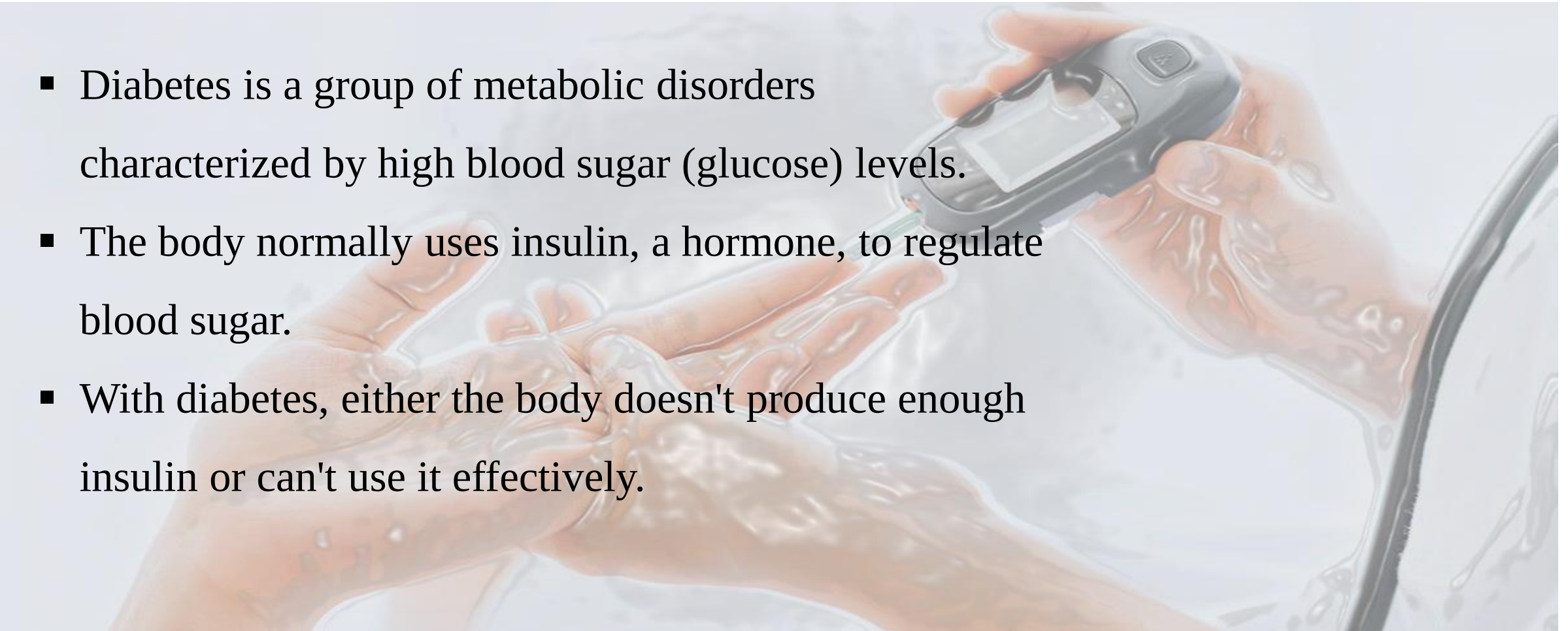

MARKET RESEARCH ON PREFERENCE OF GLIPTINS IN TYPE 2 DIABETES MELLITUS

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WHAT IS DIABETES?

- Diabetes is a group of metabolic disorders characterized by high blood sugar (glucose) levels.
- The body normally uses insulin, a hormone, to regulate blood sugar.
- With diabetes, either the body doesn't produce enough insulin or can't use it effectively.



TYPES OF DIABETES

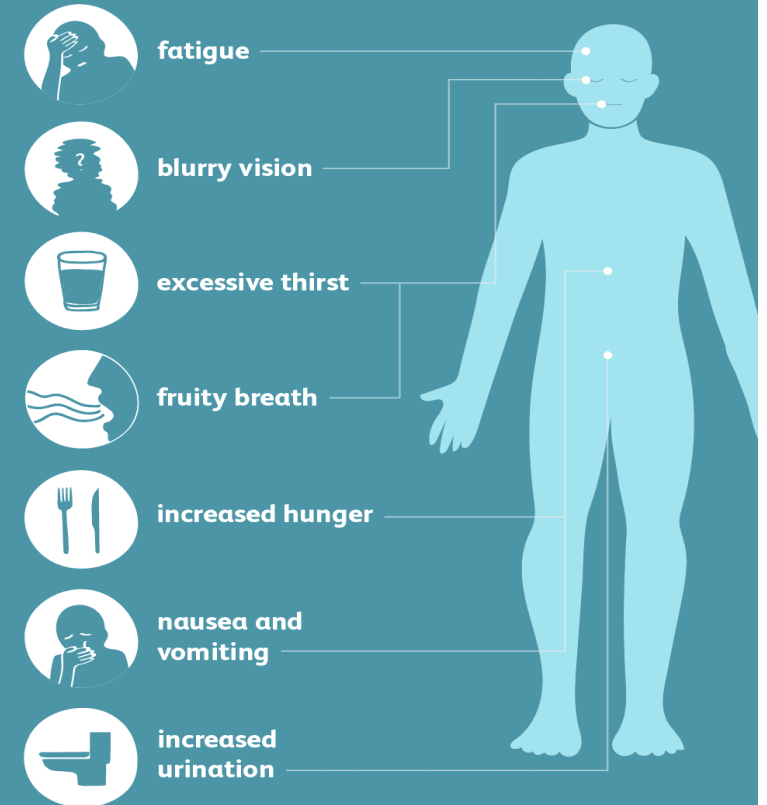
- There are three main types of diabetes:
 - Type 1 diabetes: The body attacks insulin-producing cells in the pancreas.
 - Type 2 diabetes: The body either doesn't produce enough insulin or can't use it effectively.
 - Gestational diabetes: A temporary form of diabetes that develops during pregnancy.

