



BENEFIT NEWS

WVCH: Insulin biosimilar Provider Education

January 15, 2019

Biosimilar Products

What is a Biosimilar?

1. It is the same drug compound, however because it is typically a protein or monoclonal antibody
2. Since they may not be manufactured in the exact same way, the ADME (absorption, distribution, metabolism, and excretion) are not considered equivalent, but because they are the same entity, just made by another manufacturer, they work the same in the body. (The body doesn't know it's a different manufacturer)
3. It is not a generic or A rated in the Orange Book, which means pharmacies cannot legally switch from one to another. They are listed in the Purple Book.
4. The cost savings can be significant!
5. Biosimilar products must show both non-clinical and clinical studies of pharmacokinetics, pharmacodynamics, efficacy, safety and immunogenicity for approval.
6. Biosimilar products can go through even more testing to become an interchangeable product, which means that it can be like a generic, where it can be substituted with the reference (original) drug without prescriber authorization for change and that there is no clinical difference going back and forth between the two products.

Currently there are no interchangeable products on the market, but there are several biosimilar products. Insulin is one of the best examples of cost savings in biosimilar products.

Biosimilars are not generics, however they are typically a cost effective alternative to the reference products



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COMPARISONS

Formulation	Product	Administration	DoA	Cost	Formulary
Insulin lispro	Humalog	15 minutes before or right after a meal (may mix U-100 with NPH)	Onset: 15-30 mins Max: 30 to 150 min half-life: 1 hour	\$130 per pen	NF
	Admelog	15 minutes before or right after a meal (do not mix)	Onset: 15-30 mins Max: 30 to 150 min half-life: 1 hour	\$100 per pen	F
Insulin aspart	Novolog	5-10 minutes prior to meal	Onset: 10 minutes Max: 2 hours half-life: 3-5 hours	\$135 per pen	NF
	Fiasp	At meal or within 20 minutes of starting meal	Onset: 2.5 minutes Max: 63 minutes half-life: 5-7 hours	\$135 per pen	NF
Insulin glargine	Lantus	Typically at bedtime	Onset: 3-4 hours Duration: 24 hours	\$97 per pen	NF
	Basaglar	Typically at bedtime	Onset: 3-4 hours Duration: 24 hours	\$78 per pen	F
	Toujeo	Typically at bedtime	Onset: 6 hours Duration: >24 hours	\$298 per pen	NF

F= formulary NF= not formulary as of 2/1/2019



What's the Difference?



Admelog is insulin lispro and has studies showing that it is similar to Humalog. In SORELLA 1 study Admelog shows a reduction of 0.86% in A1c when given with Lantus compared to Humalog with a 0.8% reduction. It also shows that 68.4% of patients had an incidence of hypoglycemia compared to 74.6% in Humalog patients. In the SORELLA 1 study there was a 0.4% reduction in A1c in type 1 patients compared to 0.46% in type 1 patients who used Humalog. Dosing is exactly the same as Humalog.

Fiasp is slightly different, it is insulin aspart however in the research they have found that compared to Novolog, which is given 5-10 minutes before a meal, Fiasp is taken at first bite or within 20 minutes of starting a meal. The other pharmacokinetic and pharmacodynamic comparisons are all comparable.

Conversions

Conversion is easy as it is 1:1 conversion. For example if a patient has been stable on 20 units at each meal of Humalog, then they could be switched to 20 units at each meal of Admelog. Similarly if a patient is on 10 units twice daily of Novolog they can be switched to 20 units of Admelog or Fiasp. The one discussion for switching to Fiasp is that with a slightly faster onset the insulin should be taken with first bites of meal or within 20 minutes of starting it, not 15 minutes prior to the meal as this will increase the likelihood of hypoglycemia.

WVCH Formulary

All patients currently on Novolog or Humalog will need to be switched to Admelog as of 2/1/19.

Questions:

Contact WVCH Customer Service 503-584-2150.
Pharmacy Services 503-371-7701
For Formulary and Prior Authorization Criteria visit
<http://wvhealth.org/medicaid-ohp/for-providers/>

Resource Information provided by:

www.admelog.com
www.fiasp.com
www.lantus.com
<https://www.accessdata.fda.gov/scripts/cder/ob/index.cfm>

www.novolog.com
www.humalog.com
www.basaglar.com