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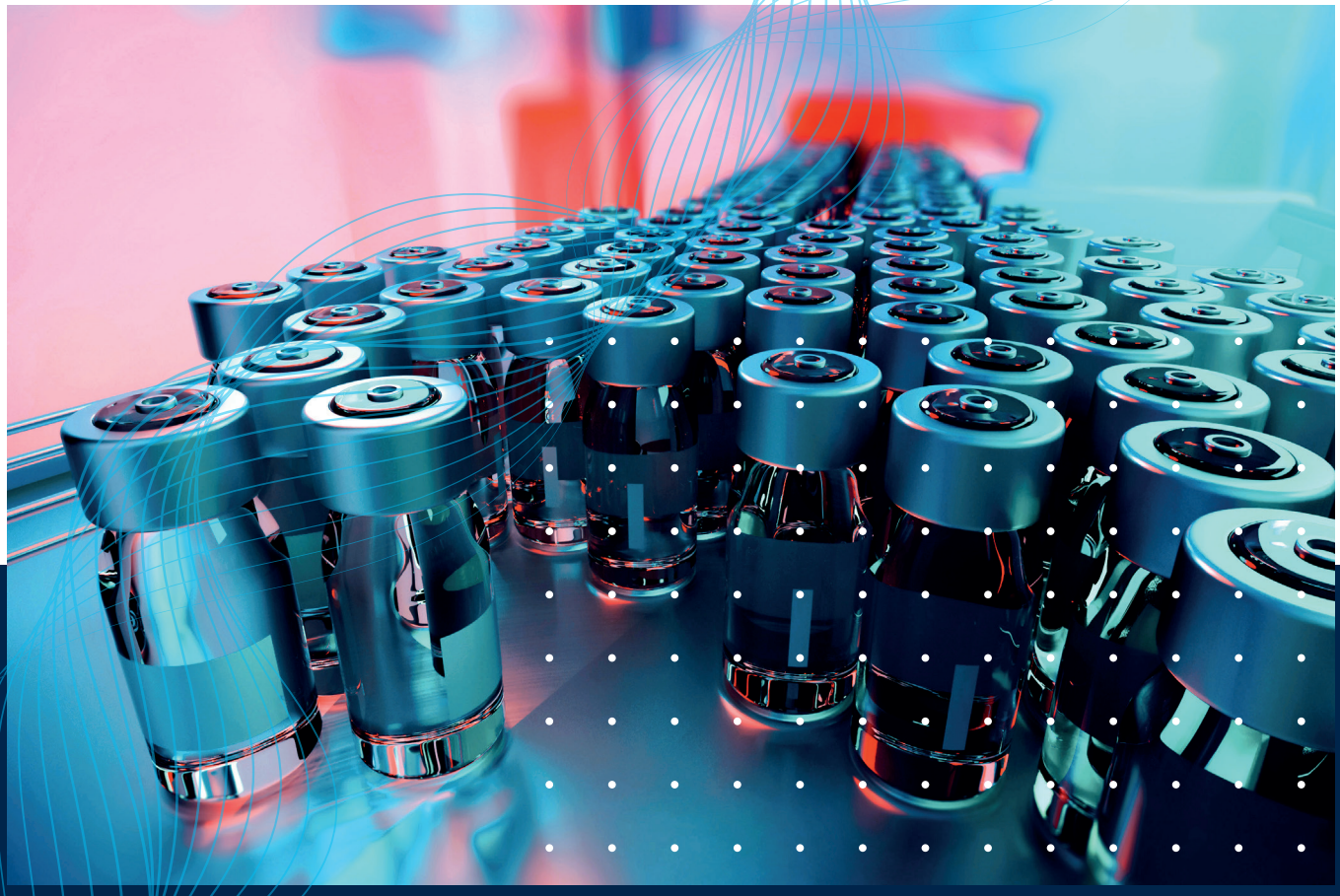
INTELLIGENCE THAT WORKS