SYMPTOMS OF DIABETES

- Frequent urination
- Increased thirst
- Excessive hunger
- Unexplained weight loss
- Fatigue
- Blurred vision
- Slow-healing sores
- Frequent infections

Hyperglycemia

Common Symptoms



DIAGNOSIS

Type 2 Diabetes Diagnosis



Hemoglobin A1c Test



Random Plasma Glucose Test



Oral Glucose Tolerance Test

1) Blood sugar tests:

- Fasting blood sugar test,
- HbA1c test,
- oral glucose tolerance test (OGTT).

2) Urine tests: May check for the presence of ketones, a byproduct of fat breakdown when the body can't use glucose for energy.

TREATMENTS

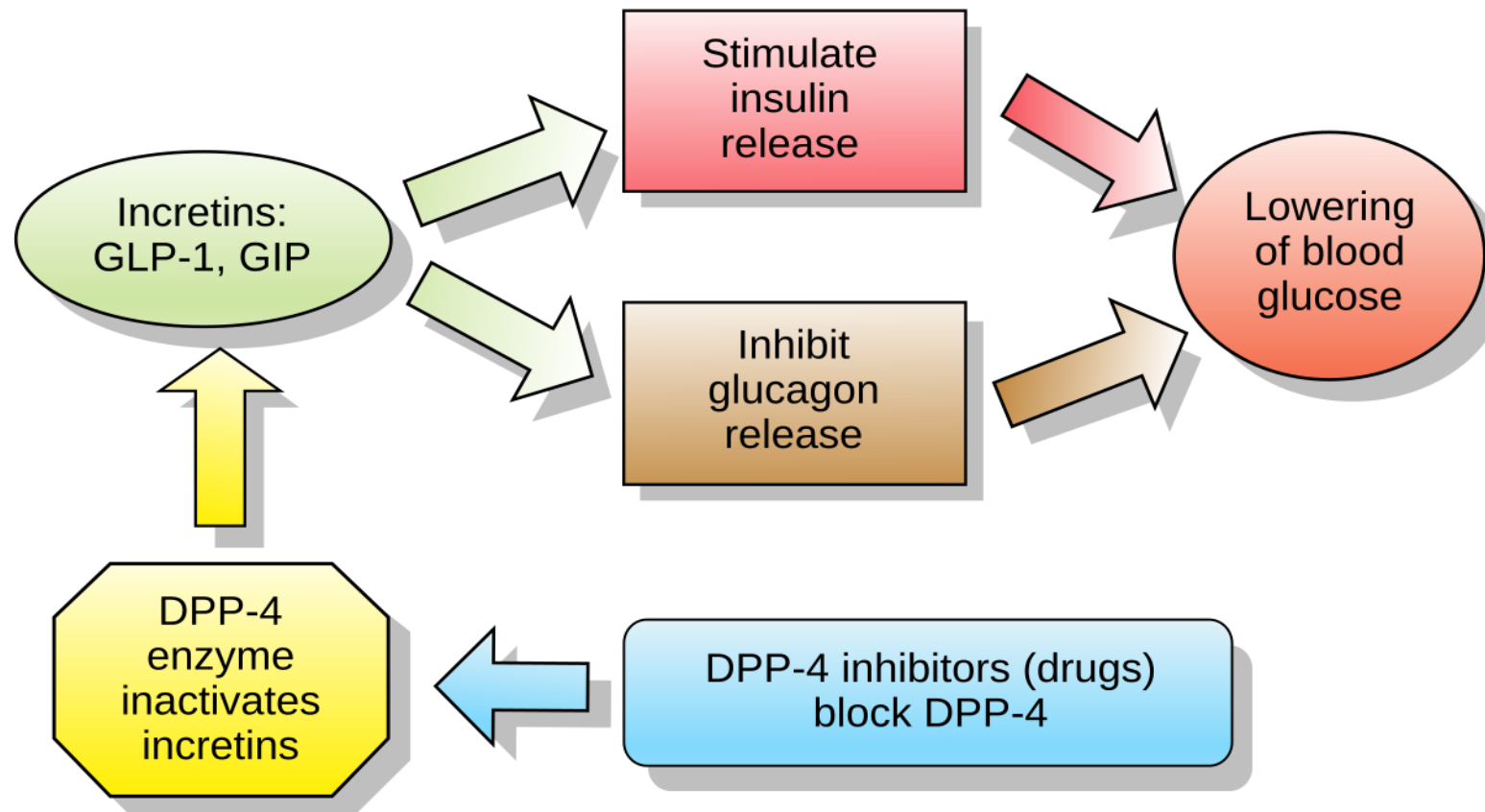
■ Treatment Options for Diabetes

- Lifestyle changes: Diet, exercise, weight management, stress control.
- Medications:
 - Oral medications like metformin, sulfonylureas, and gliptins.
 - Injectable medications like insulin.

