



Eye Treatment for Seniors: How Lucentis Wastes More Than \$1 Billion per Year

The High Price of Unnecessary Treatment

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In this ongoing series, we analyze the recently released Medicare physician payment database to identify wasteful spending by Medicare and seniors, including on treatments proven ineffective or in cases where equally effective alternatives to a high-priced treatment exist.

The Centers for Medicare & Medicaid Services, or CMS, recently released Medicare physician payment data for the first time in decades.¹ This release generated a great deal of media coverage, both of the doctors billing the most to Medicare and also of the most expensive health care services.

One of the highest-volume costs in the database is for Lucentis, a drug used to treat age-related macular degeneration, or AMD, a form of blindness that affects the elderly. Last year, a *Washington Post* investigation highlighted the unsettling fact that, while an equally effective alternative drug, Avastin, costs about \$50 per injection, many ophthalmologists continue to prescribe and administer Lucentis—which is priced 40 times higher, at about \$2,000 per injection.² This price difference is particularly staggering given that Lucentis and Avastin are both recommended to be injected monthly, meaning these prices represent repeated costs to patients and Medicare over time.

Background

Multiple studies have proven that Avastin and Lucentis are equally effective at treating AMD, with no difference in clinical outcomes between the two drugs.³ Nevertheless, Lucentis is still prescribed and administered more than half a million times per year. One reason for the continued use of Lucentis is that Avastin was originally developed as a cancer drug and is therefore sold in larger doses than are required for treating AMD.

Its manufacturer, Genentech, refuses to repackage it for sale in smaller doses, so pharmacists must currently repackage the drug manually in a sterile environment. Genentech has strong financial incentives to discourage the use of Avastin for treating AMD—it is the same company that manufactures Lucentis, which generates substantially higher profits because the production costs of the two drugs are roughly comparable.⁴

Ophthalmologists also have financial incentives to prefer Lucentis. Since Medicare reimburses doctors for drugs at the average sales price plus 6 percent, ophthalmologists receive \$120 above the sales price for Lucentis, compared to only \$3 for Avastin.⁵

Potential savings for Medicare and seniors

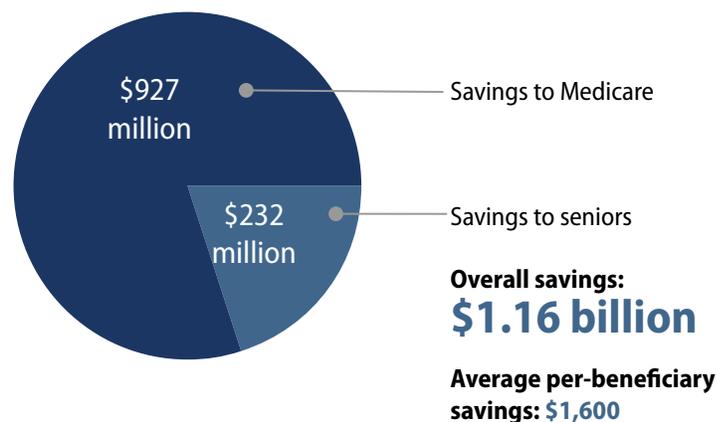
Medicare spent \$950.8 million on Lucentis injections in 2012. If ophthalmologists had treated all of these cases with Avastin, Medicare would have spent only \$32.3 million—saving \$926.5 million.⁶

Medicare beneficiaries, meanwhile, would have saved an additional \$231.6 million in out-of-pocket costs, such as co-insurance. While the CMS database does not include patient data, it does indicate that 143,980 unique Medicare beneficiaries received Lucentis injections. If all of these beneficiaries received the same number of Avastin injections, savings would total \$1,600 per senior.⁷ The exact level of savings per senior would depend on the number of injections received by each beneficiary; while many seniors have supplemental coverage that covers co-insurance, premiums for this coverage would be lower if it did not have to cover these costs.

Savings to Medicare and beneficiaries combined would have totaled \$1.16 billion in 2012. This is substantially higher than a 2011 Department of Health and Human Services, or HHS, estimate, which calculated total savings of \$1.4 billion over two years for Medicare and beneficiaries if they switched entirely to Avastin.⁸ The HHS estimate relied upon a different dataset and extrapolation from a smaller sample size.