Specialty Drug Prices: An Analysis of Savings Opportunities for Physician-Administered Drugs

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Executive Summary

- Ambulatory infusion centers (AICs) and community-based physicians charge significantly less than hospital outpatient departments (HOPDs) for physician-administered drugs.
- Commercial insurers can spend less on physician-administered drugs by encouraging, where clinically appropriate, the use of AICs and community-based physicians' offices in place of HOPDs as a site of service for physician-administered drugs.
- Across nineteen specialty drugs commonly administered in both AIC/office and HOPD settings, median AICs/office rates were between 27 and 61 percent lower than median HOPD rates. The average differential was 41 percent.
- "White-bagging" is a practice in which specialty pharmacies deliver drugs to the patient's site of care and bill the patient's insurer for the cost of the drug.
- Our study finds that white-bagging may lower commercial insurers' drug costs when employed in an HOPD setting, but could raise costs when employed in an AIC or office setting.
- White-bagging creates a middleman where there was not one previously, introducing the potential for disruptions in patient care and other additional costs.
- Research suggests white-bagging may lower quality and access, raise out-of-pocket costs for patients, and introduce anticompetitive concerns in healthcare markets.
- Commercial insurers who promote drug administration in an AIC/office instead of white-bagging can achieve significant levels of savings without jeopardizing care quality, decreasing provider access, or raising patients' out-of-pocket costs.

I. Background



Spending on specialty drugs is at an all-time high. In 2021, specialty drugs accounted for 13 percent of prescriptions but 50 percent of prescription drug spending nationally.[1] Among drugs administered in nonretail healthcare settings, specialty drugs accounted for 9 percent of prescriptions but 69 percent of spending.[2] Commercial insurers are searching for ways to lower spending on physician-administered specialty drugs.

One practice that insurers employ to lower spending is to direct patients to lower-cost sites of service. Spending may differ by site of service because of the way providers bill for their inventory costs. When healthcare providers supply the drugs they administer in a healthcare setting, they bill their patients' insurers for the cost of the drug, a practice known as "buy-and-bill." Providers negotiate rates with insurers that cover the infrastructure required to manage the inventory of the specialty drugs they provide, at a level calibrated to allow them to select the right dose for each patient at the time of care. Among providers that administer drugs to patients on an outpatient basis, hospital outpatient departments (HOPDs) negotiate the highest rates of reimbursement for drugs they supply, while ambulatory infusion centers (AICs) and community-based physician offices negotiate lower rates.

A second practice that insurers employ to lower spending on physician-administered drugs is "white-bagging," in which specialty pharmacies deliver drugs to the patient's site of care (which could be an HOPD, AIC, office, or other location) and bill the patient's insurer for the cost of the drug, in place of the provider. Specialty pharmacies that offer white-bagging services are commonly affiliated with or wholly owned subsidiaries of the pharmacy benefit manager (PBM) or insurer responsible for managing the patients' drug benefit. White-bagging can lower spending on physician-administered drugs if the specialty pharmacy's negotiated reimbursement is less than that of the provider. However, white-bagging creates a middleman where there was not one previously, potentially introducing disruptions in patient care and other additional costs.

In this report we estimate the amount of savings (in percentage terms) achieved when certain commonly prescribed specialty drugs are administered in an AIC or office-based setting instead of an HOPD, showing that a significant savings opportunity exists. Then, we show that while white-bagging may achieve savings when employed in an HOPD setting, the practice could raise costs and worsen the patient's experience when employed in an AIC or office setting.

In section II, we describe our methodology for calculating the price of specialty drugs selected for this study. In section III, we compare the cost of administering drugs in an HOPD and an AIC/office setting. In section IV, we show that white-bagging may achieve savings in an HOPD setting but may lead to higher costs and worsen the patient experience in an AIC or office setting. We offer conclusions in section V.

[1] Office of the Assistant Secretary for Planning and Evaluation, "Trends in Prescription Drug Spending, 2016-2021," US Department of Health and Human Services (September 2022).