WHAT ARE GLIPTINS?

- Gliptins, also known as DPP-4 inhibitors, are a class of oral medications for type 2 diabetes.
- They work by increasing levels of incretin hormones, which stimulate insulin release and suppress glucagon production.
- This helps regulate blood sugar levels without causing hypoglycemia (low blood sugar).

MOA



CARDIAC SAFETY PROFILE

- Sitagliptin:** The TECOS trial showed no increased risk of heart failure or cardiovascular events.
- Linagliptin:** The CARMELINA trial yielded similar results to TECOS.
- Vildagliptin:** Larger-scale studies specifically focused on cardiovascular safety with Vildagliptin are lacking. However, based on its similar mechanism of action to Sitagliptin and Linagliptin, the risk profile might be comparable, but more research is needed.

HEPATIC SAFETY PROFILE

- **Linagliptin appears to have the most favorable hepatic safety profile** among the three Gliptins (Linagliptin, Sitagliptin, and Vildagliptin).

Here's why:-

- **Linagliptin:** Primarily metabolized by the liver through enzymes other than the CYP450 system. This is important because many medications use CYP450 enzymes, reducing the risk of interactions with Linagliptin.

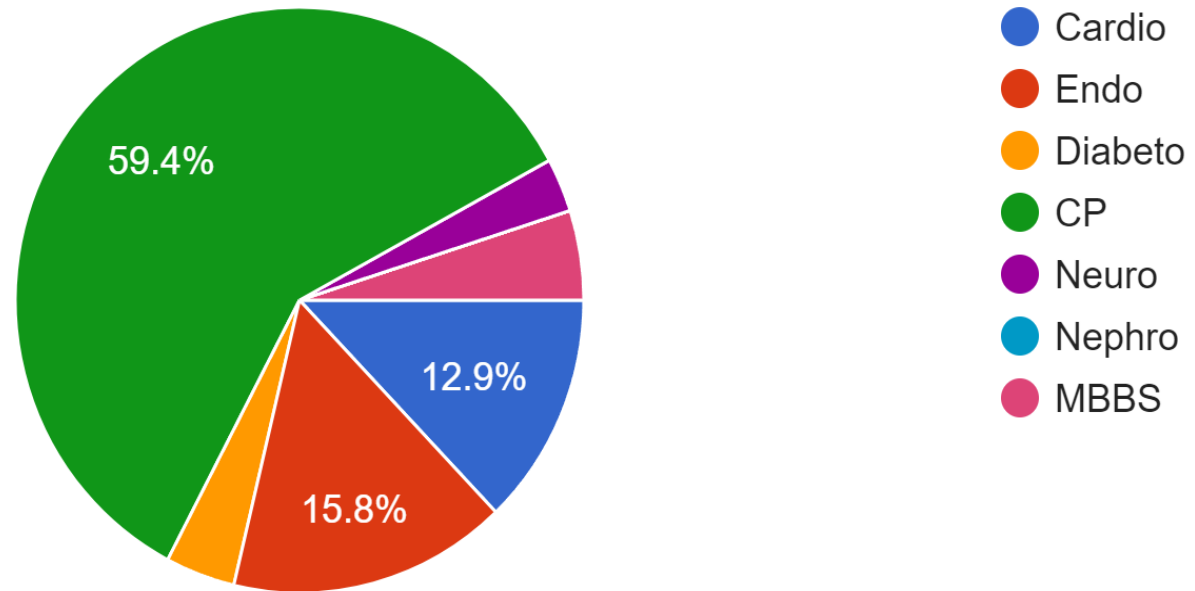
- **Sitagliptin and Vildagliptin:** Metabolized to a lesser extent by CYP450 enzymes, but still present a potential for interactions with other medications that use these enzymes.