FIGURE 1
Lucentis versus Avastin

How much could we save per year by switching to Avastin?



Sources: CAP analysis of Centers for Medicare & Medicaid Services, "Medicare Provider Utilization and Payment Data: Physician and Other Supplier" (2012), available at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Physician-and-Other-Supplier.html>; Daniel R. Levinson, Medicare Payments for Drugs Used to Treat Wet Age-Related Macular Degeneration (U.S. Department of Health and Human Services, 2012).

Conclusion

Despite the substantial limitations of the CMS database, this increased transparency provides a powerful tool to highlight wasteful spending and overtreatment. In a potent example of the perverse incentives in our health care system—one company’s packaging decision costs Medicare and seniors \$1.16 billion per year. Lucentis not only offers no benefit over Avastin for patients, but it also represents an inefficient and wasteful use of taxpayer dollars.

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Methodology

The CMS database’s billing codes correspond to different dose levels of both medications than the actual doses delivered for AMD treatment. To work around this discrepancy and estimate the number of injections administered, we divided Medicare spending on each drug by the Medicare payment amount for each drug, as calculated by a 2012 HHS report.⁹ The average per-injection payment for Avastin was \$55, while the average payment for Lucentis was \$2,023. These prices include beneficiary cost sharing—set at 20 percent of a treatment’s cost—so we reduced these prices by 20 percent to isolate the price paid by Medicare.

Dividing Medicare spending on Lucentis by the price paid by Medicare gave us an estimate of the number of Lucentis injections, which we multiplied by the Avastin price to find the cost of administering the same number of Avastin injections. We subtracted this cost from the overall Lucentis spending to estimate the potential savings from switching to Avastin. Since this only represented Medicare savings, we then calculated the value of the additional 20 percent to find beneficiary savings.

Endnotes

- 1 Centers for Medicare & Medicaid Services, "Medicare Provider Utilization and Payment Data: Physician and Other Supplier" (2012), available at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Physician-and-Other-Supplier.html>.
- 2 Peter Whoriskey and Dan Keating, "An effective eye drug is available for \$50. But many doctors choose a \$2,000 alternative," *The Washington Post*, December 7, 2013, available at http://www.washingtonpost.com/business/economy/an-effective-eye-drug-is-available-for-50-but-many-doctors-choose-a-2000-alternative/2013/12/07/1a96628e-55e7-11e3-8304-caf30787c0a9_story.html.
- 3 CATT Research Group, "Ranibizumab and Bevacizumab for Neovascular Age-Related Macular Degeneration," *Ophthalmology* 119 (7) (2012): 1388–1398; GEFAL Study Group, "Ranibizumab versus Bevacizumab for Neovascular Age-related Macular Degeneration: Results from the GEFAL Noninferiority Randomized Trial," *Ophthalmology* 120 (11) (2013): 2300–2309; MANTA Research GROUP, "A randomised double-masked trial comparing the visual outcome after treatment with ranibizumab or bevacizumab in patients with neovascular age-related macular degeneration," *British Journal of Ophthalmology* 97 (3) (2013): 266–271.
- 4 Whoriskey and Keating, "An effective eye drug is available for \$50."
- 5 Max Ehrenfreud, "Want to see how problematic Medicare pricing is? Look to ophthalmology," *The Washington Post Wonkblog*, April 9, 2013, available at <http://www.washingtonpost.com/blogs/wonkblog/wp/2014/04/09/want-to-see-how-problematic-medicare-pricing-is-look-to-ophthalmology/>.
- 6 CAP analysis of Centers for Medicare & Medicaid Services, "Medicare Provider Utilization and Payment Data."
- 7 Ibid.
- 8 Daniel R. Levinson, *Review Of Medicare Part B Avastin And Lucentis Treatments For Age-Related Macular Degeneration* (U.S. Department of Health and Human Services, 2011).
- 9 Daniel R. Levinson, *Medicare Payments For Drugs Used To Treat Wet Age-Related Macular Degeneration* (U.S. Department of Health and Human Services, 2012).