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Insulin Isn't A Luxury

There have been substantial increases in the price of insulin over the past decade and the cost-effectiveness of many of the newer diabetes medications is an important consideration for people who may not be able to afford them.

I spoke with a man this past week (Mr. G) who like many Medicare recipients is committed to do the work that is needed to manage his diabetes but was feeling frustrated by the high cost of his insulin after reaching the Medicare Part D coverage gap. His basal insulin (long lasting) was \$750 and his bolus pre meal insulin cost was also \$750 for the month. I spoke to him about the patient assistance programs provided by the insulin companies Sanofi, Novo Nordisk, and Eli Lilly. Explaining that while most pharmaceutical companies will not provide assistance to those who have any kind of insurance coverage these companies will work with a Medicare recipient who has reached the coverage gap. Mr. G and his wife have worked hard throughout their life and are now living with the difficult reality of paying their bills and juggling medication costs on a fixed income. He did not qualify for the programs based on his income. Over 25% of Medicare recipients are living with diabetes, many cannot afford the newer diabetes medications and insulin.

What are some other options for him?

1. **Samples.** This is an option to be considered, but

nerve racking to some people and the generosity of doctors vary.

2. **Copay cards.** Copay cards are great for those with commercial insurance, some offer a \$0 copay, but unfortunately they cannot be used if you have Medicare or any other government coverage for health care.

3. **Switch back to human insulin.***

- In a study led by Dr. Jing Juo, MD, MPH and presented at the ADA Scientific Sessions 2018, researchers concluded that it's safe and cost effective to switch Medicare Beneficiaries with type 2 to human insulins. Conclusion: Human insulin is cost effective and did not increase the risk of hospitalization, emergency room visits, hypo or hyperglycemia.

- In section 8 of Standards of Care 2018 human insulin recommendations are addressed and encourages providers to use human insulin as a practical alternative to the newer analog insulins.

- If we look at the landmark 1998 DCCT trial, the researchers used Human NPH and regular insulin, via insulin pump or injections, to reach a target A1c of 7% or less in people with type 1 diabetes and they succeeded.

* While there is evidence for reduced hypoglycemia with newer, longer-acting basal insulin analogs,

people without a history of hypoglycemia are at decreased risk and could potentially be switched to human insulin safely studies have shown.

It is not only the Medicare population that has issues with the high cost of insulin. It is important for those who take insulin to know human insulin is available at a lower cost than analog insulin and is available without a prescription. As a diabetes educator who has worked with insulin patients for 20 plus years, I do think for many type 1 and some type 2 people with diabetes the analog insulins may be a better match.

NPH and 70/30: One concern is the increased risk of low blood glucose with NPH insulin, since it peaks in 4-10 hours after delivery. Another concern is since NPH is a solution proper mixing is critical. It must be resuspended before injecting, by rolling the vial or pen gently in your hands and by tipping it up and down. If not resuspended the insulin action can vary greatly causing blood glucose fluctuate.

Regular: Since regular insulin has a slower action and peak time than the newer insulins, it is important to inject 15-30 minutes before the meal to give it time to work



Reli-On Insulin made by Novo Nordisk is available in vials at Wal-Mart: \$25

Novolin Regular
Novolin NPH
Novolin 70/30

The American Diabetes Association has a very strong voice in promoting legislation to protect and advocate on behalf of people living with diabetes. They are working hard to make insulin affordable.

Insulin Facts

- Dr. Banting sold the patent for insulin for \$1.00 in 1922 with the understanding that insulin would always be affordable to those who needed it.

- Between 2002-2013, the average price of insulin nearly tripled, creating financial hardships for people who rely on it to survive.

- In much of Europe, insulin costs about a sixth of what it does in the United States.

- Some people with diabetes are cutting back on or skipping doses of insulin - or foregoing other necessities to pay for insulin - which puts their lives and health at risk.

- People with diabetes deserve the opportunity to prevent complications.

Insulin Should be Affordable for all

Sign the ADA Petition at:

<https://makeinsulinaffordable.org>



What's the difference in Human Insulin and Analog Insulin?