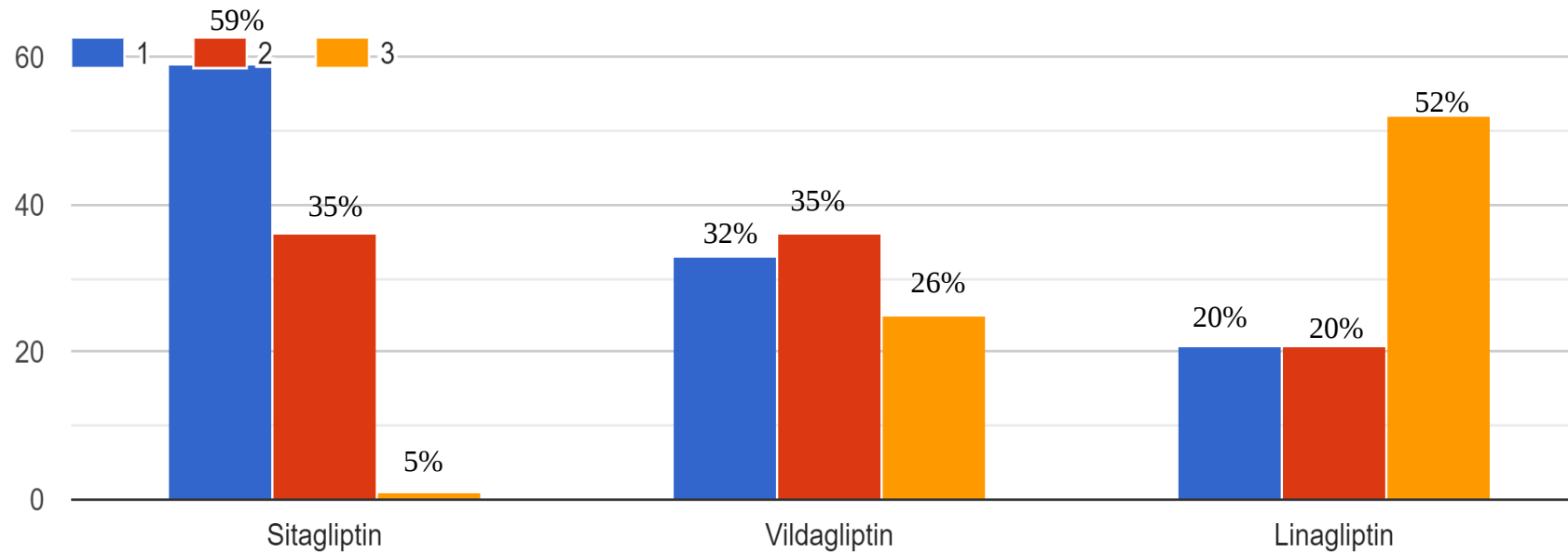
SURVEY ANALYSIS

Specialty

101 responses

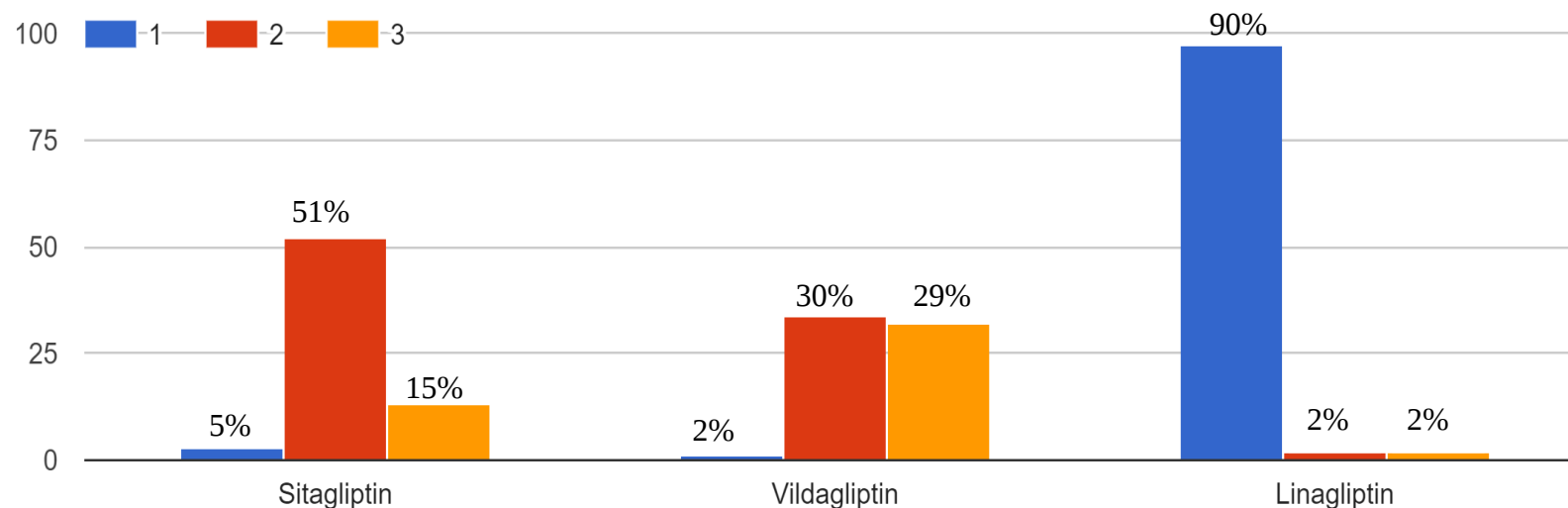


1. Which Gliptin do you prefer as the first choice for T2DM, followed by the second and third choices?



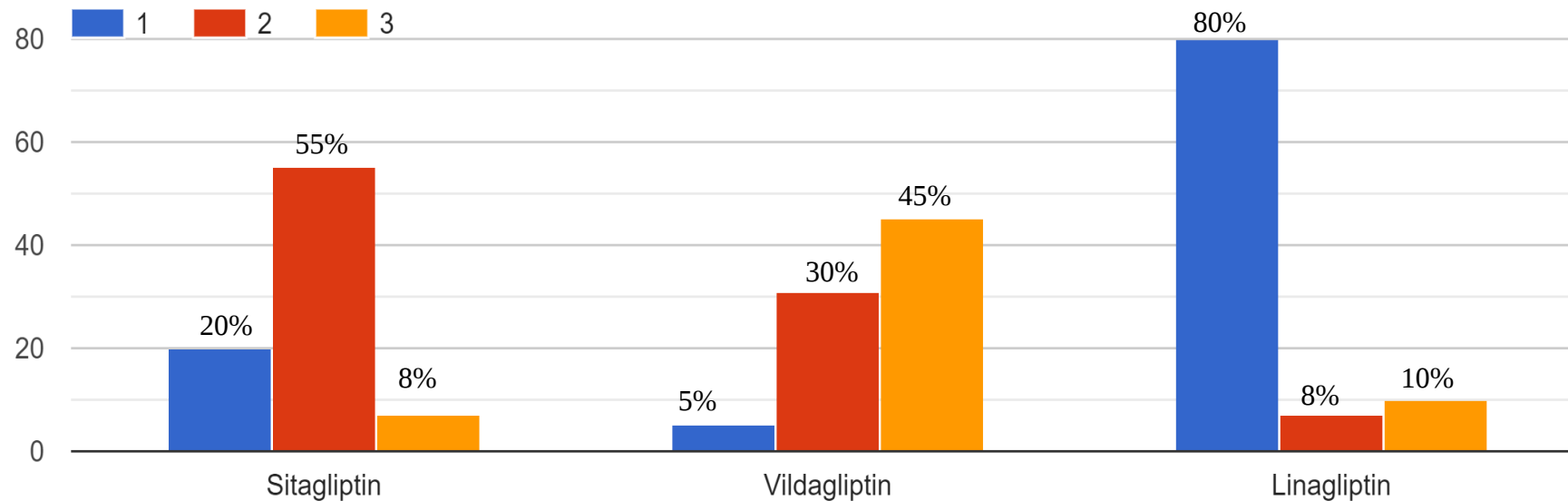
After asking doctors that which gliptin they preferred for T2DM, majority of them chose Sitagliptin as their 1st choice, then Vildagliptin as their 2nd choice and then Linagliptin as their 3rd choice.

2. Among Gliptins, what is your preferred choice during worsening renal function in the sequence of 1st to 3rd?



After asking doctors that which gliptin they preferred during worsening renal function for T2DM, majority of them chose Linagliptin as their 1st choice, then Sitagliptin as their 2nd choice and then Vildagliptin as their 3rd choice.

