can help patients feel confident with their treatments, including medications requiring self-injection. Taking time to educate patients and answer their questions can improve patients' experiences, adherence, and outcomes.

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The Patient's Guide to Injectable Medications for Diabetes and Obesity

As part of the plan to manage obesity, type 2 diabetes, or both, you may have been prescribed a non-insulin injectable medication, along with a healthy diet and physical activity.[4,5]

You are responsible for injecting this medication either daily or weekly. You may have questions or anxiety about self-injection.

This guide will help you work with your pharmacist and the rest of your health care team so that you understand your treatment and feel ready for success.

Type 2 Diabetes and Obesity

Type 2 diabetes and obesity are common conditions, and they are related.[3,27,28] Type 2 diabetes occurs when the body can't use insulin properly, which can lead to high levels of blood sugar. Most people with type 2 diabetes also have excess weight, which can make it harder for your body to respond to the insulin you make.[3] Obesity, or excess weight or body fat, occurs in more than 40% of US adults and can lead to type 2 diabetes.[26]

Injectable Non-Insulin Medications for Type 2 Diabetes or Obesity

After you eat food, your body releases GIP and GLP-1, two hormones from the gut. For people with obesity or type 2 diabetes, these hormones may not work the way they should. Some medications work like these gut hormones and can help manage obesity or type 2 diabetes.[12-14] They help you eat less and lower your blood sugar.[15-22] These medications are not insulin.

Self-Injections

These medications are taken on a schedule. Talk to your prescriber or pharmacist to find out whether it should be taken daily or weekly. You inject the medication under the skin (subcutaneously) using an injectable device with medication already in it.[15-22]

As you get more experience using your device, you'll find it gets easier over time.

This guide, along with your health care team, will offer helpful tips.

Other Resources

Taking a new kind of medication can be intimidating. Don't hesitate to reach out for help. You can consult your:

- Pharmacist
- Primary care physician
- Nurse
- Instructions for use that came with your medication
- Medication website for text and video instructions

Talk With Your Pharmacist

Your pharmacist is usually the last health care professional you talk with about your medication before you bring it home. They want you to be successful performing the injection. It's very helpful to review the following with your pharmacist:

FREQUENCY: How often should I take the medication (daily or weekly)?
INJECTION LOCATION: Where should I inject the medication?
DEMO: Can we review the device and instructions together? Can you give me a demonstration, if possible?
FIRST DOSE: Can I administer the first dose here at the pharmacy while you supervise?
STORAGE: How should I store this medication?[15-22]

- Ask how to make sure the medication was delivered into your body properly.
- Ask whether this medication will interact with any of your other medications (for example, birth control pills).
- Review possible side effects and when you should call your doctor.
- Ask the pharmacist what to do if you miss a dose.

Note: Each injectable medication has a different type of device, storage instructions, doses, side effects, and other details. It's important to talk with your pharmacist about your specific prescription.

Tips for Making Injections Successful

When it's time to give yourself an injection, try the following strategies for success:

Be prepared. Read the information that came with your medication. Visit the medication website for additional support such as a video on how to inject.

Choose an injection site.[15-24] The best place to self-inject the medication is usually your abdomen or thigh area. Avoid areas that are bruised, swollen, tender, or scarred. Also avoid stretch marks and the belly button. Change or rotate the injection site each time you use the medication. Never inject the medication into muscle or blood vessel.

Wash your hands and clean the injection site.[15-24] Before you handle the medication, wash your hands thoroughly with soap and water and clean the injection site with an alcohol swab. Make sure to let the alcohol dry before injecting.

Dispose of the product safely.[15-22] Check the disposal instructions that come with your medicine. You should never reuse a needle used to inject your medicine. Injection devices and/or needles should be disposed of in an FDA-cleared sharps container or other hard-sided container with a tight-fitting lid.

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