[2] *Ibid.*

II. Methodology

Comparing HOPD and AIC/Office Rates

To compare HOPD and AIC/office drug prices, we examined medical commercial insurance claims from 2022 made available through proprietary BRG analysis of MarketScan commercial claims data.[3] We identified claims for drugs commonly administered by AICs in the present day, as well as drugs included in previous studies.[4,5] In total, we selected thirty-two drugs for initial review. We then excluded drugs with limited 2022 claims volume and drugs that were infrequently administered in an HOPD setting. Applying these criteria left us with nineteen drugs:

BRAND NAME	PRIMARY CONDITIONS TREATED	BRAND NAME	PRIMARY CONDITIONS TREATED
1. Entyvio	Inflammatory bowel disease	**11. Sandostatin**	Tumor-related symptoms
2. Herceptin	Multiple cancers	**12. Soliris**	Blood disorder
3. Keytruda	Multiple cancers	**13. Somatuline Depot**	Acromegaly
4. Nplate	Chronic ITP	**14. Stelara IV**	Autoimmune diseases
5. Ocrevus	Multiple sclerosis	**15. Tecentriq**	Multiple cancers
6. Opdivo	Multiple cancers	**16. Tepezza**	Thyroid eye disease
7. Perjeta	Breast cancer	**17. Tysabri**	Multiple sclerosis
8. Prolia	Osteoporosis	**18. Udenyca**	Prescribed with chemo
9. Remicade	Autoimmune diseases	**19. Vyepti**	Migraine prevention
10. Rituxan	Autoimmune diseases and cancer		

For each drug, we identified medical claims associated with the drug's Healthcare Common Procedure Coding System (HCPCS) code(s). Medical claims with place of service "11" were considered AIC and physician office claims where the drugs were supplied by the provider (buy-and-bill). Medical claims with place of service "22" were considered HOPD claims where the drugs were supplied by the hospital (buy-and-bill). Claims with a high likelihood of being "dummy" capitated claims were eliminated. Payments were standardized to establish a price per 1 milligram. We used the following resources to calculate the standardized price: average sales price (ASP) dosage per unit, sourced from the Centers for Medicare and Medicaid Services (CMS) Part B Drug ASP, National Drug Code (NDC), and not otherwise classified (NOC) fee schedules in the October 2022 ASP Pricing File; drug label information from the Food and Drug Administration (FDA); and dosing recommendations from the FDA and manufacturer websites.

Finally, we calculated the 50th percentile (median) commercial market rates for the standardized dosing unit, then calculated the savings as one minus the ratio of median AIC/office rates to median HOPD rates.

[3] Merative MarketScan Research Databases, TM. All rights reserved.

[4] C. Carlson, S. Armstrong, & D. Henry, *Pricing of Specialty Drugs – Analysis of the impact on premiums of provider markups on specialty drugs*, OliverWyman (March 14, 2024).

[5] AHIP, *Hospital Price Hikes: Markups for Drugs Cost Patients Thousands of Dollars* (February 2022).

Comparing HOPD, AIC/Office, and Pharmacy (White-Bagging) Rates

To identify rates paid to specialty pharmacies for white-bagged drugs, we examined 2022 pharmacy commercial insurance claims made available through the same MarketScan database. We started with the nineteen drugs from the previous list, then excluded drugs whose pharmacy claims included auto-injectable forms for self-injection in the home, drugs with de minimis pharmacy claims, and drugs not commonly administered by AICs. We were left with eight drugs:

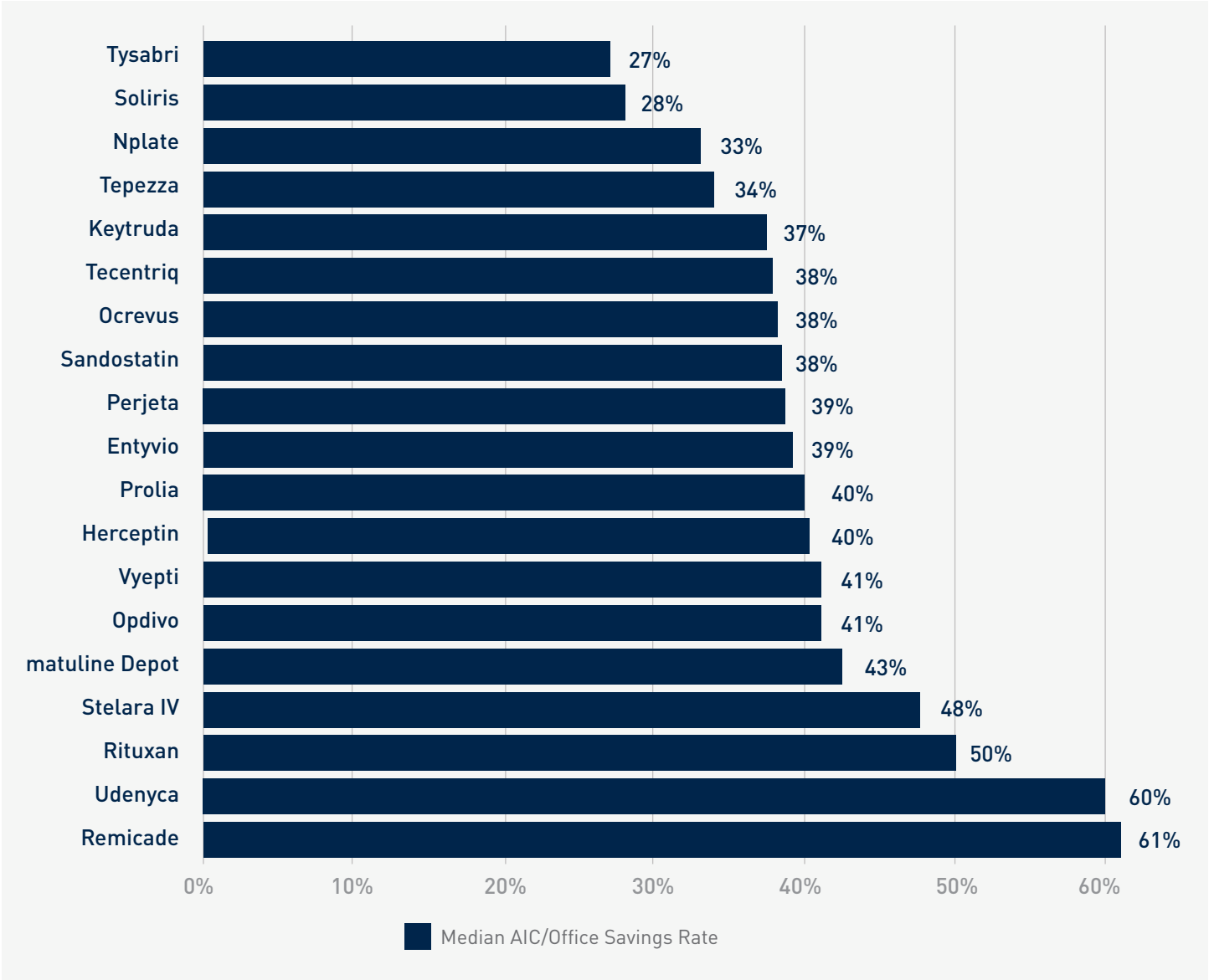
BRAND NAME	PRIMARY CONDITIONS TREATED	BRAND NAME	PRIMARY CONDITIONS TREATED
1. Entyvio	Inflammatory bowel disease	**5. Soliris**	Blood disorder
2. Ocrevus	Multiple sclerosis	**6. Tepezza**	Thyroid eye disease
3. Prolia	Osteoporosis	**7. Tysabri**	Multiple sclerosis
4. Remicade	Autoimmune diseases	**8. Vyepti**	Migraine prevention

We identified pharmacy claims associated with the drug's NDC. These claims were considered white-bagged drugs. We followed the same process to standardize the claims payment rates and establish a price per 1 milligram. We then followed the same process to calculate the 50th percentile (median) commercial market rates and the savings rate using the ratio of median white-bagged rates to median HOPD rates.