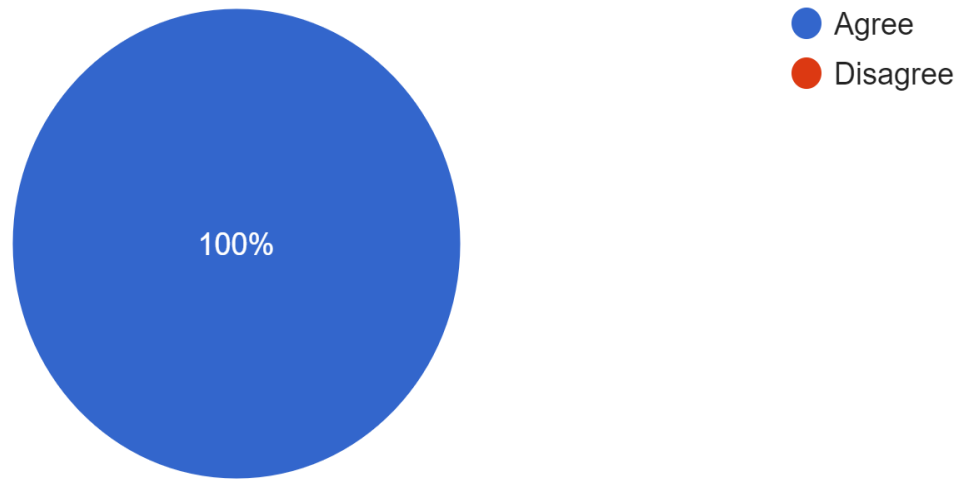
3. Among Gliptins, what is your preferred choice during hepatic impairment in the sequence of 1st to 3rd?



After asking doctors that which gliptin they preferred during hepatic impairment for T2DM, majority of them chose Linagliptin as their 1st choice, then Sitagliptin as their 2nd choice and then Vildagliptin as their 3rd choice.

4. In your practice is there a shift in prescription from Vildagliptin and Glimepiride to Sitagliptin, Linagliptin, Dapagliflozin?

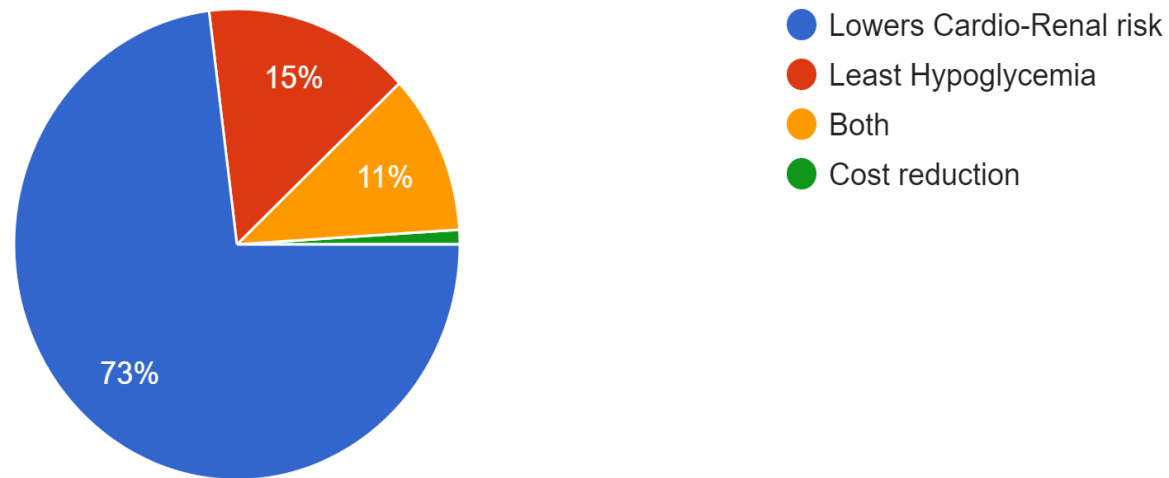
100 responses



Almost all Doctors agreed that there is a shift in prescription from Vildagliptin and Glimepiride to Sitagliptin, Linagliptin, Dapagliflozin.

