Understanding *Metformin*

NAME DATE

Making smart choices about the amounts and types of foods that you eat and increasing your physical activity will help control your blood glucose (blood sugar). Over time, however, your body is no longer able to control blood glucose levels on its own, and medications are needed to help control blood glucose levels.

Starting a new medication to improve your blood glucose control is an important step. As you begin using *metformin*, or a medication containing *metformin*, understanding how it works and what you can expect from treatment will help you be more successful.

Why have I recommended *metformin* for you?

Metformin is being prescribed to help control your blood glucose levels. With type 2 diabetes, your body is not able to use energy from the food you are eating normally and high blood glucose levels occur.

Before diabetes, your body produced enough insulin to use and store glucose (sugar) from the food you ate and your blood glucose levels stayed within the normal range. However, with type 2 diabetes, your body's own insulin does not work as it should (this is called insulin resistance) AND your liver releases more glucose than it should.

How to be successful with *metformin*

- Take your medication each day, as prescribed
- Continue to watch what and how much you eat
- Be active — as much as you are able
- Check your blood glucose as directed by your healthcare provider
- Take charge of your diabetes — stay active and involved in managing your health

Call if you have . . .

- Nausea, diarrhea, or other gastrointestinal (GI) symptoms that continue to bother you
- Continued high blood glucose levels above _____ HCP to complete
- Questions or if you are uncertain about what to do

Contact information for healthcare provider (HCP)

Name: _____ HCP to complete

Contact number(s): _____ HCP to complete

What is *metformin* and how does it work?

Metformin is an oral diabetes medication that belongs to a class of drugs called biguanides. *Metformin* is recommended as first-line treatment along with diet and physical activity, and is the most commonly prescribed medication for individuals with type 2 diabetes.

Metformin helps control blood glucose levels by . . .	In people with diabetes, this is important because with diabetes . . .
Helping control the amount of glucose that is made by your liver	The liver produces too much glucose, especially after meals
Increasing your body's ability to use the insulin it is making (this helps your body better use the glucose from the food you eat)	Insulin resistance interferes with the body's ability to use insulin properly. The body does not use or store glucose normally
Decreasing how fast glucose from the food you eat is absorbed in the gut	Glucose is absorbed more quickly from the gut, causing blood glucose levels to rise faster

Starting to use *metformin*: the What, Why, and How for your first weeks

What	Why	How (HCP to complete)
Start *metformin* at lower dose	To reduce gastrointestinal (GI) symptoms	___ mg once per day ___ mg before each meal ___ mg before _____ & _____ Other _____
Increase *metformin* dose	To provide better blood glucose control	At week ____, change dose to: ___ mg once per day ___ mg before each meal ___ mg before _____ & _____ Other _____

What to expect when starting *metformin*

- An upset stomach or other GI symptoms such as cramping, nausea, gas, diarrhea, and/or vomiting when starting or increasing your dose
- It may take a few days for your blood glucose levels to improve
- You may be less hungry
- You should not experience hypoglycemia (low blood glucose)
  - — *Metformin* alone generally does not cause hypoglycemia
  - — Hypoglycemia may occur if *metformin* is combined with another diabetes medication that causes low blood glucose

If you are having nausea

- Take *metformin* with food to help reduce nausea
- Cut back on eating spicy or high fat foods
- Eat smaller, more frequent meals
- Wait a few more days before increasing your dose of *metformin*
- You can use _____ (over-the-counter nausea medicine) if needed
  HCP to complete

What to expect as you continue to use *metformin*

- Nausea and other GI symptoms generally decrease or go away
- Continued healthy eating and physical activity will help your medications work better
- Your blood glucose levels may improve
- If your blood glucose levels remain too high, please call your healthcare provider
  - — The dose may need to be increased further
  - — You may need to add to or change your diabetes medications

What should you do if . . .

Topic	If . . .	Then . . .
Food	Meal is missed or delayed	Continue taking usual dose at usual time Check your blood glucose
	Eating more or less food than usual	
	Not able to eat because of illness	
Activity	More or less activity than usual	
Metformin dosing	Dose is missed or forgotten	Continue taking usual dose at usual time Your blood glucose may be higher
	Dose is not taken regularly	
	Having trouble remembering to take your dose	Talk to your healthcare provider about other doses or types of medication that may be easier for you to use
Medical test or procedure	Test includes use of dye or contrast agent	Do not take *metformin* the day of test; restart *metformin* in 2 days as long as you are urinating normally Contact your healthcare provider if you have problems urinating after the test
Not feeling well	Unusual weakness, fatigue, sleepiness, muscle pain, dizziness or lightheadedness, sudden problems breathing, chest discomfort, slower or irregular heartbeat	Contact your healthcare provider right away
Other diabetes medications	These can cause your blood glucose to drop if they are added or the dose is changed	Monitor your blood glucose more carefully Avoid skipping or delaying meals

What are other names for *metformin?*

Name	Usual dosing frequency	Pill	Liquid	Comments
Fortamet®	once daily	✓		Extended release; do not crush
Glucophage®	2-3 times/day	✓		Taken with meals
Glucophage® XR	1-2 times/day	✓		Extended release; do not crush
Glumetza®	once daily	✓		Extended release; do not crush
Riomet®	2-3 times/day		✓	Taken with meals

What other diabetes medications contain *metformin?*

Metformin may be prescribed alone or in combination with other medications for type 2 diabetes. Sometimes *metformin* is combined with another medication in the same pill.

Name of combination medication	*Metformin* is combined with . . .	What does the other medication do?
Brand Names		
Actoplus Met®	pioglitazone (TZD)	Reduces insulin resistance
Avandamet®	rosiglitazone (TZD)	Reduces insulin resistance
Metaglip®	glipizide (sulfonylurea)	Helps your body make more insulin
Glucovance®	glyburide (sulfonylurea)	Helps your body make more insulin
Janumet®	sitagliptin (DPP-4 inhibitor)	Helps your body make more insulin Reduces the amount of glucose made by your liver
PrandiMet®	repaglinide (meglitinide)	Helps your body make more insulin
Generic Names		
Metformin/glipizide	glipizide (sulfonylurea)	Helps your body make more insulin
Metformin/glibenclamide	glibenclamide (sulfonylurea)	Helps your body make more insulin

Note: another name for “glibenclamide” is “glyburide.”

Controlling blood glucose levels reduces the complications of diabetes. Taking all of your medications as prescribed, staying active, and maintaining healthy eating will help you manage your overall health.