III. Comparison of HOPD Rates to AIC/ Office Rates

Figure 1. Savings Rate when Purchasing at Median AIC/Office Price Instead of Median HOPD Price

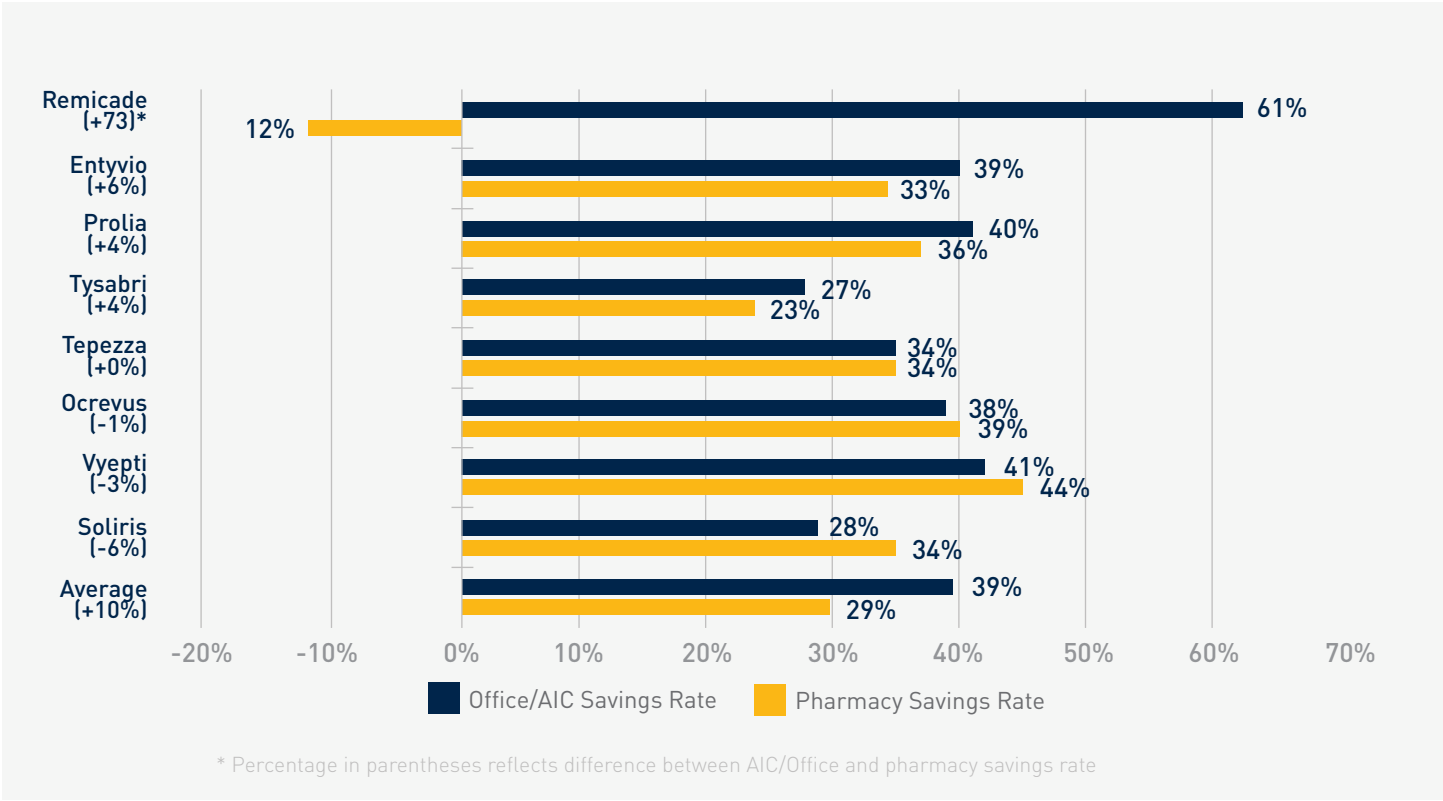


Our analysis shows drugs administered in an AIC/office setting offer considerable savings when compared to the HOPD setting:

- For all nineteen drugs, the median AIC/office rate was less expensive than HOPD (Figure 1).
- The median price of the AIC/office-supplied drugs was between 27 and 61 percent cheaper than the same drugs administered and supplied by an HOPD. The average differential was 41 percent.

IV. Comparison of HOPD, AIC/Office, and Pharmacy (White-Bagging)

Figure 2. Savings from Purchasing at Median Office/AIC or Pharmacy Price instead of Median HOPD Price

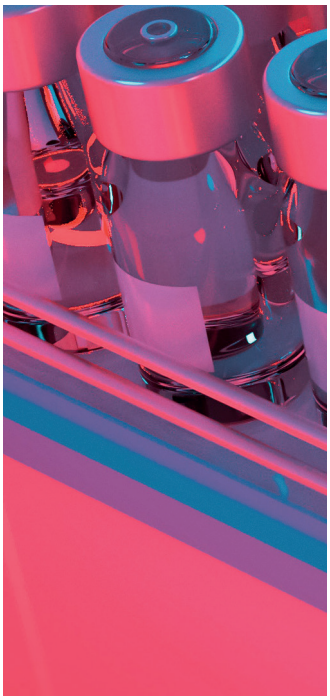


* Percentage in parentheses reflects difference between AIC/Office and pharmacy savings rate

Our analysis shows AIC/office rates were more likely to offer greater savings than pharmacy (white-bagged) rates when compared to the HOPD setting:

- For five out of eight drugs, the median price of the AIC/office-supplied drug was lower than the pharmacy price, leading to a greater savings rate when compared to the HOPD setting. Tepezza is included in this list since its median AIC/office price was 0.1 percent cheaper than the median pharmacy price.
- The median price of an AIC/office-supplied drug was between 27 and 61 percent cheaper than the same drug administered through an HOPD. The average differential was 39 percent.
- The median price of a pharmacy-supplied drug was between 12 percent more expensive and 44 percent cheaper than the same drug administered through an HOPD. The average differential was 29 percent cheaper.

- Remicade presents as an outlier in this study, which is likely due to the fact that the pharmacy price may not reflect rebates offered in response to biosimilar competition. While we include it in the chart to highlight patient cost-sharing issues described in the next section, we note that even if Remicade were excluded, four drugs would have lower median prices in the AIC/office, while the average differential across all seven drugs would be 35 percent for both AIC/office drugs and pharmacy drugs.



Discussion: White Bagging's Drawbacks

Our analysis shows AIC/office and pharmacy rates provide significant savings compared to HOPD rates. It also shows median AIC/office rates were often lower than median pharmacy rates in this set of drugs, suggesting policies that require white-bagging in an AIC/office setting may inadvertently raise prices.

In cases where pharmacy rates are marginally lower, PBMs and their affiliated specialty pharmacies may be tempted to eke out additional savings by white-bagging AIC/office drugs. These efforts may have consequences disadvantageous to both the patient and purchaser.

From the patient's perspective, white-bagging may lead to disruptions of care. White-bagging creates a middleman where there was not one previously. Providers have reported that white-bagging has resulted in the receipt of incorrect or damaged products, delivery delays, and difficulties in adjusting a patient's dosage at the point of care.[6] Delays in drug administration can lead to missed doses, lower adherence, and overall poorer quality, while drugs delivered with the incorrect dosage could create additional costs for the plan when paying for the replacement dose.