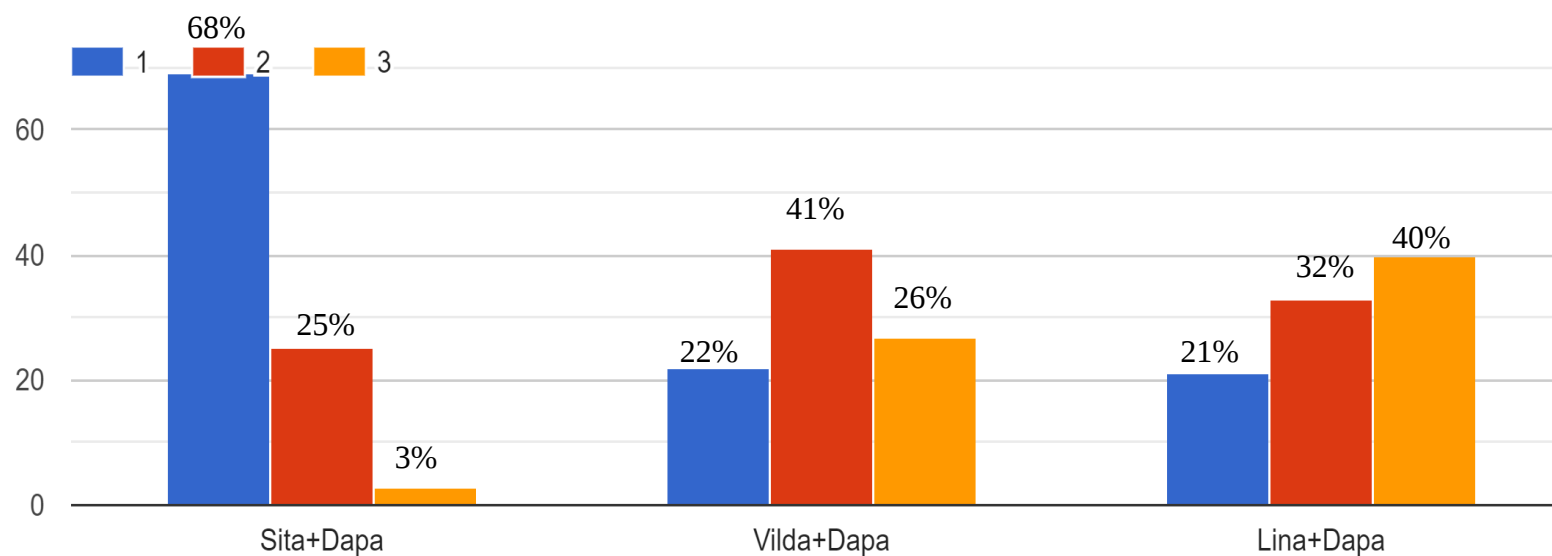
5. What is the main reason to shift Vildagliptin and Glimepiride to Sitagliptin, Linagliptin, Dapagliflozin?

100 responses



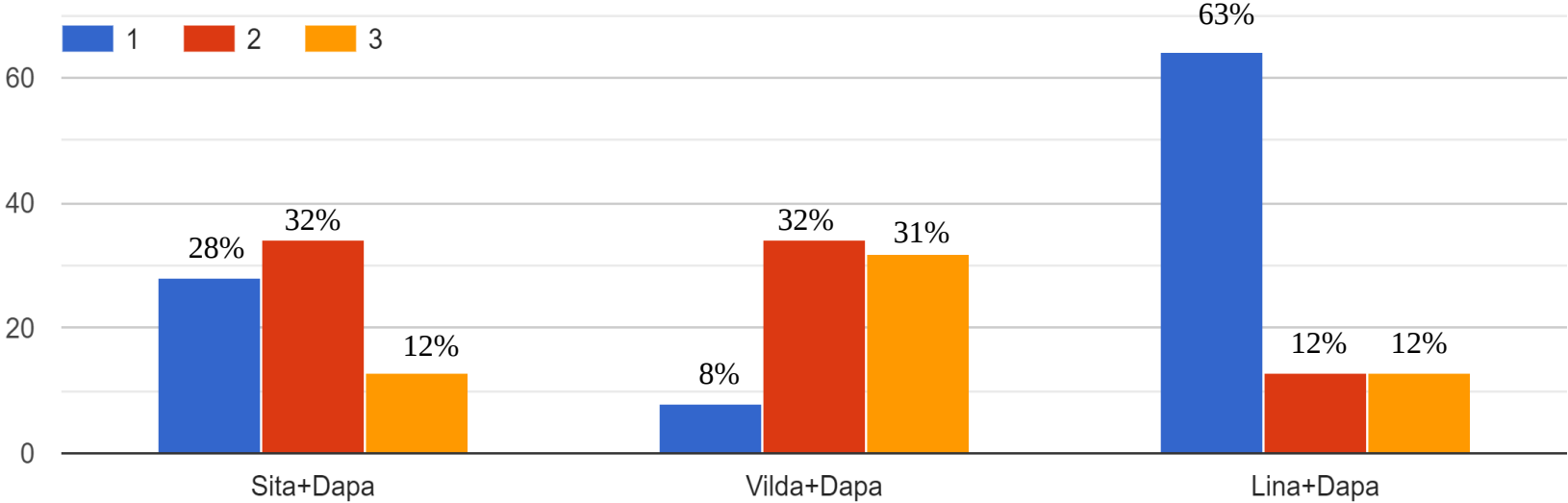
73% Doctors believes that the main reason to shift from Vildagliptin and Glimepiride to Sitagliptin, Linagliptin, Dapagliflozin is Lower Cardio-Renal risk and 15% Doctors believes it is least Hypoglycemia and 11% believes it is both.