Human Insulin, is a replica of the insulin found naturally in human beings. These are synthetically prepared. An insulin analog however is an altered form of this human insulin, by addition, substitution or subtraction of one/or more amino acid chains. This is done to better match normal insulin physiology.

Insulin Type	Onset	Peak	Duration	Basal or Bolus	Human-H Analog-A
Humalog * (lispro) u-100	5 min	1 hr	3 to 4 hrs	Bolus Rapid acting	A
Humalog * (lispro) u-200	5 min	1 hr	3 to 4 hrs	Bolus Rapid acting	A
Novolog * (aspart) u-100	5 min	1 hr	3 to 4 hrs	Bolus Rapid acting	A
Apidra * (glulisine) u-100	5 min	1 hr	2 to 4 hrs	Bolus Rapid acting	A
Admelog * (lispro) u-100	5 min	1 hr	2 to 4 hrs	Bolus Rapid acting	A
Fiasp * (aspart) u-100	2.5 min	1 hr	2 to 4 hrs	Bolus Super rapid	A
Regular u-100 ☺	30 to 60 min	2 to 3 hrs	6 to 8 hrs	Bolus Fast acting	H
Regular u-500	2 to 4 hrs	4 to 10 hrs	Up to 24 hrs	Both	H
NPH u-100 ☺	2 to 4 hrs	4 to 10 hrs	10 to 16 hrs	Both	H
Lantus * (glargine) u-100	1 hr	Minimal	24 hrs	Basal Long acting	A
Basaglar * (glargine) u-100				Basal Long acting	A
Levemir * (detemir) u-100	1 hr	Minimal	24 hrs	Basal Long	A
Toujeo * Glargine u-300	Steady state reached in 5 days.			Basal Long acting	A
Tresiba * (degludec) u-100	Steady state reached in 4 days.			Basal Long acting	A
Tresiba * (degludec) u-200	Steady state reached in 4 days			Basal Long acting	A

Insulin is also available in mixes: Provides both basal and bolus

Insulin Mix		Human-H Analog-A
Novolin 70/30 ☺ Humulin 70/30	Mixture of NPH (70%) & Regular (30%)	H
Humulin 50/50 ☺	Mixture of NPH (50%) & Regular (50%)	H
Humalog 75/25 (lispro)	Mixture of lispro with protamine suspension (75%) & insulin lispro (25%)	A
Humalog 50/50 (lispro)	Mixture of lispro with protamine suspension (50%) & insulin lispro (50%)	A
Novolog 70/30 (aspart)	Mixture of aspart with protamine suspension (70%) & insulin aspart (30%)	N

*Copay card available

☺ Available without a prescription

Grilled Pork with Arugula-and-Grape Salad



Nutritional Analysis

Per Serving
Calories 391 calorie
Total Fat 25 grams
Saturated Fat 7 grams
Cholesterol 96 milligrams
Sodium 733 milligrams
Carbohydrates 9 grams
Dietary Fiber 1 grams
Protein 31 grams

Ingredients

1 medium shallot, finely chopped
2 tablespoons balsamic vinegar
2 teaspoons chopped fresh thyme
Kosher salt and freshly ground pepper
1/4 cup extra-virgin olive oil
4 5-ounce boneless pork chops
3/4 cup red seedless grapes, halved
4 heaping cups baby arugula
1/2 cup crumbled gorgonzola or other blue cheese

Directions

Combine the shallot, vinegar, 1 teaspoon thyme, 1 teaspoon salt and 1/4 teaspoon pepper in a medium bowl. Gradually whisk in the oil, starting with a few drops and adding the rest in a steady stream.

Put the pork chops in a shallow dish and season all over with salt. Add the remaining 1 teaspoon thyme and 3 tablespoons of the dressing. Coat the pork and set aside to marinate for 5 minutes.

Heat a grill pan over medium-high heat. Grill the pork until cooked through but still moist, 4 to 5 minutes per side.

Add the grapes and arugula to the remaining dressing and toss to coat. Transfer the pork chops to a serving platter or individual plates; top with the salad and sprinkle with the gorgonzola.

Photograph by Antonis Achiellos

Courtesy of Food Network Magazine