White-bagging also may cause patients to pay higher out-of-pocket costs.[7] This could happen for one of two reasons. Either the patient's cost-sharing through the pharmacy benefit has a larger co-payment amount or co-insurance percentage than cost-sharing for care received through the medical benefit; or the price used to determine patient cost-sharing in the pharmacy benefit may be higher than the price used to determine cost-sharing in the medical benefit. The example of Remicade (Figure 2) is telling. With the introduction of biosimilar competition, Remicade is a high-list-price, highly rebated drug. Patients with the same co-insurance percentage across their plans' medical and pharmacy benefits would have had their co-insurance calculated using the list price instead of the AIC/office price, leading to their paying a higher co-insurance for a white-bagged version of the drug.

White-bagging also may lead to lower access to care. AICs and community-based physicians rely on their negotiated drug reimbursements to cover their practice expenses, including the cost of drug administration and inventory management systems. White-bagging deprives community-based practices of the margin earned by supplying these drugs; AIC operators report, in most cases, the cost of drug administration exceeds reimbursement under the pharmacy claim.[8]

[6] Vizient, *Survey on the Patient Care Impact and Additional Expense of White/Brown Bagging* (2021).
[7] Y.T. Shih, Y. Xu, & J.C. Yao, "Financial Outcomes of "Bagging" Oncology Drugs Among Privately Insured Patients with Cancer," *JAMA Network Open*. 6(9) (September 7, 2023).
[8] Interview of Infusion Providers Alliance members (August 2024).

It's not just the forgone margin due to white-bagging that hurts providers financially. A recent survey of nonhospital infusion providers found waste associated with white-bagging to cost $35,000 to $652,000 per site per year (depending on the number of patients served and types of drugs administered), and higher administrative costs for practices due to white-bagging waste on average from $13,000 and $67,500.[9]



When white-bagging lowers revenues and increases costs for AICs and community-based providers, these providers may respond by going out of network or exiting a market altogether, creating new access issues for patients and, counterproductively, driving patients to seek care at the higher-cost HOPDs.

Last, white-bagging creates anticompetitive concerns. In its recent report on PBMs, the Federal Trade Commission suggested that consolidation among PBMs has created financial conflicts of interest when PBMs use practices like white-bagging to steer patients toward specialty pharmacies they own.[10]The financial ties between specialty pharmacies, PBMs, and insurance companies suggest promises that white-bagging will lower premiums for purchasers may not be as favorable as other research suggests.[11] Further study is required to determine whether savings from white-bagging make it back to purchasers and patients or are kept by the specialty pharmacy and their PBM and insurer parent companies.

V. Conclusions

We find that AICs and community-based physicians charge significantly less than HOPDs for drugs administered by clinicians. In our study of nineteen specialty drugs commonly administered in both AIC/office and HOPD settings, median AICs/office charges were between 27 and 61 percent lower than median HOPD charges. The average differential was 41 percent.

We conclude that commercial insurers can spend less on physician-administered drugs by encouraging, where clinically appropriate, the use of AICs and community-based physician's offices in place of HOPDs as a site of service for physician-administered drugs.

We also find that AIC/office-based drug administration offers considerable discounts without the drawbacks white-bagging introduces to patient care. By creating a middleman where there was none previously, white-bagging may lower care quality and access and raise out-of-pocket costs for patients. Policies that dramatically increase the frequency of white-bagging could have harmful effects on community-based providers and patients; and could raise anticompetitive concerns among regulators that could ultimately lead to increased costs for purchasers in the US healthcare system.

[9] Avalere, *Payer White-Bagging Requirements: Considerations for Access to Infusion Care* (June 2024).
[10] US Federal Trade Commission, *Pharmacy Benefit Managers: The Powerful Middlemen Inflating Drug Costs and Squeezing Main Street Pharmacies* (July 2024).
[11] Carlson et al. (2024).



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