6. In SGLT2i+DPP4i combination, what is your preferred choice for T2DM to prolong treatment failure in the sequence of 1st to 3rd?



According to the doctors their 1st preference was Sita+Dapa, then 2nd preference was Vilda+Dapa, then 3rd preference was Lina+Dapa.

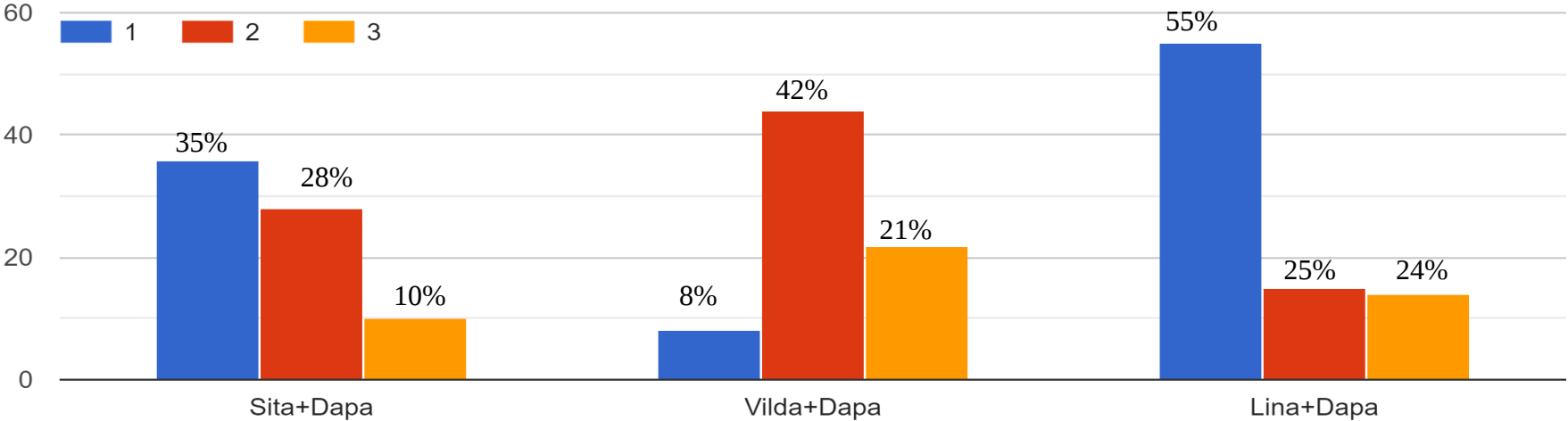
7. In SGLT2i+DPP4i combination, what is your preferred choice with lower UTI side effects incidences in the sequence of 1st to 3rd?



In SGLT2i+Dpp4i Combination, Doctors considered Dapa to be causing UTI so they Didn't prefer Dapa, but based on Gliptins Doctors preferred LINA+Dapa as their 1st preference, SITA+Dapa as their 2nd preference and VILDA+Dapa as their 3rd preference.



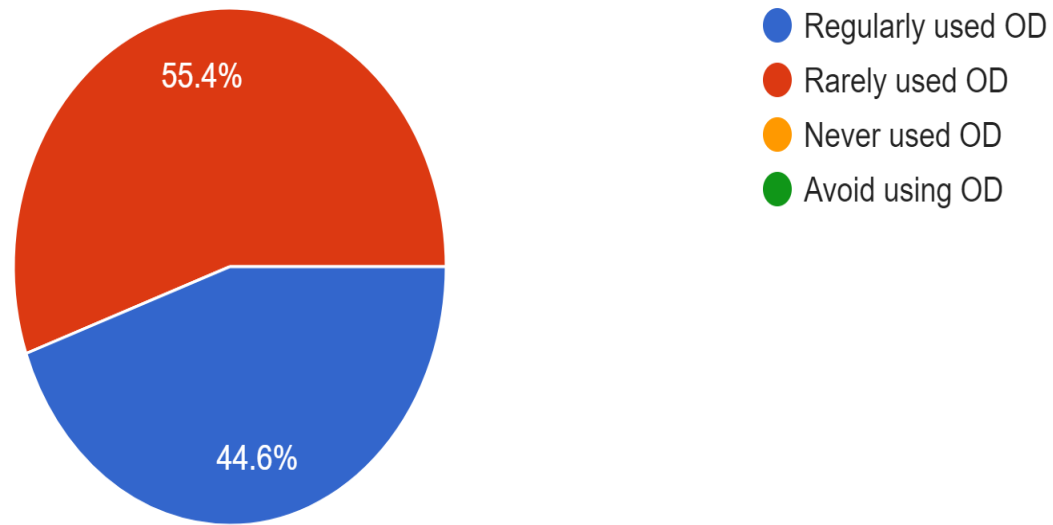
8. In SGLT2i+DPP4i combination, what is your preferred choice for uncontrolled T2DM with Edema or unknown history in the sequence of 1st to 3rd?



