

Cutting Drug Copayments Boosts Compliance

BY JANE ANDERSON

FROM HEALTH AFFAIRS

Reducing or eliminating copayments for medications to treat common chronic conditions can improve medication adherence by several percentage points, according to a study published in Health Affairs.

"We observed improvements in adherence that were relatively modest in scale and that are consistent with the findings of other investigators," wrote lead author Dr. Nitesh Choudhry of Harvard Medical School, Boston, and colleagues. "This highlights the various factors involved in nonadherence. Thus, the ability of benefit design and patient financial incentives to address this complex problem completely should not be overestimated."

The investigators manipulated medication copayments for a subset of employees of Pitney Bowes, a self-insured company. For a total of 2,830 employees, copayments for statins were eliminated and the copayment for clopidogrel was significantly reduced. Their medication adherence patterns were compared with those of 49,801 fellow employees whose copayments were not changed (Health Affairs 2010;29:2022-6).

To measure adherence, the researchers estimated the number of days of medication each patient actually received through the pharmacy benefit manager, compared with the total number of days in each month between January 2006 and December 2007.

Adherence to statins rose by 3.1% immediately after the copayment was eliminated, compared with controls. The number of patients who were fully adherent to their statin regimen rose by 17% immediately, compared with controls.

Meanwhile, when copayments were reduced for clopidogrel, adherence rose by 4.2% in the intervention group compared to the control group, according to the investigators. The number of patients who were fully adherent rose by 20% immediately, compared to the control group.

Such value-based benefit designs can improve compliance, but physicians and policymakers will need to address other compliance factors in order to have a major cost-saving effect, Dr. Choudhry wrote.

Cost is not the only factor, noted Dr. Melissa S. Gerdes, a family physician at Trinity Clinic-Whitehouse (Tex.). "I get people who don't want to pay a \$10 copay to see me, but who will go to McDonalds and drop \$20," she said in an interview.

Decreasing copayments from \$50 to \$30, for example, wouldn't make much difference, Dr. Gerdes said, because most patients can no more afford the \$30 copayment than the \$50 one. To make a real difference, copayments need to drop to around \$4, the price Walmart charges for many generics, she said.

Dr. Dennis Saver, a family physician in Vero Beach, Fla., agreed, but added that the patients in Dr. Choudhry's study already were paying a reduced cost for their drugs. If the researchers studied pa-

tients paying \$150 out of pocket for a medication, and if that cost were dropped to \$15, they might see a greater effect, he said in an interview.

Finally, financial considerations in overall care compliance have a cascade effect, said Dr. Gretchen Dickson of the department of family medicine at the University of Kansas, Kansas City. "A lot of factors play into it,"

Major Finding: Eliminating the copayment for statin drugs led to a 3.1% increase in medication adherence among employees at self-insured Pitney Bowes.

Data Source: A comparison of medication adherence in employees whose copayments were modified and those whose were not.

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she said in an interview. "Not making appointments, not going in for testing, not filling the prescription all just go along

with not being compliant with your medication. What this shows us is, sometimes they just can't afford it." ■

If you think all basal insulins are the same, think again

The topic of insulin and cancer has garnered increased attention with the publication of 4 retrospective studies in *Diabetologia* that investigate the potential role of a specific basal insulin analog in cancer risk.¹⁻⁴

For decades, researchers have investigated the relationship between insulin and IGF-1 receptor activation and the development of certain cancers.⁵ To date, the clinical significance of the in vitro activity of IGF-1R has not been established.

The Novo Nordisk philosophy of engineering insulin and IGF-1R affinity

Novo Nordisk has been working on refining the attributes of insulin for more than 85 years, redesigning the insulin molecule with a focus on efficacy and safety.

We have developed insulin analogs that work like normal human insulin but which have a more consistent and predictable absorption profile associated with a low risk of hypoglycemia, the most common adverse event with insulin use.⁶⁻⁸

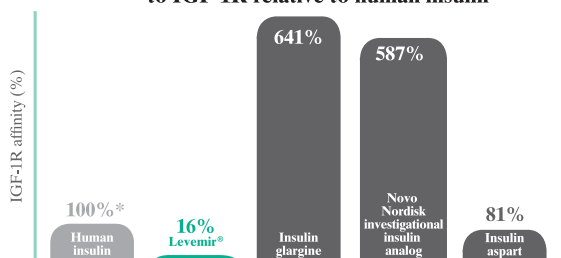
In 1992, Novo Nordisk stopped development of a rapid-acting investigational insulin analog when laboratory testing revealed it had undesirable mitogenic side-effects.⁹ A toxico-pharmacological evaluation indicated the compound's affinity to IGF-1R was high, one possible cause of the tumor growth.⁹

With work on this investigational compound discontinued, Novo Nordisk adopted a philosophy that all future insulins cannot have a greater binding affinity to IGF-1R and the insulin receptor (IR) than human insulin, the relevant comparator against which binding affinity is measured.⁹

Levemir® was designed with a low affinity to IGF-1R

Levemir® was designed with the lessons of the earlier investigational insulin analog in mind, with a specific fatty acid side chain to LysB29 to prolong its absorption and provide steady plasma levels while also having a lower IGF-1R affinity than human insulin.¹⁰

Levemir® was shown to have a low affinity to IGF-1R relative to human insulin¹⁰

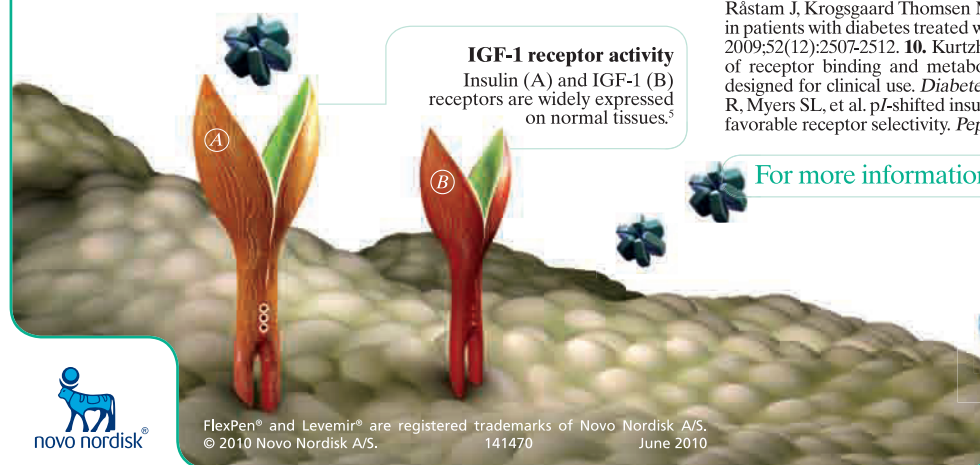


*Human insulin is the relevant comparator against which IGF-1R affinity was measured.

An in vitro study that compared the insulin- and IGF-1R-binding properties and the metabolic and mitogenic potencies of the rapid-acting and long-acting insulin analogs with human insulin. IGF-1R affinity was measured using purified human IGF-1R.¹⁰

In another study, conducted by Lilly Research Laboratories, insulin glargine had an affinity to IGF-1R of 551% compared with 100% for human insulin.¹¹

The clinical significance of the in vitro activity of IGF-1R has not been established.



For more information, visit www.IGF1Raffinity.com



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