For uncontrolled T2DM with Edema, majority of them chose Linagliptin as their 1st choice, then Sitagliptin as their 2nd choice and then Vildagliptin as their 3rd choice

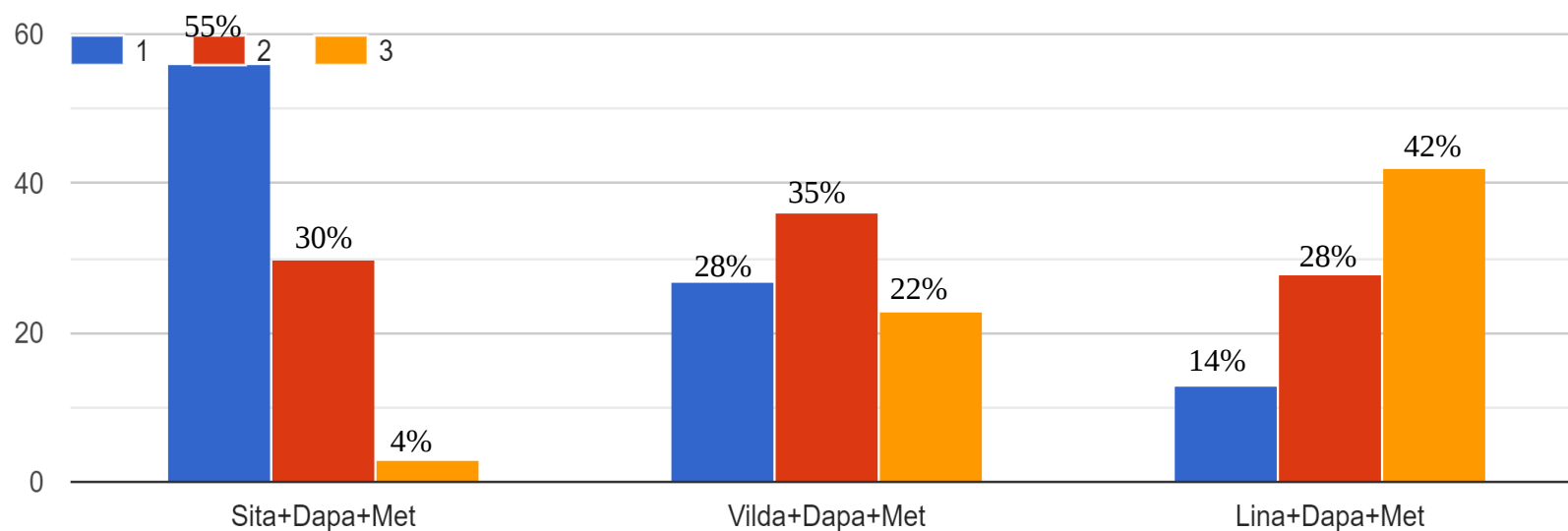
9. Is there any scope for Vildagliptin OD and Vildagliptin OD +Metformin SR (once daily) in your routine practice?

101 responses



55.4% people rarely used Vilda OD and Vilda OD+ Metformin SR in their routine practice and 44.6% people regularly used this combination.

10. Among triple combination of gliptins what is your preferred choice in the sequence of 1st to 3rd?



In triple combination of Gliptins, Doctors preferred Sita+Dapa+Met as their 1st preference, Vilda+Dapa+Met as their 2nd preference and Lina+Dapa+Met as their 3rd preference.

FINDINGS

1. Doctors are shifting in prescription from Vildagliptin and Glimepiride to Sitagliptin, Linagliptin, Dapagliflozin.
2. Maximum Doctors believes that the main reason to shift from Vildagliptin and Glimepiride to Sitagliptin, Linagliptin, Dapagliflozin is Lower Cardio-Renal risk.
3. Doctors considered Dapa to be causing UTI so they Didn't prefer Dapa, but based on Gliptins Doctors preferred LINA+Dapa as their 1st preference, SITA+Dapa as their 2nd preference and VILDA+Dapa as their 3rd preference.
4. In triple combination of Gliptins, Doctors preferred Sita+Dapa+Met as their 1st preference, Vilda+Dapa+Met as their 2nd preference and Lina+Dapa+Met as their 3rd preference.
5. Almost all Doctors agreed that there is a shift in prescription from Vildagliptin and Glimepiride to Sitagliptin, Linagliptin, Dapagliflozin.
6. During worsening renal function for T2DM Doctors Preferred Linagliptin the most.

Thank  you!